

## Program Logic

**Version 8.1**

### **IBM System/360 Time Sharing System System Control Blocks**

This publication documents all control blocks that are a part of the IBM System/360 Time Sharing System (TSS/360). Each control block is described in four parts: a text description, a diagram, cross reference lists of fields, and a DSECT listing.

This material is intended for persons involved in program maintenance, and system programmers who are altering program design. Program Logic information is not necessary for use and operation of the system.

## PREFACE

This publication describes the internal structure of the IBM System/360 Time Sharing System (TSS/360) control blocks. Each control block, or group of closely related control blocks, is assigned a specific section within this manual, indexed alphabetically. Each control block section contains a description of the purpose and structure, a diagram, cross reference lists of fields, and a DSECT listing.

This manual provides detailed descriptions of control blocks to supplement the information contained in individual PLMs. It is intended to be used by system designers and programmers, and IBM customer engineers involved in program maintenance.

### Seventh Edition (September 1971)

This is a major revision of, and makes obsolete, GY28-2011-5. This edition reflects changes released for system 8.1.

This edition is current with Version 8, Modification 1, and remains in effect for all subsequent versions of IBM System/360 Time Sharing System unless otherwise indicated. Significant changes or additions to this publication will be provided in new editions or Technical Newsletters. Before using this publication, refer to the latest edition of IBM System/360 Time Sharing System: Addendum, GC28-2043, which may contain information pertinent to the topics covered in this edition. The Addendum also lists the editions of all TSS/360 publications that are applicable and current.

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A form is provided at the back of this publication for reader's comments. If the form has been removed, comments may be addressed to IBM Corporation, Programming Publications, Department 643, Neighborhood Road, Kingston, New York 12401.

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The description of each control block contains:

- \* A description of its use.
- \* A storage map.
- \* Cross reference lists of fields and their displacements.
- \* An assembler listing of its DSECT.

How to read the storage maps:

Decimal and hexadecimal addresses show the relative location of the leftmost field boundary.

Large fields are abbreviated with an equal sign (=) on each side of the field.

The label "UNNAMED" designates explicitly allocated storage fields having no field name.

The label "RESERVED" designates storage not specifically allocated (created when storage space is skipped to align the following field on a halfword, fullword, or doubleword boundary, or at the address specified in an ORG instruction).

When storage defined following an ORG instruction does not overlay already-defined storage, it is made a part of the main map. If such storage does overlay already-defined storage, however, it is shown as a separate map. You can compare ORG map fields to other fields occupying the same storage space by referring to the addresses shown at the left of both maps, or by finding, in the cross reference list of displacements, the names of fields with the same storage location.

How to use the cross reference lists:

Each control block storage map is followed by two lists of fields and their displacements.

The first list shows all fields in order of displacement. You can easily identify all fields occupying the same storage space, and recognize nearby fields, whether or not they directly precede or follow the central field in the source list. Fields equated to other fields or locations are marked "(EQU)".

The second list shows all fields in alphabetical order. You can use this list to quickly locate a field in the storage map or in the listing. Equates are marked "(EQU)".

How to use the assembler listing:

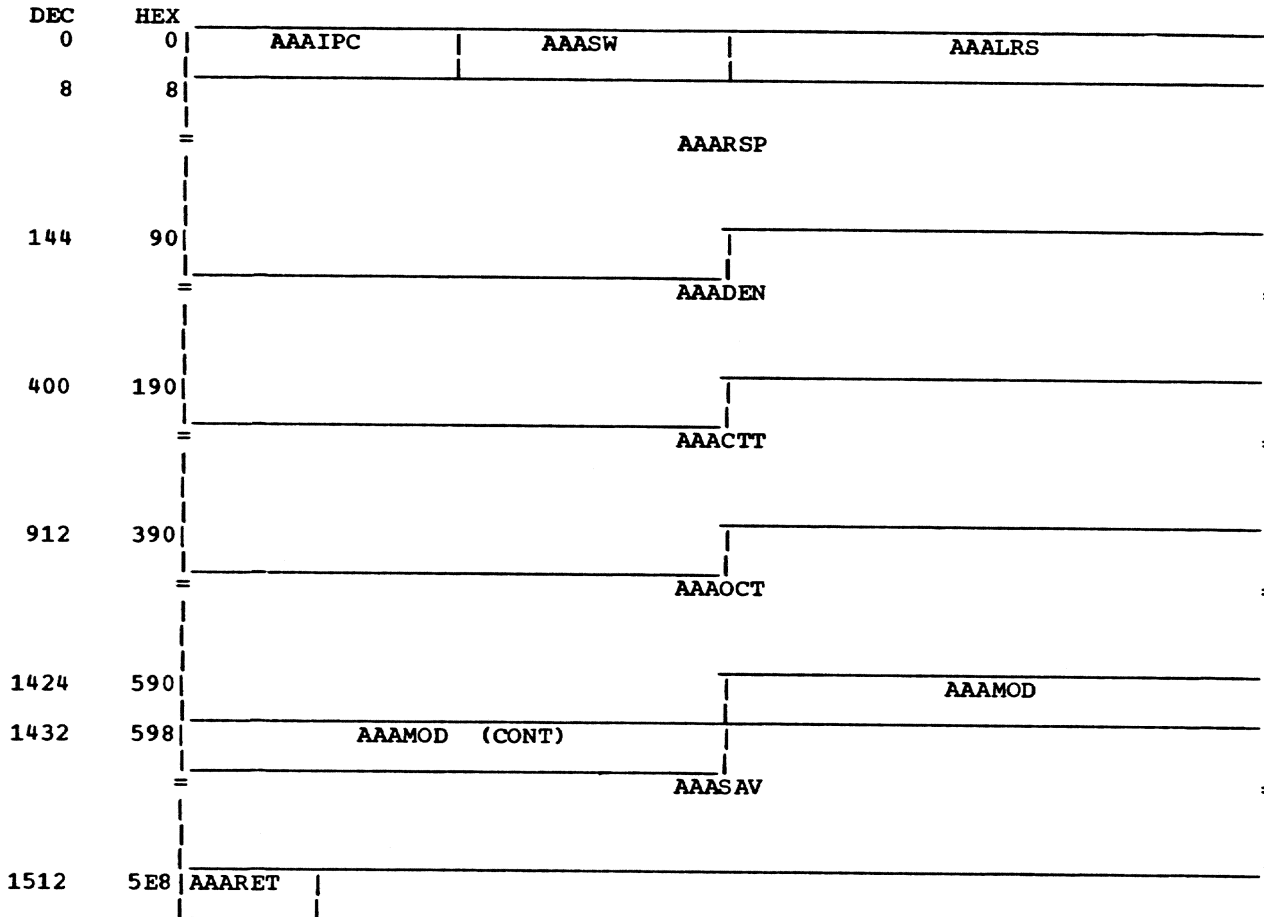
The assembler listing contains the source code for each control block, including comments giving the use of the control block and its fields. The relative locations of fields are shown under "LOCATION"; the location of fields equated to other fields, and the values of flag masks are shown under "INSTRUCTION". ORG instructions are boxed -- |ORG| -- to make them easier to find in long listings.

For some groups of control blocks, the DSECTs for all the control blocks in the group are nested in a single listing following the cross reference list for the first control block in the group.

TABLEA (CHAAAA)

TABLEA (CHAAAA) is a command system table which the user can modify. CHAAAA contains return information work areas for the prompter and dictionary handler. CHAAAA resides in virtual storage aligned on word boundaries.

CHAAAA Storage map



Fields in CHAAAA -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	AAAIPC	0148	0094	AAADEN	1436	059C	AAASAV
0002	0002	AAASW	0404	0194	AAACTT	1512	05E8	AAARET
0004	0004	AAALRS	0916	0394	AAAOCT			
0008	0008	AAARSP	1428	0594	AAAMOD			

Alphabetical list of fields in CHAAAA

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
AAACTT	0404	0194	AAAMOD	1428	0594	AAASAV	1436	059C
AAADEN	0148	0094	AAAOCT	0916	0394	AAASW	0002	0002
AAAIPC	0000	0000	AAARET	1512	05E8			
AAALRS	0004	0004	AAARSP	0008	0008			



Assembler listing of CHAAAA

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
02 00000	02 00000	CHAAAA	DSECT		
		*			TABLEA - A WORK AREA FOR THE COMMAND SYSTEM
		*			THAT CAN BE
		*			REFERENCED BY USERS
02 00000			DS	OF	
02 00000	AAAIPC		DS	PL2	INTERVENTION PREVENTION SWITCH
	*				
02 00002	AAASW		DS	H	ATTENTION SWITCH
	*				WORK AREAS FOR USER PROMPTER RETURN
	*				INFORMATION.
	*				THESE AREAS CONTAIN THE STRING RETURNED FROM A
	*				PROMPTER
	*				CALL REQUESTING AN UNPREDICTABLE RESPONSE. THEY
	*				ARE AVAILABLE
	*				TO THE NON-PRIVILEGED PROMPTER CALLER.
02 00004	AAALRS		DS	F	RESPONSE STRING LENGTH
02 00008	AAARSP		DS	140CL1	RESPONSE STRING
	*				WORK AREAS FOR RETURN INFORMATION FROM THE
	*				DICTIONARY
	*				HANDLERS. THE DICTIONARY HANDLERS (CZASD) MOVE
	*				THE ENTRY
	*				LOCATED BY A REF ENTRY IN CHBAA SO THAT THEY
	*				WILL BE AVAILABLE
	*				TO A NON-PRIVILEGED CZASD CALLER. THE ENTIRE
	*				ENTRY IS MOVED.
	*				SPACE IS PROVIDED FOR A MAX LENGTH ENTRY OF 256
	*				BYTES.
02 00094	AAADEN		DS	256CL1	DICTIONARY ENTRY
02 00194	AAACTT		DS	512X	INPUT CHARACTER TRANSLATION
	*				N464
02 00394	AAAOCT		DS	512X	OUTPUT CHARACTER
	*				TRANSLATION N464
02 00594	AAAMOD		DS	CL8	
02 0059C	AAASAV		DS	19A	SAVE AREA FOR NON-PRIV
	*				DSPTCH N369.2
02 005E8	AAARET		DS	X	RETURN CODE FROM TRASCAN
	*				N365

Assign BULKIO Device DSECT (CHAABD)

CHAABD is the message format used by the BULKIO and Batch Monitor/Operator tasks to add to, or delete from those unit record devices assigned to the BULKIO task. The message contains one-word entries specifying the Symbolic Device Address of a unit record device, and flags indicating whether the device is to be added to or deleted from the task.  
Each 4-byte CHAABD entry resides on word boundaries.

CHAABD Storage map

DEC	HEX			
0	0	ABDFL1	ABDFL2	ABSDA

Fields in CHAABD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ABDADD (EQU)	0000	0000	ABDDOR (EQU)	0000	0000	ABDTOP
0000	0000	ABDDEL (EQU)	0000	0000	ABDDYN (EQU)	0001	0001	ABDFL2
0000	0000	ABDEND (EQU)	0000	0000	ABDLK (EQU)	0002	0002	ABSDA
0000	0000	ABDDFL (EQU)	0000	0000	ABDFL1	0004	0004	ABDBOT

Alphabetical list of fields in CHAABD

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ABDADD	0000	0000 (EQU)	ABDDOR	0000	0000 (EQU)	ABDFL2	0001	0001
ABDBOT	0004	0004	ABDDYN	0000	0000 (EQU)	ABDLK	0000	0000 (EQU)
ABDDEL	0000	0000 (EQU)	ABDEND	0000	0000 (EQU)	ABSDA	0002	0002
ABDDFL	0000	0000 (EQU)	ABDFL1	0000	0000	ABDTOP	0000	0000

Assembler listing of CHAABD

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	03 00000	CHAABD	DSECT		
03 00000		ABDTOP	DS	0F	
03 00000		ABDFL1	DS	X	FIRST FLAG BYTE
	03 00000	ABDLK	EQU	ABDFL1	SDAT HAS BEEN LOCKED FOR THIS DEVICE
	00000080	ABDLK	EQU	X'80'	
	03 00000	ABDDYN	EQU	ABDFL1	CZAWS CALLED BY CZAWA TO DYNAMICALLY RE-ADD DEVICE
	00000020	ABDDYNM	EQU	X'20'	
	03 00000	ABDDOR	EQU	ABDFL1	THIS MESSAGE WAS USED BY BATCH
	00000010	ABDDORM	EQU	X'10'	MONITOR TO AWAKEN BULKIO
	03 00000	ABDDFL	EQU	ABDFL1	DEFAULT - GET ALL AVAILABLE UNIT
	00000008	ABDDFLM	EQU	X'08'	RECORD DEVICES
	03 00000	ABDEND	EQU	ABDFL1	END OF PARAMETER STRING
	00000004	ABDENDM	EQU	X'04'	
	03 00000	ABDDEL	EQU	ABDFL1	DELETE A DEVICE
	00000002	ABDELDM	EQU	X'02'	
	03 00000	ABDADD	EQU	ABDFL1	ADD A DEVICE
	00000001	ABDADDM	EQU	X'01'	
03 00001		ABDFL2	DS	X	SECOND FLAG BYTE
03 00002		ABSDA	DS	H	SDA OF DEVICE TO BE ADDED OR DELETED
03 00004		ABDBOT	DS	0F	
	00000004	ABDLEN	EQU	ABDBOT-ABDTOP	LENGTH OF ENTRY

Task Accounting and Statistical Data DSECT (CHAACT)

CHAACT describes an area in the privileged PSECTs of both LOGOFF and ABEND. It provides addressability to the work area used for tabulating task accounting data by user-provided accounting routines. CHAACT occupies 104 bytes of storage.

CHAACT Storage map

DEC	HEX			
0	0	ACTUID		
8	8	ACTCHG		
16	10	ACTFLG	ACTRES1	ACTTMP
24	18	ACTPP		ACTDAD
32	20	ACTMTD		ACTHSP
40	28	ACTRAP		
		ACTRES2		
56	38	ACTPTA		ACTTWT
64	40	ACTAWT		ACTTSE
72	48	ACTPIA		ACTPIE
80	50	ACTPOA		ACTPOE
88	58	ACTMPA		ACTCPU
96	60	ACTCON		ACTRES3

Fields in CHAACT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ACTUID	0024	0018	ACTPP	0068	0044	ACTTSE
0008	0008	ACTCHG	0028	001C	ACTDAD	0072	0048	ACTPIA
0016	0010	ACTBCK (EQU)	0032	0020	ACTMTD	0076	004C	ACTPIE
0016	0010	ACTABN (EQU)	0036	0024	ACTHSP	0080	0050	ACTPOA
0016	0010	ACTNCV (EQU)	0040	0028	ACTRAP	0084	0054	ACTPOE
0016	0010	ACTEXB (EQU)	0044	002C	ACTRES2	0088	0058	ACTMPA
0016	0010	ACTFLG	0056	0038	ACTPTA	0092	005C	ACTCPU
0017	0011	ACTRES1	0060	003C	ACTTWT	0096	0060	ACTCON
0020	0014	ACTTMP	0064	0040	ACTAWT	0100	0064	ACTRES3

Alphabetical list of fields in CHAACT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ACTABN	0016	0010 (EQU)	ACTHSP	0036	0024	ACTPTA	0056	0038
ACTAWT	0064	0040	ACTMPA	0088	0058	ACTRAP	0040	0028
ACTBCK	0016	0010 (EQU)	ACTMTD	0032	0020	ACTRES1	0017	0011
ACTCHG	0008	0008	ACTNCV	0016	0010 (EQU)	ACTRES2	0044	002C
ACTCON	0096	0060	ACTPIA	0072	0048	ACTRES3	0100	0064
ACTCPU	0092	005C	ACTPIE	0076	004C	ACTTMP	0020	0014
ACTDAD	0028	001C	ACTPOA	0080	0050	ACTTSE	0068	0044
ACTEXB	0016	0010 (EQU)	ACTPOE	0084	0054	ACTTWT	0060	003C
ACTFLG	0016	0010	ACTPP	0024	0018	ACTUID	0000	0000

Assembler listing of CHAACT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	04 00000	CHAACT	DSECT		
04 00000			DS	0D	
04 00000		ACTUID	DS	2F	CURRENT USERID
04 00008		ACTCHG	DS	2F	CURRENT CHARGE NUMBER
04 00010		ACTFLG	DS	CL1	ACCTING TABLE-TASK TYPE
		*			FLAG
	04 00010	ACTEXB	EQU	ACTFLG	EXPRESS BATCH FLAG
	00000001	ACTEXBM	EQU	X'01'	EXPRESS BATCH MASK
	04 00010	ACTNCV	EQU	ACTFLG	NON-CONVERSATIONAL TASK
	00000002	ACTNCVM	EQU	X'02'	NON-CONVERSATIONAL TASK
		*			MASK
	04 00010	ACTABN	EQU	ACTFLG	CALLED FROM ABEND FLAG
	00000004	ACTABNM	EQU	X'04'	ABEND CALL MASK
	04 00010	ACTBCK	EQU	ACTFLG	BACK TASK FLAG
		*			I05594
	00000008	ACTBCKM	EQU	X'08'	BACK TASK MASK
		*			I05594
04 00011		ACTRES1	DS	CL3	RESERVED
04 00014		ACTTMP	DS	F	DEVICE-SECOND PRODUCTS:
		*			TEMPORARY PAGES
04 00018		ACTPP	DS	F	PERMANENT PAGES
04 0001C		ACTDAD	DS	F	PRIVATE DISK
04 00020		ACTMTD	DS	F	PRIVATE TAPE
04 00024		ACTHSP	DS	F	PRIVATE PRINTER
04 00028		ACTRAP	DS	F	PRIVATE RDR/PUNCH
04 0002C		ACTRES2	DS	3F	RESERVED
04 00038		ACTPTA	DS	F	TOTAL NO. AUX.
		*			PAGES(DRUM+DISK) SNAP
04 0003C		ACTTWT	DS	F	TOTAL NO. OF TWAITS
04 00040		ACTAWT	DS	F	TOTAL NO. OF AWAITS
04 00044		ACTTSE	DS	F	TOTAL NO. OF TIME SLICE
		*			ENDS
04 00048		ACTPIA	DS	F	TOTAL PAGE-INS FROM
		*			AUX(DRUM+DISK)
04 0004C		ACTPIE	DS	F	TOTAL PAGE-INS FROM EXT.
		*			STORAGE
04 00050		ACTPOA	DS	F	TOTAL PAGE-OUTS TO AUX
04 00054		ACTPOE	DS	F	TOTAL PAGE-OUTS TO EXT.
		*			STORAGE
04 00058		ACTMPA	DS	F	MAXIMUM PAGES HELD ON AUX
		*			DISK
04 0005C		ACTCPU	DS	F	CPU TIME
04 00060		ACTCON	DS	F	TERMINAL CONNECT TIME
04 00064		ACTRES3	DS	F	RESERVED
	00000068	ACTLEN	EQU	*-ACTUID	TABLE LENGTH

ABEND Interlock Release Table (CHAAIR)

The ABEND Interlock Release Table (AIR) provides information required to reset interlocked shared tables to their pre-locked state. The table also contains internal control data for ABEND.

The AIR table is open-ended, with no practical limit on the number of entry chains it can contain. The entries in AIR are chained together by forward and backward links.

Each entry chain in the AIR table occupies 4096 bytes of virtual storage, aligned on doubleword boundaries.

CHAAIR Storage map

DEC	HEX		
0	0	AIRAAP	
8	8	AIRFG	AIRMSG
		AIRCNT	AIRRS1
16	10	AIRDS1	
		AIRDS2	
24	18	AIRBWL	
		AIRPTR	
32	20	AIRINR	

Fields in CHAAIR -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	AIRAAP	0008	0008	AIRF1	(EQU)	0024	0018	AIRBWL
0004	0004	AIRMSG	0008	0008	AIRFO	(EQU)	0028	001C	AIRPTR
0008	0008	AIRF7	(EQU)	0008	0008	AIRFG	0032	0020	AIRVCN
0008	0008	AIRF6	(EQU)	0009	0009	AIRCNT	0032	0020	AIRINR
0008	0008	AIRF5	(EQU)	0010	000A	AIRRS1	0036	0024	AIRRCN
0008	0008	AIRF4	(EQU)	0012	000C	AIRRS2	0040	0028	AIRINF
0008	0008	AIRF3	(EQU)	0016	0010	AIRDS1			
0008	0008	AIRF2	(EQU)	0020	0014	AIRDS2			

Alphabetical list of fields in CHAAIR

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	
AIRAAP	0000	0000	AIRF2	0008	0008	(EQU)	AIRMSG	0004	0004
AIRBWL	0024	0018	AIRF3	0008	0008	(EQU)	AIRPTR	0028	001C
AIRCNT	0009	0009	AIRF4	0008	0008	(EQU)	AIRRCN	0036	0024
AIRDS1	0016	0010	AIRF5	0008	0008	(EQU)	AIRRS1	0010	000A
AIRDS2	0020	0014	AIRF6	0008	0008	(EQU)	AIRRS2	0012	000C
AIRFG	0008	0008	AIRF7	0008	0008	(EQU)	AIRVCN	0032	0020
AIRFO	0008	0008	(EQU)	AIRINF	0040	0028	(EQU)		
AIRF1	0008	0008	(EQU)	AIRINR	0032	0020			

Assembler listing of CHAAIR

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	05 00000	CHAAIR	DSECT		
05 00000			DS	0D	
05 00000		AIRAAP	DS	1F	RECOVERY ADDR FOR RECURSIVE
		*			ABEND
05 00004		AIRMSG	DS	1F	POINTER TO ABEND ERROR
		*			MESSAGES
05 00008		AIRFG	DS	XL1	ABEND FLAGS
	05 00008	AIRFO	EQU	AIRFG	NOT USED
	00000080	AIRFOM	EQU	X'80'	NOT USED
	05 00008	AIRF1	EQU	AIRFG	NOT USED
	00000040	AIRF1M	EQU	X'40'	NOT USED
	05 00008	AIRF2	EQU	AIRFG	NOT USED
	00000020	AIRF2M	EQU	X'20'	NOT USED
	05 00008	AIRF3	EQU	AIRFG	TASK TO BE DELETED
	00000010	AIRF3M	EQU	X'10'	TASK TO BE DELETED MASK
	05 00008	AIRF4	EQU	AIRFG	SYSOUT CLOSED
	00000008	AIRF4M	EQU	X'08'	
	05 00008	AIRF5	EQU	AIRFG	SYSOUT NOT EXIST (NON-CONV)
	00000004	AIRF5M	EQU	X'04'	
	05 00008	AIRF6	EQU	AIRFG	PRE-LOGON FLAG
	00000002	AIRF6M	EQU	X'02'	
	05 00008	AIRF7	EQU	AIRFG	NOT USED
	00000001	AIRF7M	EQU	X'01'	NOT USED
05 00009		AIRCNT	DS	X	NO OF INTRLK REL ROUTINE
		*			ENTRIES
05 0000A		AIRRS1	DS	H	NO OF MSGS ALREADY STACKED
05 0000C		AIRRS2	DS	1F	1ST AVAILABLE BYTE IN MSG
		*			STRING
		*			(TO BE USED WITH AIRMSG)
05 00010		AIRDS1	DS	1F	2ND LEVEL RECURSION ADDRESS
05 00014		AIRDS2	DS	1F	NOT USED
05 00018		AIRBWL	DS	1F	BACKWARD LINK
05 0001C		AIRPTR	DS	1F	POINTER TO NEXT AIR TABLE
05 00020		AIRINR	DS	254XL16	AREA FOR INTRLK REL RTN
		*			ENTRIES
	05 00020	AIRVCN	EQU	AIRINR	VCON ADDR
	05 00024	AIRRCN	EQU	AIRINR+4	RCON ADDR
	05 00028	AIRINF	EQU	AIRINR+8	INFORMATION AREA

Auxiliary Storage Allocation Table (CHAASA), and (CHAASB)

The Auxiliary Storage Allocation Table (ASAT) describes the availability status of all auxiliary storage devices.

ASAT functions as a resident bookkeeper and is maintained by the Auxiliary Storage Allocation Queue Processor and the Auxiliary Storage Release subroutine. Startup will initialize ASAT according to the current auxiliary storage configuration.

A core storage entry of 176 bytes is allocated to ASAT; the first 16 of these bytes contain an overall auxiliary storage device status description, while the next 160 bytes comprise a drum directory. All other drum and disk directories are chained to ASAT, keeping its size fixed.

CHAASA Storage map

DEC	HEX					
0	0	ASANAM	ASALOCK	ASATMA	ASAPCT	ASAFSC
8	8	ASANAK	UNNAMED		ASATKA	
16	10	ASAPDK			ASAPDM	
24	18	ASAFL1	ASANSP	ASANA1	ASANBP	ASASDA
32	20	ASANXM				
				ASADS1		
48	30	ASABS1	ASAMS1	ASAPS1		
					ASADS2	
176	B0					

Fields in CHAASA -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	ASANAM	0016	0010	ASAPDK	0030	001E	ASASDA	
0001	0001	ASALOCK	0020	0014	ASAPDM	0032	0020	ASANXM	
0002	0002	ASATMA	0024	0018	ASASP	(EQU)	0036	0024	ASADS1
0004	0004	ASAPCT	0024	0018	ASAFL1	0049	0031	ASABS1	
0006	0006	ASAFSC	0025	0019	ASANSP	0050	0032	ASAMS1	
0008	0008	ASANAK	0026	001A	ASANA1	0051	0033	ASAPS1	
0012	000C	ASATKA	0028	001C	ASANBP	0052	0034	ASADS2	

Alphabetical list of fields in CHAASA

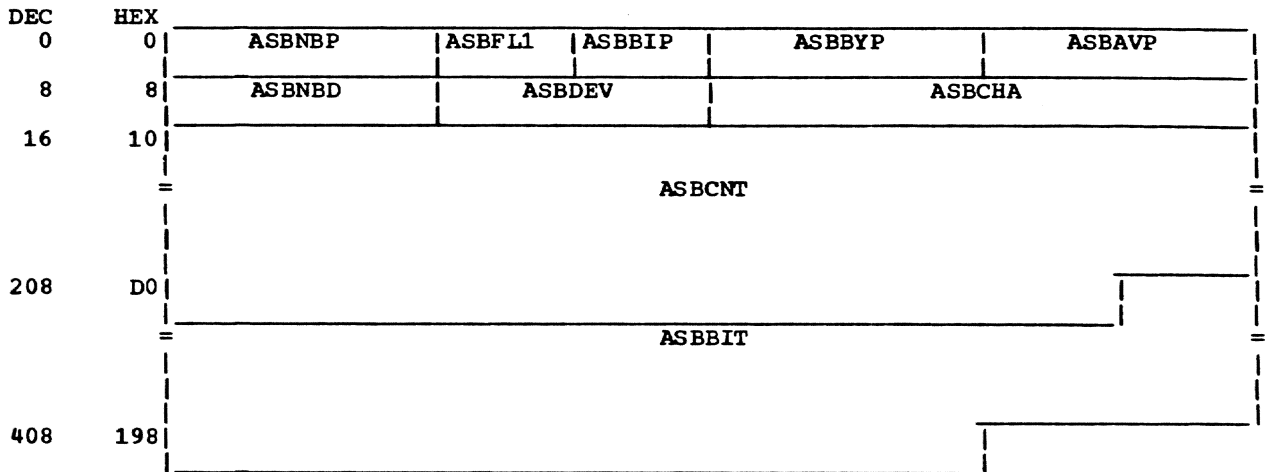
FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ASABS1	0049	0031	ASANAK	0008	0008	ASAPDK	0016	0010
ASADS1	0036	0024	ASANAM	0000	0000	ASAPDM	0020	0014
ASADS2	0052	0034	ASANA1	0026	001A	ASAPS1	0051	0033
ASAFL1	0024	0018	ASANBP	0028	001C	ASASDA	0030	001E
ASAFSC	0006	0006	ASANSP	0025	0019	ASASP	0024	0018 (EQU)
ASALOCK	0001	0001	ASANXM	0032	0020	ASATKA	0012	000C
ASAMS1	0050	0032	ASAPCT	0004	0004	ASATMA	0002	0002

Assembler listing of CHAASA

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	06 00000	CHAASA	DSECT		AUXILIARY STORAGE
		*			ALLOCATION TABLE - ASAT
06 00000		ASANAM	DS	XL1	NUMBER OF AUXILIARY DRUMS
06 00001		ASALOCK	DS	XL1	TEST AND SET LOCK BYTE FOR
		*			ASAT
06 00002		ASATMA	DS	H	TOTAL AUXILIARY DRUM PAGES
		*			AVAILABLE
06 00004		ASAPCT	DS	H	LOW DRUM AVAILABILITY
		*			THRESHOLD
06 00006		ASAFSC	DS	H	INITIAL DRUM PAGES
		*			AVAILABLE
06 00008		ASANAK	DS	XL1	NUMBER OF AUXILIARY DISKS
06 00009			DS	XL3	RESERVED
06 0000C		ASATKA	DS	F	TOTAL AUXILIARY DISK PAGES
		*			AVAILABLE
06 00010		ASAPDK	DS	F	POINTER TO DISK FROM WHICH
		*			TO ASSIGN PAGES
06 00014		ASAPDM	DS	F	POINTER TO DRUM FROM WHICH
		*			TO ASSIGN PAGES
06 00018		ASAF11	DS	XL1	FLAG BYTE 1
	06 00018	ASASP	EQU	ASAF11	SUPPRESS ALLOCATION ON THIS
		*			DEVICE
	00000080	ASASPM	EQU	X'80'	1 - SUPPRESS
06 00019		ASANSP	DS	CL1	NEXT SLOT POINTER
06 0001A		ASANA1	DS	H	NUMBER OF PAGES AVAILABLE
		*			ON THIS DRUM
06 0001C		ASANBP	DS	H	NUMBER OF BAD PAGES ON THIS
		*			DEVICE
06 0001E		ASASDA	DS	H	SYMBOLIC DEVICE ADDRESS OF
		*			THIS DRUM
06 00020		ASANXM	DS	F	POINTER TO NEXT DRUM IN
		*			CHAIN
06 00024		ASADS1	DS	XL13	BIT DIRECTORY - SLOT 1
06 00031		ASABS1	DS	XL1	BYTE NO. FROM WHICH TO
		*			ASSIGN PAGES IN SLOT
06 00032		ASAMS1	DS	XL1	MASK -BIT NO- FROM WHICH TO
		*			LOOK FOR AVAIL PGS
06 00033		ASAPS1	DS	XL1	NUMBER OF PAGES AVAILABLE
		*			WITHIN SLOT
06 00034		ASADS2	DS	8XL16	BIT DIRECTORY - SLOTS 2-9



CHAASB Storage map



Fields in CHAASB -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ASBNBP	0004	0004	ASBBYP	0012	000C	ASBCHA
0002	0002	ASBSP (EQU)	0006	0006	ASBAVP	0016	0010	ASBCNT
0002	0002	ASBFL1	0008	0008	ASBNBD	0215	00D7	ASBBIT
0003	0003	ASBBIP	0010	000A	ASBDEV			

Alphabetical list of fields in CHAASB

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ASBAVP	0006	0006	ASBCHA	0012	000C	ASBNBD	0008	0008
ASBBIP	0003	0003	ASBCNT	0016	0010	ASBNBP	0000	0000
ASBBIT	0215	00D7	ASBDEV	0010	000A	ASBSP	0002	0002 (EQU)
ASBBYP	0004	0004	ASBFL1	0002	0002			

Assembler listing of CHAASB

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	07 00000	CHAASB	DSECT		BIT DIRECTORY FOR AUXILIARY 2311 DISK
		*			* DEFINITION FOR 2311 BIT DIRECTORY FOR AUXILIARY
		* STORAGE ALLOCATION			
07 00000		ASBNBP DS H			NUMBER OF BAD PAGES ON THIS DEVICE
07 00002		ASBFL1 DS XL1			FLAG BYTE 1
	07 00002	ASBSP EQU ASBFL1			SUPPRESS ALLOCATION ON THIS DEVICE
	00000080	ASBSPM EQU X'80'			1 - SUPPRESS
07 00003		ASBBIP DS XL1			BIT POINTER FROM WHICH TO LOOK FOR AVAIL PAGE
07 00004		ASBBYP DS H			BYTE NUMBER FROM WHICH TO LOOK FOR AVAIL PAGE
07 00006		ASBAVP DS H			BINARY NUMBER OF PAGES AVAILABLE ON THIS DISK
07 00008		ASBNBD DS H			BINARY NUMBER OF BYTES IN DIRECTORY - X'00C7'
07 0000A		ASBDEV DS H			SYMBOLIC DEVICE ADDRESS OF THIS DISK
07 0000C		ASBCHA DS F			POINTER TO NEXT DISK BIT DIRECTORY
07 00010		ASBCNT DS XL199			CYLINDER COUNT OF PAGES AVAILABLE
07 000D7		ASBBIT DS XL199			AVAILABILITY BITS - ONE BIT FOR EACH PAGE NO.

Auxiliary Segment Table (CHAAST) and Segment Table (CHASGT)

The Auxiliary Segment Table (AST) contains information concerning segment entries assigned to a task's virtual storage area. The AST is directly preceded by the SGT, aligned on full word boundaries in core storage (128-32,768 bytes).

The Segment Table (SGT) entry maintains the length, origin, and availability of a page table. The Segment Table is a contiguous list of SGT entry groups. Each group contains sixteen 4-byte entries. A maximum of 4096 entries is allowed the user. The SGT (64- 16,384 bytes) resides in core storage in a task's External Task Status Index (XTSI). The SGT is aligned on fullword boundaries.

CHAAST Storage map

DEC	HEX					
0	0	ASTDA	ASTN	ASTU	ASTM	ASTF

Fields in CHAAST -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ASTDA	0006	0006	ASTDKP (EQU)	0007	0007	ASTS (EQU)
0004	0004	ASTSPT (EQU)	0006	0006	ASTM	0007	0007	ASTP (EQU)
0004	0004	ASTN	0007	0007	ASTA (EQU)	0007	0007	ASTV (EQU)
0005	0005	ASTU	0007	0007	ASTSE (EQU)	0007	0007	ASTF (EQU)
0006	0006	ASTPPS (EQU)	0007	0007	ASTTA (EQU)			

Alphabetical list of fields in CHAAST

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ASTA	0007	0007 (EQU)	ASTN	0004	0004	ASTSPT	0004	0004 (EQU)
ASTDA	0000	0000	ASTP	0007	0007 (EQU)	ASTTA	0007	0007 (EQU)
ASTDKP	0006	0006 (EQU)	ASTPPS	0006	0006 (EQU)	ASTU	0005	0005
ASTF	0007	0007	ASTS	0007	0007 (EQU)	ASTV	0007	0007 (EQU)
ASTM	0006	0006	ASTSE	0007	0007 (EQU)			

Assembler listing of CHAAST

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
08 00000	08 00000	CHAAST	DSECT		AUXILIARY SEGMENT TABLE
08 00000		ASTDA	DS	F	PAGE TABLE EXTERNAL LOCATION
		*			* IF THE SEGMENT IS NOT THE FIRST ON A PTP (ASTSEM * OFF), ASTDA
		*			* CONTAINS THE SEGMENT NUMBER OF THE SEGMENT THAT * IS THE FIRST
08 00004		ASTN	DS	XL1	ON THE PAGE TABLE PAGE IN-USE PAGE COUNT
	08 00004	ASTSPT	EQU	ASTN	IF SHARED SEGMENT, BYTES 4-5 SPT NUMBER
08 00005		ASTU	DS	XL1	UNUSED PAGE COUNT
08 00006		ASTM	DS	X	FLAG BYTE
		*			N470
	08 00006	ASTDKP	EQU	ASTM	DISK PREFERENCE FLAG
		*			N470
	00000080	ASTDKPM	EQU	X'80'	DISK PREFERENCE MASK
		*			N470
	08 00006	ASTPPS	EQU	ASTM	PRE-PAGE SET PTP FLAG
		*			N470
	00000040	ASTPPSM	EQU	X'40'	PRE-PAGE SET PTP MASK

(Listing of CHAAST continued on page 13)

(Listing of CHAAST continued from page 12)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			N470
08 00007		ASTF	DS	XL1	FLAG BYTE
	08 00007	ASTV	EQU	ASTF	VARIABLE LENGTH SEGMENT
		*			FLAG 1=ON
	0000080	ASTVM	EQU	X'80'	
	08 00007	ASTP	EQU	ASTF	PAGE TABLE IN ANOTHER XTSI
		*			PG. 1=ON
	00000040	ASTPM	EQU	X'40'	
	08 00007	ASTS	EQU	ASTF	SHARED SEGMENT
		*			1=SHARED
	00000010	ASTSM	EQU	X'10'	
	08 00007	ASTTA	EQU	ASTF	TEMPORARY AUXILIARY STORAGE
	00000008	ASTTAM	EQU	X'08'	1=AUXILIARY 0=EXTERNAL FOR
		*			SHARED PAGES ONLY N470
	08 00007	ASTSE	EQU	ASTF	FIRST PT IN A PT PAGE
		*			N470
	00000002	ASTSEM	EQU	X'02'	
	08 00007	ASTA	EQU	ASTF	SEGMENT ASSIGNED 1=ASSIGNED
	00000001	ASTAM	EQU	X'01'	

CHASGT Storage map

DEC	HEX	FIELD
0	0	SGTPTL SGTPTO

Fields in CHASGT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SGTPTL	0000	0000	SGTSTE	0001	0001	SGTPTO
						0003	0003	SGTPA (EQU)

Alphabetical list of fields in CHASGT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SGTPA	0003	0003 (EQU)	SGTPTL	0000	0000	SGTPTO	0001	0001
						SGTSTE	0000	0000

Assembler listing of CHASGT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	89 00000	CHASGT	DSECT		SEGMENT TABLE ENTRY
89 00000		SGTSTE	DS	OF	SEGMENT TABLE ENTRY
89 00000		SGTPTL	DS	C	PAGE TABLE LENGTH
89 00001		SGTPTO	DS	CL3	
		*BITS 8-19 - CONTAINS THE CORE BLOCK ADDRESS OF THE			
		*PAGE IN WHICH			
		* THE PAGE TABLE FOR THE SEGMENT RESIDES			
		* IF THE TASK IS			
		* IN THE WALL AND NOT IN TIME SLICE END.			
		* OTHERWISE IT			
		* CONTAINS THE IDENTIFICATION OF THE			
		* PAGE TABLE PAGE IN			
		* WHICH THE PAGE TABLE RESIDES			
		*BITS 20-30- ALWAYS CONTAINS THE OFFSET OF THE			
		*PARTICULAR PAGE			
		* TABLE IN THE PAGE TABLE PAGE. NOTE-THE			
		* ENTRIES ARE			
		* ON HALF WORD BOUNDARIES.			
		*BIT 31 - DENOTES PAGE TABLE AVAILABILITY			
89 00003		SGTPA	EQU	SGTPTO+2	PAGE TABLE AVAILABILITY
					FLAG
00000001		SGTPAM	EQU	1	PAGE TABLE AVAILABLE MASK

Active User Table Entry (CHAAUL)

The Active User Table contains one entry (CHAAUL) for each active user ID in the system. CHAAUL entries are built by the RCR OPEN macro.

The 112-byte CHAAUL entries reside in virtual storage aligned on doubleword boundaries.

CHAAUL Storage map

DEC	HEX						
0	0	AULLCK	AULF1	AULF2	AULF3	AULTID	AULTMID
8	8	AULUID					
16	10	AULCHG					
24	18	AULUTB			AULTLC		
32	20	AULTLC (CONT)			AULP01		
40	28	AULP02			AULP03		
48	30	AULP04			AULP05		
56	38	AULP06			AUL05		
64	40	AUL06			AUL07		
72	48	AUL08			AUL09		
80	50	AUL10					
		AULINS					
96	60	AULBCK					
104	68	AULON					

Fields in CHAAUL -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	AULLCK	0008	0008	AULUID	0060	003C	AUL05
0001	0001	AULMEF (EQU)	0016	0010	AULMEPTR (EQU)	0064	0040	AUL06
0001	0001	AULNVCV (EQU)	0016	0010	AULCHG	0068	0044	AUL07
0001	0001	AULCP (EQU)	0024	0018	AULUTB	0072	0048	AUL08
0001	0001	AULCV (EQU)	0028	001C	AULTLC	0076	004C	AUL09
0001	0001	AULPRM (EQU)	0036	0024	AULP01	0080	0050	AUL10
0001	0001	AULF1	0040	0028	AULP02	0084	0054	AULINS
0002	0002	AULF2	0044	002C	AULP03	0100	0064	AULBCK
0003	0003	AULF3	0048	0030	AULP04	0104	0068	AULON
0004	0004	AULTID	0052	0034	AULP05			
0006	0006	AULTMID	0056	0038	AULP06			

Alphabetical list of fields in CHAAUL

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
AULBCK	0100	0064	AULNVCV	0001	0001 (EQU)	AULTMID	0006	0006
AULCHG	0016	0010	AULON	0104	0068	AULUID	0008	0008
AULCP	0001	0001 (EQU)	AULPRM	0001	0001 (EQU)	AULUTB	0024	0018
AULCV	0001	0001 (EQU)	AULP01	0036	0024	AUL05	0060	003C
AULF1	0001	0001	AULP02	0040	0028	AUL06	0064	0040
AULF2	0002	0002	AULP03	0044	002C	AUL07	0068	0044
AULF3	0003	0003	AULP04	0048	0030	AUL08	0072	0048
AULINS	0084	0054	AULP05	0052	0034	AUL09	0076	004C
AULLCK	0000	0000	AULP06	0056	0038	AUL10	0080	0050
AULMEF	0001	0001 (EQU)	AULTID	0004	0004			
AULMEPTR	0016	0010 (EQU)	AULTLC	0028	001C			

Assembler listing of CHAAUL

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
09 00000	09 00000	CHAAUL	DSECT		
*****					
* ACTIVE USER TABLE *					
* THIS DSECT DESCRIBES THE ENTRIES OF THE ACTIVE USER TABLE. *					
* THESE ENTRIES WILL BE LOCATED IN SHARED VIRTUAL MEMORY. THERE WILL *					
* BE ONE ENTRY FOR EACH ACTIVE USER ID IN THE SYSTEM. THE ENTRIES *					
* ARE BUILT BY THE RCR OPEN MACRO. EACH ENTRY IS A FIXED LENGTH OF *					
* 64 BYTES. *					
09 00000			DS	0D	
	00000124	AULMNE	EQU	8*4096/112	MAXIMUM NUMBER OF ENTRIES
09 00000		AULLCK	DS	XL1	LOCK AND ACTIVE BYTE
09 00001		AULF1	DS	XL1	FLAG BYTE
	09 00001	AULPRM	EQU	AULF1	PRIMARY ENTRY/CREATED BY
		*			CZAFM
	00000080	AULPRMM	EQU	X'80'	PRIMARY ENTRY MASK
	09 00001	AULCV	EQU	AULF1	CONVERSATIONAL TASK ENTRY
		*			FLAG
	00000008	AULCVM	EQU	X'08'	CONVERSATIONAL TASK ENTRY
		*			MASK
	09 00001	AULCP	EQU	AULF1	CONVERSATIONAL PRIMARY
		*			ENTRY/CREATED
	00000088	AULCPM	EQU	X'88'	ENTRY IS CONVERSATIONAL
		*			/BY CZAFM
	09 00001	AULNCV	EQU	AULF1	NON-CONVERSATIONAL TASK
		*			FLAG
	00000004	AULNCVM	EQU	X'04'	NON-CONVERSATIONAL TASK
		*			MASK
	09 00001	AULMEF	EQU	AULF1	FLAG INDICATES NEW SDST
		*			MEMBR NTRY CREATED I03941
	0000005C	AULMEFM	EQU	X'5C'	BY SRCHSDST AND SUBSEQUENT
		*			VMA FAILURE I03941
09 00002		AULF2	DS	XL1	FLAG BYTE
09 00003		AULF3	DS	XL1	FLAG BYTE
09 00004		AULTID	DS	H	TASK ID
09 00006		AULTMID	DS	H	TERMINAL ID OR ZEROES
09 00008		AULUID	DS	CL8	USERID
09 00010		AULCHG	DS	CL8	CHARGE NUMBER
	09 00010	AULMEPTR	EQU	AULCHG	OVERLAY FOR SDST MEMBR NTRY
		*			ADDR IN CASE I03941
		*			OF GETSMAIN-VMA FAILURE
		*			RECOVERY I03941
09 00018		AULUTB	DS	F	POINTER TO USER ENTRY
09 0001C		AULTLC	DS	2F	TIME LAST CHANGED
		*			155.7N
09 00024		AULP01	DS	F	TASK TEMPORARY PAGE PRODUCT
		*			155.7N
09 00028		AULP02	DS	F	PERMANENT PAGE PRODUCT (FOR
		*			EASE OF
		*			IMPLEMENTATION ONLY)
		*			155.7N
09 0002C		AULP03	DS	F	TASK DIRECT ACCESS PRODUCT
		*			155.7N
09 00030		AULP04	DS	F	TASK MAG. TAPE PRODUCT
		*			155.7N
09 00034		AULP05	DS	F	TASK PRINTER PRODUCT
		*			155.7N
09 00038		AULP06	DS	F	TASK RDR/PU PRODUCT
		*			155.7N
09 0003C		AUL05	DS	F	TASK TEMPORARY PAGE ACCUM.

(Listing of CHAAUL continued on page 17)

(Listing of CHAAUL continued from page 16)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			155.7N
09 00040		AUL06	DS	F	TASK PERM. PAGE ACCUM. (FOR
		*			EASE OF
		*			IMPLEMENTATION ONLY)
		*			155.7N
09 00044		AUL07	DS	F	DIRECT ACCESS DRIVES-THIS
		*			TASK 155.7N
09 00048		AUL08	DS	F	MAGNETIC TAPE DRIVES -THIS
		*			TASK
09 0004C		AUL09	DS	F	HIGH SPEED PRINTERS -THIS
		*			TASK
09 00050		AUL10	DS	F	READER/PUNCH -THIS
		*			TASK
09 00054		AULINS	DS	CL16	INSTALLATION DATA
09 00064		AULBCK	DS	F	BACKED TASK'S CONNECT TIME
		*			I05594
09 00068		AULON	DS	CL8	TIME TASK LOGGED ON
	00000070	AULLEN	EQU	*-CHAAUL	LENGTH OF ENTRY

BULKIO Table (CHABCT and CHASET)

The BULKIO Table, used by Batch Monitor to schedule BULKIO requests, contains a header (CHABCT), and one or more S-entries (CHASET).

BULKOMM table (CHABCT), the BULKIO table header, contains header fields, S-entry allocation length, the total length of the BULKIO table, and information used for public VAM BULKIO functions.

A maximum of nine S-entries (CHASET) can follow the common header. Each S-entry describes a device/job entry residing in the BULKOMM csect (CHBBCT). The first entry immediately follows the header. Subsequent entries are contiguous. CHASET contains control information for a system defined unit record device, as well as information for a BULKIO job performed on that device.

The 8192-byte CHABCT resides on word boundaries. Each 800-byte CHASET resides on doubleword boundaries within CHABCT.

CHABCT Storage map

DEC	HEX	Field Name			
0	0	BCTCNT	BCTFUL	BCTNSR	BCTLPS
8	8	BCTSET		BCTTIM	BCTDEF
16	10	BCTSOI	BCTUN1	BCTFL1	BCTFL2
24	18	BCTNOT	BCTFLT		
		BCTUN2			
56	38	BCTLRT			
88	58	BCTLET			
120	78	BCTUN3		BCTRUS	BCTEUS
128	80	BCTBIO	BCTAKT	BCTALM	BCTARK
136	88	BCTPRT		BCTPCT	
144	90	BCTCALL			
152	98	BCTARE			
216	D8	BCTILK	BCTLOK	BCTBSNL	BCTBSN

(CHABCT continued on page 19)



DEC 224	HEX E0	BCTAKD	
424	1A8	BCTFL3	BCTRSV
440	1B8	UNNAMED	BCTALL

ORG BCTLRT

58	3A	BCTL1R	BCTL2R	BCTL3R
64	40	BCTL4R	BCTL5R	BCTL7R
72	48	BCTL8R	BCTL9R	BCTLBR
80	50	BCTLCR	BCTLDR	BCTLER
88	58	BCTLGR		

ORG BCTLET

90	5A	BCTL1E	BCTL2E	BCTL3E
96	60	BCTL4E	BCTL6E	BCTL7E
104	68	BCTL8E	BCTL9E	BCTLBE
112	70	BCTLCE	BCTLDE	BCTLEE
120	78	BCTLGE		

Fields in CHABCT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	BTCNT	0028	001C	BCTUN2	0104	0068	BCTL8E
0000	0000	BCTHED	0058	003A	BCTL1R	0106	006A	BCTL9E
0002	0002	BCTFUL	0058	003A	BCTLRT	0108	006C	BCTLAE
0004	0004	BCTNSR	0060	003C	BCTL2R	0110	006E	BCTLBE
0006	0006	BCTLPS	0062	003E	BCTL3R	0112	0070	BCTLCE
0008	0008	BCTSET	0064	0040	BCTL4R	0114	0072	BCTLDE
0012	000C	BCTTIM	0066	0042	BCTL5R	0116	0074	BCTLEE
0014	000E	BCTDEF	0068	0044	BCTL6R	0118	0076	BCTLFE
0016	0010	BCTSOI	0070	0046	BCTL7R	0120	0078	BCTLGE
0018	0012	BCTUN1	0072	0048	BCTL8R	0122	007A	BCTUN3
0020	0014	BCTABN (EQU)	0074	004A	BCTL9R	0124	007C	BCTRUS
0020	0014	BCTIIP (EQU)	0076	004C	BCTLAR	0126	007E	BCTEUS
0020	0014	BCTBHS (EQU)	0078	004E	BCTLBR	0128	0080	BCTBIO
0020	0014	BCTINP (EQU)	0080	0050	BCTLCR	0129	0081	BCTAKT
0020	0014	BCTBTO (EQU)	0082	0052	BCTLDR	0130	0082	BCTALM
0020	0014	BCTOTB (EQU)	0084	0054	BCTLER	0131	0083	BCTARK
0020	0014	BCTDOR (EQU)	0086	0056	BCTLFR	0132	0084	BCTPCT
0020	0014	BCTINI (EQU)	0088	0058	BCTLGR	0136	0088	BCTPRT
0020	0014	BCTFL1 (EQU)	0090	005A	BCTL1E	0140	008C	BCTCONT
0021	0015	BCTWRK (EQU)	0090	005A	BCTLET	0144	0090	BCTCALL
0021	0015	BCTICO (EQU)	0092	005C	BCTL2E	0152	0098	BCTARE
0021	0015	BCTASY (EQU)	0094	005E	BCTL3E	0216	00D8	BCTILK
0021	0015	BCTFL2 (EQU)	0096	0060	BCTL4E	0218	00DA	BCTL0K
0022	0016	BCTNTA (EQU)	0098	0062	BCTL5E	0219	00DB	BCTBSNL
0024	0018	BCTNOT (EQU)	0100	0064	BCTL6E	0220	00DC	BCTBSN
0026	001A	BCTFLT (EQU)	0102	0066	BCTL7E	0224	00E0	BCTAKD

(Continued on page 20)

(Continued from page 19)

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>		<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>		<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0424	01A8	BCTWIE	(EQU)	0425	01A9	BCTRSV		0448	01C0	BCTENT
0424	01A8	BCTFL3		0444	01BC	BCTALL		0448	01C0	BCTLST

Alphabetical list of fields in CHABCT

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>		<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>		<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
BCTABN	0020	0014	(EQU)	BCTILK	0216	00D8		BCTI4E	0096	0060
BCTAKD	0224	00E0		BCTINI	0020	0014	(EQU)	BCTL4R	0064	0040
BCTAKT	0129	0081		BCTINP	0020	0014	(EQU)	BCTL5E	0098	0062
BCTALL	0444	01BC		BCTLAE	0108	006C		BCTL5R	0066	0042
BCTALM	0130	0082		BCTLAR	0076	004C		BCTL6E	0100	0064
BCTARE	0152	0098		BCTLBE	0110	006E		BCTL6R	0068	0044
BCTARK	0131	0083		BCTLBR	0078	004E		BCTL7E	0102	0066
BCTASY	0021	0015	(EQU)	BCTLCE	0112	0070		BCTL7R	0070	0046
BCTBHS	0020	0014	(EQU)	BCTLCE	0080	0050		BCTL8E	0104	0068
BCTBIO	0128	0080		BCTLDE	0114	0072		BCTL8R	0072	0048
BCTBSN	0220	00DC		BCTLDR	0082	0052		BCTL9E	0106	006A
BCTBSNL	0219	00DB		BCTLEE	0116	0074		BCTL9R	0074	004A
BCTBTO	0020	0014	(EQU)	BCTLER	0084	0054		BCTNOT	0024	0018
BCTCALL	0144	0090		BCTLET	0090	005A		BCTNSR	0004	0004
BCTCNT	0000	0000		BCTLFE	0118	0076		BCTNTA	0022	0016
BCTCONT	0140	008C		BCTLFR	0086	0056		BCTOTB	0020	0014
BCTDEF	0014	000E		BCTLGE	0120	0078		BCTPCT	0132	0084
BCTDOR	0020	0014	(EQU)	BCTLGR	0088	0058		BCTPRT	0136	0088
BCTENT	0448	01C0		BCTLGR	0088	0058		BCTRSV	0425	01A9
BCTEUS	0126	007E		BCTLHK	0218	00DA		BCTRSV	0124	007C
BCTFLT	0026	001A		BCTLPS	0006	0006		BCTSET	0008	0008
BCTFL1	0020	0014		BCTLRT	0058	003A		BCTSOI	0016	0010
BCTFL2	0021	0015		BCTLST	0448	01C0		BCTTIM	0012	000C
BCTFL3	0424	01A8		BCTL1E	0090	005A		BCTUN1	0018	0012
BCTFUL	0002	0002		BCTL1R	0058	003A		BCTUN2	0028	001C
BCTHED	0000	0000		BCTL2E	0092	005C		BCTUN3	0122	007A
BCTICO	0021	0015	(EQU)	BCTL2R	0060	003C		BCTWIE	0424	01A8
BCTIIP	0020	0014	(EQU)	BCTL3E	0094	005E		BCTWRK	0021	0015
				BCTL3R	0062	003E				

Assembler listing of CHABCT

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
0A 00000		CHABCT	DSECT		
*	*****				
*	* CHABCT, THE DSECT OF THE BULKCOMM TABLE CSECT CHBBCT *				
*	*****				
0A 00000	BCTHED	DS	OD		ENTRY CHBBIO START OF BULKCOMM TABLE
0A 00000	BCTCNT	DS	H		M03481 NUMBER OF FULL
0A 00002	BCTFUL	DS	H		S-ENTRIES/NOT DELETED NUMBER OF FULL OUTPUT
0A 00004	BCTNSR	DS	H		S-ENTRIES NUMBER OF ACTIVE S ENTRIES
0A 00006	BCTLPS	DS	H		(I.E., ASSIGNED AND NOT HALTED). LAST-USED SEQUENCE NUMBER
0A 00008	BCTSET	DS	A		NNNN FOR SYSINNNN USER SYSIN
0A 0000C	BCTTIM	DS	H		DATASET NAME. ADDRESS OF LAST S-ENTRY IN
0A 0000E	BCTDEF	DS	H		CONTROL BIO BASE(CYCLE) TIME(CSECS)
0A 00010	BCTSOI	DS	H		N319.37 DEFAULT BASE TIME(CSECS)
0A 00012	BCTUN1	DS	H		N319.37 MILLISECONDS. OPERATOR INTERVENTION TIME
					N319.37 UNUSED

(Listing of CHABCT continued on page 21)

(Listing of CHABCT continued from page 20)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			N319.37
		*			MILLISECONDS.
0A 00014		BCTFL1	DS	XL1	1ST TABLE FLAG
		*			BYTE, INITIALIZED OFF.
	0A 00014	BCTINI	EQU	BCTFL1	BULKIO TASK IS INITIALIZED.
	00000080	BCTINIM	EQU	X'80'	
	0A 00014	BCTDOR	EQU	BCTFL1	ON=BULKIO TASK IS
		*			DORMANT, NOT AWAKE.
	00000040	BCTDORM	EQU	X'40'	
	0A 00014	BCTOTB	EQU	BCTFL1	OPERATOR-TO-BULKIO-TASK
		*			MASTER ALERT
	00000020	BCTOTBM	EQU	X'20'	
	0A 00014	BCTBTO	EQU	BCTFL1	BULKIO-TASK-TO-OPERATOR
		*			MASTER ALERT
	00000010	BCTBTOM	EQU	X'10'	(NOT PRESENTLY USED)
	0A 00014	BCTINP	EQU	BCTFL1	IF ON TASKID 2 INIT. IN
		*			PROGRESS
	00000008	BCTINPM	EQU	X'08'	TASKID 2 INIT. IN PROGRESS
		*			MASK
	0A 00014	BCTBHS	EQU	BCTFL1	BULKIO TASK IS NOW BEHIND
		*			SCHEDULE.
	00000004	BCTBHSM	EQU	X'04'	
	0A 00014	BCTIIP	EQU	BCTFL1	1=CZAWA, ABEND RTN, CALLED
		*			CZAWS, INITIALIZATIO
				N	RTN, 0=OPTASK CALLED IT
	00000002	BCTIIPM	EQU	X'02'	
	0A 00014	BCTABN	EQU	BCTFL1	ABEND OF BULKIO-2 TASK IN
		*			PROGRESS,
	00000001	BCTABNM	EQU	X'01'	SET BY CZAWA, BIO-2 ABEND
		*			PROCESSOR
0A 00015		BCTFL2	DS	XL1	2ND TABLE FLAG
		*			BYTE, INITIALIZED OFF.
	0A 00015	BCTASY	EQU	BCTFL2	ABEND RECOVERY ROUTINE
		*			RETURNS
	00000080	BCTASYM	EQU	X'80'	CONTROL TO TASK MONITOR
	0A 00015	BCTICO	EQU	BCTFL2	SET TO 1 WHEN CZAWV, INPUT
		*			CLOSEOUT,
	00000040	BCTICOM	EQU	X'40'	IS CALLED BY
		*			CZAWS, INITIALIZATION
	0A 00015	BCTWRK	EQU	BCTFL2	USEFUL WORK FLAG
		*			N319.37
	00000020	BCTWRKM	EQU	X'20'	USEFUL WORK MASK
		*			N319.37
0A 00016		BCTNTA	DS	H	NUMBER TIMES BULKIO TASK
		*			ACTIVATED.
0A 00018		BCTNOT	DS	H	NUMBER OF TIMES BULKIO TASK
		*			HAS BEEN
		*			FOUND BEHIND SCHEDULE VIA
		*			BCTBHS.
0A 0001A		BCTFLT	DS	H	FLUTTER COUNT (NONPRODUCTIVE
		*			N319.37
		*			WORK CYCLE COUNT)
		*			N319.37
0A 0001C		BCTUN2	DS	15H	RESERVED
		*			N319.37
0A 0003A		BCTLRT	DS	16H	NUMBER OF TIMES REAL TIME
		*			IS LESS
		*			THAN X BCTRUS UNITS, WHERE
		*			X=___.
	0A 0003A		ORG	BCTLRT	
0A 0003A		BCTL1R	DS	H	1
0A 0003C		BCTL2R	DS	H	2
0A 0003E		BCTL3R	DS	H	3
0A 00040		BCTL4R	DS	H	4
0A 00042		BCTL5R	DS	H	5
0A 00044		BCTL6R	DS	H	6
0A 00046		BCTL7R	DS	H	7
0A 00048		BCTL8R	DS	H	8

(Listing of CHABCT continued on page 22)

(Listing of CHABCT continued from page 21)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
0A 0004A		BCTL9R	DS	H	9
0A 0004C		BCTLAR	DS	H	10
0A 0004E		BCTLBR	DS	H	11
0A 00050		BCTLCR	DS	H	12
0A 00052		BCTLDR	DS	H	13
0A 00054		BCTLER	DS	H	14
0A 00056		BCTLFR	DS	H	15
0A 00058		BCTLGR	DS	H	NO. TIMES REAL TIME >15
		*			BCTRUS UNITS
0A 0005A		BCTLET	DS	16H	NUMBER X OF BCTEUS TIME
		*			UNITS SPENT
		*			IN MASTER SERVICE
		*			LOOP,WHERE X= __.
	0A 0005A		<u>ORG</u>	BCTLET	
0A 0005A		BCTL1E	DS	H	1
0A 0005C		BCTL2E	DS	H	2
0A 0005E		BCTL3E	DS	H	3
0A 00060		BCTL4E	DS	H	4
0A 00062		BCTL5E	DS	H	5
0A 00064		BCTL6E	DS	H	6
0A 00066		BCTL7E	DS	H	7
0A 00068		BCTL8E	DS	H	8
0A 0006A		BCTL9E	DS	H	9
0A 0006C		BCTLAE	DS	H	10
0A 0006E		BCTLBE	DS	H	11
0A 00070		BCTLCE	DS	H	12
0A 00072		BCTLDE	DS	H	13
0A 00074		BCTLEE	DS	H	14
0A 00076		BCTLFE	DS	H	15
0A 00078		BCTLGE	DS	H	>15.
0A 0007A		BCTUN3	DS	H	RESERVED
		*			N319.37
0A 0007C		BCTRUS	DS	H	REAL TIME MEASURING
		*			UNIT,MILLISECNS
0A 0007E		BCTEUS	DS	H	MASTER SERVICING TIME
		*			UNIT,MILLISECS
0A 00080		BCTBIO	DS	C	LAST BULKIO-2 SECTION IN
		*			CONTROL
0A 00081		BCTAKT	DS	HL1	COUNT OF BKIO-2 ABENDS
		*			SINCE STARTUP
0A 00082		BCTALM	DS	HL1 *50'	BULKIO-2 ABEND LIMIT
0A 00083		BCTARK	DS	HL1	RECURSIVE ABEND COUNTER
0A 00084		BCTPCT	DS	F	PREVIOUS COMPUT TIME
		*			VALUE,MILLISECS
0A 00088		BCTPRT	DS	F	PREVIOUS REAL TIME
		*			VALUE,MILLISECNS
0A 0008C		BCTCONT	DS	A	CONTINUATION ADDRESS
0A 00090		BCTCALL	DS	CL8	NAME OF LAST MODULE CALLED
		*			BY BULKIO
0A 00098		BCTARE	DS	16F	STM0,15 SETS RECURSIV
		*			ADDRESSABILITY
0A 000D8		BCTILK	DS	CL2	SIGNATURE OF RTN WHO LOCKED
		*			BULKCOMM
0A 000DA		BCTL0K	DS	X	HEADER LOCK
		*			BYTE,INITIALIZED UNLOCKD
0A 000DB		BCTBSNL	DS	X	BATCH SEQUENCE NUMBER LOCK
		*			BYTE,
0A 000DC		BCTBSN	DS	PL4	PACKED DECIMAL BATCH
		*			SEQUENCE NUMBER
0A 000E0		BCTAKD	DS	CL200	ACKNOWLEDGEMENT DATASET DCB
0A 001A8		BCTFL3	DS	X	CORRESPONDS TO CHBBIO IN
		*			M03481
		*			CHBBCT
		*			M03481
	0A 001A8	BCTWIE	EQU	BCTFL3	OFF=BIO TO RUN TIMER DRIVEN
		*			M03481
	00000008	BCTWIEM	EQU	X'08'	ON=BIO TO RUN INTRPT DRIVEN
		*			M03481

(Listing of CHABCT continued on page 23)

(Listing of CHABCT continued from page 22)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
0A 001A9		BCTRSV	DS	XL15	RESERVED
0A 001B8			DS	F	RESERVED
		*			M03481
0A 001BC		BCTALL	DS	F	TOTAL S-ENTRY
		*			ALLOCATION, I. E., M03481
		*			LEN FROM BCTENT TO END OF
		*			BCT M03481
0A 001C0		BCTLST	DS	0X	DEFINE END OF BCT HEADER
		*			M03481
	000001C0	BCTLEN	EQU	BCTLST-CHABCT	LENGTH OF BCT HEADER
		*			M03481
		*			M03481
0A 001C0		BCTENT	DS	0D	ALIGN FIRST S-ENTRY
		*			M03481

CHASET Storage map

DEC	HEX	
0	0	SETSID   SETAORD   SETNBR   SETUID
8	8	SETUID (CONT)   SETDSN
40	28	SETBSN
48	30	SETBSN (CONT)   SETLOK   SETHEY   RESERVED   SETBUF
56	38	SETETL
64	40	SETBGN
80	50	RESERVED
88	58	SETTOT   SETNOW
96	60	SETSUM   SETMOV
104	68	SETPSDA   SETSDA   SETTYP
112	70	SETSTA
120	78	SETRCH   SETDUC   SETTIM
128	80	SETPTI   SETRS4   SETCALL
136	88	SETCALL (CONT)   RESERVED
144	90	SETRCR   SETRCRC   SETRCRO
152	98	SETDVC
352	160	SETDDC
552	228	SETFL1   SETFL2   SETFL3   SETFL4   SETPF1   SETPF2   SETPF3   SETPF4
560	230	SETFL5   SETFL6   SETEE
568	238	SETWORK
824	338	ORG OVERLAP

(CHASET continued on page 25)

(CHASET continued from page 24)

DEC HEX  
ORG SETWORK

568	238	SETFL7	SETFL8	SETFL9	RESERVED	SETINB	
576	240	SETGC4			SETFC4	SETFC8	
584	248	SETISZ		SETKER	SETIKE		
592	250	SETIKE	SETBTE	SETBBE	RESERVED		
		SETICB					
640	280	SETCMN					
656	290	SETFFS	SETFSV				
744	2E8					SETCMI	RESERVED
752	2F0	SETZRC					

ORG SETWORK

568	238	SETYFLJ1	SETYFLJ2	SETYFLJ3	SETPRS	SETYPAG	SETYHDG	RESERVED
576	240	SETYRC				SETYRS1		
584	248	SETYRS2						
		SETYHDR						
720	2D0	SETYPGE				RESERVED		
728	2D8	SETYOUTP				SETYINP		
736	2E0	SETBIG				SETEND		
744	2E8	SETYLNS	SETYUPL	SETYLINE	RESERVED			
752	2F0	SETYLRE				SETYMSKA		

ORG SETYMSKA+3

759	2F7	SETYMASK						
760	2F8	SETYCC	SETYCODE	SETYJCD	RESERVED	SETYCONT		
768	300	SETYNOWS				SETYXPUT		
776	308	SETYXTRL				SETYTRCT	SETYSHRT	

(CHASET continued on page 26)

(CHASET continued from page 25)

DEC 784	HEX 310	SETYBADC	SETYFLGD	SETFRM			
792	318				RESERVED	SETCMB	
800	320	SETYSKP1	SETYSPC1	SETYSPC3	SETFLA	SETFLB	SETOUI
808	328	SETOUI (CONT)				SETOBS	
816	330	SETOBS	SETOCT				
SETRSV							

Fields in CHASET -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD			
0000	0000	SETSID	0555	022B	SETFL4	0569	0239	SETCNM	(EQU)		
0000	0000	SETOrg	0556	022C	SETPF1	0569	0239	SETEXC	(EQU)		
0001	0001	SETAORD	0557	022D	SETPF2	0569	0239	SETFN1	(EQU)		
0002	0002	SETNBR	0558	022E	SETPF3	0569	0239	SETINES	(EQU)		
0004	0004	SETUID	0559	022F	SETPF4	0569	0239	SETINEA	(EQU)		
0012	000C	SETDSN	0560	0230	SETDEL	(EQU)	0569	0239	SETINEE	(EQU)	
0047	002F	SETBSN	0560	0230	SETVIS	(EQU)	0569	0239	SETFMT	(EQU)	
0051	0033	SETLOK	0560	0230	SETSER	(EQU)	0570	023A	SETYFLJ3		
0052	0034	SETBTO	(EQU)	0560	0230	SETXAS	(EQU)	0570	023A	SETFL9	
0052	0034	SETOTB	(EQU)	0560	0230	SETCUR	(EQU)	0570	023A	SETSPLT	(EQU)
0052	0034	SETHEY		0560	0230	SETDED	(EQU)	0570	023A	SETNSTW	(EQU)
0054	0036	SETBUF		0560	0230	SETXSU	(EQU)	0570	023A	SETNLK	(EQU)
0056	0038	SETETL		0560	0230	SETIOI	(EQU)	0570	023A	SETSCF	(EQU)
0071	0047	SETBGN		0560	0230	SETFL5		0570	023A	SETTOP	(EQU)
0088	0058	SETTOT		0561	0231	SETBRK	(EQU)	0570	023A	SETRLC	(EQU)
0092	005C	SETNOW		0561	0231	SETGSW	(EQU)	0570	023A	SETDDL	(EQU)
0096	0060	SETSUM		0561	0231	SETCRCR	(EQU)	0570	023A	SETABN	(EQU)
0100	0064	SETMOV		0561	0231	SETRRCR	(EQU)	0570	023A	SETRJL	(EQU)
0104	0068	SETPSDA		0561	0231	SETVABN	(EQU)	0570	023A	SETIID	(EQU)
0108	006C	SETSDA		0561	0231	SETPER	(EQU)	0570	023A	SETDID	(EQU)
0110	006E	SETTYP		0561	0231	SETFL6		0570	023A	SETDUF	(EQU)
0112	0070	SETSTA		0562	0232	SETEE		0571	023B	SETPRS	
0120	0078	SETRCH		0568	0238	SETYFLJ1		0572	023C	SETYPAG	
0124	007C	SETDUC		0568	0238	SETCZAWY		0572	023C	SETINB	
0126	007E	SETTIM		0568	0238	SETFL7		0573	023D	SETYHDG	
0128	0080	SETPTI		0568	0238	SETCZAWZ		0576	0240	SETYRC	
0130	0082	SETR4		0568	0238	SETYAOM	(EQU)	0576	0240	SETGC4	
0133	0085	SETCALL		0568	0238	SETYREC	(EQU)	0580	0244	SETYRS1	
0144	0090	SETRCR		0568	0238	SETYLN	(EQU)	0580	0244	SETFC4	
0148	0094	SETRCRC		0568	0238	SETYDSO	(EQU)	0582	0246	SETFC8	
0150	0096	SETRCRO		0568	0238	SETYNPG	(EQU)	0584	0248	SETYRS2	
0152	0098	SETDVC		0568	0238	SETYFST	(EQU)	0584	0248	SETISZ	
0352	0160	SETDDC		0568	0238	SETYFIN	(EQU)	0586	024A	SETKER	
0552	0228	SETXPS	(EQU)	0568	0238	SETYPUT	(EQU)	0588	024C	SETYHDR	
0552	0228	SETPUN	(EQU)	0568	0238	SETYTOP	(EQU)	0588	024C	SETIKE	
0552	0228	SETAMT	(EQU)	0568	0238	SETOPN	(EQU)	0593	0251	SETBTE	
0552	0228	SETPNT	(EQU)	0568	0238	SETFST	(EQU)	0594	0252	SETBBE	
0552	0228	SETRES	(EQU)	0568	0238	SETPAS	(EQU)	0596	0254	SETICB	
0552	0228	SETASS	(EQU)	0568	0238	SETEMF	(EQU)	0640	0280	SETCMN	
0552	0228	SETFL1		0568	0238	SETTRO	(EQU)	0656	0290	SETFFS	
0553	0229	SETFN2	(EQU)	0568	0238	SETEMG	(EQU)	0656	0290	SETEDS	(EQU)
0553	0229	SETCBU	(EQU)	0568	0238	SETSIN	(EQU)	0656	0290	SETFRD	(EQU)
0553	0229	SETSUR	(EQU)	0568	0238	SETWORK		0656	0290	SETFTN	(EQU)
0553	0229	SETINH	(EQU)	0569	0239	SETYFLJ2		0657	0291	SETFSV	
0553	0229	SETFL2		0569	0239	SETFL8		0720	02D0	SETYPGE	
0554	022A	SETRPU	(EQU)	0569	0239	SETYINI	(EQU)	0724	02D4	SETYPGEB	(EQU)
0554	022A	SETERR	(EQU)	0569	0239	SETYXPS	(EQU)	0728	02D8	SETYOUTP	
0554	022A	SETAKP	(EQU)	0569	0239	SETEOD	(EQU)	0732	02DC	SETYINP	
0554	022A	SETAKQ	(EQU)	0569	0239	SETSIN	(EQU)	0736	02E0	SETBIG	
0554	022A	SETIRQ	(EQU)	0569	0239	SETYBAD	(EQU)	0740	02E4	SETEND	
0554	022A	SETCCF	(EQU)	0569	0239	SETYFCC	(EQU)	0744	02E8	SETYLNS	
0554	022A	SETACT	(EQU)	0569	0239	SETYHOL	(EQU)	0746	02EA	SETYUPL	
0554	022A	SETRJE	(EQU)	0569	0239	SETCOM	(EQU)	0748	02EC	SETYLINE	
0554	022A	SETFL3		0569	0239	SETCNM1	(EQU)	0749	02ED	SETCMI	

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DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD	
0749	02ED	SETCMP	(EQU)	0780	030C	SETYTRCT		0803	0323	SETFLA	
0752	02F0	SETYLRE		0782	030E	SETYSHRT		0803	0323	SETHLD	(EQU)
0752	02F0	SETZRC		0784	0310	SETYBADC		0804	0324	SETFLB	
0756	02F4	SETYMSKA		0786	0312	SETYFLGD		0804	0324	SETPU	(EQU)
0759	02F7	SETYMASK		0786	0312	SETYPOP	(EQU)	0804	0324	SETPR	(EQU)
0760	02F8	SETYCC		0786	0312	SETYBOT	(EQU)	0804	0324	SETOID	(EQU)
0761	02F9	SETYCODE		0787	0313	SETFRM		0804	0324	SETJOB	(EQU)
0762	02FA	SETYJCD		0798	031E	SETCMB		0805	0325	SETOUI	
0764	02FC	SETYCONT		0800	0320	SETYSKP1		0813	032D	SETOBS	
0768	0300	SETYNOWS		0800	0320	SETYTRCC		0817	0331	SETOCT	
0772	0304	SETYXPUT		0801	0321	SETYSPC1		0818	0332	SETRSV	
0776	0308	SETYXTRL		0802	0322	SETYSPC3		0832	0340	SETLST	

Alphabetical list of fields in CHASET

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX	
SETABN	0570	023A	(EQU)	SETFL2	0553	0229		SETPNT	0552	0228	(EQU)
SETACT	0554	022A	(EQU)	SETFL3	0554	022A		SETPR	0804	0324	(EQU)
SETAKP	0554	022A	(EQU)	SETFL4	0555	022B		SETPRS	0571	023B	
SETAKQ	0554	022A	(EQU)	SETFL5	0560	0230		SETPSDA	0104	0068	
SETAMT	0552	0228	(EQU)	SETFL6	0561	0231		SETPTI	0128	0080	
SETAORD	0001	0001		SETFL7	0568	0238		SETPU	0804	0324	(EQU)
SETASS	0552	0228	(EQU)	SETFL8	0569	0239		SETPUN	0552	0228	(EQU)
SETBBE	0594	0252		SETFL9	0570	023A		SETRCH	0120	0078	
SETBGN	0071	0047		SETFMT	0569	0239	(EQU)	SETRCR	0144	0090	
SETBIG	0736	02E0		SETFN1	0569	0239	(EQU)	SETRCRC	0148	0094	
SETBRK	0561	0231	(EQU)	SETFN2	0553	0229	(EQU)	SETRCRO	0150	0096	
SETBSN	0047	002F		SETFRD	0656	0290	(EQU)	SETRES	0552	0228	(EQU)
SETBTE	0593	0251		SETFRM	0787	0313		SETRJE	0554	022A	(EQU)
SETBTO	0052	0034	(EQU)	SETFST	0568	0238	(EQU)	SETRJL	0570	023A	(EQU)
SETBUF	0054	0036		SETFSV	0657	0291		SETRLC	0570	023A	(EQU)
SETCALL	0133	0085		SETFTN	0656	0290	(EQU)	SETRPU	0554	022A	(EQU)
SETCBU	0553	0229	(EQU)	SETGC4	0576	0240		SETRRCR	0561	0231	(EQU)
SETCCF	0554	022A	(EQU)	SETGSW	0561	0231	(EQU)	SETRSV	0818	0332	
SETCMB	0798	031E		SETHEY	0052	0034		SETRS4	0130	0082	
SETCMI	0749	02ED	(EQU)	SETHLD	0803	0323	(EQU)	SETSCF	0570	023A	(EQU)
SETCMN	0640	0280		SETICB	0596	0254		SETSDA	0108	006C	
SETCMP	0749	02ED	(EQU)	SETIID	0570	023A	(EQU)	SETSER	0560	0230	(EQU)
SETCNM	0569	0239	(EQU)	SETIKE	0588	024C		SETSID	0000	0000	
SETCNM1	0569	0239	(EQU)	SETINB	0572	023C		SETSIN	0568	0238	(EQU)
SETCOM	0569	0239	(EQU)	SETINEA	0569	0239	(EQU)	SETSPLT	0570	023A	(EQU)
SETCRCR	0561	0231	(EQU)	SETINEE	0569	0239	(EQU)	SETSTA	0112	0070	
SETCUR	0560	0230	(EQU)	SETINES	0569	0239	(EQU)	SETSUM	0096	0060	
SETCZAWY	0568	0238		SETINH	0553	0229	(EQU)	SETSUR	0553	0229	(EQU)
SETCZAWZ	0568	0238		SETIOI	0560	0230	(EQU)	SETSYN	0569	0239	(EQU)
SETDDC	0352	0160		SETIRQ	0554	022A	(EQU)	SETTIM	0126	007E	
SETDDL	0570	023A	(EQU)	SETISZ	0584	0248		SETTOP	0570	023A	(EQU)
SETDED	0560	0230	(EQU)	SETJOB	0804	0324	(EQU)	SETTOT	0088	0058	
SETDEL	0560	0230	(EQU)	SETKER	0586	024A		SETTRO	0568	0238	(EQU)
SETDID	0570	023A	(EQU)	SETLOK	0051	0033		SETTYP	0110	006E	
SETDSN	0012	000C		SETLST	0832	0340		SETUID	0004	0004	
SETDUC	0124	007C		SETMOV	0100	0064		SETVABN	0561	0231	(EQU)
SETDUF	0570	023A	(EQU)	SETNBR	0002	0002		SETVIS	0560	0230	(EQU)
SETDVC	0152	0098		SETNLK	0570	023A	(EQU)	SETWORK	0568	0238	
SETEDS	0656	0290	(EQU)	SETNOW	0092	005C		SETXAS	0560	0230	(EQU)
SETEE	0562	0232		SETNSTW	0570	023A	(EQU)	SETXPS	0552	0228	(EQU)
SETEMF	0568	0238	(EQU)	SETOBS	0813	032D		SETXSU	0560	0230	(EQU)
SETEMG	0568	0238	(EQU)	SETOCT	0817	0331		SETYAOM	0568	0238	(EQU)
SETEND	0740	02E4		SETOID	0804	0324	(EQU)	SETYBAD	0569	0239	(EQU)
SETEOD	0569	0239	(EQU)	SETOPN	0568	0238	(EQU)	SETYBADC	0784	0310	
SETERR	0554	022A	(EQU)	SETORG	0000	0000		SETYBOT	0786	0312	(EQU)
SETETL	0056	0038		SETOTB	0052	0034	(EQU)	SETYCC	0760	02F8	
SETEXC	0569	0239	(EQU)	SETOUI	0805	0325		SETYCODE	0761	02F9	
SETFC4	0580	0244		SETPAS	0568	0238	(EQU)	SETYCONT	0764	02FC	
SETFC8	0582	0246		SETPER	0561	0231	(EQU)	SETYDSO	0568	0238	(EQU)
SETFFS	0656	0290		SETPF1	0556	022C		SETYFCC	0569	0239	(EQU)
SETFLA	0803	0323		SETPF2	0557	022D		SETYFIN	0568	0238	(EQU)
SETFLB	0804	0324		SETPF3	0558	022E		SETYFLGD	0786	0312	
SETFL1	0552	0228		SETPF4	0559	022F		SETYFLJ1	0568	0238	

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FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SETYFLJ2	0569	0239	SETYMASK	0759	02F7	SETYRS2	0584	0248
SETYFLJ3	0570	023A	SETYMSKA	0756	02F4	SETYSHRT	0782	030E
SETYFST	0568	0238 (EQU)	SETYNOWS	0768	0300	SETYSKP1	0800	0320
SETYHDG	0573	023D	SETYNPG	0568	0238 (EQU)	SETYSPC1	0801	0321
SETYHDR	0588	024C	SETYOUTP	0728	02D8	SETYSPC3	0802	0322
SETYHOL	0569	0239 (EQU)	SETYPAG	0572	023C	SETYTOP	0568	0238 (EQU)
SETYINI	0569	0239 (EQU)	SETYPGE	0720	02D0	SETYTRCC	0800	0320
SETYINP	0732	02DC	SETYPGEB	0724	02D4 (EQU)	SETYTRCT	0780	030C
SETYJCD	0762	02FA	SETYPOP	0786	0312 (EQU)	SETYUPL	0746	02EA
SETYLIN	0568	0238 (EQU)	SETYPUT	0568	0238 (EQU)	SETYXPS	0569	0239 (EQU)
SETYLINE	0748	02EC	SETYRC	0576	0240	SETYXPUT	0772	0304
SETYLNS	0744	02E8	SETYREC	0568	0238 (EQU)	SETYXTRL	0776	0308
SETYLRE	0752	02F0	SETYRS1	0580	0244	SETZRC	0752	02F0

Assembler listing of CHASET

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
88 00000	88 00000	CHASET	DSECT		
88 00000		SETORG	DS	0D	ALIGN S ENTRY ON DOUBLEWORD BOUNDARY
88 00000		* SETSID	DS	C	S-ENTRY IDENTIFIER 'BB'
88 00001	000000BB	SETSIDM	EQU	X'BB'	
88 00001		SETAORD	DS	X	DEVICE FOR THIS S-ENTRY IS ASSIGNED
		* X'AA',OR WAS DELETED			
		* X'DD',ASNBD.			
	000000AA	SETAA	EQU	X'AA'	IN SETAORD IF A DEVICE IS ASSIGNED
		* IN SETAORD IF THE DEVICE			
	000000DD	SETDD	EQU	X'DD'	WAS DELETED
		* DISPL TO MSGID IN DDEFS			
	0000004C	SETDDMSG	EQU	76	PSECT,CZAEAR
88 00002		* SETNBR	DS	CL2	NUMBER OF THIS
88 00004		* SETUID	DS	CL8	S-ENTRY,INTEGER 01-99
88 0000C		* SETDSN	DS	CL35	USERID, FOR OUTPUT AND INPUT JOBS.
		* USER'S DATA SET NAME IF			
		* OUTPUT JOB,			
		* SYSINNNN SYSIN NAME IF			
88 0002F		* SETBSN	DS	CL4	INPUT JOB.
88 00033		* SETBSN	DS	CL4	BATCH SEQUENCE NUMBR,OUTPUT JOB ONLY
88 00034		* SETLOK	DS	X	S ENTRY LOCK
		* SETHEY	DS	X	BYTE,INITIALIZD UNLOCKD
		* S ENTRY ALERT BYTE,			
	88 00034	* SETOTB	EQU	SETHEY	INITIALIZED OFF.
		* OPERATOR-TO-BULKIO-TASK			
	00000080	* SETOTBM	EQU	X'80'	ALERT FLAG.
	88 00034	* SETBTO	EQU	SETHEY	BULKIO-TO-OPERATOR-TASK
		* ALERT FLAG.			
	00000040	* SETBTOM	EQU	X'40'	(NOT PRESENTLY USED)
88 00036		* SETBUF	DS	H	NUMBER OF BUFFERS FOR MSAM
		* DEVICE,			
		* CONTAINS NEW NO.IF SETCUB			
88 00038		* SETETL	DS	CL15	FLAG ON
		* KEY OF USER RECORD			
		* TO'SETL'TO BEFORE			
		* NEXT OUTPUT SERVICE CYCLE.			
		* USED			
		* WITH SETPNT FLAG FOR			
		* OPERATOR USE			
		* ONLY, NOT NEW JOB. IGNORED			
		* IF ALL			
		* ZEROS.FOR VISAM OUTPUT			
88 00047		* SETBGN	DS	CL15	JOBS ONLY.
		* BEGINNING OUTPUT DS			
		* LINE#/VISAM KEY,			

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(Listing of CHASET continued from page 28)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
		*			USED WITH SETVIS
88 00058		* SETTOT	DS	F	LINE/NON-LINE FLAG
		*			TOTAL RECORDS THRU THIS
		*			DEVICE SINCE
88 0005C		* SETNOW	DS	F	BULKIO STARTED UP.
		*			POSITION OF CURRENT OUTPUT
		*			RECORD,
		*			RELATIVE TO START OF USER
88 00060		* SETSUM	DS	F	DATASET
		*			NO.RECORDS READ OR WRITTEN
		*			THIS JOB,
		*			FOR WHICH USER WILL BE
88 00064		* SETMOV	DS	F	CHARGED.
		*			NO. RECORDS TO
		*			FORWARD/BACKSPACE IN
		*			USER DATA SET BEFORE NEXT
		*			OUTPUT
		*			SERVICE CYCLE. USED WITH
		*			SETAMT
		*			FLAG FOR OPERATOR USE
		*			ONLY, NOT
		*			NEW JOB.FOR VS/VISAM
		*			OUTPUT JOBS.
88 00068		SETPSDA	DS	CL4	PRINTABLE EBCDIC FORM OF
		*			SDA
88 0006C		SETSDA	DS	H	SYMBOLIC DEVICE ADDRESS,
		*			THIS ENTRY
88 0006E		SETTYP	DS	XL2	DEVICE TYPE CODE ON THIS S
		*			ENTRY,
	00000801	SETURCR	EQU	X'0801'	2540 CARD READER
		*			I5651
	00000802	SETURCP	EQU	X'0802'	2540 CARD PUNCH
		*			I5651
	00000808	SETURPT	EQU	X'0808'	1403 PRINTER
		*			I5651
	00004001	SETRJECR	EQU	X'4001'	2780 CARD READER
		*			I5651
	00004008	SETRJEPT	EQU	X'4008'	2780 PRINTER
		*			I5651
88 00070		SETSTA	DS	CL8	RJE STATION ID
88 00078		SETRCH	DS	AL4	CHAIN POINTER TO OTHER
		*			S-ENTRY
88 0007C		SETDUC	DS	H	DIAL UP COUNT INITIALIZED
		*			TO 0
88 0007E		SETTIM	DS	H	DEVICE CYCLE TIME(CSECS)
		*			N319.37
88 00080		SETPTI	DS	H	RJE PUNCH CYCLE TIME(CSECS)
		*			N319.37
88 00082		SETRS4	DS	XL3	RESERVED
		*			N319.37
88 00085		SETCALL	DS	CL8	LAST MODULE CALLED FOR THIS
		*			S
		*			ENTRY
88 00090		SETRCR	DS	F	* PTR TO USER
		*			TABLE,RETURNED BY RCR
88 00094		SETRCRC	DS	H	WORK AREA FOR RCR CLOSE
88 00096		SETRCRO	DS	H	WORK AREA FOR RCR OPEN
	000000C8	SETDCBL	EQU	200	LENGTH OF A DCB
88 00098			DS	0D	ALIGN DCB
88 00098		SETDVC	DS	CL(SETDCBL)	DCB REPRESENTING DEVICE
		*			AS A DATASET
88 00160			DS	0D	ALIGN DCB
88 00160		SETDDC	DS	CL(SETDCBL)	DCB FOR VSAM OR VISAM
		*			DATA SET
88 00228			DS	0F	
88 00228		SETFL1	DS	X	FIRST FLAG BYTE
	88 00228	SETASS	EQU	SETFL1	S ENTRY CURRENTLY ASSIGNED
		*			TO A JOB.

(Listing of CHASET continued on page 30)

(Listing of CHASET continued from page 29)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000080	SETASSM	EQU	X'80'	
	88 00228	SETRES	EQU	SETFL1	RESTART OUTPUT OF USER VSAM DATASET
		*			
	00000040	SETRESM	EQU	X'40'	BY SETL TYPE B TO BEGINNING.
		*			
	88 00228	SETPNT	EQU	SETFL1	SETL TYPE K TO USER'S OUTPUT VISAM
		*			
	00000010	SETPNTM	EQU	X'10'	RECORD SPECIFIED IN SETETL FIELD.
		*			
	88 00228	SETAMT	EQU	SETFL1	GET-FORWARD/SETL-TYPE-P-BACKWARD IN VSAM OUT DATASET BY SETMOV
		*			
	00000008	SETAMTM	EQU	X'08'	AMOUNT
		*			
	88 00228	SETPUN	EQU	SETFL1	1=COMBINE/0=DECOMBINE IF COMBIND,THE
		*			
	00000004	SETPUNM	EQU	X'04'	CARD RDR IN SETSDA WITH THIS PUNCH
		*			
	88 00228	SETXPS	EQU	SETFL1	CHANGE PRINTER SPACING TO VALUE PUT
		*			
	00000001	SETXPSM	EQU	X'01'	INTO SETPRS BY SYSTEM OPERATOR.
		*			
88 00229		SETFL2	DS	X	SECOND FLAG BYTE
	88 00229	SETINH	EQU	SETFL2	1=SET/0=RESET IF WAS SET, THE OPTION
		*			
	00000080	SETINHM	EQU	X'80'	TO INHIBIT MSAM MSG TO OPERATOR.
		*			
	88 00229	SETSUR	EQU	SETFL2	SETUR MACRO MUST BE REISSUED TO MSAM
		*			
	00000020	SETSURM	EQU	X'20'	OUTPUT DEVICE BY ATTEND ALERT RTN
		*			
	88 00229	SETCBU	EQU	SETFL2	CHANGE NUMBER BUFFERS FOR THIS MSAM
		*			
	00000010	SETCBUM	EQU	X'10'	OUTPUT DEVICE TO AMOUNT IN SETBUF
		*			
	88 00229	SETFN2	EQU	SETFL2	FINISH MACRO MUST BE REISSUD TO MSAM
		*			
	00000008	SETFN2M	EQU	X'08'	OUTPUT DEVICE BY ATTEND ALERT RTN
		*			
88 0022A		SETFL3	DS	X	THIRD FLAG BYTE
	88 0022A	SETRJE	EQU	SETFL3	RJE DEVICE FLAG
		*			
	00000080	SETRJEM	EQU	X'80'	RJE DIVICE MASK
		*			
	88 0022A	SETACT	EQU	SETFL3	THIS JOB AND ITS DEVICE ARE HALTED
		*			
	00000040	SETACTM	EQU	X'40'	THIS JOB AND DEVICE HALTED MASK
		*			
	88 0022A	SETCCF	EQU	SETFL3	CONTINUE CARD RECEIVED
		*			
	00000020	SETCCFM	EQU	X'20'	CONTINUE CARD RECEIVED MASK
		*			
	88 0022A	SETIRQ	EQU	SETFL3	INTERVENTION REQUIRED FLAG
		*			
	00000010	SETIRQM	EQU	X'10'	INTERVENTION REQUIRED MASK
		*			
	88 0022A	SETAKQ	EQU	SETFL3	ACKNOWLEDGEMENTS PENDING FLAG
		*			
	00000008	SETAKQM	EQU	X'08'	ACKNOWLEDGEMENTS PENDING MASK
		*			
	88 0022A	SETAKP	EQU	SETFL3	PRINTING ACKNOWLEDGEMENTS FLAG
		*			
	00000004	SETAKPM	EQU	X'04'	PRINTING ACKNOWLEDGEMENTS MASK
		*			
	88 0022A	SETERR	EQU	SETFL3	1=ERROR PROCESSING ACKS
		*			
	00000002	SETERRM	EQU	X'02'	0=ACKS PROCESSED WITHOUT ERROR
		*			
	88 0022A	SETRPU	EQU	SETFL3	REMOTE PUNCH AVAILABLE
		*			
	00000001	SETRPUM	EQU	X'01'	N412.2
		*			
88 0022B		SETFL4	DS	X	FOURTH FLAG BYTE
88 0022C		SETPF1	DS	X	PREVIOUS SETFL1 FROM LAST CYCLE
		*			
88 0022D		SETPF2	DS	X	PREVIOUS SETFL2 FROM LAST

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
		*			CYCLE
88 0022E		SETPF3	DS	X	PREVIOUS SETFL3 FROM LAST CYCLE
		*			
88 0022F		SETPF4	DS	X	PREVIOUS SETFL4 FROM LAST CYCLE
		*			
	00000002	SETFLAL	EQU	SETFL3-SETFL1	NUMBER OF FLAGS SAVED BY CZAWU
		*			
88 00230		SETFL5	DS	X	FIFTH FLAG BYTE
	88 00230	SETIOI	EQU	SETFL5	1=THIS IS AN INPUT DEVICE, 0=OUTPUT.
		*			
	00000080	SETIOIM	EQU	X'80'	
	88 00230	SETXSU	EQU	SETFL5	UNBREAKABLE SETUP. DON'T CHANGE THE FORM ON THIS MSAM OUTPUT DEVICE.
		*			
	00000040	SETXSUM	EQU	X'40'	DEDICATED DEVICE. ALL JOBS REQUIRING THIS FORM MUST GO TO THIS DEVICE.
		*			
	88 00230	SETDED	EQU	SETFL5	THIS ENTRY CURRENTLY BEING SERVICED.
		*			
	00000020	SETDEDM	EQU	X'20'	
		*			
	88 00230	SETCUR	EQU	SETFL5	
		*			
	00000010	SETCURM	EQU	X'10'	
	88 00230	SETXAS	EQU	SETFL5	S ENTRY NOT TO BE ASSIGNED TO A JOB.
		*			
	00000008	SETXASM	EQU	X'08'	
	88 00230	SETSER	EQU	SETFL5	THIS ENTRY WAS SERVICED DURING THE CURRENT MASTER SERVICE CYCLE.
		*			
	00000004	SETSERM	EQU	X'04'	1=LINE, 0=NON-LINE VISAM USER DATA
		*			
	88 00230	SETVIS	EQU	SETFL5	SET TO BE OUTPUT.
		*			
	00000002	SETVISM	EQU	X'02'	1=DELETE THIS RDR, PUNCH, OR PRINTER
	88 00230	SETDEL	EQU	SETFL5	
		*			
	00000001	SETDELM	EQU	X'01'	
88 00231		SETFL6	DS	X	SIXTH FLAG BYTE
	88 00231	SETPER	EQU	SETFL6	PERMANENT MSAM I/O ERROR RC=8 FROM CZAWU SETUR/FINISH, SET FOR CZAWY
		*			
	00000080	SETPERM	EQU	X'80'	SET TO 1 WHEN CZAWA, ABEND ROUTINE, CALLS CZAWY, OUTPUT SERV EODAD RTN
		*			
	88 00231	SETVABN	EQU	SETFL6	1=CZAWV, Y, OR A MUST DO RCR RATION
		*			
	00000040	SETVABNM	EQU	X'40'	0=RCR RATION DONE BY CZAWV OR Y.
		*			
	88 00231	SETRRCR	EQU	SETFL6	1=CZAWV, Y, OR A MUST DO RCR CLOSE
		*			
	00000020	SETRRCRM	EQU	X'20'	0=RCR CLOSE DONE BY CZAWV OR Y.
		*			
	88 00231	SETRCRCR	EQU	SETFL6	
		*			
	00000010	SETRCRCM	EQU	X'10'	
		*			
	88 00231	SETGSW	EQU	SETFL6	PRINT 2ND SET OF BREAK CHARS
	00000008	SETGSWM	EQU	X'08'	1=NO BREAK LINES AFTER PRINTOUTS
		*			
	88 00231	SETBRK	EQU	SETFL6	NO BREAK LINES AFTER PRINTOUTS MASK
		*			
	00000004	SETBRKM	EQU	X'04'	
		*			
88 00232		SETEE	DS	XL6'EEEEEEEEEE'	DEBUGGING DUMP DELIMITER, SEEN AS E'S
		*			
88 00238			DS	0D	
88 00238		SETWORK	DS	CL256	
	88 00238		ORG	SETWORK	
88 00238		SETCZAWZ	DS	0D	WORK AREAS USED BY INPUT SERVICE (CZAWZ)
		*			
		*			
88 00238		SETFL7	DS	X	SEVENTH FLAG BYTE

(Listing of CHASET continued on page 32)

(Listing of CHASET continued from page 31)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	88 00238	SETSIN	EQU	SETFL7	1=SYSIN DATASET,0=SYSOUT DATASET.
	00000080	SETSINM	EQU	X'80'	
	88 00238	SETEMG	EQU	SETFL7	MSAM GET UNRECOVERABLE CARD
	00000040	SETEMGGM	EQU	X'40'	READER
	88 00238	SETTRO	EQU	SETFL7	I/O ERROR FOUND BY INPUT
	00000020	SETTROM	EQU	X'20'	SERVICE.
	88 00238	SETEMF	EQU	SETFL7	THROW AWAY REST OF CARD RDR
	00000008	SETEMF	EQU	SETFL7	INPUT TO
	88 00238	SETEMF	EQU	SETFL7	VAM DS AFTER ONE MSAM READ
	00000004	SETEMF	EQU	SETFL7	ERROR.
	88 00238	SETEMF	EQU	SETFL7	MSAM FINISH UNRECOVERABLE
	00000008	SETEMF	EQU	SETFL7	I/O ERROR
	88 00238	SETEMF	EQU	SETFL7	FOUND BY INPUT SERVICE.
	00000004	SETEMF	EQU	SETFL7	1=CARD INPUT JOB IN
	88 00238	SETEMF	EQU	SETFL7	PROGRESS.
	00000004	SETEMF	EQU	SETFL7	
	88 00238	SETEMF	EQU	SETFL7	1=FIRST INPUT CARD HAS BEEN
	00000002	SETEMF	EQU	SETFL7	READ.
	88 00238	SETEMF	EQU	SETFL7	
	00000001	SETEMF	EQU	SETFL7	1=MUST REMOVE CARD INPUT
	88 00239	SETEMF	EQU	SETFL7	DATASET.
88 00239	88 00239	SETEMF	EQU	SETFL7	
	00000080	SETEMF	EQU	SETFL7	EIGHTH FLAG BYTE
	88 00239	SETEMF	EQU	SETFL7	1=EBDCIC,0=BCD INPUT CARD
	00000080	SETEMF	EQU	SETFL7	FORMAT.
	88 00239	SETEMF	EQU	SETFL7	
	00000040	SETEMF	EQU	SETFL7	1=END INPUT JOB ON MSAM
	88 00239	SETEMF	EQU	SETFL7	ERROR
	00000040	SETEMF	EQU	SETFL7	
	88 00239	SETEMF	EQU	SETFL7	1=ACCEPT INPUT CARD RECORD
	00000020	SETEMF	EQU	SETFL7	ON MSAM
	88 00239	SETEMF	EQU	SETFL7	
	00000010	SETEMF	EQU	SETFL7	1=SKIP INPUT CARD RECORD ON
	88 00239	SETEMF	EQU	SETFL7	MSAM
	00000010	SETEMF	EQU	SETFL7	GET ERROR.
	88 00239	SETEMF	EQU	SETFL7	FINISH MACRO MUST BE
	00000008	SETEMF	EQU	SETFL7	REISSUED TO MSAM
	88 00239	SETEMF	EQU	SETFL7	DEVICE BY INPUT
	00000008	SETEMF	EQU	SETFL7	SERVICE RTN
	88 00239	SETEMF	EQU	SETFL7	1=WRAP UP EXPRESS
	00000004	SETEMF	EQU	SETFL7	BATCH SYSIN
	88 00239	SETEMF	EQU	SETFL7	1=EXPRESS MODE
	00000002	SETEMF	EQU	SETFL7	0=NOT EXPRESS MODE
	88 00239	SETEMF	EQU	SETFL7	1=EXP MODE 1ST RECORD
	00000001	SETEMF	EQU	SETFL7	0=EXP MODE NOT 1ST RECORD
88 0023A	88 0023A	SETEMF	EQU	SETFL7	NINTH FLAG BYTE FOR RJE
	00000080	SETEMF	EQU	SETFL7	DIAL-UP FLAG INITIALIZED
	88 0023A	SETEMF	EQU	SETFL7	OFF
	00000080	SETEMF	EQU	SETFL7	DIAL-UP FLAG INITIALIZED
	88 0023A	SETEMF	EQU	SETFL7	OFF MASK
	00000040	SETEMF	EQU	SETFL7	DUPLICATE STATION ID
	88 0023A	SETEMF	EQU	SETFL7	DUPLICATE STATION ID MASK
	00000020	SETEMF	EQU	SETFL7	INVALID STATION ID
	88 0023A	SETEMF	EQU	SETFL7	INVALID STATION ID MASK
	00000010	SETEMF	EQU	SETFL7	RJEND CARD RECEIVED
	88 0023A	SETEMF	EQU	SETFL7	RJEND CARD RECEIVED MASK
	00000008	SETEMF	EQU	SETFL7	ASSIGN BSN FLAG FOR INPUT
	88 0023A	SETEMF	EQU	SETFL7	CLOSEOUT
	00000008	SETEMF	EQU	SETFL7	ASSIGN BSN MASK
	88 0023A	SETEMF	EQU	SETFL7	DEDICATED LINE FLAG
	00000004	SETEMF	EQU	SETFL7	DEDICATED LINE MASK
	88 0023A	SETEMF	EQU	SETFL7	SIGNAL CZAWW TO ENABLE RJE
	00000002	SETEMF	EQU	SETFL7	LN
	88 0023C	SETEMF	DS	F	SIGNAL CZAWW TO ENABLE RJE
	00000002	SETEMF	EQU	SETFL7	LN MASK
	88 0023C	SETEMF	DS	F	ADDRESS OF 1ST INPUT RECORD
	00000002	SETEMF	EQU	SETFL7	BYTE IN

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(Listing of CHASET continued from page 32)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
88 00240		SETGC4	DS	F	MSAM BUFFER, FROM MSAM GET. COUNT OF 'GET' RETRIES AFTER RC=4.
88 00244		SETFC4	DS	H	COUNT OF 'FINISH' RETRIES AFTER RC=4
88 00246		SETFC8	DS	H	COUNT OF 'FINISH' RETRIES AFTER RC=8
88 00248		SETISZ	DS	H	LOGICAL RECORD LENGTH.
88 0024A		SETKER	DS	H	# CARDS SKIPPED OR ACCEPTED W/ERRORS
88 0024C		SETIKE	DS	CL5	SEQUENCE NUMBER
88 00251		SETBTE	DS	XL1	RELATIVE START BYTE, INPUT JOBS ONLY.
88 00252		SETBBE	DS	XL1	RELATIVE END BYTE, INPUT JOBS ONLY.
88 00254	0000002C	SETICBL	EQU	0F	ALIGN ICB
88 00254		SETICB	DS	44	LENGTH OF AN ICB
		*			XL(SETICBL) ASYNCHRONOUS INTERRUPT ICB FOR CARD READER S ENTRY ONLY.
88 00280	00000010	SETCMNL	EQU	0F	ALIGN COMMUNICATIONS AREA LENGTH OF AN ICB
		*			COMMUNICATIONS AREA
88 00280		SETCMN	DS	XL(SETCMNL)	COMMUNICATIONS AREA FOR SETICB
88 00290		SETFFS	DS	CL1	THIS FIELD DEFINES THOSE FLAGS REQUIRED FOR FTN OPTION
88 00290	88 00290	SETFTN	EQU	SETFFS	FTN OPTION BEING PROCESSED FLAG
	00000080	SETFTNM	EQU	X'80'	FTN OPTION BEING PROCESSED MASK
88 00290	88 00290	SETFRD	EQU	SETFFS	FIRST FTN SOURCE RECORD BEING PROCESSED
	00000040	SETFRDM	EQU	X'40'	FST SOURCE RECORD BEING PRO. MASK
88 00290	88 00290	SETEDS	EQU	SETFFS	LAST RECORD OF FTN SOURCE BEING PROCESSED
	00000020	SETEDSM	EQU	X'20'	LAST RECORD OF SOURCE BEING PRO. MASK
88 00291		SETFSV	DS	CL92	BUFFER SAVE AREA FOR FTN CONVERSION 92 BYTES REPRESENT ONE RECORD OF A LINE DATASET
88 002ED	88 002ED	SETCMI	DS	CL1	DATA COMPRESSION INDS.
	00000080	SETCMP	EQU	SETCMI	SET ON INDICATE D.S.
88 002F0		SETCMPM	EQU	X'80'	COMPRESSION REQUIRED
		SETZRC	DS	A	LAST RETURN CODE FROM MSAM N412.2
88 00238	88 00238	SETCZAWY	DS	SETWORK 0D	WORK AREAS USED BY OUTPUT SER- VICE (CZAWY)
	88 00238	SETYTOP	EQU	*	** TOP OF JOB DEPENDENT AREA
88 00238	88 00238	SETYFLJ1	DS	X	** JOB FLAG 1
	00000080	SETYPUT	EQU	SETYFLJ1	** REISSUE MSAM PUT
	88 00238	SETYFIN	EQU	SETYFLJ1	** REISSUE MSAM FINISH
	00000040	SETYFINM	EQU	X'40'	**
	88 00238	SETYFST	EQU	SETYFLJ1	** FIRST PASS ON THIS JOB
	00000020	SETYFSTM	EQU	X'20'	**
	88 00238	SETYNPG	EQU	SETYFLJ1	** NEW PAGE REQUIRED
	00000010	SETYNPGM	EQU	X'10'	**
	88 00238	SETYDSO	EQU	SETYFLJ1	** INPUT DSORG - 1=VISAM, 0=VSAM
	00000008	SETYDSOM	EQU	X'08'	**

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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	88 00238	SETYLIN	EQU	SETYFLJ1	** LINE DATA SET -
		*			DSORG=VI, RKP=4,
	00000004	SETYLINM	EQU	X'04'	** RECFM=V, KEYLEN=7
	88 00238	SETYREC	EQU	SETYFLJ1	** RECORD FORMAT -
		*			0=FIXED
	00000002	SETYRECM	EQU	X'02'	**
		*			1=VARIABLE
	88 00238	SETYAOM	EQU	SETYFLJ1	** TYPE OF EDIT -
		*			0=MACHINE
	00000001	SETYAOMM	EQU	X'01'	**
88 00239		SETYFLJ2	DS	X	** 1=ASA
	88 00239	SETCOM	EQU	SETYFLJ2	** JOB FLAG2
		*			** THIS OUTPUT JOB IS
		*			COMPLETED.
	00000080	SETCOMM	EQU	X'80'	**
	88 00239	SETYHOL	EQU	SETYFLJ2	** LOCATION FOUND BY MSAM
		*			PUT HAS
	00000040	SETYHOLM	EQU	X'40'	** NOT BEEN FILLED.
	88 00239	SETYFCC	EQU	SETYFLJ2	** ON IF WYINIT2 IS
		*			DETERMINING
	00000020	SETYFCCM	EQU	X'20'	** TYPE OF EDIT.
	88 00239	SETYBAD	EQU	SETYFLJ2	** ERROR RECORD WAS FOUND
		*			(SHORTER
	00000010	SETYBADM	EQU	X'10'	** THAN START BYTE, OR
		*			BAD CC)
	88 00239	SETSYN	EQU	SETYFLJ2	** VISAM SYNAD ENTRY
		*			OCCURRED.
	00000008	SETSYNM	EQU	X'08'	**
	88 00239	SETEOD	EQU	SETYFLJ2	** VSAM/VISAM EODAD ENTRY
		*			OCCURRED.
	00000004	SETEODM	EQU	X'04'	**
	88 00239	SETYXPS	EQU	SETYFLJ2	** RELAY OF
		*			CHANGE-PRINTSPACE REQUEST
	00000002	SETYXPSM	EQU	X'02'	** BY OPERATOR FROM
		*			CZAWU/ATT ALERT
	88 00239	SETYINI	EQU	SETYFLJ2	** CZAWY HAS PERFORMED
		*			FIRST-PASS
	00000001	SETYINIM	EQU	X'01'	** INITIALIZATION FOR
		*			THIS JOB.
88 0023A		SETYFLJ3	DS	X	** OUTPUT JOB FLAG BYTE 3
	88 0023A	SETTOP	EQU	SETYFLJ3	** JOB TO BE STOPPED BY
		*			SETL TYPE E
	00000080	SETTOPM	EQU	X'80'	** TO END OF OUTPUT
		*			DATA SET.
	88 0023A	SETSCF	EQU	SETYFLJ3	SOFT CANCEL OPTION
	00000040	SETSCFM	EQU	X'40'	SOFT CANCEL OPTION MASK
	88 0023A	SETNLK	EQU	SETYFLJ3	1=CZAWN ADDED 1 TO BCTNSR
	00000020	SETNLKM	EQU	X'20'	0=CZAWN DID NOT ADD 1 TO
		*			BCTNSR
	88 0023A	SETNSTW	EQU	SETYFLJ3	1=FINISH WITH NO STOW
	00000010	SETNSTWM	EQU	X'10'	0=ISSUE FINISH AND A STOW
	88 0023A	SETSPLT	EQU	SETYFLJ3	FLAG WHICH INDICATES THAT
		*			AN
	00000008	SETSPLTM	EQU	X'08'	ACK IS GREATER THAN 137
		*			BYTES
88 0023B		SETPRS	DS	C	** PRINTER SPACE OPTION
	000000C5	SETYEDIT	EQU	C'E'	** EDIT REQUESTED
88 0023C		SETYPAG	DS	C	** P FOR PAGE NUMBERING
		*			REQUIRED
	000000D7	SETYPAGM	EQU	C'P'	**
88 0023D		SETYHDG	DS	C	** H FOR PAGE HEADINGS
		*			REQUIRED
	000000C8	SETYHDGM	EQU	C'H'	**
88 00240		SETYRC	DS	A	** LAST RETURN CODE
		*			RECEIVED
88 00244		SETYRS1	DS	F	** RESERVED AREA
88 00248		SETYRS2	DS	F	** RESERVED AREA
88 0024C		SETYHDR	DS	CL132	** USER'S PAGE HEADING
		*			LINE

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
88 002D0		SETYPGE	DS	PL5	** CURRENT PAGE NUMBER
	88 002D4	SETYPGEB	EQU	SETYPGE+L*	SETYPGE-1 ** LAST BYTE OF SETYPGE
		*			** POINTER TO OUTPUT RECORD
88 002D8		SETYOUTP	DS	A	** POINTER TO INPUT RECORD
		*			** POINTER TO INPUT RECORD
88 002DC		SETYINP	DS	A	** RELATIVE START BYTE
		*			** RELATIVE END BYTE
88 002E0		SETBIG	DS	F	** MAXIMUM LINES PER PAGE
88 002E4		SETEND	DS	F	** STANDARD NUMBER OF LINES BUMPED
88 002E8		SETYLNS	DS	H	** AFTER ONE PRINT
88 002EA		SETYUPL	DS	H	** CURRENT LINE NUMBER ON PAGE
		*			** LOGICAL RECORD LENGTH FOR FIXED LENGTH RECORDS
88 002EC		SETYLINE	DS	H	** SERVES TO ALIGN SETYMASK
		*			** MASK FOR PR/PU ASA/MACHINE EDIT
88 002F0		SETYLRE	DS	F	** PRINT WITH MACHINE EDIT
		*			** PRINT WITH ASA EDIT
88 002F4		SETYMSKA	DS	A	** PUNCH WITH MACHINE EDIT
	88 002F7	ORG		SETYMSKA+3	** PUNCH WITH ASA EDIT
		*			** STANDARD CONTROL CHARACTER
88 002F7		SETYMASK	DS	X	** JOB COMPLETION CODE
		*			** NORMAL JOB COMPLETION
	00000008	SETYPRMC	EQU	X'08'	** ABNORMAL JOB TERMINATION
		*			** SOFT CANCEL CODE FOR VSEND TO BM
	00000004	SETYPRAS	EQU	X'04'	** COMPLETION CODE FOR EOJ MESSAGE
	00000002	SETYPUMC	EQU	X'02'	** CONTINUATION ADDRESS FROM ERROR
		*			** SETNOW AT TIME OF ERROR
	00000001	SETYPUAS	EQU	X'01'	** RETURN ADDRESS FROM WYXPUT
88 002F8		SETYCC	DS	X	** RETURN ADDR FROM WYTRAILR
		*			** COUNT OF TRIPLE SPACES OR BREAK
88 002F9		SETYCODE	DS	X	** LINES REMAINING
	00000000	SETYCODN	EQU	X'00'	** COUNT OF SHORT RECORDS
	00000002	SETYCODA	EQU	X'02'	** COUNT OF RECORDS WITH BAD CC'S
		*			** BOTTOM OF JOB DEPENDENT AREA
	00000004	SETYCODS	EQU	X'04'	** LENGTH OF JOB DEPENDENT AREA
88 002FA		SETYJCD	DS	X	** DEVICE FLAG
		*			** TYPE OF DEVICE - 0=PUNCH 1=PRINTER
88 002FC		SETYCONT	DS	A	** CARD PUNCH OR PRINTER FORM NUMBER
		*			** USED BY MSAM SETUR MACRO. SDA OF CARD READER THAT CAN BE COM-BINED BY MSAM WITH THIS CARD PUNCH
88 00300		SETYNOWS	DS	F	** TRAILER CONTROL
		*			
88 00304		SETYXPUT	DS	A	
		*			
88 00308		SETYXTRL	DS	A	
		*			
88 0030C		SETYTRCT	DS	H	
		*			
88 0030E		SETYSHRT	DS	H	
88 00310		SETYBADC	DS	H	
		*			
	88 00312	SETYBOT	EQU	*	
		*			
	000000DA	SETYLENG	EQU	SETYBOT-SETYTOP	** LENGTH OF JOB DEPENDENT AREA
		*			
88 00312		SETYFLGD	DS	X	
	88 00312	SETYPOP	EQU	SETYFLGD	** TYPE OF DEVICE - 0=PUNCH 1=PRINTER
	00000080	SETYPOPM	EQU	X'80'	** CARD PUNCH OR PRINTER FORM NUMBER
88 00313		SETFRM	DS	CL10	** USED BY MSAM SETUR MACRO. SDA OF CARD READER THAT CAN BE COM-BINED BY MSAM WITH THIS CARD PUNCH
		*			** TRAILER CONTROL
		*			
88 0031E		SETCMB	DS	H	
		*			
		*			
		*			
88 00320		SETYTRCC	DS	0XL3	

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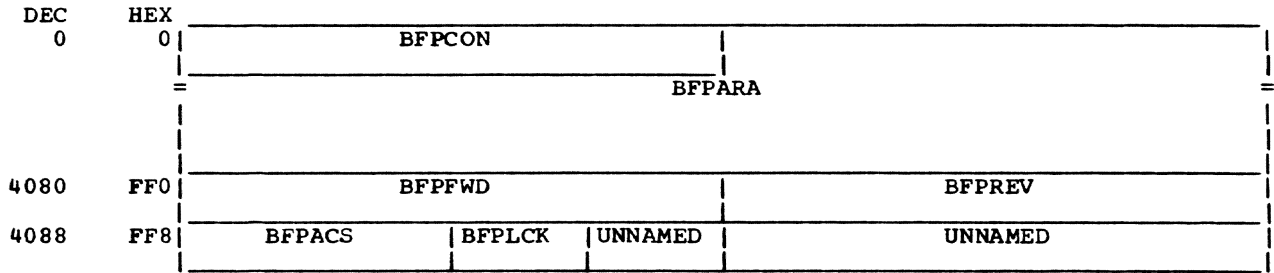
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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			CHARACTERS
88 00320		SETYSKP1	DS	X	* SKIP TO CHANNEL 1
88 00321		SETYSPC1	DS	X	* SINGLE SPACE
88 00322		SETYSPC3	DS	X	* TRIPLE SPACE
88 00323		SETFLA	DS	XL1	FLAG BYTE TEN
		*			N412.2
	88 00323	SETHLD	EQU	SETFLA	HOLD OUTPUT REQUEST
		*			N412.2
	00000080	SETHLDM	EQU	X'80'	N412.2
88 00324		SETFLB	DS	XL1	FLAG BYTE ELEVEN
		*			N412.2
	88 00324	SETJOB	EQU	SETFLB	BSN OUTPUT REQUEST
		*			N412.2
	00000080	SETJOBM	EQU	X'80'	N412.2
88 00324		SETOID	EQU	SETFLB	USERID OUTPUT REQUEST
		*			N412.2
	00000040	SETOIDM	EQU	X'40'	N412.2
88 00324		SETPR	EQU	SETFLB	REQUEST FOR PRINTER OUTPUT
		*			N412.2
	00000008	SETPRM	EQU	X'08'	N412.2
88 00324		SETPU	EQU	SETFLB	REQUEST FOR PUNCH OUTPUT
		*			N412.2
	00000004	SETPUM	EQU	X'04'	N412.2
88 00325		SETOUI	DS	CL8	USERID REQUESTED FOR OUTPUT
		*			N412.
				2	
88 0032D		SETOBS	DS	CL4	BSN REQUESTED FOR OUTPUT
		*			N412.2
88 00331		SETOCT	DS	XL1	OUTPUT REQ BWQ SEARCH COUNT
		*			N412.2
88 00332		SETRSV	DS	XL14	RESERVED
		*			N412.2
	0000001D	SETOUTL	EQU	*-SETFLA	LENGTH OF OUTPUT PARAMS
		*			N412.2
88 00340		SETLST	DS	0X	END OF S-ENTRY
		*			M03481
	00000340	SETLEN	EQU	SETLST-CHASET	LENGTH OF AN S-ENTRY
		*			M03481
88 00340				<u>ORG</u>	

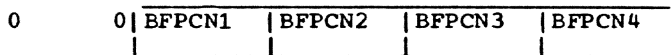
Buffer Page (CHABFP)

The Buffer Page defines one page of virtual storage containing buffer slots for the RTAM program. CHABFP is pointed to by the CHAMTS control block; it is initially located in segment one of real core.

CHABFP Storage map



ORG BFP CON



Fields in CHABFP -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	BFPCN1	0003	0003	BFPCN4	4088	0FF8	BFPACS
0000	0000	BFP CON	0004	0004	BFPARA	4090	0FFA	BFPLCK
0001	0001	BFPCN2	4080	0FF0	BFPFWD			
0002	0002	BFPCN3	4084	0FF4	BFPREV			

Alphabetical list of fields in CHABFP

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
BFPACS	4088	0FF8	BFPCN3	0002	0002	BFPLCK	4090	0FFA
BFPARA	0004	0004	BFPCN4	0003	0003	BFPREV	4084	0FF4
BFPCN1	0000	0000	BFP CON	0000	0000			
BFPCN2	0001	0001	BFPFWD	4080	0FF0			

Assembler listing of CHABFP

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	0B 00000	CHABFP	DSECT		
0B 00000		BFP CON	DS	F	CONTROL INFORMATION
0B 00000	0B 00000		ORG	BFP CON	
0B 00000		BFPCN1	DS	X	CONTROL BYTE 1
	00000080	BFPACT	EQU	X'80'	ACTIVE BIT
0B 00001		BFPCN2	DS	X	CONTROL BYTE 2
0B 00002		BFPCN3	DS	X	CONTROL BYTE 3
0B 00003		BFPCN4	DS	X	CONTROL BYTE 4
	00000004	BFPCNL	EQU	4	LENGTH OF CONTROL AREA
0B 00004		BFPARA	DS	1019F	MAX BUFFER SIZE
	00000FF0	BFPLGH	EQU	*-BFP CON	BUFFER AREA
0B 00FF0		BFPFWD	DS	F	FORWARD POINTER
0B 00FF4		BFPREV	DS	F	REVERSE POINTER
0B 00FF8		BFPACS	DS	H	NUMBER OF ACTIVE SLOTS
0B 00FFA		BFPLCK	DS	X	LOCK BYTE
0B 00FFB			DS	X	NOT USED
0B 00FFC			DS	F	NOT USED

Builtin Procedure Key (CHABPK)

The Builtin Procedure Key (CHABPK) is a communication area for parameters passed from the command controller to a builtin procedure. The BUILTIN command, defining the builtin procedure, specifies the origin of CHABPK. CHABPK resides in virtual storage aligned on word boundaries.

CHABPK Storage map

DEC	HEX		
0	0	BPKENT	BPKPS
8	8	BPKNO	BPKPAR
16	10	BPKSNO	

Fields in CHABPK -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	BPKENT	0008	0008	BPKNO	0016	0010	BPKSNO
0004	0004	BPKPS	0012	000C	BPKSPTR (EQU)	0020	0014	BPKSPAR
0008	0008	BPKID (EQU)	0012	000C	BPKPAR			

Alphabetical list of fields in CHABPK

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
BPKENT	0000	0000	BPKPAR	0012	000C	BPKSPAR	0020	0014
BPKID	0008	0008 (EQU)	BPKPS	0004	0004	BPKSPTR	0012	000C (EQU)
BPKNO	0008	0008	BPKSNO	0016	0010			

Assembler listing of CHABPK

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
*****					
				NSRB 441	
* THIS DSECT IS USED TO COVER THE EXPANSION OF THE BPKD MACRO *					
*****					
	0C 00000	CHABPK	DSECT		
0C 00000		BPKENT	DS	A	ENTRY POINT OF MODULE TO BE CALLED
0C 00004		BPKPS	DS	A	PSECT ADDR OF MODULE TO BE CALLED
0C 00008		BPKNO	DS	F	NO OF PARAMETERS FOR MODULE WITH ORIGINAL BPK
	0C 00008	BPKID	EQU	BPKNO	ID FOR BPK WITH SUBPARAMETERS
0C 0000C		BPKPAR	DS	A	PLIST FOR ORIGINAL BPK
	0C 0000C	BPKSPTR	EQU	BPKPAR	POINTER TO EXTENDED ELIST
0C 00010		BPKSNO	DS	F	NUMBER OF PARAMETERS FOR MODULE WITH EXTENDED BPK
0C 00014		BPKSPAR	DS	0F	PLIST FOR EXTENDED BPK

Buffer Page List (CHABPL)

The Buffer Page List (BPL) describes the location and status of all buffers in a buffer pool. The BPL is located at the beginning of the buffer pool and is created by the GETBUF routine the first time a buffer is requested from the pool.

The BPL contains a doubleword header and a double word entry for each buffer in the pool, and occupies 16 bytes of virtual storage, aligned on doubleword boundaries.

CHABPL Storage map

DEC	HEX		
0	0	BPLRS1	BPLNPG   BPLRS2   BPLNBF
8	8	BPLADD	BPLUSE

Fields in CHABPL -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	BPLRS1	0006	0006	BPLRS2	0008	0008	BPLADD
0004	0004	BPLNPG	0007	0007	BPLNBF	0012	000C	BPLUSE

Alphabetical list of fields in CHABPL

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
BPLADD	0008	0008	BPLNPG	0004	0004	BPLRS2	0006	0006
BPLNBF	0007	0007	BPLRS1	0000	0000	BPLUSE	0012	000C

Assembler listing of CHABPL

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	0D 00000	CHABPL	DSECT		
0D 00000			DS	0D	
0D 00000		BPLRS1	DS	F	RESERVED
0D 00004		BPLNPG	DS	H	NUMBER OF PAGES IN POOL
0D 00006		BPLRS2	DS	X	RESERVED
0D 00007		BPLNBF	DS	X	NUMBER OF UNUSED BUFFERS IN TBL
0D 00008		BPLADD	DS	F	BUFFER ADDR
0D 0000C		BPLUSE	DS	XL4	BUFFER IN USE FLAG
	000000FF	BPLUSM	EQU	X'FF'	MASK FOR IN USE FLAG

BULKIO Performance Table (CHABPT)

CHABPT is a table of entries for each type of device which may be assigned to BULKIO. Values in each entry represent the approximate time it takes to fill or empty the specified number of buffers for the device being described.

For each device assigned to BULKIO, this table will be used to select the appropriate base time value. Base time values will then be used by BULKIO in order to ensure that BULKIO will never cycle faster than the base time of the fastest active device assigned to it.

CHABPT Storage map

DEC	HEX				
0	0	BPTCNT	BPTTYP	BPTSIN	BPTDOU
8	8	BPTTRI	BPTQUA	BPTQUI	

Fields in CHABPT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	BPTCNT	0006	0006	BPTDOU	0012	000C	BPTQUI
0002	0002	BPTTYP	0008	0008	BPTTRI			
0004	0004	BPTSIN	0010	000A	BPTQUA			

Alphabetical list of fields in CHABPT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
BPTCNT	0000	0000	BPTQUI	0012	000C	BPTTYP	0002	0002
BPTDOU	0006	0006	BPTSIN	0004	0004			
BPTQUA	0010	000A	BPTTRI	0008	0008			

Assembler listing of CHABPT

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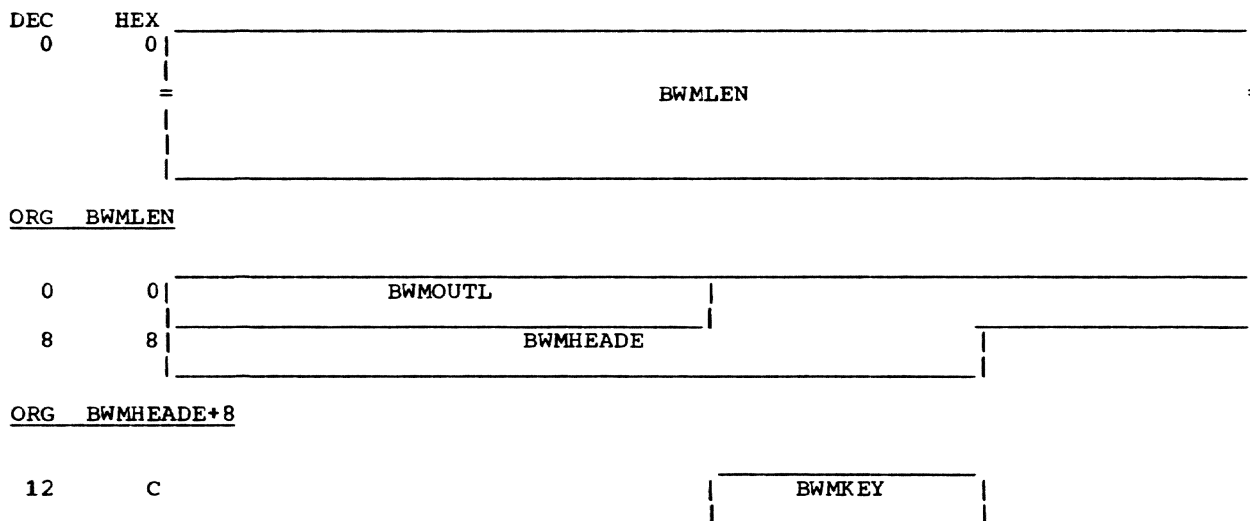
LOCATION INSTRUCTION SOURCE INST OPER COMMENT
      0E 00000          CHABPT  DSECT          BULKIO PERFORMANCE TABLE
      *                                     N319.37
*****
* CODE BELOW FOR BIO DYNAMIC BASE TIME INTERVAL - NSRB 319.37 *
* CHABPT--DSECT FOR CHBBP: BULKIO PERFORMANCE TABLE *
* A TABLE OF ENTRIES FOR EACH TYPE OF DEVICE WHICH MAY BE ASSIGNED TO *
* BULKIO. VALUES IN EACH ENTRY REPRESENT THE APPROXIMATE TIME IT *
* TAKES TO FILL OR EMPTY THE SPECIFIED NUMBER OF BUFFERS FOR THE *
* DEVICE IN QUESTION. FOR EACH DEVICE ASSIGNED TO BULKIO, THIS TABLE *
* WILL BE USED TO SELECT THE APPROPRIATE BASE TIME VALUE. BASE TIME *
* VALUES WILL THEN BE USED BY BULKIO IN ORDER TO INSURE THAT BULKIO *
* WILL NEVER CYCLE FASTER THAN THE BASE TIME OF THE FASTEST ACTIVE *
* DEVICE ASSIGNED TO IT. *
*****
0E 00000          BPTCNT  DS    H          DEVICE ENTRY COUNT
0E 00002          BPTTYP  DS    XL2        DEVICE CODE(LAST 2 BYTES OF
      *                                     SDADEV)
0E 00004          BPTSIN  DS    H          BASE TIME-SINGLE BUFFERED
0E 00006          BPTDOU  DS    H          BASE TIME-DOUBLE BUFFERED
0E 00008          BPTTRI  DS    H          BASE TIME-TRIPLE BUFFERED
0E 0000A          BPTQUA  DS    H          BASE TIME-QUADRUPLE
      *                                     BUFFERED
0E 0000C          BPTQUI  DS    H          BASE TIME-QUINTUPLE
      *                                     BUFFERED
      0000000C      BPTLEN  EQU   *-BPTTYP  LENGTH OF DEVICE ENTRY
      00000005      BPTHI   EQU   5          NUMBER OF BUFFER TIME
      *                                     ENTRIES
      *                                     PER DEVICE ENTRY

```

BULKIO Message DSECT (CHABWM)

CHABWM maintains a standard for all messages output by the BULKIO message modules: CZAWM and CZAWN. CZAWN uses MSAM PUT to write the messages to an RJE station, and so must limit the message length to 132 bytes. If the specified message is greater than 132 bytes, CZAWN references CHABWM at two points, for separate 132-byte message pieces, and uses MSAM PUT twice to write the total message in two parts. CHABWM is 256 bytes in length.

CHABWM Storage map



Fields in CHABWM -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	BWMOUTL	0009	0009	BWMBIOID (EQU)	0136	0088	BWMSPLIT (EQU)
0000	0000	BWMLEN	0012	000C	BWMKEY			
0004	0004	BWMHEADE	0014	000E	BWMOUT (EQU)			

Alphabetical list of fields in CHABWM

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
BWMBIOID	0009	0009 (EQU)	BWMLEN	0000	0000	BWMSPLIT	0136	0088 (EQU)
BWMHEADE	0004	0004	BWMOUT	0014	000E (EQU)			
BWMKEY	0012	000C	BWMOUTL	0000	0000			

Assembler listing of CHABWM

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
0F 00000	0F 00000	CHABWM	DSECT		BULKIO MESSAGE DSECT
0F 00000	0F 00000	BWMLEN	DS	CL256	MAXIMUM SIZE FOR WRITE
0F 00000	0F 00000	BWMOUTL	DS	A	LENGTH OF MESSAGE
0F 00004	0F 00004	BWMHEADE	DS	CL10	NON DATA PORTION OF MESSAGE
0F 0000C	0F 0000C	BWMKEY	DS	H	MESSAGE KEY
0F 0000E	0F 0000E	BWMOUT	EQU	*	
0F 00088	0F 00088		ORG		BWMHEADE+132
0F 00088	0F 00088	BWMSPLIT	EQU	*	
0F 00100	0F 00100		ORG		
0F 00009	0F 00009	BWMBIOID	EQU		BWMHEADE+5 BULKIO MODULE ID
00000002	00000002	BWMKEYL	EQU		L'BWMKEY KEYLENGTH
0000000C	0000000C	BWMKEYP	EQU		(BWMKEY-BWMOUTL) KEY POSITION
00000100	00000100	BWMLRECL	EQU		L'BWMLEN LOGICAL RECORD LENGTH
0000000A	0000000A	BWMHEDLE	EQU		L'BWMHEADE HEADER LENGTH

Batch Work Queue (CHABWQ)

The Batch Work Queue (BWQ) stores requests for nonconversational tasks until they can be initiated. The BWQ also maintains a record of active nonconversational tasks. BWQ occupies 200 bytes of virtual storage, aligned on doubleword boundaries.

CHABWQ Storage map

DEC	HEX	Field
0	0	BWQTID   BWQAC   BWQST   BWQSYS
32	20	RESERVED
40	28	BWQUID
48	30	BWQBSN   BWQPWD
56	38	BWQPWD (CONT)   BWQCHG
64	40	BWQCHG (CONT)   BWQSTA
72	48	BWQSTA (CONT)   BWQDV1
80	50	BWQDV2   BWQPFL
		BWQPAR

ORG \*-4

76	4C	BWQDEA   BWQDEB   BWQDEC   BWQDED
----	----	-----------------------------------

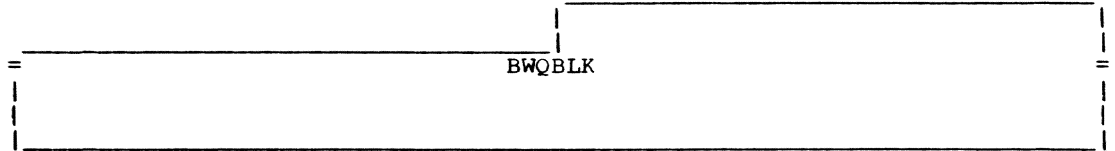
ORG BWQPAR

85	55	BWQDSN
120	78	BWQBYT   BWQBBT
128	80	BWQSPC   BWQH   BWQLNS
136	88	BWQLNS   BWQP   BWQERS   BWQERR
144	90	BWQERR (CONT)   BWQFRM
152	98	BWQFRM (CONT)   BWQTPT

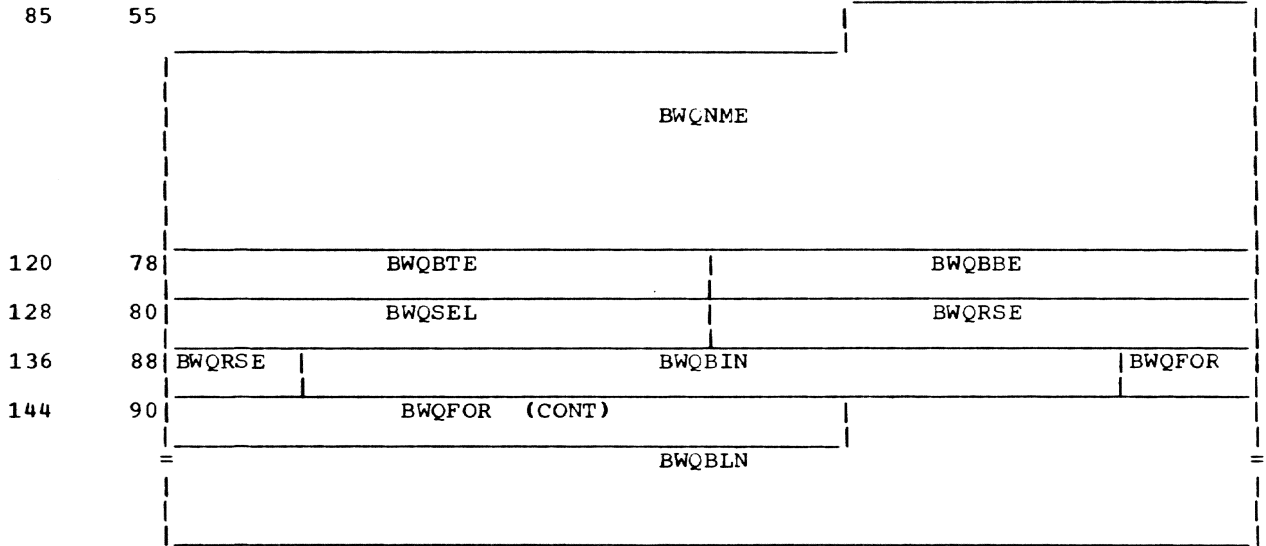
(CHABWQ continued on page 43)



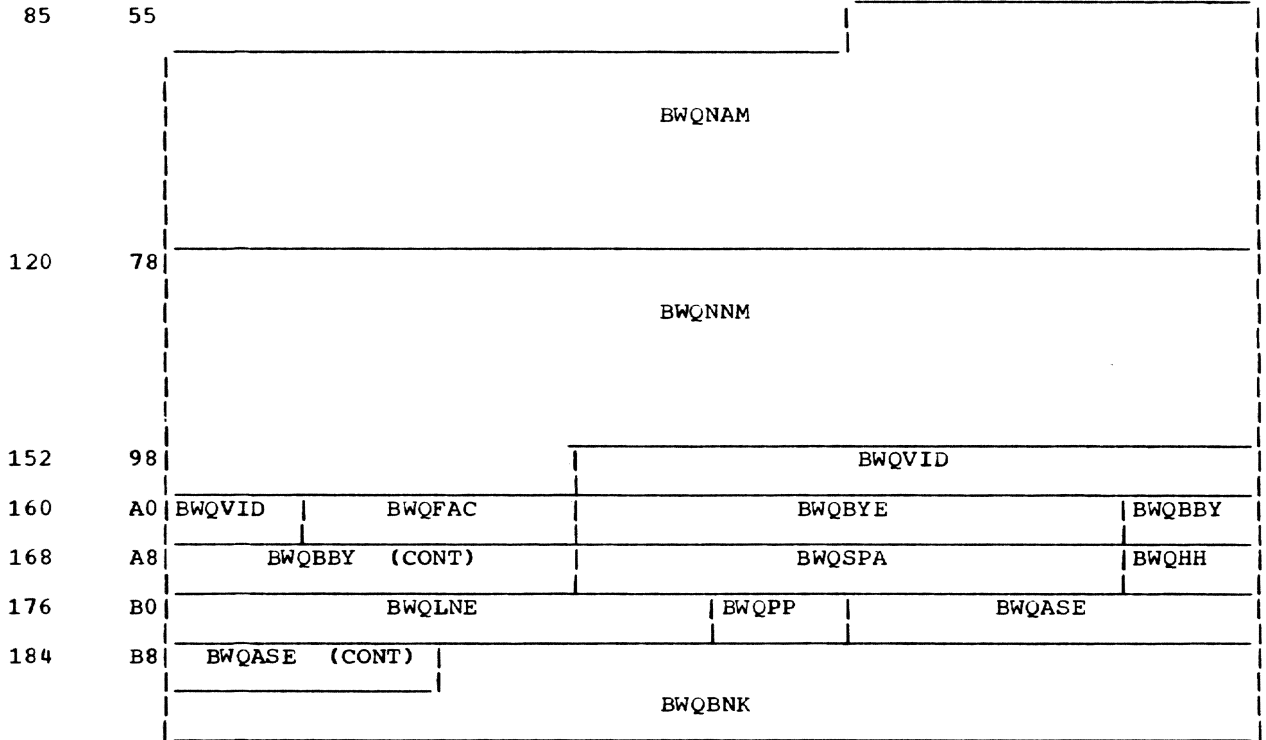
DEC HEX



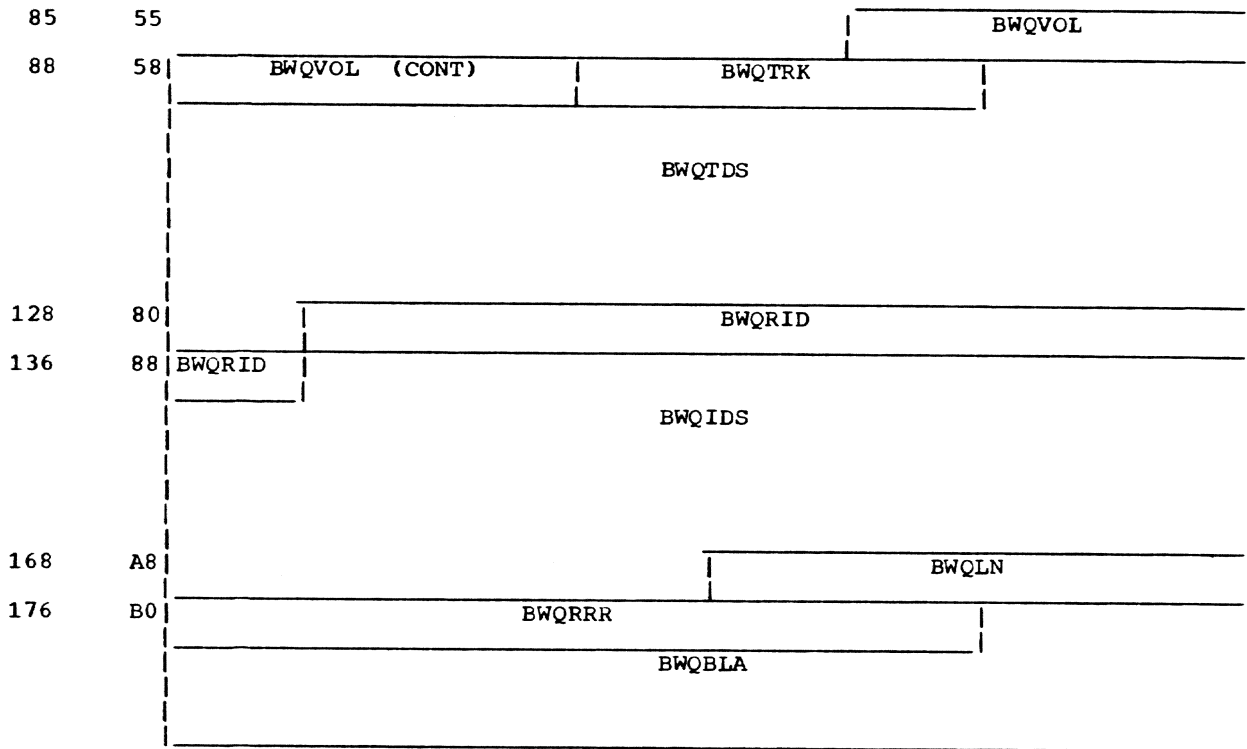
ORG BWQPAR



ORG BWQPAR



DEC    HEX  
 ORG    BWQPAR



Fields in CHABWQ -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	BWQTID	0085	0055	BWQDSN	0143	008F	BWQFOR
0002	0002	BWQAC	0085	0055	BWQPAR	0143	008F	BWQERR
0003	0003	BWQST	0091	005B	BWQTRK	0149	0095	BWQBLN
0004	0004	BWQSYS	0094	005E	BWQTDS	0149	0095	BWQFRM
0040	0028	BWQUID	0120	0078	BWQNNM	0155	009B	BWQVID
0048	0030	BWQBSN	0120	0078	BWQBTE	0155	009B	BWQTPT
0052	0034	BWQPWD	0120	0078	BWQBYT	0156	009C	BWQBLK
0060	003C	BWQCHG	0124	007C	BWQBEE	0161	00A1	BWQFAC
0068	0044	BWQSTA	0124	007C	BWQBBT	0163	00A3	BWQBYE
0076	004C	BWQDEA	0128	0080	BWQSEL	0167	00A7	BWQBYY
0076	004C	BWQDV1	0128	0080	BWQSPC	0171	00AB	BWQSPA
0077	004D	BWQDEB	0129	0081	BWQRID	0172	00AC	BWQLN
0078	004E	BWQDEC	0132	0084	BWQRSE	0175	00AF	BWQHH
0079	004F	BWQDED	0132	0084	BWQH	0176	00B0	BWQRRR
0080	0050	BWQDV2	0133	0085	BWQLNS	0176	00B0	BWQLNE
0084	0054	BWQPFL	0137	0089	BWQIDS	0180	00B4	BWQPP
0085	0055	BWQVOL	0137	0089	BWQBIN	0181	00B5	BWQASE
0085	0055	BWQNAM	0137	0089	BWQP	0182	00B6	BWQBLA
0085	0055	BWQNME	0138	008A	BWQERS	0186	00BA	BWQBKN

Alphabetical list of fields in CHABWQ

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
BWQAC	0002	0002	BWQBKN	0186	00BA	BWQDED	0079	004F
BWQASE	0181	00B5	BWQBSN	0048	0030	BWQDSN	0085	0055
BWQBEE	0124	007C	BWQBTE	0120	0078	BWQDV1	0076	004C
BWQBBT	0124	007C	BWQBYE	0163	00A3	BWQDV2	0080	0050
BWQBYY	0167	00A7	BWQBYT	0120	0078	BWQERR	0143	008F
BWQBIN	0137	0089	BWQCHG	0060	003C	BWQERS	0138	008A
BWQBLA	0182	00B6	BWQDEA	0076	004C	BWQFAC	0161	00A1
BWQBLK	0156	009C	BWQDEB	0077	004D	BWQFOR	0143	008F
BWQBLN	0149	0095	BWQDEC	0078	004E	BWQFRM	0149	0095

(Continued on page 45)

(Continued from page 44)

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
BWQH	0132	0084	BWQPAR	0085	0055	BWQST	0003	0003
BWQHH	0175	00AF	BWQPF	0084	0054	BWQSTA	0068	0044
BWQIDS	0137	0089	BWQPP	0180	00B4	BWQSYS	0004	0004
BWQLN	0172	00AC	BWQPWD	0052	0034	BWQTDS	0094	005E
BWQLNE	0176	00B0	BWQRID	0129	0081	BWQTID	0000	0000
BWQLNS	0133	0085	BWQRRR	0176	00B0	BWQTPT	0155	009B
BWQNAM	0085	0055	BWQRSE	0132	0084	BWQTRK	0091	005B
BWQNME	0085	0055	BWQSEL	0128	0080	BWQUID	0040	0028
BWQNNM	0120	0078	BWQSPA	0171	00AB	BWQVID	0155	009B
BWQP	0137	0089	BWQSPC	0128	0080	BWQVOL	0085	0055

Assembler listing of CHABWQ

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	10 00000	CHABWQ	DSECT		BATCH WORK QUEUE
10 00000		*	DS	0D	ALIGN TO DOUBLE WORD BOUNDARY
10 00000		BWQTID	DS	XL2	TASK ID (BINARY)
10 00002		BWQAC	DS	XL1	ACTIVITY FLAG (BINARY)
	00000080	BWQAC1	EQU	X'80'	EXECUTE TASK
	00000040	BWQAC2	EQU	X'40'	LIST TASK
	00000020	BWQAC3	EQU	X'20'	BATCH TASK
	00000010	BWQAC4	EQU	X'10'	CARD TASK
	00000008	BWQAC5	EQU	X'08'	RTAPE TASK
	00000004	BWQAC6	EQU	X'04'	TAPE TASK
	00000002	BWQAC7	EQU	X'02'	TASK INITIATION
		*			REQUEST FROM BATCH
10 00003		BWQST	DS	XL1	STATUS FLAG (BINARY)
	00000080	BWQST1	EQU	X'80'	IN-SERVICE FLAG
	00000040	BWQST2	EQU	X'40'	CANCELLED FLAG
	00000020	BWQST3	EQU	X'20'	CANCELLED DUE TO SHUT-DOWN
		*			
	00000010	BWQST4	EQU	X'10'	ERASE REQUESTED
10 00004		BWQSYS	DS	CL35	SYSIN DATA SET NAME (EBCDIC)
		*			
10 00028			DS	0F	ALIGN TO FULL WORD BOUNDARY
		*			
10 00028		BWQUID	DS	CL8	USER ID (EBCDIC)
10 00030		BWQBSN	DS	CL4	BATCH SEQUENCE NUMBER (EBCDIC) (USED AS DATA KEY)
		*			
		*			
10 00034		BWQPWD	DS	CL8	PASSWORD (EBCDIC)
10 0003C		BWQCHG	DS	CL8	CHARGE NUMBER (EBCDIC)
10 00044		BWQSTA	DS	CL8	RJE STATION ID
10 0004C		BWQDV1	DS	XL4	DEVICE CODE FIELD FOR FIRST UNIT RECORD DEVICE OR PRIVATE VOLUME FOR BULKIO TASK (BINARY). (SEE SDADEV IN 2.4.38.)
		*			
		*			
		*			
		*			
	10 0004C		ORG	--4	SUBFIELD ALIGNMENT
10 0004C		BWQDEA	DS	XL1	MODEL CODE
	00000001	BWQMCA	EQU	X'01'	1050 TERMINAL SYSTEM MASK-TAM
		*			
	00000002	BWQMCA	EQU	X'02'	2741 TERMINAL MASK-TAM
	00000003	BWQMCC	EQU	X'03'	MOD 35 TTY MASK-TAM
	00000004	BWQMCD	EQU	X'04'	1052-MOD 7 TERMINAL MASK-TAM
		*			
	00000000	BWQANT	EQU	X'00'	MODEL NOT A TERMINAL
10 0004D		BWQDEB	DS	XL1	DEVICE CLASS
	00000001	BWQDCA	EQU	X'01'	DIAL LINE MASK-TAM
	00000002	BWQDCB	EQU	X'02'	DEDICATED LINE MASK-TAM
	00000004	BWQDCD	EQU	X'04'	AUTOMATIC CALL FEATURE-TAM
	00000008	BWQDBUR	EQU	X'08'	DEVICE CLASS UNIT RECORD
	00000020	BWQDBDA	EQU	X'20'	DEVICE CLASS DIRECT ACCESS
	00000080	BWQBMT	EQU	X'80'	DEVICE CLASS MAGNETIC TAPE
10 0004E		BWQDEC	DS	XL1	UNIT TYPE
	00000010	BWQUT1	EQU	X'10'	IBM TERMINAL CONTROL TYPE 1
	00000020	BWQUT2	EQU	X'20'	IBM TERMINAL CONTROL TYPE 2

(Listing of CHABWQ continued on page 46)

(Listing of CHABWQ continued from page 45)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000030	BWQUT3	EQU	X'30'	TELEGRAPH CONTROL TYPE 1
	00000040	BWQUT4	EQU	X'40'	TELEGRAPH CONTROL TYPE 2
	00000080	BWQUT5	EQU	X'80'	WORLD TRADE TERMINAL CONTROL
	00000001	BWQUTA	EQU	X'01'	2702 TRANSMISSION CONTROL-TAM
	00000002	BWQUTB	EQU	X'02'	2701 ON MULTIPLEXOR CHANNEL-TAM
	00000003	BWQUTC	EQU	X'03'	MULTIPLEXOR CHANNEL-TAM(1052-7)
	00000004	BWQUTD	EQU	X'04'	SELECTOR CHANNEL MASK(TAM 1052-7)
	00000005	BWQUTE	EQU	X'05'	2701 ON SELECTOR CHANNEL
	00000001	BWQCRD	EQU	X'01'	2540 CARD READER
	00000002	BWQCPN	EQU	X'02'	2540 CARD PUNCH
	00000008	BWQCPT	EQU	X'08'	1403 PRINTER
	00000010	BWQPPT	EQU	X'10'	2671 PPT READER
	00000001	BWQDA11	EQU	X'01'	2311 D/A
	00000002	BWQDA01	EQU	X'02'	2301 D/A
	00000003	BWQDA21	EQU	X'03'	2321 D/A
	00000008	BWQDA14	EQU	X'08'	2314 D/A
	00000001	BWQTAPE	EQU	X'01'	2400 SERIES
10 0004F		BWQDED	DS	XL1	OPTIONAL FEATURES
	00000010	BWQOFA	EQU	X'10'	IBM LINE ADAPTER TYPE 1-TAM
	00000020	BWQOFB	EQU	X'20'	IBM LINE ADAPTER TYPE 2-TAM
	00000030	BWQOFC	EQU	X'30'	DATA SET LINE ADAPTER-TAM
	00000040	BWQOFD	EQU	X'40'	AUTOMATIC CALL ADAPTER-TAM
	00000050	BWQOFE	EQU	X'50'	TELEGRAPH LINE ADAPTER-TAM
	00000000	BWQOF1	EQU	X'00'	SAD ZERO MASK-TAM
	00000001	BWQOF2	EQU	X'01'	SAD ONE MASK-TAM
	00000002	BWQOF3	EQU	X'02'	SAD TWO MASK-TAM
	00000003	BWQOF4	EQU	X'03'	SAD THREE MASK-TAM
	00000040	BWQPFR	EQU	X'40'	PUNCH FEED READ
	00000080	BWQOCI	EQU	X'80'	CARD IMAGE
	00000080	BWQDUC	EQU	X'80'	UNIVERSAL CHAR SET(PTR)
	00000080	BWQSCN	EQU	X'80'	SCAN-D/A
	00000040	BWQTRV	EQU	X'40'	TRACK OVERFLOW-D/A
	000000B0	BWQSTO	EQU	X'B0'	SCAN AND TRACK OVERFLOW-D/A
	000000E0	BWQTPW	EQU	X'E0'	7 TRACK WITH DATA CONVERSION
	000000A0	BWQTPN	EQU	X'A0'	7 TRACK WITHOUT DATA CONVERSION
	000000C0	BWQTR9	EQU	X'C0'	9 TRACK TAPE
10 00050	00000080	BWQTP9	EQU	X'80'	9 TRACK TAPE
		BWQDV2	DS	XL4	DEVICE CODE FIELD FOR SECOND UNIT RECORD DEVICE OR PRIVATE VOLUME FOR BULKIO TASK (BINARY - ZERO IF NOT REQUIRED).
		*			(SEE SDADEV IN 2.4.38.)
10 00054		BWQPFL	DS	XL1	FLAG INDICATING WHICH DEVICES ARE USED BY THIS TASK.
10 00055		BWQPAR	DS	CL115	BULKIO PARAMETER LIST M3431
		*			THE FOLLOWING ENTRIES ARE INCLUDED ONLY FOR A LIST TASK.
10 00055	10 00055	BWQDSN	DS	CL35	DSNAME OF DATA SET TO BE PRINTED (EBCDIC)
10 00078		BWQBYT	DS	XL4	STARTING BYTE NUMBER (BINARY)
10 0007C		BWQBBT	DS	XL4	ENDING BYTE NUMBER (BINARY)
10 00080		BWQSPC	DS	CL4	PRINT SPACING PARAMETER (EBCDIC)
10 00084		BWQH	DS	CL1	HEADER PARAMETER (EBCDIC)

(Listing of CHABWQ continued on page 47)

(Listing of CHABWQ continued from page 46)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
10 00085		BWQLNS	DS	XL4	NUMBER OF LINES ON A PAGE (BINARY)
		*			
10 00089		BWQP	DS	CL1	PAGINATION PARAMETER (EBCDIC)
		*			
10 0008A		BWQERS	DS	CL5	ERASE PARAMETER (EBCDIC)
10 0008F		BWQERR	DS	CL6	ERROR OPTION (EBCDIC)
10 00095		BWQFRM	DS	CL6	PRINTER FORM (EBCDIC)
10 0009B		BWQTPT	DS	XL1	TAPE TYPE PRINT OPTION
	00000001	BWQAAC	EQU	X'01'	ASCII CHARACTER OPTION
	00000002	BWQAAD	EQU	X'02'	ASCII DUMP OPTION
	00000004	BWQAAE	EQU	X'04'	ASCII EDIT OPTION
	00000008	BWQADE	EQU	X'08'	EBCDIC DUMP OPTION
	00000000	BWQAEC	EQU	X'00'	DEFAULT-STANDARD TAPE PROCESSING
		*			
10 0009C		BWQBLK	DS	XL44	RESERVED
		*			M3431
		*			THE FOLLOWING ENTRIES ARE INCLUDED ONLY FOR A CARD TASK.
	10 00055		ORG	BWQPAR	
10 00055		BWQNME	DS	CL35	DSNAME OF DATA SET TO BE PUNCHED (EBCDIC)
		*			
10 00078		BWQBTE	DS	XL4	STARTING BYTE NUMBER (BINARY)
		*			
10 0007C		BWQBBE	DS	XL4	ENDING BYTE NUMBER (BINARY)
		*			
10 00080		BWQSEL	DS	CL4	POCKET SELECT PARAMETER (EBCDIC)
		*			
10 00084		BWQRSE	DS	CL5	ERASE PARAMETER (EBCDIC)
10 00089		BWQBIN	DS	CL6	PUNCH FORMAT (EBCDIC)
10 0008F		BWQFOR	DS	CL6	CARD FORM (EBCDIC)
10 00095		BWQBLN	DS	XL51	RESERVED
		*			M3431
		*			THE FOLLOWING ENTRIES ARE INCLUDED ONLY FOR TAPE TASK.
	10 00055		ORG	BWQPAR	
10 00055		BWQNAM	DS	CL35	DSNAME OF DATA SET TO BE WRITTEN ONTO TAPE (EBCDIC)
		*			
10 00078		BWQNNM	DS	CL35	TAPE DATA SET NAME (EBCDIC)
		*			
10 0009B		BWQVID	DS	CL6	TAPE VOLUME ID (EBCDIC)
10 000A1		BWQFAC	DS	XL2	BLOCKING FACTOR (BINARY)
10 000A3		BWQBYE	DS	XL4	STARTING BYTE NUMBER (BINARY)
		*			
10 000A7		BWQBBY	DS	XL4	ENDING BYTE NUMBER (BINARY)
		*			
10 000AB		BWQSPA	DS	CL4	SPACING PARAMETER (EBCDIC)
		*			
10 000AF		BWQHH	DS	CL1	HEADER OPTION (EBCDIC)
10 000B0		BWQLNE	DS	XL4	NUMBER OF LINES ON A PAGE (BINARY)
		*			
10 000B4		BWQPP	DS	CL1	PAGINATION OPTION (EBCDIC)
10 000B5		BWQASE	DS	CL5	ERASE PARAMETER (EBCDIC)
10 000BA		BWQBNK	DS	XL14	RESERVED
		*			M3431
		*			THE FOLLOWING ENTRIES ARE INCLUDED ONLY FOR A RTAPE TASK.
	10 00055		ORG	BWQPAR	
10 00055		BWQVOL	DS	CL6	TAPE VOLUME ID (EBCDIC)
10 0005B		BWQTRK	DS	CL3	TRACK PARAMETER

(Listing of CHABWQ continued on page 48)

(Listing of CHABWQ continued from page 47)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			(EBCDIC)
10 0005E		BWQTDS	DS	CL35	TAPE DATA SET NAME
		*			(EBCDIC)
10 00081		BWQRID	DS	CL8	USER I.D. OF OWNER OF
10 00089		BWQIDS	DS	CL35	NEW DATA SET NAME
		*			TAPE AND NEW DATA SET
		*			(EBCDIC)
10 000AC		BWQLN	DS	CL4	LINE NUMBER OPTION
		*			(EBCDIC)
10 000B0		BWQRRR	DS	CL6	ERROR OPTION (EBCDIC)
10 000B6		BWQBLA	DS	XL18	RESERVED
		*			M3431

Core Block Table (CHACBT) and Core Block Table Header (CHACBH)

The Core Block Table (CBT) contains information required for the allocation or release of core storage blocks. The CBT contains one entry for each core storage block (4096 bytes) in the system. Each entry describes the current status of the core storage block it represents (all entries are contiguous).

The Core Block Table Header (CBH) contains the parameters for addressing the Core Block Table. The Core Block Table Header entries immediately precede the CBT entries in storage.

The CBT and CBH are resident and are maintained by the User Core Allocation Queue Processor and User Core Release.

The CBT occupies 20 bytes of core storage per entry while the CBH consists of 25 bytes of core storage, both aligned on word boundaries.

CHACBT Storage map

DEC	HEX		
0	0	CBTFLK	CBTTPT
8	8	CBTVMA	CBTFLG   CBTFLG2   CBTFLG3   CBTFLG4
16	10	CBTRLK	

Fields in CHACBT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	CBTFLK	0012	000C	CBTPA	(EQU)	0013	000D	CBTRF (EQU)
0004	0004	CBTTPT	0012	000C	CBTOP	(EQU)	0013	000D	CBTSF (EQU)
0008	0008	CBTVMA	0012	000C	CBTRS	(EQU)	0013	000D	CBTFLG2
0012	000C	CBTXP3 (EQU)	0012	000C	CBTUS	(EQU)	0014	000E	CBTFLG3
0012	000C	CBTXP2 (EQU)	0012	000C	CBTAV	(EQU)	0015	000F	CBTFLG4
0012	000C	CBTXP1 (EQU)	0012	000C	CBTFLG		0016	0010	CBTRLK
0012	000C	CBTFLG1 (EQU)	0013	000D	CBTPST	(EQU)	0020	0014	CBTEND
0012	000C	CBTRE (EQU)	0013	000D	CBTAF	(EQU)			

Alphabetical list of fields in CHACBT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CBTAF	0013	000D (EQU)	CBTFLK	0000	0000	CBTSF	0013	000D (EQU)
CBTAV	0012	000C (EQU)	CBTOP	0012	000C (EQU)	CBTTPT	0004	0004
CBTEND	0020	0014	CBTPA	0012	000C (EQU)	CBTUS	0012	000C (EQU)
CBTFLG	0012	000C	CBTPST	0013	000D (EQU)	CBTVMA	0008	0008
CBTFLG1	0012	000C (EQU)	CBTRE	0012	000C (EQU)	CBTXP1	0012	000C (EQU)
CBTFLG2	0013	000D	CBTRF	0013	000D (EQU)	CBTXP2	0012	000C (EQU)
CBTFLG3	0014	000E	CBTRLK	0016	0010	CBTXP3	0012	000C (EQU)
CBTFLG4	0015	000F	CBTRS	0012	000C (EQU)			

Assembler listing of CHACBT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
12 00000	12 00000	CHACBT	DSECT		
12 00000			DS	OF	
12 00000		CBTFLK	DS	F	ENTRY - FORWARD LINK
12 00004		CBTTPT	DS	A	CONTAINS TSI POINTER IF
		*			PAGE IS PRIVATE I6698
		*			CONTAINS SPT # AND REL PAGE #
		*			IF SHARED PAGE I6698
12 00008		CBTVMA	DS	F	VIRTUAL MEMORY ADDRESS
12 0000C		CBTFLG	DS	X11	FLAGS
	12 0000C	CBTAV	EQU	CBTFLG	AVAILABILITY FLAG
	00000080	CBTAVM	EQU	X'80'	AVAILABILITY MASK 1=NOT AVAILABLE
	12 0000C	CBTUS	EQU	CBTFLG	USER/SUPERVISOR OWNED FLAG
	00000040	CBTUSM	EQU	X'40'	USER/SUPERVISOR OWNED MASK
	12 0000C	CBTRS	EQU	CBTFLG	ASSIGNED TO RESIDENT
		*			SUPERVISOR FLAG
	00000020	CBTRSM	EQU	X'20'	ASSIGNED TO RESIDENT
		*			SUPERVISOR MASK 1=NOT ASSIGNE

(Listing of CHACBT continued on page 50)

(Listing of CHACBT continued from page 49)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
				D	
12 0000C	CBTOP	EQU	CBTFLG	OPERATIONAL FLAG	
00000010	CBTOPM	EQU	X'10'	OPERATIONAL MASK	
12 0000C	CBTPA	EQU	CBTFLG	PARTITIONED FLAG	
00000008	CBTPAM	EQU	X'08'	PARTITIONED MASK	
12 0000C	CBTRE	EQU	CBTFLG	RESERVED, DON'T REASSIGN	
	*			FLAG	
00000004	CBTREM	EQU	X'04'	RESERVED, DON'T REASSIGN	
	*			MASK	
12 0000C	CBTFLG1	EQU	CBTFLG		
12 0000C	CBTXP1	EQU	CBTFLG1	PAGE IS A PAGE TABLE PAGE	
00000001	CBTXP1M	EQU	X'01'	.MASK (BIT 6 OFF, BIT 7 ON)	
12 0000C	CBTXP2	EQU	CBTFLG1	PAGE IS AN AUX SEGMENT	
	*			TABLE PAGE	
00000002	CBTXP2M	EQU	X'02'	.MASK (BIT 6 ON, BIT 7 OFF)	
12 0000C	CBTXP3	EQU	CBTFLG1	XTSI OR SEG. TABLE PAGE	
00000003	CBTXP3M	EQU	X'03'		
12 0000D	CBTFLG2	DS	XL1	MT/T FLAG BYTE	
12 0000D	CBTSF	EQU	CBTFLG2	STEAL (IN TRANSIT OUT) FLAG	
00000080	CBTSFM	EQU	X'80'	STEAL (IN TRANSIT OUT) MASK	
12 0000D	CBTRF	EQU	CBTFLG2	RECLAIMING FLAG	
00000040	CBTRFM	EQU	X'40'	RECLAIMING MASK	
12 0000D	CBTAF	EQU	CBTFLG2	ACTIVATE FLAG	
00000020	CBTAFM	EQU	X'20'	ACTIVATE MASK	
12 0000D	CBTPST	EQU	CBTFLG2	PAGE STEALING NOT DONE FLAG	
	*			M3655	
00000010	CBTPSTM	EQU	X'10'	PAGE STEALING NOT DONE MASK	
	*			M3655	
12 0000E	CBTFLG3	DS	XL1	UNUSED	
12 0000F	CBTFLG4	DS	XL1	UNUSED	
12 00010	CBTRLK	DS	F	REVERSE LINK	
12 00014	CBTEND	DS	0X	END OF CORE BLOCK TABLE	
	*			I5943	
00000014	CBTESZ	EQU	CBTEND-CBTFLK	CORE BLOCK TABLE SIZE	
	*			I5943	



CHACBH Storage map

DEC	HEX			
0	0	CBHUNA		CBHPNX
8	8	CBHPXP		CBHAVC
16	10	CBHLOCK	RESERVED	CBHICBA
24	18	CBHSZE		CBHLOGC

Fields in CHACBH -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	CBHUNA	0016	0010	CBHLOCK	0028	001C	CBHLOGC
0004	0004	CBHPNX	0018	0012	CBHICBA	0032	0020	CBHBDY
0008	0008	CBHPXP	0020	0014	CBHBSE	0032	0020	CBHBEG
0012	000C	CBHAVC	0024	0018	CBHSZE			

Alphabetical list of fields in CHACBH

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CBHAVC	0012	000C	CBHICBA	0018	0012	CBHPXP	0008	0008
CBHBDY	0032	0020	CBHLOGC	0028	001C	CBHSZE	0024	0018
CBHBEG	0032	0020	CBHLOCK	0016	0010	CBHUNA	0000	0000
CBHBSE	0020	0014	CBHPNX	0004	0004			

Assembler listing of CHACBH

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	11 00000	CHACBH	DSECT		CORE BLOCK TABLE HEADER
11 00000		CBHUNA	DS	F	POINTER TO BEGINNING OF AVAILABLE LIST
11 00004		CBHPNX	DS	F	POINTER TO END OF AVAILABLE LIST
11 00008		CBHPXP	DS	F	SHARED PAGE CHAIN ANCHOR - N476
11 0000C		CBHAVC	DS	F	COUNT OF AVAILABLE BLOCKS
11 00010		CBHLOCK	DS	XL1	LOCK BYTE FOR CBT
11 00012		CBHICBA	DS	H	NUMBER OF CORE BLOCKS AVAILABLE
11 00014		CBHBSE	DS	F	BASE ADDRESS FOR START OF MEMORY
11 00018		CBHSZE	DS	F	NUMBER OF CORE BLOCKS IN MEMORY
11 0001C		CBHLOGC	DS	F	ROUTINE TO LAST ACCESS CBHLOCK
11 00020		CBHBEG	DS	0F	START OF CORE BLOCK TABLE
11 00020		CBHBDY	DS	0X	END OF CORE BLOCK TABLE
	00000020	CBHDSZ	EQU		CBHBDY-CBHUNA CORE BLOCK TABLE
		*			HEADER I5943
		*			HEADER SIZE I5943

Configuration Control Block (CHACCB)

The Configuration Control Block (CCB) is a distinct data set residing on the IPL volume under the name TSS\*\*\*\*.SYSCCB. Created at SYSGEN time, it contains configuration-dependent information necessary for STARTUP to perform its functions. Within the CCB are the following subtables: CCB header, CPU Status Table, Drum Path Table, 2702 Path Table, Channel Controller Table, Correspondence List, and Printer Path Table.

CHACCB Storage map

DEC	HEX				
0	0	CCBNDM	CCBDPP	CCBTPP	CCBNCC
8	8	CCBCPT	CCBPCL	CCBNPR	CCBPPT
16	10	CCBLSD	CCBLDA	CCBCON	CCBMTT
24	18	CCBBAT	CCBBAK	CCBTER	CCBBUF
32	20	CCBVMB	UNNAMED		
= CCBCST =					
88	58			CCBNPD	CCBPTD
96	60	CCBADD	UNNAMED	CCBDTC	CCBDCL
104	68	CCBNCH	CCBCAD	CCBNPT	CCBPCM
112	70	CCBNPP	CCBPTP		

Fields in CHACCB -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	CCBNDM	0094	005E	CCBPTD	0102	0066	CCBUNT
0000	0000	CCBHDR	0096	0060	CCBADD	0103	0067	CCBOT (EQU)
0002	0002	CCBDPP	0096	0060	CCBTPT	0103	0067	CCBOS (EQU)
0004	0004	CCBTPP	0100	0064	CCBDW (EQU)	0103	0067	CCBOR (EQU)
0006	0006	CCBNCC	0100	0064	CCBDV (EQU)	0103	0067	CCBOQ (EQU)
0008	0008	CCBCPT	0100	0064	CCBDU (EQU)	0103	0067	CCBOJ (EQU)
0010	000A	CCBPCL	0100	0064	CCBDT (EQU)	0103	0067	CCBOI (EQU)
0012	000C	CCBNPR	0100	0064	CCBDTC	0103	0067	CCBOH (EQU)
0014	000E	CCBPPT	0101	0065	CCBCN (EQU)	0103	0067	CCBOG (EQU)
0016	0010	CCBLSD	0101	0065	CCBCM (EQU)	0103	0067	CCBOF (EQU)
0018	0012	CCBLDA	0101	0065	CCBCL (EQU)	0103	0067	CCBOPF
0020	0014	CCBCON	0101	0065	CCBDCL	0104	0068	CCBNCH
0022	0016	CCBMTT	0102	0066	CCBUZ (EQU)	0104	0068	CCBCCT
0024	0018	CCBBAT	0102	0066	CCBUY (EQU)	0106	006A	CCBCAD
0026	001A	CCBBAK	0102	0066	CCBUX (EQU)	0108	006C	CCBNPT
0028	001C	CCBTER	0102	0066	CCBUW (EQU)	0108	006C	CCBCLT
0030	001E	CCBBUF	0102	0066	CCBUE (EQU)	0110	006E	CCBPCM
0032	0020	CCBVMB	0102	0066	CCBUD (EQU)	0112	0070	CCBNPP
0036	0024	CCBCST	0102	0066	CCBUC (EQU)	0112	0070	CCBPRT
0092	005C	CCBNPD	0102	0066	CCBUB (EQU)	0114	0072	CCBPTP
0092	005C	CCBDPT	0102	0066	CCBUA (EQU)			

Alphabetical list of fields in CHACCB

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CCBADD	0096	0060	CCBHDR	0000	0000	CCBPCL	0010	000A
CCBBAK	0026	001A	CCBLDA	0018	0012	CCBPCM	0110	006E
CCBBAT	0024	0018	CCBLSA	0016	0010	CCBPPT	0014	000E
CCBBUF	0030	001E	CCBMTT	0022	0016	CCBPRT	0112	0070
CCBCAD	0106	006A	CCBNCC	0006	0006	CCBPTD	0094	005E
CCBCCT	0104	0068	CCBNCH	0104	0068	CCBPTP	0114	0072
CCBCL	0101	0065 (EQU)	CCBNDM	0000	0000	CCBTER	0028	001C
CCBCLT	0108	006C	CCBNPD	0092	005C	CCBTPP	0004	0004
CCBCM	0101	0065 (EQU)	CCBNPP	0112	0070	CCBTPT	0096	0060
CCBCN	0101	0065 (EQU)	CCBNPR	0012	000C	CCBUA	0102	0066 (EQU)
CCBCON	0020	0014	CCBNPT	0108	006C	CCBUB	0102	0066 (EQU)
CCBCPT	0008	0008	CCBOF	0103	0067 (EQU)	CCBUC	0102	0066 (EQU)
CCBCST	0036	0024	CCBOG	0103	0067 (EQU)	CCBUD	0102	0066 (EQU)
CCBDCL	0101	0065	CCBOH	0103	0067 (EQU)	CCBUE	0102	0066 (EQU)
CCBDPP	0002	0002	CCBOI	0103	0067 (EQU)	CCBUNT	0102	0066
CCBDPT	0092	005C	CCBOJ	0103	0067 (EQU)	CCBUW	0102	0066 (EQU)
CCBDT	0100	0064 (EQU)	CCBOPF	0103	0067	CCBUX	0102	0066 (EQU)
CCBDTC	0100	0064	CCBOQ	0103	0067 (EQU)	CCBUY	0102	0066 (EQU)
CCBDU	0100	0064 (EQU)	CCBOR	0103	0067 (EQU)	CCBUZ	0102	0066 (EQU)
CCBDV	0100	0064 (EQU)	CCBOS	0103	0067 (EQU)	CCBVM	0032	0020
CCBDW	0100	0064 (EQU)	CCBOT	0103	0067 (EQU)			

Assembler listing of CHACCB

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	13 00000	CHACCB	DSECT		***CONFIGURATION
		*			CONTROL BLOCK***
		*			THIS DSECT REPRESENTS THE DATA SET
		*			TSS*****.SYSCCB,
		*			WHICH RESIDES ON THE IPL VOLUME. THIS
		*			TABLE IS USED TO
		*			COMMUNICATE CONFIGURATION INFORMATION TO
		*			THE STARTUP PROGRAM.
		*			CONFIGURATION CONTROL BLOCK HEADER
13 00000	CCBHDR	DS	OF		CCB HEADER
	*				N349.10
13 00000	CCBNDM	DS	H		NUMBER OF DRUMS AT
	*				INSTALLATION
13 00002	CCBDPP	DS	H		RELATIVE POINTER TO DRUM
	*				PATH TABLE
13 00004	CCBTPP	DS	H		RELATIVE POINTER TO
	*				TRANSMISSION
	*				CONTROL PATH TABLE
13 00006	CCBNCC	DS	H		NUMBER OF CHANNEL
	*				CONTROLLERS AT INSTALLATION
13 00008	CCBCPT	DS	H		RELATIVE POINTER TO CHANNEL
	*				CONTROLLER TABLE
13 0000A	CCBPCL	DS	H		RELATIVE POINTER TO
	*				CORRESPONDENCE LIST
13 0000C	CCBNPR	DS	H		NUMBER OF PRINTERS AT
	*				INSTALLATION
13 0000E	CCBPPT	DS	H		RELATIVE POINTER TO PRINTER
	*				PATH TABLE
13 00010	CCBLSA	DS	H		LENGTH OF SHARED DATA SET
	*				TABLE
13 00012	CCBLDA	DS	H		LOW DRUM AVAILABILITY
	*				CONSTANT
13 00014	CCBCON	DS	H		MAX NUMBER OF CONV. TASKS
	*				N
13 00016	CCBMTT	DS	H	386**	MAX NUMBER OF MTT ADMIN.
	*				TASK N
13 00018	CCBBAT	DS	H	386**	MAX NUMBER OF BATCH TASK
	*				N
				386**	

(Listing of CHACCB continued on page 54)

(Listing of CHACCB continued from page 53)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
13 0001A		CCBBAK	DS	H	MAX NUMBER OF BACKGROUND TASK N
		*		386**	
13 0001C		CCBTER	DS	H	MAXIMUM NUMBER OF TERMINALS N349.10
		*			
13 0001E		CCBBUF	DS	H	MAXIMUM INPUT BUFFER SIZE N349.10
		*			
13 00020		CCBVMB	DS	X	VARIABLE VMA REQUEST INCREMENT I5257
		*			
13 00021			DS	XL3	RESERVED I5257
		*			
	00000024	CCBHSZ	EQU	*-CCBHDR	LENGTH OF CCB HEADER
		*			* CPU STATUS TABLE IS A SEPARATE DSECT.
13 00024		CCBCST	DS	14F	SPACE FOR CPU STATUS TABLE.
		*			* DRUM PATH TABLE **** ONE SET OF ENTRIES FOR
		*			* EACH DRUM
13 0005C		CCBDPT	DS	0H	
13 0005C		CCBNPD	DS	H	NUMBER OF PATHS TO THIS DRUM
		*			
13 0005E		CCBPTD	DS	H	PATH TO DRUM **** ONE ENTRY FOR EACH PATH
		*			
		*			* TRANSMISSION CONTROL UNIT PATH TABLE
		*			**** ONE SET OF ENTRIES FOR EACH
		*			PATH TO A LINE
		*			**** THE TABLE ENDS WITH A FULL WORD
		*			OF ZEROS
13 00060		CCBTPT	DS	0F	
13 00060		CCBADD	DS	H	PATH TO TRANSMISSION CONTROL LINE
		*			
13 00062			DS	H	NOT USED
13 00064		CCBDTC	DS	XL1	DEVICE TYPE CODE
	13 00064	CCBDT	EQU	CCBDTC	1050 TERMINAL SYSTEM FLAG
	00000001	CCBDTM	EQU	X'01'	1050 TERMINAL SYSTEM MASK
	13 00064	CCBDU	EQU	CCBDTC	2741 TERMINAL FLAG
	00000002	CCBDUM	EQU	X'02'	2741 TERMINAL MASK
	13 00064	CCBDV	EQU	CCBDTC	TTY 35 TERMINAL FLAG
	00000003	CCBDVM	EQU	X'03'	TTY 35 TERMINAL MASK
	13 00064	CCBDW	EQU	CCBDTC	1052-7 TERMINAL FLAG
	00000004	CCBDWM	EQU	X'04'	1052-7 TERMINAL MASK
13 00065		CCBDCL	DS	XL1	DEVICE CLASS
	13 00065	CCBCL	EQU	CCBDCL	DIAL LINE FLAG
	00000001	CCBCLM	EQU	X'01'	DIAL LINE MASK
	13 00065	CCBCM	EQU	CCBDCL	DEDICATED LINE FLAG
	00000002	CCBCMM	EQU	X'02'	DEDICATED LINE MASK
	13 00065	CCBCN	EQU	CCBDCL	AUTOMATIC CALL FEATURE FLAG
	00000004	CCBCNM	EQU	X'04'	AUTOMATIC CALL FEATURE MASK
13 00066		CCBUNT	DS	XL1	UNIT TYPE
	13 00066	CCBUA	EQU	CCBUNT	IBM TERMINAL CONTROL TYPE 1 FLAG
		*			
	00000010	CCBUAM	EQU	X'10'	IBM TERMINAL CONTROL TYPE 1 MASK
		*			
	13 00066	CCBUB	EQU	CCBUNT	IBM TERMINAL CONTROL TYPE 2 FLAG
		*			
	00000020	CCBUBM	EQU	X'20'	IBM TERMINAL CONTROL TYPE 2 FLAG
		*			
	13 00066	CCBUC	EQU	CCBUNT	TELEGRAPH CONTROL TYPE 1 FLAG
		*			
	00000030	CCBUCM	EQU	X'30'	TELEGRAPH CONTROL TYPE 1 MASK
		*			
	13 00066	CCBUD	EQU	CCBUNT	TELEGRAPH CONTROL TYPE 2 FLAG
		*			
	00000040	CCBUDM	EQU	X'40'	TELEGRAPH CONTROL TYPE 2 MASK
		*			
	13 00066	CCBUE	EQU	CCBUNT	WORLD TRADE TERMINAL CONTROL FLAG
		*			
	00000080	CCBUEM	EQU	X'80'	WORLD TRADE TERMINAL CONTROL MASK
		*			
	13 00066	CCBUW	EQU	CCBUNT	2702 TRANSMISSION CONTROL

(Listing of CHACCB continued on page 55)

(Listing of CHACCB continued from page 54)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			FLAG
	00000001	CCBUWM	EQU	X'01'	2702 TRANSMISSION CONTROL MASK
		*			
	13 00066	CCBUX	EQU	CCBUNT	2701 DATA ADAPTER UNIT FLAG
	00000002	CCBUXM	EQU	X'02'	2701 DATA ADAPTER UNIT MASK
	13 00066	CCBUY	EQU	CCBUNT	MULTIPLEXOR CHANNEL FLAG
	00000003	CCBUYM	EQU	X'03'	MULTIPLEXOR CHANNEL MASK
	13 00066	CCBUZ	EQU	CCBUNT	SELECTOR CHANNEL FLAG
	00000004	CCBUZM	EQU	X'04'	SELECTOR CHANNEL MASK
13 00067		CCBOPF	DS	XL1	OPTIONAL FEATURES
	13 00067	CCBOF	EQU	CCBOPF	IBM LINE ADAPTER TYPE 1 FLAG
		*			
	00000010	CCBOFM	EQU	X'10'	IBM LINE ADAPTER TYPE 1 MASK
		*			
	13 00067	CCBOG	EQU	CCBOPF	IBM LINE ADAPTER TYPE 2 FLAG
		*			
	00000020	CCBOGM	EQU	X'20'	IBM LINE ADAPTER TYPE 2 MASK
		*			
	13 00067	CCBOH	EQU	CCBOPF	DATA SET LINE ADAPTER FLAG
	00000030	CCBOHM	EQU	X'30'	DATA SET LINE ADAPTER MASK
	13 00067	CCBOI	EQU	CCBOPF	AUTOMATIC CALL ADAPTER FLAG
	00000040	CCBOIM	EQU	X'40'	AUTOMATIC CALL ADAPTER MASK
	13 00067	CCBOJ	EQU	CCBOPF	TELEGRAPH LINE ADAPTER FLAG
	00000050	CCBOJM	EQU	X'50'	TELEGRAPH LINE ADAPTER MASK
	13 00067	CCBOQ	EQU	CCBOPF	SAD ZERO FLAG
	00000000	CCBOQM	EQU	X'00'	SAD ZERO MASK
	13 00067	CCBOR	EQU	CCBOPF	SAD ONE FLAG
	00000001	CCBORM	EQU	X'01'	SAD ONE MASK
	13 00067	CCBOS	EQU	CCBOPF	SAD TWO FLAG
	00000002	CCBOSM	EQU	X'02'	SAD TWO MASK
	13 00067	CCBOT	EQU	CCBOPF	SAD THREE FLAG
	00000003	CCBOTM	EQU	X'03'	SAD THREE MASK
	00000008	CCBTSZ	EQU	*-CCBTPT	LENGTH OF A SINGLE ENTRY
					* CHANNEL CONTROL UNIT TABLE **** ONE SET OF
					* ENTRIES FOR EACH CHANNEL
					*
					CONTROL UNIT AT INSTALLATION
13 00068		CCBCCT	DS	0H	
13 00068		CCBNCH	DS	H	NUMBER OF CHANNELS
		*			CONNECTED TO CHANNEL CONTROLLER
13 0006A		CCBCAD	DS	H	CHANNEL ADDRESS **** ONE
		*			ENTRY FOR EACH CHANNEL
		*			*NOTE* THE HIGH ORDER BIT OF
		*			EACH MUST BE ON.
		*			* CORRESPONDENCE LIST **** ONE ENTRY FOR EACH BIT
		*			* IN EXTENDED CONTROL
		*			* REGISTERS 12 AND 13, EACH SET OF TWO CONSECUTIVE
		*			* BITS CORRESPONDING
		*			* TO A DISTINCT CONTROL UNIT. THE SETTING OF
		*			* THESE BITS IS
		*			* DETERMINED BY THE SETTING OF THE SWITCHES ON THE
		*			* CONFIGURATION
		*			* CONSOLE. AN ENTRY CONSISTS OF ONE HALF WORD
		*			* CONTAINING THE
		*			* NUMBER OF PATHS TO THE CONTROL UNIT ON THE
		*			* DESIGNATED CHANNEL
		*			* CONTROLLER FOLLOWED BY A VARIABLE NUMBER OF HALF
		*			* WORDS, EACH
		*			* CONTAINING A PATH TO THE CONTROL UNIT. AN ENTRY
		*			* OF F'S INDICATES
		*			* THAT THERE IS NO CONTROL UNIT WHOSE PARTITIONING
		*			* IS CONTROLLED BY
		*			* THE CORRESPONDING SWITCH ON THE CONFIGURATION
		*			* CONSOLE.
		*			*
		*			NOTE THAT THIS LIST DOES NOT EXIST
		*			ON A SIMPLEX
		*			MACHINE. THE SIMPLEX DOES NOT HAVE
		*			PARTITION SENSING.
13 0006C		CCBCLT	DS	0H	*** NOTE *** SIZE OF

(Listing of CHACCB continued on page 56)

(Listing of CHACCB continued from page 55)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			CORRESPONDENCE LIST
		*			IS VARIABLE.
13 0006C		CCBNPT	DS	H	NUMBER OF PATHS TO CONTROL
		*			UNIT
13 0006E		CCBPCM	DS	H	PATH TO CONTROL UNIT
		*			*** NOTE *** THE 1 BIT IN
		*			EACH PATH HALFWORD
		*			(BITS 0-15) MUST BE ON.
		* PRINTER PATH TABLE			**** ONE SET OF ENTRIES FOR
		* EACH PRINTER AT			
		*			INSTALLATION
13 00070		CCBPRT	DS	0H	
13 00070		CCBNPP	DS	H	NUMBER OF PATHS TO THIS
		*			PRINTER
13 00072		CCBPTP	DS	H	PATH TO PRINTER **** ONE
		*			ENTRY FOR EACH PATH

Catalog SBLOCK (CHACCC)

The Catalog SBLOCK (CCC) is the basic unit of storage within the catalog data set. SBLOCKS are chained together to form indexes, generation indexes, data set descriptors, sharing descriptors, or sharer lists. Data is retrieved from the catalog, via catalog services, in the form of SBLOCKS.

CCC occupies 64 bytes of virtual storage, aligned on word boundaries.

CHACCC Storage map

DEC	HEX	
0	0	CCCFWD   CCCCT1   CCCBWD   CCCCT2
8	8	CCCNME
16	10	CCCFL1   CCCPTL   CCCFL2   CCCFL3   CCCFL4   CCCLAB
24	18	CCCORG   CCCUSE
48	30	CCCVDA

ORG CCCUSE

25	19	UNNAMED
32	20	UNNAMED   UNNAMED   CCCB10   CCCEAB   CCCTPD

ORG CCCTPD

36	24	CCCDEN   CCCTRT   CCCBSZ
40	28	CCCDPT

ORG CCCDPT

40	28	CCCRVN   CCCPNO   CCCLRL
48	30	CCCRFM   UNNAMED

ORG CCCVDA

51	33	CCCCT3   CCCDVC
56	38	CCCVSN   CCCFSQ

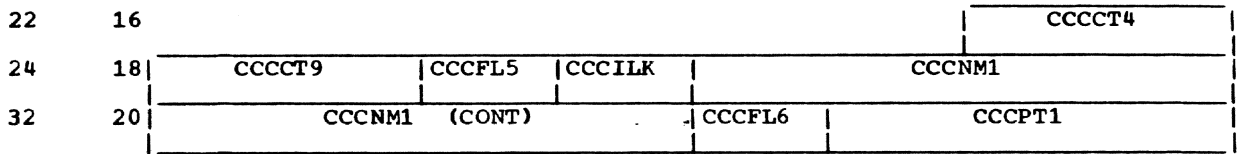
ORG CCCNME

8	8	CCCVL2
16	10	

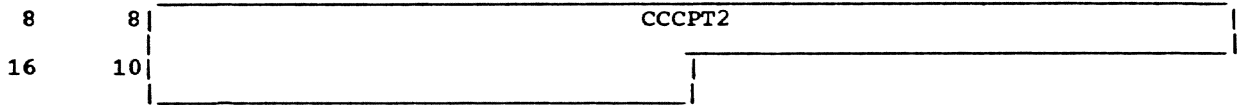
(CHACCC continued on page 58)

DEC HEX

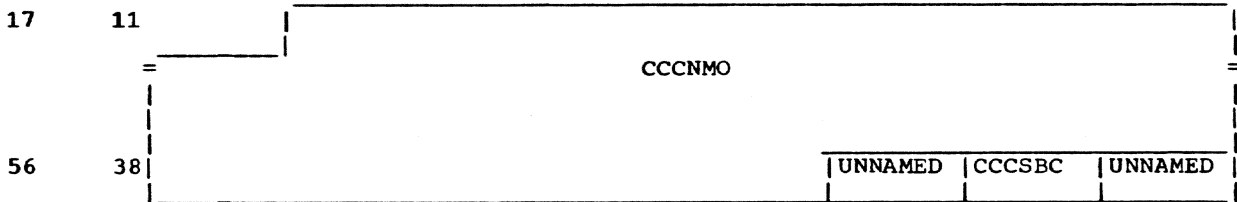
ORG CCCFL4



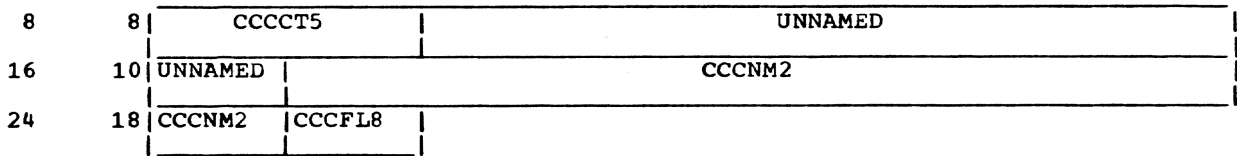
ORG CCCNME



ORG CCCPTL



ORG CCCNME



Fields in CHACCC -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	CCCFWD	0021	0015	CCC09	(EQU)	0025	0019	CCC21	(EQU)	
0003	0003	CCCCT1	0021	0015	CCCFL3		0025	0019	CCCUSE		
0004	0004	CCCBWD	0022	0016	CCCCT4		0026	001A	CCCFL5		
0007	0007	CCCCT2	0022	0016	CCC65	(EQU)	0026	001A	CCCED2	(EQU)	
0008	0008	CCCCT5	0022	0016	CCC63	(EQU)	0026	001A	CCC17	(EQU)	
0008	0008	CCCPT2	0022	0016	CCC62	(EQU)	0026	001A	CCC16	(EQU)	
0008	0008	CCCVL2	0022	0016	CCC61	(EQU)	0026	001A	CCC15	(EQU)	
0008	0008	CCCID1	(EQU)	0022	0016	CCC60	(EQU)	0026	001A	CCC14	(EQU)
0008	0008	CCCNME	0022	0016	CCC13	(EQU)	0027	001B	CCCILK		
0016	0010	CCCFL7	(EQU)	0022	0016	CCC12	(EQU)	0028	001C	CCCNM1	
0016	0010	CCC69	(EQU)	0022	0016	CCCFL4		0034	0022	CCCB10	
0016	0010	CCC05	(EQU)	0023	0017	CCC68	(EQU)	0034	0022	CCCBIO	(EQU)
0016	0010	CCC04	(EQU)	0023	0017	CCC67	(EQU)	0035	0023	CCCEAB	
0016	0010	CCC03	(EQU)	0023	0017	CCC66	(EQU)	0036	0024	CCCFL6	
0016	0010	CCC02	(EQU)	0023	0017	CCCLAB		0036	0024	CCCDEN	
0016	0010	CCC01	(EQU)	0024	0018	CCCCT9		0036	0024	CCCTPD	
0016	0010	CCCFL1		0024	0018	CCC85	(EQU)	0036	0024	CCC70	(EQU)
0017	0011	CCCNM2		0024	0018	CCC84	(EQU)	0036	0024	CCC20	(EQU)
0017	0011	CCCNMO		0024	0018	CCC83	(EQU)	0036	0024	CCC19	(EQU)
0017	0011	CCCPTL		0024	0018	CCC82	(EQU)	0036	0024	CCC18A	(EQU)
0020	0014	CCC08	(EQU)	0024	0018	CCC81	(EQU)	0036	0024	CCC18	(EQU)
0020	0014	CCC07	(EQU)	0024	0018	CCC80	(EQU)	0037	0025	CCCP1	
0020	0014	CCC06	(EQU)	0024	0018	CCCORG		0037	0025	CCCTRT	
0020	0014	CCCFL2		0025	0019	CCCFL8		0037	0025	CCCTPP	(EQU)
0021	0015	CCC11	(EQU)	0025	0019	CCC23	(EQU)	0038	0026	CCCBSZ	
0021	0015	CCC10	(EQU)	0025	0019	CCC22	(EQU)	0040	0028	CCCRVN	

(Continued on page 59)



(Continued from page 58)

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0040	0028	CCCDPT	0048	0030	CCCRFM	0056	0038	CCCVSN
0040	0028	CCCED1 (EQU)	0051	0033	CCCCT3	0062	003E	CCCSBC
0042	002A	CCCPNO	0051	0033	CCCVDA	0062	003E	CCCFSQ
0044	002C	CCCLRL	0052	0034	CCCDVC	0064	0040	CCCEND (EQU)

Alphabetical list of fields in CHACCC

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CCCBIO	0034	0022 (EQU)	CCCLRL	0044	002C	CCC11	0021	0015 (EQU)
CCCBSZ	0038	0026	CCCNME	0008	0008	CCC12	0022	0016 (EQU)
CCCBWD	0004	0004	CCCNMO	0017	0011	CCC13	0022	0016 (EQU)
CCCB10	0034	0022	CCCNM1	0028	001C	CCC14	0026	001A (EQU)
CCCCT1	0003	0003	CCCNM2	0017	0011	CCC15	0026	001A (EQU)
CCCCT2	0007	0007	CCCORG	0024	0018	CCC16	0026	001A (EQU)
CCCCT3	0051	0033	CCCPNO	0042	002A	CCC17	0026	001A (EQU)
CCCCT4	0022	0016	CCCPTL	0017	0011	CCC18	0036	0024 (EQU)
CCCCT5	0008	0008	CCCPT1	0037	0025	CCC18A	0036	0024 (EQU)
CCCCT9	0024	0018	CCCPT2	0008	0008	CCC19	0036	0024 (EQU)
CCCDEN	0036	0024	CCCRFM	0048	0030	CCC20	0036	0024 (EQU)
CCCDPT	0040	0028	CCCRVN	0040	0028	CCC21	0025	0019 (EQU)
CCCDVC	0052	0034	CCCSBC	0062	003E	CCC22	0025	0019 (EQU)
CCCEAB	0035	0023	CCCTPD	0036	0024	CCC23	0025	0019 (EQU)
CCCED1	0040	0028 (EQU)	CCCTPP	0037	0025 (EQU)	CCC60	0022	0016 (EQU)
CCCED2	0026	001A (EQU)	CCCTRT	0037	0025	CCC61	0022	0016 (EQU)
CCCEND	0064	0040 (EQU)	CCCUSE	0025	0019	CCC62	0022	0016 (EQU)
CCCFL1	0016	0010	CCCVDA	0051	0033	CCC63	0022	0016 (EQU)
CCCFL2	0020	0014	CCCVL2	0008	0008	CCC65	0022	0016 (EQU)
CCCFL3	0021	0015	CCCVSN	0056	0038	CCC66	0023	0017 (EQU)
CCCFL4	0022	0016	CCC01	0016	0010 (EQU)	CCC67	0023	0017 (EQU)
CCCFL5	0026	001A (EQU)	CCC02	0016	0010 (EQU)	CCC68	0023	0017 (EQU)
CCCFL6	0036	0024	CCC03	0016	0010 (EQU)	CCC69	0016	0010 (EQU)
CCCFL7	0016	0010 (EQU)	CCC04	0016	0010 (EQU)	CCC70	0036	0024 (EQU)
CCCFL8	0025	0019	CCC05	0016	0010 (EQU)	CCC80	0024	0018 (EQU)
CCCFSQ	0062	003E	CCC06	0020	0014 (EQU)	CCC81	0024	0018 (EQU)
CCCFWD	0000	0000	CCC07	0020	0014 (EQU)	CCC82	0024	0018 (EQU)
CCCID1	0008	0008 (EQU)	CCC08	0020	0014 (EQU)	CCC83	0024	0018 (EQU)
CCCILK	0027	001B	CCC09	0021	0015 (EQU)	CCC84	0024	0018 (EQU)
CCCLAB	0023	0017	CCC10	0021	0015 (EQU)	CCC85	0024	0018 (EQU)

Assembler listing of CHACCC

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	14 00000	CHACCC	DSECT		CATALOG S BLOCK ENTRIES
		*			COMMON CONTROL FIELDS
14 00000	CCCFWD	DS	XL3		FORWARD POINTER - IN FORM
	*				PBB WHERE P IS
	*				LOGICAL PAGE NUMBER WITHIN
	*				THE MEMBER AND
	*				BB IS THE RELATIVE BYTE
	*				WITHIN THE PAGE
14 00003	CCCCT1	DS	XL1		COUNT OF BLOCKS ALLOCATED
	*				FROM
	*				PAGE-USED IN FIRST PAGE ONLY
14 00004	CCCBWD	DS	XL3		BACKWARD POINTER - IN PBB
	*				FORM
	*				IF CONTINUATION, TO
	*				POINTER IN HIGHER
	*				LEVEL IF DSD,SD,GI,INDEX
14 00007	CCCCT2	DS	XL1		COUNT OF BYTES ALLOCATED
	*				FIELDS COMMON TO FIRST
	*				SBLOCK
	*				OF A DSD,INDEX OR DS
14 00008	CCCNME	DS	CL8		NAME OF SBLOCK
14 00010	CCCFL1	DS	XL1		IDENTIFICATION FLAGS
	14 00010	CCC01	EQU	CCCFL1	INDEX
	14 00010	CCC02	EQU	CCCFL1	GENERATION INDEX
	14 00010	CCC03	EQU	CCCFL1	DATASET DESCRIPTOR- DATASET
	*				ON PRIV. PACK

(Listing of CHACCC continued on page 60)

(Listing of CHACCC continued from page 59)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	14 00010	CCC04	EQU	CCCFL1	SHARING DESCRIPTOR (SD)
	14 00010	CCC05	EQU	CCCFL1	SHARER LIST (SL)
	14 00010	CCC69	EQU	CCCFL1	DATASET DESCRIPTOR- DATASET
		*			ON PUB. PACK
	00000001	CCC01M	EQU	X'01'	INDEX MASK
	00000002	CCC02M	EQU	X'02'	GENERATION INDEX MASK
	00000003	CCC03M	EQU	X'03'	DSD MASK-PRIVATE
	00000004	CCC04M	EQU	X'04'	SD MASK
	00000005	CCC05M	EQU	X'05'	SL MASK
	00000006	CCC69M	EQU	X'06'	DSD MASK-PUBLIC
		*			FIELDS COMMON TO FIRST
		*			SBLOCK
		*			OF INDEX OR DSD
14 00011		CCCPTL	DS	XL3	POINTER TO SHARER LIST - IN
		*			PBB FORM
14 00014		CCCFL2	DS	XL1	SHARING FLAG
	14 00014	CCC06	EQU	CCCFL2	PRIVATE (BINARY ZERO)
	14 00014	CCC07	EQU	CCCFL2	SHARED UNIVERSALLY
	14 00014	CCC08	EQU	CCCFL2	SHARED BY LISTED SHARERS
	00000000	CCC06M	EQU	X'00'	UNLIMITED MASK
	00000001	CCC07M	EQU	X'01'	UNIVERSAL SHARE MASK
	00000002	CCC08M	EQU	X'02'	LIST SHARE MASK
14 00015		CCCFL3	DS	XL1	SHARE PRIVILEGES
	14 00015	CCC09	EQU	CCCFL3	UNLIMITED (BINARY ZERO)
	14 00015	CCC10	EQU	CCCFL3	R/W
	14 00015	CCC11	EQU	CCCFL3	R/O
	00000000	CCC09M	EQU	X'00'	UNLIMITED MASK
	00000001	CCC10M	EQU	X'01'	R/W MASK
	00000002	CCC11M	EQU	X'02'	R/O MASK
		*			FIELDS UNIQUE TO DSD
14 00016		CCCFL4	DS	CL1	DS RET AND ACCESS
		*			PRIVILEGES
	14 00016	CCC12	EQU	CCCFL4	R/W
	14 00016	CCC13	EQU	CCCFL4	R/O
	14 00016	CCC60	EQU	CCCFL4	NO DATASET DELETION
	14 00016	CCC61	EQU	CCCFL4	DS DELETION AT CLOSE
	14 00016	CCC62	EQU	CCCFL4	DS DELETION AT LOGOFF
	14 00016	CCC63	EQU	CCCFL4	PERMANENT DS
	14 00016	CCC65	EQU	CCCFL4	
		*	***BITS 6 AND 7***	*	*
	00000001	CCC12M	EQU	X'01'	R/W MASK
	00000002	CCC13M	EQU	X'02'	R/O MASK
		*	***BITS 2,3,4 AND 5***	*	*
	00000000	CCC60M	EQU	X'00'	NO DELETION MASK
	00000008	CCC61M	EQU	X'08'	CLOSE DELETION MASK
	00000004	CCC62M	EQU	X'04'	LOGOFF DELETION MASK
		*	***BITS 0 AND 1***	*	*
	00000000	CCC63M	EQU	X'00'	PERMANENT MASK
	00000080	CCC65M	EQU	X'80'	TEMPORARY MASK
14 00017		CCCLAB	DS	CL1	LABEL DATA
	14 00017	CCC66	EQU	CCCLAB	NO TAPE LABELS(NL)
	14 00017	CCC67	EQU	CCCLAB	STANDARD LABELS(SL)
	14 00017	CCC68	EQU	CCCLAB	STANDARD AND USER
		*			LABELS(SUL)
	00000001	CCC66M	EQU	X'01'	NL MASK
	00000002	CCC67M	EQU	X'02'	SL MASK
	00000004	CCC68M	EQU	X'04'	SUL MASK
14 00018		CCCORG	DS	CL1	DATA SET ORGANIZATION
	14 00018	CCC80	EQU	CCCORG	SAM ORGANIZATION
	14 00018	CCC81	EQU	CCCORG	TAM ORGANIZATION
	14 00018	CCC82	EQU	CCCORG	VAM INDEX SEQUENTIAL
	14 00018	CCC83	EQU	CCCORG	VAM SEQUENTIAL
	14 00018	CCC84	EQU	CCCORG	VAM PARTITIONED
	14 00018	CCC85	EQU	CCCORG	IOREQ
	00000001	CCC80M	EQU	X'01'	SAM MASK
	00000002	CCC81M	EQU	X'02'	TAM MASK
	00000004	CCC82M	EQU	X'04'	VISAM MASK
	00000005	CCC83M	EQU	X'05'	VSAM MASK

(Listing of CHACCC continued on page 61)

(Listing of CHACCC continued from page 60)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000006	CCC84M	EQU	X'06'	VPAM MASK
	00000007	CCC85M	EQU	X'07'	RX(IOREQE) MASK
14 00019		CCCUSE	DS	CL26	USER FIELD
	14 00019		ORG	CCCUSE	
14 00019			DS	CL8	UNUSED
14 00021			DS	XL1	UNUSED
14 00022		CCCB10	DS	XL1	COUNT OF BULKIO TASKS
		*			PENDING - BINARY
	14 00022	CCCBIO	EQU	CCCB10	VAM 2 COMPATIBILITY
14 00023		CCCEAB	DS	XL1	ERASE AFTER BULKIO FLAG 1
		*			= YES
14 00024		CCCTPD	DS	CL1	TAPE DENSITY INDICATOR
	14 00024		ORG	CCCTPD	
14 00024		CCCDEN	DS	XL1	TAPE DENSITY
	00000003	CCCPD0	EQU	X'03'	200 BPI
	00000043	CCCPD1	EQU	X'43'	556 BPI
	00000083	CCCPD2	EQU	X'83'	800 BPI
14 00025		CCCTRT	DS	XL1	TAPE RECORDING TECHNIQUE
		*			TRTCH
	00000028	CCCTEM	EQU	X'28'	TRTCH TRANS EVEN PARITY
	00000033	CCCODM	EQU	X'33'	ODD PARITY NO TRANSLATE
	00000013	CCCTM	EQU	X'13'	TRANSLATE
	00000038	CCCEVN	EQU	X'38'	EVEN PARITY NO TRANSLATE
	00000023	CCCEVM	EQU	X'23'	CONVERTER AVAILABLE
	14 00025	CCCTPP	EQU	CCCTRT	
14 00026		CCCBSZ	DS	XL2	NL/TAPE BLOCK SIZE
14 00028		CCCDPT	DS	CL4	TYPE E DSCB POINTER
	14 00028		ORG	CCCDPT	
14 00028		CCCRVN	DS	CL2	RELATIVE VOLUME
14 0002A		CCCPNO	DS	CL2	EXTERNAL PAGE NUMBER
14 0002C		CCCLRL	DS	XL4	NL/TAPE LRECL
14 00030		CCCRFM	DS	XL1	NL/TAPE RECFM
14 00031			DS	CL2	SPARE
14 00033		CCCVDA	DS	CL13	VOLUME DATA
	14 00033		ORG	CCCVDA	
14 00033		CCCCT3	DS	XL1	BINARY COUNT OF VOLUMES-SAM
		*			ONLY
14 00034		CCCDVC	DS	XL4	DEVICE CODE
14 00038		CCCVSN	DS	XL6	VOLUME SERIAL
		*			NUMBERS-VAM-SAM-PRIV. ONLY
14 0003E		CCCFSQ	DS	XL2	FILE SEQUENCE NUMBER-SAM
		*			ONLY
	14 00040	CCCEND	EQU	*	END OF SBLOCK
	0000000C	CCCSZ1	EQU	CCCEND-CCCDVC	SIZE OF VOLUME FIELD
		*			THE FOLLOWING FIELDS ARE UNIQUE TO
		*			CONTINUATION
		*			DATASET DESCRIPTORS-SAM DATASETS ONLY
	14 00008		ORG	CCCNME	
14 00008		CCCVL2	DS	CL12	FIRST VOL FIELD IN CHAINED
		*			SBLOCK
		*			THE FOLLOWING FIELDS ARE UNIQUE TO INDEXES
		*			AND GENERATION INDEXES
	14 00016		ORG	CCCFL4	
14 00016		CCCCT4	DS	HL2	COUNT OF POINTERS IN A
		*			N466
		*			GENERATION INDEX
		*			N466
14 00018		CCCCT9	DS	XL2	BINARY COUNT OF MAXIMUM
		*			GENERATIONS
14 0001A		CCCFL5	DS	XL1	GENERATION FLAGS
	14 0001A	CCC14	EQU	CCCFL5	DELETE OLDEST AT LIMIT
	14 0001A	CCC15	EQU	CCCFL5	DELETE ALL GENERATION AT
		*			LIMIT
	00000001	CCC14M	EQU	X'01'	DELETE OLDEST MASK
	00000002	CCC15M	EQU	X'02'	DELETE ALL MASK
	14 0001A	CCC16	EQU	CCCFL5	SAVE DELETED GENERATIONS
	14 0001A	CCC17	EQU	CCCFL5	SCRATCH DELETED GENERATIONS
	00000010	CCC16M	EQU	X'10'	SAVE MASK

(Listing of CHACCC continued on page 62)

(Listing of CHACCC continued from page 61)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000020	CCC17M	EQU	X'20'	SCRATCH MASK
14 0001B		CCCILK	DS	XL1	INTERLOCK BYTE
		*			POINTER ENTRIES FOLLOW
14 0001C		CCCNM1	DS	CL8	NAME OF ENTITY POINTED AT
14 00024		CCCFL6	DS	XL1	IDENTIFICATION FLAG
	14 00024	CCC18	EQU	CCCFL6	LOWER INDEX
	14 00024	CCC18A	EQU	CCCFL6	GENERATION INDEX
	14 00024	CCC19	EQU	CCCFL6	DSD
	14 00024	CCC20	EQU	CCCFL6	SD
	14 00024	CCC70	EQU	CCCFL6	PUBLIC(VAM) DSD
	00000001	CCC18M	EQU	X'01'	LOWER INDEX MASK
	00000002	CCC18N	EQU	X'02'	GENERATION INDEX MASK
	00000003	CCC19M	EQU	X'03'	DSD MASK
	00000004	CCC20M	EQU	X'04'	SD MASK
	00000006	CCC70M	EQU	X'06'	PUBLIC(VAM) MASK
14 00025		CCCPT1	DS	XL3	POINT ADDRESS
	14 00028	CCCED1	EQU	*	
	0000000C	CCCSZ2	EQU	CCCED1-CCCNM1	SIZE OF POINTER ENTRY
		*			THE FOLLOWING FIELDS ARE UNIQUE TO
		*			CONTINUATION INDEXES AND GI'S
	14 00008		ORG	CCCNME	
14 00008		CCCPT2	DS	XL12	FIRST POINTER FIELD IN
		*			CHAINED SBLOCK
		*			THE FOLLOWING FIELDS ARE UNIQUE TO SD
	14 00011		ORG	CCCPTL	FORMAT OF SHARING
		*			DESCRIPTOR
14 00011		CCCNMO	DS	CL44	OWNER'S NAME FOR SHARED
		*			LEVEL
14 0003D			DS	X	RESERVED
		*			N466
14 0003E		CCCSBC	DS	HL1	COUNT OF NUMBER OF PENDING
		*			N466
		*			BULKIO JOBS ON DATA SET IN
		*			AN N466
		*			OWNERS CATALOG POINTED TO
		*			BY N466
		*			THIS SHARING DISCRIPTOR
		*			N466
14 0003F			DS	X	RESERVED
		*			N466
		*			THE FOLLOWING FIELDS ARE UNIQUE TO FIRST
		*			SHARER LIST
	14 00008		ORG	CCCNME	FORMAT OF SHARERS LIST
14 00008		CCCCT5	DS	2X	RESERVED
		*			N466
14 0000A			DS	CL6	UNUSED
14 00010	14 00010	CCCFL7	EQU	CCCFL1	
			DS	CL1	
		*			SERIES OF ENTRIES FOLLOW
		*			WHICH
		*			INCLUDE SHARER ID AND
		*			PRIVILEGES
14 00011		CCCNM2	DS	CL8	SHARER ID
14 00019		CCCFL8	DS	XL1	SHARE PRIVILEGES
	14 00019	CCC21	EQU	CCCFL8	UNLIMITED
	14 00019	CCC22	EQU	CCCFL8	R/W
	14 00019	CCC23	EQU	CCCFL8	R/O
		*			USE SAME MASKS GIVEN
		*			PREVIOUSLY FOR CCCFL3

(Listing of CHACCC continued on page 63)

(Listing of CHACCC continued from page 62)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
14 0001A		CCCED2	EQU	*	
00000009		CCCSZ3	EQU	CCCED2-CCCNM2	SIZE OF ID AND PRIVATE ENTRY
		*			
		*		THE FOLLOWING FIELDS ARE UNIQUE TO	
		*		CONTINUATION SHARER LIST	
14 00008		CCCID1	EQU	CCCNME	FIRST ID AND PRIVATE ENTRY
		*			IN
		*			CHAINED BLOCKS
00000040		CCCSZ4	EQU	CCCEND-CCCFWD	SIZE OF SBLOCK
00000038		CCCSZ5	EQU	CCCEND-CCCNME	SIZE OF ALLOCATABLE AREA
		*			

Catalog Common DSECT (CHACDS)

The Catalog Common DSECT (CDS) contains various parameters which are used, in common, by all catalog service routines. This area resides in the Locate routine's PSECT.

The CDS occupies 104 bytes of virtual storage, aligned on word boundaries.

CHACDS Storage map

DEC	HEX					
0	0	CDSLBD		CDSCLS		
8	8	CDSCLC		CDSNPT		
16	10	CDSCLB				CDSLCP
24	18	CDSLOC	CDSUNC	CDSFLG	CDSFLD	CDSPTR
32	20	CDSUID				
40	28	CDSBUF		CDSBSZ	CDSMSZ	
		UNNAMED				

Fields in CHACDS -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	CDSLBD	0025	0019	CDSUNC	0032	0020	CDSUID
0004	0004	CDSCLS	0026	001A	CDSRBD (EQU)	0040	0028	CDSBUF
0008	0008	CDSCLC	0026	001A	CDSPUTX (EQU)	0044	002C	CDSBSZ
0012	000C	CDSNPT	0026	001A	CDSPUT (EQU)	0045	002D	CDSMSZ
0016	0010	CDSCLB	0026	001A	CDSFLG	0056	0038	CSEND (EQU)
0020	0014	CDSLCP	0027	001B	CDSFLD			
0024	0018	CDSLOC	0028	001C	CSPTR			

Alphabetical list of fields in CHACDS

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CDSBSZ	0044	002C	CDSFLG	0026	001A	CDSPUT	0026	001A (EQU)
CDSBUF	0040	0028	CDSLBD	0000	0000	CDSPUTX	0026	001A (EQU)
CDSCLB	0016	0010	CDSLCP	0020	0014	CDSRBD	0026	001A (EQU)
CDSCLC	0008	0008	CDSLOC	0024	0018	CDSUID	0032	0020
CDSCLS	0004	0004	CDSMSZ	0045	002D	CDSUNC	0025	0019
CSEND	0056	0038 (EQU)	CDSNPT	0012	000C			
CDSFLD	0027	001B	CSPTR	0028	001C			

Assembler listing of CHACDS

```

LOCATION INSTRUCTION SOURCE INST OPER COMMENT
      15 00000 CHACDS DSECT CATALOG COMMON
*****
* THIS DSECT WAS REWRITTEN FOR NSRB 437 *
* THIS DSECT IS USED FOR THE INTERCHANGE OF INFORMATION ABOUT THE *
* CURRENT CATALOG MEMBER AMOUNG CATALOG SERVICE ROUTINES. THE BASE *
* FOR CHACDS IS AN IVM PSECT REPRESENTED BY THE VCON OF CHBCDS. *
*****
15 00000 CDSLBD DS A RELATIVE PAGE ADDR (0P00)
15 00004 CDSCLS DS A RELATIVE SBLOCK ADDR (0PBB)
15 00008 CDSCLC DS F COUNT OF QUALIFIERS LOCATED
15 0000C CDSNPT DS A ADDR OF NEXT FQN
* QUALIFIER. (IF
* OWNER-ENTERED IS
* INDICATED, ADDR
* RELATES TO OWNER FQN)
15 00010 CDSCLB DS A VMA OF CURRENT BUFFER PAGE
15 00014 CDSLCP DS A PSECT ADDR OF SETTER OF
* CDSLOC
15 00018 CDSLOC DS X SET TO X'01' IF MODULE HAS
(Listing of CHACDS continued on page 65)

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(Listing of CHACDS continued from page 64)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
					LOCKED A
					MEMBER AND WILL NOT WANT
					SUBSEQUENTLY CALLED
					MODULES (LOCATE
					INCLUDED) TO UNLOCK BEFORE
					END OF
					UPDATE. NOTE THAT (1) FLAG
					IS TO BE
					RESET BY SETTER, (2) OWNER
					FQN MUST
					BE USED FOR ALL LOCATES
					AND (3)
					MULTIPLE SETTING/RESETTING
					MUST BE
					AVOIDED.
	00000001	CDSLOCM	EQU	X'01'	CDSLOC MASK
15 00019		CDSUNC	DS	X	SET IF MODULE DOES NOT WANT
					LOCATE
					TO CROSS CATALOGS.
	00000001	CDSUNCM	EQU	X'01'	CDSUNC MASK
15 0001A		CDSFLG	DS	X	FLAG BYTE
	15 0001A	CDSPUT	EQU	CDSFLG	PUT FLAG
	00000080	CDSPUTM	EQU	X'80'	PUT MASK
	15 0001A	CDSPUTX	EQU	CDSFLG	PUTX FLAG
	00000040	CDSPUTXM	EQU	X'40'	PUTX MASK
	15 0001A	CDSRBD	EQU	CDSFLG	CATALOG BEING REBUILT FLAG
	00000020	CDSRBDM	EQU	X'20'	CATALOG BEING REBUILT MASK
15 0001B		CDSFLD	DS	X	RESERVED
15 0001C		CDSPTR	DS	A	ADDR OF CURRENT CATALOG DCB
15 00020		CDSUID	DS	CL8	USERID OF CURRENT MEMBER
15 00028		CDSBUF	DS	A	CURRENT CATALOG BUFFER
					ORIGIN ADDR
15 0002C		CDSBSZ	DS	HL1	CURRENT CATALOG BUFFER SIZE
					IN PAGES
15 0002D		CDSMSZ	DS	HL1	CURRENT CATALOG MEMBER SIZE
					IN PAGES
15 0002E			DS	10X	RESERVED
	15 00038	CSEND	EQU	*	END OF CDS
	00000038	CDSSZ1	EQU		CSEND-CDSLBD SIZE OF CDS





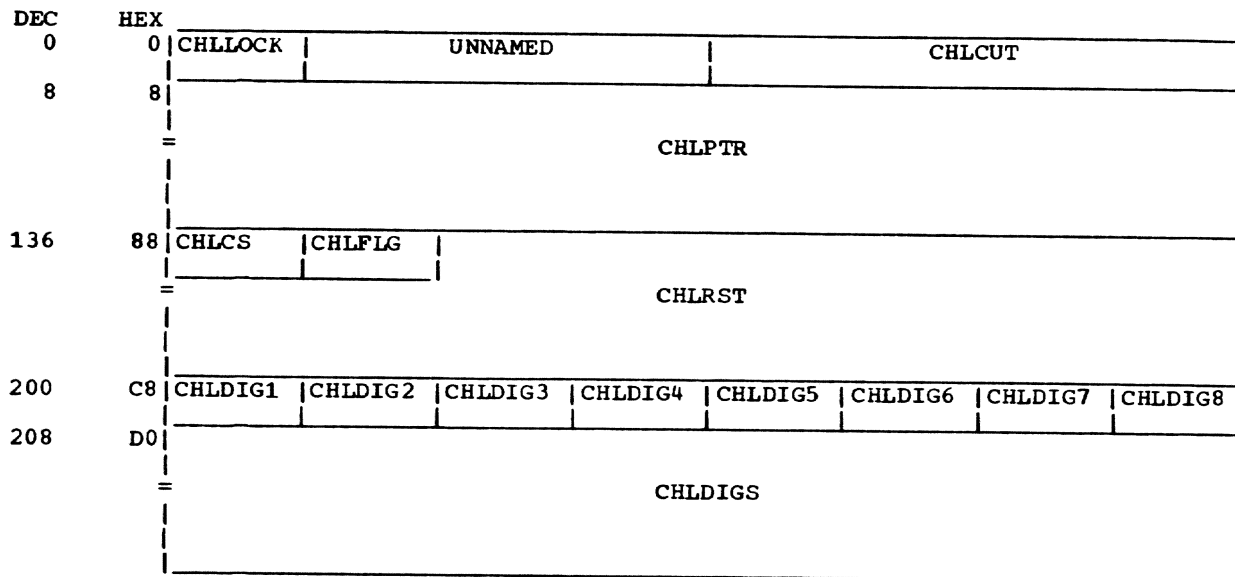
(Listing of CHACEP continued from page 66)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			ERROR OCCURS
		* THE FOLLOWING ARE SET UP BY CALLER WHO CLAIMS HIS			
		* OWN SYSER/ABEND			
16 00014		CEPSYR	DS	A	ADDR OF CALLER'S MINOR
		*			SYSER
16 00018		CEPABN	DS	A	ADDR OF CALLER'S ABEND
		*			MESSAGE
		* THE FOLLOWING ARE VARIABLE INPUT SET UP BY CALLER			
		* DEPENDING ON THE			
		*			ERROR CODE.
16 0001C		CEPVMA1	DS	A	PRIMARY ADDR OF ERROR
16 00020		CEPVMA2	DS	A	SECONDARY ADDR OF ERROR
16 00024		CEPCNT	DS	H	ACTUAL COUNT OF MEMBER
		*			ENTRIES
16 00026			DS	2X	RESERVED
	16 00028	CEPEND	EQU	*	END OF ERROR PROCESSOR
		*			PLIST
	00000028	CEPSZ1	EQU		CEPEND-CEPMOD SIZE OF ERROR
		*			PROCESSOR PLIST

Channel Table (CHACHL)

The Channel Table (CHACHL), contains status flags on all channels and specifies whether or not a particular channel can be used in the path to a device. CHACHL occupies 456 bytes of core storage, aligned on a doubleword boundary.

CHACHL Storage map



Fields in CHACHL -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD		
0000	0000	CHLLOCK	0137	0089	CHLS	(EQU)	0203	00CB	CHLDIG4	
0000	0000	CHLBEG	0137	0089	CHLM	(EQU)	0204	00CC	CHLDIG5	
0004	0004	CHLCUT	0137	0089	CHLP	(EQU)	0205	00CD	CHLDIG6	
0008	0008	CHLPTR	0137	0089	CHLA	(EQU)	0206	00CE	CHLDIG7	
0136	0088	CHLCS	0137	0089	CHLFLG		0207	00CF	CHLDIG8	
0137	0089	CHLT	(EQU)	0138	008A	CHLRST		0208	00D0	CHLDIGS
0137	0089	CHLE	(EQU)	0200	00C8	CHLDIG1		0456	01C8	CHLBDY
0137	0089	CHLSB	(EQU)	0201	00C9	CHLDIG2				
0137	0089	CHLR	(EQU)	0202	00CA	CHLDIG3				

Alphabetical list of fields in CHACHL

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CHLA	0137	0089	(EQU) CHLDIG4	0203	00CB	CHLP	0137	0089
CHLBDY	0456	01C8	CHLDIG5	0204	00CC	CHLPTR	0008	0008
CHLBEG	0000	0000	CHLDIG6	0205	00CD	CHLR	0137	0089
CHLCS	0136	0088	CHLDIG7	0206	00CE	CHLRST	0138	008A
CHLCUT	0004	0004	CHLDIG8	0207	00CF	CHLS	0137	0089
CHLDIGS	0208	00D0	CHLE	0137	0089	(EQU) CHLSB	0137	0089
CHLDIG1	0200	00C8	CHLFLG	0137	0089	CHLT	0137	0089
CHLDIG2	0201	00C9	CHLLOCK	0000	0000			
CHLDIG3	0202	00CA	CHLM	0137	0089	(EQU)		

Assembler listing of CHACHL

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	17 00000	CHACHL	DSECT		CHANNEL TABLE
17 00000		CHLBEG	DS	0D	ALIGN TABLE ON DOUBLE WORD
		*			BOUNDARY
17 00000		CHLLOCK	DS	XL1	LOCK BYTE
17 00001			DS	3C	NOT USED
17 00004		CHLCUT	DS	F	CONTROL UNIT TABLE POINTER
17 00008		CHLPTR	DS	32F	MULTIPLEXOR/SELECTOR
		*			CHANNEL TBL POINTERS

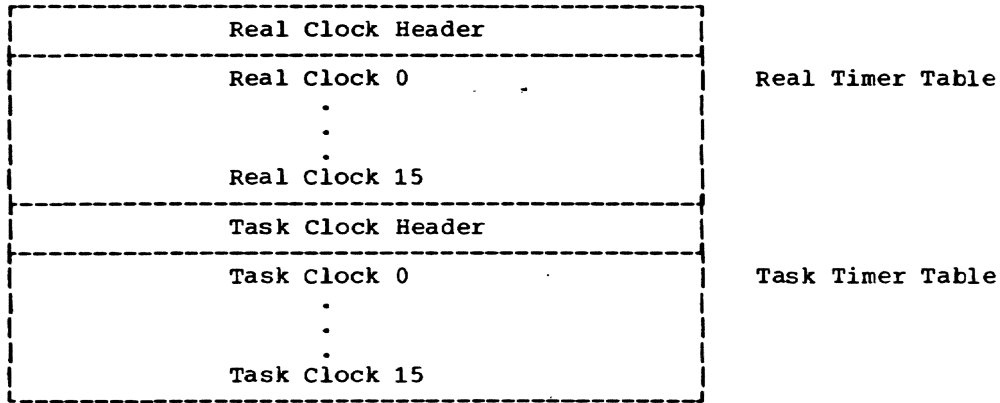
(Listing of CHACHL continued on page 69)

(Listing of CHACHL continued from page 68)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
17 00088		CHLCS	DS	XL1	CONTROL UNITS ASSIGNED
		*			TABLE SIZE
	0000000F	CHLCSM	EQU	X'0F'	CONTROL UNITS ASSIGNED
		*			TABLE SIZE MASK
17 00089		CHLFLG	DS	XL1	FLAGS FOR EACH CHANNEL
	17 00089	CHLA	EQU	CHLFLG	AVAILABILITY FLAG
	00000080	CHLAMK	EQU	X'80'	AVAILABILITY FLAG MASK
	17 00089	CHLP	EQU	CHLFLG	PARTITIONED FLAG
	00000040	CHLPMK	EQU	X'40'	PARTITIONED FLAG MASK
	17 00089	CHLM	EQU	CHLFLG	UNIT DOWN FLAG
	00000020	CHLMM	EQU	X'20'	UNIT DOWN FLAG MASK
	17 00089	CHLS	EQU	CHLFLG	SENSE HOLD FLAG
	00000010	CHLSM	EQU	X'10'	SENSE HOLD MASK
	17 00089	CHLR	EQU	CHLFLG	RESERVED FLAG
	00000008	CHLRM	EQU	X'08'	RESERVED MASK
	00000078	CHLAM	EQU	X'78'	INDS RSTRICTING AVAIL OF
		*			CHANNEL
	17 00089	CHLSB	EQU	CHLFLG	SUBCHANNEL BUSY FLAG
	00000004	CHLSBM	EQU	X'04'	SUBCHANNEL BUSY MASK
	17 00089	CHLE	EQU	CHLFLG	NONEXISTENT FLAG
	00000002	CHLEM	EQU	X'02'	NON-EXISTENT MASK
	17 00089	CHLT	EQU	CHLFLG	CHANNEL TYPE FLAG
	00000001	CHLTM	EQU	X'01'	CHANNEL TYPE FLAG MASK
17 0008A		CHLRST	DS	31H	REMAINING CHANNEL TABLE
		*			SIZES AND FLAGS
17 000C8		CHLDIG1	DS	XL1	FIRST DEVICE INTERACTION
		*			GROUP ASSOCIATED
		*			WITH THE CHANNEL. ZERO IS AN ILLEGAL
		*			DIG NO.
17 000C9		CHLDIG2	DS	XL1	SECOND DIG
17 000CA		CHLDIG3	DS	XL1	THIRD DIG
17 000CB		CHLDIG4	DS	XL1	FOURTH DIG
17 000CC		CHLDIG5	DS	XL1	FIFTH DIG
17 000CD		CHLDIG6	DS	XL1	SIXTH DIG
17 000CE		CHLDIG7	DS	XL1	SEVENTH DIG
17 000CF		CHLDIG8	DS	XL1	EIGHTH DIG
17 000D0		CHLDIGS	DS	31D	DIGS FOR REMAINING CHANNELS
17 001C8		CHLBDY	DS	0X	END OF CHANNEL TABLE
		*			I5943
	000001C8	CHLSZE	EQU	CHLBDY-CHLBEG	CHANNEL TABLE SIZE
		*			I5943

Task or Real Clock Table (CHACLK) and Clock List Header (CHACLH)

The Task Monitor PSECT maintains 16 real-time clocks and 16 task-time clocks in timer tables. Each timer table is headed by a CHACLH header pointing to the active clock (CHACLK) having the least amount of time requested.



The Timer Tables

CHACLH occupies 16 bytes of virtual storage aligned on word boundaries. CHACLK occupies 24 bytes of virtual storage aligned on word boundaries.

CHACLK Storage map

DEC	HEX				
0	0	CLKNO	CLKAC	UNNAMED	UNNAMED
8	8	CLKTT			CLKTA
16	10	CLKBP			CLKFP

Fields in CHACLK -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	CLKNO	0008	0008	CLKRT	0020	0014	CLKFP
0002	0002	CLKAC	0012	000C	CLKTA			
0008	0008	CLKTT	0016	0010	CLKBP			

Alphabetical list of fields in CHACLK

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CLKAC	0002	0002	CLKNO	0000	0000	CLKTT	0008	0008
CLKBP	0016	0010	CLKRT	0008	0008			
CLKFP	0020	0014	CLKTA	0012	000C			

Assembler listing of CHACLK

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	19 00000	CHACLK	DSECT		TASK OR REAL CLOCK
19 00000			DS	0F	
19 00000		CLKNO	DS	H	CLOCK NUMBER
19 00002		CLKAC	DS	CL1	ACTIVITY INDICATOR
	000000FF	CLKACM	EQU	X'FF'	ACTIVE CLOCK INDICATOR
	00000000	CLKACC	EQU	X'00'	INACTIVE CLOCK INDICATOR
19 00003			DS	CL1	NOT USED
19 00004			DS	F	NOT USED
19 00008		CLKRT	DS	0CL8	REAL TIME VALUE IN
		*			MICROSECS.
19 00008		CLKTT	DS	F	ACCUM.TASK TIME PLUS VALUE
		*			BELOW
19 0000C		CLKTA	DS	F	ACTUAL TIME ASKED FOR
19 00010		CLKBP	DS	F	BACKWARD POINTER
19 00014		CLKFP	DS	F	FORWARD POINTER TO NEXT
		*			CLOCK

CHACLH Storage map

DEC	HEX		
0	0	CLHTT	CLHTA
8	8	CLHFP	CLHII

Fields in CHACLH -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	CLHTT	0004	0004	CLHTA	0012	000C	CLHII
0000	0000	CLHRT	0008	0008	CLHFP			

Alphabetical list of fields in CHACLH

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CLHFP	0008	0008	CLHRT	0000	0000	CLHTT	0000	0000
CLHII	0012	000C	CLHTA	0004	0004			

Assembler listing of CHACLH

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	18 00000	CHACLH	DSECT		CLOCK LIST HEADER
18 00000			DS	OF	
18 00000		CLHRT	DS	OCL8	TIME VALUE SET VIA SETTR
18 00000		CLHTT	DS	F	ACCUM.TIME REQUESTED TIME
18 00004		CLHTA	DS	F	VALUE USED IN SETTU REQUEST
18 00008		CLHFP	DS	F	PTR TO FIRST CLOCK IN CHAIN
18 0000C		CLHII	DS	F	IGNORE INDICATOR

STARTUP Communications Region (CHACMR)

CHACMR is a copy of the communications region of STARTUP, including the link-edited IVM, RESSUP, and RSS to be used for restarts. CHACMR is used by the QUICKSTART dataset creator in STARTUP.

CHACMR Storage map

DEC	HEX					
0	0	CMREIAA		RESERVED		
8	8	CMRESTR				
16	10	CMRDAM				
24	18	CMRCRG8		CMRCRG9		
32	20	CMRCRG10		CMRCRG11		
40	28	CMRCRG12		CMRCRG13		
48	30	CMRCRG14		CMRIDS		
56	38	CMRIDS (CONT)		CMRSETO	CMRSENM	CMRCPUS
64	40	CMROTHC	CMRIPLC	CMRCCUS		
72	48	CMRPART		CMRCCBLN	CMRSULN	
80	50	CMRTERM	RESERVED	CMRVOLIP		
88	58	CMRPRTAD	CMRIPLID			
96	60	CMRDSCBI		CMRPATI		
104	68	CMRSPLOC		CMRCCBLC		
112	70	CMRPFY				
		UNNAMED				
128	80	CMRMCH	CMR32MSK	RESERVED	CMRTERSY	
136	88	CMRIPLSY		CMRPGUSE		
144	90	UNNAMED		CMRSPDSY		
152	98	CMRPPDSY				
		CMRDMLST				
168	A8	CMRSERR				
184	B8	CMRPAGAD				
192	C0	CMRSPGAD		CMRPMDOR		
200	C8	CMRDRUMS	RESERVED	CMRASD		
208	D0	CMRASDDR		CMRDEV	CMRIMC01	CMRWRDCT
216	D8	CMRPAT	RESERVED	CMRTMTCT	CMRTMBFP	CMRTMTTP
224	E0	CMRTMSL	CMRTMBUF	CMRTMTER	RESERVED	

(CHACMR continued on page 73)

(CHACMR continued from page 72)

DEC	HEX		
232	E8	CMRTCTVM	CMRBFVVM
240	F0	CMRMEMAD	CMRSPTAD
248	F8	CMRXTSI	CMROUP
256	100	CMRINP	CMRPSABF
264	108	CMRWORK	CMREXTAB
272	110	CMRNPAT	CMRLDTBL
280	118	CMRLDRSS	CMRTDYAD
288	120	CMRTDYLN	CMRTDYOV
			CMRLDTLN
			CMRSSLN
296	128	CMRMAPAD	CMROPOD
304	130	CMRLLDAD	CMRTAD
312	138	CMRTAD2	CMRSYMAD
320	140	CMRSSCOM	CMRSSPT2
328	148	CMRSSPT3	CMRSSXP4
336	150	CMRSSPGS	CMRSYMPG
			CMRECAD
344	158	CMRSERAD	CMRSSRO
352	160	CMRSSADD	CMRADEND
360	168	CMRSYMVM	CMRTDYVM
368	170	CMRSDSVM	CMRVMAOR
376	178	CMRSDAVM	CMRVSSVM
384	180	CMRPVTVM	CMRISAVM
392	188	CMRTDTVM	CMRSCMVM
400	190	CMRVMDYL	CMRDLEP
408	198	CMRVMTCM	CMRSARVM
416	1A0	CMRSDALC	CMRSDAPG
424	1A8	CMRVSSLC	CMRVSSPG
432	1B0	CMRPVTLC	CMRPVTPG
440	1B8	CMRISALC	CMRISAPG
448	1C0	CMRTDTLC	CMRTDTPG
456	1C8	CMRSCMLC	CMRSCMPG
464	1D0	CMRVMDLL	CMRVMDLP
472	1D8		UNNAMED
480	1E0	CMRTCML	CMRTCMP
488	1E8	CMRSARLC	CMRSARPG

(CHACMR continued on page 74)

(CHACMR continued from page 73)

DEC	HEX		
496	1F0	CMRSSDAL	CMRSSDAP
504	1F8	CMRSCBT	CMRNMDEV
512	200	CMRINMTS	CMRNMTE
520	208	CMRSSYS	CMRSASAT
528	210	CMRSSCN	CMRSPATH
536	218	CMRSPATP	CMRSPATR
544	220	CMRINTCM	CMRSTSKI
552	228	CMRSQGQE	CMRSSTE
560	230	CMRSDISP	CMRSQSCN
568	238	CMRSSCA	CMRSSCR
576	240	CMRSRSV	CMRSSTA
584	248	CMRSPSA	CMRNSVC
592	250	CMRSVCTB	CMRRSDAT
600	258	CMRSSDAT	CMRSIPE
608	260	CMRAEBRS	CMRASY
616	268	CMRPAPTR	CMRCOMAD
624	270	CMRLOWAD	CMRCATCT
632	278	CMRCABFP	CMRINAD
640	280	CMROUTAD	CMRSTART
648	288	CMRSXPT	CMRP1002
656	290	CMRUSER	RESERVED
		CMRSHDL	
704	2C0	CMRCXDCN	CMRLLAST
712	2C8	CMRLLEND	CMRSG0LN
720	2D0	CMRSG1LN	CMRSG2LN
728	2D8	CMRSG3LN	CMRSG4LN
736	2E0	CMRSG5LN	CMRSG6LN
744	2E8	CMRSG7LN	CMRSG8LN
752	2F0	CMRSG9LN	CMRSGALN
760	2F8	CMRSGBLN	CMRSGCLN
768	300	CMRSGDLN	CMRSGELN
776	308	CMRSGFLN	CMRSG0AD

(CHACMR continued on page 75)



(CHACMR continued from page 74)

DEC	HEX		
784	310	CMRSG1AD	CMRSG2AD
792	318	CMRSG3AD	CMRSG4AD
800	320	CMRSG5AD	CMRSG6AD
808	328	CMRSG7AD	CMRSG8AD
816	330	CMRSG9AD	CMRSGAAD
824	338	CMRSGBAD	CMRSGCAD
832	340	CMRSGDAD	CMRSGEAD
840	348	CMRSGFAD	CMRSGMT0
848	350	CMRSGMT1	CMRSGMT2
856	358	CMRSGMT3	CMRSGMT4
864	360	CMRSGMT5	CMRSGMT6
872	368	CMRSGMT7	CMRSGMT8
880	370	CMRSGMT9	CMRSGMTA
888	378	CMRSGMTB	CMRSGMTC
896	380	CMRSGMTD	CMRSGMTE
904	388	CMRSGMTF	CMRPAG0
912	390	CMRPAG1	CMRPAG2
920	398	CMRPAG3	CMRPAG4
928	3A0	CMRPAG5	CMRPAG6
936	3A8	CMRPAG7	CMRPAG8
944	3B0	CMRPAG9	CMRPAGA
952	3B8	CMRPAGB	CMRPAGC
960	3C0	CMRPAGD	CMRPAGE
968	3C8	CMRPAGF	CMRNASVM
976	3D0	CMRNASNM	CMRPVSEG
1008	3F0		CMRPBSEG
1040	410	RESERVED	CMRCRG0

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DEC	HEX						
1048	418	CMRCRG1		CMRCRG2			
1056	420	CMRCRG3		CMRCRG4			
1064	428	CMRCRG5		CMRCRG6			
1072	430	CMRCRG7		CMRGTDR	CMRGTFL	CMRGTNC	RESERVED
1080	438	CMRGTNUM	RESERVED	CMRRETAD			
1088	440	CMRSSFL	RESERVED				
		CMRSAVE					
1152	480	CMRDSCB					
1408	580	CMRDSTBL					
1608	648	CMRPCU					
1728	6C0	CMRDSTR					
1808	710	CMRDSNAD		CMRHRCHY	CMRDSCNT		
1816	718	CMRDDSCO	CMRCSNTR	CMRPDCNT	RESERVED		
1824	720	CMRDSINP		CMRDSLST			
1832	728	CMRDVOL		CMREXDIS	CMRSDIS		
1840	730	CMRNMTCT					
1848	738	CMRNMBFP					
1856	740	CMRCRVOL		CMRQUAL			
1864	748	CMRQUAL1		CMRQUALS			
1872	750	CMRQUALR		CMRALLDS			
1880	758	CMRTDYTB					

(CHACMR continued on page 77)

DEC 2136	HEX 858	CMRINPUT			
2216	8A8	CMRPATCH			
2256	8D0	CMRSOAI		CMRSOAN	
2264	8D8	CMRPGSVE		CMRMPBG	
2272	8E0	CMRYMCUR		RESERVED	
2280	8E8	CMRTRMNT			
2288	8F0	CMRTRTB			
2304	900	CMRCEND	RESERVED		
		CMRENDMK			
2320	910	CMRZEROS			
2328	918	CMRSEGМК		CMRONE	
2336	920	CMR256		CMRLIDMS	
2344	928	CMRLIDMP		CMRMSK	
2352	930	UNNAMED	CMRPLTH	CMRDEFCT	CMRLXPT
2360	938	CMRLXPST	CMRTWO	CMRFOUR	
2368	940	CMRDSNAM			CMRDSQAL
2376	948	CMRDSQAL (CONT)		RESERVED	
2384	950	CMRNAME			
2392	958	UNNAMED	CMRCZ	CMRCHB	CMRTDYNM
2400	960	CMRTDYNM (CONT)			CMRMAPNM
2408	968	CMRMAPNM (CONT)			CMREXTNM
2416	970	CMREXTNM (CONT)			CMRPGWRT
2424	978	CMRMAP	CMRVAM2	RESERVED	UNNAMED
2432	980	CMRTRANV			CMRRDPDV
2440	988	CMRSRCHV			CMRLOCXV
2448	990	CMRHASHV			CMRSVEV

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DEC	HEX						
2456	998	CMRGTXSV			CMRBS13		
2464	9A0	CMRHSHSV			CMRMODSV		
2472	9A8	CMRRDNSV			CMRSTLEN	RESERVED	
2480	9B0	CMRSARSV			CMREADER	CMRMODNM	
2488	9B8	CMRMODNM(CONT)				CMREXTNO	
2496	9C0	CMRPARTM	CMRTEMP	CMROVFG	CMRCSW1	CMRCSW2	CMRDLBT   RESERVED
2504	9C8	CMRIOAD			CMRIOLEN	CMRIOFG	RESERVED
2512	9D0	CMRGRP1			CMRGRP2		
2520	9D8	CMRGRPS1			CMRGRPS2		
2528	9E0	CMREQAD1			CMREQAD2		
2536	9E8	CMRETAD1			CMRETAD2		
2544	9F0	CMRBUFF1			CMRBUFF2		
2552	9F8	CMRBLDF			CMRBLDX		
2560	A00	CMRMAXTD			CMRBFLN	RESERVED	
2568	A08	CMRSCED			RESERVED		
2576	A10	CMRCCW05					
2584	A18	CMRCCW06					
2592	A20	CMRIVM					
2600	A28	CMRSUP					
2616	A38	CMRRSS					
2632	A48	RESERVED					
2640	A50	CMRFSTSU			CMRSPSV		
2648	A58	CMRQKTP	CMRQKVOL	CMRQKPAT	CMRQKCPU		
2656	A60	CMRQKTVT	CMRRPNE	CMRSLTE	CMRSRQKF		
2664	A68	CMRSRQKL	CMRSRCNT	CMRQKFG	CMRQKID		
2672	A70	CMRQKID (CONT)		RESERVED			
		CMRQKMAP					
2744	AB8	UNNAMED					
2752	AC0	CMRVMLL					
2760	AC8	UNNAMED	CMRRCLL				

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DEC	HEX	CMRRCLL	UNNAMED	CMRRSLL			
2768	AD0	CMRRSLL (CONT)	UNNAMED	CMRPGIND	CMRMSK1B		
2776	AD8				CMRMSK1B		
2784	AE0	CMRMSK2			CMRMSK3		
2792	AE8	CMRMSKE			CMRMSK7		
2800	AF0	CMRMSK8			CMRMSK9		
2808	AF8	CMRMSK11			CMRMUTCT	CMRSPTNO	
2816	B00	CMRLSPT	CMRSSVE		CMRBLANK		
2824	B08	CMRBLANK (CONT)			CMRMXHDI		
2832	B10	CMRMXHDR			CMRAEAR		
2840	B18	CMRPAGEV			CMRFXBTL		
2848	B20	CMRFXBS			CMRPGTAD		
2856	B28	CMRINADV			CMRVIRT		
2864	B30	CMRTEXTN			CMRNOBT		
2872	B38	CMRERLD			CMRERND		
2880	B40	CMRIRLD			CMRIRND		
2888	B48	CMRVMPT			CMRSEPCS		
2896	B50	CMRMODCO	CMRINPSZ		CMROUTSZ	CMRSEGSW	
2904	B58	CMRSSSW	CMRMVESW	CMRNLLSW	CMRCDFSW	CMRSERSW	CMRUTI
2912	B60	CMRUTI (CONT)	CMRIPLY	CMRSLSW	CMRNMPHT		
2920	B68	CMRSDAC			CMRCORE		
2928	B70	CMRPTMP			CMTRTPG		
2936	B78	CMRBFGT			CMRTDE		
2944	B80	CMRMODFY			CMREIAA2		
2952	B88	CMROPER			CMRPRINT		
2960	B90	CMRMSGTB			CMRPPCCW		
2968	B98	CMRADTRN			CMRATRAN		
2976	BA0	CMRBTRAN			CMRCTRAN		
2984	BA8	CMRLOCKX			CMREXTNT		
2992	BB0	CMRHASH			CMRORGIN		
3000	BB8	CMRWRTDY			CMRXTSRT		
3008	BC0	CMRSHPT			CMRRSPI		
3016	BC8	CMRFORM			CMRSETPT		
3024	BD0	CMRNAMLC			CMRRDPOD		

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DEC	HEX		
3032	BD8	CMRMAPGN	CMRCOMTB
3040	BE0	CMRWRSYM	CMRADDPG
3048	BE8	CMRBSDST	CMRESRVP
3056	BF0	CMRGTFLD	CMRWTMD
3064	BF8	CMRWRXTS	CMRSOAPG
3072	C00	CMRHOLTB	CMRENTTB
3080	C08	CMRHOLVL	CMRQDR
3088	C10	CMRBGNTD	CMRLLNK
3096	C18	CMRLLSCN	CMRSRCN
3104	C20	CMRLDPM	CMRSDAT
3112	C28	CMRDATA	CMRCYLHD
3120	C30	CMRSMFSA	CMRSORD
3128	C38	CMROTHER	CMRGTPAT
3136	C40	CMRRDSCB	CMRTDTCT
3144	C48	CMRREAD	CMROPRT
3152	C50	CMRDELDS	CMRDLTBL
3160	C58	CMRDLBTB	CMRELTDY
3168	C60	CMRALLER	CMRSLOAD
3176	C68	CMRSRCH	CMRNMTAB
3184	C70	CMRSERR1	CMRSTERM
3192	C78	CMRLOADL	CMRHSHSR
3200	C80	CMREADIN	CMRSEEK
3208	C88	CMREROUT	CMRBLDTB
3216	C90	CMRPGTDY	CMRJSHB2
3224	C98	CMRJSHBA	CMRADTIT
3232	CA0	CMRSTRAN	CMRRTRAN
3240	CA8	CMRPGXTS	CMRASAT
3248	CB0	CMRDIRSZ	CMRQKRD
3256	CB8	CMRQKSTA	CMRENAB

ORG CMRESTR

8	8	UNNAMED	UNNAMED	CMRIXPG	UNNAMED
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Fields in CHACMR -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	CMREIAA	0248	00F8	CMRXTSI	0488	01E8	CMRSARLC
0008	0008	CMRESTR	0252	00FC	CMROUP	0492	01EC	CMRSARPG
0008	0008	CMRPREL	0252	00FC	CMRBUFFA	0496	01F0	CMRSSDAL
0010	000A	CMRIXPG	0256	0100	CMRINP	0496	01F0	CMRSSCSL
0016	0010	CMRDAM	0260	0104	CMRPSABF	0500	01F4	CMRSSDAP
0024	0018	CMRCRG8	0264	0108	CMRWORK	0504	01F8	CMRSCBT
0028	001C	CMRCRG9	0268	010C	CMREXTAB	0508	01FC	CMRNMDEV
0032	0020	CMRCRG10	0268	010C	CMRRDWR	0512	0200	CMRINMTS
0036	0024	CMRCRG11	0272	0110	CMRNPAT	0516	0204	CMRNMTE
0040	0028	CMRCRG12	0276	0114	CMRLDTBL	0520	0208	CMRSSYS
0044	002C	CMRCRG13	0276	0114	CMRQKDS	0524	020C	CMRSASAT
0048	0030	CMRCRG14	0280	0118	CMRLDRSS	0528	0210	CMRSSCN
0052	0034	CMRIDS	0280	0118	CMRQKREC	0532	0214	CMRSPATH
0060	003C	CMRSETO	0284	011C	CMRTDYAD	0536	0218	CMRSPATP
0061	003D	CMRSENM	0288	0120	CMRTDYLN	0540	021C	CMRSPATR
0062	003E	CMRCBUS	0290	0122	CMRTDYOV	0544	0220	CMRINTCM
0064	0040	CMROTHC	0292	0124	CMRLDTLN	0548	0224	CMRSTSKI
0067	0043	CMRIPLC	0294	0126	CMRSSSLN	0552	0228	CMRSQGQE
0068	0044	CMRSIMP (EQU)	0296	0128	CMRMAPAD	0556	022C	CMRSSTE
0068	0044	CMRCCUS	0300	012C	CMROPOD	0560	0230	CMRSDISP
0072	0048	CMRPART	0304	0130	CMRLLAD	0564	0234	CMRSSCSN
0076	004C	CMRCCBLN	0308	0134	CMRTAD	0568	0238	CMRSSCA
0078	004E	CMRSULN	0312	0138	CMRTAD2	0572	023C	CMRSSCR
0080	0050	CMRTERM	0316	013C	CMRSYMAD	0576	0240	CMRSRSV
0084	0054	CMRVOLTC (EQU)	0320	0140	CMRSSCOM	0580	0244	CMRSSTA
0084	0054	CMRVOLIP	0324	0144	CMRSSPT2	0584	0248	CMRSPSA
0086	0056	CMRVOLAD (EQU)	0328	0148	CMRSSPT3	0588	024C	CMRNSVC
0088	0058	CMRPTAD	0332	014C	CMRSSXP4	0592	0250	CMRSVCTB
0090	005A	CMRIPLID	0336	0150	CMRSSPGS	0596	0254	CMRSSDAT
0096	0060	CMRDSCBI	0338	0152	CMRSYMPG	0600	0258	CMRSSDAT
0100	0064	CMRPATI	0340	0154	CMRECAD	0600	0258	CMRSSCSN
0104	0068	CMRSPLOC	0344	0158	CMRSERAD	0604	025C	CMRSIPE
0108	006C	CMRCCBAD (EQU)	0348	015C	CMRSSRO	0608	0260	CMRAEBRS
0108	006C	CMRCCBIC	0352	0160	CMRSSADD	0612	0264	CMRASYS
0112	0070	CMRPSAS (EQU)	0356	0164	CMRADEND	0616	0268	CMRPAPTR
0112	0070	CMRPFY	0360	0168	CMRSYMVM	0620	026C	CMRCOMAD
0128	0080	CMRMCH	0364	016C	CMRTDYVM	0624	0270	CMRLOWAD
0129	0081	CMR32MSK	0368	0170	CMRSDSVM	0628	0274	CMRCATCT
0132	0084	CMRTERS	0372	0174	CMRVMAOR	0632	0278	CMRCABFP
0136	0088	CMRIPLSY	0376	0178	CMRSDAVM	0636	027C	CMRINAD
0140	008C	CMRPGUSE	0376	0178	CMRIVMCN	0640	0280	CMROUTAD
0148	0094	CMRSPDSY	0380	017C	CMRVSSVM	0644	0284	CMRSTART
0152	0098	CMRPPDSY	0384	0180	CMRPVTVM	0648	0288	CMRSXPT
0156	009C	CMRDMLST	0388	0184	CMRISAVM	0652	028C	CMRP1002
0172	00AC	CMRSERR	0392	0188	CMRTDTVM	0656	0290	CMRUSER
0188	00BC	CMRPAGAD	0396	018C	CMRSCVM	0660	0294	CMRSHDL
0192	00C0	CMRSPGAD	0400	0190	CMRVMDYL	0704	02C0	CMRXCDCN
0196	00C4	CMRPMDOR	0404	0194	CMRDLEP	0708	02C4	CMRLLAST
0200	00C8	CMRDRUMS	0408	0198	CMRVMTCM	0712	02C8	CMRLLEND
0204	00CC	CMRASD	0412	019C	CMRSARVM	0716	02CC	CMRSGOLN
0208	00D0	CMRASDDR	0416	01A0	CMRSDALC	0716	02CC	CMRSGLN
0212	00D4	CMRDEV	0416	01A0	CMRIVMCS	0720	02D0	CMRSG1LN
0214	00D6	CMRIMC01	0420	01A4	CMRSDAPG	0724	02D4	CMRSG2LN
0214	00D6	CMRINT	0424	01A8	CMRVSSLC	0728	02D8	CMRSG3LN
0215	00D7	CMRWRDCT	0428	01AC	CMRVSSPG	0732	02DC	CMRSG4LN
0216	00D8	CMRPAT	0432	01B0	CMRPVTL	0736	02E0	CMRSG5LN
0218	00DA	CMRTMTCT	0436	01B4	CMRPVTPG	0740	02E4	CMRSG6LN
0220	00DC	CMRTMBFP	0440	01B8	CMRISALC	0744	02E8	CMRSG7LN
0222	00DE	CMRTMTTP	0444	01BC	CMRISAPG	0748	02EC	CMRSG8LN
0224	00E0	CMRTMBSL	0448	01C0	CMRTDTLC	0752	02F0	CMRSG9LN
0226	00E2	CMRTMBUF	0452	01C4	CMRTDTPG	0756	02F4	CMRSGALN
0228	00E4	CMRTMTER	0456	01C8	CMRSCMLC	0760	02F8	CMRSGBLN
0232	00E8	CMRTCTVM	0460	01CC	CMRSCMPG	0764	02FC	CMRSGCLN
0236	00EC	CMRBFVPM	0464	01D0	CMRVMDLL	0768	0300	CMRSGDLN
0240	00F0	CMRMEMAD	0468	01D4	CMRVMDLP	0772	0304	CMRSGELN
0244	00F4	CMRSPTAD	0480	01E0	CMRTCML	0776	0308	CMRSGFLN
0244	00F4	CMRBUFFS	0484	01E4	CMRTCMP	0780	030C	CMRSGOAD

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DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0780	030C	CMRSGAD	1084	043C	CMRRETAD	2436	0984	CMRRDPDV
0784	0310	CMRSG1AD	1088	0440	CMRSSFL	2440	0988	CMRSRCHV
0788	0314	CMRSG2AD	1092	0444	CMRSAVE	2444	098C	CMRLOCXV
0792	0318	CMRSG3AD	1152	0480	CMRDSCB	2448	0990	CMRHASHV
0796	031C	CMRSG4AD	1408	0580	CMRSDTB (EQU)	2452	0994	CMRSAVEV
0800	0320	CMRSG5AD	1408	0580	CMRDSTBL	2456	0998	CMRGTXSV
0804	0324	CMRSG6AD	1608	0648	CMRPCU	2460	099C	CMRBS13
0808	0328	CMRSG7AD	1728	06C0	CMRDSTR	2464	09A0	CMRHSHSV
0812	032C	CMRSG8AD	1808	0710	CMRDSNAD	2468	09A4	CMRMODSV
0816	0330	CMRSG9AD	1812	0714	CMRHRCHY	2472	09A8	CMRRDNSV
0820	0334	CMRSGAAD	1814	0716	CMRDSCNT	2476	09AC	CMRSTLEN
0824	0338	CMRSGBAD	1816	0718	CMRDSC0	2480	09B0	CMRSARSV
0828	033C	CMRSGCAD	1818	071A	CMRCSNTR	2484	09B4	CMREADER
0832	0340	CMRSGDAD	1820	071C	CMRPDCNT	2486	09B6	CMRMODNM
0836	0344	CMRSGEAD	1824	0720	CMRDSINP	2494	09BE	CMREXTNO
0840	0348	CMRSGFAD	1828	0724	CMRDSLST	2496	09C0	CMRPARTM
0844	034C	CMRS0PG1 (EQU)	1832	0728	CMRDVOLT (EQU)	2498	09C2	CMRTEMP
0844	034C	CMRSGMT0	1832	0728	CMRDVOL	2499	09C3	CMROVFG
0844	034C	CMRSGMT	1834	072A	CMRDVOLA (EQU)	2500	09C4	CMRCSW1
0848	0350	CMRSGMT1	1836	072C	CMREXDIS	2501	09C5	CMRCSW2
0852	0354	CMRSSOR (EQU)	1838	072E	CMRDSDIS	2502	09C6	CMRDLTB
0852	0354	CMRSGMT2	1840	0730	CMRNMTCT	2504	09C8	CMRIOAD
0856	0358	CMRSGMT3	1848	0738	CMRNMBFP	2508	09CC	CMRIOLEN
0860	035C	CMRSGMT4	1856	0740	CMRCRVOL	2510	09CE	CMRIOFG
0864	0360	CMRSGMT5	1860	0744	CMRQUAL	2512	09D0	CMRGRP1
0868	0364	CMRSGMT6	1864	0748	CMRQUAL1	2516	09D4	CMRGRP2
0872	0368	CMRSGMT7	1868	074C	CMRQUALS	2520	09D8	CMRGRPS1
0876	036C	CMRSGMT8	1872	0750	CMRQUALR	2524	09DC	CMRGRPS2
0880	0370	CMRSGMT9	1876	0754	CMRALLDS	2528	09E0	CMREQAD1
0884	0374	CMRSGMTA	1880	0758	CMRTDVTB	2532	09E4	CMREQAD2
0888	0378	CMRSGMTB	2136	0858	CMRINPUT	2536	09E8	CMRETAD1
0892	037C	CMRSGMTC	2216	08A8	CMRPATCH	2540	09EC	CMRETAD2
0896	0380	CMRSGMTD	2256	08D0	CMRSOAI	2544	09F0	CMRBUFF1
0900	0384	CMRSGMTE	2260	08D4	CMRSOAN	2548	09F4	CMRBUFF2
0904	0388	CMRSGMTF	2264	08D8	CMRPGSVE	2552	09F8	CMRBLDF
0908	038C	CMRPAG0	2268	08DC	CMRMPBG	2556	09FC	CMRBLDX
0908	038C	CMRPAG	2272	08E0	CMRYMCUR	2560	0A00	CMRMAXTD
0912	0390	CMRPAG1	2280	08E8	CMRTRMNT	2564	0A04	CMRBFLN
0916	0394	CMRPAG2	2288	08F0	CMRTRTB	2568	0A08	CMRSCED
0920	0398	CMRPAG3	2304	0900	CMRCEND	2576	0A10	CMRCCW05
0924	039C	CMRPAG4	2308	0904	CMRENDMK	2584	0A18	CMRCCW06
0928	03A0	CMRPAG5	2320	0910	CMRZEROS	2590	0A1E	CMRCCW6B (EQU)
0932	03A4	CMRPAG6	2328	0918	CMRSEGМК	2592	0A20	CMRIVM
0936	03A8	CMRPAG7	2332	091C	CMRONE	2607	0A2F	CMRSUP
0940	03AC	CMRPAG8	2334	091E	CMRONE1 (EQU)	2622	0A3E	CMRRSS
0944	03B0	CMRPAG9	2336	0920	CMR256	2640	0A50	CMRFSTSU
0948	03B4	CMRPAGA	2340	0924	CMRLIDMS	2644	0A54	CMRSPSV
0952	03B8	CMRPAGB	2344	0928	CMRLIDMP	2648	0A58	CMRQKTYP
0956	03BC	CMRPAGC	2348	092C	CMRMMSK	2650	0A5A	CMRQKVOL
0960	03C0	CMRPAGD	2354	0932	CMRPGLTH	2652	0A5C	CMRQKPAT
0964	03C4	CMRPAGE	2356	0934	CMRDEFCT	2654	0A5E	CMRQKCPU
0968	03C8	CMRPAGF	2358	0936	CMRLXPT	2656	0A60	CMRQKPVТ
0972	03CC	CMRNASVM	2360	0938	CMRLXPST	2658	0A62	CMRRPNE
0976	03D0	CMRNASNM	2362	093A	CMRTWO	2660	0A64	CMRSLTE
0978	03D2	CMRPVSEG	2364	093C	CMRFOUR	2662	0A66	CMRSRQKF
1010	03F2	CMRPBSEG	2366	093E	CMRDSNAM	2664	0A68	CMRSRQKL
1044	0414	CMRCRG0	2375	0947	CMRDSQAL	2666	0A6A	CMRSRCNT
1048	0418	CMRCRG1	2384	0950	CMRNAME	2668	0A6C	CMRQKFG
1052	041C	CMRCRG2	2394	095A	CMRCZ	2669	0A6D	CMRQKID
1056	0420	CMRCRG3	2396	095C	CMRCHB	2676	0A74	CMRQKMAP
1060	0424	CMRCRG4	2399	095F	CMRTDYNM	2752	0AC0	CMRVMLL
1064	0428	CMRCRG5	2407	0967	CMRMAPNM	2761	0AC9	CMRRCLL
1068	042C	CMRCRG6	2415	096F	CMREXTNM	2770	0AD2	CMRRSLL
1072	0430	CMRCRG7	2423	0977	CMRPGWRT	2779	0ADB	CMRPGIND
1076	0434	CMRGTDР	2424	0978	CMRMAP	2780	0ADC	CMRMSK1B
1077	0435	CMRGTFЛ	2425	0979	CMRVAM2	2784	0AE0	CMRMSK2
1078	0436	CMRGТNC	2428	097C	CMRMINUS	2788	0AE4	CMRMSK3
1080	0438	CMRGТNUM	2432	0980	CMRTRANV	2792	0AE8	CMRMSKE

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DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
2796	0AEC	CMRMSK7	2928	0B70	CMRPTMP	3100	0C1C	CMRSRCN
2800	0AF0	CMRMFFF (EQU)	2932	0B74	CMTRTPG	3104	0C20	CMRLDPMD
2800	0AF0	CMRMSK8	2936	0B78	CMRBFGT	3108	0C24	CMRSDAT
2802	0AF2	CMRUSECT (EQU)	2940	0B7C	CMRTDE	3112	0C28	CMRDATA
2804	0AF4	CMRMSK9	2944	0B80	CMRMODFY	3116	0C2C	CMRCYLHD
2808	0AF8	CMRMSK11	2948	0B84	CMREIAA2	3120	0C30	CMRSMFSA
2812	0AFC	CMRMUTCT	2952	0B88	CMROPER	3124	0C34	CMRSORD
2814	0AFE	CMRSPTNO	2956	0B8C	CMRWT (EQU)	3128	0C38	CMROTHER
2816	0B00	CMRLSPT	2956	0B8C	CMRPRINT	3132	0C3C	CMRGTPAT
2818	0B02	CMRSSVE	2960	0B90	CMRMSGTB	3136	0C40	CMRRDSCB
2820	0B04	CMRBLANK	2964	0B94	CMRPPCCW	3140	0C44	CMRTDTCT
2828	0B0C	CMRMXHDI	2968	0B98	CMRADTRN	3144	0C48	CMRREAD
2832	0B10	CMRMXHDR	2972	0B9C	CMRATRN	3148	0C4C	CMROPRT
2836	0B14	CMRAEAR	2976	0BA0	CMRTRAN	3152	0C50	CMRDELDS
2840	0B18	CMRPAGEV	2980	0BA4	CMRCTRAN	3156	0C54	CMRDLTBL
2844	0B1C	CMRFXBTL	2984	0BA8	CMRLOCK	3160	0C58	CMRDLBTB
2848	0B20	CMRFXBS	2988	0BAC	CMREXTNT	3164	0C5C	CMRELTDY
2852	0B24	CMRPGTAD	2992	0BB0	CMRHASH	3168	0C60	CMRLLER
2856	0B28	CMRINADV	2996	0BB4	CMRROGIN	3172	0C64	CMRSLDAD
2860	0B2C	CMRVIRT	3000	0BB8	CMRWRTDY	3176	0C68	CMRSRCH
2864	0B30	CMRTEXTN	3004	0BBC	CMRXTSRT	3180	0C6C	CMRNMTAB
2868	0B34	CMRNOBT	3008	0BC0	CMRSHT	3184	0C70	CMRSERR1
2872	0B38	CMRERLD	3012	0BC4	CMRRSPI	3188	0C74	CMRSTERM
2876	0B3C	CMRERND	3016	0BC8	CMRFORM	3192	0C78	CMRLOADL
2880	0B40	CMRIRLD	3020	0BCC	CMRSETPT	3196	0C7C	CMRSHSR
2884	0B44	CMRIRND	3024	0BD0	CMRNAMLC	3200	0C80	CMREADIN
2888	0B48	CMRVMPPT	3028	0BD4	CMRRDPOD	3204	0C84	CMRSEK
2892	0B4C	CMRSEPCS	3032	0BD8	CMRMAPGN	3208	0C88	CMREROUT
2896	0B50	CMRMODCO	3036	0BDC	CMRCOMTB	3212	0C8C	CMRBLDTB
2898	0B52	CMRINPSZ	3040	0BE0	CMRWRSYM	3216	0C90	CMRPGTDY
2900	0B54	CMROUTSZ	3044	0BE4	CMRADDPG	3220	0C94	CMRJSB2
2902	0B56	CMRSEGSW	3048	0BE8	CMRBS DST	3224	0C98	CMRJSBBA
2904	0B58	CMRSSSW	3052	0BEC	CMRESRVP	3228	0C9C	CMRADTIT
2906	0B5A	CMRMVESW	3056	0BF0	CMRGTFLD	3232	0CA0	CMRSTRAN
2907	0B5B	CMRNLLSW	3060	0BF4	CMRWTMD	3236	0CA4	CMRSTRAN
2908	0B5C	CMRCDFSW	3064	0BF8	CMRWRXTS	3240	0CA8	CMRPGXTS
2909	0B5D	CMRSERSW	3068	0BFC	CMRSOAPG	3244	0CAC	CMRASAT
2910	0B5E	CMRUTI	3072	0C00	CMRHOLTB	3248	0CB0	CMRDIRSZ
2914	0B62	CMRIPLY	3076	0C04	CMRENDTB	3252	0CB4	CMRQKRD
2915	0B63	CMRSLSW	3080	0C08	CMRHOLVL	3256	0CB8	CMRQKSTA
2916	0B64	CMRNMPHT	3084	0C0C	CMRQRDR	3260	0CBC	CMRENAB
2920	0B68	CMRS DAC	3088	0C10	CMRBGNTD	3264	0CC0	CMRLSTAD
2920	0B68	CMRFSTAC	3092	0C14	CMRLLLNK			
2924	0B6C	CMRCORE	3096	0C18	CMRLLSCN			

Alphabetical list of fields in CHACMR

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CMRADDPG	3044	0BE4	CMRBS DST	3048	0BE8	CMRCORE	2924	0B6C
CMRADEND	0356	0164	CMRBS13	2460	099C	CMRCBUS	0062	003E
CMRADTIT	3228	0C9C	CMRBTAN	2976	0BA0	CMRCRG0	1044	0414
CMRADTRN	2968	0B98	CMRBUFFA	0252	00FC	CMRCRG1	1048	0418
CMRAEAR	2836	0B14	CMRBUFFS	0244	00F4	CMRCRG10	0032	0020
CMRAEBS	0608	0260	CMRBUFF1	2544	09F0	CMRCRG11	0036	0024
CMRALLDS	1876	0754	CMRBUFF2	2548	09F4	CMRCRG12	0040	0028
CMRALLER	3168	0C60	CMRCABFP	0632	0278	CMRCRG13	0044	002C
CMRASAT	3244	0CAC	CMRCATCT	0628	0274	CMRCRG14	0048	0030
CMRASD	0204	00CC	CMRCCBAD	0108	006C (EQU)	CMRCRG2	1052	041C
CMRASDDR	0208	00D0	CMRCCBLC	0108	006C	CMRCRG3	1056	0420
CMRASY	0612	0264	CMRCCBLN	0076	004C	CMRCRG4	1060	0424
CMRATRN	2972	0B9C	CMRCCUS	0068	0044	CMRCRG5	1064	0428
CMRBFGT	2936	0B78	CMRCCW05	2576	0A10	CMRCRG6	1068	042C
CMRBFLN	2564	0A04	CMRCCW06	2584	0A18	CMRCRG7	1072	0430
CMRBFPVM	0236	00EC	CMRCCW6B	2590	0A1E (EQU)	CMRCRG8	0024	0018
CMRBGNTD	3088	0C10	CMRCDFSW	2908	0B5C	CMRCRG9	0028	001C
CMRBLANK	2820	0B04	CMRCEND	2304	0900	CMRCRVOL	1856	0740
CMRBLDF	2552	09F8	CMRCHB	2396	095C	CMRCSNTR	1818	071A
CMRBLDTB	3212	0C8C	CMRCOMAD	0620	026C	CMRCSW1	2500	09C4
CMRBLDX	2556	09FC	CMRCOMTB	3036	0BDC	CMRCSW2	2501	09C5

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FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CMRCTRAN	2980	0BA4	CMRGTNUM	1080	0438	CMRMODCO	2896	0B50
CMRCXDCN	0704	02C0	CMRGTPAT	3132	0C3C	CMRMODFY	2944	0B80
CMRCYLHD	3116	0C2C	CMRGTXSV	2456	0998	CMRMODNM	2486	09B6
CMRCZ	2394	095A	CMRHASH	2992	0BB0	CMRMODSV	2468	09A4
CMRDAM	0016	0010	CMRHASHV	2448	0990	CMRMPBG	2268	08DC
CMRDATA	3112	0C28	CMRHOLTB	3072	0C00	CMRMSGTB	2960	0B90
CMRDDSCO	1816	0718	CMRHOLVL	3080	0C08	CMRMSKE	2792	0AE8
CMRDEFCT	2356	0934	CMRHRCHY	1812	0714	CMRMSK1B	2780	0ADC
CMRDELDS	3152	0C50	CMRHSHDL	0660	0294	CMRMSK11	2808	0AF8
CMRDEV	0212	00D4	CMRHSHSR	3196	0C7C	CMRMSK2	2784	0AE0
CMRDIRSZ	3248	0CB0	CMRHSHSV	2464	09A0	CMRMSK3	2788	0AE4
CMRDLTB	2502	09C6	CMRIDS	0052	0034	CMRMSK7	2796	0AEC
CMRDLTBTB	3160	0C58	CMRIMC01	0214	00D6	CMRMSK8	2800	0AF0
CMRDLEP	0404	0194	CMRINAD	0636	027C	CMRMSK9	2804	0AF4
CMRDLTBL	3156	0C54	CMRINADV	2856	0B28	CMRMUTCT	2812	0AFC
CMRDMLST	0156	009C	CMRINMTS	0512	0200	CMRMVESW	2906	0B5A
CMRDRUMS	0200	00C8	CMRINP	0256	0100	CMRMXHDI	2828	0B0C
CMRDSCB	1152	0480	CMRINPSZ	2898	0B52	CMRMXHDR	2832	0B10
CMRDSCBI	0096	0060	CMRINPUT	2136	0858	CMRNAME	2384	0950
CMRDSCNT	1814	0716	CMRINT	0214	00D6	CMRNAMLC	3024	0BD0
CMRSDIS	1838	072E	CMRINTCM	0544	0220	CMRNASNM	0976	03D0
CMRDSINP	1824	0720	CMRIOAD	2504	09C8	CMRNASVM	0972	03CC
CMRDSLST	1828	0724	CMRIOFG	2510	09CE	CMRNLLSW	2907	0B5B
CMRDSNAM	1808	0710	CMRIOLEN	2508	09CC	CMRNMBFP	1848	0738
CMRDSNAM	2366	093E	CMRIPLC	0067	0043	CMRNMDEV	0508	01FC
CMRDSQAL	2375	0947	CMRIPLID	0090	005A	CMRNMPTH	2916	0B64
CMRDSTBL	1408	0580	CMRIPLSY	0136	0088	CMRNMTAB	3180	0C6C
CMRDSTR	1728	06C0	CMRIPLY	2914	0B62	CMRNMTCT	1840	0730
CMRDVOL	1832	0728	CMRIRLD	2880	0B40	CMRNMTDE	0516	0204
CMRDVOLA	1834	072A	CMRIRND	2884	0B44	CMRNOBT	2868	0B34
CMRDVOLT	1832	0728	CMRISALC	0440	01B8	CMRNPAT	0272	0110
CMREADER	2484	09B4	CMRISAPG	0444	01BC	CMRNSVC	0588	024C
CMREADIN	3200	0C80	CMRISAVM	0388	0184	CMRONE	2332	091C
CMRECAD	0340	0154	CMRIVM	2592	0A20	CMRONE1	2334	091E (EQU)
CMREIAA	0000	0000	CMRIVMCN	0376	0178	CMROPER	2952	0B88
CMREIAA2	2948	0B84	CMRIVMCS	0416	01A0	CMROPOD	0300	012C
CMRELTDY	3164	0C5C	CMRIXPG	0010	000A	CMROPRT	3148	0C4C
CMRENAB	3260	0CBC	CMRJSHBA	3224	0C98	CMRORGIN	2996	0BB4
CMRENDMK	2308	0904	CMRJSHB2	3220	0C94	CMROTHC	0064	0040
CMRENDTB	3076	0C04	CMRLDPMD	3104	0C20	CMROTHER	3128	0C38
CMREQAD1	2528	09E0	CMRLDRSS	0280	0118	CMROUP	0252	00FC
CMREQAD2	2532	09E4	CMRLDTBL	0276	0114	CMROUTAD	0640	0280
CMRERLD	2872	0B38	CMRLDTLN	0292	0124	CMROUTSZ	2900	0B54
CMRERND	2876	0B3C	CMRLIDMP	2344	0928	CMROVFG	2499	09C3
CMREROUT	3208	0C88	CMRLIDMS	2340	0924	CMRPAG	0908	038C
CMRESRVP	3052	0BEC	CMRLLDAD	0304	0130	CMRPAGA	0948	03B4
CMRESTR	0008	0008	CMRLLAST	0708	02C4	CMRPAGAD	0188	00BC
CMRETAD1	2536	09E8	CMRLLEND	0712	02C8	CMRPAGB	0952	03B8
CMRETAD2	2540	09EC	CMRLLLNK	3092	0C14	CMRPAGC	0956	03BC
CMREXDIS	1836	072C	CMRLLSCN	3096	0C18	CMRPAGD	0960	03C0
CMREXTAB	0268	010C	CMRLOADL	3192	0C78	CMRPAGE	0964	03C4
CMREXTNM	2415	096F	CMRLOCX	2984	0BA8	CMRPAGEV	2840	0B18
CMREXTNO	2494	09BE	CMRLOCXV	2444	098C	CMRPAGF	0968	03C8
CMREXTNT	2988	0BAC	CMRLOWAD	0624	0270	CMRPAG0	0908	038C
CMRFORM	3016	0BC8	CMRLSPT	2816	0B00	CMRPAG1	0912	0390
CMRFOUR	2364	093C	CMRLSTAD	3264	0CC0	CMRPAG2	0916	0394
CMRFSTAC	2920	0B68	CMRLXPST	2360	0938	CMRPAG3	0920	0398
CMRFSTSU	2640	0A50	CMRLXPT	2358	0936	CMRPAG4	0924	039C
CMRFXBS	2848	0B20	CMRMAP	2424	0978	CMRPAG5	0928	03A0
CMRFXBTL	2844	0B1C	CMRMAPAD	0296	0128	CMRPAG6	0932	03A4
CMRGRPS1	2520	09D8	CMRMAPGN	3032	0BD8	CMRPAG7	0936	03A8
CMRGRPS2	2524	09DC	CMRMAPNM	2407	0967	CMRPAG8	0940	03AC
CMRGRP1	2512	09D0	CMRMAXTD	2560	0A00	CMRPAG9	0944	03B0
CMRGRP2	2516	09D4	CMRMCH	0128	0080	CMRPAPTR	0616	0268
CMRGTD	1076	0434	CMRMEMAD	0240	00F0	CMRPART	0072	0048
CMRGTF	1077	0435	CMRMFFF	2800	0AF0 (EQU)	CMRPARTM	2496	09C0
CMRGTFD	3056	0BF0	CMRMINUS	2428	097C	CMRPAT	0216	00D8
CMRGTNC	1078	0436	CMRMMSK	2348	092C	CMRPATCH	2216	08A8

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FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CMRPATI	0100	0064	CMRSCMLC	0456	01C8	CMRSG7LN	0744	02E8
CMRPBSEG	1010	03F2	CMRSCMPG	0460	01CC	CMRSG8AD	0812	032C
CMRPCU	1608	0648	CMRSCMVM	0396	018C	CMRSG8LN	0748	02EC
CMRPDCNT	1820	071C	CMRSDAC	2920	0B68	CMRSG9AD	0816	0330
CMRPFY	0112	0070	CMRSDALC	0416	01A0	CMRSG9LN	0752	02F0
CMRPGIND	2779	0ADB	CMRSDAPG	0420	01A4	CMRSHPT	3008	0BC0
CMRPGPTH	2354	0932	CMRSDAT	3108	0C24	CMRSIMP	0068	0044 (EQU)
CMRPGSVE	2264	08D8	CMRSDAVM	0376	0178	CMRSIPE	0604	025C
CMRPGTAD	2852	0B24	CMRSDISP	0560	0230	CMRSLoad	3172	0C64
CMRPGTDY	3216	0C90	CMRSDSVM	0368	0170	CMRSLSW	2915	0B63
CMRPGUSE	0140	008C	CMRSDTB	1408	0580 (EQU)	CMRSLTE	2660	0A64
CMRPGWRT	2423	0977	CMRSEEK	3204	0C84	CMRSMFSA	3120	0C30
CMRPGXTS	3240	0CA8	CMRSEGMK	2328	0918	CMRSOAI	2256	08D0
CMRPMDOR	0196	00C4	CMRSEGSW	2902	0B56	CMRSOAN	2260	08D4
CMRPPCCW	2964	0B94	CMRSENM	0061	003D	CMRSOAPG	3068	0BFC
CMRPPDSY	0152	0098	CMRSEPCS	2892	0B4C	CMRSORD	3124	0C34
CMRPREL	0008	0008	CMRSEPAD	0344	0158	CMRSPATH	0532	0214
CMRPRINT	2956	0B8C	CMRSERR	0172	00AC	CMRSPATP	0536	0218
CMRPRTAD	0088	0058	CMRSERR1	3184	0C70	CMRSPATR	0540	021C
CMRPSABF	0260	0104	CMRSERSW	2909	0B5D	CMRSPDSY	0148	0094
CMRPSAS	0112	0070 (EQU)	CMRSETO	0060	003C	CMRSPGAD	0192	00C0
CMRPTMP	2928	0B70	CMRSETPT	3020	0BCC	CMRSPLOC	0104	0068
CMRPVSEG	0978	03D2	CMRSGAAD	0820	0334	CMRSPSA	0584	0248
CMRPVTLC	0432	01B0	CMRSGAD	0780	030C	CMRSPSV	2644	0A54
CMRPVTPG	0436	01B4	CMRSGALN	0756	02F4	CMRSPTAD	0244	00F4
CMRPVTVM	0384	0180	CMRSGBAD	0824	0338	CMRSPTNO	2814	0AFE
CMRP1002	0652	028C	CMRSGBLN	0760	02F8	CMRSQGE	0552	0228
CMRQKCPU	2654	0A5E	CMRSGCAD	0828	033C	CMRSQSCN	0564	0234
CMRQKDS	0276	0114	CMRSGCLN	0764	02FC	CMRSRCH	3176	0C68
CMRQKFG	2668	0A6C	CMRSGDAD	0832	0340	CMRSRCHV	2440	0988
CMRQKID	2669	0A6D	CMRSGDLN	0768	0300	CMRSRCN	3100	0C1C
CMRQKMAP	2676	0A74	CMRSGEAD	0836	0344	CMRSRCNT	2666	0A6A
CMRQKPAT	2652	0A5C	CMRSGELN	0772	0304	CMRSRQKF	2662	0A66
CMRQKPVV	2656	0A60	CMRSGFAD	0840	0348	CMRSRQKL	2664	0A68
CMRQKRD	3252	0CB4	CMRSGFLN	0776	0308	CMRSRSV	0576	0240
CMRQKREC	0280	0118	CMRSGLN	0716	02CC	CMRSSADD	0352	0160
CMRQKSTA	3256	0CB8	CMRSGMT	0844	034C	CMRSSCA	0568	0238
CMRQKTYP	2648	0A58	CMRSGMTA	0884	0374	CMRSSCN	0528	0210
CMRQKVOL	2650	0A5A	CMRSGMTB	0888	0378	CMRSSCOM	0320	0140
CMRQRDR	3084	0C0C	CMRSGMTC	0892	037C	CMRSSCR	0572	023C
CMRQUAL	1860	0744	CMRSGMTD	0896	0380	CMRSSCSL	0496	01F0
CMRQUALR	1872	0750	CMRSGMTE	0900	0384	CMRSSCSN	0600	0258
CMRQUALS	1868	074C	CMRSGMTF	0904	0388	CMRSSDAL	0496	01F0
CMRQUAL1	1864	0748	CMRSGMT0	0844	034C	CMRSSDAP	0500	01F4
CMRRCLL	2761	0AC9	CMRSGMT1	0848	0350	CMRSSDAT	0600	0258
CMRRDNSV	2472	09A8	CMRSGMT2	0852	0354	CMRSSFL	1088	0440
CMRRDPDV	2436	0984	CMRSGMT3	0856	0358	CMRSSOR	0852	0354 (EQU)
CMRRDPOD	3028	0BD4	CMRSGMT4	0860	035C	CMRSSPGS	0336	0150
CMRRDSCB	3136	0C40	CMRSGMT5	0864	0360	CMRSSPT2	0324	0144
CMRRDWR	0268	010C	CMRSGMT6	0868	0364	CMRSSPT3	0328	0148
CMRREAD	3144	0C48	CMRSGMT7	0872	0368	CMRSSRO	0348	015C
CMRRETAD	1084	043C	CMRSGMT8	0876	036C	CMRSSSW	2904	0B58
CMRRPNE	2658	0A62	CMRSGMT9	0880	0370	CMRSSTA	0580	0244
CMRRSDAT	0596	0254	CMRSGOAD	0780	030C	CMRSSSTE	0556	022C
CMRRSLL	2770	0AD2	CMRSGOLN	0716	02CC	CMRSSVE	2818	0B02
CMRRSPI	3012	0BC4	CMRSG1AD	0784	0310	CMRSSXP4	0332	014C
CMRRSS	2622	0A3E	CMRSG1LN	0720	02D0	CMRSSYS	0520	0208
CMRRSSLN	0294	0126	CMRSG2AD	0788	0314	CMRSTART	0644	0284
CMRRTRAN	3236	0CA4	CMRSG2LN	0724	02D4	CMRSTERM	3188	0C74
CMRSARLC	0488	01E8	CMRSG3AD	0792	0318	CMRSTLEN	2476	09AC
CMRSARPG	0492	01EC	CMRSG3LN	0728	02D8	CMRSTRAN	3232	0CA0
CMRSARSV	2480	09B0	CMRSG4AD	0796	031C	CMRSTSKI	0548	0224
CMRSARVM	0412	019C	CMRSG4LN	0732	02DC	CMRSULN	0078	004E
CMRSASAT	0524	020C	CMRSG5AD	0800	0320	CMRSUP	2607	0A2F
CMRSAVE	1092	0444	CMRSG5LN	0736	02E0	CMRSVCTB	0592	0250
CMRSAVEV	2452	0994	CMRSG6AD	0804	0324	CMRSXPT	0648	0288
CMRSCBT	0504	01F8	CMRSG6LN	0740	02E4	CMRSYAD	0316	013C
CMRSCED	2568	0A08	CMRSG7AD	0808	0328	CMRSYMPG	0338	0152

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FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CMRSYMVM	0360	0168	CMRTMBFP	0220	00DC	CMRVOLAD	0086	0056 (EQU)
CMRSOPG1	0844	034C (EQU)	CMRTMBSL	0224	00E0	CMRVOLIP	0084	0054
CMRTAD	0308	0134	CMRTMBUF	0226	00E2	CMRVOLTC	0084	0054 (EQU)
CMRTAD2	0312	0138	CMRTMTCT	0218	00DA	CMRVSSLC	0424	01A8
CMRTCML	0480	01E0	CMRTMTER	0228	00E4	CMRVSSPG	0428	01AC
CMRTCMP	0484	01E4	CMRTMTPP	0222	00DE	CMRVSSVM	0380	017C
CMRTCTVM	0232	00E8	CMRTRANV	2432	0980	CMRWORK	0264	0108
CMRTDE	2940	0B7C	CMRTRMNT	2280	08E8	CMRWRDCT	0215	00D7
CMRTDTCT	3140	0C44	CMRRTTB	2288	08F0	CMRWRSYM	3040	0BE0
CMRTDTLC	0448	01C0	CMRTWO	2362	093A	CMRWRTDY	3000	0BB8
CMRTDTPG	0452	01C4	CMRUSECT	2802	0AF2 (EQU)	CMRWRXTS	3064	0BF8
CMRTDTVM	0392	0188	CMRUSER	0656	0290	CMRWT	2956	0B8C (EQU)
CMRTDYAD	0284	011C	CMRUTI	2910	0B5E	CMRWTMD	3060	0BF4
CMRTDYLN	0288	0120	CMRVAM2	2425	0979	CMRXTSI	0248	00F8
CMRTDYNM	2399	095F	CMRVIRT	2860	0B2C	CMRXTSRT	3004	0BBC
CMRTDYOV	0290	0122	CMRVMAOR	0372	0174	CMRYMCUR	2272	08E0
CMRTDYTB	1880	0758	CMRVMDLL	0464	01D0	CMRZEROS	2320	0910
CMRTDYVM	0364	016C	CMRVMDLP	0468	01D4	CMR256	2336	0920
CMRTEMP	2498	09C2	CMRVMDYL	0400	0190	CMR32MSK	0129	0081
CMRTERM	0080	0050	CMRVMLL	2752	0AC0	CMTRTPG	2932	0B74
CMRTERSY	0132	0084	CMRVMP	2888	0B48			
CMRTEXTN	2864	0B30	CMRVMTCM	0408	0198			

Assembler listing of CHACMR

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	1B 00000	CHACMR	DSECT		
		*			* THIS DSECT IS A COPY OF THE COMMUNICATION REGION
		*			* OF
		*			* STARTUP PROPER
		*			* THIS DSECT WAS CREATED FOR NSRB #316 - -
		*			* QUICKSTART
1B 00000		CMREIAA	DS	F	BR INSTRUC USED BY STARTUP
		*			* COMMUNICATION AREA - REFERENCED BY MAIN SECTION
		*			* OF STARTUP PROPER
		*			* AND QUICK START DATA SET
		*			* CREATOR
1B 00008			DS	0D	ALIGIN TO A DOUBLE WORD
		*			* BOUNDARY
1B 00008		CMRPREL	DS	0CL108	PRELUDE DATA
		*			* THE FOLLOWING IS DATA LEFT IN A DROP AREA BY
		*			* PRELUDE
		*			* STARTUP MOVES INFORMATION INTO HERE BEFORE
		*			* ACCESSING
1B 00008		CMRESTR	DS	D	RESTART INDICATOR
	1B 00008		ORG	CMRESTR	
1B 00008			DS	CL1	BLANK FOR IPL
1B 00009			DS	CL1	UNUSED
1B 0000A		CMRIXPG	DS	H	XPGNO OF IPL DSCB PAGE
1B 0000C			DS	F	UNUSED
1B 00010		CMRDAM	DS	2F	
1B 00018		CMRCRG8	DS	F	CONTROL REGISTER 8
1B 0001C		CMRCRG9	DS	F	CONTROL REGISTER 9
1B 00020		CMRCRG10	DS	F	CONTROL REGISTER 10
1B 00024		CMRCRG11	DS	F	CONTROL REGISTER 11
1B 00028		CMRCRG12	DS	F	CONTROL REGISTER 12
1B 0002C		CMRCRG13	DS	F	CONTROL REGISTER 13
1B 00030		CMRCRG14	DS	F	CONTROL REGISTER 14
1B 00034		CMRIDS	DS	2F	ID'S OF BYTE MAP
1B 0003C		CMRSETO	DS	X	NUM OF SE'S AT INSTALLATION
1B 0003D		CMRSENM	DS	X	NUM OF SE'S IN TSS
1B 0003E		CMRCPUS	DS	H	NUM OF CPU'S IN TSS
1B 00040		CMROTHC	DS	XL3	ID'S OF NON-IPL'D CPUS IN
		*			TSS
1B 00043		CMRIPLC	DS	X	ID OF IPLED CPU
1B 00044		CMRCCUS	DS	F	BYTE MAP OF CCU'S IN TSS

(Listing of CHACMR continued on page 87)

(Listing of CHACMR continued from page 86)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
1B 00048		CMRPART	DS	F	BYTE MAP OF PARTITIONED * CCU'S
1B 0004C		CMRCCBLN	DS	H	LEN OF CCB
1B 0004E		CMRSULN	DS	H	LEN OF STARTUP PROPER
1B 00050		CMRTERM	DS	H	ID OF OPERATORS TERMINAL
1B 00054		CMRVOLIP	DS	F	DEVICE TYPE/ADDR IPL VOL
	1B 00054	CMRVOLTC	EQU	CMRVOLIP	FIRST BYTE = DEVICE CODE * 00=2301, 01=2311, 04=2314
	1B 00056	CMRVOLAD	EQU	CMRVOLIP+2	2ND HLFWD = PHYSICAL ADDR
1B 00058		CMRPRTAD	DS	H	ADDR OF PRINTER
	1B 00044	CMRSIMP	EQU	CMRCCUS	SIMPLEX = 55, ELSE DUPLEX
1B 0005A		CMRIPLID	DS	XL6	VOL SERIAL NUM OF IPL PACK
1B 00060		CMRDSCBI	DS	F	ADDR OF PRESENT IPL * DSCB PAGE
1B 00064		CMRPATI	DS	F	ADDR OF IPL PAT PAGES
1B 00068		CMRSPLOC	DS	F	STARTING ADDR OF STARTUP * PROPER
1B 0006C		CMRCCBLC	DS	F	LOCATION OF CCB FROM * PRELUDE
1B 00070		CMRPFX	DS	F	ACTIVE PSA OF IPL'D CPU * THE FOLLOWING IS A ALIST OF ACTIVE PSA'S IN TSS * THE FIRST ENTRY IS THE PSA OF THE IPL'D CPU * THE NEXT 3 ENTRIES CONTAIN THE PSA'S OF THE * OTHER CPU'S IN TSS * THE ENTRIES ARE ARRANGED IN ASCENDING ORDER * ACCORDING TO THE CPU IDS * A ZERO ENTRY INDICATES THE CORRESPONDING CPU IS * PARTITIONED OR IN * A SPECIAL CASE THE SE'S CONTAINING A CPU'S * PREFIXES ARE PARTITIONED
	1B 00070	CMRPSAS	EQU	CMRPFX	
1B 00074			DS	3F	
					* END OF DATA FROM PRELUDE
					* * * * *
					* THE FOLLOWING IS DATA THAT IS EITHER CONSTANT OR * FILLED IN BY
1B 00080		CMRMCH	DS	X	STARTUP PROPER * SWITCH FOR 24 OR 32 BIT ADDRESS
1B 00081		CMR32MSK	DS	X	32 BIT SYSTEM MASK = X'08' * I/O TABLES
1B 00084		CMRTERSY	DS	F	SYM DEV ADDR/DEV * TYPE CODE OF OP'S TERM
1B 00088		CMRIPLSY	DS	F	SYM DEV ADDR AND DEV * TYPE CODE OF IPL VOLUME
1B 0008C		CMRPGUSE	DS	F	BEG AND END ADDR OF IVM ON * PRI PAGING DEV BY EXTN
1B 00090			DS	F	PGS - EXTENT IN EXT PG * NUMBERS OF PRIVATE IVM * CSECTS * ON PAGING DISK
1B 00094		CMRSPDSY	DS	F	DEVICE TYPE CODE AND * SYMBOLIC * DEVIDE ADDR OF AUX PAGING DISK
1B 00098		CMRPPDSY	DS	F	SYMBOLIC DEV ADDR AND * DEVICE * TYPE CODE OF PRIMARY PG DEV
1B 0009C		CMRDMLST	DS	4F	DRUM LIST AND SDA'S * OF DRUMS IN TSS * ACTUAL PATH OF DRUM IS CHANGED TO SDA OF DRUM IN * SPECIAL ROUT
1B 000AC		CMRSERR	DS	4F	SERR/RECONFIG. EXTENTS * * * * * * CMRSERR TABLE MUST FOLLOW CMRDMLST TABLE FOR USE

(Listing of CHACMR continued on page 88)

(Listing of CHACMR continued from page 87)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		* BY SDAT			
		*			PROCESSING ROUTINE
1B 000BC		CMRPAGAD DS		F	HARDWARE ADDR OF PPV
1B 000C0		CMRSPGAD DS		F	HARDWARE ADDR OF SPV
1B 000C4		CMRPMDOR DS		F	PMD ORIGIN
1B 000C8		CMRDRUMS DS		X	NUMBER OF DRUMS IN SYSTEM
1B 000CC		CMRASD DS		F	PTR TO AUX STORAGE DEVICE
		*			LIST
1B 000D0		CMRASDDR DS		F	PTR TO AUX STORAGE DEVICE
		*			LIST
		*			ENTRY FOR PAGING DRUM
1B 000D4		CMRDEV DS		H	TOTAL NUM OF AUX DEVS IN
		*			SYS
1B 000D6		CMRINT DS		0H	* INPUT FOR INTER-COM *
		*			N349.10
1B 000D6		CMRIMC01 DS		X	* EXTERNAL START--INTER-COM
1B 000D7		CMRWRDCT DS		X	* OTHER CPU ID - INTER-COM
1B 000D8		CMRPAT DS		X	PAT SWITH FOR SDAT ROUTINE
	00000080	CMRPATM EQU		X'80'	PAT PAGE MASK
		* * * * *		* * * * *	* * * * *
		*			STARTUP BUFFERS
	1B 0006C	CMRCCBAD EQU		CMRCCBLC	ADDR OF CCB BUFFER
1B 000DA		CMRTMTCT DS		H	NO OF VM SYSTEM TCT PAGES
		*			N349.10
1B 000DC		CMRTMBFP DS		H	NO OF VM SYS BUFF PAGES
		*			N349.10
1B 000DE		CMRTMTP DS		H	TOT PGS TCT AND BUFF
		*			N349.10
1B 000E0		CMRTMBSL DS		H	NO OF BUFF SLOTS/BUFF PG
		*			N349.10
1B 000E2		CMRTMBUF DS		H	MAXIMUM NO OF BUFFERS
		*			N349.10
1B 000E4		CMRTMTER DS		H	MAXIMUM NO OF TERMINALS
		*			N349.10
1B 000E8		CMRTCTVM DS		A	VMA OF CFBTCT
		*			N349.10
1B 000EC		CMRBFPVM DS		A	VMA OF CFBBFP
		*			N349.10
1B 000F0		CMRMEMAD DS		F	ADDR OF MEMORY BYTE MAP
		*			X'400' INITIALLY
		*			REALLOCATED AT STARTUP TIME
1B 000F4		CMRBUFFS DS		0F	
1B 000F4		CMRSPTAD DS		F	ADDR OF SHARED PAGE TBL
		*			BUFF
1B 000F8		CMRXTSI DS		F	ADDR OF XTSI BUFFER
	00000002	CMRBFCNT EQU		(*CMRBUFFS)/4	NUM OF BUFFS
1B 000FC		CMRBUFFA DS		0F	
1B 000FC		CMROUP DS		F	ADDR OF OUTPUT BUFFER
		*			FOR MVTEXT
1B 00100		CMRINP DS		F	ADDR OF INPUT BUFFER
1B 00104		CMRPSABF DS		F	ADDR OF PSA BUFFER
1B 00108		CMRWORK DS		F	ADDR OF WORK BUFFER
	00000004	CMRBFCTA EQU		(*CMRBUFFA)/4	NUM OF BUFFS
1B 0010C		CMRRDWR DS		0F	QK START READ/WRITE BUFFER
1B 0010C		CMREXTAB DS		F	ADDR OF EXTENT TABLE
1B 00110		CMRNPAT DS		F	NON-IPL PAT BUFFER
1B 00114		CMRQKDS DS		0F	QUICK START DSCB BUFFER
1B 00114		CMRLDTBL DS		F	ADDR OF LOAD LIST BUFF
1B 00118		CMRQKREC DS		0F	QUICK START RECORDING BUFF
1B 00118		CMRLDRSS DS		F	ORIGIN OF RSSSUP LOADIST
		*			TDY INFORMATION
1B 0011C		CMRTDYAD DS		F	ADDRESS OF TDY
1B 00120		CMRTDYLN DS		H	NUM OF TDY BUFFER PAGES
1B 00122		CMRTDYOV DS		H	NUM OF TDY OVERFLOW PGS
1B 00124		CMRLDTLN DS		H	NUM OF LOAD LIST BUFF PGS
1B 00126		CMRSSLN DS		H	NUM OF RSSSUP LL BUFF PGS
1B 00128		CMRMAPAD DS		F	ADDR OF IVM MEM MAP TABLE
1B 0012C		CMROPOD DS		F	ADDR OF OLD POD BUFFER

(Listing of CHACMR continued on page 89)

(Listing of CHACMR continued from page 88)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
1B 00130		CMRLLAD	DS	F	ADDR OF LOAD LIST ENTRY
1B 00134		CMRTAD	DS	F	ADDR OF NEXT AVAIL LOC IN TDYTAB
1B 00138		CMRTAD2	DS	F	ADDR OF ENTRY REQ RELOCATION
1B 0013C		CMRSYAD	DS	F	LOWEST ASSIGNABLE SYMB TBL ADDR
* RSS COMMUNICATION TABLE INFORMATION					
1B 00140		CMRSSCOM	DS	F	ADDR OF RSS COMMUN TABLE
1B 00144		CMRSSPT2	DS	F	ADDR OF RSS SEG 2 PG TBL
1B 00148		CMRSSPT3	DS	F	ADDR OF RSS SEG 3 PG TBL
1B 0014C		CMRSSXP4	DS	F	ADDR OF XPT4 IN RSS COM TBL
1B 00150		CMRSSPGS	DS	H	NUMBER OF RSSUP PAGES
1B 00152		CMRSYMPG	DS	H	NUM OF SYMBOL TBL PAGES
1B 00154		CMRECAD	DS	XL4	DUMMY ADDR FOR RECON
1B 00158		CMRSERAD	DS	XL4	FIGURATION AND SERR CSECTS
1B 0015C		CMRSSRO	DS	F	START ADDR OF READ ONLY PAGE
1B 00160		CMRSSADD	DS	F	RSS ACCUMULATIVE LENGTH
1B 00164		CMRADEND	DS	F	RESSUP ACCUM LENGTH
* * * * *					
1B 00168		CMRSYVM	DS	F	VMA RESSUP-RSS SYM TBL
1B 0016C		CMRTDYVM	DS	F	VMA OF TDY (PRIVATE SEG)
1B 00170		CMRSDSVM	DS	F	VMA OF SDST (PUBLIC SEGMENT)
1B 00174		CMRVMAOR	DS	F	VMA PACKING ORIGIN (PRIVATE)
* * * * *					
*****					
* VMA'S, XPT OR OSPT ENTRY LOCATIONS, AND NUM OF PAGES IN CSECT					
1B 00178		CMRIVMCN	DS	OF	BEGINNING OF LIST
1B 00178		CMRSDAVM	DS	F	VMA OF SDAT
1B 0017C		CMRVSSVM	DS	F	VMA OF SSDAT
1B 00180		CMRPVTVM	DS	F	VMA OF PVT
1B 00184		CMRISAVM	DS	F	VMA OF ISA
1B 00188		CMRTDTVM	DS	A	VMA OF TDT
* N349.10					
1B 0018C		CMRSCVM	DS	F	VMA OF SYSTEM COMMON
1B 00190		CMRVMDYL	DS	F	VMA OF DYNAMIC LDR
* N483					
1B 00194		CMRDLEP	DS	F	VMA OF DY LDR EP
* N483					
1B 00198		CMRVMTCM	DS	F	VMA OF TASK COMMON
* N483					
1B 0019C		CMRSARVM	DS	A	VMA OF SAR
* N386**					
0000000A		CMRIVMCO	EQU	(*-CMRIVMCN)/4	NUM OF CSECTS IN LIST
* THE FOLLOWING LIST CONSISTS OF 2 FULL WORD ENTRIES PER CSECT					
* THE FIRST CONTAINS THE LOCATION OF THE XPT (XSPT) FOR THE CSECT					
* THE SECOND CONTAINS THE NUMBER OF PAGES IN THE CSECT					
* THERE IS ONE ENTRY FOR EACH CSECT NAMED IN THE ABOVE LIST					
* THE RELEVATIVE POSITIONS WITHIN THE LIST ARE THE SAME					
1B 001A0		CMRIVMCS	DS	OF	BEGINNING OF LIST
1B 001A0		CMRSDALC	DS	F	LOC OF XSPT ENTRY FOR SDAT
1B 001A4		CMRSDAPG	DS	F	NO. OF EXTERNAL SDAT PAGES
1B 001A8		CMRVSSLC	DS	F	LOC OF XSPT ENTRY FOR SSDAT
1B 001AC		CMRVSSPG	DS	F	NUM OF EXTERNAL SSDAT PGS
1B 001B0		CMRPVTL	DS	F	LOCATION OF XPT ENTRY FOR PVT
* N483					
1B 001B4		CMRPVTPG	DS	F	NUM OF EXTERNAL PVT PAGES
1B 001B8		CMRISALC	DS	F	LOCATION OF XPT ENTRY FOR ISA
* N483					

(Listing of CHACMR continued on page 90)

(Listing of CHACMR continued from page 89)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
1B 001BC		CMRISAPG	DS	F	NUM OF EXTERNAL ISA PAGES
1B 001C0		CMRTDTLC	DS	A	LOC OF XPT FOR TDT N423**
1B 001C4		CMRTDTPG	DS	F	NUM OF TDT PAGES N423**
1B 001C8		CMRSCMLC	DS	F	LOC OF XPT ENTRY FOR SYS COM
1B 001CC		CMRSCMPG	DS	F	NUM OF EXTERNAL SYS COMM PGS
1B 001D0		CMRVMDLL	DS	F	LOC OF XPT FOR DYNAM LDR N483
1B 001D4		CMRVMDLP	DS	F	NUM OF DY LDR PGS N483
1B 001D8			DS	2F	DUMMY ENTRY FOR DY LDR EPN483
1B 001E0		CMRTCML	DS	F	LOC OF TASK COMMON N483
1B 001E4		CMRTCMP	DS	F	NUM OF TCM PAGES
1B 001E8		CMRSARLC	DS	A	LOC OF XPT FOR SAR N386**
1B 001EC		CMRSARPG	DS	F	NUM OF SAR PAGES N386**
1B 001F0		CMRSSCSL	DS	0F	RSS LIST
1B 001F0		CMRSSDAL	DS	F	LOCATION OF SSDAT ENTRY IN XPT2
1B 001F4		CMRSSDAP	DS	F	NUM OF EXT SSDAT PAGES IN RSS
					* REAL CORE ADDRESSES - - FILLED IN BY NAMLOC
					* ROUTINE
					* DURING RESSUP PROCESSING
1B 001F8		CMRSCBT	DS	F	CORE BLOCK TABLE
1B 001FC		CMRNMDEV	DS	A	RC ADDR OF CHBDEV N349.10
1B 00200		CMRINMTS	DS	A	RC ADDR OF CHBMTS N349.10
1B 00204		CMRNMTE	DS	A	RC ADDR OF CHBTDE N349.10
1B 00208		CMRSSYS	DS	F	SYSTEM TABLE
1B 0020C		CMRSASAT	DS	F	AUX STOR ALLOC TABLE
1B 00210		CMRSSCN	DS	F	SCAN TABLE MASTER CONTROL
1B 00214		CMRSPATH	DS	F	SET PATH
1B 00218		CMRSPATP	DS	F	PATHFINDING
1B 0021C		CMRSPATR	DS	F	REVERSE PATHFINDING
1B 00220		CMRINTCM	DS	F	INTER-COM
1B 00224		CMRSTSKI	DS	F	TASK INITIATION
1B 00228		CMRSQGQE	DS	F	QUEUE GQE ON TSI
1B 0022C		CMRSSTE	DS	F	SCHEDULE TABLE
1B 00230		CMRSDISP	DS	F	DISPATCHER
1B 00234		CMRSQSCN	DS	F	QUEUE SCANNER
1B 00238		CMRSSCA	DS	F	PTR TO SUPERVISOR CORE ALLOC
1B 0023C		CMRSSCR	DS	F	SUPERVISOR CORE RELEASE
1B 00240		CMRSRSV	DS	F	RESERVE PAGE LIST IN SUP CORE
1B 00244		CMRSSSTA	DS	F	SYMBOLIC TO ACTUAL TABLE
1B 00248		CMRSPSA	DS	F	PSA
1B 0024C		CMRNSVC	DS	F	INVALID SVE PROCESSOR
1B 00250		CMRSVCTB	DS	F	POINTER TO SVC TABLE
1B 00254		CMRRSDAT	DS	F	SSDAT HEADER (IN RESSUP)
1B 00258		CMRSSCSN	DS	0F	BEGINNING OF TABLE
1B 00258		CMRSSDAT	DS	F	SSDAT BODY ( IN RESSUP)
1B 0025C		CMRSIPE	DS	F	SIPE
1B 00260		CMRAEBRS	DS	F	RSS TABLE FOR R/O
	0000000C	CMRSSCNT	EQU		(*CMRSSCSN) COUNT OF RESSUP CSECTS
1B 00264		CMRASY	DS	F	PTR TO ASYNCH LIST ENTRY FOR

(Listing of CHACMR continued on page 91)



(Listing of CHACMR continued from page 90)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			OPERATORS TERMINAL IN DEV
		*			GRP TBL
1B 00268		CMRPAPTR DS		F	NEXT AVAILABLE READ CORE
		*			ADDR
1B 00270		CMRLOWAD DS		F	LOWEST RESSUP LOCATION
1B 00274		CMRCATCT DS		A	RC ADDRESS OF CHBTCT
		*			N349.10
1B 00278		CMRCABFP DS		A	RC ADDRESS OF CHBBFP
		*			N349.10
1B 0027C		CMRINAD DS		F	LOCATION OF OUTPUT BUFFER
1B 00280		CMROUTAD DS		F	LOCATION OF OUTPUT BUFFER
1B 00284		CMRSTART DS		F	CURRENT VMA
1B 00288		CMRSXPT DS		F	LOC OF LST XPT/XSPT ENTRY
1B 0028C		CMRP1002 DS		F	SAVE AREA FOR P100X
		* CONSTANTS IN COMMUN REGION FOR Q-CONS			
		* N483			
		* FLAGS NEEDED FOR Q-CONS			
		* N483			
1B 00290		CMRUSER DS		X	USER FLAG
	00000080	CMRUSER0 EQU		X'80'	USER MODULES EXIST FLAG
		*			N483
	00000040	CMRUSERD EQU		X'40'	PROC USER MOD FLAG
		*			N483
1B 00294		CMRHSHDL DS		11F	DYN LDR QREF CHAIN
		*			N483
1B 002C0		CMRCXDCN DS		F	CURRENT CXD VALUE
		*			N483
		*			N483
1B 002C4		CMRLLAST DS		F	LOC OF END OF LL ENTRIES
		*			N483
1B 002C8		CMRLLEND DS		F	ADDR OF END OF LL PAGE
		*			N483

\*\*\*\*\*

		* THE FOLLOWING TABLES ARE INDEXED INTO DURING			
		* STARTUP			
		* TO CONTROL INFORMATION FOR THE BUILDING OF THE			
		* XTSI			
					AND PAGE TABLE PAGES
					TABLE OF SEGMENT LENGTHS
1B 002CC		CMRSGLN DS		0F	
1B 002CC		CMRSG0LN DS		F	LENGTH OF SEGMENT 0 IN
		*			PAGES
1B 002D0		CMRSG1LN DS		F	LENGTH OF SEGMENT 1 IN
		*			PAGES
1B 002D4		CMRSG2LN DS		F	LENGTH OF SEGMENT 2 IN
		*			PAGES
1B 002D8		CMRSG3LN DS		F	LENGTH OF SEGMENT 3 IN
		*			PAGES
1B 002DC		CMRSG4LN DS		F	LENGTH OF SEGMENT 4 IN
		*			PAGES
1B 002E0		CMRSG5LN DS		F	LENGTH OF SEGMENT 5 IN
		*			PAGES
1B 002E4		CMRSG6LN DS		F	LENGTH OF SEGMENT 6 IN
		*			PAGES
1B 002E8		CMRSG7LN DS		F	LENGTH OF SEGMENT 7 IN
		*			PAGES
1B 002EC		CMRSG8LN DS		F	LENGTH OF SEGMENT 8 IN
		*			PAGES
1B 002F0		CMRSG9LN DS		F	LENGTH OF SEGMENT 9 IN
		*			PAGES
1B 002F4		CMRSGALN DS		F	LENGTH OF SEGMENT 10 IN
		*			PAGES
1B 002F8		CMRSGBLN DS		F	LENGTH OF SEGMENT 11 IN
		*			PAGES
1B 002FC		CMRSGCLN DS		F	LENGTH OF SEGMENT 12 IN
		*			PAGES
1B 00300		CMRSGDLN DS		F	LENGTH OF SEGMENT 13 IN

(Listing of CHACMR continued on page 92)

(Listing of CHACMR continued from page 91)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			PAGES
1B 00304		CMRSGELN	DS	F	LENGTH OF SEGMENT 14 IN
		*			PAGES
1B 00308		CMRSGFLN	DS	F	LENGTH OF SEGMENT 15 IN
		*			PAGES
		*			TABLE OF SEGMENT ADDENDS
1B 0030C		CMRSGAD	DS	OF	
1B 0030C		CMRSG0AD	DS	F	SEGMENT 0 ADDEND
1B 00310		CMRSG1AD	DS	F	SEGMENT 1 ADDEND
1B 00314		CMRSG2AD	DS	F	SEGMENT 2 ADDEND
1B 00318		CMRSG3AD	DS	F	SEGMENT 3 ADDEND
1B 0031C		CMRSG4AD	DS	F	SEGMENT 4 ADDEND
1B 00320		CMRSG5AD	DS	F	SEGMENT 5 ADDEND
1B 00324		CMRSG6AD	DS	F	SEGMENT 6 ADDEND
1B 00328		CMRSG7AD	DS	F	SEGMENT 7 ADDEND
1B 0032C		CMRSG8AD	DS	F	SEGMENT 8 ADDEND
1B 00330		CMRSG9AD	DS	F	SEGMENT 9 ADDEND
1B 00334		CMRSGAAD	DS	F	SEGMENT 10 ADDEND
1B 00338		CMRSGBAD	DS	F	SEGMENT 11 ADDEND
1B 0033C		CMRSGCAD	DS	F	SEGMENT 12 ADDEND
1B 00340		CMRSGDAD	DS	F	SEGMENT 13 ADDEND
1B 00344		CMRSGEAD	DS	F	SEGMENT 14 ADDEND
1B 00348		CMRSGFAD	DS	F	SEGMENT 15 ADDEND
		*			TABLE OF BEGINNING ADDRESSES OF EACH SEGMENT
1B 0034C		CMRSGMT	DS	OF	
1B 0034C		CMRSGMT0	DS	F	ADDRESS OF SEG 0, PG 1
1B 00350		CMRSGMT1	DS	F	ADDRESS OF SEG1, PG 0
1B 00354		CMRSGMT2	DS	F	ADDRESS OF SEG 2, PG 0
1B 00358		CMRSGMT3	DS	F	ADDRESS OF SEG 3, PG 0
1B 0035C		CMRSGMT4	DS	F	ADDRESS OF SEG 4, PG 0
1B 00360		CMRSGMT5	DS	F	ADDRESS OF SEG 5, PG 0
1B 00364		CMRSGMT6	DS	F	ADDRESS OF SEG 6, PG 0
1B 00368		CMRSGMT7	DS	F	ADDRESS OF SEG 7, PG 0
1B 0036C		CMRSGMT8	DS	F	ADDRESS OF SEG8, PG 0
1B 00370		CMRSGMT9	DS	F	ADDRESS OF SEG 9, PG 0
1B 00374		CMRSGMTA	DS	F	ADDRESS OF SEG 10, PG 0
1B 00378		CMRSGMTB	DS	F	ADDRESS OF SEG 11, PG 0
1B 0037C		CMRSGMTC	DS	F	ADDRESS OF SEG 12, PG 0
1B 00380		CMRSGMTD	DS	F	ADDRESS OF SEG13, PG 0
1B 00384		CMRSGMTE	DS	F	ADDRESS OF SEG 14, PG 0
1B 00388		CMRSGMTF	DS	F	ADDRESS OF SEG 15, PG 0
		*			TABLE OF PAGE TABLE PAGE POINTERS
1B 0038C		CMRPAG	DS	OF	
1B 0038C		CMRPAG0	DS	F	PAGE TABLE - SEGMENT 0
1B 00390		CMRPAG1	DS	F	PAGE TABLE - SEGMENT 1
1B 00394		CMRPAG2	DS	F	PAGE TABLE - SEGMENT 2
1B 00398		CMRPAG3	DS	F	PAGE TABLE - SEGMENT 3
1B 0039C		CMRPAG4	DS	F	PAGE TABLE - SEGMENT 4
1B 003A0		CMRPAG5	DS	F	PAGE TABLE - SEGMENT 5
1B 003A4		CMRPAG6	DS	F	PAGE TABLE - SEGMENT 6
1B 003A8		CMRPAG7	DS	F	PAGE TABLE - SEGMENT 7
1B 003AC		CMRPAG8	DS	F	PAGE TABLE - SEGMENT 8
1B 003B0		CMRPAG9	DS	F	PAGE TABLE - SEGEMNT 9
1B 003B4		CMRPAGA	DS	F	PAGE TABLE - SEGMENT 10
1B 003B8		CMRPAGB	DS	F	PAGE TABLE - SEGMENT 11
1B 003BC		CMRPAGC	DS	F	PAGE TABLE - SEGMENT 12
1B 003C0		CMRPAGD	DS	F	PAGE TABLE - SEGMENT 13
1B 003C4		CMRPAGE	DS	F	PAGE TABLE - SEGMENT 14
1B 003C8		CMRPAGF	DS	F	PAGE TABLE - SEGMENT 15
1B 003CC		CMRNASVM	DS	F	VMA OF NEXT AVAILABLE
		*			SEGMENT
		*			INITIALLY SET TO X'200000'
1B 003D0		CMRNASNM	DS	H	NEXT AVAILABLE SEGMENT
		*			NUMBER

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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
1B 003D2		CMRPVSEG	DS	16XL2	INITIALLY SET TO 2 TABLE OF PRIVATE SEGMENT NUMS
1B 003F2		CMRPBSEG	DS	16XL2	HLFWDs-INIT SET TO X'FFFF' TABLE OF PUBLIC SEGMENT NUMS
	0000000F	CMRSEGMX	EQU	15	HLFWDs-INIT SET TO X'FFFF' HIGHEST USABLE SEG NUM ALLOWED BY STARTUP
	1B 00354	CMRSSOR	EQU	CMRSGMT2	BASE ADDRESS FOR RSSSUP INITIALLY AT SEGMENT 2
	00000002	CMRPGTSZ	EQU	2	PAGE TABLE ENTRY SIZE
	00000008	CMRASTSZ	EQU	8	AUX SEG TBL ENTRY SIZE
	00000010	CMRPPHSZ	EQU	16	PAGE TABLE PAGE HEADER SIZE
	00000010	CMRPTHSZ	EQU	16	PTP ENTRY HEADER SIZE
	00000010	CMRRSPSZ	EQU	16	RSPI ENTRY SIZE
1B 00414		CMRCRG0	DS	F	* CONTROL REGISTERS 0 THRU 7 CONTROL REGISTER 0 INITIALLY PTR TO SEG TBL ORIGIN IN XTSI
1B 00418		CMRCRG1	DS	F	CONTROL REGISTER 1
1B 0041C		CMRCRG2	DS	F	CONTROL REGISTER 2
1B 00420		CMRCRG3	DS	F	CONTROL REGISTER 3
1B 00424		CMRCRG4	DS	F	CONTROL REGISTER 4
1B 00428		CMRCRG5	DS	F	CONTROL REGISTER 5
1B 0042C		CMRCRG6	DS	F	CONTROL REGISTER 6 INITIALLY = X'008000FE'
1B 00430		CMRCRG7	DS	F	CONTROL REGISTER 7 * PARAMETERS FOR GETMEM ROUTINE
1B 00434		CMRGTDR	DS	X	* INPUT PARAMETERS DIRECTION TO ASSIGN NEXT PAGE
1B 00435	0000003C 00000000	CMRGTFN CMRGTFLN CMRGTFLY	DS EQU EQU	CL1 X'3C' X'00'	* CORE BLOCK TABLE FLAG SET NO FLAG IN PAGE MAP STARTUP OR STARTUP BUFFER PAGE
1B 00436	00000000 000000FF 00000001	CMRGTNC CMRGTNCT CMRGTNCR CMRGTNCF	DS EQU EQU EQU	X X'00' X'FF' X'01'	* TEST BYTE FOR NO CORE TERMINATE IF NO CORE AVAIL RETURN IF NO CORE AVAIL RETURN IF FIRST BLOCK UNAVAIL
1B 00438		CMRGTNUM	DS	H	NUM OF CONTIGUOUS PGS REQUIRED
1B 0043C		CMRRETAD	DS	F	OUTPUT PARAMETERS ADDR OF ALLOCATED BLOCK RETURNED
	00000000	CMRGTNKY	EQU	X'00'	* INDICATES BLOCK HAS BEEN ALLOCAT ED IN CMRGTNC
1B 00440	000000FF	CMRSSFL CMRSSFLM	DS EQU	X X'FF'	RSS SYMBOL TABLE FLAG RSS SYMBOL TABLE MASK
	00000000 00000001	CMRGTDRL CMRGTDRL	EQU EQU	X'00' X'01'	* STORAGE AREAS PRE-ASSEMBLED ASSIGN UPWARD ASSIGN DOWNWARD
1B 00444		CMRSVAV	DS	15F	SAVE AREA FOR LINK LOADER
1B 00480		CMRDSCB	DS	64F	DSCB READ IN AREA
					* EACH ENTRY IN THE DATA SET TABLE IS COMPRISED * OF 1 HLFWD CONTAINING * AN EXTAB DISPLACEMENT AND 1 HLFWD CONTAINING * THE NUM OF POD PAGES
1B 00580		CMRDSTBL	DS	50F	DELTA DATA SET TABLE
1B 00648		CMRPCU	DS	30F	PCU TABLE

(Listing of CHACMR continued on page 94)

(Listing of CHACMR continued from page 93)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	1B 00580	CMRSDTB	EQU	CMRDSTBL	SDAT DEVICE TABLE
1B 006C0		CMRDSTR	DS	20F	RSSSUP DATA SET TABLE
1B 00710		CMRDSNAD	DS	F	POINTER TO DATA SET NAME
1B 00714		CMRHRCHY	DS	H	HEIRCHARY NUM FOR DELTAS
1B 00716		CMRDSCNT	DS	H	NUM OF DELTA DATA SETS
1B 00718		CMRDDSCO	DS	H	TOTAL NUM OF DELTAS
1B 0071A		CMRCSNTR	DS	H	NUM OF RSSSUP DELTA DATA SETS
		*			
1B 0071C		CMRPDCNT	DS	H	NUM OF PODS
1B 00720		CMRDSINP	DS	F	OPER TERM INPUT AREA *
		*			DELTA INFO
		*			POINTER
1B 00724		CMRDSLST	DS	F	ADDR OF LIST OF DATA SET NAMES
		*			
1B 00728		CMRDVOL	DS	F	DELTA PACK INFO
	1B 00728	CMRDVOLT	EQU	CMRDVOL	1ST BYTE = TYPE CODE
	1B 0072A	CMRDVOLA	EQU	CMRDVOL+2	2ND HLFWD = ADDRESS
1B 0072C		CMREXDIS	DS	H	EXTENT LOC RELATIVE TO BEGINNING OF EXTAB BUFFER
		*			
		*			CMREXTAB
1B 0072E		CMRSDDIS	DS	H	CMRDSTBL OFF SET
		*			DATA SET TABLE - INIT = 4
1B 00730		CMRNMTCT	DS	CL8	CSECT NAME OF CHBTCT
		*			N349.10
1B 00738		CMRNMBFP	DS	CL8	CSECT NAME OF CHBBFP
		*			N349.10
1B 00740		CMRCRVOL	DS	F	VOL INFO FOR CURRENT VOLUME
		*			DELTA DATA SET NAME INFORMATION
1B 00744		CMRQUAL	DS	CL4	SECOND ORDER QUALIFIER FOR DELTA DATA SET NAMES
		*			
1B 00748		CMRQUAL1	DS	CL4	INIT = C'.IVM'
1B 0074C		CMRQUALS	DS	CL4	INIT = C'.SUP'
1B 00750		CMRQUALR	DS	CL4	INIT = C'.RSS'
1B 00754		CMRALLDS	DS	CL4	INIT = C'ALL'
		*			TDY TABLE IS A TABLE OF REAL CORE ADDRESSES
		*			OCCUPIED BY THE TDY FOR
		*			IVM. IT CONSISTS OF ONE OR MORE 3-WORD GROUPS OR EXTENTS
		*			THE FIRST 2 WORDS CONTAIN THE LOWEST AND HIGHEST REAL CORE
		*			ADDRESSES WHICH ARE RELOCATED BY A COMMON RELOCATION FACTOR
		*			WHICH IS WORD 3 - THE LAST ENTRY IS A DOUBLE WORD OF ONES
1B 00758		CMRTDYTB	DS	64F	TDY TABLE
1B 00858		CMRINPUT	DS	80C	OP TERM/CARD RDR INPUT AREA
		*****			
		*			THE FOLLOWING IS STARTUPS PATCH AREA
		*			CMRPATDS GIVES THE DISPLACEMENT WITHIN THE COMMUNICATION REGION
		*			OF THE PATCH AREA
	000008A8	CMRPATDS	EQU	*--CMREIAA	DISPLACEMENT OF PATCH AREA
1B 008A8		CMRPATCH	DS	10F	N483
1B 008D0		CMRSOAI	DS	F	SOA FOR IPL'D CPU
1B 008D4		CMRSOAN	DS	F	SOA FOR NON-IPL'D CPU
		*			ASSORTED CONSTANTS
1B 008D8		CMRPGSVE	DS	F	SAVE OF ASDLST ENTRY
		*			PRINT MAP CONSTANTS
1B 008DC		CMRMPBG	DS	F	BEGINNING OF PRINT MAP
1B 008E0		CMRYMCUR	DS	F	CURRENT PAGE FOR SYMGEN
1B 008E8			DS	0D	ALIGN TO DPUBLE WORD BOUNDARY
		*			
1B 008E8		CMRTRMNT	DS	XL8	WAIT STATE PSW =
		*			X'0002000000000
		*			000'
1B 008F0		CMRTRTB	DS	CL16	TRANSLATE TABLE

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
		*			=C'0123456789ABC
		*			DEF'
1B 00900		CMRCEND	DS	CL3	= C'END'
1B 00904			DS	0F	ALIGN TO FULL WORD BOUNDARY
1B 00904		CMRENDMK	DS	12X	END MARK = 'FF' FOR 12
		*			BYTES
1B 00910		CMRZEROS	DS	D	DOUBLE WORD = D'0'
1B 00918		CMRSEGMK	DS	F	SEG BOUNDARY MASK =
		*			X'000FFFFF'
1B 0091C		CMRONE	DS	F	FULL WORD = F'1'
	1B 0091E	CMRONE1	EQU	CMRONE+2	HW OF ONE N483
1B 00920		CMR256	DS	F	FULL WORD = F'256'
		* THE FOLLOWING ARE MASKS - - ALL MUST BE ON FULL			
		* WORD BOUNDARIES			
1B 00924		CMRLIDMS	DS	F	LEAVE INTERRUPTS DISABLED
		*			AT SET
		*			PATH EXIT = X'00040000'
1B 00928		CMRLIDMP	DS	F	LEAVE INTS DISABLED AT
		*			EXIT-
		*			PATHFINDING/REV PATH.
		*			INIT = X'00010000'
1B 0092C		CMRMMSK	DS	F	DEVICE MALFUNCTION FLAG
		*			= X'40000000'
		* THE FOLLOWING THREE CARDS MUST STAY TOGETHER			
1B 00930			DS	0F	ALIGN TO A FULL WORD
		*			BOUNDARY
1B 00930			DS	H	FIRST HALF WORD ZERO
1B 00932		CMRPGLTH	DS	H	SEC HALF WORD = X'1000'
		*			FULL WORD/HALF WORD FOR
		*			PAGE LENGTH
1B 00934		CMRDEFCT	DS	H	NUM OF DEFINITIONS-INIT = 1
1B 00936		CMRLXPT	DS	H	LEN OF XPT ENTRY INIT = 8
1B 00938		CMRLXPST	DS	H	LEN OF XSPT ENTRY INIT = 12
1B 0093A		CMRTWO	DS	H	HALF WORD = 2
1B 0093C		CMRFOUR	DS	H	HALF WORD = 4
		*			DATA SET NAME QUALIFIERS
1B 0093E		CMRDSNAM	DS	CL9	INIT = C'TSS*****.'
1B 00947		CMRDSQAL	DS	CL6	MODIFIED DATA SET NAME
		*			SYSIVM, RESSUP, RSSSUP
	0000000F	CMRNLTH1	EQU	*-CMRDSNAM	LEN OF WHOLE NAME
	00000006	CMRNLTH2	EQU	*-CMRDSQAL	LEN OF QUALIFIER
1B 00950			DS	0F	ALIGN TO FULL WORD BOUNDARY
1B 00950		CMRNAME	DS	CL8	INIT = ' ' - CSECT NAME
		*			HOLD AREA
1B 00958			DS	2X	INIT = X'0000'
1B 0095A		CMRCZ	DS	CL2	INIT = C'CZ'
1B 0095C		CMRCHB	DS	CL3	INIT = C'CHB'
1B 0095F		CMRTDYNM	DS	CL8	INIT = C'TDY
1B 00967		CMRMAPNM	DS	CL8	INIT = C'TDY MAP
1B 0096F		CMREXTNM	DS	CL8	INIT = C'EXTAB
1B 00977		CMRPGWRT	DS	X	
1B 00978		CMRMAP	DS	X	MAP OPTION SWITCH
	00000001	CMRMAPI	EQU	X'01'	IVM MAPS PRINT WANTED
	00000002	CMRMAPS	EQU	X'02'	RESSUP/RSSSUP MAPS WANTED
1B 00979		CMRVAM2	DS	CL2	INIT = C'V2' - VAM 2 CODE
		* THE FOLLOWING CARDS MUST BE TOGETHER TO ENSURE			
		* FULL WORD BOUNDARY			
1B 0097C		CMRMINUS	DS	0F	ALIGN TO FULL WORD BOUNDARY
1B 0097C			DS	XL4	= X'80000000'
		* SAVE AREA FOR REGISTER 13 BY VARIOUS ROUTINES			
1B 00980		CMRTRANV	DS	F	SAVE WORD FOR REG 13
1B 00984		CMRRDPDV	DS	F	SAVE WORD FOR REG 13
1B 00988		CMRSRCHV	DS	F	SAVE WORD FOR REG 13
1B 0098C		CMRLOCXV	DS	F	SAVE WORD FOR REG 13
1B 00990		CMRHASHV	DS	F	SAVE WORD FOR REG 13

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
1B 00994		CMRSAVEV DS	DS	F	SAVE WORD FOR REG 13
1B 00998		CMRGTXSV DS	DS	F	SAVE WORD FOR GETEXT R13
1B 0099C		CMRBS13 DS	DS	F	SAVE R13 AREA N483
1B 009A0		CMRHSHSV DS	DS	F	HASH SAVE AREA REG 13
		*			N349.10
1B 009A4		CMRMODSV DS	DS	F	MODFY SAVE AREA FOR BASE
		*			N349.10
1B 009A8		CMRRDNSV DS	DS	F	READIN BASE REG SAVE AREA
		*			N349.10
1B 009AC		CMRSTLEN DS	DS	H	STARTUP PAGES OR BUFFERS
		*			CURRENTLY ASSIGNED
1B 009B0		CMRSARSV DS	DS	F	REG 13 SAVE AREA
		*			N386**
1B 009B4		CMREADER DS	DS	H	CARD READER INPUT INDICATOR
1B 009B6		CMRMODNM DS	DS	CL8	MODULE NAME
1B 009BE		CMREXTNO DS	DS	H	NUM OF EXTAB (CMREXTAB)
		*			BUFFS
1B 009C0		CMRPARTM DS	DS	H	NUM OF TEMP PART PAGES
1B 009C2		CMRTEMP DS	DS	X	TEMPORARY STORAGE AREA
1B 009C3		CMROVFG DS	DS	X	SEGMENT OVERFLOW FLAGS
	00000001	CMROVXTS EQU	EQU	X'01'	XTSI OVERFLOWED
	00000002	CMROVPRI EQU	EQU	X'02'	PRIVATE SEGMENT OVERFLOWED
	00000004	CMROVPUB EQU	EQU	X'04'	PUBLIC SEGMENT OVERFLOWED
1B 009C4		CMRCSW1 DS	DS	X	MAIN CPU FLAG BYTE
	00000003	CMRCSW1M EQU	EQU	X'03'	ON = PROCESSING STARTUP
1B 009C5		CMRCSW2 DS	DS	X	OTHER CPU FLAG BYTE
	00000003	CMRCSW2M EQU	EQU	X'03'	ON = READY TO EXIT
		* DELTA DATA SET VOLUME INFORMATION			
1B 009C6		CMRDLBT DS	DS	X	FLAG BYTE
	00000020	CMRDLBTD EQU	EQU	X'20'	DELTA DATA SET VOL EXISTS
		*			MASK
	00000010	CMRDLBTE EQU	EQU	X'10'	MINOR ERRORS MASK
	00000008	CMRDLBTP EQU	EQU	X'08'	PRIMARY DS ON DELTA DS VOL
		*			MASK
	00000004	CMRDLBTR EQU	EQU	X'04'	MSG LIST RELOC FLAG
		= *****			
		* PARAMETERS FOR STARTUP READ - WRITE SUBROUTINE -			
		* - EIAA2			
1B 009C8		CMRIOAD DS	DS	F	DATA BUFFER ADDRESS
1B 009CC		CMRIOLEN DS	DS	H	LEN FOR I/O OPERATION
1B 009CE		CMRIOFG DS	DS	X	INPUT /OUTPUT FLAG
		*			INPUT BITS
	00000080	CMRIOFGW EQU	EQU	X'80'	WRITE ( OFF FOR READ)
	0000007F	CMRIOFGR EQU	EQU	X'FF'	CMRIOFGW READ ( TURN OFF WRITE BIT)
		*			
	00000040	CMRIOFGL EQU	EQU	X'40'	DON'T RELOCATE
	00000020	CMRIOFGO EQU	EQU	X'20'	OWN CCW ADDR IN REG 0
		*			OUTPUT BITS
	00000008	CMRIOFGA EQU	EQU	X'08'	ABNORMAL RETURN. OTHERS SET
	00000004	CMRIOFGC EQU	EQU	X'04'	MALF CHANNEL
	00000002	CMRIOFGD EQU	EQU	X'02'	MALF DEVICE OR CU BUSY
	00000001	CMRIOFGI EQU	EQU	X'01'	INTERVENTION REQUIRED
		* *****			
		* PARAMETERS FOR PAGING OF THE TDY			
1B 009D0		CMRGRP1 DS	DS	F	ADDR FOR MAJOR GROUP
1B 009D4		CMRGRP2 DS	DS	F	ADDR FOR MINOR GROUP
1B 009D8		CMRGRPS1 DS	DS	F	SIZE OF MAJOR GROUP BUFFER
1B 009DC		CMRGRPS2 DS	DS	F	SIZE OF MINOR GROUP BUFFER
1B 009E0		CMREQAD1 DS	DS	F	REL TDY ADDR REQ IN BUFF1
1B 009E4		CMREQAD2 DS	DS	F	REL TDY ADDR REQ IN BUFF2
1B 009E8		CMRETAD1 DS	DS	F	POINTER RETURNED FROM BUFF1
1B 009EC		CMRETAD2 DS	DS	F	POINTER RETURNED FROM BUFF2
1B 009F0		CMRBUFF1 DS	DS	F	ADDR OF MAJOR BUFFER
1B 009F4		CMRBUFF2 DS	DS	F	ADDR OF MINOR BUFFER
1B 009F8		CMRBLDF DS	DS	F	BUFFER TO HOLD TDY PAGE
		*			TABLES
1B 009FC		CMRBLDX DS	DS	F	BUILD BUFFER INDEX

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
1B 00A00		CMRMAXTD	DS	F	MAX SIZE OF TDY BEFORE PAGING ST
		*			ARTS
1B 00A04		CMRBFLN	DS	H	LEN OF BUFF1/BUFF2 IN PGS
1B 00A08		CMRSCED	DS	F	SCHEDULE TABLE ENTRY LEN
		* *****			
					COMMAND CCW LIST
					* ADDRESSES FILLED IN DYNAMICALLY WHILE STARTING UP
1B 00A10		CMRCCW05	DS	D	INIT = 139,0,X'60',1
1B 00A18		CMRCCW06	DS	D	INIT = 09,0,X'20',0
	1B 00A1E	CMRCCW6B	EQU	CMRCCW06+6	
		* *****			
					CONSTANTS AND STORAGE AREAS
					DATA SET NAME CONSTANTS
1B 00A20		CMRIVM	DS	CL15	= C'TSS*****.SYSIVM'
1B 00A2F		CMRSUP	DS	CL15	= C'TSS*****.RESSUP'
1B 00A3E		CMRRSS	DS	CL15	= C'TSS*****.RSSSUP'
		* = *****			
					PARAMETERS FOR QUICKSTART
1B 00A50		CMRFSTSU	DS	F	LOC OF STARTUP ON COLD START
		*			START
1B 00A54		CMRSPSV	DS	F	SAVE OF REG 13 BY SPECIAL
1B 00A58			DS	0F	ALIGN TO FULL WORD BOUNDARY
1B 00A58		CMRQKTYP	DS	H	DEV TYPE CODE FOR QK VOL
1B 00A5A		CMRQKVOL	DS	H	DEVICE ADDR-QUICK START VOL
1B 00A5C		CMRQKPAT	DS	H	RPN OF PAT FOR QUICK START VOL
		*			
1B 00A5E		CMRQKCPU	DS	H	NUM OF CPUS AT COLD START
1B 00A60		CMRQKPV	DS	H	REL PUB VOL NUM OF QK VOL
1B 00A62		CMRRPNE	DS	H	RPN OF QKSTART E DSCB
1B 00A64		CMRSLTE	DS	H	SLOT NUM OF QKSTRT E DSCB
1B 00A66		CMRSRQKF	DS	AL2	FIRST SERR RPN
		*			I5718
1B 00A68		CMRSRQKL	DS	AL2	LAST SERR RPN
		*			I5718
1B 00A6A		CMRSRCNT	DS	H	COUNT OF BAD SERR PAGES
		*			I5718
		*			INITIALLY = H'1'
		*			I5718
1B 00A6C		CMRQKFG	DS	X	QUICK START FLAG
	00000080	CMRQKFGY	EQU	X'80'	QUICK START MASK
	00000040	CMRQKFGI	EQU	X'40'	QUICK START VOL = IPL PACK
	00000020	CMRQKFGP	EQU	X'20'	QUICK START PACK PUBLIC
	00000010	CMRQKFG E	EQU	X'10'	QK DATA SET ALREADY EXISTS
	00000001	CMRQKFGM	EQU	X'01'	THIS IS A QUICK START MASK
	00000002	CMRQKFG L	EQU	X'02'	NEW QK START DS LARGER FLAG
1B 00A6D		CMRQKID	DS	CL6	VOLID OF QUICK START VOLUME
1B 00A74		CMRQKMAP	DS	18F	BYTE MAP FOR BUFFER PAGES
		*			INIT = X'FFFFFFFF'
1B 00ABC			DS	F	
1B 00AC0		CMRVMLL	DS	CL8	INIT = C'CHBVM ' -
		*			MODULE NAME OF VM LOAD LIST
1B 00AC8			DS	X	
1B 00AC9		CMRRCLL	DS	CL8	INIT = C'CHERC' * MODULE
		*			NAME
		*			OF REAL CORE LOAD LIST
1B 00AD1			DS	X	
1B 00AD2		CMRRSLL	DS	CL8	INIT = C'CHBRS ' *

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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			MODULE NA
		*			ME OF RSSSUP LOAD LIST
1B 00ADA			DS	X	INIT = X'00'
1B 00ADB		CMRPGIND	DS	X	PAGING INDICATOR
		* * * * *			
					ASSORTED MASKS
		* ALIGNED TO FULL WORD BOUNDARY			
1B 00ADC			DS	0F	
1B 00ADC		CMRMSK1B	DS	XL4	INIT = XL4'3F'
1B 00AE0		CMRMSK2	DS	XL4	INIT = X'00FFFFFF0'
1B 00AE4		CMRMSK3	DS	XL4	INIT = X'00FFFFFFF'
		*			CCW COMMAND CODE MASK
1B 00AE8		CMRMSKE	DS	XL4	INIT='E0000000' N483
1B 00AEC		CMRMSK7	DS	XL4	INIT = X'FFFFFFF8'
		*			- DOUBLE WORD BNDRY MASK
1B 00AF0		CMRMSK8	DS	XL4	INIT = X'00000FFF' * BYTE
		*			PART
		*			OF AN ADDRESS
1B 00AF4		CMRMSK9	DS	XL4	INIT = X'FFFFFFC0'
	1B 00AF0	CMRMFFF	EQU	CMRMSK8	N483
	1B 00AF2	CMRUSECT	EQU	CMRMSK8+2	N483
		*			- 64 BYTE BNDRY MASK
1B 00AF8		CMRMSK11	DS	XL4	INIT = X'FFFFFF00'
		*			PAGE BOUNDARY MASK
1B 00AFC		CMRMUTCT	DS	H	INIT = H'32767'
		*			- INITIAL MUT COUNT
1B 00AFE		CMRSPTNO	DS	H	INIT = H'1'
		*			- INITIAL SPT NUMBER
1B 00B00		CMRLSPT	DS	H	LAST ASSIGNED SPT NUMBER
1B 00B02		CMRSSVE	DS	H	SAVE FOR RSS SYMBOL TABLE
1B 00B04		CMRBLANK	DS	CL8	INIT = C' '
		*			ASSORTED CONSTANTS
1B 00B0C			DS	0F	N349.10
1B 00B0C		CMRMXHDI	DS	XL4	INIT = X'0000A000'
		*			- MAX BYTES IN IVM TDY HDNG
1B 00B10		CMRMXHDR	DS	XL4	INIT = X'00004000'
		*			MAX BYTES IN RES TDY HDNG
	1B 0034C	CMRSOPG1	EQU	CMRSGMT0	STARTING ADDRESS FOR
		*			SEGMENT 0, PAGE 1
1B 00B14		CMRAEAR	DS	F	BUILD CEHCHRSS HERE
1B 00B18		CMRPAGEV	DS	F	SAVE AREA
		* INFORMATION NEEDED AND UPDATED BY LINKD LOADER			
1B 00B1C		CMRFXBTL	DS	F	SAVE OF PMD LENGTH
1B 00B20		CMRFXBS	DS	F	CSECT BASE ADDRESS
1B 00B24		CMRPGTAD	DS	F	PAGE TABLE ORIGIN
1B 00B28		CMRINADV	DS	F	SAVE OF INAD
1B 00B2C		CMRVIRT	DS	F	CURRENT VIRTUAL PAGE NUM
1B 00B30		CMRTEXTN	DS	F	CURRENT TEXT PAGE NUMBER
1B 00B34		CMRNOBT	DS	F	NUMBER OF BYTES IN CSECT
1B 00B38		CMRERLD	DS	F	START OF EXT REF MODIFIER
		*			PTRS
1B 00B3C		CMRERND	DS	F	END OF EXT REF MODIFIER
		*			PTRS
1B 00B40		CMRIRLD	DS	F	START OF IN REF MODIFIER
		*			PTRS
1B 00B44		CMRIRND	DS	F	END OF INT REF MODIFIER
		*			PTRS
1B 00B48		CMRVMPPT	DS	F	LOC OF VIR MEM PAGE TABLE
1B 00B4C		CMRSEPCS	DS	F	POINTER TO SEP CSD
1B 00B50		CMRMODCO	DS	H	NUM OF MODULES IN DATA SET
1B 00B52		CMRINPSZ	DS	H	SIGNIFICANT BYTES IN INPUT

(Listing of CHACMR continued on page 99)



(Listing of CHACMR continued from page 98)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
		*			BUFF
1B 00B54		CMROUTSZ	DS	H	BYTES AVAIL IN OUTPUF BUFF
1B 00B56		CMRSEGSW	DS	H	DATA SET INDICATOR FOR GETEXT *
		*			1=RESSUP, 0=SEG0, 1=SEG1
1B 00B58		CMRSSW	DS	H	INIT = H'255'
		*			- RSSUP SWITCH FOR GETEXT
1B 00B5A		CMRMVESW	DS	C	1=BYTES TO MOVE
1B 00B5B		CMRNLLSW	DS	C	1=EMPTY PAGE
1B 00B5C		CMRCDFSW	DS	C	COMPLEX DEF SW ( 1 = ON)
1B 00B5D		CMRSERSW	DS	C	SER SWITCH
1B 00B5E		CMRUTI	DS	XL4	INIT = X'07000000'
		*			- USER TIMER INTERVAL
1B 00B62		CMRIPLY	DS	X	IPL MOUNTED SWITCH -* 00=YES, 80=NO
		*			
1B 00B63	00000080	CMRSLSW	DS	X	SELECTIVE LOAD SWITCH
		CMRSLSWM	EQU	X'80'	SORT LOAD LIST MASK
1B 00B64		CMRNMPH	DS	F	NUMBER OF PATHS

\* \*\*\*\*\*

					* THE FOLLOWING IS A LIST OF ADCONS USED TO * REFERENCE LOCATIONS
					* WITHIN STARTUP PROPER
					* ANY ADCONS TO BE USED SHOULD BE IN THIS LIST AS * THEY
					* MUST BE DYNAMICALLY RELOCATED BY STARTUP ITSELF
1B 00B68		CMRFSTAC	DS	OF	START OF LIST
1B 00B68		CMRSDAC	DS	A	A (ANZSDA)
		*			M3132
1B 00B6C		CMRCORE	DS	A	A (CORERTN)
		*			M3132
1B 00B70		CMRPTMP	DS	A	A (PARTMP)
		*			M3132
1B 00B74		CMTRTPG	DS	A	A (RTMPGS)
		*			N349.10
1B 00B78		CMRBFGT	DS	A	A (BFRPGIT)
		*			N349.10
1B 00B7C		CMRTDE	DS	A	A (INTDE)
		*			N349.10
1B 00B80		CMRMODFY	DS	A	A (MODFY)
		*			N349.10
1B 00B84		CMREIAA2	DS	F	A (EIAA2)
1B 00B88		CMROPER	DS	F	A (OPER)
1B 00B8C		CMRPRINT	DS	F	A (PRINTER)
1B 00B90		CMRMSGTB	DS	F	A (OPERTMBL)
1B 00B94		CMRPPCCW	DS	F	A (PPVCCW)
1B 00B98		CMRADTRN	DS	F	A (ADTRAN)
1B 00B9C		CMRATRN	DS	F	A (ATRN)
1B 00BA0		CMRBTRAN	DS	F	A (BTRAN)
1B 00BA4		CMRCTRAN	DS	F	A (CTRAN)
1B 00BA8		CMRLOCK	DS	F	A (LOCKPT)
1B 00BAC		CMREXTNT	DS	F	A (EXTENT)
1B 00BB0		CMRHASH	DS	F	A (HASH)
1B 00BB4		CMRORGIN	DS	F	A (ORIGIN)
1B 00BB8		CMRWRTDY	DS	F	A (WRTDY)
1B 00BBC		CMRXTSRT	DS	F	A (XTSIRT)
1B 00BC0		CMRSHPT	DS	F	A (SHPTRT)
1B 00BC4		CMRRSPI	DS	F	A (CRRSPI)
1B 00BC8		CMRFORM	DS	F	A (FORMPT)
1B 00BCC		CMRSETPT	DS	F	A (SETPT)
1B 00BD0		CMRNAMLC	DS	F	A (NAMLOC)
1B 00BD4		CMRRDPOD	DS	F	A (RDPOD)
1B 00BD8		CMRMAPGN	DS	F	A (MAPGEN)
1B 00BDC		CMRCOMTB	DS	F	A (RCOMTB)
1B 00BE0		CMRWRSYM	DS	F	A (WRSYMTB)
1B 00BE4		CMRADDPG	DS	F	A (ADDPGS)

(Listing of CHACMR continued on page 100)

(Listing of CHACMR continued from page 99)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>	
1B 00BE8		CMRBSDST	DS	F	A(BSDST)	
1B 00BEC		CMRESRVP	DS	F	A(RESRVP)	
1B 00BF0		CMRGTFLD	DS	F	A(GETFLD)	
1B 00BF4		CMRWTFMD	DS	F	A(WTFMDNM)	
1B 00BF8		CMRWRXTS	DS	F	A(WRXTSI)	
1B 00BFC		CMRSOAPG	DS	F	A(SOAPGS)	
		*			N483	
		* ADCONS ADDED FOR Q-CONS				
		*			N483	
1B 00C00		CMRHOLTB	DS	A	A(HOLETBL)	
		*			N483	
1B 00C04		CMRENDTB	DS	A	A(END OF HOLETBL)	
		*			N483	
1B 00C08		CMRHOLVL	DS	A	A(HOLETBL)-CURRENT HOLE	
		*			N483	
1B 00C0C		CMRQRDR	DS	A	A(QRDR)	
		*			N483	
1B 00C10		CMRBGNTD	DS	A	A(BGNTDY)	
		*			N483	
1B 00C14		CMRLLLNK	DS	A	A(LLNK)	
		*			N483	
1B 00C18		CMRLLSCN	DS	A	A(LLSCN)	
		*			N483	
1B 00C1C		CMRSRCN	DS	A	A(SERRTBL)	
		*			N483	
1B 00C20		CMRLDPM	DS	A	A(LDPM)	
		*			N483	
1B 00C24		CMRSDAT	DS	F	A(SDATRT)	
		* ADCONS FOR CCW LIST TO READ/WRITE				
1B 00C28		CMRDATA	DS	F	A(RDDATA)	
1B 00C2C		CMRCYLHD	DS	F	A(CYLHEAD)	
1B 00C30		CMRSMFSA	DS	F	A(SIMFSA)	
1B 00C34		CMRSORD	DS	F	A(SORDID)	
1B 00C38		CMROTHER	DS	F	A(OTHERCPU)	
1B 00C3C		CMRGTPAT	DS	F	A(GETPAT)	
1B 00C40		CMRRDSCB	DS	F	A(RDSCB)	
1B 00C44		CMRTDTCT	DS	A	A(TDTCAT)	
		*			N423**	
1B 00C48		CMRREAD	DS	F	A(READCARD)	
1B 00C4C		CMROPRT	DS	F	A(INPUT) ADDR OF OPER TERM	
1B 00C50		CMRDELD	DS	F	A(DELD)	
1B 00C54		CMRDLTBL	DS	F	A(DELTBL)	
1B 00C58		CMRDLBTB	DS	F	A(DELBTB)	
1B 00C5C		CMRELTDY	DS	F	A(RELTDY)	
1B 00C60		CMRALLER	DS	F	A(ALLER1)	
1B 00C64		CMRSLOAD	DS	F	A(SELOAD)	
1B 00C68		CMRSRCH	DS	F	A(SRCHEX)	
1B 00C6C		CMRNMTAB	DS	F	A(NAMTAB)	
1B 00C70		CMRSERR1	DS	F	A(SERR100)	
1B 00C74		CMRSTERM	DS	F	A(STEM)	
		* ADCONS FOR PRINTING MAPS AND HEADERS				
1B 00C78		CMRLOADL	DS	F	A(LOADL)	
1B 00C7C		CMRHSHSR	DS	F	A(HSHSRH)	
1B 00C80		CMREADIN	DS	F	A(READIN)	
1B 00C84		CMRSEEK	DS	F	A(IOSEEK)	
1B 00C88		CMREROUT	DS	F	A(ERROUT)	
1B 00C8C		CMRBLDTB	DS	F	A(BLDTBL)	
1B 00C90		CMRPGTDY	DS	F	A(PAGTDY)	
1B 00C94		CMRJSHB2	DS	F	A(JSHDRB2)	

(Listing of CHACMR continued on page 101)

(Listing of CHACMR continued from page 100)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>	
1B 00C98		CMRJSHBA	DS	F	A(JSHDRB)	
1B 00C9C		CMRADTIT	DS	F	A(JSTITL)	
1B 00CA0		CMRSTRAN	DS	F	A(STRAN)	
1B 00CA4		CMRRTRAN	DS	F	A(RTRAN)	
1B 00CA8		CMRPGXTS	DS	F	A(PGXTSI)	
1B 00CAC		CMRASAT	DS	F	A(ASATRT)	
1B 00CB0		CMRDIRSZ	DS	F	A(DIRSI Z)	
1B 00CB4		CMRQKRD	DS	F	A(QKREAD)	
1B 00CB8		CMRQKSTA	DS	F	A(CEIEND)	
	1B 00B8C	CMRWT	EQU	CMRPRINT		
1B 00CBC		CMRENAB	DS	A	A(ENABLE)	I5628
1B 00CC0		CMRLSTAD	DS	0F	LAST ADCON	
	00000158	CMRADLEN	EQU	CMRLSTAD-CMRFSTAC		

Communications Area (CHACOM)

The Communications Area (COM) passes interruption information from Task Monitor Scanner-Dispatcher routines to requesting programs. This area must be defined by the requesting program.

The Scanner-Dispatcher, at dispatch time, moves the required interruption information from the Queue Entry (CHAIQE) into the COM. The requesting program can then analyze the interruption information.

The COM resides in virtual storage and is write-protected from the user. The COM is 16 bytes in length and is maintained on doubleword boundaries.

CHACOM Storage map

DEC	HEX	
0	0	COMDET   COMOVY
8	8	UNNAMED

ORG COMOVY

1	1	UNNAMED   COMINT   COMPSW
---	---	---------------------------

ORG COMOVY

1	1	UNNAMED   COMSVC   UNNAMED
---	---	----------------------------

ORG COMOVY

1	1	COMXML   COMXMN   COMMSG
---	---	--------------------------

ORG COMOVY

1	1	UNNAMED   COMASI   COMSNS
---	---	---------------------------

ORG COMOVY

1	1	COMTIM   COMTNO   UNNAMED
---	---	---------------------------

ORG COMOVY

1	1	UNNAMED   COMSTA   UNNAMED
---	---	----------------------------

Fields in CHACOM -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	COMDET	0002	0002	COMTNO	0004	0004	COMSNS
0001	0001	COMTIM	0002	0002	COMXMN	0004	0004	COMMSG
0001	0001	COMXML	0002	0002	COMSVC	0004	0004	COMPSW
0001	0001	COMOVY	0002	0002	COMINT			
0002	0002	COMSTA	0003	0003	COMASI			

Alphabetical list of fields in CHACOM

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
COMASI	0003	0003	COMPSW	0004	0004	COMTNO	0002	0002
COMDET	0000	0000	COMSNS	0004	0004	COMXML	0001	0001
COMINT	0002	0002	COMSTA	0002	0002	COMXMN	0002	0002
COMMSG	0004	0004	COMSVC	0002	0002			
COMOVY	0001	0001	COMTIM	0001	0001			

Assembler listing of CHACOM

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	1C 00000	CHACOM	DSECT		
		*			COMMUNICATION AREA
1C 00000			DS	0D	
1C 00000		COMDET	DS	CL1	DE TYPE CODE
1C 00001		COMOVY	DS	CL7	FIELD OVERLAID FOR VARIOUS INTERRUPTS
		*			
1C 00008			DS	2F	
	1C 00001		ORG	COMOVY	
		* FIELDS USED FOR PROGRAM INTERRUPTS			
1C 00001			DS	CL1	UNUSED
1C 00002		COMINT	DS	CL2	INTERRUPT CODE
1C 00004		COMPSW	DS	F	ADDR IN VPSW AT INTERRUPT
	1C 00001		ORG	COMOVY	
		* FIELDS USED FOR SVC INTERRUPTS			
1C 00001			DS	CL1	UNUSED
1C 00002		COMSVC	DS	CL2	SVC NUMBER FROM VPSW
1C 00004			DS	F	ADDR IN VPSW-USES COMPSW
	1C 00001		ORG	COMOVY	
		* FIELDS USED FOR EXTERNAL INTERRUPTS			
1C 00001		COMXML	DS	CL1	MESSAGE LENGTH
1C 00002		COMXMN	DS	CL2	MESSAGE NUMBER
1C 00004		COMMSG	DS	F	PTR TO MESSAGE AREA
	1C 00001		ORG	COMOVY	
		* FIELDS USED FOR ASYNCHRONOUS I/O INTERRUPTS			
1C 00001			DS	CL2	UNUSED
1C 00003		COMASI	DS	CL1	INT. TYPE FOR ASYNCHRONOUS
1C 00004		COMSNS	DS	F	SENSE INFORMATION
	1C 00001		ORG	COMOVY	
		* FIELDS USED FOR TIMER INTERRUPTS			
1C 00001		COMTIM	DS	CL1	TIMER TYPE - TASK OR REAL
1C 00002		COMTNO	DS	CL2	TIMER NUMBER FROM VPSW
1C 00004			DS	F	ADDR IN VPSW -USES COMPSW
	1C 00001		ORG	COMOVY	
		* FIELDS USED FOR SYNCHRONOUS I/O INTERRUPTS			
1C 00001			DS	CL1	UNUSED
1C 00002		COMSTA	DS	CL2	CSW STATUS INFO
1C 00004			DS	F	SENSE INFO - USES COMSNS

CPU Status Table (CHACST)

The CPU Status Table (CST) describes the operational status of each CPU and Storage Element (SE) in the installation, including availability to TSS.

The CST is set up by system generation, startup, and/or system inventory routines, depending on the particular installation. It furnishes data to the recovery nucleus, SERR, reconfiguration, and system inventory programs.

The prefixed storage area (core storage) contains the CST, aligned on a doubleword boundary. Each CPU in the installation has a CST in its own PSA.

The CST consists of the CST header, the CPU status section, and the SE status section.

CHACST Storage map

DEC	HEX						
0	0	CSTID0	CSTMDL	CSTNOP	CSTNAP	CSTSET	
8	8	CSTID1	CSTID2	CSTID3	UNNAMED	CSTCST	UNNAMED
16	10	CSTPF1			CSTPF2		
24	18	CSTSST	CSTFSA				

Fields in CHACST -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	CSTID0	0009	0009	CSTID2	0024	0018	CSTSOP	(EQU)
0001	0001	CSTMDL	0010	000A	CSTID3	0024	0018	CSTSPA	(EQU)
0002	0002	CSTSESZE (EQU)	0013	000D	CSTPA	0024	0018	CSTSSK	(EQU)
0002	0002	CSTNOP	0013	000D	CSTSK	0024	0018	CSTSAV	(EQU)
0003	0003	CSTNAP	0013	000D	CSTAV	0024	0018	CSTSST	(EQU)
0004	0004	CSTSET	0013	000D	CSTCST	0024	0018	CSTCEND	
0008	0008	CSTID1	0016	0010	CSTPF1	0025	0019	CSTFSA	
0008	0008	CSTHEND	0020	0014	CSTPF2	0026	001A	CSTSEND	

Alphabetical list of fields in CHACST

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CSTAV	0013	000D (EQU)	CSTID3	0010	000A	CSTSEND	0026	001A
CSTCEND	0024	0018	CSTMDL	0001	0001	CSTSESZE	0002	0002 (EQU)
CSTCST	0013	000D	CSTNAP	0003	0003	CSTSET	0004	0004
CSTFSA	0025	0019	CSTNOP	0002	0002	CSTSK	0013	000D (EQU)
CSTHEND	0008	0008	CSTPA	0013	000D (EQU)	CSTSOP	0024	0018 (EQU)
CSTID0	0000	0000	CSTPF1	0016	0010	CSTSPA	0024	0018 (EQU)
CSTID1	0008	0008	CSTPF2	0020	0014	CSTSSK	0024	0018 (EQU)
CSTID2	0009	0009	CSTSAV	0024	0018 (EQU)	CSTSST	0024	0018

Assembler listing of CHACST

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	1D 00000	CHACST	DSECT		
		*****			CPU STATUS TABLE *****
		*			HEADER
1D 00000			DS	0D	
1D 00000		CSTID0	DS	XL1	IDENTITY BYTE (I2 FIELD OF WRD INSTRUCTION)
		*			
1D 00001		CSTMDL	DS	XL1	MODEL NO OF CPUS IN INSTALLATION (1 OR 2)
		*			
1D 00002		CSTNOP	DS	XL1	NO OF CPUS IN INSTALLATION (1 TO 4)
		*			
1D 00003		CSTNAP	DS	XL1	NO OF ACTIVE CPUS IN TSS DOMAIN AFTER STARTUP
		*			
		* AT SYSGEN TIME, CSTNAP			CONTAINS THE NUMBER OF
		* STORAGE			
		*			
1D 00004		CSTSET	DS	XL4	ELEMENTS IN THE SYSTEM POINTER TO SE STATUS TABLE
1D 00008		CSTHEND	DS	0X	END OF CPU STATUS TABLE
		*			HEADER I5943

(Listing of CHACST continued on page 105)

(Listing of CHACST continued from page 104)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000008	CSTHDSZ	EQU	CSTHEND-CSTID0	CPU STATUS TABLE
		*			HEADER SIZE I5943
1D 00008		CSTID1	DS	XL1	CPU STATUS ENTRY ( ONE ENTRY PER CPU)
		*			I2 FIELD OF WRD FOR
1D 00009		CSTID2	DS	XL1	EXTERNAL INTERRUPT
		*			I2 FIELD OF WRD FOR
1D 0000A		CSTID3	DS	XL1	EXTERNAL START
		*			INTERRUPTION CODE ON
1D 0000B			DS	CL2	MALFUNCTION ALERT
1D 0000D		CSTCST	DS	XL1	UNUSED
		*			CPU STATUS (BITS ZERO TO
	1D 0000D	CSTAV	EQU	CSTCST	TWO)
		*			CPU UNAVAILABILITY FLAG - 1
	00000080	CSTAVM	EQU	X'80'	= UNAVAILABLE
	1D 0000D	CSTSK	EQU	CSTCST	CPU AVAILABILITY MASK
	00000040	CSTSKM	EQU	X'40'	CPU MALFUNCTIONING FLAG
	1D 0000D	CSTPA	EQU	CSTCST	CPU MALFUNCTIONING MASK
	00000020	CSTPAM	EQU	X'20'	CPU PARTITION FLAG
1D 0000E			DS	CL2	CPU PARTITION MASK
1D 00010		CSTPF1	DS	XL4	UNUSED
1D 00014		CSTPF2	DS	XL4	PRIMARY PREFIX
1D 00018		CSTCEND	DS	0X	ALTERNATE PREFIX
		*			END OF CPU STATUS ENTRY
	00000010	CSTCPSZ	EQU	CSTCEND-CSTID1	I5943
		*			CPU STATUS ENTRY SIZE
		*			I5943
1D 00018		CSTSSST	DS	XL1	SE STATUS ENTRY (ONE PER SE)
	1D 00018	CSTSAV	EQU	CSTSSST	SE STATUS (BITS 0 TO 4)
		*			SE AVAILABILITY FLAG 1 =
	00000080	CSTSAM	EQU	X'80'	UNAVAILABLE
	1D 00018	CSTSSK	EQU	CSTSSST	SE AVAILABILITY MASK
	00000040	CSTSSM	EQU	X'40'	SE MALFUNCTIONING FLAG
	1D 00018	CSTSPA	EQU	CSTSSST	SE MALFUNCTIONING MASK
	00000020	CSTSPM	EQU	X'20'	SE PARTITION FLAG
	1D 00018	CST SOP	EQU	CSTSSST	SE PARTITION MASK
		*			SE OPERATIONAL FLAG 1 =
	00000010	CSTSOM	EQU	X'10'	NON-OPERATIONAL
1D 00019		CSTFSA	DS	XL1	SE OPERATIONAL MASK
		*			FLOATING STORAGE ADDRESS
1D 0001A		CSTSEND	DS	0X	(HI ORDER 8 BITS)
		*			END OF SE STATUS ENTRY
	1D 00002	CSTSESZ	EQU		I5943
		*CSTSEND-((CSTHEND-CSTID0)+(CSTCEND-CSTID1))			
		*			STATUS ENTRY SIZE
		*			I5943
	00000018	CSTSESZ	EQU	(CSTHEND-CSTID0)+(CSTCEND-CSTID1)	CPU STATUS TABLE I5943
		*			CPU STATUS TABLE I5943
		*			SIZE
		*			I5943

Control Unit Table (CHACUT)

The Control Unit Table (CHACUT) contains status and location information on all control units in the configuration. CHACUT is used and updated by the pathfinding subroutine. CHACUT is aligned on a word boundary and contains a 12-byte header followed by a variable number of 12-byte entries.

CHACUT Storage map

DEC	HEX			
0	0	CUTMAX	UNNAMED	CUTFP
8	8	CUTDGP		

ORG CUTBEG

DEC	HEX	CUTFLG	UNNAMED	CUTSDA	CUTDIG1	CUTDIG2	CUTDIG3	CUTDIG4
0	0							
8	8	CUTDIG5	CUTDIG6	CUTDIG7	CUTDIG8			

Fields in CHACUT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	CUTFLG	0000	0000	CUTA	(EQU)	0007	0007	CUTDIG4
0000	0000	CUTD	(EQU)	0000	0000	CUTMAX	0008	0008	CUTDIG5
0000	0000	CUTC	(EQU)	0000	0000	CUTBEG	0008	0008	CUTDGP
0000	0000	CUTS	(EQU)	0002	0002	CUTSDA	0009	0009	CUTDIG6
0000	0000	CUTR	(EQU)	0004	0004	CUTDIG1	0010	000A	CUTDIG7
0000	0000	CUTN	(EQU)	0004	0004	CUTFP	0011	000B	CUTDIG8
0000	0000	CUTM	(EQU)	0005	0005	CUTDIG2			
0000	0000	CUTP	(EQU)	0006	0006	CUTDIG3			

Alphabetical list of fields in CHACUT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	
CUTA	0000	0000	(EQU)	CUTDIG4	0007	0007	CUTMAX	0000	0000
CUTBEG	0000	0000		CUTDIG5	0008	0008	CUTN	0000	0000
CUTC	0000	0000	(EQU)	CUTDIG6	0009	0009	CUTP	0000	0000
CUTD	0000	0000	(EQU)	CUTDIG7	0010	000A	CUTR	0000	0000
CUTDGP	0008	0008		CUTDIG8	0011	000B	CUTS	0000	0000
CUTDIG1	0004	0004		CUTFLG	0000	0000	CUTSDA	0002	0002
CUTDIG2	0005	0005		CUTFP	0004	0004			
CUTDIG3	0006	0006		CUTM	0000	0000	(EQU)		

Assembler listing of CHACUT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	1F 00000	CHACUT	DSECT		CONTROL UNIT TABLE
1F 00000		CUTBEG	DS	0F	ALIGN TABLE ON A WORD BOUNDARY
1F 00000		CUTMAX	DS	H	NUMBER OF CONTROL UNIT ENTRIES IN TABLE
1F 00002			DS	H	NOT USED
1F 00004		CUTFP	DS	F	CONTROL UNIT TABLE FLAG AREA POINTER
1F 00008		CUTDGP	DS	F	DEVICE GROUP TABLE POINTER FOR CTL UNIT N
1F 00000	1F 00000	CUTFLG	DS	C	FLAGS FOR CONTROL UNIT N
	1F 00000	CUTA	EQU	CUTFLG	AVAILABILITY FLAG
	00000080	CUTAMK	EQU	X'80'	AVAILABILITY MASK
	1F 00000	CUTP	EQU	CUTFLG	PARTITIONED FLAG
	00000040	CUTPM	EQU	X'40'	PARTITIONED MASK
	1F 00000	CUTM	EQU	CUTFLG	UNIT DOWN FLAG
	00000020	CUTMM	EQU	X'20'	UNIT DOWN MASK
	1F 00000	CUTN	EQU	CUTFLG	SENSE HOLD FLAG

(Listing of CHACUT continued on page 107)



(Listing of CHACUT continued from page 106)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000010	CUTNM	EQU	X'10'	SENSE HOLD MASK
	1F 00000	CUTR	EQU	CUTFLG	RESERVED FLAG
	00000008	CUTRM	EQU	X'08'	RESERVED MASK
	00000078	CUTAM	EQU	X'78'	STATUS INDS (EXCL BUSY,NE)
		*			CTL U
	1F 00000	CUTS	EQU	CUTFLG	SWITCH FLAG
	00000002	CUTSM	EQU	X'02'	SWITCH MASK
	1F 00000	CUTC	EQU	CUTFLG	ENTRY TYPE FLAG
	00000001	CUTCM	EQU	X'01'	ENTRY TYPE MASK
	1F 00000	CUTD	EQU	CUTFLG	DISPLACEMENT FOR PARENT
		*			ENTRY
	000000FE	CUTDM	EQU	X'FE'	DISPLACEMENT FROM PARENT
		*			ENTRY MASK
1F 00001			DS	C	NOT USED
1F 00002		CUTSDA	DS	H	SYMB DEV ADDR ASSIGNED THIS
		*			C.U.
1F 00004		CUTDIG1	DS	XL1	FIRST DEVICE INTERACTION
		*			GROUP ASSOCIATED WITH
		*			CONTROL UNIT. ZERO IS AN ILLEGAL
		*			DIG NO.
1F 00005		CUTDIG2	DS	XL1	SECOND DIG
1F 00006		CUTDIG3	DS	XL1	THIRD DIG
1F 00007		CUTDIG4	DS	XL1	FOURTH DIG
1F 00008		CUTDIG5	DS	XL1	FIFTH DIG
1F 00009		CUTDIG6	DS	XL1	SIXTH DIG
1F 0000A		CUTDIG7	DS	XL1	SEVENTH DIG
1F 0000B		CUTDIG8	DS	XL1	EIGHTH DIG
		*			* NOTE 1- THE NUMBER OF DEVICE GROUP TABLE POINTER
		*			* (CUTDGP) AND CONTROL
		*			* UNIT FLAG (CUTFLG) ENTRIES IS EQUIVALENT
		*			* TO THE NUMBER OF
		*			* CONTROL UNITS SPECIFIED AS PART OF THE
		*			* HARDWARE CONFIGURATION

Editable Data Set (CHACVF)

The Editable Data Set (CHACVF) defines those data sets which can be edited by the Text Editor. Editable data sets are defined in IBM System/360 Time Sharing System: Command System User's Guide, GC28-2001. CHACVF resides in virtual storage aligned on word boundaries.

CHACVF Storage map

DEC	HEX		
0	0	CVFLEN	CVFREG
8	8	CVFREG (CONT)	CVFLIN
16	10	CVFLIN (CONT)	CVFPAD

Fields in CHACVF -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	CVFLEN	0012	000C	CVFLIN	0020	0014	CVFTXT	(EQU)
0004	0004	CVFREG	0019	0013	CVFPAD				

Alphabetical list of fields in CHACVF

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	
CVFLEN	0000	0000	CVFPAD	0019	0013	CVFTXT	0020	0014	(EQU)
CVFLIN	0012	000C	CVFREG	0004	0004				

Assembler listing of CHACVF

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	20 00000	CHACVF	DSECT		, COMMAND
		*			SYSTEM VISAM REC FORMAT
20 00000		CVFLEN	DS	F	VARIABLE RECORD LENGTH
20 00004		CVFREG	DS	CL8	REGION
20 0000C		CVFLIN	DS	CL7	LINE NO
20 00013		CVFPAD	DS	CL1	PAD
	20 00014	CVFTXT	EQU	*	START OF RECORD TEXT

Direct Access Interface Block (CHADAI)

The Direct Access Interface block (DAI) contains the interface data required for passing pages to or from core storage, with accurate posting of these pages.

The DAI, a resident and private table, serves as the interface between the Page Direct Access Queue subroutine and the Page Direct Access Interrupt subroutine. The DAI table is constructed in supervisor core storage and exists only for the life of the paging operation. One DAI entry exists for each paging GQE.

The size of the DAI, for any given paging request, is calculated by the Page Direct Access Queue subroutine using the PCB count contained in the GQE as a factor. The queue routine builds the DAI and places a DAI pointer in the device GQE.

The extent of the DAI is placed in the device GQE to allow the interrupt routine to release core storage when the paging operation is complete.

The DAI occupies from 156 to 4096 bytes of core storage, aligned on word boundaries.

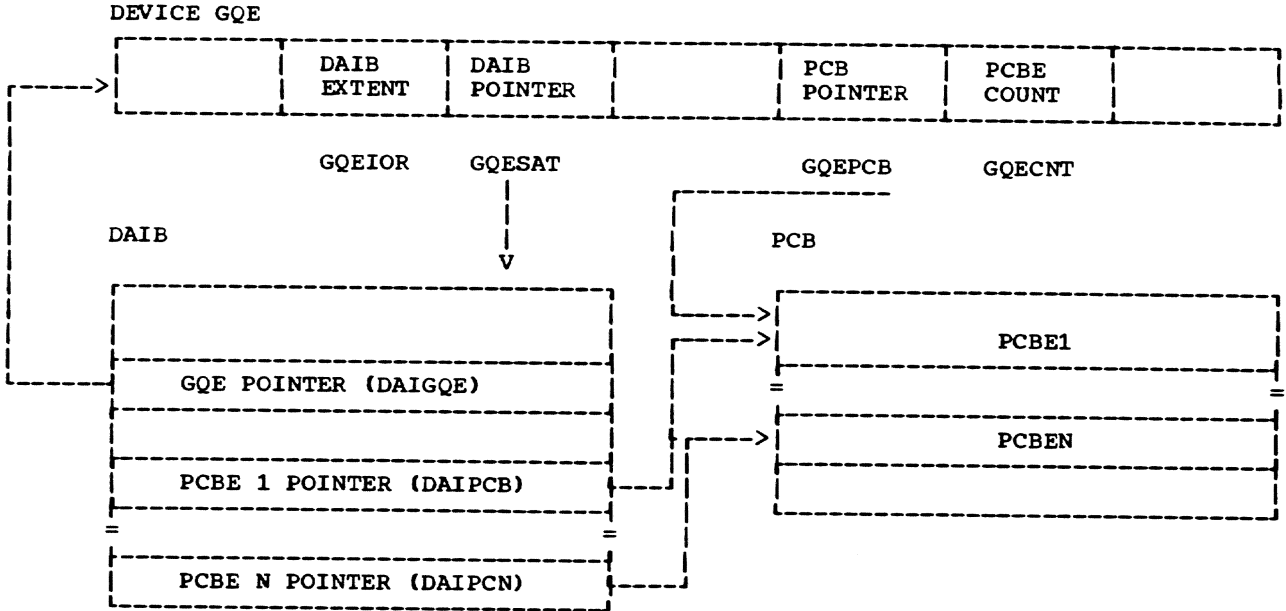


Table Relationships: GQE, DAI, and PCB

CHADAI Storage map

DEC	HEX	Field
0	0	DAIPEB   DAIDIS   DAIPSN   DAITYP   DAICUB
8	8	DAICCW   DAIENT
16	10	DAISV
80	50	DAIWK1   DAIWK2
88	58	DAISNS
96	60	DAIST

ORG DAIBEG

0	0	DAISA   DAISR   DAIHA   DAID   DAIFG
---	---	--------------------------------------

(CHADAI continued on page 110)

(CHADAI continued from page 109)

DEC HEX

ORG DAIBEG

0	0	DAICC	DAIDA	DAIFLG	DAIGN	DAICTN
---	---	-------	-------	--------	-------	--------

ORG DAIBEG

0	0	DAIN	DAICNT	DAIFA4	DAIF3	UNNAMED
8	8	DAIGQE	DAICAW			
16	10	DAIPCB				

ORG DAIBEG

0	0	DAIPCN
---	---	--------

Fields in CHADAI -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	DAIPCN	0004	0004	DAIDIS	0007	0007	DAIFG
0000	0000	DAIN	0004	0004	DAISAT	0007	0007	DAICUB
0000	0000	DAICC	0005	0005	DAIFA4	0008	0008	DAIGQE
0000	0000	DAISA	0005	0005	DAIGN	0008	0008	DAICCW
0000	0000	DAIPEB	0005	0005	DAIPSN	0012	000C	DAICAW
0000	0000	DAIBEG	0006	0006	DAIF3	0012	000C	DAIENT
0001	0001	DAIDA	0006	0006	DAICTN	0016	0010	DAIPCB
0002	0002	DAISR	0006	0006	DAID	0016	0010	DAIGRE (EQU)
0004	0004	DAICNT	0006	0006	DAICS (EQU)	0016	0010	DAISV
0004	0004	DAIFLG	0006	0006	DAISS (EQU)	0068	0044	DAIGRB (EQU)
0004	0004	DAIHA	0006	0006	DAICP (EQU)	0072	0048	DAIGRC (EQU)
0004	0004	DAIPI (EQU)	0006	0006	DAIFC (EQU)	0076	004C	DAIGRD (EQU)
0004	0004	DAISK (EQU)	0006	0006	DAIPE (EQU)	0080	0050	DAIWK1
0004	0004	DAISL (EQU)	0006	0006	DAIWC (EQU)	0084	0054	DAIWK2
0004	0004	DAICH (EQU)	0006	0006	DAIFS (EQU)	0088	0058	DAISNS
0004	0004	DAIDC (EQU)	0006	0006	DAITYP	0096	0060	DAIST

Alphabetical list of fields in CHADAI

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DAIBEG	0000	0000	DAIFG	0007	0007	DAIPEB	0000	0000
DAICAW	0012	000C	DAIFLG	0004	0004	DAIPI	0004	0004 (EQU)
DAICC	0000	0000	DAIFS	0006	0006 (EQU)	DAIPSN	0005	0005
DAICCW	0008	0008	DAIF3	0006	0006	DAISA	0000	0000
DAICH	0004	0004 (EQU)	DAIGQE	0008	0008	DAISAT	0004	0004
DAICNT	0004	0004	DAIGRB	0068	0044 (EQU)	DAISK	0004	0004 (EQU)
DAICP	0006	0006 (EQU)	DAIGRC	0072	0048 (EQU)	DAISL	0004	0004 (EQU)
DAICS	0006	0006 (EQU)	DAIGRD	0076	004C (EQU)	DAISNS	0088	0058
DAICTN	0006	0006	DAIGRE	0016	0010 (EQU)	DAISR	0002	0002
DAICUB	0007	0007	DAIHA	0004	0004	DAISS	0006	0006 (EQU)
DAIDA	0001	0001	DAID	0006	0006	DAIST	0096	0060
DAIDC	0004	0004 (EQU)	DAIGN	0005	0005	DAISV	0016	0010
DAIDIS	0004	0004	DAIN	0000	0000	DAITYP	0006	0006
DAIENT	0012	000C	DAIPCB	0016	0010	DAIWC	0006	0006 (EQU)
DAIFA4	0005	0005	DAIPCN	0000	0000	DAIWK1	0080	0050
DAIFC	0006	0006 (EQU)	DAIPE	0006	0006 (EQU)	DAIWK2	0084	0054

Assembler listing of CHADAI

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	21 00000	CHADAI	DSECT		DIRECT ACCESS INTERFACE CONTROL BLOCK
21 00000		DAIBEG	DS	0F	ALIGN TABLE ON WORD BOUNDARY
21 00000		DAIPEB	DS	F	POINTER TO PAGING ERROR CONTROL BLOCK
21 00004		DAISAT	DS	0F	CONTROL INFORMATION FOR CYLINDER SEGMENTATION OF CHANNEL PROGRAM AND OTHER CODES AND COUNTS.
21 00004		DAIDIS	DS	XL1	DISPLACEMENT TO NEXT SAT ENTRY-MODULO 8-
21 00005		DAIPSN	DS	XL1	NEXT CHANNEL PROGRAM SEGMENT NUMBER
21 00006		DAITYP	DS	XL1	DEVICE TYPE CODE
21 00007		DAICUB	DS	XL1	START I/O RETRY COUNT
21 00008		DAICCW	DS	F	POINTER TO DAIB CHANNEL PROGRAM - DAICC -
21 0000C		DAIENT	DS	F	POINTER TO DAIB ENTRY HEADER - DAIIN -
21 00010		DAISV	DS	16F	GENERAL REGISTER SAVE AREA FOR ROUTINES CALLED BY THE DIRECT ACCESS PAGING ROUTINES.
	21 00010	DAIGRE	EQU	DAISV	GPR-14 SAVE AREA WHEN CALLING CEABQ
	21 00044	DAIGRB	EQU	DAISV+52	CONTAINS LOCATION-ON-QUEUE FOR CEABQ
	21 00048	DAIGRC	EQU	DAISV+56	CONTAINS ADDRESS OF CSW FOR CEABQ
	21 0004C	DAIGRD	EQU	DAISV+60	CONTAINS ADDRESS OF INTERRUPT CODE FOR CEABQ
21 00050		DAIWK1	DS	F	USED TO SAVE SIO RETURN PARAMETERS AND TO CONSTRUCT A CSW COMMAND ADDRESS ON SIO FAILURE.
21 00054		DAIWK2	DS	F	USED TO CONSTRUCT STATUS FIELD ON SIO FAILURE
21 00058		DAISNS	DS	D	SENSE OPERATION CHANNEL PROGRAM AREA
		** END OF FIXED LENGTH AREA - BEGINNING OF SEEK AND SEARCH			
		** ARGUMENT TABLE - SAT TABLE - CONTAINS ONE 8 BYTE ENTRY FOR EACH PAGING OPERATION TO BE PERFORMED. THIS SUBSECTION IS			
					* VARIABLE IN LENGTH.
21 00060		DAIST	DS	2F	FIRST SAT ENTRY
	21 00000		ORG	DAIBEG	ANY SAT ENTRY
21 00000		DAISA	DS	2C	HIGH ORDER SEEK ARGUMENT - BIN/BIN -
21 00002		DAISR	DS	2C	HIGH ORDER SEARCH ARGUMENT - CYLINDER/CYLINDER -
21 00004		DAIHA	DS	2C	HIGH ORDER HEAD ADDRESS - HEAD/HEAD -
21 00006		DAIID	DS	C	RECORD ID
21 00007		DAIFG	DS	XL1	CHANNEL PROGRAM SEGMENT NUMBER
		** END OF SAT TABLE AREA.- THIS SUBSECTION CONTAINS THE CHANNEL PROGRAM, IS ALSO VARIABLE IN LENGTH AND CAN BE ADDRESSED BY USING THE CONTENTS OF THE - DAICCW - FIELD AS A BASE ADDRESS.			
	21 00000		ORG	DAIBEG	ANY CHANNEL COMMAND WORD
21 00000		DAICC	DS	XL1	COMMAND CODE
21 00001		DAIDA	DS	XL3	DATA ADDRESS
21 00004		DAIFLG	DS	XL1	FLAGS

(Listing of CHADAI continued on page 112)

(Listing of CHADAI continued from page 111)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	21 00004	DAIDC	EQU	DAIFLG	DATA CHAIN
	00000080	DAIDCM	EQU	X'80'	
	21 00004	DAICH	EQU	DAIFLG	COMMAND CHAIN
	00000040	DAICHM	EQU	X'40'	
	21 00004	DAISL	EQU	DAIFLG	SUPPRESS INCORRECT LENGTH
	00000020	DAISLM	EQU	X'20'	
	21 00004	DAISK	EQU	DAIFLG	SKIP
	00000010	DAISKM	EQU	X'10'	
	21 00004	DAIPI	EQU	DAIFLG	PROGRAM CONTROL INTERRUPT
	00000008	DAIPIM	EQU	X'08'	
21 00005		DAIGN	DS	C	FIELD IS IGNORED
21 00006		DAICTN	DS	XL2	COUNT
		**			END OF CHANNEL PROGRAM SUBSECTION - THE
		*			FOLLOWING AREA OF THE
		**			DAIB CONSISTS OF A ENTRY HEADER AND POINTERS
		*			TO EACH PCB ENTRY.
		**			THE SUBSECTION IS VARIABLE IN LENGTH AND CAN
		*			BE ADDRESSED BY
		**			USING THE CONTENTS OF THE - DAIENT - FIELD AS
		*			A BASE ADDRESS.
	21 00000		ORG	DAIBEG	DAIB ENTRY HEADER
21 00000		DAIIN	DS	F	POINTER TO NEXT PCB ENTRY
		*			TO BE POSTED
21 00004		DAICNT	DS	XL1	NUMBER OF DAIB ENTRIES
21 00005		DAIFA4	DS	XL1	NUMBER OF REMAINING ENTRIES
		*			TO BE POSTED
21 00006		DAIF3	DS	XL1	OTHER FLAGS
	21 00006	DAIFS	EQU	DAIF3	FIRST SEEK FLAG
	00000080	DAIFSM	EQU	X'80'	
	21 00006	DAIWC	EQU	DAIF3	WRITE CHECK OPTION SELECTED
	00000040	DAIWCM	EQU	X'40'	
	21 00006	DAIPE	EQU	DAIF3	PAGING ERROR RECOVERY IN
		*			PROGRESS
	00000020	DAIPEM	EQU	X'20'	
	21 00006	DAIFC	EQU	DAIF3	FIRST CHANNEL PROGRAM
		*			SEGMENT BUILT
	00000010	DAIFCM	EQU	X'10'	
	21 00006	DAICP	EQU	DAIF3	CHANNEL PROGRAM IS BUILT
	00000008	DAICPM	EQU	X'08'	
	21 00006	DAISS	EQU	DAIF3	SENSE SIO ATTEMPT/BUSY
		*			RETURN
	00000004	DAISSM	EQU	X'04'	
	21 00006	DAICS	EQU	DAIF3	CHAINING SIO ATTEMP/BUSY
		*			RETURN
	00000002	DAICSM	EQU	X'02'	
21 00007			DS	C	NOT USED
21 00008		DAIGQE	DS	F	POINTER TO GQE
21 0000C		DAICAW	DS	F	LAST ADDRESS USED AS CAW
21 00010		DAIPCB	DS	F	FIRST PCB ENTRY POINTER
	21 00000		ORG	DAIBEG	
21 00000		DAIPCN	DS	F	ANY PCB POINTER

MSAM Work Page (CHADBP)

The MSAM Work Page (CHADBP) serves as the main work and communication area for the MSAM modules. It contains the Data Extent Block (CHADEB) built by MSAM OPEN, an Interrupt Control Block (CHAICB) and Communications Area for use in handling asynchronous interrupts, the fixed area of an Input/Output Request Control Block (CHAIOR) for use by MSAM POSTING, and Input/Output Request Control Block (CHAIOR) of maximum size, and an area into which the VISAM data sets SYSURS and SYSUCS may be read, plus other fields and flags for communication within and between the MSAM modules.

A full page of virtual storage is allocated by MSAM OPEN for the MSAM Work Page. The protection class of this page is either user read-only or user-inaccessible.

CHADBP Storage map

DEC	HEX	
0	0	RESERVED
80	50	
88	58	RESERVED
2008	7D8	
2016	7E0	DBPABV   DBPABR
2024	7E8	DBPRWV   DBPRWR
2032	7F0	UNNAMED
2104	838	
2112	840	DBPFCCW   DBPDIS
2120	848	DBPSYME   DBPASYME
		DBPTIDE   UNNAMED
2200	898	DBPASYM   DBPTID   UNNAMED
2296	8F8	DBPPRDC   DBPPRSTR   DBPPRTRY   DBPALTP   DBPOPC   DBPINSEL   DBPFLG1   DBPBUSY
2304	900	DBPRT0   UNNAMED

(CHADBP continued on page 114)

(CHADBP continued from page 113)

DEC 2392	HEX 958	RESERVED			
2432	980	RESERVED			
2448	990	RESERVED		DBPIOF	
2456	998	RESERVED			
2536	9E8	DBPRKEY1		DBPRLIN1	UNNAMED
2544	9F0	UNNAMED (CONT)	DBPFORMN		
2552	9F8	DBPCARRG			
2560	A00	DBPCHTRN		UNNAMED	DBPDEN
2568	A08	UNNAMED	DBPFRMTP	UNNAMED	DBPFOLD
2576	A10	UNNAMED	DBPSTRK2	UNNAMED	
2584	A18	UNNAMED (CONT)	DBPUCSKY		
2592	A20	UNNAMED			
2600	A28	DBPRKEY2			
2608	A30	DBPRKEY2 (CONT)	DBPRLIN2	UNNAMED	
		DBPAL0			
2672	A70	DBPRKEY3		DBPRLIN3	UNNAMED
2680	A78	DBPAL60			
2736	AB0	DBPRKEY4			
2744	AB8	DBPRKEY4 (CONT)	DBPRLIN4	UNNAMED	
		DBPAL120			
2760	AC8	UNNAMED			
2808	AF8	DBPCKEY1		DBPCLIN1	UNNAMED

(CHADBP continued on page 115)



(CHADBP continued from page 114)

DEC 2816	HEX B00				
		DBPPRVER			
2832	B10				
		DBPTPVER			
2856	B28				
		UNNAMED			
2872	B38	DBPCKEY2			
2880	B40	DBPCKEY2 (CONT)	DBPCLIN2	UNNAMED	
		DBPBF0			
2944	B80	DBPCKEY3		DBPCLIN3	UNNAMED
2952	B88				
		DBPBF60			
3008	BC0	DBPCKEY4			
3016	BC8	DBPCKEY4 (CONT)	DBPCLIN4	UNNAMED	
		DBPBF120			
3080	C08	DBPCKEY5		DBPCLIN5	UNNAMED
3088	C10				
		DBPBF180			
3144	C48				
		UNNAMED			

ORG DBPRT0

2304	900	DBPCRO	DBPCR1	DBPPR2	DBPPR3
------	-----	--------	--------	--------	--------

Fields in CHADBP -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	DBPDEB	2108	083C	DBPDIS	2297	08F9	DBPPRSTR
0088	0058	DBPRCB	2112	0840	DBPSYME	2298	08FA	DBPPRTRY
2008	07D8	DBPTIM	2116	0844	DBPASyme	2299	08FB	DBPALTP
2016	07E0	DBPABV	2120	0848	DBPTIDE	2300	08FC	DBPOPC
2020	07E4	DBFABR	2200	0898	DBPASym	2301	08FD	DBPINSEL
2024	07E8	DBPRWV	2202	089A	DBPTID	2302	08FE	DBPBLIP (EQU)
2028	07EC	DBPRWR	2296	08F8	DBPPRDC	2302	08FE	DBPCLIP (EQU)
2104	0838	DBPFCCW	2296	08F8	DBPCTRS	2302	08FE	DBPFLG1

(Continued on page 116)

(Continued from page 115)

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
2303	08FF	DBPBUSY	2560	0A00	DBPCHTRN	2814	0AFE	DBPCLIN1	
2304	0900	DBPCRO	2567	0A07	DBPDEN	2816	0B00	DBPPRVER	
2304	0900	DBPPR0	(EQU)	2571	0A0B	DBPFRMTP	2836	0B14	DBPTPVER
2304	0900	DBPRT0		2575	0A0F	DBPFOLD	2876	0B3C	DBPCKEY2
2305	0901	DBPCR1		2578	0A12	DBPSTRK2	2882	0B42	DBPCLIN2
2305	0901	DBPPR1	(EQU)	2586	0A1A	DBPUCSKY	2884	0B44	DBPBF0
2306	0902	DBPPR2		2604	0A2C	DBPRKEY2	2944	0B80	DBPCKEY3
2306	0902	DBPCR2	(EQU)	2610	0A32	DBPRLIN2	2950	0B86	DBPCLIN3
2307	0903	DBPPR3		2612	0A34	DBPAL0	2952	0B88	DBPBF60
2392	0958	DBPACB		2672	0A70	DBPRKEY3	3012	0BC4	DBPCKEY4
2436	0984	DBPACOM		2678	0A76	DBPRLIN3	3018	0BCA	DBPCLIN4
2456	0998	DBPIOF		2680	0A78	DBPAL60	3020	0BCC	DBPBF120
2536	09E8	DBPRKEY1		2740	0AB4	DBPRKEY4	3080	0C08	DBPCKEY5
2536	09E8	DBPURS		2746	0ABA	DBPRLIN4	3086	0C0E	DBPCLIN5
2542	09EE	DBPRLIN1		2748	0ABC	DBPAL120	3088	0C10	DBPBF180
2546	09F2	DBPFORMN		2808	0AF8	DBPCKEY1			
2556	09FC	DBPCARRG		2808	0AF8	DBPUCS			

Alphabetical list of fields in CHADBP

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DBPABR	2020	07E4	DBPCLIN3	2950	0B86	DBPPR2	2306	0902
DBPABV	2016	07E0	DBPCLIN4	3018	0BCA	DBPPR3	2307	0903
DBPACB	2392	0958	DBPCLIN5	3086	0C0E	DBPRCB	0088	0058
DBPACOM	2436	0984	DBPCLIP	2302	08FE (EQU)	DBPRKEY1	2536	09E8
DBPALTP	2299	08FB	DBPCRO	2304	0900	DBPRKEY2	2604	0A2C
DBPAL0	2612	0A34	DBPCR1	2305	0901	DBPRKEY3	2672	0A70
DBPAL120	2748	0ABC	DBPCR2	2306	0902 (EQU)	DBPRKEY4	2740	0AB4
DBPAL60	2680	0A78	DBPCTRS	2296	08F8	DBPRLIN1	2542	09EE
DBPASYM	2200	0898	DBPDEB	0000	0000	DBPRLIN2	2610	0A32
DBPASYME	2116	0844	DBPDEN	2567	0A07	DBPRLIN3	2678	0A76
DBPBF0	2884	0B44	DBPDIS	2108	083C	DBPRLIN4	2746	0ABA
DBPBF120	3020	0BCC	DBPFCCW	2104	0838	DBPRT0	2304	0900
DBPBF180	3088	0C10	DBPFLG1	2302	08FE	DBPRWR	2028	07EC
DBPBF60	2952	0B88	DBPFOLD	2575	0A0F	DBPRWV	2024	07E8
DBPBLIP	2302	08FE (EQU)	DBPFORMN	2546	09F2	DBPSTRK2	2578	0A12
DBPBUSY	2303	08FF	DBPFRMTP	2571	0A0B	DBPSYME	2112	0840
DBPCARRG	2556	09FC	DBPINSEL	2301	08FD	DBPTID	2202	089A
DBPCHTRN	2560	0A00	DBPIOF	2456	0998	DBPTIDE	2120	0848
DBPCKEY1	2808	0AF8	DBPOPC	2300	08FC	DBPTIM	2008	07D8
DBPCKEY2	2876	0B3C	DBPPRDC	2296	08F8	DBPTPVER	2836	0B14
DBPCKEY3	2944	0B80	DBPPRSTR	2297	08F9	DBPUCS	2808	0AF8
DBPCKEY4	3012	0BC4	DBPPRTRY	2298	08FA	DBPUCSKY	2586	0A1A
DBPCKEY5	3080	0C08	DBPPRVER	2816	0B00	DBPURS	2536	09E8
DBPCLIN1	2814	0AFE	DBPPR0	2304	0900 (EQU)			
DBPCLIN2	2882	0B42	DBPPR1	2305	0901 (EQU)			

Assembler listing of CHADBP

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	23 00000	CHADBP	DSECT		
* ***	NOTE THAT THE FOLLOWING 5 EQUATES MAY CHANGE AS THE SIZES OF				***
* ***	THEIR RESPECTIVE CONTROL BLOCKS CHANGE				***
	00000054	DBPDEBSZ EQU	X'54'		SIZE OF DEB (DEBSZ1)
	0000002C	DBPICBSZ EQU	44		SIZE OF ICB
	00000010	DBPCMASZ EQU	16		SIZE OF COMMUNICATIONS AREA
	00000050	DBPIOFSZ EQU	X'50'		SIZE OF FIXED AREA OF IORCB
		*			(IORFAS)
	00000780	DBPIORSZ EQU	1920		MAXIMUM SIZE OF IORCB
23 00000	DBPDEB DS	DS	0D		DEB AREA, DBPDEBSZ BYTES IN LENGTH
		*			
23 00058	23 00054	DBPRCB DS	DS	++DBPDEBSZ	IORCB AREA, DBPIORSZ BYTES IN LENGTH
		*			
23 007D8	23 007D8	DBPTIM DS	DS	++DBPIORSZ	TIME IN MICROSECONDS
		*			BETWEEN ALIGNMENT MESSAGES
23 007E0	DBPABV DS	DS	F		POINTER (ADCON) TO ABEND

(Listing of CHADBP continued on page 117)

(Listing of CHADBP continued from page 116)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			ENTRY
23 007E4		DBPABR	DS	F	POINTER (ADCON) TO ABEND PSECT
23 007E8		DBPRWV	DS	F	POINTER (ADCON) TO MSAM READ/WRITE ENTRY
23 007EC		DBPRWR	DS	F	POINTER (ADCON) TO MSAM READ/WRITE PSECT
23 007F0			DS	9D	RESERVED FOR FUTURE USE
23 00838		DBPFCCW	DS	F	VIRTUAL MEMORY ADDRESS OF FAILING CCW
23 0083C		DBPDIS	DS	F	DISPLACEMENT(MOD 8) TO FAILING CCW FROM START OF IORCB
23 00840		DBPSYME	DS	CL4	EBCDIC FORM OF SYMBOLIC DEVICE ADDRESS
23 00844		DBPASYME	DS	CL4	EBCDIC FORM OF ASSOCIATED CARD READER ON 2540
23 00848		DBPTIDE	DS	CL4	EBCDIC FORM OF TASK ID
23 0084C			DS	19F	RESERVED FOR FUTURE USE
23 00898		DBPASYM	DS	H	ASSOCIATED 2540 DEVICE
23 0089A		DBPTID	DS	H	TASK ID
23 0089C			DS	46H	RESERVED FOR FUTURE USE
23 008F8		DBPCTRS	DS	OF	
23 008F8		DBPPRDC	DS	XL1	PRINTER DATA CHECK COUNTER
23 008F9		DBPPRSTR	DS	XL1	PRINTER STRIKEOUT COUNTER
23 008FA		DBPPRTRY	DS	XL1	PRINTER RETRY COUNTER
23 008FB		DBPALTP	DS	XL1	ALTERNATE PATH RETRY COUNTER
23 008FC		DBPOPC	DS	XL1	OP CODE OF FAILING CCW
23 008FD		DBPINSEL	DS	CL1	INITIAL SELECTION SENSE BYTE
23 008FE		DBPFLG1	DS	XL1	FLAG BYTE
	23 008FE	DBPCLIP	EQU	DBPFLG1	CLOSE IN PROCESS FLAG
	00000080	DBPCLIPM	EQU	X'80'	CLOSE IN PROCESS MASK
	23 008FE	DBPBLIP	EQU	DBPFLG1	PUNCHING BLANK CARD IN PROGRESS FLAG
	00000040	DBPBLIPM	EQU	X'40'	PUNCHING BLANK CARD IN PROGRESS MASK
23 008FF		DBPBUSY	DS	CL1	BUSY RETRY COUNT
23 00900		DBPRT0	DS	F	RETRY COUNTERS
	23 00900		<u>ORG</u>	DBPRT0	
23 00900		DBPCR0	DS	CL1	CHANNEL RETRY COUNTER
	23 00900	DBPPR0	EQU	DBPCR0	PATH RETRY COUNTER
23 00901		DBPCR1	DS	CL1	BUS OUT COUNTER
	23 00901	DBPPR1	EQU	DBPCR1	
23 00902		DBPPR2	DS	CL1	
	23 00902	DBPCR2	EQU	DBPPR2	ERROR RETRY VALUE
23 00903		DBPPR3	DS	CL1	UNUSED ERROR RETRY COUNTER
23 00904			DS	XL84	RESERVED FOR FUTURE USE
23 00958		DBPACB	DS	0D	ICB AREA, DBPICBSZ BYTES IN LENGTH
	23 00984		<u>ORG</u>	**DBPICBSZ	
23 00984		DBPACOM	DS	0F	COMMUNICATION AREA FOR ICB, DBPCMASZ BYTES IN LENGTH
	23 00994		<u>ORG</u>	**DBPCMASZ	
23 00998		DBPIOF	DS	0D	FIXED AREA OF IORCB FOR POSTING, DBPIOFSZ BYTES LONG
	23 009E8		<u>ORG</u>	**DBPIOFSZ	
23 009E8			DS	0D	
23 009E8		DBPURS	DS	0D	ALIGN AND DEFINE START OF URS AREA. AREA SIZE--4X68
23 009E8		DBPRKEY1	DS	CL6	SYSURS KEY
23 009EE		DBPRLIN1	DS	CL1	SYSURS LINE NUMBER '1'
23 009EF			DS	CL3	SYSURS RESERVED
23 009F2		DBPFORMN	DS	CL10	SYSURS FORM NUMBER
23 009FC		DBPCARRG	DS	CL4	SYSURS CARRIAGE TAPE NUMBER
23 00A00		DBPCHTRN	DS	CL4	SYSURS CHAIN/TRAIN NUMBER
23 00A04			DS	CL3	SYSURS RESERVED
23 00A07		DBPDEN	DS	CL1	SYSURS DENSITY

(Listing of CHADBP continued on page 118)

(Listing of CHADBP continued from page 117)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	000000F6	DBPDEN6	EQU	C'6'	SYSURS DENSITY 6 LINES PER INCH
		*			
	000000F8	DBPDEN8	EQU	C'8'	SYSURS DENSITY 8 LINES PER INCH
		*			
23 00A08			DS	CL3	SYSURS RESERVED
23 00A0B		DBPFRMTP	DS	CL1	SYSURS FORM TYPE CODE
	000000C4	DBPFRMD	EQU	C'D'	SYSURS FORM TYPE DUMP MODE
	000000C6	DBPFRMF	EQU	C'F'	SYSURS FORM TYPE FORM SENSITIVE
		*			
	000000E2	DBPFRMS	EQU	C'S'	SYSURS FORM TYPE SEQUENCE SENSITIVE
		*			
23 00A0C			DS	CL3	SYSURS RESERVED
23 00A0F		DBPFOLD	DS	CL1	SYSURS UCS FOLDING CODE
	000000C6	DBPFOLDF	EQU	C'F'	SYSURS FOLDED
	000000E4	DBPFOLDU	EQU	C'U'	SYSURS UNFOLDED
23 00A10			DS	CL2	SYSURS RESERVED
23 00A12		DBPSTRK2	DS	CL2	SYSURS UCS STRIKE OUT CODE
23 00A14			DS	CL6	SYSURS RESERVED
23 00A1A		DBPUCKY	DS	CL6	SYSURS UCS BUFFER LOAD KEY FOR READING SYSUCS
		*			
23 00A20			DS	CL12	SYSURS RESERVED
23 00A2C		DBPRKEY2	DS	CL6	SYSURS KEY
23 00A32		DBPRLIN2	DS	CL1	SYSURS LINE NUMBER '2'
23 00A33			DS	CL1	SYSURS RESERVED
23 00A34		DBPAL0	DS	CL60	SYSURS FIRST 60 BYTES OF ALIGNMENT MESSAGE
		*			
23 00A70		DBPRKEY3	DS	CL6	SYSURS KEY
23 00A76		DBPRLIN3	DS	CL1	SYSURS LINE NUMBER '3'
23 00A77			DS	CL1	SYSURS RESERVED
23 00A78		DBPAL60	DS	CL60	SYSURS SECOND 60 BYTES OF ALIGNMENT MESSAGE
		*			
23 00AB4		DBPRKEY4	DS	CL6	SYSURS KEY
23 00ABA		DBPRLIN4	DS	CL1	SYSURS LINE NUMBER '4'
23 00ABB			DS	CL1	SYSURS RESERVED
23 00ABC		DBPAL120	DS	CL12	SYSURS LAST 12 BYTES OF ALIGNMENT MESSAGE
		*			
23 00AC8			DS	CL48	SYSURS RESERVED
23 00AF8			DS	0D	
23 00AF8		DBPUCS	DS	0D	ALIGN AND DEFINE START OF UCS AREA. AREA SIZE 5X68
		*			
23 00AF8		DBPCKEY1	DS	CL6	SYSUCS KEY
23 00AFE		DBPCLIN1	DS	CL1	SYSUCS LINE NUMBER '1'
23 00AFF			DS	CL1	SYSUCS RESERVED
23 00B00		DBPPRVER	DS	CL20	SYSUCS VERIFICATION MESSAGE FOR PRINTER
		*			
23 00B14		DBPTPVER	DS	CL20	SYSUCS VERIFICATION MESSAGE FOR TYPEWRITER
		*			
23 00B28			DS	CL20	SYSUCS RESERVED
23 00B3C		DBPCKEY2	DS	CL6	SYSUCS KEY
23 00B42		DBPCLIN2	DS	CL1	SYSUCS LINE NUMBER '2'
23 00B43			DS	CL1	SYSUCS RESERVED
23 00B44		DBPBF0	DS	CL60	SYSUCS FIRST 60 BYTES OF 240 BYTE BUFFER LOAD
		*			
23 00B80		DBPCKEY3	DS	CL6	SYSUCS KEY
23 00B86		DBPCLIN3	DS	CL1	SYSUCS LINE NUMBER '3'
23 00B87			DS	CL1	SYSUCS RESERVED
23 00B88		DBPBF60	DS	CL60	SYSUCS SECOND 60 BYTES OF 240 BYTE BUFFER LOAD
		*			
23 00BC4		DBPCKEY4	DS	CL6	SYSUCS KEY

(Listing of CHADBP continued on page 119)

(Listing of CHADBP continued from page 118)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
23 00BCA		DBPCLIN4	DS	CL1	SYSUCS LINE NUMBER '4'
23 00BCB			DS	CL1	SYSUCS RESERVED
23 00BCC		DBPBF120	DS	CL60	SYSUCS THIRD 60 BYTES OF
		*			240 BYTE BUFFER LOAD
23 00C08		DBPCKEY5	DS	CL6	SYSUCS KEY
23 00C0E		DBPCLIN5	DS	CL1	SYSUCS LINE NUMBER '5'
23 00C0F			DS	CL1	SYSUCS RESERVED
23 00C10		DBPBF180	DS	CL60	SYSUCS LAST 60 BYTES OF 240
		*			BYTE BUFFER LOAD
23 00C4C			DS	237F	RESERVED FOR FUTURE USE

Data Control Block (CHADCB)

The Data Control Block Table (DCB) represents the basic reference block for all I/O operations and provides the principal means of achieving device independent coding. The DCB macro instruction, used as a basis for table construction, is common to all of the data management access methods supported by TSS. The DCB macro instruction is primarily used to reserve space for the DCB table.

The maximum DCB area is reserved in virtual storage without regard to specification of parameters in the DCB macro instruction. Since no parameters need be specified as operands in the DCB macro, the user can utilize any access method without modifying his object program. Once a parameter is specified in the DCB macro, however, the parameter cannot be altered except by the user's object program. Therefore, parameters which are likely to change should be omitted. These parameters should be provided through one of the first four of the following six sources of the DCB table.

1. User's problem program prior to execution of the OPEN macro
2. DDEF commands
3. Tables -- DSCBs or tape labels
4. DCB exit
5. DCB macro instruction
6. Service programs

The DCB table consists of seven sections:

1. DCB common section
2. DCB SAM section
3. DCB QSAM section
4. DCB VAM section
5. DCB IOREQ section
6. DCB MSAM section
7. DCB TAM section

The DCB table occupies up to 200 bytes of virtual storage, aligned on doubleword boundaries.

CHADCB Storage map

DEC	HEX	DCBDSO		DCBMAC		DCBEXL			
0	0								
8	8	DCBDDN							
16	10	DCBSYV				DCBSYR			
24	18	DCBEOV				DCBEOR			
32	20	DCBBUF		DCBDEV	DCBBUN	DCBBCN			
40	28	DCBBFT	DCBNCP	DCBREC	DCBOPT	DCBLRE			
48	30	DCBBLK		DCBDD1	DCBDD2	DCBERO	DCBPAD	DCBRKP	
56	38	DCBLPA				DCBEX1	DCBEX2	DCBOPI	DCBOFG
64	40	DCBMSK				DCBID			
72	48	DCBCON				DCBDEB			
80	50	DCBLEN	DCBIFL	DCBMCD		DCBIMK			
88	58	DCBGTV				DCBGTR			
96	60	DCBPTV				DCBPTR			
104	68	DCBPXV				DCBPXR			
112	70	DCBSLV				DCBSLR			
120	78	DCBKC				DCBS0	DCBS1	DCBPR	DCBBOF

(CHADCB continued on page 121)

(CHADCB continued from page 120)

DEC	HEX	DCBRDN		DCBRDM	DCBRDB	DCBRDC	DCBRDH
128	80	DCBRDN		DCBRDM	DCBRDB	DCBRDC	DCBRDH
136	88	DCBCSW					
144	90	DCBRCD			DCBEAD		
152	98	DCBLX			DCBLXN	DCBBSV	
160	A0	DCBLAD			DCBDE1		
168	A8	DCBDE2			DCBDE3		
176	B0	DCBBF1			DCBBF2		
184	B8	DCBBF3			DCBLRS	DCBSVL	
192	C0	DCBQWK			DCBQF0	DCBQF1	DCBQF2   DCBQF3

ORG DCBMAC

2 2 | DCBA0 | DCBA8 |

ORG DCBDD1

50 32 | DCBKEY |

ORG DCBDD1

50 32 | DCBPRT |

ORG DCBDD1

50 32 | DCBSTA |

ORG DCBDD1

50 32 | DCBCOD |

(CHADCB continued on page 122)

(CHADCB continued from page 121)

DEC HEX

ORG DCBDD2

51 33

DCBMOD
--------

ORG DCBDD2

51 33

DCBTRT
--------

ORG DCBEX1

60 3C

DCBLPN
--------

ORG DCBMSK

64 40

DCBMA	DCBMI	DCBMQ	DCBMY
-------	-------	-------	-------

ORG DCBMCD

82 52

DCBMCD1	DCBUS
---------	-------

ORG DCBIMK

84 54

DCBIA	DCBIJ	DCBIR	DCBIZ
-------	-------	-------	-------

ORG DCBRDH

134 86

DCBRDR	DCBRDZ
--------	--------

ORG DCBBKC

120 78

DCBVMA	DCBDPN	DCBCBP
--------	--------	--------

128 80

DCBN	DCBM	DCBOP
------	------	-------

ORG DCBOP

132 84

DCBOPF	DCBOPM	DCBI	DCBHV
--------	--------	------	-------

136 88

DCBNI	DCBSHC	DCBSWT	DCBSP
-------	--------	--------	-------

144 90

DCBSC	DCBHD
-------	-------

152 98

DCBNPO	DCBFPO	DCBBPU	DCBHLB	DCBLOF
--------	--------	--------	--------	--------

160 A0

DCBPRL	DCBBP
--------	-------

(CHADCB continued on page 123)



DEC HEX

ORG DCBNPO

152	98	DCBPCC				DCBOPC			
160	A0	DCBCL		DCBCCL		DCBIOS	DCBPT	DCBCRL	
168	A8	DCBCRS	DCBRES	DCBPLM	DCBPMM	DCBOLM	DCBASY	DCBFLAG	UNNAMED
176	B0	DCBRK				DCBDMS			

ORG DCBBKC

120	78	DCBTMP				DCBTCC			
128	80	DCBLRL				DCBHRL			
136	88	DCBSCC		UNNAMED		DCBRBF			
144	90	DCBWWF				DCBCLE			
152	98	DCBKNT				DCBWCT		DCBNCN	
160	A0	DCBDEC				UNNAMED		DCBFLG	DCBNPL

ORG DCBBKC

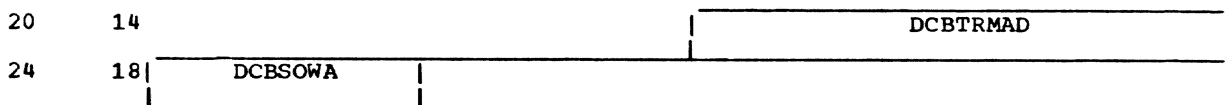
120	78	DCBRETRY	DCBPOCKE	DCBINHMS	DCBCOMBI	DCBICB			
128	80	DCBLRMAX		UNNAMED					
144	90	DCBLRC				DCBEAP			
152	98	DCBPPT				DCBRCX		DCBCNT	
160	A0	UNNAMED							
168	A8	DCBCDE				DCBFDE			
176	B0	DCBLDE				DCBTDE			
184	B8	DCBUDE				DCBFRMTP	DCBSTRIK	UNNAMED	
192	C0	UNNAMED (CONT)				DCBMSF1	DCBMSF2	DCBMSF3	UNNAMED

ORG DCBBKC

120	78	DCBSFS							
192	C0								

DEC HEX

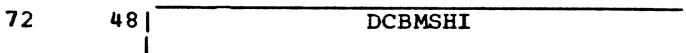
ORG IHADCB+20



ORG IHADCB+68



ORG IHADCB+72



Fields in CHADCB -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	IHADCB (EQU)	0042	002A	DCBRECFCM (EQU)	0061	003D	DCBX2F (EQU)
0000	0000	DCBDSORG (EQU)	0042	002A	DCBREC	0061	003D	DCBX2E (EQU)
0000	0000	DCBDSO	0043	002B	DCBOPTCD (EQU)	0061	003D	DCBX2D (EQU)
0002	0002	DCBA0	0043	002B	DCBOPT	0061	003D	DCBX2C (EQU)
0002	0002	DCBMACR (EQU)	0044	002C	DCBLRE	0061	003D	DCBX2B (EQU)
0002	0002	DCBMACRF (EQU)	0046	002E	DCBLRECL (EQU)	0061	003D	DCBX2A (EQU)
0002	0002	DCBA7 (EQU)	0048	0030	DCBBLKSI (EQU)	0061	003D	DCBEX2
0002	0002	DCBA6 (EQU)	0048	0030	DCBBLK	0062	003E	DCBOPI
0002	0002	DCBA5 (EQU)	0050	0032	DCBCOD	0063	003F	DCBOFLGS (EQU)
0002	0002	DCBA4 (EQU)	0050	0032	DCBSTA	0063	003F	DCBO7 (EQU)
0002	0002	DCBA3 (EQU)	0050	0032	DCBPRT	0063	003F	DCBO6 (EQU)
0002	0002	DCBA2 (EQU)	0050	0032	DCBKEY	0063	003F	DCBO5 (EQU)
0002	0002	DCBA1 (EQU)	0050	0032	DCBPTRSP (EQU)	0063	003F	DCBO4 (EQU)
0002	0002	DCBMAC	0050	0032	DCBCODE (EQU)	0063	003F	DCBO3 (EQU)
0003	0003	DCBA8	0050	0032	DCBKEYLE (EQU)	0063	003F	DCBO2 (EQU)
0003	0003	DCBAF (EQU)	0050	0032	DCBSTACK (EQU)	0063	003F	DCBO1 (EQU)
0003	0003	DCBAE (EQU)	0050	0032	DCBDD1	0063	003F	DCBO0 (EQU)
0003	0003	DCBAD (EQU)	0051	0033	DCBTRT	0063	003F	DCBOFG
0003	0003	DCBAC (EQU)	0051	0033	DCBMOD	0064	0040	DCBMA
0003	0003	DCBAB (EQU)	0051	0033	DCBMODE (EQU)	0064	0040	DCBMH (EQU)
0003	0003	DCBAA (EQU)	0051	0033	DCBTRTCH (EQU)	0064	0040	DCBMG (EQU)
0003	0003	DCBA9 (EQU)	0051	0033	DCBDD2	0064	0040	DCBMF (EQU)
0004	0004	DCBEXLST (EQU)	0052	0034	DCBEROPT (EQU)	0064	0040	DCBME (EQU)
0004	0004	DCBEXL	0052	0034	DCBER3 (EQU)	0064	0040	DCBMD (EQU)
0008	0008	DCBDDNAM (EQU)	0052	0034	DCBER2 (EQU)	0064	0040	DCBMC (EQU)
0008	0008	DCBDDN	0052	0034	DCBER1 (EQU)	0064	0040	DCBMB (EQU)
0016	0010	DCBSYNAD (EQU)	0052	0034	DCBERO	0064	0040	DCBMSK
0016	0010	DCBSYV	0053	0035	DCBPAD	0065	0041	DCBMI
0020	0014	DCBTRMAD	0054	0036	DCBRKP	0065	0041	DCBMP (EQU)
0020	0014	DCBBUFRQ	0056	0038	DCBLP (EQU)	0065	0041	DCBMO (EQU)
0020	0014	DCBSYR	0056	0038	DCBLPA	0065	0041	DCBMN (EQU)
0024	0018	DCBSOWA	0060	003C	DCBLPN	0065	0041	DCBMM (EQU)
0024	0018	DCBEODAD (EQU)	0060	003C	DCBEXCD1 (EQU)	0065	0041	DCBML (EQU)
0024	0018	DCBEOV	0060	003C	DCBX6 (EQU)	0065	0041	DCBMK (EQU)
0028	001C	DCBEOR	0060	003C	DCBX5 (EQU)	0065	0041	DCBMJ (EQU)
0032	0020	DCBBUFL (EQU)	0060	003C	DCBX4 (EQU)	0066	0042	DCBMQ (EQU)
0032	0020	DCBBUF	0060	003C	DCBX3 (EQU)	0066	0042	DCBMX (EQU)
0034	0022	DCBDEVT (EQU)	0060	003C	DCBX2 (EQU)	0066	0042	DCBMW (EQU)
0034	0022	DCBDEV	0060	003C	DCBX1 (EQU)	0066	0042	DCBMV (EQU)
0035	0023	DCBBUFNO (EQU)	0060	003C	DCBEX1	0066	0042	DCBMU (EQU)
0035	0023	DCBBUN	0061	003D	DCBEXCD2 (EQU)	0066	0042	DCBMT (EQU)
0036	0024	DCBBUFCB (EQU)	0061	003D	DCBX2K (EQU)	0066	0042	DCBMS (EQU)
0036	0024	DCBBCN	0061	003D	DCBX2J (EQU)	0066	0042	DCBMR (EQU)
0040	0028	DCBBFTEK (EQU)	0061	003D	DCBX2I (EQU)	0067	0043	DCBMY (EQU)
0040	0028	DCBBFT	0061	003D	DCBX2H (EQU)	0067	0043	DCBM5 (EQU)
0041	0029	DCBNCP	0061	003D	DCBX2G (EQU)	0067	0043	DCBM4 (EQU)

(Continued on page 125)

(Continued from page 124)

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD	
0067	0043	DCBM3	(EQU)	0122	007A	DCBINH	(EQU)	0160	00A0	DCBDEC	
0067	0043	DCBM2	(EQU)	0123	007B	DCBCOMBI		0160	00A0	DCBCL	
0067	0043	DCBM1	(EQU)	0123	007B	DCBCMB	(EQU)	0160	00A0	DCBPRL	
0067	0043	DCBM0	(EQU)	0124	007C	DCBICB		0160	00A0	DCBLAD	
0067	0043	DCBMZ	(EQU)	0124	007C	DCBTCC		0162	00A2	DCBCCL	
0068	0044	DCBSMSI		0124	007C	DCBDPN		0164	00A4	DCBIOS	
0068	0044	DCBID		0124	007C	DCBCPB		0164	00A4	DCBBP	
0072	0048	DCBMSHI		0124	007C	DCBS0		0164	00A4	DCBDE1	
0072	0048	DCBCON		0125	007D	DCBS1		0165	00A5	DCBPT	
0076	004C	DCBDEBAD	(EQU)	0126	007E	DCBCBP		0166	00A6	DCBFLG	
0076	004C	DCBDEB		0126	007E	DCBQN	(EQU)	0166	00A6	DCBCRL	
0080	0050	DCBLEN		0126	007E	DCBQT	(EQU)	0166	00A6	DCBIOI	(EQU)
0081	0051	DCBIFLG	(EQU)	0126	007E	DCBBN	(EQU)	0166	00A6	DCBNCH	(EQU)
0081	0051	DCBIFLGS	(EQU)	0126	007E	DCBBT	(EQU)	0167	00A7	DCBNPL	
0081	0051	DCBIFL		0126	007E	DCBPR		0168	00A8	DCBCDE	
0082	0052	DCBMCD1		0127	007F	DCBBOF		0168	00A8	DCBCRS	
0082	0052	DCBMCD		0128	0080	DCBLRMAX		0168	00A8	DCBDE2	
0083	0053	DCBUS		0128	0080	DCBLRL		0169	00A9	DCBRES	
0083	0053	DCBCH	(EQU)	0128	0080	DCBN		0170	00AA	DCBPLM	
0084	0054	DCBIA		0128	0080	DCBRDN		0171	00AB	DCBPMM	
0084	0054	DCBIMSK	(EQU)	0128	0080	DCBRD		0172	00AC	DCBFDE	
0084	0054	DCBII	(EQU)	0129	0081	DCBRDM		0172	00AC	DCBOLM	
0084	0054	DCBIH	(EQU)	0130	0082	DCBM		0172	00AC	DCBDE3	
0084	0054	DCBIG	(EQU)	0130	0082	DCBRDB		0173	00AD	DCBASY	
0084	0054	DCBIF	(EQU)	0132	0084	DCBHRL		0174	00AE	DCBFLAG	
0084	0054	DCBIE	(EQU)	0132	0084	DCBOPF		0174	00AE	DCBFMP	(EQU)
0084	0054	DCBIC	(EQU)	0132	0084	DCBOP		0176	00B0	DCBLDE	
0084	0054	DCBIB	(EQU)	0132	0084	DCBRDC		0176	00B0	DCBRK	
0084	0054	DCBIMK		0132	0084	DCBRDT		0176	00B0	DCBBF1	
0085	0055	DCBIJ		0133	0085	DCBOPM		0180	00B4	DCBTDE	
0085	0055	DCBIQ	(EQU)	0134	0086	DCBI		0180	00B4	DCBDMS	
0085	0055	DCBIP	(EQU)	0134	0086	DCBRDR		0180	00B4	DCBBF2	
0085	0055	DCBIO	(EQU)	0134	0086	DCBRDH		0184	00B8	DCBUDE	
0085	0055	DCBIN	(EQU)	0135	0087	DCBHV		0184	00B8	DCBBF3	
0085	0055	DCBIM	(EQU)	0135	0087	DCBRDZ		0188	00BC	DCBFRMTP	
0085	0055	DCBIL	(EQU)	0136	0088	DCBSCC		0188	00BC	DCBLRS	
0085	0055	DCBIK	(EQU)	0136	0088	DCBNI		0189	00BD	DCBSTRIK	
0086	0056	DCBIR		0136	0088	DCBCSW		0190	00BE	DCBSVL	
0086	0056	DCBIY	(EQU)	0138	008A	DCBSHC		0192	00C0	DCBQWK	
0086	0056	DCBIX	(EQU)	0139	008B	DCBSWT		0196	00C4	DCBMSF1	
0086	0056	DCBIW	(EQU)	0140	008C	DCBRBF		0196	00C4	DCBSWA	(EQU)
0086	0056	DCBIV	(EQU)	0140	008C	DCBSP		0196	00C4	DCBRJE	(EQU)
0086	0056	DCBIU	(EQU)	0144	0090	DCBLRC		0196	00C4	DCBNLP	(EQU)
0086	0056	DCBIT	(EQU)	0144	0090	DCBWF		0196	00C4	DCBCLP	(EQU)
0086	0056	DCBIS	(EQU)	0144	0090	DCBSC		0196	00C4	DCBOVF	(EQU)
0087	0057	DCBIZ		0144	0090	DCBRECAD	(EQU)	0196	00C4	DCBENT	(EQU)
0087	0057	DCBI6	(EQU)	0144	0090	DCBRCD		0196	00C4	DCBIOC	(EQU)
0087	0057	DCBI5	(EQU)	0148	0094	DCBEAP		0196	00C4	DCBEOP	(EQU)
0087	0057	DCBI4	(EQU)	0148	0094	DCBCLE		0196	00C4	DCBQF0	
0087	0057	DCBI3	(EQU)	0148	0094	DCBHD		0197	00C5	DCBMSF2	
0087	0057	DCBI2	(EQU)	0148	0094	DCBEOBAD	(EQU)	0197	00C5	DCBBLA1	(EQU)
0087	0057	DCBI1	(EQU)	0148	0094	DCBEAD		0197	00C5	DCBENOF	(EQU)
0087	0057	DCBIO	(EQU)	0152	0098	DCBPPT		0197	00C5	DCBFWT	(EQU)
0088	0058	DCBGTV		0152	0098	DCBKNT		0197	00C5	DCBFT	(EQU)
0092	005C	DCBGTR		0152	0098	DCBPCC		0197	00C5	DCBFIP	(EQU)
0096	0060	DCBPTV		0152	0098	DCBNPO		0197	00C5	DCBFIN	(EQU)
0100	0064	DCBPTR		0152	0098	DCBLX		0197	00C5	DCBSUR	(EQU)
0104	0068	DCBPXV		0154	009A	DCBFPO		0197	00C5	DCBPUR	(EQU)
0108	006C	DCBPXR		0156	009C	DCBRCX		0197	00C5	DCBQF1	
0112	0070	DCBSLV		0156	009C	DCBWCT		0198	00C6	DCBMSF3	
0116	0074	DCBSLR		0156	009C	DCBOPC		0198	00C6	DCBCAN	(EQU)
0120	0078	DCBSFS		0156	009C	DCBBPU		0198	00C6	DCBMRP	(EQU)
0120	0078	DCBRETRY		0156	009C	DCBLXN		0198	00C6	DCBTAB	(EQU)
0120	0078	DCBTMP		0158	009E	DCBCNT		0198	00C6	DCBRJIN	(EQU)
0120	0078	DCBVMA		0158	009E	DCBNCN		0198	00C6	DCBSAIN	(EQU)
0120	0078	DCBBKC		0158	009E	DCBHLB		0198	00C6	DCBQF2	
0121	0079	DCBPOCKE		0158	009E	DCBBSV		0199	00C7	DCBQF3	
0122	007A	DCBINHMS		0159	009F	DCBLOF		0200	00C8	DCBEND	

Alphabetical list of fields in CHADCB

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>		<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>		<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	
DCBAA	0003	0003	(EQU)	DCBDE3	0172	00AC		DCBIOC	0196	00C4	(EQU)
DCBAB	0003	0003	(EQU)	DCBDMS	0180	00B4		DCBIOI	0166	00A6	(EQU)
DCBAC	0003	0003	(EQU)	DCBDPN	0124	007C		DCBIOS	0164	00A4	
DCBAD	0003	0003	(EQU)	DCBDSO	0000	0000		DCBIP	0085	0055	(EQU)
DCBAE	0003	0003	(EQU)	DCBDSORG	0000	0000	(EQU)	DCBIQ	0085	0055	(EQU)
DCBAF	0003	0003	(EQU)	DCBEAD	0148	0094		DCBIR	0086	0056	
DCBASY	0173	00AD		DCBEAP	0148	0094		DCBIS	0086	0056	(EQU)
DCBA0	0002	0002		DCBELP	0196	00C4	(EQU)	DCBIT	0086	0056	(EQU)
DCBA1	0002	0002	(EQU)	DCBEND	0200	00C8		DCBIU	0086	0056	(EQU)
DCBA2	0002	0002	(EQU)	DCBENOF	0197	00C5	(EQU)	DCBIV	0086	0056	(EQU)
DCBA3	0002	0002	(EQU)	DCBENT	0196	00C4	(EQU)	DCBIW	0086	0056	(EQU)
DCBA4	0002	0002	(EQU)	DCBE0BAD	0148	0094	(EQU)	DCBIX	0086	0056	(EQU)
DCBA5	0002	0002	(EQU)	DCBEODAD	0024	0018	(EQU)	DCBIY	0086	0056	(EQU)
DCBA6	0002	0002	(EQU)	DCBEOP	0196	00C4	(EQU)	DCBIZ	0087	0057	
DCBA7	0002	0002	(EQU)	DCBEOR	0028	001C		DCBIO	0087	0057	(EQU)
DCBA8	0003	0003		DCBE0V	0024	0018		DCBI1	0087	0057	(EQU)
DCBA9	0003	0003	(EQU)	DCBERO	0052	0034		DCBI2	0087	0057	(EQU)
DCBBCN	0036	0024		DCBEROPT	0052	0034	(EQU)	DCBI3	0087	0057	(EQU)
DCBBFT	0040	0028		DCBER1	0052	0034	(EQU)	DCBI4	0087	0057	(EQU)
DCBBFTEK	0040	0028	(EQU)	DCBER2	0052	0034	(EQU)	DCBI5	0087	0057	(EQU)
DCBBF1	0176	00B0		DCBER3	0052	0034	(EQU)	DCBI6	0087	0057	(EQU)
DCBBF2	0180	00B4		DCBEXCD1	0060	003C	(EQU)	DCBKEY	0050	0032	
DCBBF3	0184	00B8		DCBEXCD2	0061	003D	(EQU)	DCBKEYLE	0050	0032	(EQU)
DCBBKC	0120	0078		DCBEXL	0004	0004		DCBKNT	0152	0098	
DCBBLA1	0197	00C5	(EQU)	DCBEXLST	0004	0004	(EQU)	DCBLAD	0160	00A0	
DCBBLK	0048	0030		DCBEX1	0060	003C		DCBLDE	0176	00B0	
DCBBLKSI	0048	0030	(EQU)	DCBEX2	0061	003D		DCBLEN	0080	0050	
DCBBN	0126	007E	(EQU)	DCBFDE	0172	00AC		DCBLOF	0159	009F	
DCBBOF	0127	007F		DCBFIN	0197	00C5	(EQU)	DCBLP	0056	0038	(EQU)
DCBBP	0164	00A4		DCBFIP	0197	00C5	(EQU)	DCBLPA	0056	0038	
DCBBPU	0156	009C		DCBFLAG	0174	00AE		DCBLPN	0060	003C	
DCBBSV	0158	009E		DCBFLG	0166	00A6		DCBLRC	0144	0090	
DCBBT	0126	007E	(EQU)	DCBFMP	0174	00AE	(EQU)	DCBLRE	0044	002C	
DCBBUF	0032	0020		DCBFPO	0154	009A		DCBLRECL	0046	002E	(EQU)
DCBBUFCB	0036	0024	(EQU)	DCBFRMTP	0188	00BC		DCBLRL	0128	0080	
DCBBUFL	0032	0020	(EQU)	DCBFT	0197	00C5	(EQU)	DCBLRMAX	0128	0080	
DCBBUFNO	0035	0023	(EQU)	DCBFWT	0197	00C5	(EQU)	DCBLRS	0188	00BC	
DCBBUFRQ	0020	0014		DCBGTR	0092	005C		DCBLX	0152	0098	
DCBBUN	0035	0023		DCBGTV	0088	0058		DCBLXN	0156	009C	
DCBCAN	0198	00C6	(EQU)	DCBHD	0148	0094		DCBM	0130	0082	
DCBCBP	0126	007E		DCBHLB	0158	009E		DCBMA	0064	0040	
DCBCCL	0162	00A2		DCBHRL	0132	0084		DCBMAC	0002	0002	
DCBCDE	0168	00A8		DCBHV	0135	0087		DCBMACR	0002	0002	(EQU)
DCBCH	0083	0053	(EQU)	DCBI	0134	0086		DCBMACRF	0002	0002	(EQU)
DCBCL	0160	00A0		DCBIA	0084	0054		DCBMB	0064	0040	(EQU)
DCBCLE	0148	0094		DCBIB	0084	0054	(EQU)	DCBMC	0064	0040	(EQU)
DCBCMB	0123	007B	(EQU)	DCBIC	0084	0054	(EQU)	DCBMCD	0082	0052	
DCBCNT	0158	009E		DCBICB	0124	007C		DCBMCD1	0082	0052	
DCBCOD	0050	0032		DCBID	0068	0044		DCBMD	0064	0040	(EQU)
DCBCODE	0050	0032	(EQU)	DCBIE	0084	0054	(EQU)	DCBME	0064	0040	(EQU)
DCBCOMBI	0123	007B		DCBIF	0084	0054	(EQU)	DCBMF	0064	0040	(EQU)
DCBCON	0072	0048		DCBIFL	0081	0051		DCBMG	0064	0040	(EQU)
DCBCPB	0124	007C		DCBIFLG	0081	0051	(EQU)	DCBMH	0064	0040	(EQU)
DCBCRL	0166	00A6		DCBIFLGS	0081	0051	(EQU)	DCBMI	0065	0041	
DCBCRS	0168	00A8		DCBIG	0084	0054	(EQU)	DCBMJ	0065	0041	(EQU)
DCBCSW	0136	0088		DCBIH	0084	0054	(EQU)	DCBMK	0065	0041	(EQU)
DCBDDN	0008	0008		DCBII	0084	0054	(EQU)	DCBML	0065	0041	(EQU)
DCBDDNAM	0008	0008	(EQU)	DCBIJ	0085	0055		DCBMM	0065	0041	(EQU)
DCBDD1	0050	0032		DCBIK	0085	0055	(EQU)	DCBMN	0065	0041	(EQU)
DCBDD2	0051	0033		DCBIL	0085	0055	(EQU)	DCBMO	0065	0041	(EQU)
DCBDEB	0076	004C		DCBIM	0085	0055	(EQU)	DCBMOD	0051	0033	
DCBDEBAD	0076	004C	(EQU)	DCBIMK	0084	0054		DCBMODE	0051	0033	(EQU)
DCBDEC	0160	00A0		DCBIMSK	0084	0054	(EQU)	DCBMP	0065	0041	(EQU)
DCBDEV	0034	0022		DCBIN	0085	0055	(EQU)	DCBMQ	0066	0042	
DCBDEVT	0034	0022	(EQU)	DCBINH	0122	007A	(EQU)	DCBMR	0066	0042	(EQU)
DCBDE1	0164	00A4		DCBINHMS	0122	007A		DCBMRF	0198	00C6	(EQU)
DCBDE2	0168	00A8		DCBIO	0085	0055	(EQU)	DCBMS	0066	0042	(EQU)

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FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DCBMSF1	0196	00C4	DCBPMM	0171	00AB	DCBSLV	0112	0070
DCBMSF2	0197	00C5	DCBPOCKE	0121	0079	DCBSMSI	0068	0044
DCBMSF3	0198	00C6	DCBPPT	0152	0098	DCBSOWA	0024	0018
DCBMSHI	0072	0048	DCBPR	0126	007E	DCBSP	0140	008C
DCBMSK	0064	0040	DCBPRL	0160	00A0	DCBSTA	0050	0032
DCBMT	0066	0042 (EQU)	DCBPRT	0050	0032	DCBSTACK	0050	0032 (EQU)
DCBMU	0066	0042 (EQU)	DCBPT	0165	00A5	DCBSTRIK	0189	00BD
DCBMV	0066	0042 (EQU)	DCBPTR	0100	0064	DCBSUR	0197	00C5 (EQU)
DCBMW	0066	0042 (EQU)	DCBPTRSP	0050	0032 (EQU)	DCBSVL	0190	00BE
DCBMX	0066	0042 (EQU)	DCBPTV	0096	0060	DCBSWA	0196	00C4 (EQU)
DCBMY	0067	0043	DCBPUR	0197	00C5 (EQU)	DCBSWT	0139	008B
DCBMZ	0067	0043 (EQU)	DCBPXR	0108	006C	DCBSYNAD	0016	0010 (EQU)
DCBM0	0067	0043 (EQU)	DCBPXV	0104	0068	DCBSYR	0020	0014
DCBM1	0067	0043 (EQU)	DCBQF0	0196	00C4	DCBSYV	0016	0010
DCBM2	0067	0043 (EQU)	DCBQF1	0197	00C5	DCBS0	0124	007C
DCBM3	0067	0043 (EQU)	DCBQF2	0198	00C6	DCBS1	0125	007D
DCBM4	0067	0043 (EQU)	DCBQF3	0199	00C7	DCBTAB	0198	00C6 (EQU)
DCBM5	0067	0043 (EQU)	DCBQN	0126	007E (EQU)	DCBTCC	0124	007C
DCBN	0128	0080	DCBQT	0126	007E (EQU)	DCBTDE	0180	00B4
DCBNCH	0166	00A6 (EQU)	DCBQWK	0192	00C0	DCBTMP	0120	0078
DCBNCN	0158	009E	DCBRBF	0140	008C	DCBTRMAD	0020	0014
DCBNCP	0041	0029	DCBRCD	0144	0090	DCBTRT	0051	0033
DCBNI	0136	0088	DCBRCX	0156	009C	DCBTRTCH	0051	0033 (EQU)
DCBNLP	0196	00C4 (EQU)	DCBRD	0128	0080	DCBUDE	0184	00B8
DCBNPL	0167	00A7	DCBRDB	0130	0082	DCBUS	0083	0053
DCBNPO	0152	0098	DCBRDC	0132	0084	DCBVMA	0120	0078
DCBOFG	0063	003F	DCBRDH	0134	0086	DCBWF	0144	0090
DCBOFLGS	0063	003F (EQU)	DCBRDM	0129	0081	DCBWCT	0156	009C
DCBOLM	0172	00AC	DCBRDN	0128	0080	DCBX1	0060	003C (EQU)
DCBOP	0132	0084	DCBRDR	0134	0086	DCBX2	0060	003C (EQU)
DCBOPC	0156	009C	DCBRDT	0132	0084	DCBX2A	0061	003D (EQU)
DCBOPF	0132	0084	DCBRDZ	0135	0087	DCBX2B	0061	003D (EQU)
DCBOPI	0062	003E	DCBREC	0042	002A	DCBX2C	0061	003D (EQU)
DCBOPM	0133	0085	DCBRECAD	0144	0090 (EQU)	DCBX2D	0061	003D (EQU)
DCBOPT	0043	002B	DCBRECFM	0042	002A (EQU)	DCBX2E	0061	003D (EQU)
DCBOPTCD	0043	002B (EQU)	DCBRES	0169	00A9	DCBX2F	0061	003D (EQU)
DCBOVF	0196	00C4 (EQU)	DCBRETRY	0120	0078	DCBX2G	0061	003D (EQU)
DCB00	0063	003F (EQU)	DCBRJE	0196	00C4 (EQU)	DCBX2H	0061	003D (EQU)
DCB01	0063	003F (EQU)	DCBRJIN	0198	00C6 (EQU)	DCBX2I	0061	003D (EQU)
DCB02	0063	003F (EQU)	DCBRK	0176	00B0	DCBX2J	0061	003D (EQU)
DCB03	0063	003F (EQU)	DCBRKP	0054	0036	DCBX2K	0061	003D (EQU)
DCB04	0063	003F (EQU)	DCBSAIN	0198	00C6 (EQU)	DCBX3	0060	003C (EQU)
DCB05	0063	003F (EQU)	DCBSC	0144	0090	DCBX4	0060	003C (EQU)
DCB07	0063	003F (EQU)	DCBSCC	0136	0088	DCBX5	0060	003C (EQU)
DCBPAD	0053	0035	DCBSFS	0120	0078	DCBX6	0060	003C (EQU)
DCBPCC	0152	0098	DCBSHC	0138	008A	DCB06	0063	003F (EQU)
DCBPLM	0170	00AA	DCBSLR	0116	0074	IHADCB	0000	0000 (EQU)

Assembler listing of CHADCB

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	24 00000	CHADCB	DS	DSECT	
24 00000			DS	0D	
24 00000		DCBDS0	DS	1H	DSORG
	00000040	DCBDS0	EQU	X'40'	SAM DSORG
	00000041	DCBDS1	EQU	X'41'	SAM DSORG
	00000010	DCBDT0	EQU	X'10'	TAM DSORG
	00000011	DCBDT1	EQU	X'11'	TAM DSORG
	00000071	DCBDV1	EQU	X'71'	VISAM DSORG
	00000072	DCBDV2	EQU	X'72'	VSAM DSORG
	00000073	DCBDV3	EQU	X'73'	VIPAM DSORG
	00000074	DCBDV4	EQU	X'74'	VSPAM DSORG
	00000075	DCBDV5	EQU	X'75'	VPAM DSORG
	00000007	DCBDR1	EQU	X'07'	IOREQ SPECIFIED
	00000008	DCBDM1	EQU	X'08'	MSAM DSORG
24 00002		DCBMAC	DS	H	MACRF
	24 00002		ORG	DCBMAC	
24 00002		DCBA0	DS	XL1	

(Listing of CHADCB continued on page 128)

(Listing of CHADCB continued from page 127)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000080	DCBA0M	EQU	X'80'	
	24 00002	DCBA1	EQU	DCBA0	GET FLAG
	00000040	DCBA1M	EQU	X'40'	GET MASK
	24 00002	DCBA2	EQU	DCBA0	READ FLAG
	00000020	DCBA2M	EQU	X'20'	READ MASK
	24 00002	DCBA3	EQU	DCBA0	GET-MOVE MODE FLAG
	00000010	DCBA3M	EQU	X'10'	GET-MOVE MODE MASK
	24 00002	DCBA4	EQU	DCBA0	GET-LOCATE MODE/READ-LOAD
		*			FLAG
	00000008	DCBA4M	EQU	X'08'	GET-LOCATE MODE/READ-LOAD
		*			MASK
	24 00002	DCBA5	EQU	DCBA0	GET-SUBSTITUTE MODE/READ
		*			W/POINT FLAG
	00000004	DCBA5M	EQU	X'04'	GET-SUBSTITUTE MODE/READ
		*			W/POINT MASK
	24 00002	DCBA6	EQU	DCBA0	GET-W/CNTRL/READ W/CONTROL
		*			FLAG
	00000002	DCBA6M	EQU	X'02'	GET-W/CNTRL/READ W/CONTROL
		*			MASK
	24 00002	DCBA7	EQU	DCBA0	
	00000001	DCBA7M	EQU	X'01'	
24 00003		DCBA8	DS	XL1	
	00000080	DCBA8M	EQU	X'80'	
	24 00003	DCBA9	EQU	DCBA8	PUT FLAG
	00000040	DCBA9M	EQU	X'40'	PUT MASK
	24 00003	DCBAA	EQU	DCBA8	WRITE FLAG
	00000020	DCBAAM	EQU	X'20'	WRITE MASK
	24 00003	DCBAB	EQU	DCBA8	PUT-MOVE MODE FLAG
	00000010	DCBABM	EQU	X'10'	PUT-MOVE MODE MASK
	24 00003	DCBAC	EQU	DCBA8	PUT-LOCATE MODE/WRITE-LOAD
		*			FLAG
	00000008	DCBACM	EQU	X'08'	PUT-LOCATE MODE/WRITE-LOAD
		*			MASK
	24 00003	DCBAD	EQU	DCBA8	PUT-SUBSTITUTE MODE/WRITE
		*			W/POINT FLAG
	00000004	DCBADM	EQU	X'04'	PUT-SUBSTITUTE MODE/WRITE
		*			W/POINT MASK
	24 00003	DCBAE	EQU	DCBA8	
		*			PUT-W/CONTROL/WRITE-W/CONTROL FLAG
	00000002	DCBAEM	EQU	X'02'	PUT-W/CONTROL/WRITE-W/CONTROL MASK
		*			
	24 00003	DCBAF	EQU	DCBA8	
	00000001	DCBAFM	EQU	X'01'	
24 00004		DCBEXL	DS	1F	POINTER TO USERS EXIT LIST
	00000080	DCBELT	EQU	X'80'	END OF EXIT LIST MASK
		*			I6447
24 00008		DCBDDN	DS	D	DDNAME
24 00010		DCBSYV	DS	1F	SYNAD ADDR (VCON)
24 00014		DCBSYR	DS	1F	SYNAD ADDR (RCON)
24 00018		DCBEOV	DS	1F	EODAD ADDR (VCON)
24 0001C		DCBEOR	DS	1F	EODAD ADDR (RCON)
24 00020		DCBBUF	DS	1H	BUFFER LENGTH - BUFL
24 00022		DCBDEV	DS	CL1	DEVICE TYPE - DEVD
	000000E3	DCBDTP	EQU	C'T'	MAGNETIC TAPE
		*			I6447
	000000C4	DCBDDA	EQU	C'D'	DIRECT ACCESS
		*			I6447
	000000D9	DCBDCR	EQU	C'R'	CARD READER
	000000D5	DCBDCP	EQU	C'N'	PUNCH
	000000D7	DCBDPR	EQU	C'P'	PRINTER
	000000D1	DCBDCJ	EQU	C'J'	REMOTE READER
	000000D2	DCBDCK	EQU	C'K'	REMOTE PUNCH
	000000D3	DCBDCL	EQU	C'L'	REMOTE PRINTER
24 00023		DCBBUN	DS	CL1	NUMBER OF BUFFERS - BUFNO
24 00024		DCBBCN	DS	1F	BUFFER CONTROL - BUFCB
24 00028		DCBBFT	DS	CL1	BUFFER TECHNIQUE - BFTEK
24 00029		DCBNCP	DS	CL1	NUMBER OF CHANNEL PROGRAMS
		*			- NCP

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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
24 0002A		DCBREC	DS	CL1	RECORD FORMAT - RECFM
	000000C0	DCBRCT	EQU	X'C0'	TYPE FIELD
	00000080	DCBRCF	EQU	X'80'	FIXED FORMAT
	00000040	DCBRCV	EQU	X'40'	VARIABLE FORMAT
	000000C0	DCBRCU	EQU	X'C0'	UNKNOWN FORMAT
	00000020	DCBRCO	EQU	X'20'	TRACK OVERFLOW
	00000010	DCBRCB	EQU	X'10'	BLOCK RECORDS
	00000088	DCBRCS	EQU	X'88'	STANDARD RECORDS
	00000006	DCBRCC	EQU	X'06'	PRINTER CONTROL CHARACTERS MASK
		*			
	00000004	DCBRCA	EQU	X'04'	ASA CONTROL CHARACTER
	00000002	DCBRCM	EQU	X'02'	MACHINE CODE CONTROL CHARACTER
		*			
	00000001	DCBRCK	EQU	X'01'	KEYLEN SPECIFIED IN DCB MACRO AS ZERO
		*			
24 0002B		DCBOPT	DS	CL1	OPTION CODE - OPTCD
	00000080	DCBSU0	EQU	X'80'	PERFORM A WRITE VALIDITY CHECK
		*			
	00000040	DCBSU1	EQU	X'40'	UNIVERSAL CHARACTER SET
	00000020	DCBSU2	EQU	X'20'	ASCII TAPE REQUEST
	00000004	DCBSU5	EQU	X'04'	DCBIMK DEFAULTED
	00000002	DCBSU6	EQU	X'02'	DCBPAD SPECIFIED AS ZERO
	00000001	DCBSU7	EQU	X'01'	DCBRKP SPECIFIED AS ZERO
24 0002C		DCBLRE	DS	1F	RECORD LENGTH - LRECL
24 00030		DCBBLK	DS	1H	BLOCK SIZE - BLKSIZE
24 00032		DCBDD1	DS	CL1	DEVICE DEPENDENT PARAMETERS 1
		*			
	24 00032		<u>ORG</u>	DCBDD1	
24 00032		DCBKEY	DS	CL1	KEY LENGTH - KEYLEN
	24 00032		<u>ORG</u>	DCBDD1	
24 00032		DCBPRT	DS	CL1	PRINTER SPACE - PRTSP
	00000001	DCBPR0	EQU	X'01'	NO SPACING
	00000009	DCBPR1	EQU	X'09'	SPACE ONE LINE
	00000011	DCBPR2	EQU	X'11'	SPACE TWO LINES
	00000019	DCBPR3	EQU	X'19'	SPACE THREE LINES
	24 00032		<u>ORG</u>	DCBDD1	
24 00032		DCBSTA	DS	CL1	STACKER SELECT - STACK
	00000001	DCBST1	EQU	X'01'	STACKER 1
	00000002	DCBST2	EQU	X'02'	STACKER 2
	00000003	DCBST3	EQU	X'03'	STACKER 3
	24 00032		<u>ORG</u>	DCBDD1	
24 00032		DCBCOD	DS	CL1	PAPER TAPE - CODE
	00000080	DCBNCV	EQU	X'80'	NO CONVERSION
	00000040	DCBCOI	EQU	X'40'	IBM BCD
	00000020	DCBCOF	EQU	X'20'	FRIDEN
	00000010	DCBCOB	EQU	X'10'	BURROUGHS
	00000008	DCBCOC	EQU	X'08'	NCR
	00000004	DCBCOA	EQU	X'04'	ASCII
	00000002	DCBCOT	EQU	X'02'	TELETYPE
24 00033		DCBDD2	DS	CL1	DEVICE DEPENDENT PARAMETERS 2
		*			
	24 00033		<u>ORG</u>	DCBDD2	
24 00033		DCBMOD	DS	CL1	CARD READER/PUNCH - MODE
	00000080	DCBMOC	EQU	X'80'	COLUMN BINARY
	00000040	DCBMOE	EQU	X'40'	EBCDIC
	24 00033		<u>ORG</u>	DCBDD2	
24 00033		DCBTRT	DS	CL1	TAPE RECORDING TECHNIQUE - TRTCH
		*			
	0000002B	DCBTEM	EQU	X'2B'	TRTCH TRANS EVEN PARITY
	00000033	DCBODM	EQU	X'33'	ODD PARITY NO TRANSLATE
	00000013	DCBTM	EQU	X'13'	TRANSLATE
	0000003B	DCBEVN	EQU	X'3B'	EVEN PARITY NO TRANSLATE
	00000023	DCBEVM	EQU	X'23'	CONVERTER AVAILABLE MASK
24 00034		DCBERO	DS	CL1	ERROR OPTIONS - EROPT
	24 00034	DCBER1	EQU	DCBERO	CODE=ACC FLAG
	00000080	DCBER1M	EQU	X'80'	CODE=ACC MASK
	24 00034	DCBER2	EQU	DCBERO	CODE=SKP FLAG
	00000040	DCBER2M	EQU	X'40'	CODE=SKP MASK

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	24 00034	DCBER3	EQU	DCBERO	CODE=ABE FLAG
	00000020	DCBER3M	EQU	X'20'	CODE=ABE MASK
24 00035		DCBPAD	DS	CL1	PADDING
24 00036		DCBRKP	DS	1H	RELATIVE KEY POSITION
24 00038		DCBLPA	DS	1F	VAM FIELD -
24 0003C		DCBEX1	DS	CL1	VAM PARAMETERS
	24 0003C	DCBX1	EQU	DCBEX1	ERROR CAUSED BY GET
	00000000	DCBX1M	EQU	X'00'	ERROR CAUSED BY GET MASK
	24 0003C	DCBX2	EQU	DCBEX1	ERROR CAUSED BY PUT
	00000004	DCBX2M	EQU	X'04'	ERROR CAUSED BY PUT MASK
	24 0003C	DCBX3	EQU	DCBEX1	ERROR CAUSED BY SETL
	00000008	DCBX3M	EQU	X'08'	ERROR CAUSED BY SETL MASK
	24 0003C	DCBX4	EQU	DCBEX1	ERROR CAUSED BY READ
	0000000C	DCBX4M	EQU	X'0C'	ERROR CAUSED BY READ MASK
	24 0003C	DCBX5	EQU	DCBEX1	ERROR CAUSED BY WRITE
	0000000F	DCBX5M	EQU	X'0F'	ERROR CAUSED BY WRITE MASK
	24 0003C	DCBX6	EQU	DCBEX1	ERROR CAUSED BY DELREC
	00000014	DCBX6M	EQU	X'14'	ERROR CAUSED BY DELREC MASK
24 0003D		DCBEX2	DS	CL1	VAM PARAMETERS
	24 0003D	DCBX2A	EQU	DCBEX2	KEYS EQUAL-SEQUENCE ERROR
	00000004	DCBX2AM	EQU	X'04'	MASK
	24 0003D	DCBX2B	EQU	DCBEX2	KEY NOT FOUND
	00000008	DCBX2BM	EQU	X'08'	MASK
	24 0003D	DCBX2C	EQU	DCBEX2	KEYS OUT OF SEQUENCE
	0000000C	DCBX2CM	EQU	X'0C'	MASK
	24 0003D	DCBX2D	EQU	DCBEX2	KEYS DO NOT COINCIDE
	0000000F	DCBX2DM	EQU	X'0F'	MASK
	24 0003D	DCBX2E	EQU	DCBEX2	KEYS COINCIDE
	00000014	DCBX2EM	EQU	X'14'	MASK
	24 0003D	DCBX2F	EQU	DCBEX2	INVALID RETRIEVAL ADDRESS
	00000018	DCBX2FM	EQU	X'18'	MASK
	24 0003D	DCBX2G	EQU	DCBEX2	INVALID RECORD LENGTH
	0000001C	DCBX2GM	EQU	X'1C'	MASK
	24 0003D	DCBX2H	EQU	DCBEX2	POSITION PAST END OF DATA
		*			SET
	0000001F	DCBX2HM	EQU	X'1F'	MASK
	24 0003D	DCBX2I	EQU	DCBEX2	POSITION BEFORE BEGINNING
		*			OF DATA SET
	00000024	DCBX2IM	EQU	X'24'	MASK
	24 0003D	DCBX2J	EQU	DCBEX2	EXCEED MAXIMUM NUMBER
		*			OVERFLOW PAGES FLAG
	00000028	DCBX2JM	EQU	X'28'	EXCEED MAXIMUM NUMBER
		*			OVERFLOW PAGES MASK
	24 0003D	DCBX2K	EQU	DCBEX2	EXCEED MAXIMUM SIZE SHARED
		*			DATA SET FLAG
	0000002C	DCBX2KM	EQU	X'2C'	EXCEED MAXIMUM SIZE SHARED
		*			DATA SET MASK
	24 0003C		ORG	DCBEX1	
24 0003C		DCBLPN	DS	CL2	LOGICAL RECORD COUNT IN
		*			BLOCK
24 0003E		DCBOPI	DS	CL1	OPTIONS
	0000003C	DCBOMI	EQU	X'3C'	AND MASK FOR OPEN OPTIONS 1
	000000C0	DCBLVO	EQU	X'C0'	LEAVE -- OPEN
	00000040	DCBRDO	EQU	X'40'	REREAD -- OPEN
	00000000	DCBINP	EQU	X'00'	INPUT
	0000003C	DCBOUT	EQU	X'3C'	OUTPUT
	0000000C	DCBINO	EQU	X'0C'	INOUT
	0000001C	DCBOIN	EQU	X'1C'	OUTIN
	00000010	DCBUPD	EQU	X'10'	UPDATE
	00000004	DCBRBK	EQU	X'04'	RDBACK
	00000001	DCBRRC	EQU	X'01'	REREAD -- CLOSE
	00000003	DCBLVC	EQU	X'03'	LEAVE -- CLOSE
24 0003F		DCBOFG	DS	CL1	OPEN FLAGS OPFLG
	24 0003F	DCBO0	EQU	DCBOFG	
	00000080	DCBO0M	EQU	X'80'	B0 - FEOV FLAG
	24 0003F	DCBO1	EQU	DCBOFG	
	00000040	DCBO1M	EQU	X'40'	B1 - EODS FLAG
	24 0003F	DCBO2	EQU	DCBOFG	

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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000020	DCBO2M	EQU	X'20'	B2 - PUTX FLAG
	24 0003F	DCBO3	EQU	DCBOFG	
	00000010	DCBO3M	EQU	X'10'	B3 - OPEN FLAG
	24 0003F	DCBO4	EQU	DCBOFG	
	00000008	DCBO4M	EQU	X'08'	B4 - CONCATENATION FLAG
	24 0003F	DCBO5	EQU	DCBOFG	
	00000004	DCBO5M	EQU	X'04'	B5 - CLOSE(T) FLAG
	24 0003F	DCBO6	EQU	DCBOFG	END OF TAPE FLAG
	00000002	DCBO6M	EQU	X'02'	END OF TAPE MASK
	24 0003F	DCBO7	EQU	DCBOFG	
	00000001	DCBO7M	EQU	X'01'	B7 - CONCATENATION FLAG
		*			(SYSTEM)
24 00040		DCBMSK	DS	1F	DCB MASK FIELD
	24 00040		ORG	DCBMSK	
24 00040		DCBMA	DS	XL1	
	00000080	DCBMAM	EQU	X'80'	DSORG BIT - BIT 0
	24 00040	DCBMB	EQU	DCBMA	
	00000040	DCBMBM	EQU	X'40'	MACRF BIT - BIT 1
	24 00040	DCBMC	EQU	DCBMA	
	00000020	DCBMCM	EQU	X'20'	EXLST BIT - BIT 2
	24 00040	DCBMD	EQU	DCBMA	
	00000010	DCBMDM	EQU	X'10'	DDNAME BIT - BIT 3
	24 00040	DCBME	EQU	DCBMA	
	00000008	DCBMEM	EQU	X'08'	SYNAD BIT - BIT 4
	24 00040	DCBMF	EQU	DCBMA	
	00000004	DCBMFM	EQU	X'04'	EODAD BIT - BIT 5
	24 00040	DCBMG	EQU	DCBMA	
	00000002	DCBMGM	EQU	X'02'	BUFL BIT - BIT 6
	24 00040	DCBMH	EQU	DCBMA	
	00000001	DCBMHM	EQU	X'01'	DEVD BIT - BIT 7
24 00041		DCBMI	DS	XL1	
	00000080	DCBMIM	EQU	X'80'	BUFNO BIT - BIT 8
	24 00041	DCBMJ	EQU	DCBMI	
	00000040	DCBMJM	EQU	X'40'	BUFCB BIT - BIT 9
	24 00041	DCBMK	EQU	DCBMI	
	00000020	DCBMKM	EQU	X'20'	BFTEK BIT - BIT 10
	24 00041	DCBML	EQU	DCBMI	
	00000010	DCBMLM	EQU	X'10'	NCP BIT - BIT 11
	24 00041	DCBMM	EQU	DCBMI	
	00000008	DCBMMM	EQU	X'08'	RECFM BIT - BIT 12
	24 00041	DCBMN	EQU	DCBMI	
	00000004	DCBMNM	EQU	X'04'	OPTCD BIT - BIT 13
	24 00041	DCBMO	EQU	DCBMI	
	00000002	DCBMOM	EQU	X'02'	LRECL BIT - BIT 14
	24 00041	DCBMP	EQU	DCBMI	
	00000001	DCBMPP	EQU	X'01'	BLKSIZE BIT - BIT 15
24 00042		DCBMQ	DS	XL1	
	00000080	DCBMQM	EQU	X'80'	DEVDEP BIT 1 - BIT 16
	24 00042	DCBMR	EQU	DCBMQ	
	00000040	DCBMRM	EQU	X'40'	DEVDEP BIT 2 - BIT 17
	24 00042	DCBMS	EQU	DCBMQ	
	00000020	DCBMSM	EQU	X'20'	EROPT BIT - BIT 18
	24 00042	DCBMT	EQU	DCBMQ	
	00000010	DCBMTM	EQU	X'10'	PAD BIT - BIT 19
	24 00042	DCBMU	EQU	DCBMQ	
	00000008	DCBMUM	EQU	X'08'	RKP BIT - BIT 20
	24 00042	DCBMV	EQU	DCBMQ	
	00000004	DCBMVM	EQU	X'04'	IMSK BIT - BIT 21
	24 00042	DCBMW	EQU	DCBMQ	
	00000002	DCBMWM	EQU	X'02'	NOT USED - BIT 22
	24 00042	DCBMX	EQU	DCBMQ	
	00000001	DCBMXM	EQU	X'01'	NOT USED - BIT 23
24 00043		DCBMY	DS	XL1	FIND/STOW DSORG BIT- BIT 24
	00000080	DCBMYM	EQU	X'80'	FIND/STOW DSORG MASK
	24 00043	DCBMZ	EQU	DCBMY	
	00000040	DCBMZM	EQU	X'40'	NOT USED - BIT 25
	24 00043	DCBM0	EQU	DCBMY	
	00000020	DCBM0M	EQU	X'20'	NOT USED - BIT 26

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	24 00043	DCBM1	EQU	DCBMY	
	00000010	DCBM1M	EQU	X'10'	NOT USED - BIT 27
	24 00043	DCBM2	EQU	DCBMY	
	00000008	DCBM2M	EQU	X'08'	NOT USE - BIT 28
	24 00043	DCBM3	EQU	DCBMY	
	00000004	DCBM3M	EQU	X'04'	NOT USE - BIT 29
	24 00043	DCBM4	EQU	DCBMY	
	00000002	DCBM4M	EQU	X'02'	NOT USE - BIT 30
	24 00043	DCBM5	EQU	DCBMY	
	00000001	DCBM5M	EQU	X'01'	NOT USE - BIT 31
24 00044		DCBID	DS	1F	DCB IDENTIFIER ***
24 00048		DCBCON	DS	1F	POINTER FOR SAM TO THE NEXT JFCB
		*			
		*****			IN A
		*CONCATENATED DATA SET. FOR			
		*****			TAM TO A
		*WORK AREA.			
24 0004C		DCBDEB	DS	1F	POINTER TO THE SAM OR TAM DEB.
		*			
		*****			POINTER TO
		*THE VAM RESTABL.			
24 00050		DCBLEN	DS	CL1	DCB LENGTH
24 00051		DCBIFL	DS	CL1	I/O FLAGS - IFLGS
	00000080	DCBIF0	EQU	X'80'	PERMANENT ERROR
		*			CONDITION=X'C0'
	00000040	DCBIF1	EQU	X'40'	ERROR CONDITION IN PROGRESS
		*			FLAG
	00000020	DCBIF2	EQU	X'20'	DCBOVN-CHANNEL 9 INDICATOR
	00000010	DCBIF3	EQU	X'10'	
	00000008	DCBIF4	EQU	X'08'	
	00000004	DCBIF5	EQU	X'04'	
	00000002	DCBIF6	EQU	X'02'	
	00000001	DCBIF7	EQU	X'01'	
24 00052		DCBMCD	DS	CL2	MACRO CODE
	24 00052		[ORG]	DCBMCD	
24 00052		DCBMCD1	DS	CL1	RESERVED
24 00053		DCBUS	DS	CL1	CODE PARAMETERS
	00000004	DCBUSE	EQU	X'04'	FOR
	24 00053	DCBCH	EQU	DCBUS	R-TYPE
	00000001	DCBCHN	EQU	X'01'	I/O MACRO
24 00054		DCBIMK	DS	F	IM SK ERROR RETRY FLAGS
	24 00054		[ORG]	DCBIMK	
24 00054		DCBIA	DS	XL1	ATTENTION FLAG
	00000080	DCBIAM	EQU	X'80'	ATTENTION MASK
	24 00054	DCBIB	EQU	DCBIA	STATUS MODIFIER FLAG
	00000040	DCBIBM	EQU	X'40'	STATUS MODIFIER MASK
	24 00054	DCBIC	EQU	DCBIA	CONTROL UNIT END FLAG
	00000020	DCBICM	EQU	X'20'	CONTROL UNIT END MASK
	24 00054	DCBIE	EQU	DCBIA	BUSY FLAG
	00000010	DCBIEM	EQU	X'10'	BUSY MASK
	24 00054	DCBIF	EQU	DCBIA	CHANNEL END FLAG
	00000008	DCBIFM	EQU	X'08'	CHANNEL END MASK
	24 00054	DCBIG	EQU	DCBIA	DEVICE END FLAG
	00000004	DCBIGM	EQU	X'04'	DEVICE END MASK
	24 00054	DCBIH	EQU	DCBIA	=1,BSAM OR QSAM TO APPLY
		*			ERR
	00000002	DCBIHM	EQU	X'02'	RECOVERY ON UNIT CHECK
	24 00054	DCBII	EQU	DCBIA	=1,BSAM OR QSAM TO APPLY
		*			ERR
	00000001	DCBIIM	EQU	X'01'	RECOVERY ON UNIT EXCEPTION
24 00055		DCBIJ	DS	XL1	PROGRAM CONTROLLED
		*			INTERRUPT FLAG
	00000080	DCBIJM	EQU	X'80'	PROGRAM CONTROLLED
		*			INTERRUPT MASK
	24 00055	DCBIK	EQU	DCBIJ	=1,BSAM OR QSAM TO APPLY
		*			ERR
	00000040	DCBIKM	EQU	X'40'	RECOVERY ON INCORRECT
		*			LENGTH

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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	24 00055	DCBIL	EQU	DCBIJ	PROGRAM CHECK
		*			FLAG
	00000020	DCBILM	EQU	X'20'	PROGRAM CHECK
		*			MASK
	24 00055	DCBIM	EQU	DCBIJ	PROTECTION CHECK
		*			FLAG
	00000010	DCBIMM	EQU	X'10'	PROTECTION CHECK
		*			MASK
	24 00055	DCBIN	EQU	DCBIJ	CHANNEL DATA CHECK
		*			FLAG
	00000008	DCBINM	EQU	X'08'	CHANNEL DATA CHECK
		*			MASK
	24 00055	DCBIO	EQU	DCBIJ	CHANNEL CONTROL CHECK
		*			FLAG
	00000004	DCBIOM	EQU	X'04'	CHANNEL CONTROL CHECK
		*			MASK
	24 00055	DCBIP	EQU	DCBIJ	INTERFACE CONTROL CHECK
		*			FLAG
	00000002	DCBIPM	EQU	X'02'	INTERFACE CONTROL CHECK
		*			MASK
	24 00055	DCBIQ	EQU	DCBIJ	=1,BSAM OR QSAM TO APPLY
		*			ERR
	00000001	DCBIQM	EQU	X'01'	RECOVERY ON CHAINING CHECK
24 00056		DCBIR	DS	XL1	FLAG BYTE FOR SENSE BYTE 0
		*			=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 0
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 0
	00000080	DCBIRM	EQU	X'80'	BIT 0 MASK
	24 00056	DCBIS	EQU	DCBIR	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 1
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 1
	00000040	DCBISM	EQU	X'40'	BIT 1 MASK
	24 00056	DCBIT	EQU	DCBIR	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 2
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 2
	00000020	DCBITM	EQU	X'20'	BIT 2 MASK
	24 00056	DCBIU	EQU	DCBIR	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 3
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 3
	00000010	DCBIUM	EQU	X'10'	BIT 3 MASK
	24 00056	DCBIV	EQU	DCBIR	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 4
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 4
	00000008	DCBIVM	EQU	X'08'	BIT 4 MASK
	24 00056	DCBIW	EQU	DCBIR	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 5
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 5
	00000004	DCBIWM	EQU	X'04'	BIT 5 MASK
	24 00056	DCBIX	EQU	DCBIR	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 6
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 6
	00000002	DCBIXM	EQU	X'02'	BIT 6 MASK
	24 00056	DCBIY	EQU	DCBIR	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 7
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 7
	00000001	DCBIYM	EQU	X'01'	BIT 7 MASK
24 00057		DCBIZ	DS	XL1	FLAG BYTE FOR SENSE BYTE 1
		*			=1,BSAM/QSAM TO APPLY ERROR

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
		*			RECOVERY ON BIT 0
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 0
	00000080	DCBIZM	EQU	X'80'	BIT 0 MASK
	24 00057	DCBI0	EQU	DCBIZ	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 1
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 1
	00000040	DCBI0M	EQU	X'40'	BIT 1 MASK
	24 00057	DCBI1	EQU	DCBIZ	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 2
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 2
	00000020	DCBI1M	EQU	X'20'	BIT 2 MASK
	24 00057	DCBI2	EQU	DCBIZ	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 3
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 3
	00000010	DCBI2M	EQU	X'10'	BIT 3 MASK
	24 00057	DCBI3	EQU	DCBIZ	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 4
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 4
	00000008	DCBI3M	EQU	X'08'	BIT 4 MASK
	24 00057	DCBI4	EQU	DCBIZ	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 5
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 5
	00000004	DCBI4M	EQU	X'04'	BIT 5 MASK
	24 00057	DCBI5	EQU	DCBIZ	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 6
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 6
	00000002	DCBI5M	EQU	X'02'	BIT 6 MASK
	24 00057	DCBI6	EQU	DCBIZ	=1,BSAM/QSAM TO APPLY ERROR
		*			RECOVERY ON BIT 7
		*			=0,IOREQ TO APPLY ERROR
		*			RECORDING ON BIT 7
	00000001	DCBI6M	EQU	X'01'	BIT 7 MASK
24 00058		DCBGTV	DS	1F	GET (VCON)
24 0005C		DCBGTR	DS	1F	GET (RCON)
24 00060		DCBPTR	DS	1F	PUT VCON
24 00064		DCBPTV	DS	1F	PUT (RCON)
24 00068		DCBPXV	DS	1F	PUTX (VCON)
24 0006C		DCBPXR	DS	1F	PUTX (RCON)
24 00070		DCBSLV	DS	1F	SETL (VCON)
24 00074		DCBSLR	DS	1F	SETL (RCON)
24 00078		DCBBKC	DS	1F	BLOCK COUNT
24 0007C		DCBS0	DS	CL1	SENSE BYTE 1 FOR BSP
24 0007D		DCBS1	DS	CL1	SENSE BYTE 2 FOR BSP
24 0007E		DCBPR	DS	CL1	PRINTER OVERFLOW FLAGS
	24 0007E	DCBBT	EQU	DCBPR	TEST CHANNEL 12 OVERFLOW BY
		*			WRITE FLAG
	00000080	DCBBTV	EQU	X'80'	TEST CHANNEL 12 OVERFLOW BY
		*			WRITE MASK
	24 0007E	DCBBN	EQU	DCBPR	TEST CHANNEL 9 OVERFLOW BY
		*			WRITE FLAG
	00000040	DCBBNV	EQU	X'40'	TEST CHANNEL 9 OVERFLOW BY
		*			WRITE MASK
	24 0007E	DCBQT	EQU	DCBPR	TEST CHANNEL 12 OVERFLOW BY
		*			DOQSAM(PUT) FLAG
	00000020	DCBQTV	EQU	X'20'	TEST CHANNEL 12 OVERFLOW BY
		*			DOQSAM(PUT) MASK
	24 0007E	DCBQN	EQU	DCBPR	TEST CHANNEL 9 OVERFLOW BY
		*			DOQSAM(PUT) FLAG
	00000010	DCBQNV	EQU	X'10'	TEST CHANNEL 9 OVERFLOW BY
		*			DOQSAM(PUT) MASK
24 0007F		DCBBOF	DS	XL1	BUFFER OFFSET LENGTH (ASCII)

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(Listing of CHADCB continued from page 134)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
24 00080		DCBRD	DS	0D	TAPE)
		*			FOR
24 00080		DCBRDN	DS	XL1	FULREL, RELFUL, NOTE, POINT
24 00081		DCBRDM	DS	XL1	NUMBER OF RECORDS ON TRACK
24 00082		DCBRDB	DS	H	EXTENT NUMBER OF TRACK
		*			BB FIELD OF DIRECT ACCESS
24 00084		DCBRDT	DS	0F	DEVICE
		*			TTRZ OR CCHH OF DIRECT
24 00084		DCBRDC	DS	H	ACCESS DEVICE @
		*			CC OF DIRECT ACCESS DEVICE
24 00086		DCBRDH	DS	H	@
		*			HH OF DIRECT ACCESS DEVICE
	24 00086		<u>ORG</u>	DCBRDH	@
24 00086		DCBRDR	DS	XL1	RECORD COUNT OF TTRZ FOR
		*			NOTE OR POINT
24 00087		DCBRDZ	DS	XL1	ZERO FOR POINT OR NOTE
24 00088		DCBCSW	DS	D	CHANNEL STATUS WORD FOR BSP
24 00090		DCBRCD	DS	1F	ADDRESS CURRENT LOGICAL
		*			RECORD IN BUFFER
24 00094		DCBEAD	DS	1F	ADDRESS END OF CURRENT
		*			BUFFER
24 00098		DCBLX	DS	1F	RELATIVE ADDRESS USED BY
		*			SETL
24 0009C		DCBLXN	DS	CL2	LOGICAL RECORD COUNT USED
		*			BY SETL
24 0009E		DCBBSV	DS	CL2	SAVE AREA FOR BLOCK COUNT
24 000A0		DCBLAD	DS	1F	ADDRESS OF LAST LOGICAL
		*			RECORD
24 000A4		DCBDE1	DS	1F	ADDRESS OF QSAM DECB 1
24 000A8		DCBDE2	DS	1F	ADDRESS OF QSAM DECB 2
24 000AC		DCBDE3	DS	1F	ADDRESS OF QSAM DECB 3
24 000B0		DCBBF1	DS	1F	ADDRESS OF QSAM BUFFER 1
24 000B4		DCBBF2	DS	1F	ADDRESS OF QSAM BUFFER 2
24 000B8		DCBBF3	DS	1F	ADDRESS OF QSAM BUFFER 3
24 000BC		DCBLRS	DS	CL2	SAVE AREA FOR LRECL
24 000BE		DCBSVL	DS	CL2	SAVE AREA FOR LENGTH OF
		*			NEXT LOGICAL RECORD
24 000C0		DCBQWK	DS	1F	POINTER QSAM WORK AREA
24 000C4		DCBQF0	DS	CL1	RESERVED FOR QSAM
24 000C5		DCBQF1	DS	CL1	QSAM FLAGS FIRST BYTE
	00000080	DCBWFL	EQU	X'80'	WRITE REQUEST IN TRUNC EOVS
		*			FLAG
	00000040	DCBEOB	EQU	X'40'	END OF BUFFER FLAG
	00000020	DCBPTX	EQU	X'20'	PUTX UPDATE FLAG
	00000010	DCBCPS	EQU	X'10'	SETL FLAG
	00000008	DCBSW1	EQU	X'08'	BUFFER INITIALIZATION
		*			SWITCH
	00000004	DCBLM	EQU	X'04'	LOCATE OR MOVE MODE FOR PUT
		*			FLAG
	00000002	DCBSYN	EQU	X'02'	DCB EROPT SKP FLAG
	00000001	DCBACC	EQU	X'01'	DCB EROPT ACCEPT FLAG
24 000C6		DCBQF2	DS	CL1	QSAM FLAGS BYTE 2
	00000080	DCBLSW	EQU	X'80'	FIRST LOGICAL RECORD IN
		*			BUFFER FLAG
	00000040	DCBSGB	EQU	X'40'	SINGLE BUFFER FLAG
	00000020	DCBDNN	EQU	X'20'	CHANNEL 9 OVERFLOW ON PUT
		*			FLAG
	00000010	DCBDET	EQU	X'10'	CHANNEL 12 OVERFLOW ON PUT
		*			FLAG
24 000C7		DCBQF3	DS	CL1	SAVE AREA FOR DCBOPI
24 000C8		DCBEND	DS	0X	END OF DCB FOR QSAM
		*			I6447
	000000C8	DCBSZ	EQU	DCBEND-CHADCB	SIZE OF DCB FOR QSAM
		*			I6447
	24 00078		<u>ORG</u>	DCBBKC	REORGIN FOR VAM
24 00078			DS	0CL32	ORGANIZATION INDEPENDENT
		*			WORKING STORAGE

(Listing of CHADCB continued on page 136)

(Listing of CHADCB continued from page 135)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
24 00078		DCBVMA	DS	F	VMA OF NEXT LOGICAL RECORD
24 0007C		DCBCPB	DS	OF	
24 0007C		DCBDPN	DS	H	CURRENT DATA PAGE NUMBER
24 0007E		DCBCBP	DS	H	CURRENT BYTE WITHIN CURRENT PAGE
24 00080		* DCBN	DS	H	FIRST PAGE OF AN OPERATION REQUEST
24 00082		* DCBM	DS	H	NUMBER OF PAGES INVOLVED IN A REQUEST
24 00084		* DCBOP	DS	H	TYPE OF VAM OPERATION REQUESTED
24 00084	24 00084	ORG	DCBOP		
		DCBOPF	DS	XL1	REQUEST FLAGS
	00000080	DCBOPO	EQU	X'80'	INPUT REQUEST
	00000020	DCBOP2	EQU	X'20'	INPUT REQUEST WITH EXCLUSIVE READ
		* DCBOP3	EQU	X'10'	OUTPUT REQUEST
	00000010	DCBOP4	EQU	X'08'	INSERT PAGE REQUEST
	00000008	DCBOP5	EQU	X'04'	DELETE PAGE REQUEST
	00000004	DCBOP6	EQU	X'02'	RELEASE READ LOCK
	00000002	DCBOP7	EQU	X'01'	RELEASE WRITE LOCK
24 00085		DCBOPM	DS	XL1	REQUEST FLAGS (CONT)
	00000080	DCBOP8	EQU	X'80'	REPLACE BLANK PAGES ON AN INSERT
24 00086		* DCBI	DS	CL1	FLAGS
	00000000	DCBIM0	EQU	X'00'	
	00000001	DCBIM1	EQU	X'01'	
	00000002	DCBIM2	EQU	X'02'	
	00000004	DCBIM4	EQU	X'04'	MULTIPLE DCB FLAG
		* DCBIM8	EQU	X'08'	N419 PUT INHIBIT FLAG
	00000008	DCBIM8	EQU	X'08'	N419
	00000010	DCBIM10	EQU	X'10'	V-FORMAT TRAILER ISOLATED ON FINAL PAGE M4195
24 00087		DCBHV	DS	CL1	HASHED VALUE
24 00088		DCBNI	DS	H	FIRST PAGE RELATIVE TO THE DATA SET
24 0008A		* DCBSHC	DS	XL1	TYPE OF SEARCH REQUEST-VPAM DATA SETS
24 0008B		* DCBSWT	DS	XL1	VPAM INDICATOR, INTERNAL TO VAM ONLY
24 0008C		* DCBSP	DS	F	LOCATION OF PREVIOUS DESCRIPTOR
24 00090		* DCBSC	DS	F	LOCATION OF CURRENT DESCRIPTOR
24 00094		DCBHD	DS	F	LOCATION OF DCB HEADER
24 00098		DCBNPO	DS	H	NUMBER OF PAGES TO B5 OUTPUT
24 0009A		* DCBFPO	DS	H	NUMBER OF FIRST PAGE TO BE OUTPUT
24 0009C		* DCBBPU	DS	H	NUMBER OF BUFFER PAGES IN USE
24 0009E		DCBHLB	DS	CL1	HOLD LAST BUFFER FLAG
24 0009F		DCBLOF	DS	CL1	LAST OPERATION FLAG
	00000003	DCBL01	EQU	X'03'	SETL
	0000000C	DCBL02	EQU	X'0C'	PUTX
	000000CC	DCBL03	EQU	X'CC'	GET MOVE MODE
	000000C3	DCBL04	EQU	X'C3'	GET LOCATE MODE
	0000003C	DCBL05	EQU	X'3C'	PUT MOVE MODE
	00000033	DCBL06	EQU	X'33'	PUT LOCATE MODE
24 000A0		DCBPRL	DS	F	PREVIOUS LOGICAL RECORD LENGTH
24 000A4		* DCBBP	DS	F	CURRENT BUFFER POSITION
24 00098	24 00098	ORG	DCBNPO		
24 00098		DCBPCC	DS	F	DATA PAGE CALL COUNTER
24 0009C		DCBOPC	DS	F	OVERFLOW PAGE COUNTER
24 000A0		DCBCL	DS	H	ADDRESS OF CURRENT LOCATOR
24 000A2		DCBCCL	DS	H	CONTENTS OF CURRENT LOCATOR

(Listing of CHADCB continued on page 137)

## (Listing of CHADCB continued from page 136)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
24 000A4		DCBIOS	DS	CL1	I/O SWITCH
24 000A5		DCBPT	DS	CL1	PAGE TYPE
24 000A6		DCBCRL	DS	H	CURRENT RECORD LENGTH
24 000A8		DCBCRS	DS	CL1	CURRENT RECORD SWITCH
24 000A9		DCBRES	DS	CL1	READ EXCLUSIVE SWITCH
24 000AA		DCBPLM	DS	CL1	PUT LOCATE MODE ONLY
24 000AB		DCBPMM	DS	CL1	PUT MOVE MODE ONLY
24 000AC		DCBOLM	DS	CL1	OUTSTANDING LOCATE MODE GET
24 000AD		DCBASY	DS	CL1	ASYNCHRONOUS SWITCH
24 000AE		DCBFLAG	DS	XL1	FLAG BYTE
	24 000AE	DCBFMP	EQU	DCBFLAG	CLOSEVAM/MVPG FLAG
	0000000F	DCBFMPM	EQU	X'0F'	MVPG TO BYPASS GETNUMBER
		*			CALL
24 000AF			DS	XL1	UNUSED
24 000B0		DCBRK	DS	F	POINTER TO THE 256 BYTE
		*			RECORD KEY AREA
24 000B4		DCBDMS	DS	H	NO. OF DATA PAGES IN DS/MBR
		*			(VAM)
	24 00078		<u>ORG</u>	DCBBKC	REORIGIN FOR IOREQ
24 00078			DS	0CL48	IOREQ INDEPENDENT WORKING
		*			STORAGE
24 00078		DCBTMP	DS	F	DECB POINTER USED BY IOREQ
24 0007C		DCBTCC	DS	F	POINTER TO A CCW IN VCCW
		*			LIST
24 00080		DCBLRL	DS	F	LOWEST READ LIMIT IN BUFFER
24 00084		DCBHRL	DS	F	HIGHEST READ LIMIT IN
		*			BUFFER
24 00088		DCBSCC	DS	H	REL NO. OF VCCW IN THE VCCW
		*			LIST
24 0008A			DS	CL2	RESERVED BYTES
24 0008C		DCBRBF	DS	F	READ AREA IN BUFFER OF
		*			IORCB
24 00090		DCBWBF	DS	F	WRITE AREA IN BUFFER OF
		*			IORCB
24 00094		DCBCLE	DS	F	CCW POINTER IN IORCB
24 00098		DCBKNT	DS	F	PAGE LIST ENTRY IN IORCB
24 0009C		DCBWCT	DS	H	COUNT OF WRITE VCCWS
24 0009E		DCBNCN	DS	H	DISP IN CLE TO PAGE LIST
		*			ENTRY
24 000A0		DCBDEC	DS	F	POINTER TO DEBDEC
24 000A4			DS	CL2	RESERVED BYTES
24 000A6		DCBFLG	DS	CL1	FLAGS FOR IOREQ
	24 000A6	DCBNCH	EQU	DCBFLG	NON-TIC WITH NO CC, CD, OR
		*			SCC FLAGS
	00000040	DCBNC1	EQU	X'40'	DCBNCH MASK
	24 000A6	DCBIOI	EQU	DCBFLG	ENTERED FROM CHECK FOR
		*			INTERCEPT DECB
	00000010	DCBIOX	EQU	X'10'	DCBIOI MASK
24 000A7		DCBNPL	DS	CL1	NO. PGE LIST ENTRIES IN
		*			IORCB
	24 00078		<u>ORG</u>	DCBBKC	REORIGIN FOR MSAM
24 00078			DS	0D	80 BYTES FOR MSAM BEGINNING
		*			ON A DW BOUNDARY
24 00078		DCBRETRY	DS	CL1	OPERATOR RETRY FOR READ
		*			ERROR ON 2540
	000000D5	DCBRETN	EQU	C'N'	NO RETRY
	000000E4	DCBRETU	EQU	C'U'	USE THRESHOLD RETRY VALUE
24 00079		DCBPOCKE	DS	CL1	STACKER FOR CARDS READ IN
		*			ERROR ON 2540
	00000004	DCBSTORG	EQU	X'04'	STACK AS IF NO ERROR
		*			OCCURRED
	00000001	DCBPKT1	EQU	DCBST1	STACKER 1
	00000002	DCBPKT2	EQU	DCBST2	STACKER 2
24 0007A		DCBINHMS	DS	CL1	
	24 0007A	DCBINH	EQU	DCBINHMS	
	00000080	DCBINHM	EQU	X'80'	INHIBIT MESSAGE TO REMOVE
		*			DATA SET FLAG
24 0007B		DCBCOMBI	DS	CL1	

(Listing of CHADCB continued on page 138)

(Listing of CHADCB continued from page 137)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	24 0007B	DCBCMB	EQU	DCBCOMBI	
	00000001	DCBCMBM	EQU	X'01'	COMBINE A RDR ON SAME 2540 AS PUNCH FLAG
24 0007C		DCBICB	DS	F	ADDRESS OF ICB NAMED IN SIR
		*			0=NONE
24 00080		DCBLRMAX	DS	H	MAXIMUM LOGICAL RECORD LENGTH
		*			
24 00082			DS	CL14	RESERVED FOR FUTURE USE
24 00090		DCBLRC	DS	F	DCBRCD--ADDRESS CURRENT LOGICAL RECORD IN BUFFER
		*			DCBEAD--ADDRESS END OF CURRENT BUFFER+1
24 00094		DCBEAP	DS	F	ADDRESS OF CURRENT BUFFER PAGE
		*			
24 00098		DCBPPT	DS	F	RETURN CODE
		*			
24 0009C		DCBRCX	DS	H	LOGICAL RECORD COUNT
24 0009E		DCBCNT	DS	H	RESERVED FOR FUTURE USE
24 000A0			DS	D	ADDRESS OF CURRENT DECB
24 000A8		DCBCDE	DS	F	ADDRESS OF FIRST DECB
24 000AC		DCBFDE	DS	F	ADDRESS OF LAST DECB
24 000B0		DCBLDE	DS	F	ADDRESS OF DECB FOR PUT
24 000B4		DCBTDE	DS	F	COMPLETION TESTING
		*			ADDRESS OF ERROR DECB FOR USER
24 000B8		DCBUDE	DS	F	
		*			
24 000BC		DCBFRMTP	DS	CL1	FORM TYPE FOR PRINTING
	000000C4	DCBFRMD	EQU	C'D'	DUMP MODE
	000000C6	DCBFRMF	EQU	C'F'	FORM SENSITIVE
	000000E2	DCBFRMS	EQU	C'S'	SEQUENCE SENSITIVE
24 000BD		DCBSTRIK	DS	XL1	UCS STRIKE OUT CODE
24 000BE			DS	CL6	RESERVED
24 000C4		DCBMSF1	DS	CL1	MSAM FLAGS FIRST BYTE
	24 000C4	DCBEOP	EQU	DCBMSF1	
	00000080	DCBEOPM	EQU	X'80'	END OF BUFFER PROCESSING NECESSARY FLAG
		*			
	24 000C4	DCBIOC	EQU	DCBMSF1	
	00000040	DCBIOCM	EQU	X'40'	READ/WRITE INVOKED FOR END OF BUFFER FLAG
		*			
	24 000C4	DCBENT	EQU	DCBMSF1	
	00000020	DCBENTM	EQU	X'20'	BUFFER PRIMING REQUIRED FLAG
		*			
	24 000C4	DCBOVF	EQU	DCBMSF1	
	00000010	DCBOVFM	EQU	X'10'	FOR FORM TYPE F--NEW PRINT PAGE FLAG
		*			
	24 000C4	DCBELP	EQU	DCBMSF1	
	00000008	DCBELPM	EQU	X'08'	LAST PUT LOCATE FLAG
	24 000C4	DCBNLP	EQU	DCBMSF1	
	00000004	DCBNLPM	EQU	X'04'	IN PROCESS, LAST PUT LOCATE FLAG
		*			
	24 000C4	DCBRJE	EQU	DCBMSF1	REMOTE JOB ENTRY FLAG
	00000002	DCBRJEM	EQU	X'02'	REMOTE JOB ENTRY MASK
	24 000C4	DCBSWA	EQU	DCBMSF1	SWITCH ACKNOWLEDGEMENTS IN GET IORCB
		*			
	00000001	DCBSWAM	EQU	X'01'	SWITCH AKNGMNTS. IN GET IORCB MASK
		*			
24 000C5		DCBMSF2	DS	CL1	MSAM FLAGS SECOND BYTE
	24 000C5	DCBPUR	EQU	DCBMSF2	
	00000040	DCBPURM	EQU	X'40'	PURGE ALL I/O IN CLOSE FLAG
	24 000C5	DCBSUR	EQU	DCBMSF2	
	00000020	DCBSURM	EQU	X'20'	SETUR IN PROCESS FLAG
	24 000C5	DCBFIN	EQU	DCBMSF2	
	00000010	DCBFINM	EQU	X'10'	FINISH ISSUED FLAG
	24 000C5	DCBFIP	EQU	DCBMSF2	
	00000008	DCBFIPM	EQU	X'08'	FINISH IN PROCESS FLAG
	24 000C5	DCBFT	EQU	DCBMSF2	
	00000004	DCBFTM	EQU	X'04'	FIRST TIME AFTER OPEN OR FINISH
		*			
	24 000C5	DCBFWT	EQU	DCBMSF2	FIRST WRITE (ASA) WILL HAVE NO DUMMY RECORD
		*			

(Listing of CHADCB continued on page 139)



(Listing of CHADCB continued from page 138)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000002	DCBFTM	EQU	X'02'	FIRST WRITE MASK
	24 000C5	DCBENOF	EQU	DCBMSF2	RJE END OF FILE FLAG
	00000001	DCBENOFM	EQU	X'01'	RJE END OF FILE MASK
	24 000C5	DCBBLA1	EQU	DCBMSF2	LAST ACK OF PREVIOUS BUFFER
		*			WAS ON ACK1.
	00000080	DCBBLA1M	EQU	X'80'	LAST ACK OF PREVIOUS BUFFER
		*			MASK
24 000C6		DCBMSF3	DS	XL1	MSAM FLAGS THIRD BYTE
	24 000C6	DCBSAIN	EQU	DCBMSF3	NO IORCB TO BE REISSUED
		*			FLAG
	00000080	DCBSAINM	EQU	X'80'	NO IORCB TO BE REISSUED
		*			MASK
	24 000C6	DCBRJIN	EQU	DCBMSF3	INTERNAL RJE DOMSAM FLAG
		*			FOR NO
	00000040	DCBRJINM	EQU	X'40'	DUMMY
	24 000C6	DCBTAB	EQU	DCBMSF3	TABBING PRESENT
		*			N412.2
	00000010	DCBTABM	EQU	X'10'	N412.2
	24 000C6	DCBMRF	EQU	DCBMSF3	MRF FORMAT WHEN ON
	00000020	DCBMRFM	EQU	X'20'	
	24 000C6	DCBCAN	EQU	DCBMSF3	CANCEL OUTSTANDING IO FLAG
		*			M3823
	00000001	DCBCANM	EQU	X'01'	CANCEL OUTSTANDING IO MASK
		*			M3823
24 000C7			<u>DS</u>	XL1	RESERVED
	24 00078		<u>ORG</u>	DCBKBC	
24 00078		DCBSFS	<u>DS</u>	19F	TAM'S SAVE AREA FOR CALLING
		*			FENCE SITTERS
	24 00000	DCBDSORG	EQU	DCBDSO	*
	24 00002	DCBMACRF	EQU	DCBMAC	*
	24 00008	DCBDDNAM	EQU	DCBDDN	*
	24 0002E	DCBLRECL	EQU	DCBLRE+2	*
	24 0002B	DCBOPTCD	EQU	DCBOPT	*
	24 00032	DCBSTACK	EQU	DCBSTA	*
	24 00033	DCBTRTCH	EQU	DCBTRT	*
	24 00028	DCBBFTEK	EQU	DCBBFT	*
	24 00030	DCBBLKSI	EQU	DCBBLK	*
	24 00004	DCBEXLST	EQU	DCBEXL	*
	24 0003F	DCBOFLGS	EQU	DCBOFG	*
	24 00023	DCBBUFNO	EQU	DCBBUN	*
		*			* EQUATES GIVE USER
	24 00020	DCBBUFL	EQU	DCBBUF	COMPATIBILITY
	24 00051	DCBIFLGS	EQU	DCBIFL	* OS/360
	24 0002A	DCBRECFM	EQU	DCBREC	*
	24 00034	DCBEROPT	EQU	DCBERO	*
	24 00032	DCBKEYLE	EQU	DCBKEY	*
	24 00032	DCBCODE	EQU	DCBCOD	*
	24 00033	DCBMODE	EQU	DCBMOD	*
	24 00032	DCBPTRSP	EQU	DCBPRT	*
	24 00024	DCBBUFCB	EQU	DCBBCN	*
	24 00022	DCBDEVT	EQU	DCBDEV	*
	24 00002	DCBMACR	EQU	DCBMAC	*
	24 0004C	DCBDEBAD	EQU	DCBDEB	*
	24 00010	DCBSYNAD	EQU	DCBSYV	*
	24 00018	DCBEODAD	EQU	DCBEOV	*
	24 0003C	DCBEXCD1	EQU	DCBEX1	*
	24 0003D	DCBEXCD2	EQU	DCBEX2	*
	24 00051	DCBIFLG	EQU	DCBIFL	*
	24 00094	DCBEOBAD	EQU	DCBEAP	*

(Listing of CHADCB continued on page 140)

(Listing of CHADCB continued from page 139)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	24 00090	DCBRECAD	EQU	DCBLRC	
	0000020	DCBOVT	EQU	DCBIF2	EQUATES TO IFLAGS
	0000040	DCBOVN	EQU	DCBIF1	USED IN BSAM
	24 00038	DCBLP	EQU	DCBLPA	EQU FOR QSAM
	24 00054	DCBIMSK	EQU	DCBIMK	
	24 00000	IHADCB	EQU	CHADCB	
	24 00014		ORG	IHADCB+20	
24 00014		DCBBUFRQ	DS	OBL1	
24 00014		DCBTRMAD	DS	A	
24 00018		DCBSOWA	DS	H	
	24 00020		ORG	IHADCB+32	
24 00020		DCBBFALN	DS	OBL1	
	24 00044		ORG	IHADCB+68	
24 00044		DCBSMSI	DS	AL2	
	24 00048		ORG	IHADCB+72	
24 00048		DCBMSHI	DS	A	

Combined Dictionary (CHADCT,CHADEN)

The Combined Dictionary, used by the command system for resolution of verbs and parameters, contains three classes of entries:

1. Synonym and Default Entries
2. Procedure Definition Entries
3. Command Symbol Definition Entries

The dictionary consists of a header (CHADCT), and a variable number of entries (CHADEN). The full Combined Dictionary exists only in virtual storage: dictionaries containing synonym and default entries exist in the User Profile (CHAPFL); dictionaries containing procedure definition entries appear as procedure dictionaries.

CHADCT Storage map

DEC	HEX				
0	0	DCTID	DCTBL	DCTDLB	DCTASP
8	8	DCTHTB			
264	108	DCTSEN			
272	110	DCTSEC	DCTS DL	DCTNXT	

Fields in CHADCT -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	
0000	0000	DCTID	0008	0008	DCTHTB	0274	0112	DCTNXT	
0001	0001	DCTBL	0264	0108	DCTSEN	0276	0114	DCTDAT	(EQU)
0004	0004	DCTDLB	0272	0110	DCTSEC				
0006	0006	DCTASP	0273	0111	DCTS DL				

Alphabetical list of fields in CHADCT

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
DCTASP	0006	0006	DCTHTB	0008	0008	DCTSEC	0272	0110
DCTBL	0001	0001	DCTID	0000	0000	DCTSEN	0264	0108
DCTDAT	0276	0114 (EQU)	DCTNXT	0274	0112			
DCTDLB	0004	0004	DCTS DL	0273	0111			

Assembler listing of CHADCT

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	25 00000	CHADCT	DSECT		CONTROL
		*			DICTIONARY HEADING
25 00000		DCTID	DS	CL1	FIXED OR VARIABLE IDENTIFIER
		*			UNUSED SPACE
25 00001		DCTBL	DS	CL3	LENGTH OF DICTIONARY IN BYTES
25 00004		DCTDLB	DS	H	AVAILABLE SPACE POINTER
		*			HASH TABLE POINTERS
25 00006		DCTASP	DS	AL2	BLANK ENTRY NAME START ENTRY
25 00008		DCTHTB	DS	128AL2	STARTING ENTRY CODE-255
25 00108		DCTSEN	DS	CL8	LENGTH OF DATA IN BYTES
		*			NEXT ENTRY
25 00110		DCTSEC	DS	XL1	DATA STARTS HERE
25 00111		DCTS DL	DS	XL1	
25 00112		DCTNXT	DS	AL2	
	25 00114	DCTDAT	EQU	*	

CHADEN Storage map

DEC	HEX					
0	0	DENNAM				
8	8	DENCOD	DENL	DENNXT	DENLIB	DENEXT
16	10	DENEXT (CONT)				

Fields in CHADEN -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	DENNAM	0010	000A	DENNXT	0013	000D	DENEXT
0008	0008	DENCOD	0012	000C	DENDAT	(EQU)		
0009	0009	DENL	0012	000C	DENLIB			

Alphabetical list of fields in CHADEN

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
DENCOD	0008	0008	DENEXT	0013	000D	DENNXT	0010	000A
DENDAT	0012	000C (EQU)	DENLIB	0012	000C			
DENL	0009	0009	DENNAM	0000	0000			

Assembler listing of CHADEN

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>	<u>CONTROL</u>
	28 00000	CHADEN	DSECT			
		*				
28 00000		DENNAM	DS	CL8	DICTIONARY ENTRY	
28 00008		DENCOD	DS	XL1	ENTRY NAME	
	00000004	DENSYN	EQU	4	ENTRY CODE	
	00000008	DENDEF	EQU	8	SYNONYM CODE	
	00000010	DENTXP	EQU	16	DEFAULT CODE	
	00000020	DENBIP	EQU	32	TEXTUAL PROCEDURE CODE	
	00000040	DENICS	EQU	64	BUILTIN CODE	
	00000041	DENFPS	EQU	65	INTEGER COMMAND SYMBOL CODE	
		*			FLOATING POINT COMMAND	
		*			SYMBOL	
		*			CODE	
	00000042	DENCSS	EQU	66	CHARACTER STRING COMMAND	
		*			SYMBOL	
		*			CODE	
	0000004A	DENLCS	EQU	74	LOGICAL COMMAND SYMBOL CODE	
		*			I6400	
	00000043	DENHCS	EQU	67	HEX COMMAND SYMBSOL CODE	
		*			I6400	
28 00009		DENDL	DS	XL1	ENTRY DATA LENGTH IN BYTES	
		*			INCLUDES LENGTH OF DENLIB	
		*			FIELD	
	00000009	DENLB	EQU	9	BUILTIN ENTRY LENGTH	
	00000001	DENLT	EQU	1	TEXTUAL PROCEDURE LENGTH	
28 0000A		DENNXT	DS	AL2	POINTER TO NEXT ENTRY IN	
		*			HASH	
		*			CHAIN	
		*			ENTRY DATA STARTS HERE	
28 0000C		DENLIB	DS	XL1	LIBRARY DESIGNATION FOR	
		*			BUILTINS	
		*			AND TEXTUAL PROCEDURES	
	00000000	DENSLM	EQU	X'0'	SYSLIB CODE	
	00000001	DENULM	EQU	X'1'	USERLIB CODE	
	28 0000C	DENDAT	EQU	DENLIB	FOR SYNONYM, DEFAULT OR	
		*			COMMAND	
		*			SYMBOL ENTRIES, FIELD	
		*			CONTAINS	
		*			LENGTH OF DATA IN DENEXT	
		*			FIELD	
28 0000D		DENEXT	DS	CL8	DATA FIELD	
		*			DATA FIELD CONTAINS - FOR SYNONYM, DEFAULT OR	
		*			COMMAND SYMBOL, THE	
		*			ASSOCIATED VALUE	
		*			-FOR TEXTUAL PROCEDURE, NOT USED	
		*			-FOR BUILTIN IF FIRST BYTE NON-ZERO,	
		*			THE BPKD EXTERNAL SYMBOL (APPLIES	
		*			TO ALL USER LIB ENTRIES)	
		*			-FOR BUILTIN IF FIRST BYTE ZERO,	
		*			THE STORAGE PROTECTION CLASS IN FOURTH BYTE.	
		*			AND VCON OF BPKD IN LAST FOUR BYTES	

Data Extent Block (CHADEB)

The Data Extent Block (DEB) provides the requested attributes of both the data set and the device on which the volume for that data set resides. It also contains pointers to other control blocks associated with the data set. If a direct access volume is used, the DEB also contains information about the volume extents.

The user has read-only access to the DEB, which occupies a minimum of 84 bytes of virtual storage aligned on word boundaries.

The DEB is logically divided into three sections:

- An 84-byte section containing information about the data set, and the device on which the volume for that data set resides.
- A 4-byte section containing a chain of pointers to DECBS which have not yet been checked by the user. The chain is updated by the CHECK routine and is variable in length depending on the NCP parameter.
- A third section which exists only if direct access volumes are involved. The length depends on the number of extents within the volume. This section contains information about the extents, and the length of the section in bytes is 40 plus 16 times the number of extents.

The DCB and JFCB contain pointers to the DEB.

CHADEB Storage map

DEC	HEX				
0	0	DEBDCB		DEBJFC	
8	8	DEBSDT		DEBMDL	DEBDVC   DEBUNT   DEBFEA
16	10	DEBIO	DEBIOC	DEBBTK	DEBTKC
24	18	DEBSYM	DEBMSK	DEBID	DEBSIZ
32	20	DEBPSV		DEBPSR	
40	28	DEBNF	DEBENOF   DEBFL	DEBDN	DEBCLS   UNNAMED
48	30	DEBER2		DEBWRK	
56	38	DEBIOF	DEBOPT	DEBLBC	DEBUSZ   DEBVOL
64	40	DEBBF1		DEBBF2	
72	48	DEBLSW		DEBNP	DEBNPC
80	50	DEBDEL		DEBDEC	
88	58	DEBLWR	DEBLWM	DEBLWB	DEBLWC   DEBLWH
96	60	DEBNIR	DEBNIM	DEBNIB	DEBNIC   DEBNIH
104	68	DEBLIR	DEBLIM	DEBLIB	DEBLIC   DEBLIH
112	70	DEBETR	DEBETM	DEBETB	DEBETC   DEBETH
120	78	DEBATR	DEBATM	DEBATB	DEBATC   DEBATH
128	80	DEBEXF	DEBMBM	DEBBBB	DEBLCC   DEBLHH
136	88	DEBUCC	DEBUHH	DEBTKN	DEBBLT

Fields in CHADEB -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	DEBDCB	0057	0039	DEBOPT	0110	006E	DEBLIH
0000	0000	DEBBEG	0058	003A	DEBLBC	0112	0070	DEBETR
0004	0004	DEBJFC	0060	003C	DEBUSZ	0112	0070	DEBETK
0008	0008	DEBSDT	0062	003E	DEBVOL	0113	0071	DEBETM
0012	000C	DEBMDL	0064	0040	DEBBF1	0114	0072	DEBETB
0012	000C	DEBCLT	0068	0044	DEBBF2	0116	0074	DEBETC
0013	000D	DEBDVC	0072	0048	DEBLSW	0118	0076	DEBETH
0014	000E	DEBUNT	0076	004C	DEBNP	0120	0078	DEBATR
0015	000F	DEBFEA	0078	004E	DEBNPC	0120	0078	DEBATK
0016	0010	DEBIO	0080	0050	DEBDEL	0121	0079	DEBATM
0018	0012	DEBIOC	0084	0054	DEBDEC	0122	007A	DEBATB
0020	0014	DEBBTK	0088	0058	DEBLWR	0124	007C	DEBATC
0022	0016	DEBTKC	0088	0058	DEBLWT	0126	007E	DEBATH
0024	0018	DEBSYM	0088	0058	DEBDAF	(EQU) 0128	0080	DEBEXF
0026	001A	DEBMSK	0088	0058	DEBEND	(EQU) 0128	0080	DEBDV
0028	001C	DEBID	0089	0059	DEBLWM	0128	0080	DEBEDF
0030	001E	DEBSIZ	0090	005A	DEBLWB	0129	0081	DEBMBM
0032	0020	DEBPSV	0092	005C	DEBLWC	0129	0081	DEBMBB
0036	0024	DEBPSR	0094	005E	DEBLWH	0130	0082	DEBBBB
0040	0028	DEBNF	0096	0060	DEBNIR	0132	0084	DEBLCC
0040	0028	DEBER1	0096	0060	DEBNIO	0132	0084	DEBLCH
0041	0029	DEBENOF	0097	0061	DEBNIM	0134	0086	DEBLHH
0042	002A	DEBDA	(EQU) 0098	0062	DEBNIB	0136	0088	DEBUCC
0042	002A	DEBTP	(EQU) 0100	0064	DEBNIC	0136	0088	DEBUCH
0042	002A	DEBFL	0102	0066	DEBNIH	0138	008A	DEBUHH
0043	002B	DEBDN	0104	0068	DEBLIR	0140	008C	DEBTKN
0044	002C	DEBCLS	0104	0068	DEBLIO	0142	008E	DEBBLT
0048	0030	DEBER2	0105	0069	DEBLIM	0144	0090	DEBEDV
0052	0034	DEBWRK	0106	006A	DEBLIB			(EQU)
0056	0038	DEBIOF	0108	006C	DEBLIC			

Alphabetical list of fields in CHADEB

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
DEBATB	0122	007A	DEBETH	0118	0076	DEBMEM	0129	0081
DEBATC	0124	007C	DEBETK	0112	0070	DEBMDL	0012	000C
DEBATH	0126	007E	DEBETM	0113	0071	DEBMSK	0026	001A
DEBATK	0120	0078	DEBETR	0112	0070	DEBNF	0040	0028
DEBATM	0121	0079	DEBEXF	0128	0080	DEBNIB	0098	0062
DEBATR	0120	0078	DEBFEA	0015	000F	DEBNIC	0100	0064
DEBBBB	0130	0082	DEBFL	0042	002A	DEBNIH	0102	0066
DEBBEG	0000	0000	DEBID	0028	001C	DEBNIM	0097	0061
DEBBF1	0064	0040	DEBIO	0016	0010	DEBNIO	0096	0060
DEBBF2	0068	0044	DEBIOC	0018	0012	DEBNIR	0096	0060
DEBBLT	0142	008E	DEBIOF	0056	0038	DEBNP	0076	004C
DEBBTK	0020	0014	DEBJFC	0004	0004	DEBNPC	0078	004E
DEBCLS	0044	002C	DEBLBC	0058	003A	DEBOPT	0057	0039
DEBCLT	0012	000C	DEBLCC	0132	0084	DEBPSR	0036	0024
DEBDA	0042	002A	(EQU) DEBLCH	0132	0084	DEBPSV	0032	0020
DEBDAF	0088	0058	(EQU) DEBLHH	0134	0086	DEBSDT	0008	0008
DEBDV	0128	0080	(EQU) DEBLIB	0106	006A	DEBSIZ	0030	001E
DEBDCB	0000	0000	DEBLIC	0108	006C	DEBSYM	0024	0018
DEBDEC	0084	0054	DEBLIH	0110	006E	DEBTKC	0022	0016
DEBDEL	0080	0050	DEBLIM	0105	0069	DEBTKN	0140	008C
DEBDN	0043	002B	DEBLIO	0104	0068	DEBTP	0042	002A
DEBDVC	0013	000D	DEBLIR	0104	0068	DEBUCC	0136	0088
DEBEDF	0128	0080	(EQU) DEBLSW	0072	0048	DEBUCH	0136	0088
DEBEDV	0144	0090	(EQU) DEBLWB	0090	005A	DEBUHH	0138	008A
DEBEND	0088	0058	(EQU) DEBLWC	0092	005C	DEBUNT	0014	000E
DEBENOF	0041	0029	DEBLWH	0094	005E	DEBUSZ	0060	003C
DEBER1	0040	0028	DEBLWM	0089	0059	DEBVOL	0062	003E
DEBER2	0048	0030	DEBLWR	0088	0058	DEBWRK	0052	0034
DEBETB	0114	0072	DEBLWT	0088	0058			
DEBETC	0116	0074	DEBMBB	0129	0081			

Assembler listing of CHADEB

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	26 00000	CHADEB	DSECT		DATA EXTENT BLOCK
26 00000		DEBBEG	DS	0F	ALIGN TABLE ON A WORD BOUNDARY
		*			
26 00000		DEBDCB	DS	F	POINTER TO DCB FOR DATA SET
26 00004		DEBJFC	DS	F	POINTER TO JFCB FOR DATA SET
		*			
26 00008		DEBSDT	DS	F	POINTER TO SDAT ENTRY FOR ASSIGNED DEVICE
		*			
26 0000C		DEBCLT	DS	0F	CLASSIFICATION AND TYPE DATA FROM SDAT
		*			
26 0000C		DEBMDL	DS	X	MODEL OF DEVICE
	00000000	DEBMD1	EQU	X'00'	MODEL CODE FOR TAPE, DIRECT ACC AND UNIT R
		*			
	00000001	DEBMDA	EQU	X'01'	1050 TERMINAL SYSTEM MASK
	00000002	DEBMDB	EQU	X'02'	2741 TERMINAL MASK
	00000003	DEBMDC	EQU	X'03'	MOD 35 TTY MASK
	00000004	DEBMDD	EQU	X'04'	1052 MOD 7 TERMINAL MASK
26 0000D		DEBDVC	DS	X	TYPE OF DEVICE
	00000080	DEBDTP	EQU	X'80'	DEVICE CODE-- MAG TAPE
	00000020	DEBDDB	EQU	X'20'	DEVICE CODE-- DIRECT ACCESS
	00000008	DEBDUR	EQU	X'08'	DEVICE CODE-- UNIT RECORD
	00000001	DEBDVA	EQU	X'01'	DIAL LINE MASK
	00000002	DEBDVB	EQU	X'02'	DEDICATED LINE MASK
26 0000E		DEBUNT	DS	X	UNIT DESCRIPTION FOR DEVICE TYPE
		*			
	00000001	DEBUTP	EQU	X'01'	UNIT TYPE -- MAG TAPE--2400
		*			
	00000001	DEBUDP	EQU	X'01'	UNIT TYPE -- DIRECT ACCESS-- 2311
		*			
	00000002	DEBUD1	EQU	X'02'	UNIT TYPE -- DIRECT ACCESS-- 2301
		*			
	00000003	DEBUDC	EQU	X'03'	UNIT TYPE -- DIRECT ACCESS-- 2321
		*			
	00000004	DEBUD2	EQU	X'04'	UNIT TYPE -- DIRECT ACCESS-- 2302
		*			
	00000008	DEBUD3	EQU	X'08'	UNIT TYPE -- DIRECT ACCESS-- 2314
		*			
	00000001	DEBU CR	EQU	X'01'	UNIT TYPE -- UNIT RECORD -- 2540 READER
		*			
	00000002	DEBU CP	EQU	X'02'	UNIT TYPE -- UNIT RECORD -- 2540 PUNCH
		*			
	00000008	DEBU PR	EQU	X'08'	UNIT TYPE -- UNIT RECORD -- 1403 PRINTER
		*			
	00000010	DEBU PT	EQU	X'10'	UNIT TYPE -- UNIT RECORD -- 2671 PPT RDR
		*			
	00000012	DEBREM	EQU	X'12'	UNIT TYPE 2701 REMOTE LINE
	00000010	DEBUNA	EQU	X'10'	IBM TERMINAL CONTROL TYPE 1 MASK
		*			
	00000020	DEBUNB	EQU	X'20'	IBM TERMINAL CONTROL TYPE 2 MASK
		*			
	00000030	DEBUNC	EQU	X'30'	TELEGRAPH CONTROL TYPE 1 MASK
		*			
	00000040	DEBUND	EQU	X'40'	TELEGRAPH CONTROL TYPE 2 MASK
		*			
	00000080	DEBUNE	EQU	X'80'	WORLD TRADE TERMINAL CONTROL MASK
		*			
	00000001	DEBUNF	EQU	X'01'	2702 TRANSMISSION CONTROL MASL
		*			
	00000002	DEBUNG	EQU	X'02'	2701 DATA ADAPTER UNIT MASK
	00000003	DEBUNH	EQU	X'03'	MULTIPLEXOR CHANNEL MASK
	00000004	DEBUNI	EQU	X'04'	SELECTOR CHANNEL MASK
26 0000F		DEBF EA	DS	X	DEVICE FEATURES
	00000020	DEBO7	EQU	X'20'	OPTIONAL FEATURES--7 TRACK COMPAT
		*			
	000000E0	DEBO7D	EQU	X'E0'	OPTIONAL FEATURES--DATA CONVERTER/7 TRK
		*			
	000000A0	DEBO7N	EQU	X'A0'	OPTIONAL FEATUES-- 7 TRACK NO DATA CONV
		*			

(Listing of CHADEB continued on page 147)



(Listing of CHADEB continued from page 146)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000020	DEBO9T	EQU	X'20'	OPTIONAL FEATURES-- NINE TRACK TAPE
	00000080	DEBOSC	EQU	X'80'	OPTIONAL FEATURES-- SCAN
	00000040	DEBOTO	EQU	X'40'	OPTIONAL FEATURES-- TRACK OVERFLOW
	00000080	DEBOCI	EQU	X'80'	OPTIONAL FEATURES-- CARD IMAGE
	00000040	DEBOPR	EQU	X'40'	OPTIONAL FEATURES-- PCH-FEED-READ
	00000080	DEBOUC	EQU	X'80'	OPTIONAL FEATURES-- UNIV CHAR SET FOR PRT
	00000040	DEBOSL	EQU	X'40'	OPTIONAL FEATURES-- SEL TAPE LISTING
	00000001	DEBFE1	EQU	X'01'	SAD ONE MASK
	00000002	DEBFE2	EQU	X'02'	SAD TWO MASK
	00000003	DEBFE3	EQU	X'03'	SAD THREE MASK
26 00010		DEBIO	DS	H	NUMBER OF OUTSTANDING IORCBS ALLOWED
26 00012		DEBIOC	DS	H	CURRENT NUMBER OF OUTSTANDING IORCBS
26 00014		DEBBTK	DS	H	NUMBER OF BYTES PER TRACK
26 00016		DEBTKC	DS	H	NUMBER OF TRACKS PER CYLINDER
26 00018		DEBSYM	DS	H	SYSTEM SYMBOLIC DEVICE ADDRESS
26 0001A		DEBMSK	DS	H	POSTING INFORMATION MASK
26 0001C		DEBID	DS	H	DEB IDENTIFIER
26 0001E		DEBSIZ	DS	H	SIZE OF DEB IN BYTES
26 00020		DEBPSV	DS	F	POINTER (ACON) TO POSTING (SAM) ENTRY
26 00024		DEBPSR	DS	F	POINTER (ACON) TO POSTING (SAM) PSECT
26 00028		DEBER1	DS	0F	ERROR INFORMATION
26 00028		DEBNF	DS	X	ERROR FLAGS
	00000080	DEBNF1	EQU	X'80'	UNRECOVERABLE ERROR
	00000040	DEBNF2	EQU	X'40'	PERMANENT ERROR
	00000020	DEBNF3	EQU	X'20'	END OF TAPE OR EXCEPTIONAL CONDITION (MSAM)
	00000010	DEBNF4	EQU	X'10'	DSCB EXTENTS ARE NOT IN CONSECUTIVE ORDER OR CONTROL MARK (MSAM)
	00000008	DEBNF5	EQU	X'08'	READ/WRITE NO EXTENTS FLAG OR RETRY IN PROGRESS (MSAM)
	00000004	DEBNF6	EQU	X'04'	EOV NO EXTENTS FLAG
	00000002	DEBNF7	EQU	X'02'	SYNAD REQUESTED BY CHECK PRIOR TO LAST IOREQ
26 00029		DEBENOF	DS	XL1	INTERNAL INDICATION TO MSAM POSTING--EOF
26 0002A		DEBFL	DS	XL1	POSTING RETRY INFORMATION
	26 0002A	DEBTP	EQU	DEBFL	TAPE RETRY INFORMATION
	26 0002A	DEBDA	EQU	DEBFL	DIRECT ACCESS RETRY INFORMATION
26 0002B		DEBDN	DS	XL1	TAPE DENSITY
	00000003	DEBDN1	EQU	X'03'	200 BPI
	00000043	DEBDN2	EQU	X'43'	556 BPI
	00000083	DEBDN3	EQU	X'83'	800 BPI
26 0002C		DEBCLS	DS	X	PROTECTION CLASS OF DCB
	00000001	DEBCLA	EQU	X'01'	PROTECTION CLASS A
	00000003	DEBCLB	EQU	X'03'	PROTECTION CLASS B
	00000007	DEBCLC	EQU	X'07'	PROTECTION CLASS C
26 0002D			DS	XL3	RESERVED
26 00030		DEBER2	DS	F	ERROR INFORMATION
26 00034		DEBWRK	DS	F	POINTER TO WORK PAGE
26 00038		DEBIOF	DS	X	I/O STATUS INFORMATION
	00000080	DEBWPE	EQU	X'80'	A WRITE WAS PREVIOUSLY EXECUTED

(Listing of CHADEB continued on page 148)

(Listing of CHADEB continued from page 147)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000040	DEBWSF	EQU	X'40'	LAST I/O OPERATION WAS WRITE
	00000020	DEBRSE	EQU	X'20'	LAST I/O OPERATION WAS A READ BACKWARD
	00000010	DEBRSE	EQU	X'10'	LAST I/O OPERATION WAS A READ FORWARD
	00000008	DEBIET	EQU	X'08'	INTEGRITY BIT
	00000004	DEBBP	EQU	X'04'	LAST I/O WAS A BSP OR POINT
	00000002	DEBIPT	EQU	X'02'	INCREMENT POINT FLAG
	00000001	DEBDBP	EQU	X'01'	DEB IS IN PROTECTED VIRTUAL MEMORY
26 00039	DEBOPT	DS	X		COPY OF DCB'S OPTION FIELD
	00000040	DEBRDO	EQU	X'40'	REREAD OPEN
	000000C0	DEBLVO	EQU	X'C0'	LEAVE OPEN
	00000000	DEBINP	EQU	X'00'	OPTION--BITS-0,1
	0000003C	DEBOUT	EQU	X'3C'	INPUT -- BITS-- 2-5 ONLY
	0000000C	DEBINO	EQU	X'0C'	OUTPUT -- BITS-- 2-5 ONLY
	0000001C	DEBOIN	EQU	X'1C'	INOUT -- BITS-- 2-5 ONLY
	00000004	DEBRDB	EQU	X'04'	OUTIN -- BITS-- 2-5 ONLY
	00000010	DEBUPD	EQU	X'10'	RDBACK -- BITS-- 2-5 ONLY
	00000001	DEBRDC	EQU	X'01'	UPDATE -- BITS-- 2-5 ONLY
	00000003	DEBLVC	EQU	X'03'	REREAD CLOSE
					OPTIONS--BITS-6,7
26 0003A	DEBLBC	DS	H		LEAVE CLOSE OPTIONS--BITS 6,7
					NUMBER OF USER LABEL
26 0003C	DEBUSZ	DS	H		WRITTEN TO DIRECT AC
					SIZE OF DEB AREA CURRENTLY
26 0003E	DEBVOL	DS	H		IN USE
					VOLUME SEQUENCE FOR THIS
26 00040	DEBBF1	DS	F		DEB
26 00044	DEBBF2	DS	F		QSAM DATA
					QSAM DATA/MSAM TIMER SAVE
26 00048	DEBLSW	DS	F		AREA
					POINTER TO DEB'S LST DIRECT
26 0004C	DEBNP	DS	H		AC WRITE ADDR
26 0004E	DEBNPC	DS	H		COPY OF DCB'S NCP FIELD
					NUMBER OF DECBS IN
26 00050	DEBDEL	DS	F		UNCHECKED DECB QUEUE
					POINTER TO LAST DECB
26 00054	DEBDEC	DS	F		UNCHECKED ENTRY
	26 00058	DEBEND	EQU	*	POINTER TO UNCHECKED DECB
	26 00058	DEBDAF	EQU	*	END OF COMMON DEB
					START OF DIRECT ACCESS
26 00058	DEBLWT	DS	0XL8		FIXED PORTION
26 00058	DEBLWR	DS	C		LAST DIRECT ACCESS WRITE
					RECORD NUMBER WITHIN A
26 00059	DEBLWM	DS	C		TRACK (R)
26 0005A	DEBLWB	DS	H		EXTENT NUMBER (M)
26 0005C	DEBLWC	DS	H		BIN OR MODULE ADDRESS (BB)
26 0005E	DEBLWH	DS	H		CYLINDER NUMBER (CC)
26 00060	DEBNIO	DS	0XL8		HEAD (TRACK) NUMBER (HH)
					ADDRESS OF NEXT READ
26 00060	DEBNIR	DS	C		OPERATION
					RECORD NUMBER WITHIN A
26 00061	DEBNIM	DS	C		TRACK (R)
26 00062	DEBNIB	DS	H		EXTENT NUMBER (M)
26 00064	DEBNIC	DS	H		BIN OR MODULE ADDRESS (BB)
26 00066	DEBNIH	DS	H		CYLINDER NUMBER (CC)
26 00068	DEBLIO	DS	0XL8		HEAD (TRACK) NUMBER (HH)
					ADDRESS OF LAST READ OR
26 00068	DEBLIR	DS	C		WRITE OPERATION
					RECORD NUMBER WITHIN A
26 00069	DEBLIM	DS	C		TRACK (R)
26 0006A	DEBLIB	DS	H		EXTENT NUMBER (M)
26 0006C	DEBLIC	DS	H		BIN OR MODULE ADDRESS (BB)
					CYLINDER NUMBER (CC)

(Listing of CHADEB continued on page 149)

(Listing of CHADEB continued from page 148)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
26 0006E		DEBLIH	DS	H	HEAD (TRACK) NUMBER (HH)
26 00070		DEBETK	DS	0XL8	ADDRESS OF LAST TRK TO GIVE
		*			CONDITION CK
26 00070		DEBETR	DS	C	RECORD NUMBER WITHIN A
		*			TRACK (R)
26 00071		DEBETM	DS	C	EXTENT NUMBER (M)
26 00072		DEBETB	DS	H	BIN OR MODULE ADDRESS (BB)
26 00074		DEBETC	DS	H	CYLINDER NUMBER (CC)
26 00076		DEBETH	DS	H	HEAD (TRACK) NUMBER (HH)
26 00078		DEBATK	DS	0XL8	ALTERNATE TRACK ADDRESS FOR
		*			LAST ERROR TK
26 00078		DEBATR	DS	C	RECORD NUMBER WITHIN A
		*			TRACK (R)
26 00079		DEBATM	DS	C	EXTENT NUMBER (M)
26 0007A		DEBATB	DS	H	BIN OR MODULE ADDRESS (BB)
26 0007C		DEBATC	DS	H	CYLINDER NUMBER (CC)
26 0007E		DEBATH	DS	H	HEAD (TRACK) NUMBER (HH)
	26 00080	DEBEDF	EQU	*	END OF DIRECT ACCESS FIXED
		*			PORTION
	26 00080	DEBDAV	EQU	*	START OF DIRECT ACCESS
		*			VARIABLE PORTION
26 00080		DEBEXF	DS	X	EXTENT FLAGS
	00000080	DEBMEX	EQU	X'80'	THIS IS THE LAST EXTENT
	00000040	DEBEHT	EQU	X'40'	HEADER/TRAILER LABEL EXISTS
26 00081		DEBMBB	DS	0CL3	FIRST 3 BYTES OF DIRECT
		*			ACCESS ADDRESS
26 00081		DEBMBM	DS	X	EXTENT NUMBER (M)
26 00082		DEBBBB	DS	H	BIN OR MODULE ADDRESS (BB)
26 00084		DEBLCH	DS	0F	LOWER LIMIT OF EXTENT
26 00084		DEBLCC	DS	H	CYLINDER NUMBER (CC)
26 00086		DEBLHH	DS	H	HEAD (TRACK) NUMBER (HH)
26 00088		DEBUCH	DS	0F	UPPER LIMIT OF EXTENT
26 00088		DEBUCC	DS	H	CYLINDER NUMBER (CC)
26 0008A		DEBUHH	DS	H	HEAD (TRACK) NUMBER (HH)
26 0008C		DEBTKN	DS	H	NUMBER TRACKS IN EXTENT
26 0008E		DEBBLT	DS	H	BYTES REMAINING ON LAST
		*			TRACK WRITTEN
	26 00090	DEBEDV	EQU	*	END OF DIRECT ACCESS
		*			VARIABLE PORTION
	00000058	DEBSZ1	EQU		DEBEND-DEBBEG SIZE OF COMMON DEB
	00000028	DEBSZ2	EQU		DEBEDF-DEBDAF SIZE OF DIRECT ACCESS
		*			FIXED PORTION
	00000010	DEBSZ3	EQU		DEBEDV-DEBDAV SIZE OF DIRECT ACCESS
		*			VARIABLE PORTION

Data Event Control Block (CHADEC)

The Data Event Control Block (DECB) describes the status of an I/O operation and furnishes the access method routine with the parameters necessary for I/O execution. The DECB is set by macro-supplied parameters and POSTING subroutines. Data in the DECB is used by the problem program, and read/write routines, and by the Check and Control (CNTL) routines.

The Read/Write DECB (40 bytes) and the IOREQ DECB (48 bytes) are aligned on doubleword boundaries.

CHADEC Storage map

DEC	HEX							
0	0	DECECB	DECBSF	DECSVC		DECTYP		DECLEN
8	8	DECDCB				DECDDAD		
16	10	DECSAD				DECKAD		
24	18	DECLFN	DECSTA	DECSB0	DECSB1	DECRES	DECCSC	DECFLG
32	20	DECCSW						
40	28	DECASB						

ORG DECBSF

1	1	DECMSF
---	---	--------

ORG DECTYP

4	4	DECTY1	DECTY2
---	---	--------	--------

ORG DECKAD

20	14	DECTAD
----	----	--------

ORG DECKAD

20	14	DECVCA
----	----	--------

ORG DECLFN

24	18	DECID
----	----	-------

(CHADEC continued on page 151)

DEC HEX  
ORG DECRES

28 1C

DECVCL

ORG DECCSC

29 1D

DECVCS

ORG DECFLG

30 1E

DECFL1 DECFL2

ORG DECCSW

32 20

DECCS1

ORG DECCS1

32 20

DECVCW DECCB1 DECCB2 DECCBN

Fields in CHADEC -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	DECECB	0016	0010	DECSAD	0031	001F	DECGB	(EQU)
0000	0000	DECBEG	0020	0014	DECVCA	0031	001F	DECGA	(EQU)
0001	0001	DECMSF	0020	0014	DECTAD	0031	001F	DECG9	(EQU)
0001	0001	DECEOF (EQU)	0020	0014	DECKAD	0031	001F	DECG8	(EQU)
0001	0001	DECMRF (EQU)	0024	0018	DECID	0032	0020	DECVCW	
0001	0001	DECRSU (EQU)	0024	0018	DECLFN	0032	0020	DECCS1	
0001	0001	DECF7 (EQU)	0025	0019	DECTWA (EQU)	0032	0020	DECCSW	
0001	0001	DECSS (EQU)	0025	0019	DECSTA	0036	0024	DECCB1	
0001	0001	DECF3 (EQU)	0026	001A	DECTO (EQU)	0036	0024	DECMUE	(EQU)
0001	0001	DECF2 (EQU)	0026	001A	DECSB0	0036	0024	DECMUC	(EQU)
0001	0001	DECF1 (EQU)	0027	001B	DECSB1	0036	0024	DECMDE	(EQU)
0001	0001	DECF0 (EQU)	0028	001C	DECVCL	0036	0024	DECMCE	(EQU)
0001	0001	DECSBF	0028	001C	DECRES	0036	0024	DECMBU	(EQU)
0002	0002	DECSVC	0029	001D	DECVCS	0036	0024	DECMCU	(EQU)
0004	0004	DECTY1	0029	001D	DECCSC	0036	0024	DECMST	(EQU)
0004	0004	DECIO (EQU)	0030	001E	DECFL1	0036	0024	DECMAT	(EQU)
0004	0004	DECR07 (EQU)	0030	001E	DECG7 (EQU)	0037	0025	DECCB2	
0004	0004	DECTYP	0030	001E	DECG6 (EQU)	0037	0025	DECCNC	(EQU)
0005	0005	DECTY2	0030	001E	DECG5 (EQU)	0037	0025	DECICC	(EQU)
0005	0005	DECTF (EQU)	0030	001E	DECG4 (EQU)	0037	0025	DECCHC	(EQU)
0005	0005	DECTE (EQU)	0030	001E	DECG3 (EQU)	0037	0025	DECCDC	(EQU)
0005	0005	DECTD (EQU)	0030	001E	DECG2 (EQU)	0037	0025	DECPTC	(EQU)
0005	0005	DECTC (EQU)	0030	001E	DECG1 (EQU)	0037	0025	DECPGC	(EQU)
0005	0005	DECTB (EQU)	0030	001E	DECG0 (EQU)	0037	0025	DECINL	(EQU)
0005	0005	DECTA (EQU)	0030	001E	DECFLG	0037	0025	DECPCI	(EQU)
0005	0005	DECT9 (EQU)	0031	001F	DECFL2	0038	0026	DECCBN	
0005	0005	DECT8 (EQU)	0031	001F	DECGF (EQU)	0040	0028	DECASB	
0006	0006	DECLEN	0031	001F	DECGE (EQU)	0048	0030	DECEND	(EQU)
0008	0008	DECDCB	0031	001F	DECGD (EQU)				
0012	000C	DECDAE	0031	001F	DECGC (EQU)				

Alphabetical list of fields in CHADEC

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DECASB	0040	0028	DECGF	0031	001F (EQU)	DECPTC	0037	0025 (EQU)
DECBEF	0000	0000	DECG0	0030	001E (EQU)	DECRES	0028	001C
DECBSF	0001	0001	DECG1	0030	001E (EQU)	DECRSU	0001	0001 (EQU)
DECCBN	0038	0026	DECG2	0030	001E (EQU)	DECR07	0004	0004 (EQU)
DECCB1	0036	0024	DECG3	0030	001E (EQU)	DECSAD	0016	0010
DECCB2	0037	0025	DECG4	0030	001E (EQU)	DECSB0	0026	001A
DECCDC	0037	0025 (EQU)	DECG5	0030	001E (EQU)	DECSB1	0027	001B
DECCHC	0037	0025 (EQU)	DECG6	0030	001E (EQU)	DECSS	0001	0001 (EQU)
DECCNC	0037	0025 (EQU)	DECG7	0030	001E (EQU)	DECSTA	0025	0019
DECCSC	0029	001D	DECG8	0031	001F (EQU)	DECSVC	0002	0002
DECCSW	0032	0020	DECG9	0031	001F (EQU)	DECTA	0005	0005 (EQU)
DECCS1	0032	0020	DECICC	0037	0025 (EQU)	DECTAD	0020	0014
DECDDAD	0012	000C	DECID	0024	0018	DECTB	0005	0005 (EQU)
DECDCB	0008	0008	DECINL	0037	0025 (EQU)	DECTC	0005	0005 (EQU)
DECECB	0000	0000	DECIO	0004	0004 (EQU)	DECTD	0005	0005 (EQU)
DECEND	0048	0030 (EQU)	DECKAD	0020	0014	DECTE	0005	0005 (EQU)
DECEOF	0001	0001 (EQU)	DECLEN	0006	0006	DECTF	0005	0005 (EQU)
DECFLG	0030	001E	DECLFN	0024	0018	DECTO	0026	001A (EQU)
DECFL1	0030	001E	DECMAT	0036	0024 (EQU)	DECTWA	0025	0019 (EQU)
DECFL2	0031	001F	DECMBU	0036	0024 (EQU)	DECTYP	0004	0004
DECFO	0001	0001 (EQU)	DECMCE	0036	0024 (EQU)	DECTY1	0004	0004
DECFO1	0001	0001 (EQU)	DECMCU	0036	0024 (EQU)	DECTY2	0005	0005
DECFO2	0001	0001 (EQU)	DECMDE	0036	0024 (EQU)	DECT8	0005	0005 (EQU)
DECFO3	0001	0001 (EQU)	DECMRF	0001	0001 (EQU)	DECT9	0005	0005 (EQU)
DECFO7	0001	0001 (EQU)	DECMSF	0001	0001	DECVCA	0020	0014
DECFOA	0031	001F (EQU)	DECMST	0036	0024 (EQU)	DECVCL	0028	001C
DECFOB	0031	001F (EQU)	DECMUC	0036	0024 (EQU)	DECVCS	0029	001D
DECFOC	0031	001F (EQU)	DECMUE	0036	0024 (EQU)	DECVCW	0032	0020
DECFOG	0031	001F (EQU)	DECPCI	0037	0025 (EQU)			
DECFOE	0031	001F (EQU)	DECPGC	0037	0025 (EQU)			

Assembler listing of CHADEC

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	27 00000	CHADEC	DSECT		DATA EVENT CONTROL BLOCK
27 00000		DECBEF	DS	0D	ALIGN ON DOUBLE WORD BOUNDARY
		*			
27 00000		DECECB	DS	XL1	EVENT CONTROL BLOCK (ECB)
	00000040	DECECM	EQU	X'40'	COMPLETION FLAG
	00000000	DECEC0	EQU	X'00'	ECB "READ/WRITE" REQUEST CODE
		*			
	0000007F	DECEC1	EQU	X'7F'	ECB "NORMAL COMPLETION" CODE
		*			
	00000041	DECEC2	EQU	X'41'	ECB "COMPLETE WITH ERROR" CODE
		*			
	0000007E	DECEC3	EQU	X'7E'	ECB "INTERCEPTED" CODE
	00000080	DECEC4	EQU	X'80'	ECB "WAIT" CODE
	00000014	DECEC5	EQU	X'14'	ECB "RJE INTERVENTION REQUIRED" CODE
		*			
27 00001		DECBSF	DS	XL1	BSAM FLAGS
	27 00001	DECFO	EQU	DECBSF	IORCB NOT ISSUED-MSAM
	00000080	DECFO0M	EQU	X'80'	MASK
	27 00001	DECFO1	EQU	DECBSF	RESERVED
	00000040	DECFO1M	EQU	X'40'	DECFO1 MASK BIT
	27 00001	DECFO2	EQU	DECBSF	RESERVED
	00000020	DECFO2M	EQU	X'20'	DECFO2 MASK BIT
	27 00001	DECFO3	EQU	DECBSF	SIO FAILURE-IOREQ
	00000010	DECFO3M	EQU	X'10'	MASK
	27 00001	DECSS	EQU	DECBSF	SENSE BYTES COUNT FIELD
		*			BITS 4-6 X'02'=8 BYTES
	0000000E	DECSSM	EQU	X'0E'	SENSE BYTE COUNT MASK
		*			BITS 4-6 (MODULO 8)
	27 00001	DECFO7	EQU	DECBSF	EXTENDED AWAIT FLAG
	00000001	DECFO7M	EQU	X'01'	EXTENDED AWAIT MASK
	27 00001		ORG	DECBSF	
27 00001		DECMSF	DS	XL1	MSAM FLAGS

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(Listing of CHADEC continued from page 152)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	27 00001	DECRSU	EQU	DECBSF	TO BE REISSUED FLAG
	00000080	DECRSUM	EQU	X'80'	MASK
	27 00001	DECMRF	EQU	DECBSF	MRF FORMAT WHEN ON
	00000040	DECMRFM	EQU	X'40'	
	27 00001	DECEOF	EQU	DECBSF	END OF FILE INDICATER
	00000020	DECEOFM	EQU	X'20'	
27 00002		DECSVC	DS	H	AWAIT SUPVR CALL
27 00004		DECTYP	DS	H	OPERATION TYPE CODE
	27 00004		(ORG)	DECTYP	
27 00004		DECTY1	DS	XL1	OPN CODE HI ORDER BYTE
	27 00004	DECR07	EQU	DECTY1	REPEAT OPTION BIT
	00000001	DECROM	EQU	X'01'	REPEAT OPTION BIT MASK
	000000FE	DECROM	EQU	X'FE'	REPEAT OPTION MASK
		*			ELIMINATOR
	00000002	DEC02	EQU	X'02'	READ INITIAL WITH
		*			DIALING(TID)-TAM-
	00000003	DEC03	EQU	X'03'	READ INITIAL WITH
		*			DIALING/REPEAT(TDR)-TAM-
	00000004	DEC04	EQU	X'04'	READ INITIAL (TIN)-TAM-
	00000005	DEC05	EQU	X'05'	READ INITIAL/REPEAT
		*			(TNR)-TAM-
	00000006	DEC06	EQU	X'06'	READ CONTINUE (TCN)-TAM-
	00000007	DEC07	EQU	X'07'	READ CONTINUE/REPEAT
		*			(TCR)-TAM-
	00000008	DEC08	EQU	X'08'	WRITE INITIAL WITH DIALING
		*			(TID)-TAM-
	00000009	DEC09	EQU	X'09'	WRITE INITIAL WITH
		*			DIALING/REPEAT(TDR)-TAM-
	0000000A	DEC0A	EQU	X'0A'	WRITE INITIAL (TIN)-TAM-
	0000000B	DEC0B	EQU	X'0B'	WRITE
		*			INITIAL/REPEAT(TNR)-TAM-
	0000000C	DEC0C	EQU	X'0C'	WRITE CONTINUE(TCN)-TAM-
	0000000D	DEC0D	EQU	X'0D'	WRITE
		*			CONTINUE/REPEAT(TCR)-TAM-
	0000000E	DEC0E	EQU	X'0E'	WRITE WITH
		*			RESPONSE(TIA)-TAM-
	0000000F	DEC0F	EQU	X'0F'	WRITE WITH
		*			RESPONSE/REPEAT(TAR)-TAM-
	00000020	DEC20	EQU	X'20'	READ-SEQUENTIAL
		*			FORWARD(SF)-SAM-
	00000024	DEC24	EQU	X'24'	READ-SEQUENTIAL
		*			BACKWARD(SB)-SAM-
	00000028	DEC28	EQU	X'28'	WRITE-SEQUENTIAL
		*			FORWARD(SF)-SAM-
	00000029	DEC29	EQU	X'29'	WRITE END OF FILE(WEF)-SAM-
	00000040	DEC40	EQU	X'40'	REPLACE BY RETRIEVAL
		*			ADDRESS(KR)-VIS-WRITE
	00000043	DEC43	EQU	X'43'	REPLACE BY
		*			KEY(KS)-VIS-WRITE
	00000044	DEC44	EQU	X'44'	WRITE NEW KEY(KT)-VIS-WRITE
	00000048	DEC48	EQU	X'48'	READ BY SPECIFIC
		*			KEY(KY)-VIS-READ
	00000049	DEC49	EQU	X'49'	READ BY RETRIEVAL
		*			ADDR.(KZ)-VIS-READ
	0000004A	DEC4A	EQU	X'4A'	EXCLUSIVE READ(KX)-VIS-READ
27 00004		DECIO	EQU	DECTY1	IOREQ DECB
	00000050	DECIOM	EQU	X'50'	DECIO MASK
	00000064	DEC64	EQU	X'64'	AUTOWRAP (2702 OPTION)
	00000065	DEC65	EQU	X'65'	DISABLE (2702 OPTION)
	00000066	DEC66	EQU	X'66'	ENABLE (2702 OPTION)
	00000067	DEC67	EQU	X'67'	INHIBIT (2702 OPTION)
	00000068	DEC68	EQU	X'68'	PREPARE (2702 OPTION)
	00000069	DEC69	EQU	X'69'	SADONE (2702 OPTION)
	0000006A	DEC6A	EQU	X'6A'	SADTWO (2702 OPTION)
	0000006B	DEC6B	EQU	X'6B'	SADTHREE (2702 OPTION)
	0000006C	DEC6C	EQU	X'6C'	SADZER (2702 OPTION)
	0000006D	DEC6D	EQU	X'6D'	BREAK (2702 OPTION)
	000000C7	DECC7	EQU	X'C7'	GAM OPN CODE

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(Listing of CHADEC continued from page 153)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
27 00005		DECTY2	DS	XL1	OPN CODE LOW ORDER BYTE
	27 00005	DECT8	EQU	DECTY2	CHAR. 'S' IN MACRO OPERAND
		*			LENGTH FIELD
	00000080	DECT8M	EQU	X'80'	DECT 8 MASK BIT
	27 00005	DECT9	EQU	DECTY2	CHAR. 'S' IN VIS MACRO
		*			OPERAND AREA FIELD
	00000040	DECT9M	EQU	X'40'	DECT 9 MASK BIT
	27 00005	DECTA	EQU	DECTY2	CHAR C IN MACRO OPERAND
		*			LENGTH FIELD
	00000020	DECTAM	EQU	X'20'	DECTA MASK BIT
	27 00005	DECTB	EQU	DECTY2	RESERVED
	00000010	DECTBM	EQU	X'10'	DECTB MASK BIT
	27 00005	DECTC	EQU	DECTY2	RESERVED
	00000008	DECTCM	EQU	X'08'	DECTC MASK BIT
	27 00005	DECTD	EQU	DECTY2	RESERVED
	00000004	DECTDM	EQU	X'04'	DECTD MASK BIT
	27 00005	DECTE	EQU	DECTY2	IOREQ BUFFERED
	00000002	DECTEM	EQU	X'02'	DECTE MASK BIT
	27 00005	DECTF	EQU	DECTY2	RESERVED
	00000001	DECTFM	EQU	X'01'	DECTF MASK BIT
27 00006		DECLEN	DS	H	DATA AREA LENGTH
27 00008		DEDCB	DS	F	DCB ADDRESS
27 0000C		DECDAD	DS	F	DATA AREA ADDRESS
27 00010		DECSAD	DS	F	STATUS INDICATORS ADDRESS
27 00014		DECKAD	DS	F	ADDRESS OF VIS KEY
	27 00014	DECTAD	<u>DS</u>	DECKAD	ADDRESS OF TAM TERMINAL
		*		F	ENTRY LIST
	27 00014	DECVCA	<u>DS</u>	DECKAD	VCCW LIST ADDRESS
27 00014		DECLFN	DS	XL1	LOGICAL FUNCTION (TAM)
27 00018	27 00018	DECLFN	<u>DS</u>	DECLFN	
27 00018		DECID	DS	XL1	USER MESSAGE IDENTITY-BSAM
	00000080	DECI80M	EQU	X'80'	NON-RETRYABLE ERROR
	00000040	DECI40M	EQU	X'40'	UNPREDICTABLE
		*			RESULTS-PROCEED AT
		*			OWN RISK
27 00019		DECSTA	DS	C	RESERVED FOR STATUS
	27 00019	DECTWA	EQU	DECSTA	TWAIT REQUIRED
	00000080	DECTWM	EQU	X'80'	DECTWA MASK BIT FOR TWAIT
27 0001A		DECSB0	DS	XL1	SENSE BYTE 0
	27 0001A	DECTO	EQU	DECSB0	TIME OUT FLAG
	00000001	DECTOM	EQU	X'01'	TIME OUT MASK
27 0001B		DECSB1	DS	XL1	SENSE BYTE 1
27 0001C		DECRES	<u>DS</u>	C	RESPONSE--TAM--
	27 0001C	DECRES	<u>DS</u>	DECRES	
27 0001C		DECVCL	DS	CL1	VCCW LIST DOUBLE-WORD
		*			LENGTH
27 0001D		DECCSC	<u>DS</u>	XL1	TAM CHARACTER SET CODE
	27 0001D	DECCSC	<u>DS</u>	DECCSC	
27 0001D		DECVCS	DS	CL1	NO.OF DBL WDS TO START CCW
		*			FROM VCCW ORIGIN
27 0001E		DECFLG	DS	0H	
27 0001E		DECFLG	<u>DS</u>	XL2	FLAGS
	27 0001E	DECFLG	<u>DS</u>	DECFLG	
27 0001E		DECFL1	DS	XL1	FLAGS 1 BYTE
	27 0001E	DECG0	EQU	DECFL1	'PURGE' BIT (SET BY
		*			QSAM),CHECK ZEROS IT
	00000080	DECG0M	EQU	X'80'	DECG0 MASK BIT
	27 0001E	DECG1	EQU	DECFL1	'PERMANENT ERROR'SET BY
		*			CHECK ROUTINE
	00000040	DECG1M	EQU	X'40'	DECG 1 MASK BIT
	27 0001E	DECG2	EQU	DECFL1	'ACTIVE' (SET BY TAM OR SAM
		*			OR IOREQ
	00000020	DECG2M	EQU	X'20'	DECG2 MASK BIT
	27 0001E	DECG3	EQU	DECFL1	USER ERROR -- TAM --
	00000010	DECG3M	EQU	X'10'	DECG3 MASK BIT
	27 0001E	DECG4	EQU	DECFL1	RECORD OVERFLOW -- TAM --

(Listing of CHADEC continued on page 155)



(Listing of CHADEC continued from page 154)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000008	DECG4M	EQU	X'08'	DECG4 MASK BIT
	27 0001E	DECG5	EQU	DECFL1	BUFFER OVERFLOW(TAM) OR NEW PAGE
		*			INDICATOR(MSAM)
	00000004	DECG5M	EQU	X'04'	DECG5 MASK BIT
	27 0001E	DECG6	EQU	DECFL1	SYSTEM ERROR -- TAM --
	00000002	DECG6M	EQU	X'02'	DECG6 MASK BIT
	27 0001E	DECG7	EQU	DECFL1	INTERVENTION REQUIRED -- TAM --
		*			DECG7 MASK BIT
27 0001F	00000001	DECG7M	EQU	X'01'	DECG7 MASK BIT
		DECFL2	DS	XL1	FLAGS 2 BYTE
	27 0001F	DECG8	EQU	DECFL2	ABEND REQUIRED
	00000080	DECG8M	EQU	X'80'	DECG 8 MASK BIT
	27 0001F	DECG9	EQU	DECFL2	EOV REQUESTED
	00000040	DECG9M	EQU	X'40'	DECG9 MASK BIT
	27 0001F	DECGA	EQU	DECFL2	SYNAD REQUESTED
	00000020	DECGAM	EQU	X'20'	DECGA MASK BIT
	27 0001F	DECEB	EQU	DECFL2	IN USE
	00000010	DECEBM	EQU	X'10'	DECEB MASK BIT
	27 0001F	DECEC	EQU	DECFL2	(TAM) WRITE
	00000008	DECECM	EQU	X'08'	DECEC MASK BIT
	27 0001F	DECEG	EQU	DECFL2	(TAM) READ
	00000004	DECEGM	EQU	X'04'	DECEG MASK BIT
	27 0001F	DECEH	EQU	DECFL2	(TAM) RESPONSE
	00000002	DECEHM	EQU	X'02'	DECEH MASK BIT
	27 0001F	DECEI	EQU	DECFL2	(TAM) ATTENTION
	00000001	DECEIM	EQU	X'01'	DECEI MASK BIT
27 00020			DS	0D	
27 00020		DECCSW	DS	XL8	CHANNEL STATUS WORD (CSW)
	27 00020		<u>ORG</u>	DECCSW	
27 00020		DECCS1	DS	XL4	FIRST WORD OF CSW
	27 00020		<u>ORG</u>	DECCS1	
27 00020		DECVCW	DS	F	VCCW ADDRESS OF OFFENDING CCW
		*			
27 00024		DECCB1	DS	XL1	FIFTH BYTE OF CSW
	27 00024	DECMAT	EQU	DECCB1	ATTENTION FLAG
	00000080	DECMATM	EQU	X'80'	ATTENTION MASK
	27 00024	DECMST	EQU	DECCB1	STATUS MODIFIER FLAG
	00000040	DECMSTM	EQU	X'40'	STATUS MODIFIER MASK
	27 00024	DECMCU	EQU	DECCB1	CONTROL UNIT END FLAG
	00000020	DECMCUM	EQU	X'20'	CONTROL UNIT END MASK
	27 00024	DECMBU	EQU	DECCB1	BUSY FLAG
	00000010	DECMBUM	EQU	X'10'	BUSY MASK
	27 00024	DECMCE	EQU	DECCB1	CHANNEL END FLAG
	00000008	DECMCEM	EQU	X'08'	CHANNEL END MASK
	27 00024	DECMDE	EQU	DECCB1	DEVICE END MASK
	00000004	DECMDEM	EQU	X'04'	DEVICE END FLAG
	27 00024	DECMUC	EQU	DECCB1	UNIT CHECK FLAG
	00000002	DECMUCM	EQU	X'02'	UNIT CHECK MASK
	27 00024	DECMUE	EQU	DECCB1	UNIT EXCEPTION FLAG
	00000001	DECMUEM	EQU	X'01'	UNIT EXCEPTION MASK
27 00025		DECCB2	DS	XL1	SIXTH BYTE OF CSW
	27 00025	DECPCI	EQU	DECCB2	PROGRAM-CONTROLLED INTERRUPTION FLAG
		*			
	00000080	DEPCIM	EQU	X'80'	PROGRAM-CONTROLLED INTERRUPTION MASK
		*			
	27 00025	DECINL	EQU	DECCB2	INCORRECT LENGTH FLAG
	00000040	DECINLM	EQU	X'40'	INCORRECT LENGTH MASK
	27 00025	DECPGC	EQU	DECCB2	PROGRAM CHECK FLAG

(Listing of CHADEC continued on page 156)

(Listing of CHADEC continued from page 155)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000020	DECPGCM	EQU	X'20'	PROGRAM CHECK MASK
	27 00025	DECPTC	EQU	DECCB2	PROTECTION CHECK FLAG
	00000010	DECPTCM	EQU	X'10'	PROTECTION CHECK MASK
	27 00025	DECCDC	EQU	DECCB2	CHANNEL DATA CHECK FLAG
	00000008	DECCDCM	EQU	X'08'	CHANNEL DATA CHECK MASK
	27 00025	DECCHC	EQU	DECCB2	CHANNEL CONTROL CHECK FLAG
	00000004	DECCHCM	EQU	X'04'	CHANNEL CONTROL CHECK MASK
	27 00025	DECICC	EQU	DECCB2	INTERFACE CONTROL CHECK
		*			FLAG
	00000002	DECICCM	EQU	X'02'	INTERFACE CONTROL CHECK
		*			MASK
	27 00025	DECCNC	EQU	DECCB2	CHAINING CHECK FLAG
	00000001	DECCNCM	EQU	X'01'	CHAINING CHECK MASK
27 00026		DECCBN	DS	H	LAST 2 BYTES OF CSW
27 00028			DS	0D	
27 00028		DECASB	DS	XL8	SENSE BYTES 0,1,ETC.
	27 00030	DECEND	EQU	*	
	00000030	DECSZ	EQU	DECEND-DECBEG	DECB SIZE

Device Group Table (CHADEV)

The Device Group Table (CHADEV), by maintaining the current status of each device in the table, provides the data required to assign or release devices. CHADEV occupies 24 bytes of core storage, aligned on a doubleword boundary.

CHADEV Storage map

DEC	HEX							
0	0	DEVLOCK	DEVMAX	DEVF	DEVLB	DEVAEP		
8	8	DEVPP						
16	10	DEVFLG	UNNAMED	DEVDIG	DEVEP	DEVNO	DEVTP	DEVSDA

ORG DEVBEG

0	0	DEVTSI	DEVASD	DEVI
---	---	--------	--------	------

Fields in CHADEV -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD			
0000	0000	DEVTSI	0003	0003	DEVLB	0016	0010	DEVP	(EQU)		
0000	0000	DEVAIO	0004	0004	DEVASD	0016	0010	DEVA	(EQU)		
0000	0000	DEVTIO	(EQU)	0004	0004	DEVAEP	0016	0010	DEVFLG		
0000	0000	DEVTCT	(EQU)	0006	0006	DEVI	0016	0010	DEVEN		
0000	0000	DEVLOCK	0006	0006	DEVDI	(EQU)	0018	0012	DEVDIG		
0000	0000	DEVBEG	0006	0006	DEVHP	(EQU)	0019	0013	DEVE7	(EQU)	
0001	0001	DEVMAX	0006	0006	DEVHE	(EQU)	0019	0013	DEVE6	(EQU)	
0002	0002	DEVAE	(EQU)	0006	0006	DEVHD	(EQU)	0019	0013	DEVE5	(EQU)
0002	0002	DEVCT	(EQU)	0006	0006	DEVRT	(EQU)	0019	0013	DEVE4	(EQU)
0002	0002	DEVMS	(EQU)	0006	0006	DEVMT	(EQU)	0019	0013	DEVE3	(EQU)
0002	0002	DEVF	0006	0006	DEVT	(EQU)	0019	0013	DEVE2	(EQU)	
0003	0003	DEV B7	(EQU)	0006	0006	DEV D	(EQU)	0019	0013	DEVE1	(EQU)
0003	0003	DEV B6	(EQU)	0006	0006	DEV N	(EQU)	0019	0013	DEVE0	(EQU)
0003	0003	DEV B5	(EQU)	0006	0006	DEV C	(EQU)	0019	0013	DEV E P	
0003	0003	DEV B4	(EQU)	0008	0008	DEV P P		0020	0014	DEV N O	
0003	0003	DEV B3	(EQU)	0016	0010	DEV E	(EQU)	0021	0015	DEV T P	
0003	0003	DEV B2	(EQU)	0016	0010	DEV R	(EQU)	0022	0016	DEV S D A	
0003	0003	DEV B1	(EQU)	0016	0010	DEV S	(EQU)				
0003	0003	DEV B0	(EQU)	0016	0010	DEV M	(EQU)				

Alphabetical list of fields in CHADEV

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DEVA	0016	0010	DEVE	0016	0010	DEVM	0016	0010
DEVAE	0002	0002	DEVEN	0016	0010	DEVMAX	0001	0001
DEVAEP	0004	0004	DEVEP	0019	0013	DEVMS	0002	0002
DEVAIO	0000	0000	DEVE0	0019	0013	DEVMT	0006	0006
DEVASD	0004	0004	DEVE1	0019	0013	DEVN	0006	0006
DEVBEG	0000	0000	DEVE2	0019	0013	DEVNO	0020	0014
DEV B0	0003	0003	DEVE3	0019	0013	DEVP	0016	0010
DEV B1	0003	0003	DEVE4	0019	0013	DEVPP	0008	0008
DEV B2	0003	0003	DEVE5	0019	0013	DEV R	0016	0010
DEV B3	0003	0003	DEVE6	0019	0013	DEVRT	0006	0006
DEV B4	0003	0003	DEVE7	0019	0013	DEVS	0016	0010
DEV B5	0003	0003	DEVF	0002	0002	DEVSDA	0022	0016
DEV B6	0003	0003	DEVFLG	0016	0010	DEVT	0006	0006
DEV B7	0003	0003	DEVHD	0006	0006	DEVTCT	0000	0000
DEV C	0006	0006	DEVHE	0006	0006	DEVTIO	0000	0000
DEVCT	0002	0002	DEVHP	0006	0006	DEVTP	0021	0015
DEV D	0006	0006	DEVI	0006	0006	DEVTSI	0000	0000
DEVDI	0006	0006	DEVLB	0003	0003			
DEVDIG	0018	0012	DEVLOCK	0000	0000			

Assembler listing of CHADEV

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	29 00000	CHADEV	DSECT		DEVICE GROUP TABLE
29 00000		DEVBEG	DS	0D	ALIGN TABLE ON A DOUBLE WORD BOUNDARY
		*			
29 00000		DEVLOCK	DS	XL1	LOCK BYTE
29 00001		DEVMAX	DS	XL1	MAX DEVICE ADDRESS IN TABLE
29 00002		DEVF	DS	XL1	TABLE FLAGS
	29 00002	DEVMS	EQU	DEVF	CHANNEL TYPE FLAG
	00000080	DEVMSM	EQU	X'80'	CHANNEL TYPE MASK
	29 00002	DEVCT	EQU	DEVF	NUMBER OF ACTUAL PATH ENTRIES
		*			
	00000070	DEVCTM	EQU	X'70'	NUMBER OF ACTUAL PATH ENTRIES MASK
		*			
	29 00002	DEVAE	EQU	DEVF	ASYNCHRONOUS INTERRUPT TYPE FLAG
		*			
	00000008	DEVAEM	EQU	X'08'	ASYNCHRONOUS INTERRUPT TYPE MASK
		*			
29 00003		DEVLB	DS	XL1	LOW ORDER PATH ADDRESS BITS
	29 00003	DEVB0	EQU	DEVLB	FOR PATH 0
	00000080	DEVB0M	EQU	X'80'	FOR PATH 0 MASK
	29 00003	DEVB1	EQU	DEVLB	FOR PATH 1
	00000040	DEVB1M	EQU	X'40'	FOR PATH 1 MASK
	29 00003	DEVB2	EQU	DEVLB	FOR PATH 2
	00000020	DEVB2M	EQU	X'20'	FOR PATH 2 MASK
	29 00003	DEVB3	EQU	DEVLB	FOR PATH 3
	00000010	DEVB3M	EQU	X'10'	FOR PATH 3 MASK
	29 00003	DEVB4	EQU	DEVLB	FOR PATH 4
	00000008	DEVB4M	EQU	X'08'	FOR PATH 4 MASK
	29 00003	DEVB5	EQU	DEVLB	FOR PATH 5
	00000004	DEVB5M	EQU	X'04'	FOR PATH 5 MASK
	29 00003	DEVB6	EQU	DEVLB	FOR PATH 6
	00000002	DEVB6M	EQU	X'02'	FOR PATH 6 MASK
	29 00003	DEVB7	EQU	DEVLB	FOR PATH 7
	00000001	DEVB7M	EQU	X'01'	FOR PATH 7 MASK
29 00004		DEVAEP	DS	F	ASYNCHRONOUS INTERRUPT LIST POINTER
		*			
29 00008		DEVPP	DS	D	ACTUAL PATHS TO DEVICE
29 00010		DEVEN	DS	0D	DOUBLEWORD ENTRY FOR EACH DEVICE IN TABLE
		*			
29 00010		DEVFLG	DS	XL1	DEVICE FLAGS
	29 00010	DEVA	EQU	DEVFLG	AVAILABILITY FLAG
	00000080	DEVAMK	EQU	X'80'	AVAILABILITY MASK
	29 00010	DEVP	EQU	DEVFLG	PARTITIONED FLAG
	00000040	DEVPM	EQU	X'40'	PARTITIONED MASK
	29 00010	DEVM	EQU	DEVFLG	UNIT DOWN FLAG
	00000020	DEVMM	EQU	X'20'	UNIT DOWN MASK
	29 00010	DEVS	EQU	DEVFLG	SENSE HOLD FLAG
	00000010	DEVSM	EQU	X'10'	SENSE HOLD MASK
	29 00010	DEVR	EQU	DEVFLG	RESERVED FLAG
	00000008	DEVRM	EQU	X'08'	RESERVED MASK
	00000078	DEVAM	EQU	X'78'	INDS RESTRCTING AVAIL OF DEVICE
		*			
	29 00010	DEVE	EQU	DEVFLG	NONEXISTENT FLAG
	00000002	DEVEM	EQU	X'02'	NON-EXISTENT MASK
29 00011			DS	XL1	RESERVED
29 00012		DEVDIG	DS	XL1	DIG CODE FOR DEVICE
29 00013		DEVEP	DS	XL1	ENABLE PATH
	29 00013	DEVE0	EQU	DEVEP	PATH 0 ENABLED
	00000080	DEVE0M	EQU	X'80'	PATH 0 ENABLED MASK
	29 00013	DEVE1	EQU	DEVEP	PATH 1 ENABLED
	00000040	DEVE1M	EQU	X'40'	PATH 1 ENABLED MASK
	29 00013	DEVE2	EQU	DEVEP	PATH 2 ENABLED
	00000020	DEVE2M	EQU	X'20'	PATH 2 ENABLED MASK
	29 00013	DEVE3	EQU	DEVEP	PATH 3 ENABLED
	00000010	DEVE3M	EQU	X'10'	PATH 3 ENABLED MASK
	29 00013	DEVE4	EQU	DEVEP	PATH 4 ENABLED
	00000008	DEVE4M	EQU	X'08'	PATH 4 ENABLED MASK
	29 00013	DEVE5	EQU	DEVEP	PATH 5 ENABLED
	00000004	DEVE5M	EQU	X'04'	PATH 5 ENABLED MASK

(Listing of CHADEV continued on page 159)

(Listing of CHADEV continued from page 158)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	29 00013	DEVE6	EQU	DEVEP	PATH 6 ENABLED
	00000002	DEVE6M	EQU	X'02'	PATH 6 ENABLED MASK
	29 00013	DEVE7	EQU	DEVEP	PATH 7 ENABLED
	00000001	DEVE7M	EQU	X'01'	PATH 7 ENABLED MASK
29 00014		DEVNO	DS	C	NOT USED
29 00015		DEVTP	DS	XL1	DEVICE TYPE
	00000000	DEV01	EQU	X'0'	CODE FOR 2301 DRUM
	00000001	DEV11	EQU	X'01'	CODE FOR 2311 DISK
	00000003	DEV21	EQU	X'03'	CODE FOR 2321 DATA CELL
	00000004	DEV14	EQU	X'04'	CODE FOR 2314 DISK
	00000008	DEV27	EQU	X'08'	CODE FOR 2702 TERMINAL DEVICES
	00000010	DEV2701L	EQU	X'10'	2701 DEDICATED(LEASED) LINE
	00000011	DEV2701S	EQU	X'11'	2701 DIAL UP(SWITCHED) LINE
	00000006	DEV2703	EQU	X'06'	CODE FOR 2703 TERMINAL DEVICE
	00000016	DEV2703L	EQU	X'16'	2703 DEDICATED(LEASED) LINE
		*			I5649
		*			TO A 2780 DEVICE
		*			I5649
	00000017	DEV2703S	EQU	X'17'	2703 DIAL UP(SWITCHED) LINE
		*			I5649
		*			TO A 2780 DEVICE
		*			I5649
29 00016		DEVSDA	DS	H	SYSTEM SYMBOLIC DEVICE ADDRESS
		*			
	29 00000		<u>ORG</u>	DEVBEG	
29 00000		DEVAIO	DS	0D	ASYNCHRONOUS INTERRUPT ENTRY
		*			
29 00000		DEVTSI	DS	F	TASK STATUS INDEX (TSI) POINTER
		*			
	29 00000	DEVTCT	EQU	DEVTSI	POINTER TO TCT SLOT (MT/T)
		*			
	29 00000	DEVTIO	EQU	DEVTSI	POINTER TO TIOCB
29 00004		DEVASD	DS	H	SYSTEM SYMBOLIC DEVICE ADDRESS
		*			
29 00006		DEVI	DS	XL1	ASYNCHRONOUS INTERRUPT FLAGS
		*			
	29 00006	DEVC	EQU	DEVI	ATTENTION INTERRUPT IS BEING PROCESSED FG
		*			
	00000080	DEVCM	EQU	X'80'	ATTENTION INTERRUPT IS BEING PROCESSED MK
		*			
	29 00006	DEVN	EQU	DEVI	TASK INITIATED FLAG
	00000040	DEVNM	EQU	X'40'	TASK INITIATED MASK
	29 00006	DEV D	EQU	DEVI	IGNORE DEVICE END
	00000020	DEVDM	EQU	X'20'	IGNORE DEVICE END MASK
	29 00006	DEVT	EQU	DEVI	TSS-ORIENTED FLAG (MT/T)
		*			
	00000010	DEVTM	EQU	X'10'	TSS-ORIENTED MASK (MT/T)
		*			
	29 00006	DEVMT	EQU	DEVI	SPECIAL TASK-ORIENTED FLAG (MT/T)
		*			
	00000008	DEVMTM	EQU	X'08'	SPECIAL TASK-ORIENTED MASK (MT/T)
		*			
	29 00006	DEVRT	EQU	DEVI	TSS UNDER RTAM FLAG (RTAM)
		*			
	00000004	DEVRTM	EQU	X'04'	TSS UNDER RTAM MASK (RTAM)
		*			
		*			THE FOLLOWING FLAGS HAVE MEANING ONLY
		*			WHEN DEVICE CODE
		*			EQUALS:DEV2701S OR 2701L
	29 00006	DEVHD	EQU	DEVI	DISABLE AFTER HIO TO 2701 SDA II FLAG
		*			
	00000010	DEVHDM	EQU	X'10'	DISABLE AFTER HIO TO 2701 SDA II MASK
		*			
	29 00006	DEVHE	EQU	DEVI	ENABLE AFTER HIO TO 2701 SDA II FLAG
		*			

(Listing of CHADEV continued on page 160)

(Listing of CHADEV continued from page 159)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
00000008	DEVHEM	EQU	X'08'		ENABLE AFTER HIO TO 2701 SDA II MASK
29 00006	DEVHP	EQU	DEVI		PRIME AFTER HIO TO 2701 SDA II FLAG
00000004	DEVHPM	EQU	X'04'		PRIME AFTER HIO TO 2701 SDA II MASK
29 00006	DEVDI	EQU	DEVI		REMOTE JOB ENTRY DISABLE INTERRUPT FLAG
00000002	DEVDIM	EQU	X'02'		REMOTE JOB ENTRY DISABLE INTERRUPT MASK
					* NOTE 1- THE SYMBOLIC DEVICE ENTRIES (LABELS * DEVFLG THRU DEVSDA) ARE * VARIABLE IN NUMBER. THEY WILL BE * EQUIVALENT TO THE NUMBER * OF DEVICES SPECIFIED AS BEING ATTACHED TO * THE CONTROL UNIT(S) * WHOSE ENTRY(IES) IN THE CONTROL UNIT * TABLE POINT TO THIS * DEVICE GROUP TABLE. * NOTE 2- THE ASYNCHRONOUS INTERRUPT ENTRIES * (DEVAIO) * ARE VARIABLE IN NUMBER WITH A MATCHING * ENTRY FOR EACH SYM- * BOLIC DEVICE ENTRY. HOWEVER, ONLY THOSE * ASYNCHRONOUS ENTRIES * THAT MATCH A TERMINAL CLASS SYMBOLIC * DEVICE ENTRIES WILL BE * ACTIVE. THOSE THAT MATCH NON-TERMINAL * CLASS SYMBOLIC DEVICE * ENTRIES WILL BE MARKED NONEXISTENT. * NOTE 3- SYMBOLIC DEVICE AND ASYNCHRONOUS * INTERRUPT ENTRIES MUST BEGIN * ON DOUBLE WORD BOUNDARIES.

Damage Report (CHADMR)

The Damage Report describes the nature and extent of CPU and/or storage failures; it also provides for evaluation of the effects of machine malfunction upon programming.

The damage report is prepared by either the System Environment Recording and Retry (SERR) or the recovery nucleus, and furnishes data to the reconfiguration program.

A core storage entry of 16 bytes in the prefixed storage area is allocated to the damage report. It is aligned on a doubleword boundary.

DMRFCC: Failure Classification Code is a positive integer defined to indicate the nature of the machine failure and/or the extent of damage as follows:

- 00 Invalid
- 01 CPU Failure
- 02 Storage Element Failure
- 03 CPU and Storage Element Failure
- 04 Solid Storage Parity Error
- 05 Intermittent Storage Parity Error on a Page
- 06 Intermittent Storage Parity Error on a Storage Element
- 07-3F Unassigned
- 40 Retry Possible
- 41 Retry Possible but CPU Failure is solid
- 42-47 Unassigned
- 48 No drum path available to SERR
- 49 Drum Failure during SERR operation
- 4A-7F Unassigned
- 80 Machine Error with Global Damage
- 81-8F Unassigned
- 90 SERR Auxiliary Queue Overflow
- 91-9F Unassigned
- A0 SERR Auxiliary Queue Interlocked
- A1-FE Unassigned
- FF Failing CCU (Set by Ext. Mach. Check Handler)

Note: Bit 0 of this byte, if 1, indicates that the System Restart is mandatory.

CHADMR Storage map

DEC	HEX	
0	0	DMRMOP
8	8	DMRSC1   DMRSC2   DMRSC3   DMRSCN   DMRFCC

Fields in CHADMR -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	DMRMOP	0012	000C	DMRSC3	0015	000F	DMRFCC
0008	0008	DMRSC1	0014	000E	DMRCPU (EQU)			
0010	000A	DMRSC2	0014	000E	DMRSCN			

Alphabetical list of fields in CHADMR

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DMRCPU	0014	000E (EQU)	DMRSCN	0014	000E	DMRSC3	0012	000C
DMRFCC	0015	000F	DMRSC1	0008	0008			
DMRMOP	0000	0000	DMRSC2	0010	000A			

Assembler listing of CHADMR

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	2B 00000	CHADMR	DSECT		
		*			DAMAGE REPORT
2B 00000			DS	0D	
2B 00000		DMRMOP	DS	XL8	MACHINE CHECK OLD PSW
2B 00008		DMRSC1	DS	XL2	FAILING CORE ADDRESS 1
2B 0000A		DMRSC2	DS	XL2	FAILING CORE ADDRESS 2
2B 0000C		DMRSC3	DS	XL2	FAILING CORE ADDRESS 3
2B 0000E		DMRSCN	DS	XL1	NO OF SICK CORES LISTED

(Listing of CHADMR continued on page 162)

(Listing of CHADMR continued from page 161)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
2B 0000F	2B 0000E	DMRCPU DMRFCC	EQU DS	DMRSCN XL1	FAILING CPU ID FAILURE CLASSIFICATION CODE



Data Set Control Blocks in the VTOC (CHADSC & CHADSV & CHADAS & CHADAV & CHAVTC)

The Data Set Control Blocks (DSCBs) for the data sets mounted on a SAM volume are all contained in the Volume Table of Contents (VTOC). All records in the VTOC have a 44-byte key and a 96-byte data entry. Each VTOC record becomes a DSCB of varying type and describes the attributes and extents of a data set.

The first record in the Volume Table of Contents is the VTOC-DSCB, which describes the extents of the VTOC itself. The VTOC-DSCB is format 4 DSCB. The second DSCB in the VTOC is always a direct access device space management (DADSM) DSCB which uses a format 5 DSCB for SAM volumes. The remaining DSCBs in the VTOC describe the extents and attributes of datasets residing on the volume.

A format 1 DSCB defines SAM datasets. If additional space is required to describe the SAM dataset, the format 1 DSCB is chained to one or more format 3 DSCBs to provide additional extents. For VAM, no VTOC exists. DSCBs are located via the catalog or PAT page (see CHAPAT). The format E DSCB describes the VAM datasets. If additional space is needed, these are chained to format F DSCBs.

Each DSCB occupies 140 bytes (44 byte key plus a 96 byte data entry) in virtual storage, aligned on word boundaries.

CHADSC Storage map

DEC	HEX																																																																																													
0	0	<div style="border: 1px solid black; padding: 5px;"> <div style="text-align: center; margin-bottom: 10px;">DSCNME</div> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"></td> <td style="width: 30%;"></td> <td style="width: 15%; text-align: center;">DSCFID</td> <td style="width: 35%; text-align: center;">DSCVSR</td> </tr> <tr> <td style="text-align: center;">40</td> <td style="text-align: center;">28</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">48</td> <td style="text-align: center;">30</td> <td style="text-align: center;">DSCVSR (CONT)</td> <td style="text-align: center;">DSCVSR</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">DSCVSR</td> <td style="text-align: center;">DSCCRD</td> </tr> <tr> <td style="text-align: center;">56</td> <td style="text-align: center;">38</td> <td style="text-align: center;">DSCEXP</td> <td style="text-align: center;">DSCNEX</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">DSCFL1</td> <td style="text-align: center;">DSCSP1</td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">DSCSCD</td> </tr> <tr> <td style="text-align: center;">72</td> <td style="text-align: center;">48</td> <td colspan="2" style="text-align: center;">DSCRSV</td> </tr> <tr> <td style="text-align: center;">80</td> <td style="text-align: center;">50</td> <td style="text-align: center;">DSCRSV (CONT)</td> <td style="text-align: center;">DSCFTY</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">DSCRFM</td> <td style="text-align: center;">DSCOPT</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">DSCBKS</td> <td></td> </tr> <tr> <td style="text-align: center;">88</td> <td style="text-align: center;">58</td> <td style="text-align: center;">DSCCLRC</td> <td style="text-align: center;">DSCCLN</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">DSCRKP</td> <td style="text-align: center;">DSCDSI</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">DSCSAL</td> <td></td> </tr> <tr> <td style="text-align: center;">96</td> <td style="text-align: center;">60</td> <td style="text-align: center;">DSCSAL (CONT)</td> <td style="text-align: center;">DSCCLRD</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">DSCSP2</td> </tr> <tr> <td style="text-align: center;">104</td> <td style="text-align: center;">68</td> <td style="text-align: center;">DSCSP2</td> <td style="text-align: center;">DSCEXT</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">DSCMVL</td> <td style="text-align: center;">DSCCLCH</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">DSCVCH</td> <td></td> </tr> <tr> <td style="text-align: center;">112</td> <td style="text-align: center;">70</td> <td style="text-align: center;">DSCVCH (CONT)</td> <td style="text-align: center;">DSCX2</td> </tr> <tr> <td style="text-align: center;">120</td> <td style="text-align: center;">78</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">128</td> <td style="text-align: center;">80</td> <td style="text-align: center;">DSCX3</td> <td style="text-align: center;">DSCCHN</td> </tr> <tr> <td style="text-align: center;">136</td> <td style="text-align: center;">88</td> <td style="text-align: center;">DSCCHN (CONT)</td> <td></td> </tr> </table> </div>			DSCFID	DSCVSR	40	28			48	30	DSCVSR (CONT)	DSCVSR			DSCVSR	DSCCRD	56	38	DSCEXP	DSCNEX			DSCFL1	DSCSP1			DSCSCD		72	48	DSCRSV		80	50	DSCRSV (CONT)	DSCFTY			DSCRFM	DSCOPT			DSCBKS		88	58	DSCCLRC	DSCCLN			DSCRKP	DSCDSI			DSCSAL		96	60	DSCSAL (CONT)	DSCCLRD				DSCSP2	104	68	DSCSP2	DSCEXT			DSCMVL	DSCCLCH			DSCVCH		112	70	DSCVCH (CONT)	DSCX2	120	78			128	80	DSCX3	DSCCHN	136	88	DSCCHN (CONT)	
			DSCFID	DSCVSR																																																																																										
40	28																																																																																													
48	30		DSCVSR (CONT)	DSCVSR																																																																																										
			DSCVSR	DSCCRD																																																																																										
56	38		DSCEXP	DSCNEX																																																																																										
			DSCFL1	DSCSP1																																																																																										
			DSCSCD																																																																																											
72	48		DSCRSV																																																																																											
80	50		DSCRSV (CONT)	DSCFTY																																																																																										
			DSCRFM	DSCOPT																																																																																										
			DSCBKS																																																																																											
88	58		DSCCLRC	DSCCLN																																																																																										
		DSCRKP	DSCDSI																																																																																											
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96	60	DSCSAL (CONT)	DSCCLRD																																																																																											
			DSCSP2																																																																																											
104	68	DSCSP2	DSCEXT																																																																																											
		DSCMVL	DSCCLCH																																																																																											
		DSCVCH																																																																																												
112	70	DSCVCH (CONT)	DSCX2																																																																																											
120	78																																																																																													
128	80	DSCX3	DSCCHN																																																																																											
136	88	DSCCHN (CONT)																																																																																												

Fields in CHADSC -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD		
0000	0000	DSCY3	(EQU)	0060	003C	DSCFL1	0084	0054	DSCXTR	
0000	0000	DSCNME		0061	003D	DSCSP1	0084	0054	DSCXBL	
0000	0000	DSCSTA	(EQU)	0062	003E	DSCSCD	0084	0054	DSCXTO	
0004	0004	DSCX4	(EQU)	0075	004B	DSCRSV	0084	0054	DSCXFL	
0044	002C	DSCID3	(EQU)	0082	0052	DSCXAB	(EQU)	0084	0054	DSCRFM
0044	002C	DSCFID		0082	0052	DSCXIS	(EQU)	0085	0055	DSCXVC
0045	002D	DSCX9	(EQU)	0082	0052	DSCXOU	(EQU)	0085	0055	DSCOPT
0045	002D	DSCVSR		0082	0052	DSCXPO	(EQU)	0086	0056	DSCBKS
0051	0033	DSCVSR		0082	0052	DSCXDO	(EQU)	0088	0058	DSCCLRC
0053	0035	DSCCRD		0082	0052	DSCXSO	(EQU)	0090	005A	DSCCLN
0056	0038	DSCEXP		0082	0052	DSCFTY		0091	005B	DSCRKP
0059	003B	DSCNEX		0084	0054	DSCXCC	(EQU)	0093	005D	DSCX14

(Continued on page 164)

(Continued from page 163)

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD			
0093	005D	DSCX13	(EQU)	0105	0069	DSCX33	(EQU)	0107	006B	DSCCLCH	
0093	005D	DSCX12	(EQU)	0105	0069	DSCX32	(EQU)	0111	006F	DSCVCH	
0093	005D	DSCX10	(EQU)	0105	0069	DSCX29	(EQU)	0115	0073	DSCEX2	
0093	005D	DSCDSI		0105	0069	DSCX28	(EQU)	0125	007D	DSCEX3	
0094	005E	DSCX23	(EQU)	0105	0069	DSCX27	(EQU)	0135	0087	DSCCN3	(EQU)
0094	005E	DSCX22	(EQU)	0105	0069	DSCX26	(EQU)	0135	0087	DSCCHN	(EQU)
0094	005E	DSCSAL		0105	0069	DSCX25	(EQU)	0140	008C	DSCEND	(EQU)
0098	0062	DSCLRD		0105	0069	DSCEXT					
0103	0067	DSCSP2		0106	006A	DSCMVL					

Alphabetical list of fields in CHADSC

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DSCBKS	0086	0056	DSCMVL	0106	006A	DSCXOU	0082	0052 (EQU)
DSCCHN	0135	0087	DSCNEX	0059	003B	DSCXPO	0082	0052 (EQU)
DSCCN3	0135	0087 (EQU)	DSCNME	0000	0000	DSCXSO	0082	0052 (EQU)
DSCCRD	0053	0035	DSCOPT	0085	0055	DSCXTO	0084	0054 (EQU)
DSCDSI	0093	005D	DSCRFM	0084	0054	DSCXTR	0084	0054 (EQU)
DSCEND	0140	008C (EQU)	DSCRKP	0091	005B	DSCXVC	0085	0055 (EQU)
DSCEXP	0056	0038	DSCRSV	0075	004B	DSCX10	0093	005D (EQU)
DSCEXT	0105	0069	DSCSAL	0094	005E	DSCX12	0093	005D (EQU)
DSCEX2	0115	0073	DSCSCD	0062	003E	DSCX13	0093	005D (EQU)
DSCEX3	0125	007D	DSCSP1	0061	003D	DSCX14	0093	005D (EQU)
DSCEX4	0004	0004 (EQU)	DSCSP2	0103	0067	DSCX22	0094	005E (EQU)
DSCEX9	0045	002D (EQU)	DSCSTA	0000	0000 (EQU)	DSCX23	0094	005E (EQU)
DSCFID	0044	002C	DSCVCH	0111	006F	DSCX25	0105	0069 (EQU)
DSCFL1	0060	003C	DSCVSQ	0051	0033	DSCX26	0105	0069 (EQU)
DSCFTY	0082	0052	DSCVSR	0045	002D	DSCX27	0105	0069 (EQU)
DSCID3	0044	002C (EQU)	DSCXAB	0082	0052 (EQU)	DSCX28	0105	0069 (EQU)
DCKLN	0090	005A	DSCXBL	0084	0054 (EQU)	DSCX29	0105	0069 (EQU)
DSCKY3	0000	0000 (EQU)	DSCXCC	0084	0054 (EQU)	DSCX32	0105	0069 (EQU)
DSCLCH	0107	006B	DSCXDO	0082	0052 (EQU)	DSCX33	0105	0069 (EQU)
DSCLRC	0088	0058	DSCXFL	0084	0054 (EQU)			
DSCLRD	0098	0062	DSCXIS	0082	0052 (EQU)			

Assembler listing of CHADSC

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	2C 00000	CHADSC		DSECT	
		* DSECT FOR FORMATS 1 AND 3 DSCBS FOR SAM DATA			
		* SETS.			
	2C 00000	DSCSTA	EQU	*	START OF DSCB
2C 00000		DSCNME	DS	CL44	DSNAME
2C 0002C		DSCFID	DS	X	FORMAT ID
2C 0002D		DSCVSR	DS	XL6	VOL SERIAL
2C 00033		DSCVSQ	DS	XL2	VOL SEQUENCE
2C 00035		DSCCRD	DS	XL3	CREATION DATE
2C 00038		DSCEXP	DS	XL3	EXPIRATION DATE
2C 0003B		DSCNEX	DS	X	NUMBER OF EXTENTS ON VOL
2C 0003C		DSCFL1	DS	X	BYTES IN DIR BLK
2C 0003D		DSCSP1	DS	X	SPARE
2C 0003E		DSCSCD	DS	XL13	SYSTEMS CODE
2C 0004B		DSCRSV	DS	CL7	RESERVED
2C 00052		DSCFTY	DS	XL2	FILE TYPE
	2C 00052	DSCXSO	EQU	DSCFTY	SEQUENTIAL ORGANIZATION
	2C 00052	DSCXDO	EQU	DSCFTY	DIRECT
	2C 00052	DSCXPO	EQU	DSCFTY	PARTITIONED
	2C 00052	DSCXOU	EQU	DSCFTY	UNDEFINED
	2C 00052	DSCXIS	EQU	DSCFTY	INDEXED SEQUENTIAL
	2C 00052	DSCXAB	EQU	DSCFTY	ABSOLUTE LOCATION MUST NOT CHANGE
		*			
		*			MASKS TO TEST FILE TYPE.
	00000040	DSCM15	EQU	X'40'	SEQUENTIAL ORGANIZATION
	00000020	DSCM16	EQU	X'20'	DIRECT ORGANIZATION
	00000002	DSCM17	EQU	X'02'	PARTITIONED ORGANIZATION
	00000000	DSCM18	EQU	X'00'	ORGANIZATION UNDEFINED.
	00000080	DSCM30	EQU	X'80'	INDEXED SEQUENTIAL ORGANIZATION
		*			

(Listing of CHADSC continued on page 165)

## (Listing of CHADSC continued from page 164)

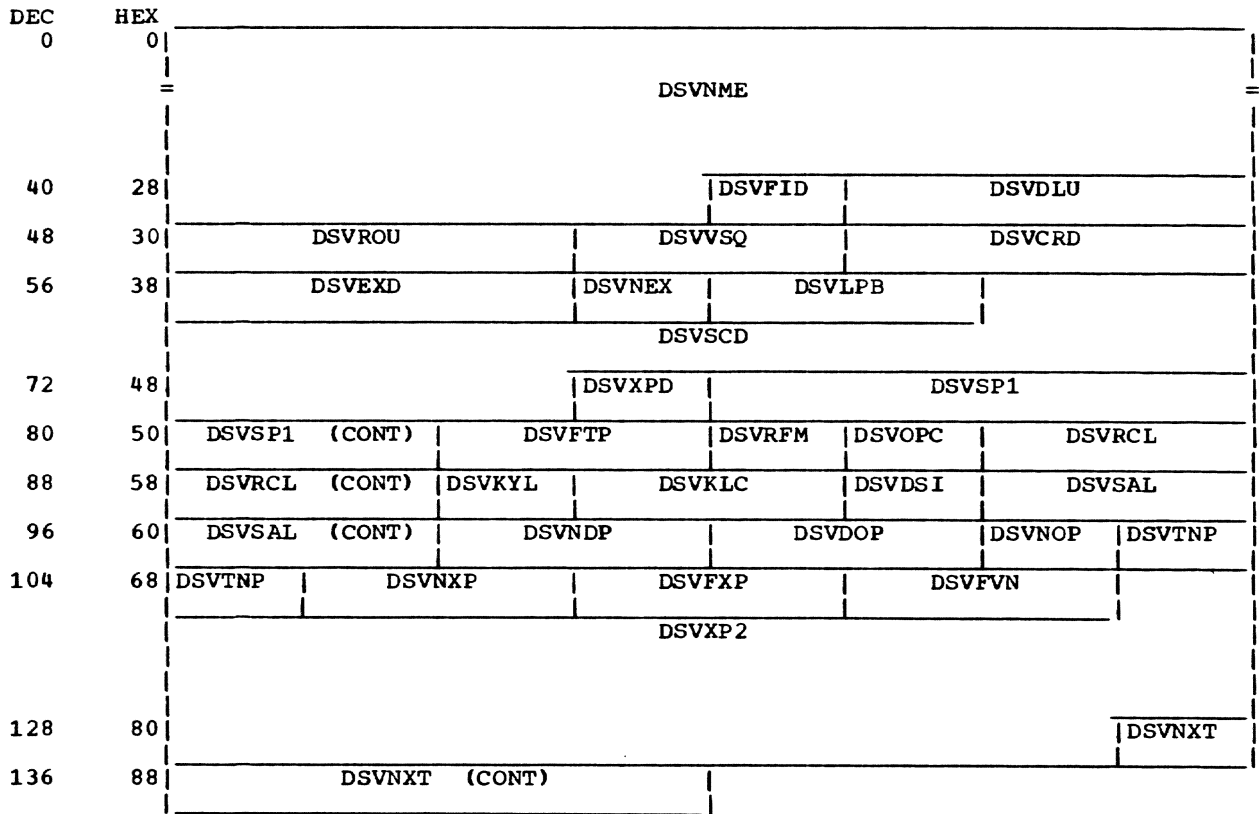
LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000001	DSCM31	EQU	X'01'	ABSOLUTE LOCATION MUST NOT CHANGE
2C 00054		*			RECFM
	2C 00054	DSCRFM	DS	X	FIXED, VARIABLE OR UNDEFINED LENGTH FORMAT
		DSCXFL	EQU	DSCRFM	TRACK OVERFLOW BIT
		*			BLOCKED RECORD BIT
	2C 00054	DSCXTO	EQU	DSCRFM	TRUNCATED RECORD BIT
	2C 00054	DSCXBL	EQU	DSCRFM	ASA OR MACHINE CODE CONTROL CHARACTER
	2C 00054	DSCXTR	EQU	DSCRFM	MASKS TO TEST RECORD FORMAT.
	2C 00054	DSCXCC	EQU	DSCRFM	FIXED LENGTH RECORD
		*			VARIABLE LENGTH RECORD
		*			UNDEFINED RECORD FORMAT
	00000080	DSCM01	EQU	X'80'	TRACK OVERFLOW FEATURE MUST BE USED
	00000040	DSCM02	EQU	X'40'	BLOCKED
	000000C0	DSCM03	EQU	X'C0'	TRUNCATED RECORDS IN FILE
	00000020	DSCM04	EQU	X'20'	CONTROL CHARACTER ASA CODE
		*			CONTROL CHARACTER MACHINE CODE
		*			OPTCD
	00000010	DSCM05	EQU	X'10'	DATA SET CREATED USING VALIDITY CHECK
	00000008	DSCM06	EQU	X'08'	MASKS TO TEST OPTION CODES.
	00000004	DSCM07	EQU	X'04'	DATA SET CREATED USING WRT VLDTY CHK
	00000002	DSCM08	EQU	X'02'	
2C 00055		*			
		DSCOPT	DS	X	
	2C 00055	DSCXVC	EQU	DSCOPT	
		*			
		*			
	00000080	DSCM19	EQU	X'80'	
		*			
2C 00056		DSCBKS	DS	XL2	BLKSIZE
2C 00058		DSCCLRC	DS	XL2	LREC
2C 0005A		DSCCLN	DS	X	KEYLEN
2C 0005B		DSCRKP	DS	XL2	KEY LOCATION --RKP
2C 0005D		DSCDSI	DS	X	DS INDICATORS
	2C 0005D	DSCX10	EQU	DSCDSI	LAST VOLUME CONTAINING DATA SET
		*			
	2C 0005D	DSCX12	EQU	DSCDSI	BLOCK LENGTH MULTIPLE OF 8 BYTES
		*			
	2C 0005D	DSCX13	EQU	DSCDSI	DATA SET SECURITY PROTECTED
	2C 0005D	DSCX14	EQU	DSCDSI	INTEGRITY BIT
		* MASKS TO TEST DATA SET			INDICATORS.
	00000080	DSCM10	EQU	X'80'	LAST VOLUME CONTAINING DATA SET.
		*			
	00000020	DSCM12	EQU	X'20'	BLOCK LENGTH MULTIPLE OF 8 BYTES
		*			
	00000010	DSCM13	EQU	X'10'	DATA SET SECURITY PROTECTED
	00000008	DSCM14	EQU	X'08'	INTEGRITY BIT
2C 0005E		DSCSAL	DS	XL4	SECONDARY ALLOCATION
	2C 0005E	DSCX22	EQU	DSCSAL	RECORDS TRACKS OR CYLINDERS
	2C 0005E	DSCX23	EQU	DSCSAL	ORIGINAL REQUEST WAS FOR INDEXED SEQUENTL
		*			
		* SECONDARY SPACE ALLOCATION TYPE.			
	000000C0	DSCM22	EQU	X'C0'	SET, CYLINDERS. UNSET, NO 2NDRY ALLOCTN
		*			
	00000080	DSCM34	EQU	X'80'	TRACKS
	00000040	DSCM35	EQU	X'40'	RECORDS
	00000020	DSCM23	EQU	X'20'	INDEXED SEQUENTIAL
	00000001	DSCM36	EQU	X'01'	ORIG REQUEST WAS A RECORD REQUEST TO BE ROUNDED UP
		*			
	00000002	DSCM37	EQU	X'02'	ORIG REQUEST WAS FOR THE 5 OR LESS SPECIFIED EXTS
		*			
	00000004	DSCM38	EQU	X'04'	ORIGINAL REQUEST WAS FOR MAX CONTIGUOUS QUANTITY
		*			
	00000008	DSCM39	EQU	X'08'	ORIGINAL REQUEST WAS FOR A CONTIGUOUS EXTENT
		*			
2C 00062		DSCCLRD	DS	XL5	TTRLL OF LAST RECORD
2C 00067		DSCSP2	DS	XL2	SPARE
2C 00069		DSCEXT	DS	X	EXTENT TYPE
	2C 00069	DSCX25	EQU	DSCEXT	EXTENT FIELDS UNUSED
	2C 00069	DSCX26	EQU	DSCEXT	PRIME OR CONSECUTIVE AREA

(Listing of CHADSC continued on page 166)

(Listing of CHADSC continued from page 165)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
2C 00069	DSCX27	DSCX27	EQU	DSCEXT	OVERFLOW AREA FOR INDEXED SEQUENTIAL
	*	*			INDEX AREA FOR INDEXED SEQUENTIAL
2C 00069	DSCX28	DSCX28	EQU	DSCEXT	1 TRACK RESERVED FOR USER LABELS
	*	*			EXTENT IS SHARING CYLINDERS
2C 00069	DSCX29	DSCX29	EQU	DSCEXT	EXTENT OCCUPIES INTEGER NUMBER OF CYLNDRS
	*	*			EXTENT TYPE INDICATOR
2C 00069	DSCX32	DSCX32	EQU	DSCEXT	EXTENT FIELDS UNUSED
2C 00069	DSCX33	DSCX33	EQU	DSCEXT	PRIME OR CONSECUTIVE AREA OVERFLOW AREA FOR INDEXED SEQUENTIAL
	*	*			1 TRACK RESERVED FOR USERS LABELS
00000000	DSCM25	DSCM25	EQU	X'00'	SHARED CYLINDERS
00000001	DSCM26	DSCM26	EQU	X'01'	EXTENT IS SHARING CYLINDERS
00000002	DSCM27	DSCM27	EQU	X'02'	EXTENT OCCUPIES INTEGER NUMBER OF CYLNDRS
	*	*			EXTENT SEQUENCE ALWAYS 0 IN FORMAT 1 DSCB
00000040	DSCM28	DSCM28	EQU	X'40'	LOWER CCHH
	*	*			UPPER CCHH
00000080	DSCM29	DSCM29	EQU	X'80'	FIRST ADDITIONAL EXTENT
00000080	DSCM32	DSCM32	EQU	X'80'	SECOND ADDITIONAL EXTENT
00000081	DSCM33	DSCM33	EQU	X'81'	CCHHR CHAIN TO FORMAT 3
	*	*			END OF DSCB
2C 0006A	DSCMVL	DSCMVL	DS	X	DSCEND-DSCSTA SIZE OF DSCB
	*	*			DSCX2-DSCEXT SIZE OF EXTENT ENTRY
2C 0006B	DSCVCH	DSCVCH	DS	XL4	FORMAT 3 DSCB.CONTINUATION DSCB FOR SAM DATA SETS.
2C 0006F	DSCVCH	DSCVCH	DS	XL4	KEY IDENTIFICATION-1 WORD
2C 00073	DSCVCH	DSCVCH	DS	XL4	ADDR OF FIRST 4 EXTS OF FM3 DSCB
2C 0007D	DSCVCH	DSCVCH	DS	XL10	FORMAT ID,X'F3'
2C 00087	DSCVCH	DSCVCH	DS	XL5	ADDR OF NEXT 9 EXTS OF FM3 DSCB
	*	*			NEXT DSCB
2C 0008C	DSCEND	DSCEND	EQU	*	
0000008C	DSCSIZ	DSCSIZ	EQU	DSCEND-DSCSTA	SIZE OF DSCB
0000000A	DSCSZ	DSCSZ	EQU	DSCX2-DSCEXT	SIZE OF EXTENT ENTRY
	*	*			FORMAT 3 DSCB.CONTINUATION DSCB FOR SAM DATA SETS.
2C 00000	DSCY3	DSCY3	EQU	DSCNME	KEY IDENTIFICATION-1 WORD
2C 00004	DSCY4	DSCY4	EQU	DSCNME+4	ADDR OF FIRST 4 EXTS OF FM3 DSCB
	*	*			FORMAT ID,X'F3'
2C 0002C	DSCID3	DSCID3	EQU	DSCFID	ADDR OF NEXT 9 EXTS OF FM3 DSCB
2C 0002D	DSCY9	DSCY9	EQU	DSCFID+1	ADDR OF NEXT 9 EXTS OF FM3 DSCB
	*	*			NEXT DSCB
2C 00087	DSCCN3	DSCCN3	EQU	DSCCHN	NEXT DSCB

CHADSV Storage map



Fields in CHADSV -- by displacement

DEC	HEX	FIELD	(EQU)	DEC	HEX	FIELD	(EQU)	DEC	HEX	FIELD	(EQU)
0000	0000	DSV7KY	(EQU)	0082	0052	DSVX04	(EQU)	0093	005D	DSVX19	(EQU)
0000	0000	DSVNME		0082	0052	DSVX03	(EQU)	0093	005D	DSVX17	(EQU)
0000	0000	DSVSTA	(EQU)	0082	0052	DSVX02	(EQU)	0093	005D	DSVDSI	
0002	0002	DSV7X1	(EQU)	0082	0052	DSVX01	(EQU)	0094	005E	DSVX24	(EQU)
0044	002C	DSV7ID	(EQU)	0082	0052	DSVFTP		0094	005E	DSVSAL	
0044	002C	DSVFID		0084	0054	DSVX12	(EQU)	0098	0062	DSVNDP	
0045	002D	DSV7X2	(EQU)	0084	0054	DSVX11	(EQU)	0100	0064	DSVDOP	
0045	002D	DSVDLU		0084	0054	DSVX10	(EQU)	0102	0066	DSVNOP	
0048	0030	DSVROU		0084	0054	DSVX09	(EQU)	0103	0067	DSVTNP	
0051	0033	DSVVSQ		0084	0054	DSVX06	(EQU)	0105	0069	DSVX25	(EQU)
0053	0035	DSVCRD		0084	0054	DSVRFM		0105	0069	DSVNXP	
0056	0038	DSVEXD		0085	0055	DSVX14	(EQU)	0107	006B	DSVFXP	
0059	003B	DSVNEX		0085	0055	DSVOPC		0109	006D	DSVFVN	
0060	003C	DSVLPB		0086	0056	DSVRCL		0111	006F	DSVXP2	
0062	003E	DSVSCD		0090	005A	DSVKYL		0135	0087	DSV7NX	(EQU)
0075	004B	DSVXPD		0091	005B	DSVKLC		0135	0087	DSVNXT	
0076	004C	DSVSP1		0093	005D	DSVX21	(EQU)	0140	008C	DSVEND	(EQU)
0082	0052	DSVX07	(EQU)	0093	005D	DSVX20	(EQU)				

Alphabetical list of fields in CHADSV

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DSVCRD	0053	0035	DSVFXP	0107	006B	DSVNXT	0135	0087
DSVDLU	0045	002D	DSVKLC	0091	005B	DSVOPC	0085	0055
DSVDOP	0100	0064	DSVKYL	0090	005A	DSVRCL	0086	0056
DSVDSI	0093	005D	DSVLPB	0060	003C	DSVRFM	0084	0054
DSVEND	0140	008C (EQU)	DSVNDP	0098	0062	DSVROU	0048	0030
DSVEXD	0056	0038	DSVNEX	0059	003B	DSVSAL	0094	005E
DSVFID	0044	002C	DSVNME	0000	0000	DSVSCD	0062	003E
DSVFTP	0082	0052	DSVNOP	0102	0066	DSVSP1	0076	004C
DSVFVN	0109	006D	DSVNXP	0105	0069	DSVSTA	0000	0000 (EQU)

(Continued on page 168)

(Continued from page 167)

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DSVTNP	0103	0067	DSVX07	0082	0052 (EQU)	DSVX21	0093	005D (EQU)
DSVVSQ	0051	0033	DSVX09	0084	0054 (EQU)	DSVX24	0094	005E (EQU)
DSVXPD	0075	004B	DSVX10	0084	0054 (EQU)	DSVX25	0105	0069 (EQU)
DSVXP2	0111	006F	DSVX11	0084	0054 (EQU)	DSV7ID	0044	002C (EQU)
DSVX01	0082	0052 (EQU)	DSVX12	0084	0054 (EQU)	DSV7KY	0000	0000 (EQU)
DSVX02	0082	0052 (EQU)	DSVX14	0085	0055 (EQU)	DSV7NX	0135	0087 (EQU)
DSVX03	0082	0052 (EQU)	DSVX17	0093	005D (EQU)	DSV7X1	0002	0002 (EQU)
DSVX04	0082	0052 (EQU)	DSVX19	0093	005D (EQU)	DSV7X2	0045	002D (EQU)
DSVX06	0084	0054 (EQU)	DSVX20	0093	005D (EQU)			

Assembler listing of CHADSV

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	2F 00000	CHADSV		DSECT	
		*		DSECT FOR FORMATS A AND B ,VAM,DSCBS.	
		*			FORMAT A DSCB.
	2F 00000	DSVSTA	EQU	*	
2F 00000		DSVNME	DS	CL44	DS NAME
2F 0002C		DSVFID	DS	X	FORMAT IDENTIFIER
2F 0002D		DSVDLU	DS	XL3	DATE LAST USED
2F 00030		DSVROU	DS	XL3	RATE OF USE
2F 00033		DSVVSQ	DS	XL2	VOLUME SEQUENCE NUMBER
2F 00035		DSVCRD	DS	XL3	CREATION DATE
2F 00038		DSVEXD	DS	XL3	EXPIRATION DATE
2F 0003B		DSVNEX	DS	X	NUMBER OF EXTENTS
2F 0003C		DSVLPB	DS	XL2	NUMBER OF BYTES USED IN
		*			LAST PAGE
2F 0003E		DSVSCD	DS	XL13	SYSTEM CODE
2F 0004B		DSVXPD	DS	X	PAD FOR INDEX SEQUENTIAL DS
2F 0004C		DSVSP1	DS	XL6	SPARE
2F 00052		DSVFTP	DS	XL2	FILE TYPE
	2F 00052	DSVX01	EQU	DSVFTP	VAM SEQUENTIAL ORGANIZATION
	2F 00052	DSVX02	EQU	DSVFTP	VAM INDEX SEQUENTIAL
	2F 00052	DSVX03	EQU	DSVFTP	VAM PARTITIONED INDEX
		*			SEQUENTIAL
	2F 00052	DSVX04	EQU	DSVFTP	VAM PARTITIONED SEQUENTIAL
	2F 00052	DSVX07	EQU	DSVFTP	VAM PARTITIONED
		*			FILE TYPE
	00000072	DSVM01	EQU	X'72'	SEQUENTIAL ORGANIZATION
	00000071	DSVM02	EQU	X'71'	INDEX SEQUENTIAL
	00000073	DSVM03	EQU	X'73'	PARTITIONED INDEX
		*			SEQUENTIAL
	00000074	DSVM04	EQU	X'74'	PARTITIONED SEQUENTIAL
	00000075	DSVM24	EQU	X'75'	PARTITIONED
2F 00054		DSVRFM	DS	X	RECORD FORMAT
	2F 00054	DSVX06	EQU	DSVRFM	FIXED,VARIABLE OR UNDEFINED
		*			LENGTH
	2F 00054	DSVX09	EQU	DSVRFM	TRACK OVERFLOW FEATURE
		*			REQUIRED
	2F 00054	DSVX10	EQU	DSVRFM	BLOCKED
	2F 00054	DSVX11	EQU	DSVRFM	TRUNCATED RECORDS
	2F 00054	DSVX12	EQU	DSVRFM	ASA OR MACHINE CODE CONTROL
		*			CHARACTE.
	00000080	DSVM06	EQU	X'80'	FIXED LENGTH RECORD
	00000040	DSVM07	EQU	X'40'	VARIABLE LENGTH RECORD
	000000C0	DSVM08	EQU	X'C0'	UNDEFINED RECORD LENGTH
	00000020	DSVM09	EQU	X'20'	TRACK OVERFLOW FEATURE MUST
		*			BE USED
	00000010	DSVM10	EQU	X'10'	BLOCKED
	00000008	DSVM11	EQU	X'08'	TRUNCATED RECORDS IN FILE
	00000004	DSVM12	EQU	X'04'	CONTROL CHARACTER ASA CODE
	00000002	DSVM13	EQU	X'02'	CONTROL CHARACTER MACHINE
		*			CODE
2F 00055		DSVOPC	DS	X	OPTION CODES
	2F 00055	DSVX14	EQU	DSVOPC	DATA SET CREATED USING WRT
		*			VLDTY CHK
		*			OPTION CODES.
	00000080	DSVM14	EQU	X'80'	DATA SET CREATED WITH WRT

(Listing of CHADSV continued on page 169)

(Listing of CHADSV continued from page 168)

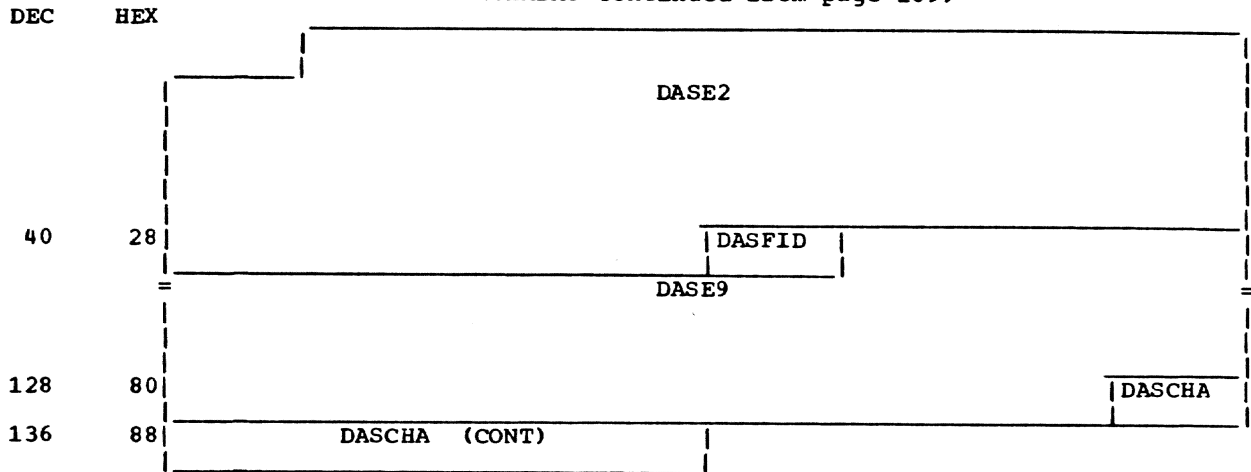
<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			VLDTY CHK
2F 00056		DSVRCL	DS	XL4	RECORD LENGTH
2F 0005A		DSVKYL	DS	X	KEY LENGTH
2F 0005B		DSVKLC	DS	XL2	KEY LOCATION
2F 0005D		DSVDSI	DS	X	DATA SET INDICATORS
	2F 0005D	DSVX17	EQU	DSVDSI	LAST VOLUME CONTAINING DATA SET
		*			
	2F 0005D	DSVX19	EQU	DSVDSI	BLOCK LENGTH MULTIPLE OF 8 BYTES
		*			
	2F 0005D	DSVX20	EQU	DSVDSI	DATA SET SECURITY PROTECTED
	2F 0005D	DSVX21	EQU	DSVDSI	INTEGRITY BIT
		*			DATA SET INDICATORS.
	00000080	DSVM17	EQU	X'80'	LAST VOLUME CONTAINING DATA SET
		*			
	00000020	DSVM19	EQU	X'20'	BLOCK LENGTH MULTIPLE OF 8 BYTES
		*			
	00000010	DSVM20	EQU	X'10'	DATA SET SECURITY PROTECTED
	00000008	DSVM21	EQU	X'08'	INTEGRITY BIT
2F 0005E		DSVSAL	DS	XL4	SECONDARY ALLOCATION
	2F 0005E	DSVX24	EQU	DSVSAL	SECONDARY ALLOCATION FLAG
	00000040	DSVM26	EQU	X'40'	1-SEC ALLOCATION IN PAGES
		*			0-NO SEC ALLOCATION
2F 00062		DSVNDP	DS	XL2	NUMBER OF DATA PAGES
2F 00064		DSVDOP	DS	XL2	NUMBER OF DIRECTORY PAGES
2F 00066		DSVNOP	DS	X	NUMBER OF OVERFLOW PAGES
2F 00067		DSVTNP	DS	XL2	TOTAL NUMBER OF PAGES
		*			ASSIGNED
		*			EXTENTS FIELD.
2F 00069		DSVNXF	DS	XL2	EXTENT FLAG AND NUMBER
		*			XTRNL PAGES
	2F 00069	DSVX25	EQU	DSVNXF	FIRST 2 BITS ARE FLAGS
	000000C0	DSVM22	EQU	X'C0'	AFTER TM CC8 MEANS PAGES
		*			ASSIGNED AND IN USE
	00000040	DSVM23	EQU	X'40'	PAGES AVAILABLE FOR USE
2F 0006B		DSVFXP	DS	XL2	FIRST EXTERNAL PAGE NUMBER
2F 0006D		DSVFN	DS	XL2	FIRST VIRTUAL PAGE NUMBER
2F 0006F		DSVXP2	DS	XL24	4 MORE EXTENTS
2F 00087		DSVNXT	DS	XL5	CONTINUATION DSCB CCHHR
	2F 0008C	DSVEND	EQU	*	END OF DSCB
	0000008C	DSVSI2	EQU	DSVEND-DSVNME	SIZE OF DSCB
	00000006	DSVXSZ	EQU	DSVXP2-DSVNXF	SIZE OF EXTENT FIELD
		*			FORMAT B DSCB.CONTINUATION DSCB FOR VAM DATA
		*			SET.
	2F 00000	DSV7KY	EQU	DSVNME	FORMAT 7 KEY FIELD
	2F 00002	DSV7X1	EQU	DSVNME+2	ADDRESS OF FIRST 7 EXTENTS
	2F 0002C	DSV7ID	EQU	DSVFID	FORMAT ID,X'FB'
	2F 0002D	DSV7X2	EQU	DSVDLU	ADDRESS OF NEXT 15 EXTENTS
	2F 00087	DSV7NX	EQU	DSVNXT	NEXT DSCB

CHADAS Storage map

DEC	HEX	
0	0	DASKEY   DASE11   DASE12
8	8	DASE13

(CHADAS continued on page 170)

(CHADAS continued from page 169)



Fields in CHADAS -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	DASKEY	0006	0006	DASE12	0044	002C	DASFID
0004	0004	DASE11	0008	0008	DASE13	0045	002D	DASE9
0004	0004	DASE1	0009	0009	DASE2	0135	0087	DASCHA

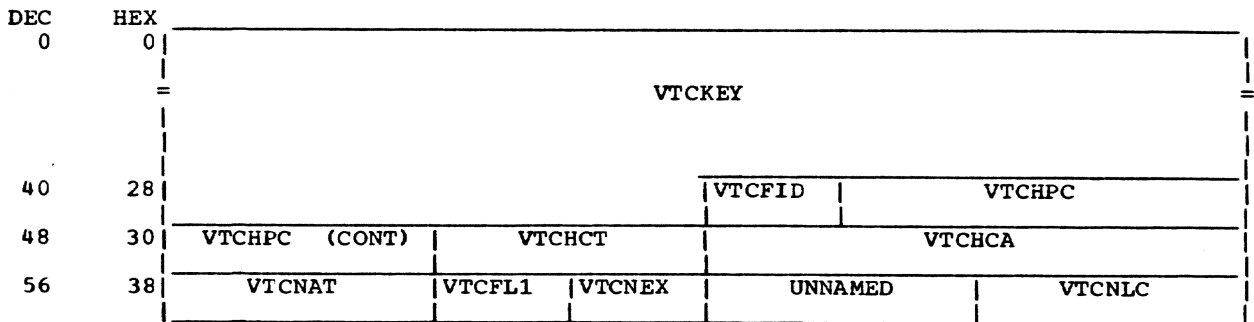
Alphabetical list of fields in CHADAS

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DASCHA	0135	0087	DASE12	0006	0006	DASE9	0045	002D
DASE1	0004	0004	DASE13	0008	0008	DASFID	0044	002C
DASE11	0004	0004	DASE2	0009	0009	DASKEY	0000	0000

Assembler listing of CHADAS

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	22 00000	CHADAS	DSECT		SAM DADSM DSCB - FORMAT 5
22 00000			DS	0F	
22 00000		DASKEY	DS	XL4	KEY X'05050505'
22 00004		DASE1	DS	0XL5	1ST EXTENT
22 00004		DASE11	DS	XL2	RELATIVE TRACK ADDRESS - 2
		*			BYTES
22 00006		DASE12	DS	XL2	NUMBER OF FULL CYLINDERS -
		*			2 BYTES
22 00008		DASE13	DS	XL1	NUMBER OF TRACKS IN
		*			ADDITION TO CYLS - 1 BYTE
22 00009		DASE2	DS	7XL5	2ND-8TH EXTENTS
22 0002C		DASFID	DS	XL1	FORMAT IDENTIFIER - X'F5'
22 0002D		DASE9	DS	18XL5	9TH-26TH EXTENTS
22 00087		DASCHA	DS	XL5	POINTER TO NEXT FORMAT 5
		*			DSCB - CCHHR

CHAVTC Storage map



(CHAVTC continued on page 171)



(CHAVTC continued from page 170)

DEC	HEX							
64	40	VTCLCS	VTCTRL		VTCOHI	VTCOHL	VTCOHK	VTCDFL
72	48	VTCTOL	VTCDPT	VTCDDBT				
		UNNAMED						
88	58							VTGSC
96	60	VTGSA	VTGSB		VTCPTR			
104	68	VTCPTR	VTCEX1	VTCEX2	VTCEX3			VTCEX4
112	70	VTCEX4 (CONT)						
		UNNAMED						
136	88							

Fields in CHAVTC -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	VTCKEY	0062	003E	VTCNLC	0075	004B	VTCDBT
0000	0000	VTCSTA (EQU)	0064	0040	VTCLCS	0095	005F	VTGSC
0044	002C	VTCFID	0066	0042	VTCTRL	0096	0060	VTGSA
0045	002D	VTCHPC	0068	0044	VTCOHI	0098	0062	VTGSB
0050	0032	VTCHCT	0069	0045	VTCOHL	0100	0064	VTCPTR
0052	0034	VTCHCA	0070	0046	VTCOHK	0105	0069	VTCEX1
0056	0038	VTCNAT	0071	0047	VTX07 (EQU)	0106	006A	VTCEX2
0058	003A	VTX03 (EQU)	0071	0047	VTX06 (EQU)	0107	006B	VTCEX3
0058	003A	VTX02 (EQU)	0071	0047	VTX05 (EQU)	0111	006F	VTCEX4
0058	003A	VTX01 (EQU)	0071	0047	VTCDFL	0140	008C	VTCEND (EQU)
0058	003A	VTCFL1	0072	0048	VTCTOL			
0059	003B	VTCNEX	0074	004A	VTCDBT			

Alphabetical list of fields in CHAVTC

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
VTCDBT	0075	004B	VTGSC	0095	005F	VTCPTR	0100	0064
VTCDFL	0071	0047	VTCHCA	0052	0034	VTCSTA	0000	0000 (EQU)
VTCDPT	0074	004A	VTCHCT	0050	0032	VTCTOL	0072	0048
VTCEND	0140	008C (EQU)	VTCHPC	0045	002D	VTCTRL	0066	0042
VTCEX1	0105	0069	VTCKEY	0000	0000	VTX01	0058	003A (EQU)
VTCEX2	0106	006A	VTCLCS	0064	0040	VTX02	0058	003A (EQU)
VTCEX3	0107	006B	VTCNAT	0056	0038	VTX03	0058	003A (EQU)
VTCEX4	0111	006F	VTCNEX	0059	003B	VTX05	0071	0047 (EQU)
VTCFID	0044	002C	VTCNLC	0062	003E	VTX06	0071	0047 (EQU)
VTCFL1	0058	003A	VTCOHI	0068	0044	VTX07	0071	0047 (EQU)
VTGSA	0096	0060	VTCOHK	0070	0046			
VTGSB	0098	0062	VTCOHL	0069	0045			

Assembler listing of CHAVTC

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
B6 00000	CHAVTC	CHAVTC	DSECT		
		* DSECT FOR VTOC DSCB,FORMAT 4.			
B6 00000	VTCSTA	EQU	*		
B6 00000	VTCKEY	DS	XL44		KEY FIELD
B6 0002C	VTCFID	DS	C		FORMAT ID
B6 0002D	VTCHPC	DS	XL5		HIGHEST PRIME CCHRR
B6 00032	VTCHCT	DS	XL2		AVAILABLE DSCB RECORDS
B6 00034	VTCHCA	DS	XL4		HIGHEST CCHH OR ALTERNATE TRACKS
B6 00038	VTCNAT	DS	XL2		NUMBER OF ALTERNATE TRACKS AVAILABLE
B6 0003A	VTCFL1	DS	X		VTOC INDICATORS
B6 0003A	VTX01	EQU	VTX01		NO FORMAT 5 OR C DSCBS

(Listing of CHAVTC continued on page 172)

(Listing of CHAVTC continued from page 171)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER.</u>	<u>COMMENT</u>
B6 0003A	VTCX02	EQU	VTCFL1	FORMAT C DADSM IN USE	
B6 0003A	VTCX03	EQU	VTCFL1	SYSTEM VOLUME	
	* MASKS TO TEST VTOC INDICATORS.				
	00000080	VTCM01	EQU	X'80'	NO FORMAT 5 OR C
	00000040	VTCM02	EQU	X'40'	FORMAT C DADSM
	00000020	VTCM03	EQU	X'20'	SYSTEM VOLUME
B6 0003B	VTCNEX	DS	X	NUMBER OF EXTENTS SET TO X'01'	
	*				
B6 0003C		DS	XL2	SPARE	
B6 0003E	VTCNLC	DS	XL2	NUMBER OF LOGICAL CYLINDERS/VOLUME	
	*				
B6 00040	VTCLCS	DS	XL2	NUMBER OF TRACKS/LOGICAL CYLINDER	
	*				
B6 00042	VTCTRL	DS	XL2	NUMBER OF AVAILABLE BYTES/TRACK	
	*				
B6 00044	VTCOHI	DS	X	OVERHEAD FOR KEYED RECORD	
B6 00045	VTCOHL	DS	X	OVERHEAD FOR LAST KEYED RCD ON TRACK	
	*				
B6 00046	VTCOHK	DS	X	OVH BYTES TO BE SUBTRACTED IF NO KEY	
	*				
B6 00047	VTCDFL	DS	X	FLAG FIELD	
	B6 00047	VTCX05	EQU	VTCDFL	CCHH USED AS IN 2301
	B6 00047	VTCX06	EQU	VTCDFL	CCHH USED AS IN 2321
	B6 00047	VTCX07	EQU	VTCDFL	TOLERANCE MUST BE APPLIED MASKS FOR DEVICE CONSTANTS.
	*				
	00000004	VTCM05	EQU	X'04'	CCHH IS USED AS IN 2301
	00000002	VTCM06	EQU	X'02'	CCHH IS USED AS IN 2321
	00000001	VTCM07	EQU	X'01'	TOLERANCE FACTOR MUST BE APPLIED
	*				
B6 00048	VTCTOL	DS	XL2	TOLERANCE/512 GIVES EFF LNPTH OF RCD	
	*				
B6 0004A	VTCDPT	DS	X	DSCBS/TRACK	
B6 0004B	VTCDBT	DS	X	DIRECTORY BLOCKS/TRACK	
B6 0004C		DS	XL19	SPARE	
B6 0005F	VTCGSC	DS	X	SET TO X'FF' IF TSS VOLUME	
B6 00060	VTCGSA	DS	XL2	GROSS SPACE AVAILABLE.FIRST 2 BYTES	
	*				
B6 00062	VTCGSB	DS	XL2	GROSS SPACE AVAILABLE.SECOND 2 BYTES	
	*				
B6 00064	VTCPTR	DS	XL5	POINTER TO FORMAT 6 DSCB, IF ANY.	
	*				
B6 00069	VTCEX1	DS	X	EXTENT TYPE INDICATOR	
	* MASK FOR EXTENT TYPE INDICATOR.				
	00000001	VTCM08	EQU	X'01'	VTOC EXTENTS MUST BE TYPE 1.
	*				
B6 0006A	VTCEX2	DS	X	EXTENT SEQUENCE NUMBER	
B6 0006B	VTCEX3	DS	XL4	LOWER LIMIT CCHH	
B6 0006F	VTCEX4	DS	XL4	UPPER LIMIT CCHH	
B6 00073		DS	XL25	SPARE	
	B6 0008C	VTCEND	EQU	*	END OF DSCB
	0000008C	VTCsiz	EQU	VTCEND-VTCKEY	SIZE OF DSCB

Page Assignment Table (PAT) Oriented DSCBs (CHADSE & CHADSF)

CHADSE (format E DSCB) and CHADSF (format F DSCB) define the particular pages occupied by a VAM2 data set. Each VAM2 data set has one associated format E DSCB. A variable number of format F DSCBs are used to accept overflow from the format E DSCB. A data set's residence is defined by a chain of DSCBs for that data set. The chain consists of one format E DSCB, followed by a series of format F DSCBs, when required.

Each data set page is assigned a fullword entry in that data set's DSCB. This entry describes the physical location of the page as follows:

0	1	3 4	15 16	31
AF	unused	REL VOL NO	PAGE IN VOL	

"AF" is a one bit assignment flag where:

- 0=page is assigned and used
- 1=page is assigned and unused

CHADSE and CHADSF are each 256 bytes in length, reside in virtual storage, and are aligned on word boundaries.

CHADSE Storage map

DEC	HEX					
0	0	DSENME				
40	28	DSESCD				
56	38	DSEXPB	DSELPB	DSERFM	UNNAMED	DSEFTP
64	40	UNNAMED	DSEKLC	DSEKYL	DSEKYL	DSEKLC
72	48	DSESAI	DSEKYL	DSEKYL	DSEKYL	DSEKLC
80	50	DSESAI	DSEKYL	DSEKYL	DSEKYL	DSEKLC
88	58	DSEKYL	DSEKYL	DSEKYL	DSEKYL	DSEKLC
96	60	DSEENT				
248	F8	DSEKYL	DSEKYL	DSEKYL	DSEKYL	DSEKLC

ORG DSEENT

96	60	DSEVOL
----	----	--------

(CHADSE continued on page 174)

DEC HEX  
ORG DSEENT

96 60 |----- DSEEPE -----|

ORG DSEEPE

96 60 |----- DSERVN -----| |----- DSERP N -----|

Fields in CHADSE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	DSENME	0062	003E	DSEX01	(EQU) 0088	0058	DSEEXD
0000	0000	DSESTA	(EQU) 0062	003E	DSEFTP	0096	0060	DSERVN
0044	002C	DSESCD	0065	0041	DSERCL	0096	0060	DSEEPE
0057	0039	DSEXPB	0069	0045	DSEKYL	0096	0060	DSEVOL
0058	003A	DSELPB	0070	0046	DSEKLC	0096	0060	DSEASF (EQU)
0060	003C	DSEX08	(EQU) 0072	0048	DSESAI	0096	0060	DSEENT
0060	003C	DSEX07	(EQU) 0073	0049	DSESAI	0098	0062	DSERP N
0060	003C	DSEX06	(EQU) 0076	004C	DSENDP	0248	00F8	DSECHN
0060	003C	DSERFM	0078	004E	DSEDOP	0252	00FC	DSETYP
0062	003E	DSEX05	(EQU) 0080	0050	DSENOP	0254	00FE	DSECKS
0062	003E	DSEX04	(EQU) 0081	0051	DSENVL	0256	0100	DSEEND
0062	003E	DSEX03	(EQU) 0082	0052	DSETNP			
0062	003E	DSEX02	(EQU) 0085	0055	DSECRD			

Alphabetical list of fields in CHADSE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DSEASF	0096	0060	(EQU) DSENDP	0076	004C	DSETYP	0252	00FC
DSECHN	0248	00F8	DSENME	0000	0000	DSEVOL	0096	0060
DSECKS	0254	00FE	DSENOP	0080	0050	DSEXPB	0057	0039
DSECRD	0085	0055	DSENVL	0081	0051	DSEX01	0062	003E (EQU)
DSEDOP	0078	004E	DSERCL	0065	0041	DSEX02	0062	003E (EQU)
DSEEND	0256	0100	DSERFM	0060	003C	DSEX03	0062	003E (EQU)
DSEENT	0096	0060	DSERP N	0098	0062	DSEX04	0062	003E (EQU)
DSEEPE	0096	0060	DSERVN	0096	0060	DSEX05	0062	003E (EQU)
DSEEXD	0088	0058	DSESAI	0072	0048	DSEX06	0060	003C (EQU)
DSEFTP	0062	003E	DSESAI	0073	0049	DSEX07	0060	003C (EQU)
DSEKLC	0070	0046	DSESCD	0044	002C	DSEX08	0060	003C (EQU)
DSEKYL	0069	0045	DSESTA	0000	0000 (EQU)			
DSELPB	0058	003A	DSETNP	0082	0052			

Assembler listing of CHADSE

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	2D 00000	CHADSE	DSECT		
		*			- DSECT FOR FORMAT E DSCB -
	2D 00000	DSESTA	EQU	*	
2D 00000		DSENME	DS	CL44	DATA SET NAME.
2D 0002C		DSESCD	DS	CL13	SYSTEM CODE.
2D 00039		DSEXPB	DS	CL1	INDEX SEQUENTIAL PAD.
2D 0003A		DSELPB	DS	CL2	BYTES IN LAST DATA PAGE.
2D 0003C		DSERFM	DS	XL1	RECORD FORMAT.
	2D 0003C	DSEX06	EQU	DSERFM	FIXED LENGTH RECORD FLAG
	00000080	DSEM06	EQU	X'80'	FIXED LENGTH RECORD MASK
	2D 0003C	DSEX07	EQU	DSERFM	VARIABLE LENGTH RECORD FLAG
	00000040	DSEM07	EQU	X'40'	VARIABLE LENGTH RECORD MASK
	2D 0003C	DSEX08	EQU	DSERFM	UNDEFINED RECORD LENGTH
		*			FLAG
	000000C0	DSEM08	EQU	X'C0'	UNDEFINED RECORD LENGTH
		*			MASK
2D 0003D			DS	XL1	RESERVED
2D 0003E		DSEFTP	DS	XL2	DATA SET ORGANIZATION.
	2D 0003E	DSEX01	EQU	DSEFTP	VAM SEQUENTIAL

(Listing of CHADSE continued on page 175)

(Listing of CHADSE continued from page 174)

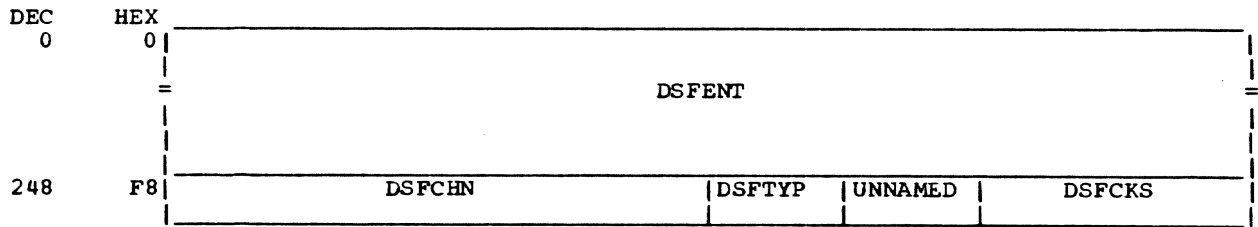
LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
		*			ORGANIZATION.
	2D 0003E	DSEX02	EQU	DSEFTP	VAM INDEX SEQUENTIAL.
	2D 0003E	DSEX03	EQU	DSEFTP	VAM PARTITIONED INDEX SEQUENTIAL.
		*			SEQUENTIAL.
	2D 0003E	DSEX04	EQU	DSEFTP	VAM PARTITIONED SEQUENTIAL.
	2D 0003E	DSEX05	EQU	DSEFTP	VAM PARTITIONED FILE TYPE
		*			SEQUENTIAL ORGANIZATION.
	00000072	DSEM01	EQU	X'72'	INDEX SEQUENTIAL.
	00000071	DSEM02	EQU	X'71'	PARTITIONED INDEX SEQ.
	00000073	DSEM03	EQU	X'73'	PARTITIONED SEQUENTIAL.
	00000074	DSEM04	EQU	X'74'	PARTITIONED
	00000075	DSEM05	EQU	X'75'	PARTITIONED
2D 00040			DS	CL1	SPARE
2D 00041		DSEKLC	DS	CL3	RECORD LENGTH.
2D 00044			DS	XL1	RESERVED
2D 00045		DSEKYL	DS	CL1	KEY LENGTH.
2D 00046		DSEKLC	DS	CL2	KEY LOCATION.
2D 00048		DSESAI	DS	XL1	SECONDARY ALLOCATION INDICATOR.
		*			SECONDARY ALLOCATION.
2D 00049		DSESAI	DS	CL3	NUMBER OF DATA PAGES.
2D 0004C		DSENDP	DS	H	NUMBER OF DIRECTORY PAGES.
2D 0004E		DSENOP	DS	H	NUMBER OF OVERFLOW PAGES.
2D 00050		DSENOP	DS	CL1	NUMBER OF PRIVATE VOLUMES.
2D 00051		DSENVL	DS	CL1	TOTAL NUMBER OF ASGD. PAGES AT CLOSE.
2D 00052			DS	H	SPARE.
2D 00054			DS	CL1	SPARE.
2D 00055		DSECRD	DS	CL3	REFERENCE DATE
2D 00058		DSEEXD	DS	CL3	CHANGE DATE
2D 0005B			DS	CL5	SPARE
2D 00060		DSEENT	DS	38F	FIELD FOR VOLUME ENTRIES AND EXTERNAL
		*			PAGE ENTRIES. FOR PRIVATE DATA SETS A LIST
		*			OF 6 BYTE VOLUME ID ENTRIES WILL PRECEDE THE LIST OF PAGE ENTRIES. THE NUMBER OF VOLUME ENTRIES IS CONTAINED IN DSENVL. THE PAGE ENTRIES WILL BEGIN ON THE NEXT FULL-WORD BOUNDARY FOLLOWING THE VOLUME ID LIST. FOR PUBLIC DATA SETS, ONLY PAGE ENTRIES OCCUPY THIS FIELD.
2D 000F8		DSECHN	DS	F	POINTER TO FORMAT F DSCB (NEXT IN CHAIN).
		*			DSCB TYPE
2D 000FC		DSETYP	DS	XL1	SPARE
2D 000FD			DS	C	SPARE
2D 000FE		DSECKS	DS	H	CHECKSUM
	0000003F	DSEWDCT	EQU	(DSETYP-CHADSE)/4	NUMBER WORDS IN CHECKSUM I6478
		*			END OF FORMAT-E DSCB I6478
2D 00100		DSEEND	DS	0X	END OF FORMAT-E DSCB I6478
		*			DSCB I6478
	00000100	DSELNTH	EQU	DSEEND-CHADSE	LENGTH OF FORMAT-E DSCB I6478
		*			DSCB I6478
2D 00060			<u>ORG</u>	DSEENT	

(Listing of CHADSE continued on page 176)

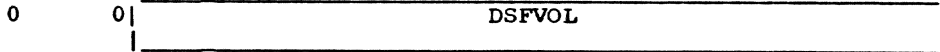
(Listing of CHADSE continued from page 175)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
2D 00060	00000019	DSEVOL DSEMXVE *	DS EQU	CL6 (DSECHN-DSEENT)/L'DSEVOL	VOLUME SERIAL NUMBER MAX VOLUME ENTRIES I6478
	2D 00060		<u>ORG</u>	DSEENT	
2D 00060		DSEEPE	DS	F	EXTERNAL PAGE ENTRIES
	2D 00060	DSEASF *	EQU	DSEEPE	EXTERNAL PAGE ASSIGNMENT FLAG
	00000080	DSEASFM	EQU	X'80'	1=EXTERNAL PAGE NOT IN USE
	00000026	DSEMXPE * *	EQU	(DSECHN-DSEENT)/L'DSEEPE	MAX PAGE ENTRIES I6478 0=EXTERNAL PAGE IN USE
	2D 00060		<u>ORG</u>	DSEEPE	
2D 00060		DSERVN *	DS	XL2	RELATIVE VOL. NO. (LOW ORDER 12 BITS)
2D 00062		DSERP *	DS	XL2	RELATIVE PAGE NUMBER

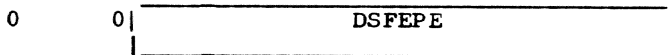
CHADSF Storage map



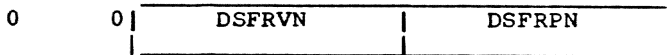
ORG DSFENT



ORG DSFENT



ORG DSFEPE



Fields in CHADSF -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	DSFRVN	0000	0000	DSFENT	0254	00FE	DSFCKS
0000	0000	DSFEPE	0002	0002	DSFRPN	0256	0100	DSFEND
0000	0000	DSFVOL	0248	00F8	DSFCHN			
0000	0000	DSFASF (EQU)	0252	00FC	DSFTYP			

Alphabetical list of fields in CHADSF

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DSFASF	0000	0000	(EQU) DSFENT	0000	0000	DSFTYP	0252	00FC
DSFCHN	0248	00F8	DSFEPE	0000	0000	DSFVOL	0000	0000
DSFCKS	0254	00FE	DSFRPN	0002	0002			
DSFEND	0256	0100	DSFRVN	0000	0000			

Assembler listing of CHADSF

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
2E 0000		CHADSF	DSECT		
		*			FORMAT F DSCB.
		*			THIS IS THE FORMAT OF ALL DSCB'S FOR ANY PAT
		*			ORGANIZED
		*			VAM DATA SET FOLLOWING THE FORMAT E DSCB.
2E 00000		DSFENT	DS	62F	FIELD FOR 62 EXTERNAL PAGE
		*			ENTRIES OR 41 VOLUME ENTRIES
		*			OR BOTH. FOR PRIVATE DATA
		*			SETS A LIST OF 6 BYTE VOLUME
		*			ENTRIES MAY EXTEND FROM THE
		*			PREVIOUS DSCB. THE PAGE ENTRIES
		*			WILL BEGIN ON THE FIRST FULL
		*			WORD AFTER THE VOLUME ENTRIES.
2E 000F8		DSFCHN	DS	F	PTR TO FORMAT F DSCB (NEXT
		*			IN
		*			CHAIN) (ZERO IN LAST DSCB).
2E 000FC		DSFTYP	DS	XL1	DSCB TYPE.
2E 000FD			DS	C	SPARE.
2E 000FE		DSFCKS	DS	H	CHECKSUM.
2E 00100		DSFEND	DS	0X	END OF FORMAT-F DSCB

(Listing of CHADSF continued on page 178)

(Listing of CHADSF continued from page 177)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			I6478
	00000100	DSFLNGTH	EQU	DSFEND-CHADSF	LENGTH OF FORMAT-F
		*			DSCB I6478
2E 00000	2E 00000	DSFVOL	ORG  DS	DSFENT	
	00000029	DSFMXVE	EQU	CL6	VOLUME SERIAL NUMBER
		*		(DSFCHN-DSFENT)/L'DSFVOL	MAX VOLUME
	2E 00000		ORG	DSFENT	ENTRIES I6478
2E 00000		DSFEPE	DS	-F	EXTERNAL PAGE ENTRIES
	2E 00000	DSFASF	EQU	DSFEPE	EXTERNAL PAGE ASSIGNMENT
		*			FLAG
	00000080	DSFASFM	EQU	X'80'	1=EXTERNAL PAGE NOT IN USE
		*			0=EXTERNAL PAGE IN USE
2E 00000	2E 00000	DSFRVN	ORG  DS	DSFEPE	
		*		XL2	RELATIVE VOL. NO. (LOW
2E 00002		DSFRPN	DS	XL2	ORDER 12 BITS)
					RELATIVE PAGE NUMBER



Support System Input/Output Request Block (CHAECW)

CHAECW defines the Support System I/O Request Block used as the SIORCB by both RSS and VSS. It serves both as the communications area between modules requesting I/O service and the I/O system, and it serves as the I/O system PSECT used for internal communication. The parameters for an I/O request are passed in the SIORCB.

CHAECW Storage map

DEC	HEX	
0	0	ECWASAVE
72	48	ECWAPSCT   ECWASDA   ECWAUFL1   ECWAUFL2
80	50	ECWABFFR   ECWAOPCD   ECWAACMD   ECWALEN
88	58	ECWALRCL   ECWASLEN   ECWARES1
96	60	ECWASEEK
104	68	ECWASCSV
168	A8	ECWASDAT   ECWAPHP   ECWAPHP2   ECWAF11   ECWAF12
176	B0	ECWADEV   ECWACAW
184	B8	ECWASAPT   ECWACSW
192	C0	ECWACSW (CONT)   ECWAPSW
200	C8	ECWAPSW (CONT)   ECWAIC01   ECWAERCT
208	D0	ECWASENS
216	D8	ECWARTN   ECWARAM
224	E0	ECWAACSW
232	E8	ECWAAPSW
240	F0	ECWAIC02   ECWALENV   ECWAACAW
248	F8	ECWASFRS   ECWASLST
256	100	ECWAREC
264	108	ECWACLOA
288	120	ECWABFFV   ECWAAAOP   ECWAAOP   ECWAXSAV
296	128	ECWASFL1   ECWASFL2   ECWASFL3   ECWASFL4   ECWARES2

(CHAECW continued on page 180)

(CHAECW continued from page 179)

DEC 304	HEX 130	ECWATRIN	
560	230	ECWAIORF	
640	280	ECWAPGLS	
704	2C0	ECWACCWS	
784	310	ECWACCWF	
1504	5E0	ECWAFRST	ECWALAST
1512	5E8	ECWAIOCA	ECWAIOCB
1520	5F0	ECWACAM	ECWADAM
1528	5F8	ECWASAM	ECWATAM
1536	600	ECWAI OCP	ECWAEDIT
1544	608	ECWASSDT	ECWATSSV
1552	610	ECWAMSGA	ECWAMSGB
1560	618	ECWATAB	ECWAERSC
1568	620	ECWADERA	ECWADERB
1576	628	ECWADERC	ECWASERB
1584	630	ECWASERA	ECWASERD
1592	638	ECWADERE	ECWACERA
1600	640	ECWACERB	ECWAI OIN
1608	648	ECWASERE	ECWATERA
1616	650	ECWATERB	ECWAERSD

(CHAECW continued on page 181)

DEC 1624	HEX 658	ECWASERC	ECWADERD
1632	660	ECWACERD	

ORG ECWADEV

176	B0	ECWADEA	ECWADEB	ECWADEC	ECWADED
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Fields in CHAECW -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	(EQU)
0000	0000	ECWASAVE	0224	00E0	ECWAACSW	0299	012B	ECWAADC	(EQU)
0000	0000	ECWALDA	0232	00E8	ECWAAPSW	0299	012B	ECWASFL4	
0072	0048	ECWAPSCT	0240	00F0	ECWAIC02	0300	012C	ECWARES2	
0076	004C	ECWASDA	0242	00F2	ECWALENV	0304	0130	ECWATRIN	
0076	004C	ECWAUBEG	0244	00F4	ECWAACAW	0560	0230	ECWAIORF	
0078	004E	ECWAUBF (EQU)	0248	00F8	ECWASFRS	0640	0280	ECWAPGLS	
0078	004E	ECWAUAP (EQU)	0252	00FC	ECWASLST	0704	02C0	ECWACCWS	
0078	004E	ECWACAL (EQU)	0256	0100	ECWAREC	0784	0310	ECWACCWF	
0078	004E	ECWASAV (EQU)	0264	0108	ECWACLOA	1504	05E0	ECWAFRST	
0078	004E	ECWAUFL1	0288	0120	ECWABFFV	1508	05E4	ECWALAST	
0079	004F	ECWAUFL2	0292	0124	ECWAAAOP	1512	05E8	ECWAIOCA	
0080	0050	ECWABFFR	0293	0125	ECWAAOP	1512	05E8	ECWAVCON	
0080	0050	ECWAUCCW	0294	0126	ECWAXSAV	1516	05EC	ECWAIOCB	
0084	0054	ECWAOPCD	0296	0128	ECWASBI (EQU)	1520	05F0	ECWACAM	
0085	0055	ECWAMODE (EQU)	0296	0128	ECWARDC (EQU)	1524	05F4	ECWADAM	
0085	0055	ECWAACMD	0296	0128	ECWAADM (EQU)	1528	05F8	ECWASAM	
0086	0056	ECWALEN	0296	0128	ECWATS (EQU)	1532	05FC	ECWATAM	
0088	0058	ECWALRCL	0296	0128	ECWANIE (EQU)	1536	0600	ECWAIOPC	
0092	005C	ECWASLEN	0296	0128	ECWARTA (EQU)	1540	0604	ECWAEDIT	
0094	005E	ECWARES1	0296	0128	ECWAERC (EQU)	1544	0608	ECWASSDT	
0096	0060	ECWASEEK	0296	0128	ECWACCS (EQU)	1548	060C	ECWATSSV	
0104	0068	ECWASCSV	0296	0128	ECWASFL1	1552	0610	ECWAMSGA	
0104	0068	ECWAUEND (EQU)	0296	0128	ECWASFLA	1556	0614	ECWAMSGB	
0168	00A8	ECWASDAT	0297	0129	ECWAPLO (EQU)	1560	0618	ECWATAB	
0168	00A8	ECWAGDE	0297	0129	ECWANAP (EQU)	1564	061C	ECWAERSC	
0170	00AA	ECWAPHP	0297	0129	ECWAPA (EQU)	1568	0620	ECWADERA	
0172	00AC	ECWAPHP2	0297	0129	ECWAPDL (EQU)	1572	0624	ECWADERB	
0174	00AE	ECWACBC (EQU)	0297	0129	ECWAPSN (EQU)	1576	0628	ECWADERC	
0174	00AE	ECWAVAM (EQU)	0297	0129	ECWAPPS (EQU)	1580	062C	ECWASERB	
0174	00AE	ECWAF11	0297	0129	ECWAPCS (EQU)	1584	0630	ECWASERA	
0175	00AF	ECWAF12	0297	0129	ECWASFL2	1588	0634	ECWASERD	
0176	00B0	ECWADEA	0298	012A	ECWARDA (EQU)	1592	0638	ECWADERE	
0176	00B0	ECWADEV	0298	012A	ECWATAMB (EQU)	1596	063C	ECWACERA	
0177	00B1	ECWADEB	0298	012A	ECWASAMB (EQU)	1600	0640	ECWACERB	
0178	00B2	ECWADEC	0298	012A	ECWADAMB (EQU)	1604	0644	ECWAIQIN	
0179	00B3	ECWADED	0298	012A	ECWACAMB (EQU)	1608	0648	ECWASERE	
0180	00B4	ECWACAW	0298	012A	ECWAEOS (EQU)	1612	064C	ECWATERA	
0184	00B8	ECWASAPT	0298	012A	ECWACON (EQU)	1616	0650	ECWATERB	
0188	00BC	ECWACSW	0298	012A	ECWADSB (EQU)	1620	0654	ECWAERSD	
0196	00C4	ECWAPSW	0298	012A	ECWASFL3	1624	0658	ECWASERC	
0204	00CC	ECWAIC01	0299	012B	ECWATOI (EQU)	1628	065C	ECWADERD	
0206	00CE	ECWAERCT	0299	012B	ECWAMCW (EQU)	1632	0660	ECWACERD	
0208	00D0	ECWASENS	0299	012B	ECWARIR (EQU)	1636	0664	ECWALDB	
0216	00D8	ECWARTN	0299	012B	ECWAINR (EQU)				
0220	00DC	ECWARAM	0299	012B	ECWAWDC (EQU)				

Alphabetical list of fields in CHAECW

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ECWAAOP	0292	0124	ECWAFRST	1504	05E0	ECWASAPT	0184	00B8
ECWAACAW	0244	00F4	ECWAGDE	0168	00A8	ECWASAV	0078	004E (EQU)
ECWAACMD	0085	0055	ECWAIC01	0204	00CC	ECWASAVE	0000	0000
ECWAACSW	0224	00E0	ECWAIC02	0240	00F0	ECWASBI	0296	0128 (EQU)
ECWAADC	0299	012B (EQU)	ECWAINR	0299	012B (EQU)	ECWASCSV	0104	0068
ECWAADM	0296	0128 (EQU)	ECWAIOCA	1512	05E8	ECWASDA	0076	004C
ECWAAOP	0293	0125	ECWAIOCB	1516	05EC	ECWASDAT	0168	00A8
ECWAAPSW	0232	00E8	ECWAIOCP	1536	0600	ECWASEEK	0096	0060
ECWABFFR	0080	0050	ECWAIIOIN	1604	0644	ECWASENS	0208	00D0
ECWABFFV	0288	0120	ECWAIORF	0560	0230	ECWASERA	1584	0630
ECWACAL	0078	004E (EQU)	ECWALAST	1508	05E4	ECWASERB	1580	062C
ECWACAM	1520	05F0	ECWALDA	0000	0000	ECWASERC	1624	0658
ECWACAMB	0298	012A (EQU)	ECWALDB	1636	0664	ECWASERD	1588	0634
ECWACAW	0180	00B4	ECWALEN	0086	0056	ECWASERE	1608	0648
ECWACBC	0174	00AE (EQU)	ECWALENV	0242	00F2	ECWASFLA	0296	0128
ECWACCS	0296	0128 (EQU)	ECWALRCL	0088	0058	ECWASFL1	0296	0128
ECWACCF	0784	0310	ECWAMCW	0299	012B (EQU)	ECWASFL2	0297	0129
ECWACCWS	0704	02C0	ECWAMODE	0085	0055 (EQU)	ECWASFL3	0298	012A
ECWACERA	1596	063C	ECWAMSGA	1552	0610	ECWASFL4	0299	012B
ECWACERB	1600	0640	ECWAMSGB	1556	0614	ECWASFERS	0248	00F8
ECWACERD	1632	0660	ECWANAP	0297	0129 (EQU)	ECWASLEN	0092	005C
ECWACLOA	0264	0108	ECWANIE	0296	0128 (EQU)	ECWASLST	0252	00FC
ECWACON	0298	012A (EQU)	ECWAOPCD	0084	0054	ECWASSDT	1544	0608
ECWACSW	0188	00BC	ECWAPA	0297	0129 (EQU)	ECWATAB	1560	0618
ECWADAM	1524	05F4	ECWAPCS	0297	0129 (EQU)	ECWATAM	1532	05FC
ECWADAMB	0298	012A (EQU)	ECWAPDL	0297	0129 (EQU)	ECWATAMB	0298	012A (EQU)
ECWADEA	0176	00B0	ECWAPGLS	0640	0280	ECWATERA	1612	064C
ECWADEB	0177	00B1	ECWAPHP	0170	00AA	ECWATERB	1616	0650
ECWADEC	0178	00B2	ECWAPHP2	0172	00AC	ECWATOI	0299	012B (EQU)
ECWADED	0179	00B3	ECWAPLO	0297	0129 (EQU)	ECWATRIN	0304	0130
ECWADERA	1568	0620	ECWAPPS	0297	0129 (EQU)	ECWATS	0296	0128 (EQU)
ECWADERB	1572	0624	ECWAPSCT	0072	0048	ECWATSSV	1548	060C
ECWADERC	1576	0628	ECWAPSN	0297	0129 (EQU)	ECWAUAP	0078	004E (EQU)
ECWADERD	1628	065C	ECWAPSW	0196	00C4	ECWAUBEG	0076	004C
ECWADERE	1592	0638	ECWARAM	0220	00DC	ECWAUBF	0078	004E (EQU)
ECWADEV	0176	00B0	ECWARDA	0298	012A (EQU)	ECWAUCCW	0080	0050
ECWADSB	0298	012A (EQU)	ECWARDC	0296	0128 (EQU)	ECWAUEND	0104	0068 (EQU)
ECWAEDIT	1540	0604	ECWAREC	0256	0100	ECWAUFL1	0078	004E
ECWAEOS	0298	012A (EQU)	ECWARES1	0094	005E	ECWAUFL2	0079	004F
ECWAERC	0296	0128 (EQU)	ECWARES2	0300	012C	ECWAVAM	0174	00AE (EQU)
ECWAERCT	0206	00CE	ECWARIR	0299	012B (EQU)	ECWAVCON	1512	05E8
ECWAERSC	1564	061C	ECWARTA	0296	0128 (EQU)	ECWAWDC	0299	012B (EQU)
ECWAERSD	1620	0654	ECWARTN	0216	00D8	ECWAXSAV	0294	0126
ECWAF11	0174	00AE	ECWASAM	1528	05F8			
ECWAF12	0175	00AF	ECWASAMB	0298	012A (EQU)			

Assembler listing of CHAECW

```

LOCATION   INSTRUCTION   SOURCE   INST   OPER   COMMENT
30 0000   CHAECW   DSECT
*****
*TITLE: 'CHAECW- SUPPORT SYSTEM INPUT/OUTPUT REQUEST BLOCK (SIORCB) *
*STATUS: CHANGE LEVEL 000 *
*FUNCTION/OPERATION: THE SIORCB IS A GENERAL PURPOSE TABLE USED IN *
*                      BOTH RSS AND VSS. IT SERVES BOTH AS THE *
*                      COMMUNICATIONS AREA BETWEEN MODULES DESIRING I/O *
*                      SERVICE AND THE I/O SYSTEM, AND AS THE I/O SYSTEM *
*                      PSECT USED FOR INTERNAL COMMUNICATION. THE *
*                      PARAMETERS FOR AN I/O REQUEST ARE PASSED IN THE *
*                      SIORCB. *
*ENTRY POINTS: CHAECW = PSECT NAME *
*              CHAECW = DSECT NAME *
*INPUT/OUTPUT: NOT APPLICABLE *
*EXITS: NOT APPLICABLE *
*TABLES/WORK AREAS: NOT APPLICABLE *
*ATTRIBUTES: RESIDENT *
(Listing of CHAECW continued on page 183)

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(Listing of CHAECW continued from page 182)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
*****					
* THE SUPPORT SYSTEM INPUT/OUTPUT REQUEST CONTROL					
* BLOCK (SIORCB)					
30 00000			DS	0D	
30 00000		ECWALDA	DS	0B	BEGINNING OF LOAD AREA
30 00000		ECWASAVE	DS	18F	I/O SYSTEM SAVE AREA - 1ST
*					
30 00048		ECWAPSCT	DS	1F	POINTER TO SIORCB
* THE FOLLOWING FIELDS ARE SET UP BY THE I/O USER					
30 0004C		ECWAUBEG	DS	0F	BEGINNING OF USER AREA
30 0004C		ECWASDA	DS	1H	SYMBOLIC DEVICE ADDRESS
30 0004E		ECWAUFL1	DS	1B	USER FLAG BYTE 1
	30 0004E	ECWASAV	EQU	ECWAUFL1	'SKIP THE NUMBER OF DOUBLE
*					
	00000080	ECWASAVM	EQU	X'80'	'SKIP ECWASLEN' MASK
	30 0004E	ECWACAL	EQU	ECWAUFL1	'I/O REQUEST RESULT OF
*					
	00000040	ECWACALM	EQU	X'40'	'I/O REQUEST RESULT OF
*					
	30 0004E	ECWAUAP	EQU	ECWAUFL1	'DON'T USE ALTERNATE PATH'
*					
	00000020	ECWAUAPM	EQU	X'20'	'DON'T USE ALTERNATE PATH'
*					
	30 0004E	ECWAUBF	EQU	ECWAUFL1	'BLOCKED RECORDS USED' BYTE
	00000010	ECWAUBFM	EQU	X'10'	'BLOCKED RECORDS USED' MASK
30 0004F		ECWAUFL2	DS	1B	USER FLAG BYTE 2
30 00050		ECWAUCCW	DS	0D	
30 00050		ECWABFFR	DS	1F	START ADDRESS OF CCW AND
*					
OR DATA FIELD					
30 00054		ECWAOPCD	DS	1B	OPERATION CODE AS REQUIRED
*					
BY ACCESS					
METHODS					
30 00055		ECWAACMD	DS	1B	ACTUAL COMMAND CODE - USED
*					
WHEN					
ECWAOPCD IS A CONTROL					
OPERATION					
CODE AS REQUIRED BY ACCESS					
METH.					
	30 00055	ECWAMODE	EQU	ECWAACMD	MODE SET OP FOR 7 TRK TAPE
30 00056		ECWALEN	DS	1H	LENGTH IN BYTES OF DATA TO
*					
BE TRANSF.					
30 00058		ECWALRCL	DS	1F	LOGICAL RECORD LENGTH
30 0005C		ECWASLEN	DS	1H	NUMBER OF DOUBLE WORDS TO
*					
BE SKIPPED					
30 0005E		ECWARES1	DS	1H	RESERVED FOR FUTURE USE
*					
BEFORE READING DATA					
30 00060		ECWASEEK	DS	2F	SEEK ADDRESS - BBCCHHRX
*					
X=UNUSED					
	30 00068	ECWAUEND	EQU	*	END OF USER AREA
* THE FOLLOWING FIELDS ARE USED OR SET UP BY THE					
* I/O SYSTEM					
30 00068			DS	0D	
30 00068		ECWASCSV	DS	16F	ERROR SCAN SAVE AREA
30 000A8		ECWAGDE	DS	0CL12	SSDAT ENTRY
30 000A8		ECWASDAT	DS	1H	SYMBOLIC DEVICE ADDRESS
30 000AA		ECWAPHP	DS	1H	PHYSICAL PATH
30 000AC		ECWAPHP2	DS	1H	ALTERNATE PHYSICAL PATH
30 000AE		ECWAFL1	DS	1C	FLAG BYTE 1
	30 000AE	ECWAVAM	EQU	ECWAFL1	'DEVICE IS VAM FORMATED'
*					
	00000080	ECWAVAMM	EQU	X'80'	'DEVICE IS VAM FORMATED'
*					
	30 000AE	ECWACBC	EQU	ECWAFL1	'DEVICE CAN BE CALLED' FLAG
*					
	00000040	ECWACBCM	EQU	X'40'	'DEVICE CAN BE CALLED' FLAG
*					
MASK					
30 000AF		ECWAFL2	DS	1C	FLAG BYTE 2

(Listing of CHAECW continued on page 184)

(Listing of CHAECW continued from page 183)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
30 000B0		ECWADEV	DS	1F	DEVICE DEFINING INFORMATION
	30 000B0		ORG	ECWADEV	
30 000B0		ECWADEA	DS	1B	MODEL CODE
	00000000	ECWAMCNM	EQU	X'00'	NON-TERMINAL DEVICE
	00000001	ECWAMCAM	EQU	X'01'	1050 MASK
	00000002	ECWAMCBM	EQU	X'02'	2741 MASK
	00000003	ECWAMCCM	EQU	X'03'	TTY MOD 35 MASK
	00000004	ECWAMCDM	EQU	X'04'	1052-7 MASK
	00000005	ECWAMCEM	EQU	X'05'	2260 MASK
30 000B1		ECWADEB	DS	1B	DEVICE CLASSES
	00000008	ECWADCAM	EQU	X'08'	UNIT RECORD MASK
	00000020	ECWADCBM	EQU	X'20'	DIRECT ACCESS MASK
	00000080	ECWADCCM	EQU	X'80'	MAGNETIC TAPE MASK
	00000001	ECWADCDM	EQU	X'01'	DIAL LINE MASK
	00000002	ECWADCEM	EQU	X'02'	DEDICATED LINE MASK
	00000004	ECWADCFM	EQU	X'04'	AUTOMATIC CALL FEATURE MASK
30 000B2		ECWADEC	DS	1B	UNIT TYPE
	00000001	ECWAUTAM	EQU	X'01'	2540 CARD READER MASK
	00000002	ECWAUTBM	EQU	X'02'	2540 CARD PUNCH MASK
	00000008	ECWAUTCM	EQU	X'08'	1403 PRINTER MASK
	00000010	ECWAUTDM	EQU	X'10'	2671 PPT READER MASK
	00000001	ECWAUTEM	EQU	X'01'	2311 MASK
	00000002	ECWAUTFM	EQU	X'02'	2301 MASK
	00000003	ECWAUTGM	EQU	X'03'	2321 MASK
	00000004	ECWAUTHM	EQU	X'04'	2302 MASK
	00000008	ECWAUTIM	EQU	X'08'	2314 MASK
	00000001	ECWAUTJM	EQU	X'01'	2400 SERIES MAGNETIC TAPE MASK
		*			
	00000010	ECWAUTKM	EQU	X'10'	IBM TERMINAL ADAPTER TYPE I MASK
		*			
	00000020	ECWAUTLM	EQU	X'20'	IBM TERMINAL ADAPTER TYPE II MASK
		*			
	00000030	ECWAUTMM	EQU	X'30'	IBM TELEGRAPH ADAPTER TYPE I MASK
		*			
	00000040	ECWAUTNM	EQU	X'40'	TELEGRAPH ADAPTER TYPE I MASK
		*			
	00000050	ECWAUTOM	EQU	X'50'	TELEGRAPH ADAPTER TYPE II MASK
		*			
	00000060	ECWAUTPM	EQU	X'60'	WORDL TRADE TELEGRAPH ADAPTER MASK
		*			
	00000070	ECWAUTQM	EQU	X'70'	SYNCHRONOUS ADAPTER TYPE I MASK
		*			
	00000080	ECWAUTRM	EQU	X'80'	IBM TERMINAL ADAPTER TYPE III MASK
		*			
	00000001	ECWAUTSM	EQU	X'01'	2702 MASK
	00000002	ECWAUTTM	EQU	X'02'	2701 ON MULTIPLEXOR MASK
	00000003	ECWAUTUM	EQU	X'03'	1052-7 ON MULTIPLEXOR MASK
	00000004	ECWAUTVM	EQU	X'04'	1052-7 ON SELECTOR MASK
	00000005	ECWAUTWM	EQU	X'05'	2701 ON SELECTOR MASK
	00000006	ECWAUTXM	EQU	X'06'	2703 TRANSMISSION CONTROL I5542
		*			
30 000B3		ECWADED	DS	1B	OPTIONAL FEATURES
	00000080	ECWAOFAM	EQU	X'80'	CARD IMAGE MASK-SAM
	00000040	ECWAOFBM	EQU	X'40'	PUNCH FEED MASK-SAM
	00000080	ECWAOFDM	EQU	X'80'	UNIVERSAL CHARACTER MASK-SAM
		*			
	00000080	ECWAOFDM	EQU	X'80'	SCAN MASK-DASDAM
	00000040	ECWAOFEM	EQU	X'40'	TRACK OVERFLOW MASK-DASDAM
	000000E0	ECWAOFFM	EQU	X'E0'	7 TRACK WITH DATA CONVERSION MASK-SAM
		*			
	000000A0	ECWAOFGM	EQU	X'A0'	7 TRACK WITHOUT DATA CONVERSION-SAM
		*			
	00000000	ECWAOFHM	EQU	X'00'	9 TRACK-SAM
	000000C0	ECWAOFIM	EQU	X'C0'	9 TRACK-SAM
	00000080	ECWAOFJM	EQU	X'80'	9 TRACK-SAM
	00000000	ECWAOFKM	EQU	X'00'	SAD ZERO MASK-TAM
	00000001	ECWAOFM	EQU	X'01'	SAD ONE MASK-TAM
	00000002	ECWAOFMM	EQU	X'02'	SAD TWO MASK-TAM

(Listing of CHAECW continued on page 185)

(Listing of CHAECW continued from page 184)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000003	ECWAOFNM	EQU	X'03'	SAD THREE MASK-TAM
	30 000B4		[ORG]		
*****					
*		ECWADEA = MODEL CODE			*
*		ECWADEB = DEVICE CLASSES			*
*		ECWADEC = UNIT TYPE			*
*		ECWADED = OPTIONAL FEATURES			*
*	ECWADEA	ECWADEB	ECWADEC	ECWADED	*
*	00	08=UNIT RECORD	01=2540 PUNCH	80=CARD IMAGE	*
*			02=2540 PUNCH	40=PUNCH FEED	*
*			08=1403 PRINTER	80=UNIVERSAL CHARACTERS	*
*			10=2671 PPT READER		*
*		20=DIRECT ACCESS	01=2311	80=SCAN	*
*			02=2301	40=TRACK OVERFLOW	*
*			03=2321		*
*			04=2302		*
*			08=2314		*
*		80=MAGNETIC TAPE	01=2400 SERIES	E0=7 TRACK WITH DATA CONVERSION*	*
*				A0=7 TRACK WITHOUT DATA CONVERSION*	*
*				C0,80 = 9 TRACK	*
*****					
		* THE FOLLOWING CONTINUES THE I/O SYSTEM FIELDS			
30	000B4	ECWACAW DS	1F		CHANNEL ADDRESS WORD
30	000B8	ECWASAPT DS	1F		SUPPORT SYSTEM ACTIVE DEV. TABLE PTR.
30	000BC	ECWACSW DS	2F		CHANNEL STATUS WORD
30	000C4	ECWAPSW DS	2F		PROGRAM STATUS WORD
30	000CC	ECWAIC01 DS	1H		EXTENDED PSW INTERRUPTION CODE
30	000CE	ECWAERCT DS	1H		ERROR RETRY COUNTER
30	000D0	ECWASENS DS	2F		SENSE DATA
30	000D8	ECWARTN DS	1F		ERROR ROUTINE RETURN ADDRESS
30	000DC	ECWARAM DS	1F		ACCESS METHOD RETURN ADDRESS
30	000E0	ECWAACSW DS	2F		CSW SAVE AREA
30	000E8	ECWAAPSW DS	2F		PSW SAVE AREA
30	000F0	ECWAIC02 DS	1H		EXTENDED PSW INTERRUPTION CODE
30	000F2	ECWALENV DS	1H		ECWALEN SAVE AREA
30	000F4	ECWAACAW DS	1F		CAW SAVE AREA
30	000F8	ECWASFRS DS	1F		ECWAFRST ADDRESS SAVE
30	000FC	ECWASLST DS	1F		ECWALAST ADDRESS SAVE
30	00100	ECWAREC DS	2F		I/O WORK AREA
30	00108	ECWACLOA DS	6F		CHANNEL LOG OUT AREA
30	00120	ECWABFFV DS	1F		ECWABFFR SAVE AREA
30	00124	ECWAAAOP DS	1B		ACTUAL COMMAND CODE SAVE AREA
30	00125	ECWAAOP DS	1B		OP CODE SAVE AREA
30	00126	ECWAXSAV DS	1H		SAVE AREA FOR RESIDUAL COUNT
30	00128	ECWASFLA DS	0F		SYSTEM FLAGS
30	00128	ECWASFL1 DS	1B		FLAG BYTE 1
	30 00128	ECWACCS EQU	ECWASFL1		'CSW STORED ON SIO' FLAG BYTE
	00000080	ECWACCSM EQU	X'80'		'CSW STORED ON SIO' MASK
	30 00128	ECWAERC EQU	ECWASFL1		'ERROR ROUTINE IN CONTROL' FLAG BYTE
	00000040	ECWAERCM EQU	X'40'		'ERROR ROUTINE IN CONTROL' MASK
	30 00128	ECWARTA EQU	ECWASFL1		'RETURN TO ACCESS METHOD' FLAG BYTE
	00000020	ECWARTAM EQU	X'20'		'RETURN TO ACCESS METHOD' MASK
	30 00128	ECWANIE EQU	ECWASFL1		'NO INTERRUPT EXPECTED'

(Listing of CHAECW continued on page 186)

(Listing of CHAECW continued from page 185)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000010	* ECWANIEM EQU		X'10'	FLAG BYTE 'NO INTERRUPT EXPECTED' MASK
	30 00128	* ECWATS EQU		ECWASFL1	'ISSUE TERMINAL HIO SEQUENCE' BYTE
	00000008	* ECWATSM EQU		X'08'	'ISSUE TERMINAL HIO SEQUENCE' MASK
	30 00128	* ECWAADM EQU		ECWASFL1	'ADDRESS MARKER MISSING' FLAG BYTE
	00000004	* ECWAADMM EQU		X'04'	'ADDRESS MARKER MISSING' MASK
	30 00128	ECWARDC EQU		ECWASFL1	'READ DATA CHECK' FLAG BYTE
	00000002	ECWARDCM EQU		X'02'	'READ DATA CHECK' MASK
	30 00128	ECWASBI EQU		ECWASFL1	'SENSE BYTE INFO' FLAG BYTE
	00000001	ECWASBIM EQU		X'01'	'SENSE BYTE INFO' MASK
30 00129	ECWASFL2 DS			1B	FLAG BYTE 2
	30 00129	ECWAPCS EQU		ECWASFL2	'PRINT CSW ON ERROR' FLAG BYTE
	00000080	* ECWAPCSM EQU		X'80'	'PRINT CSW ON ERROR' MASK
	30 00129	ECWAPPS EQU		ECWASFL2	'PRINT PSW ON ERROR' FLAG BYTE
	00000040	* ECWAPPSM EQU		X'40'	'PRINT PSW ON ERROR' MASK
	30 00129	ECWAPSN EQU		ECWASFL2	'PRINT SENSE INFO ON ERROR' BYTE
	00000020	* ECWAPSNM EQU		X'20'	'PRINT SENSE INFO ON ERROR' MASK
	30 00129	ECWAPDL EQU		ECWASFL2	'PRINT SYMBOLIC DEVICE ADDRESS' BYTE
	00000010	* ECWAPDLM EQU		X'10'	'PRINT SYMBOLIC DEVICE ADDRESS' MASK
	30 00129	ECWAPA EQU		ECWASFL2	'PRINT ACTUAL PATH' BYTE
	00000008	ECWAPAM EQU		X'08'	'PRINT ACTUAL PATH' MASK
	30 00129	ECWANAP EQU		ECWASFL2	'PRINT ALTERNATE PATH USED' BYTE
	00000004	* ECWANAPM EQU		X'04'	'PRINT ALTERNATE PATH USED' MASK
	30 00129	ECWAPLO EQU		ECWASFL2	'PRINT CHANNEL LOG OUT AREA' BYTE
	00000002	* ECWAPLOM EQU		X'02'	'PRINT CHANNEL LOG OUT AREA' BYTE
30 0012A	ECWASFL3 DS			1B	FLAG BYTE 3
	30 0012A	ECWADSB EQU		ECWASFL3	'DON'T SAVE ECWABFFR & ECWALEN' BYTE
	00000080	* ECWADSBM EQU		X'80'	'DON'T SAVE ECWABFFR & ECWALEN' MASK
	30 0012A	ECWACON EQU		ECWASFL3	'CONTINUTAION CHARACTER' BYTE
	00000040	* ECWACONM EQU		X'40'	'CONTINUTAION CHARACTER' MASK
	30 0012A	ECWAEOS EQU		ECWASFL3	'END OF SCAN' FLAG
	00000020	ECWAEOSM EQU		X'20'	'END OF SCAN' MASK
	30 0012A	ECWACAMB EQU		ECWASFL3	'CAM IN CONTROL' BYTE
	00000010	ECWACAMM EQU		X'10'	'CAM IN CONTROL' MASK
	30 0012A	ECWADAMB EQU		ECWASFL3	'DASDAM IN CONTROL' BYTE
	00000008	ECWADAMM EQU		X'08'	'DASDAM IN CONTROL' MASK
	30 0012A	ECWASAMB EQU		ECWASFL3	'SAM IN CONTROL' BYTE
	00000004	ECWASAMM EQU		X'04'	'SAM IN CONTROL' MASK
	30 0012A	ECWATAMB EQU		ECWASFL3	'TAM IN CONTROL' BYTE
	00000002	ECWATAMM EQU		X'02'	'TAM IN CONTROL' MASK
	30 0012A	ECWARDA EQU		ECWASFL3	'EDITOR RETURN TO ACCESS METHOD' FLAG
	00000001	* ECWARDAM EQU		X'01'	'EDITOR RETURN TO ACCESS METHOD' MASK
30 0012B	ECWASFL4 DS			1B	FLAG BYTE 4
	30 0012B	ECWAADC EQU		ECWASFL4	DC 1ST PASS FLAG
	00000004	ECWAADCM EQU		X'04'	DC 1ST PASS MASK
	30 0012B	ECWAWDC EQU		ECWASFL4	UCS DATA CHECK FLAG
	00000008	ECWAWDCM EQU		X'08'	UCS DATA CHECK MASK

(Listing of CHAECW continued on page 187)



(Listing of CHAECW continued from page 186)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	30 0012B	ECWAINR	EQU	ECWASFL4	INTERVENTION REQUIRED IN PROCESS
	00000080	ECWAINRM	EQU	X'80'	INTERVENTION REQ. IN PROCESS MASK
	30 0012B	ECWARIR	EQU	ECWASFL4	RESET INTERVENTION REQUIRED FLAGS
	00000040	ECWARIRM	EQU	X'40'	RESET INTERVENTION REQUIRED MASK
	30 0012B	ECWAMCW	EQU	ECWASFL4	MODIFY CAW FLAG
	00000020	ECWAMCWM	EQU	X'20'	MODIFY CAW MASK
	30 0012B	ECWATOI	EQU	ECWASFL4	CLEAR STATUS SAVE AREA FLAG
	00000010	ECWATOIM	EQU	X'10'	CLEAR STATUS SAVE AREA MASK
30 0012C		ECWARES2	DS	1F	I/O WORK AREA
30 00130		ECWATRIN	DS	32D	TERMINAL READ IN AREA
30 00230		ECWAIORF	DS	10D	IORCB FLAGS
30 00280		ECWAPGLS	DS	8D	IORCB PAGE LIST
		* THE FOLLOWING ARE CCW'S SET UP BY THE ACCESS			
		* METHODS			
		* AND BY ERROR RECOVERY MODULES			
30 002C0		ECWACCWS	DS	10D	ERROR RECOVERY CCW'S
30 00310		ECWACCWF	DS	90D	ACCESS METHOD CCW'S
30 005E0		ECWAFRST	DS	1F	POINTER TO FIRST ACTIVE CCW
30 005E4		ECWALAST	DS	1F	POINTER TO LAST ACTIVE CCW
		*****			
		* THE FOLLOWING IS THE FORMAT OF THE CCW'S BUILT BY THE			
		* ACCESS METHODS AND THE ERROR RECOVERY MODULES			
		* 0	* *	* 31*32 39*40	* 47*48 * 63
		*****			
		* * VM OR RM	* ADDRESS	* * * * *	* * * * *
		* * * * *	* * * * *	* * * * *	* * * * *
		*****			
		* THE FOLLOWING ARE THE VCONS USED BY THE I/O			
		* SYSTEM			
30 005E8		ECWAVCON	DS	0F	TABLE OF VCONS
30 005E8		ECWAIOCA	DS	1F	POINTER TO I/O CONTROL MAIN ENTRY
		*			
30 005EC		ECWAIOCB	DS	1F	POINTER TO I/O CONTROL SECONDARY NTRY
		*			
30 005F0		ECWACAM	DS	1F	POINTER TO CAM
30 005F4		ECWADAM	DS	1F	POINTER TO DASDAM
30 005F8		ECWASAM	DS	1F	POINTER TO SAM
30 005FC		ECWATAM	DS	1F	POINTER TO TAM
30 00600		ECWAIOCP	DS	1F	POINTER TO I/O COMPLETION
30 00604		ECWAEDIT	DS	1F	POINTER TO I/O EDITOR
30 00608		ECWASSDT	DS	1F	POINTER TO SSDAT
30 0060C		ECWATSSV	DS	1F	TSS STATUS SAVE AREA
30 00610		ECWAMSGA	DS	1F	ENTRY TO MESSAGE FOR INTERVENTION REQUIRED
		*			
30 00614		ECWAMSGB	DS	1F	ENTRY TO MESSAGE FOR UNRECOVERABLE I/O ERROR
		*			
30 00618		ECWATAB	DS	1F	POINTER TO TABLE CONTAIN. SADT
		*			
30 0061C		ECWAERSC	DS	1F	POINTER TO ERROR SCAN AND RECOVERY
		*			
30 00620		ECWADERA	DS	1F	ENTRY TO DASDAM ERROR RECOVERY
		*			
30 00624		ECWADERB	DS	1F	ENTRY TO DASDAM ERROR RECOVERY
		*			
30 00628		ECWADERC	DS	1F	ENTRY TO DASDAM ERROR RECOVERY
		*			
30 0062C		ECWASERB	DS	1F	ENTRY TO SAM ERROR RECOVERY
30 00630		ECWASERA	DS	1F	ENTRY TO SAM ERROR RECOVERY
30 00634		ECWASERD	DS	1F	ENTRY TO SAM ERROR RECOVERY
30 00638		ECWADERE	DS	1F	ENTRY TO ERROR SCAN-UNIT EXE
		*			
30 0063C		ECWACERA	DS	1F	ENTRY TO CAM ERROR RECOVERY

(Listing of CHAECW continued on page 188)

(Listing of CHAECW continued from page 187)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
30 00640		ECWACERB	DS	1F	ENTRY TO CAM ERROR RECOVERY
30 00644		ECWAIOIN	DS	1F	POINTER TO I/O INITIATION
		*			ALSO USED
		*			BY ERROR SC AN FOR UNIT
		*			EXCEPTION
		*			ON THE 1052-7
30 00648		ECWASERE	DS	1F	ENTRY TO SAM ERROR RECOVERY
30 0064C		ECWATERA	DS	1F	ENTRY TO TAM ERROR RECOVERY
30 00650		ECWATERB	DS	1F	ENTRY TO TAM ERROR RECOVERY
30 00654		ECWAERSD	DS	1F	ENTRY TO ERROR SCAN FOR
		*			INTERVENTION REQUIRED
30 00658		ECWASERC	DS	1F	ENTRY TO SAM ERROR RECOVERY
30 0065C		ECWADERD	DS	1F	ENTRY TO DASDAM ERROR
		*			RECOVERY
30 00660		ECWACERD	DS	1F	ENTRY TO CAM ERROR RECOVERY
30 00664		ECWALDB	DS	0B	END OF LOAD AREA

Support System Device Allocation Table (CHAECX)

The Support System Device Allocation Table (SSDAT) maintains certain information about the system devices for TSS I/O. The VSS copy of the SSDAT resides in IVM. The RSS copy is divided into a resident and a transient portion.

The resident portion of the SSDAT comprises a 12 byte header and four twelve-byte entries. The first entry is contiguous to the header and defines the Main Operator's terminal. The next three device entries are contiguous to the first and define the RSS residence devices.

The remainder of the SSDAT is nonresident, loaded by the RSS loader when RSS is activated. This portion of the SSDAT contains one device entry for every device in the system.

The SSDAT is created by SYSGEN/STARTUP from information contained in CHASDA, and the Pathfinding tables.

CHAECX Storage map

DEC	HEX	
0	0	ECXBFDE   ECXBLDE
8	8	ECXBSADT   ECXBMOT
24	18	ECXBRRES
32	20	ECXBSRES
48	30	ECXBTRES
56	38	ECXBSDA   ECXBPHP
64	40	ECXBPHP2   ECXBFL1   ECXBFL2   ECXBDEV

ORG ECXBDEV

68	44	ECXBDEA   ECXBDEB   ECXBDEC   ECXBDED
----	----	---------------------------------------

Fields in CHAECX -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ECXBFDE	0048	0030	ECXBTRES	0066	0042	ECXBFL1
0000	0000	ECXBHEAD	0060	003C	ECXBSDA	0067	0043	ECXBFL2
0004	0004	ECXBLDE	0060	003C	ECXBGDE	0068	0044	ECXBDEA
0008	0008	ECXBSADT	0062	003E	ECXBPHP	0068	0044	ECXBDEV
0012	000C	ECXBMOT	0064	0040	ECXBPHP2	0069	0045	ECXBDEB
0024	0018	ECXBRRES	0066	0042	ECXBCAL (EQU)	0070	0046	ECXBDEC
0036	0024	ECXBSRES	0066	0042	ECXBVAM (EQU)	0071	0047	ECXBDED

Alphabetical list of fields in CHAECX

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ECXBCAL	0066	0042 (EQU)	ECXBFL1	0066	0042	ECXBPHP2	0064	0040
ECXBDEA	0068	0044	ECXBFL2	0067	0043	ECXBRRES	0024	0018
ECXBDEB	0069	0045	ECXBGDE	0060	003C	ECXBSADT	0008	0008
ECXBDEC	0070	0046	ECXBHEAD	0000	0000	ECXBSDA	0060	003C
ECXBDED	0071	0047	ECXBLDE	0004	0004	ECXBSRES	0036	0024
ECXBDEV	0068	0044	ECXBMOT	0012	000C	ECXBTRES	0048	0030
ECXBFDE	0000	0000	ECXBPHP	0062	003E	ECXBVAM	0066	0042 (EQU)

Assembler listing of CHAECX

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LOCATION INSTRUCTION SOURCE INST OPER COMMENT
31 00000 CHAECX DSECT
*****
*TITLE 'CHAECX' - SUPPORT SYSTEM DEVICE ALLOCATION TABLE ( SSDAT ) *
*STATUS: CHANGE LEVEL 000 *
*FUNCTION/OPERATION: THE RESIDENT PORTION OF THE SSDAT CONSISTS OF A *
* 12 BYTE HEADER AND 4 - 12 BYTE ENTRIES. THE FIRST*
* DEVICE ENTRY IS CONTIGUOUS TO THE HEADER AND *
* DEFINES THE MAIN OPERATOR'S TERMINAL. THE NEXT *
* THREE DEVICE ENTRIES DEFINE TSSS RESIDENCE AND *
* ARE CONTIGUOUS TO THE MOT ENTRY. THE REMAINDER OF*
* THE TABLE IS NON-RESIDENT AND IS LOADED BY THE *
* RSS LOADER WHEN RSS IS ACTIVATED. IT IS CREATED *
* BY TSS SYSGEN/STARTUP FROM INFO CONTAINED IN THE *
* SDAT AND PATH-FINDING TABLES AND STORED IN A *
* PREDEFINED LOCATION ON THE RSS RESIDENCE DEVICES.*
* IT CONSISTS OF ONE DEVICE ENTRY FOR EVERY DEVICE *
* ON THE SYSTEM AT STARTUP IN ASCENDING ORDER BY *
* SYMBOLIC DEVICE ADDRESS. ALL ENTRIES IN THE *
* NON-RESIDENT PORTION OF THIS TABLE ARE CONTIGUOUS*
*ENTRY POINTS: NOT APPLICABLE *
*INPUT/OUTPUT: NOT APPLICABLE *
*EXITS: NOT APPLICABLE *
*TABLES/WORK AREAS: NOT APPLICABLE *
*ATTRIBUTES: PARTIALLY RESIDENT *
* PARTIALLY NON-RESIDENT *
*NOTES THE CSECT NAMES FOR THIS TABLE ARE AS FOLLOWS - *
* RSS - CHBECXRA *
* RESIDENT PORTION - CHBECXRA *
* NON-RESIDENT PORTION - CHBECXRB *
* VSS - CHBECXVA *
*****
31 00000 DS 0D
* THE FOLLOWING FIELDS REPRESENT THE HEADER
31 00000 ECXBHEAD DS 0CL12
31 00000 ECXBFDE DS 1F POINTER TO THE FIRST
* NON-RESIDENT DEVICE ENTRY
31 00004 ECXBLDE DS 1F POINTER TO THE LAST
* NON-RESIDENT DEVICE ENTRY
31 00008 ECXBSADT DS 1F RESERVED FOR USE BY
* RSS/VSS.
* THE FOLLOWING ENTRIES ARE RESIDENT AND CONTIGUOUS
* WITH THE HEADER.
31 0000C ECXB MOT DS 3F MAIN OPERATOR'S TERMINAL
* ENTRY
31 00018 ECXBRRES DS 3F RSS RESIDENCE DEVICE ENTRY
31 00024 ECXBSRES DS 3F RESIDENCE DEVICE ENTRY
31 00030 ECXBTRES DS 3F RESIDENCE DEVICE ENTRY
* A RESIDENCE DEVICE ENTRY WHICH IS NON-EXISTENT *
* WILL HAVE ALL BITS ON IN THE SYMBOLIC DEVICE *
* ADDRESS, PHYSICAL PATH AND ALTERNATE PATH FIELDS *
* OF THE ENTRY. *
* THE FOLLOWING IS A GENERAL DEVICE ENTRY *
* THE ALTERNATE PHYSICAL PATH FIELD OF A DEVICE *
* ENTRY WILL HAVE ALL BITS ON IF NO ALTERNATE *
* PATH EXISTS. *
* ONLY THE DEVICES READY AT STARTUP WILL HAVE *
* ENTRIES GENERATED FOR THEM. THEREFORE, EVERY *
* GENERAL DEVICE ENTRY WILL HAVE A VALID SYMBOLIC *
* DEVICE ADDRESS AND PHYSICAL PATH. *
31 0003C ECXBGDE DS 0CL12 THIS LABEL SHOULD BE USED
* AS A BASE WHEN
* ADDRESSING ANY GENERAL
* DEVICE ENTRY
31 0003C ECXBSDA DS 1H SYMBOLIC DEVICE ADDRESS
31 0003E ECXBPHP DS 1H PHYSICAL PATH
31 00040 ECXBPHP2 DS 1H ALTERNATE PHYSICAL PATH
31 00042 ECXBFL1 DS 1C FLAG BYTE 1
31 00042 ECXBVAM EQU ECXBFL1 'DEVICE IS VAM
(Listing of CHAECX continued on page 191)

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(Listing of CHAECX continued from page 190)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000080	ECXBVAMM	EQU	X'80'	FORMATED' FLAG BYTE
	31 00042	ECXBCAL	EQU	ECXBFL1	'DEVICE IS VAM FORMATED' FLAG
	00000040	ECXBCALM	EQU	X'40'	'DEVICE CAN BE CALLED' FLAG BYTE
*					'DEVICE CAN BE CALLED' MASK
*					FLAG BYTE ECXBFL1 IS FILLED IN BY STARTUP.
*					ACCESS DEVICE CONTAINS A VAM FORMATTED PACK OR DRUM.
*					DEVICE CAN BE CALLED FLAG IS SET WHEN THE DEVICE
*					DRIVE, 2540 CARD READER, 1050 TELECOMMUNICATIONS
*					SYSTEM WITH A 1056 CARD READER ATTACHED.
31	00043	ECXBFL2	DS	1C	RESERVED FOR FUTURE USE.
*					THE FOLLOWING WORD OF DEVICE DEFINING INFORMATION IS
*					EXACTLY THE SAME AS ITS CORRESPONDING WORD IN TSS SDAT.*
31	00044	ECXBDEV	DS	1F	DEVICE DEFINING INFORMATION
	31 00044		ORG	ECXBDEV	
31	00044	ECXBDEA	DS	1B	MODEL CODE
	00000000	ECXBMCNM	EQU	X'00'	NON-TERMINAL DEVICE
	00000001	ECXBMCAM	EQU	X'01'	1050 MASK
	00000002	ECXBMCBM	EQU	X'02'	2741 MASK
	00000003	ECXBMCAM	EQU	X'03'	TTY MOD 35 MASK
	00000004	ECXBDCM	EQU	X'04'	1052-7 MASK
31	00045	ECXBDEB	DS	1B	DEVICE CLASS
	00000008	ECXBDCAM	EQU	X'08'	UNIT RECORD MASK
	00000020	ECXBDCBM	EQU	X'20'	DIRECT ACCESS MASK
	00000080	ECXBDCM	EQU	X'80'	MAGNETIC TAPE MASK
	00000001	ECXBDCM	EQU	X'01'	DIAL LINE MASK
31	00046	ECXBDEC	DS	1B	UNIT TYPE
	00000002	ECXBUTBM	EQU	X'02'	2540 CARD PUNCH MASK
	00000008	ECXBUTCM	EQU	X'08'	1403 PRINTER MASK
	00000001	ECXBUTEM	EQU	X'01'	2311 MASK
	00000002	ECXBUTFM	EQU	X'02'	2301 MASK
	00000003	ECXBUTGM	EQU	X'03'	2321 MASK
	00000008	ECXBUTIM	EQU	X'08'	2314 MASK
	00000001	ECXBUTJM	EQU	X'01'	2400 SERIES MAGNETIC TAPE MASK
	00000010	ECXBUTDM	EQU	X'10'	2671 PPT READER MASK
	00000010	ECXBUTKM	EQU	X'10'	IBM TERMINAL ADAPTER TYPE I MASK
	00000020	ECXBUTLM	EQU	X'20'	IBM TERMINAL ADAPTER TYPE II MASK
	00000030	ECXBUTMM	EQU	X'30'	TELEGRAPH ADAPTER TYPE I MASK
	00000040	ECXBUTNM	EQU	X'40'	TELEGRAPH ADAPTER TYPE II MASK
	00000080	ECXBUTPM	EQU	X'80'	WORLD TRADE TELEGRAPH ADAPTER MASK - TAM
	00000001	ECXBUTSM	EQU	X'01'	2702 ON MULTIPLEXOR CHANNEL MASK - TAM
	00000002	ECXBUTTM	EQU	X'02'	2701 ON MULTIPLEXOR MASK
	00000003	ECXBUTUM	EQU	X'03'	1052-7 ON MULTIPLEXOR MASK
	00000004	ECXBUTVM	EQU	X'04'	1052-7 ON SELECTOR MASK
	00000005	ECXBUTWM	EQU	X'05'	2701 ON SELECTOR MASK
	00000006	ECXBUTXM	EQU	X'06'	2703 TRANSMISSION CONTROL UNIT
31	00047	ECXBDED	DS	1B	OPTIONAL FEATURES
	00000080	ECXBDFAM	EQU	X'80'	CARD IMAGE MASK-SAM
	00000040	ECXBDFBM	EQU	X'40'	PUNCH FEED MASK-SAM
	00000080	ECXBDFCM	EQU	X'80'	UNIVERSAL CHARACTER MASK-SAM
	00000080	ECXBDFDM	EQU	X'80'	SCAN MASK-DASDAM
	00000040	ECXBDFEM	EQU	X'40'	TRACK OVERFLOW MASK-DASDAM
	000000B0	ECXBDFTM	EQU	X'B0'	SCAN & TRACK OVERFLOW MASK - DASDAM
	000000E0	ECXBDFFM	EQU	X'E0'	7 TRACK WITH DATA CONVERSION MASK-SAM
*					DEVICE IS VAM FORMATTED FLAG IS SET WHEN A DIRECT
*					IS A SEQUENTIAL INPUT DEVICE IE. 2400 TAPE

(Listing of CHAECX continued on page 192)

(Listing of CHAECX continued from page 191)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000002	ECXBDCM	EQU	X'02'	DEDICATED LINE MASK
	00000004	ECXBDCFM	EQU	X'04'	AUTOMATIC CALL FEATURE MASK
	00000001	ECXBUTAM	EQU	X'01'	2540 CARD READER MASK
	00000000	ECXBDFKM	EQU	X'00'	SAD ZERO MASK-TAM
	00000001	ECXBDFLM	EQU	X'01'	SAD ONE MASK-TAM
	00000002	ECXBDFMM	EQU	X'02'	SAD TWO MASK-TAM
	00000003	ECXBDFNM	EQU	X'03'	SAD THREE MASK-TAM
	00000010	ECXBDFOM	EQU	X'10'	IBM LINE ADAPTER TYPE I - TAM
	00000020	ECXBDFPM	EQU	X'20'	IBM LINE ADAPTER TYPE II - TAM
	00000030	ECXBDFQM	EQU	X'30'	DATA SET LINE ADAPTER - TAM
	00000040	ECXBDFRM	EQU	X'40'	AUTOMATIC CALL ADAPTER - TAM
	00000050	ECXBDFSM	EQU	X'50'	TELEGRAPH LINE ADAPTER - TAM

31 00048 |ORG|

```

*****
*          ECXBDEA = MODEL CODE          *
*          ECXBDEB = DEVICE CLASSES      *
*          ECXBDEC = UNIT TYPE            *
*          ECXBDED = OPTIONAL FEATURES    *
* ECXBDEA          ECXBDEB          ECXBDEC          ECXBDED          *
* 00              08=UNIT          01=2540 READER    80=CARD IMAGE    *
*                  RECORD          02=2540 PUNCH     40=PUNCH FEED     *
*                  08=1403 PRINTER 80=UNIVERSAL     *
*                                     CHARACTERS      *
*                  10=2671 PPT READER *

```

Error Recovery Control Communications Area (CHAERC)

CHAERC contains information about system configuration, system status, and device paths which will be used by the SERR modules.

CHAERC Storage map

DEC	HEX	
0	0	RESERVED
3072	C00	ERCSYS   ERCPLS
3080	C08	ERCPLR   ERCSAQ
3088	C10	UNNAMED   ERCDPP
3096	C18	ERCDPL   ERCODP
3104	C20	ERCODL   ERCPDA   ERCODA
3112	C28	ERCSSA   ERCSRT
3120	C30	ERCSP1   ERCSP2
3128	C38	ERCRI4   ERCR00
3136	C40	ERCRO1   ERCR02
3144	C48	ERCRO3   ERCR04
3152	C50	ERCNUC   ERCMID   ERCCDE
3160	C58	ERCDLY   UNNAMED
3168	C60	ERCA31
3176	C68	ERCA11
3184	C70	ERCJ11   ERCPH
3192	C78	ERCBAS   ERCCDE   UNNAMED
3200	C80	ERCDIS
3208	C88	ERCMCW
3216	C90	ERCPSW
3224	C98	ERCZIP
3232	CA0	ERCPAG   ERCEIG   ERCCLK
3240	CAB	ERCOPA
3248	CBO	ERCTGR

(CHAERC continued on page 194)

(CHAERC continued from page 193)

DEC	HEX	FIELD
3312	CF0	UNNAMED
3360	D20	ERCMA1   ERCTIM   ERCGPR   ERCMA2   ERCSIC   ERCMUL   ERCALT
3368	D28	ERCPIN   ERCTPP   ERCPRI   UNNAMED   ERCTMP
3376	D30	ERCLCL   ERCSCL
3384	D38	ERCCR6   ERCLR2

Fields in CHAERC -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
3072	0C00	ERCSYS	3148	0C4C	ERCR04	3248	0CB0	ERCTGR
3076	0C04	ERCPLS	3152	0C50	ERCNUC	3360	0D20	ERCMA1
3080	0C08	ERCPLR	3156	0C54	ERCMID	3360	0D20	ERCBYT
3084	0C0C	ERCSAQ	3158	0C56	ERCCDE	3361	0D21	ERCTIM
3092	0C14	ERCDPP	3160	0C58	ERCDLY	3362	0D22	ERCGPR
3096	0C18	ERCDPL	3168	0C60	ERCA31	3363	0D23	ERCMA2
3100	0C1C	ERCODP	3176	0C68	ERCA11	3364	0D24	ERCSIC
3104	0C20	ERCODL	3184	0C70	ERCJ11	3366	0D26	ERCMUL
3108	0C24	ERCPDA	3188	0C74	ERCPH	3367	0D27	ERCALT
3110	0C26	ERCODA	3192	0C78	ERCBAS	3368	0D28	ERCPIN
3112	0C28	ERCSSA	3196	0C7C	ERCODE	3369	0D29	ERCTPP
3116	0C2C	ERCSRT	3200	0C80	ERCDIS	3370	0D2A	ERCPRI
3120	0C30	ERCSPI	3208	0C88	ERCMCW	3372	0D2C	ERCTMP
3124	0C34	ERCSPI2	3216	0C90	ERCPSP	3376	0D30	ERCLCL
3128	0C38	ERCLR14	3224	0C98	ERCZIP	3380	0D34	ERCSCL
3132	0C3C	ERCR00	3232	0CA0	ERCPAG	3384	0D38	ERCCR6
3136	0C40	ERCR01	3234	0CA2	ERCEIG	3388	0D3C	ERCLR2
3140	0C44	ERCR02	3236	0CA4	ERCLK			
3144	0C48	ERCR03	3240	0CA8	ERCOA			

Alphabetical list of fields in CHAERC

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ERCALT	3367	0D27	ERCMID	3156	0C54	ERCR03	3144	0C48
ERCA11	3176	0C68	ERCMUL	3366	0D26	ERCR04	3148	0C4C
ERCA31	3168	0C60	ERCNUC	3152	0C50	ERCLR12	3388	0D3C
ERCBAS	3192	0C78	ERCODA	3110	0C26	ERCLR14	3128	0C38
ERCBYT	3360	0D20	ERCODE	3196	0C7C	ERCSAQ	3084	0C0C
ERCCDE	3158	0C56	ERCODL	3104	0C20	ERCSCL	3380	0D34
ERCLK	3236	0CA4	ERCODP	3100	0C1C	ERCSIC	3364	0D24
ERCCR6	3384	0D38	ERCOA	3240	0CA8	ERCSPI	3120	0C30
ERCDIS	3200	0C80	ERCPAG	3232	0CA0	ERCSPI2	3124	0C34
ERCDLY	3160	0C58	ERCPDA	3108	0C24	ERCSRT	3116	0C2C
ERCDPL	3096	0C18	ERCPIN	3368	0D28	ERCSSA	3112	0C28
ERCDPP	3092	0C14	ERCPLR	3080	0C08	ERCSYS	3072	0C00
ERCEIG	3234	0CA2	ERCPLS	3076	0C04	ERCTGR	3248	0CB0
ERCGPR	3362	0D22	ERCPRI	3370	0D2A	ERCTIM	3361	0D21
ERCJ11	3184	0C70	ERCPSP	3216	0C90	ERCTMP	3372	0D2C
ERCLCL	3376	0D30	ERCPH	3188	0C74	ERCTPP	3369	0D29
ERCMA1	3360	0D20	ERCR00	3132	0C3C	ERCZIP	3224	0C98
ERCMA2	3363	0D23	ERCR01	3136	0C40			
ERCMCW	3208	0C88	ERCR02	3140	0C44			



Assembler listing of CHAERC

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	33 0000	CHAERC		DSECT	
*****					
* THIS DSECT IS USED TO COVER THE ERROR RECOVERY CONTROL COMMUNICATION*					
* WORK AREA WHICH IS MAINTAINED IN THE MODULE CHBER. IT CONTAINS *					
* INFORMATION ABOUT SYSTEM CONFIGURATION, SYSTEM STATUS AND DEVICE *					
* PATHS WHICH WILL BE USED BY THE SERR MODULES. THIS DSECT HAS BEEN *					
* RECODED FOR APAR I5420. *					
*****					
	33 00C00		ORG	CHAERC+3072	
33 00C00	ERCSYS	DS	A		SYSTEM TABLE ADDR
33 00C04	ERCPLS	DS	A		SERR PAGE LOC - FIRST
	*				MODULE
33 00C08	ERCPLR	DS	A		RECONFIGURATION PAGE LOC
33 00C0C	ERCSAQ	DS	A		SERR AUXILLARY QUE ADDR
33 00C10		DS	XL4		RESERVED
33 00C14	ERCDPP	DS	A		ADDR OF PAGE DEVICE ADDRESS
	*				TBL
33 00C18	ERCDPL	DS	F		LENGTH OF PAGE DEVICE
	*				ADDRESS TBL
33 00C1C	ERCODP	DS	A		ADDR OF OP DEVICE PATH TBL
33 00C20	ERCODL	DS	F		LENGTH OF OP DEVICE PATH
	*				TBL
33 00C24	ERCPDA	DS	XL2		PAGE DRUM PATH
33 00C26	ERCODA	DS	XL2		OP DEVICE PATH
33 00C28	ERCSSA	DS	A		SERR SAVE AREA ADDR
33 00C2C	ERCSRT	DS	A		SERR BOOT RET ADDR
33 00C30	ERCSP1	DS	XL4		SERR TEST CONTROL WORD
33 00C34	ERCSP2	DS	A		HOOK FOR TEST CASES
	* SERR	BOOT	PARAMETER	SAVE	AREA
33 00C38	ERCR14	DS	A		GPR 14 RETURN ADDR
33 00C3C	ERCR00	DS	A		GPR 0 CALL TYPE CODE - LOW
	*				ORDER BYTE
33 00C40	ERCR01	DS	A		GPR 1 FAIL CPU ID - DATA
	*				RECORD ADDR
33 00C44	ERCR02	DS	A		GPR 2 FAIL CPU PREFIX
33 00C48	ERCR03	DS	A		GPR 3 SERR OP AREA ADDR
33 00C4C	ERCR04	DS	A		GPR 4 CALLER SAVE AREA
	*				ADDR
33 00C50	ERCNUC	DS	A		NUCLEUS BASE ADDR
	*				SERR BOOT WORK AREA
33 00C54	ERCMID	DS	XL2		REQUESTED MODULE ID
33 00C56	ERCCDE	DS	XL2		CHANNEL STATUS ON PAGE OP
33 00C58	ERCDLY	DS	F		DELAY COUNT FOR PAGE OP
33 00C5C		DS	XL4		RESERVED
33 00C60	ERCA31	DS	XL8		DRUM LOC OF MODULE LOADED
33 00C68	ERCA11	DS	XL8		INPUT AREA FOR SENSE
33 00C70	ERCJ11	DS	A		CURRENT AUXILLARY QUE ENTRY
	*				ADDR
33 00C74	ERCPTH	DS	A		CURRENT DRUM PATH ENTRY
	*				ADDR
33 00C78	ERCBAS	DS	A		SERR BOOT BASE ADDR
	*				RECOVERY NUCLEUS WORK AREA
33 00C7C	ERCODE	DS	X		ERROR CODE STORAGE
33 00C7D		DS	XL3		RESERVED
33 00C80	ERCDIS	DS	XL8		ENABLE-DISABLE PSW
	* DIAGNOSE	MAINTENANCE	CONTROL	WORD	(MCW)
33 00C88	ERCMCW	DS	XL8		MCW BUILD AREA
33 00C90	ERCPSW	DS	XL8		SAVE PSW
33 00C98	ERCZIP	DS	XL8		PSW BUILD AREA
33 00CA0	ERCPAG	DS	H		PAGE LENGTH
33 00CA2	ERCEIG	DS	AL2		CPU STATUS ADDR
33 00CA4	ERCCLK	DS	XL4		SAVED CLOCK
33 00CA8	ERCOPA	DS	XL8		EXTNL OLD PSW
33 00CB0	ERCTGR	DS	16A		GPR SAVE AREA
33 00CF0		DS	12A		NUCLEUS GPR 2-13
33 00D20	ERCBYT	DS	0D		DUPLEX TEST BYTES AND FLAGS
33 00D20	ERCMA1	DS	X		MALFUNCTION ALERT FLAG 1
33 00D21	ERCTIM	DS	X		CLOCK SAVED FLAG

(Listing of CHAERC continued on page 196)

(Listing of CHAERC continued from page 195)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
33 00D22		ERCGPR	DS	X	GPR SAVED FLAG
33 00D23		ERCMA2	DS	X	MALFUNCTION ALERT FLAG 2
33 00D24		ERCSIC	DS	XL2	SAVED INSTRUCTION COUNTER
33 00D26		ERCMUL	DS	X	DUPLEX DOUBLE MACH CHECK FLAG
33 00D27		ERCALT	DS	X	ALTERNATE PREFIX IN USE FLAG
33 00D28		ERCPIN	DS	X	DOUBLE MACH CHECK INTERRUPT CODE
33 00D29		ERCTPP	DS	X	PING-PONG FLAG
33 00D2A		ERCPRI	DS	X	CPU PRIORITY FLAG
33 00D2B			DS	X	RESERVED
33 00D2C		ERCTMP	DS	A	TEMPORARY GPR SAVE
33 00D30		ERCLCL	DS	F	CLOCK RESET VALUE
33 00D34		ERCSCS	DS	XL4	SAVED CLOCK
33 00D38		ERCCR6	DS	A	ECR 6 SAVE AREA
33 00D3C		ERCRI2	DS	A	TEMPORARY REG 12 SAVE

SERR/EMCI Data Table (CHAERE)

The SERR/EMCI Data Table (CHAERE) maintains data passed from the External Machine Check Interrupt Processor (EMCI) to the System Environment Recording (SERR) Program. The 88-byte CHAERE resides in core storage aligned on word boundaries.

CHAERE Storage map

DEC	HEX								
0	0	ERECPU	UNNAMED	ERETLN	EREMOD	ERECTC	EREF1	EREF2	
8	8	EREDAT				ERETIM			
16	10	EREUID							
24	18	EREPSW							
32	20	EREFF				ERECCA			
40	28	ERECAM							
48	30	ERECUA	ERESDA	EREINT	ERERCT	EREPNG			
56	38	ERECSW							
64	40	ERELOG							

Fields in CHAERE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	ERECPU	0007	0007	ERERS	(EQU)	0036	0024	ERECCA
0002	0002	ERETLN	0007	0007	ERELP	(EQU)	0040	0028	ERECAM
0004	0004	EREMOD	0007	0007	EREC	(EQU)	0048	0030	ERECUA
0005	0005	ERECTC	0007	0007	EREF2		0050	0032	ERESDA
0006	0006	ERECM	(EQU)	0008	0008	EREDAT	0052	0034	EREINT
0006	0006	EREEC	(EQU)	0012	000C	ERETIM	0054	0036	ERERCT
0006	0006	EREF1		0016	0010	EREUID	0055	0037	EREPNG
0007	0007	ERESF	(EQU)	0024	0018	EREPSW	0056	0038	EREC
0007	0007	ERES	(EQU)	0032	0020	EREFF	0064	0040	ERELOG

Alphabetical list of fields in CHAERE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ERECAM	0040	0028	EREDAT	0008	0008	EREPNG	0055	0037
ERECCA	0036	0024	EREEC	0006	0006	(EQU) ERERCT	0024	0018
ERECM	0006	0006	(EQU) EREF1	0006	0006	ERERS	0054	0036
EREC	0007	0007	(EQU) EREF2	0007	0007	ERESDA	0007	0007
ERECPU	0000	0000	EREINT	0052	0034	ERESF	0007	0007
ERES	0007	0007	(EQU) ERELOG	0064	0040	ERETIM	0012	000C
EREC	0007	0007	ERELP	0007	0007	(EQU) ERETIN	0002	0002
EREC	0007	0007	EREMOD	0004	0004	ERETLN	0002	0002
EREC	0007	0007	EREPP	0032	0020	EREUID	0016	0010

Assembler listing of CHAERE

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	34 00000	CHAERE	DSECT		SERR EMCI DATA TABLE
34 00000		ERECPU	DS	X	CPU(S) ID (ORED TOGETHER)
34 00001			DS	X	NOT USED
34 00002		ERETLN	DS	H	TABLE LENGTH IN BYTES (=88)
34 00004		EREMOD	DS	X	S/360 MODEL NUMBER (=67)
34 00005		ERECTC	DS	X	CALL TYPE CODE (=X'29')
34 00006		EREF1	DS	X	FIRST FLAG FIELD
	34 00006	EREEC	EQU	EREF1	RECORD ENTRY COMPLETE

(Listing of CHAERE continued on page 198)

(Listing of CHAERE continued from page 197)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000080	ERECEM	EQU	X'80'	ERECE MASK
	34 00006	ERECM	EQU	EREF1	CPU MODEL:
		*			ON--2067-1/OFF--2067-2
	00000040	ERECMM	EQU	X'40'	ERECM MASK
34 00007		EREF2	DS	X	SECOND FLAG FIELD
	34 00007	ERECF	EQU	EREF2	CSW PRESENT
	00000080	ERECPM	EQU	X'80'	ERECF MASK
	34 00007	ERELP	EQU	EREF2	CHANNEL LOG-OUT DATA
		*			PRESENT
	00000040	ERELPM	EQU	X'40'	ERELP MASK
	34 00007	ERERS	EQU	EREF2	RETRY ATTEMPTED
	00000020	ERERSM	EQU	X'20'	ERERS MASK
	34 00007	ERECF	EQU	EREF2	ERECUA PRESENT
	00000010	ERECF	EQU	X'10'	ERECF MASK
	34 00007	ERESF	EQU	EREF2	SELECT IO FAILURE
	00000008	ERESFM	EQU	X'08'	ERESF MASK
34 00008		EREDAT	DS	F	ERECUA FOR OTHER CPU (IF
		*			APPLICABLE)
34 0000C		ERETIM	DS	F	TIME OF EMCI
34 00010		EREUID	DS	D	CURRENT USER ID
34 00018		EREPSW	DS	D	MACHINE CHECK OLD PSW
		*			(EMCI'D CPU)
34 00020		EREPF	DS	F	ACTIVE PREFIX OF EMCI'D CPU
34 00024		ERECCA	DS	F	CCU CHANNEL ACTIVITY MAP
34 00028		ERECAM	DS	D	SYSTEM CHANNEL TYPE MAP
34 00030		ERECUA	DS	H	CHAN-UNIT ADDR (ACTUAL
		*			DEVICE ADDR)
34 00032		ERESDA	DS	H	NOT USED
34 00034		EREINT	DS	H	INTERRUPT CODE OF PSW IN
		*			EREPSW
34 00036		ERERCT	DS	X	CHANNEL FAILURE COUNT
34 00037		EREPNG	DS	X	NO. OF CPU'S HANDLING OWN
		*			EMCI IN DUPLEX ENVIRONMENT
34 00038		ERECF	DS	D	CSW (CAUSED BY EMCI)
34 00040		ERELOG	DS	3D	CHANNEL LOG-OUT DATA (DUE
		*			TO EMCI)

Error Recording Block (CHAERR)

CHAERR is used to pass error recording information from main storage (CEATCS) to virtual storage (VMSTR and V|ER). Module CZCTR processes this interface. CHAERR contains error recording statistics, such as:

1. The CSW which indicates the error.
2. The initial CCW causing the error.
3. The sense data.

CHAERR Storage map

DEC	HEX								
0	0	ERRCSW							
8	8	ERRCHAN							
32	20	ERRCNT	ERRFLG1	ERRFLG2	ERRNO	ERRREL	ERRSAV1		
40	28	ERRCCW							
120	78	ERRSNS0	ERRSNS1	ERRSNS2	ERRSNS3	ERRSNS4	ERRSNS5	ERRSNS6	ERRSNS7
128	80	ERRSDA			ERRPATH				

ORG ERRCSW

0	0	ERRCSW1	ERRCSW2	ERRCSW3
---	---	---------	---------	---------

ORG ERRCSW3

4	4	ERRSTA1	ERRSTA2	ERRCSW4
---	---	---------	---------	---------

Fields in CHAERR -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ERRCSW1	0033	0021	ERRINL1 (EQU)	0037	0025	ERRSAV1
0000	0000	ERRCSW	0033	0021	ERRINT (EQU)	0040	0028	ERRCCW
0001	0001	ERRCSW2	0033	0021	ERRSLD (EQU)	0120	0078	ERRSNS0
0004	0004	ERRSTA1	0033	0021	ERRIN (EQU)	0121	0079	ERRSNS1
0004	0004	ERRCSW3	0033	0021	ERROUT (EQU)	0122	007A	ERRSNS2
0005	0005	ERRSTA2	0033	0021	ERRSN2 (EQU)	0123	007B	ERRSNS3
0006	0006	ERRCSW4	0033	0021	ERRSN1 (EQU)	0124	007C	ERRSNS4
0008	0008	ERRCHAN	0033	0021	ERRFLG1 (EQU)	0125	007D	ERRSNS5
0032	0020	ERRCNT	0034	0022	ERRCD (EQU)	0126	007E	ERRSNS6
0033	0021	ERRVD (EQU)	0034	0022	ERRFLG2 (EQU)	0127	007F	ERRSNS7
0033	0021	ERRINL2M (EQU)	0035	0023	ERRNO (EQU)	0128	0080	ERRSDA
0033	0021	ERRINL2 (EQU)	0036	0024	ERRREL (EQU)	0130	0082	ERRPATH

Alphabetical list of fields in CHAERR

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
ERRCCW	0040	0028	ERRINL1	0033	0021 (EQU)	ERRSNS1	0121	0079
ERRCD	0034	0022 (EQU)	ERRINL2	0033	0021 (EQU)	ERRSNS2	0122	007A
ERRCHAN	0008	0008	ERRINL2M	0033	0021 (EQU)	ERRSNS3	0123	007B
ERRCNT	0032	0020	ERRINT	0033	0021 (EQU)	ERRSNS4	0124	007C
ERRCSW	0000	0000	ERRNO	0035	0023	ERRSNS5	0125	007D
ERRCSW1	0000	0000	ERROUT	0033	0021 (EQU)	ERRSNS6	0126	007E
ERRCSW2	0001	0001	ERRPATH	0130	0082	ERRSNS7	0127	007F
ERRCSW3	0004	0004	ERRREL	0036	0024	ERRSN1	0033	0021 (EQU)
ERRCSW4	0006	0006	ERRSAV1	0037	0025	ERRSN2	0033	0021 (EQU)
ERRFLG1	0033	0021	ERRSDA	0128	0080	ERRSTA1	0004	0004
ERRFLG2	0034	0022	ERRSLD	0033	0021 (EQU)	ERRSTA2	0005	0005
ERRIN	0033	0021 (EQU)	ERRSNS0	0120	0078	ERRVD	0033	0021 (EQU)

Assembler listing of CHAERR

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
35 00000	35 00000	CHAERR	DSECT		ERROR RECORDING BACK
35 00000			DS	0D	ALIGN ON DOUBLE WORD
35 00000	35 00000	ERRCSW	DS	D	CSW FROM INTERRUPT GQE-
35 00000			ORG	ERRCSW	IDENTIFY FIELDS IN CSW
35 00000		ERRCSW1	DS	X	KEY-FIRST 4
35 00001		*			BITS/UNUSED-SECOND 4 BITS
35 00004		ERRCSW2	DS	3XL1	COMMAND ADDRESS
35 00004		ERRCSW3	DS	H	STATUS
35 00004	35 00004		ORG	ERRCSW3	
35 00004		ERRSTA1	DS	X	1ST BYTE OF STATUS
35 00004	00000080	ERRSTA1A	EQU	X'80'	ATTENTION-NOT APPLICABLE
35 00004		*			FOR TERMINALS
35 00004	00000040	ERRSTA1B	EQU	X'40'	STATUS MODIFIER
35 00004	00000020	ERRSTA1C	EQU	X'20'	CONTROL UNIT END
35 00004	00000010	ERRSTA1D	EQU	X'10'	BUSY
35 00004	00000008	ERRSTA1E	EQU	X'08'	CHANNEL END
35 00004	00000004	ERRSTA1F	EQU	X'04'	DEVICE END
35 00004	00000002	ERRSTA1G	EQU	X'02'	UNIT CHECK
35 00004	00000001	ERRSTA1H	EQU	X'01'	UNIT EXCEPTION
35 00005		ERRSTA2	DS	X	2ND BYTE OF STATUS
35 00005	00000080	ERRSTA2A	EQU	X'80'	PCI
35 00005	00000040	ERRSTA2B	EQU	X'40'	INCORRECT LENGTH
35 00005	00000020	ERRSTA2C	EQU	X'20'	PROGRAM CHECK
35 00005	00000010	ERRSTA2D	EQU	X'10'	PROTECTION CHECK
35 00005	00000008	ERRSTA2E	EQU	X'08'	CHANNEL DATA CHECK
35 00005	00000004	ERRSTA2F	EQU	X'04'	CHANNEL CONTROL CHECK
35 00005	00000002	ERRSTA2G	EQU	X'02'	INTERFACE CONTROL CHECK
35 00005	00000001	ERRSTA2H	EQU	X'01'	CHAINING CHECK
35 00006		ERRCSW4	DS	H	BYTE COUNT
35 00008		ERRCHAN	DS	3D	CHANNEL LOGOUT DATA
35 00020		ERRCNT	DS	X	TOTAL RETRY COUNT
		*NOTE: IF SOLID ERROR FLAG SET THEN ERRCNT			
		*REPRESENTS THE NUMBER OF			
		* ATTEMPTED BEFORE THE RECOVERY PROCESSOR GAVE UP			
35 00021					RETRYs
35 00021	35 00021	ERRFLG1	DS	X	FLAG BYTE 1
35 00021	00000080	ERRSN1	EQU	ERRFLG1	SENSE DATA EXISTS
35 00021		ERRSN1M	EQU	X'80'	SENSE DATA EXISTS MASK-IF
35 00021		*			OFF U.C. IS
35 00021		*			ALSO OFF
35 00021	35 00021	ERRSN2	EQU	ERRFLG1	SENSE FAILED
35 00021	00000040	ERRSN2M	EQU	X'40'	SENSE OPERATION FAILED FLAG
35 00021		*			MASK-NO SENSE
35 00021		*			EXISTS
35 00021	35 00021	ERROUT	EQU	ERRFLG1	OUTBOARD ERROR OCCURRED
35 00021	00000020	ERROUTM	EQU	X'20'	OUTBOARD ERROR MASK
35 00021	35 00021	ERRIN	EQU	ERRFLG1	INBOARD ERROR
35 00021	00000010	ERRINM	EQU	X'10'	INBOARD ERROR MASK
35 00021	35 00021	ERRSLD	EQU	ERRFLG1	SOLID ERROR-RECOVERY FAILED
35 00021	00000008	ERRSLDM	EQU	X'08'	SOLID ERROR MASK

(Listing of CHAERR continued on page 201)

(Listing of CHAERR continued from page 200)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	35 00021	ERRINT	EQU	ERRFLG1	INTERMITTENT ERROR-RECOVERY SUCCESSFUL
	00000004	ERRINTM	EQU	X'04'	INTERMITTENT ERROR MASK
	35 00021	ERRINL1	EQU	ERRFLG1	ERROR ON INITIAL INTERRUPT-NO CCW LIST
	00000002	ERRINL1M	EQU	X'02'	ERROR ON INTIAL INTERRUPT MASK
	35 00021	ERRINL2	EQU	ERRFLG1	ERROR ON INITIAL INTERRUPT-CCW LIST
		*			REPRESENTS RECOVERY STRING ISSUED
	35 00021	ERRINL2M	EQU	ERRFLG1	ERROR ON INITIAL INTERRUPT WITH RECOVERY LIST ISSUED MASK
	35 00021	ERRVD	EQU	ERRFLG1	NO SENSE ISSUED
	00000001	ERRVDM	EQU	X'01'	NO SENSE ISSUED MASK
35 00022		ERRFLG2	DS	X	FLAG BYTE 2
	35 00022	ERRCD	EQU	ERRFLG2	CHANNEL LOGOUT DATA EXISTS
	00000080	ERRCDM	EQU	X'80'	CHANNEL LOGOUT DATA EXISTS MASK
		*			
35 00023		ERRNO	DS	X	NUMBER OF CCWS (MAX10)
35 00024		ERRREL	DS	X	RELATIVE NUMBER OF FAILING CCW
		*			
35 00025		ERRSAV1	DS	3XL1	UNUSED
35 00028		ERRCCW	DS	10D	AREA FOR CCW LIST
35 00078		ERRSNS0	DS	X	SENSE BYTE 0
35 00079		ERRSNS1	DS	X	SENSE BYTE 1
35 0007A		ERRSNS2	DS	X	SENSE BYTE 2
35 0007B		ERRSNS3	DS	X	SENSE BYTE 3
35 0007C		ERRSNS4	DS	X	SENSE BYTE 4
35 0007D		ERRSNS5	DS	X	SENSE BYTE 5
35 0007E		ERRSNS6	DS	X	SENSE BYTE 6
35 0007F		ERRSNS7	DS	X	SENSE BYTE 7
35 00080		ERRSDA	DS	H	SYMBOLIC DEVICE ADDRESS
35 00082		ERRPATH	DS	H	ACTUAL PATH ADDRESS

Enter Tables 1 and 2 (CHAET1 & CHAET2)

Enter Tables 1 and 2 (ET1 and ET2) are private tables for the use of the task monitor ENTER SVC routine.

ET1 consists of one word for each possible ENTER code beginning with zero. For assigned ENTER codes the corresponding word in the table contains a pointer to an entry in ET2; for unassigned ENTER codes the corresponding word contains all zeros.

ET2 contains an entry for each assigned ENTER code and can be accessed only by pointers in ET1.

Note: When ENTER code is invalid the entry word contains all zeros; for a valid ENTER code the entry word contains a pointer to ET2.

CHAET1 Storage map

DEC	HEX		
0	0	ET1HVC	ET1FST

Fields in CHAET1 -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ET1HVC	0004	0004	ET1FST			

Alphabetical list of fields in CHAET1

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ET1FST	0004	0004	ET1HVC	0000	0000			

Assembler listing of CHAET1

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	36 00000	CHAET1	DSECT		
		*****			TASK MONITOR ENTER TABLE 1 --
		*CONTAINS POINTERS			
		*****			TO ENTRIES IN ENTER TABLE 2
36 00000			DS	0F	
36 00000		ET1HVC	DS	F	HIGHEST VALID ENTER CODE
36 00004		ET1FST	DS	F	ADDRESS OF 1ST ENTER CODE



CHAET2 Storage map

DEC	HEX	FIELD
0	0	ET2FB1 UNNAMED ET2VC
8	8	ET2RC

ORG ET2VC

4	4	ET2SVC
---	---	--------

Fields in CHAET2 -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ET2P1 (EQU)	0000	0000	ET2FB1	0008	0008	ET2RC
0000	0000	ET2IS (EQU)	0004	0004	ET2SVC			
0000	0000	ET2TY (EQU)	0004	0004	ET2VC			

Alphabetical list of fields in CHAET2

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ET2FB1	0000	0000	ET2RC	0008	0008	ET2VC	0004	0004
ET2IS	0000	0000 (EQU)	ET2SVC	0004	0004			
ET2P1	0000	0000 (EQU)	ET2TY	0000	0000 (EQU)			

Assembler listing of CHAET2

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	37 00000	CHAET2	DSECT		
		*****			TASK MONITOR ENTER TABLE 2
37 00000			DS	OF	
37 00000		ET2FB1	DS	XL1	INDICATOR WORD 1ST BYTE
	37 00000	ET2TY	EQU	ET2FB1	TYPE 0 - V AND R CON
	0000080	ET2TYM	EQU	X'80'	1 - ADCON GROUP
	37 00000	ET2IS	EQU	ET2FB1	INT. STATUS 0 - NOT INT.
	00000040	ET2ISM	EQU	X'40'	1 - INTERRUPTABLE
	37 00000	ET2P1	EQU	ET2FB1	P1 SETTING 0 - SET P1 OFF
	00000020	ET2P1M	EQU	X'20'	1 - SET P1 ON
37 00001			DS	XL3	NOT USED
37 00004		ET2VC	DS	F	V CON
37 00008		ET2RC	DS	F	R CON
	37 00004		[ORG]	ET2VC	ADCON GROUP
37 00004		ET2SVC	DS	H	BEGINNING OF ADCON GROUP
		***			TO ACCESS THE ADCON GROUP, THE ADCOND
		*GROUP			IS USED

TSS External Page Table (CHAEXT)

CHAEXT defines and correlates main storage addresses and corresponding external locations of TSS Supervisor main storage pages rolled out by RSS. It contains any additional information necessary for defining the rolled out TSS pages. The table is built by the RSS loader and referenced by the RSS unloader.

CHAEXT Storage map

DEC	HEX			
0	0	EXTXPTCA	EXTXPTSA	EXTXPTD
8	8	EXTXPTD (CONT)	EXTXPTK1	EXTXPTK2
				EXTXPTKV

Fields in CHAEXT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	EXTXPTCA	0004	0004	EXTXPTD	0013	000D	EXTXPTK2
0002	0002	EXTXPTSA	0012	000C	EXTXPTK1	0014	000E	EXTXPTKV

Alphabetical list of fields in CHAEXT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
EXTXPTCA	0000	0000	EXTXPTKV	0014	000E	EXTXPTK2	0013	000D
EXTXPTD	0004	0004	EXTXPTK1	0012	000C	EXTXPTSA	0002	0002

Assembler listing of CHAEXT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	38 00000	CHAEXT	DS	OF	ALIGN ON WORD BOUNDRY
			DS	CL2	TSS REAL CORE ADDRESS (PT ENTRY)
					*****
*	STATUS: CHANGE LEVEL 000				TITLE: 'CHAEXT' - TSS EXTERNAL PAGE TABLE
*					*****
*					FUNCTION: THIS TABLE IS PRIMARIY USED TO
*					DEFINE AND CORRELATE
*					REAL CORE ADDRESSES AND CORRESPONDING EXTERNAL
*					LOCATIONS OF TSS SUPERVISOR CORE PAGES THAT WERE
*					ROLLED OUT BY RSS. IT ALSO CONTAINS ANY ADDITIONAL
*					INFORMATION NECESSARY FOR DEFINING THE ROLLED OUT
*					TSS PAGES.
*					THE TABLE IS BUILT BY RSS LOADER AND SUBSEQUENTLY
*					REFERENCED BY RSS UNLOADER.
					*****
38 00000			DS	OF	ALIGN ON WORD BOUNDRY
38 00000		EXTXPTCA	DS	CL2	TSS REAL CORE ADDRESS (PT ENTRY)
					*****
					BYTE 0 - BITS 0-3 SEGMENT NUMBER
					*****
					BYTE 0 - BITS 4-7 PAGE NUMBER
					*****
					BYTE 1 - BITS 0-3 PAGE NUMBER
					*****
					BYTE 1 - BITS 4-7 NOT USED
38 00002		EXTXPTSA	DS	CL2	SYMBOLIC DEVICE ADDRESS
38 00004		EXTXPTD	DS	CL8	PHYSICAL DEVICE LOCATION
					-BBCCHRR
					*****
					BYTE 0 B
					*****
					BYTE 1 B
					*****
					BYTE 2 C
					*****
					BYTE 3 C
					*****
					BYTE 4 H
					*****
					BYTE 5 H
					*****
					BYTE 6 R
					*****
					BYTE 7 UNUSED
38 0000C		EXTXPTK1	DS	CL1	FIRST PROTECT KEY SAVE AREA
38 0000D		EXTXPTK2	DS	CL1	SECOND PROTECT KEY SAVE
					AREA
					*****
38 0000E		EXTXPTKV	DS	CL2	DROP AREA FOR RSS PROTECT
					KEYS
					*****

Macro Instruction Parameter Lists (CHAFNQ, CHARDQ, CHAWRQ, CHACLQ & CHAFRQ)

The macro instruction parameter lists contain information which is passed from a macro processor to an application program.

- CHAFNQ, 16 bytes in length, passes FINDQ information.
- CHARDQ, 8 bytes in length, passes READQ information.
- CHAWRQ, 16 bytes in length, passes WRITEQ information.
- CHACLQ, 4 bytes in length, passes CLEARQ information.
- CHAFRQ, 8 bytes in length, passes FREEQ information.

CHAFNQ Storage map

DEC	HEX					
0	0	FNQCTL	FNQMSL		FNQMSA	
8	8	FNQPDV	FNQFLG	FNQDVT	FNQUNS	FNQSDA

Fields in CHAFNQ -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	FNQCTL	0010	000A	FNQDWN (EQU)	0011	000B	FNQDVT
0002	0002	FNQMSL	0010	000A	FNQATT (EQU)	0012	000C	FNQUNS
0004	0004	FNQMSA	0010	000A	FNQWRP (EQU)	0014	000E	FNQSDA
0008	0008	FNQPDV	0010	000A	FNQFLG			

Alphabetical list of fields in CHAFNQ

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
FNQATT	0010	000A (EQU)	FNQFLG	0010	000A	FNQSDA	0014	000E
FNQCTL	0000	0000	FNQMSA	0004	0004	FNQUNS	0012	000C
FNQDVT	0011	000B	FNQMSL	0002	0002	FNQWRP	0010	000A (EQU)
FNQDWN	0010	000A (EQU)	FNQPDV	0008	0008			

Assembler listing of CHAFNQ

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	39 00000	CHAFNQ	DSECT		
39 00000		FNQCTL	DS	H	MACRO CONTROL: FFFF=SCAN
		*			OPTN, OR DEV NBR
39 00002		FNQMSL	DS	H	MESSAGE LENGTH
39 00004		FNQMSA	DS	F	MESSAGE AREA
39 00008		FNQPDV	DS	H	POLLED DEVICE
39 0000A		FNQFLG	DS	XL1	FLAG BYTE
	39 0000A	FNQWRP	EQU	FNQFLG	POLLING MODE WRAP-AROUND
	00000080	FNQWRPM	EQU	X'80'	POLLING MODE WRAP-AROUND
		*			MASK
	39 0000A	FNQATT	EQU	FNQFLG	ATTENTION RECEIVED
	00000040	FNQATTM	EQU	X'40'	ATTENTION RECEIVED MASK
	39 0000A	FNQDWN	EQU	FNQFLG	DEAD LINE FLAG
		*			I5441
	00000020	FNQDWNM	EQU	X'20'	DEAD LINE MASK
		*			I5441
39 0000B		FNQDVT	DS	XL1	DEVICE TYPE
39 0000C		FNQUNS	DS	H	UNASSIGNED
39 0000E		FNQSDA	DS	H	SYMBOLIC DEVICE ADDRESS

CHARDQ Storage map

DEC	HEX						
0	0	UNNAMED	RDQDEV	UNNAMED	RDQTRN	RDQINT	RDQCSL

Fields in CHARDQ -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0002	0002	RDQDEV	0005	0005	RDQTRN	0006	0006	RDQINT
						0007	0007	RDQCSL

Alphabetical list of fields in CHARDQ

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
RDQCSL	0007	0007	RDQDEV	0002	0002	RDQINT	0006	0006
						RDQTRN	0005	0005

Assembler listing of CHARDQ

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	6C 00000	CHARDQ	DSECT		
6C 00000			DS	H	UNUSED
6C 00002		RDQDEV	DS	H	DEVICE NUMBER
6C 00004			DS	XL1	UNUSED
6C 00005		RDQTRN	DS	XL1	TRANSLATE? C'Y'=YES, * C'N'=NO
6C 00006		RDQINT	DS	XL1	INTERRUPT? C'Y'=YES, * C'N'=NO
6C 00007		RDQCSL	DS	XL1	COMPONENT SELECT: X'00', OR * X'05' - X'07'

CHAWRQ Storage map

DEC	HEX						
0	0	WRQCIN	WRQCOUT	WRQDEV	WRQMSGA		
8	8	WRQBRK	WRQINT	WRQMSGL	UNNAMED	WRQRSP	WRQTRIN

Fields in CHAWRQ -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	WRQCIN	0008	0008	WRQBRK	0014	000E	WRQTRIN
0001	0001	WRQCOUT	0009	0009	WRQINT	0015	000F	WRQTRIN
0002	0002	WRQDEV	0010	000A	WRQMSGL			
0004	0004	WRQMSGA	0013	000D	WRQRSP			

Alphabetical list of fields in CHAWRQ

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
WRQBRK	0008	0008	WRQINT	0009	0009	WRQTRIN	0015	000F
WRQCIN	0000	0000	WRQMSGA	0004	0004	WRQTRIN	0014	000E
WRQCOUT	0001	0001	WRQMSGL	0010	000A			
WRQDEV	0002	0002	WRQRSP	0013	000D			

Assembler listing of CHAWRQ

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
B8 00000	B8 00000	CHAWRQ	DSECT		
B8 00000		WRQCIN	DS	XL1	COMPONENT IN X'00', OR X'05' --- X'07'
B8 00001		*			
B8 00001		WRQCOUT	DS	XL1	COMPONENT OUT X'09', OR X'01' --- X'04'
B8 00002		*			
B8 00002		WRQDEV	DS	H	DEVICE NUMBER
B8 00004		WRQMSGA	DS	F	VM ADDR OF MESSAGE
B8 00008		WRQBRK	DS	XL1	BREAK OPTION C'Y' = YES, C'N' = NO
B8 00009		*			
B8 00009		WRQINT	DS	XL1	INTRPT OPTION C'Y' = YES, C'N' = NO
B8 0000A		*			
B8 0000A		WRQMSGL	DS	H	MESSAGE LENGTH
B8 0000C			DS	XL1	UNUSED
B8 0000D		WRQRSP	DS	XL1	RESP OPTION C'Y' = YES, C'N' = NO
B8 0000E		*			
B8 0000E		WRQTROUT	DS	XL1	TRNSL OUT C'Y' = YES, C'N' = NO
B8 0000F		*			
B8 0000F		WRQTRIN	DS	XL1	TRNSL IN C'Y' = YES, C'N' = NO
		*			

CHACLQ Storage map

DEC	HEX		
0	0	UNNAMED	CLQDEV

Fields in CHACLQ -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0002	0002	CLQDEV						

Alphabetical list of fields in CHACLQ

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
CLQDEV	0002	0002						

Assembler listing of CHACLQ

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
1A 00000	1A 00000	CHACLQ	DSECT		
1A 00000			DS	H	UNUSED
1A 00002		CLQDEV	DS	H	DEVICE NUMBER
*	22-23	UNUSED		12	*
*	24-25	UNUSED		14	*
*	26-27	UNUSED		16	*
*	28-29	UNUSED		18	*
*	30-31	UNUSED		1A	*

CHAFRQ Storage map

DEC	HEX				
0	0	FRQDIS	UNNAMED	FRQDEV	FRQMSG

Fields in CHAFRQ -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	FRQDIS	0002	0002	FRQDEV	0004	0004	FRQMSG

Alphabetical list of fields in CHAFRQ

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
FRQDEV	0002	0002	FRQDIS	0000	0000	FRQMSG	0004	0004

Assembler listing of CHAFRQ

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	3A 00000	CHAFRQ	DSECT		
3A 00000			DS	0H	
3A 00000		FRQDIS	DS	XL1	DISCONNECT BYTE
	000000FF	FRQDISM	EQU	X'FF'	
3A 00001			DS	XL1	UNUSED
3A 00002		FRQDEV	DS	H	DEVICE NUMBER
3A 00004		FRQMSG	DS	F	MSG POINTER

General Queue Entry Table (CHAGQE)

The General Queue Entry Table (GQE), a universal bookkeeping area internal to the supervisor, contains information needed by various queue processors and task interrupt routines.

Any field in the GQE, used by a routine, must be initialized by that routine, or by the routine passing information to that field.

There are four types of GQE: program interrupt GQE; SVC interrupt GQE; external interrupt GQE; and I/O interrupt GQE.

The GQE occupies 64 bytes of core storage, aligned on word boundaries.

CHAGQE Storage map

DEC	HEX				
0	0	GQEFWD		GQETSI	
8	8	GQESVC		GQESLN	GQEUNPR   GQEUNPO
16	10	GQEERR	GQEF0	GQEF5	GQEF4   GQFPCB
24	18	GQECNT	GQEF1	GQEF2	GQEF3   GQEQPS
32	20	GQEQPS (CONT)			GQESPT
40	28	GQEIGQ			GQETBID
48	30	GQECSW			
56	38	GQEDEV	GQEINT	GQEREV	

ORG GQEIGQ

40	28	GQESNS			
----	----	--------	--	--	--

ORG GQESNS

40	28	UNNAMED			GQEDT
----	----	---------	--	--	-------

ORG GQECSW

48	30	UNNAMED		GQEST	UNNAMED   GQEIA
----	----	---------	--	-------	-----------------

Fields in CHAGQE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	GQEFWD	0017	0011	GQECE (EQU)	0025	0019	GQEVN (EQU)	0025	0019	GQESS (EQU)
0004	0004	GQETSI	0017	0011	GQEF0	0025	0019	GQEWS (EQU)	0025	0019	GQEPS (EQU)
0008	0008	GQEMCB (EQU)	0018	0012	GQEF5	0025	0019	GQEVN (EQU)	0025	0019	GQEPS (EQU)
0008	0008	GQEIOR (EQU)	0019	0013	GQEP (EQU)	0025	0019	GQEP (EQU)	0025	0019	GQEP (EQU)
0008	0008	GQESVC	0019	0013	GQEPAR (EQU)	0025	0019	GQEP (EQU)	0025	0019	GQEP (EQU)
0012	000C	GQESLN	0019	0013	GQERI (EQU)	0025	0019	GQEP (EQU)	0025	0019	GQEP (EQU)
0012	000C	GQESAT	0019	0013	GQELGDT (EQU)	0025	0019	GQEP (EQU)	0025	0019	GQEP (EQU)
0014	000E	GQEUNPR	0019	0013	GQEWSP (EQU)	0026	001A	GQEP (EQU)	0026	001A	GQEP (EQU)
0015	000F	GQEUNPO	0019	0013	GQESMG (EQU)	0026	001A	GQEP (EQU)	0026	001A	GQEP (EQU)
0016	0010	GQEPIP (EQU)	0019	0013	GQEPB (EQU)	0026	001A	GQEP (EQU)	0026	001A	GQEP (EQU)
0016	0010	GQEERR	0019	0013	GQEDR (EQU)	0026	001A	GQEP (EQU)	0026	001A	GQEP (EQU)
0017	0011	GQERPST (EQU)	0019	0013	GQEF4	0026	001A	GQEP (EQU)	0026	001A	GQEP (EQU)
0017	0011	GQESK (EQU)	0020	0014	GQELOG (EQU)	0027	001B	GQEP (EQU)	0027	001B	GQEP (EQU)
0017	0011	GQEIG (EQU)	0020	0014	GQEPCB (EQU)	0027	001B	GQEP (EQU)	0027	001B	GQEP (EQU)
0017	0011	GQEPR (EQU)	0024	0018	GQETIC (EQU)	0027	001B	GQEP (EQU)	0027	001B	GQEP (EQU)
0017	0011	GQEIP (EQU)	0024	0018	GQECNT (EQU)	0027	001B	GQEP (EQU)	0027	001B	GQEP (EQU)
0017	0011	GQEP2 (EQU)	0025	0019	GQERC (EQU)	0027	001B	GQEP (EQU)	0027	001B	GQEP (EQU)
0017	0011	GQESN (EQU)	0025	0019	GQEIL (EQU)	0027	001B	GQEP (EQU)	0027	001B	GQEP (EQU)

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DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0027	001B	GQESP	(EQU)	0036	0024	GQESPT	0052	0034	GQEST
0027	001B	GQEF3		0040	0028	GQESNS	0055	0037	GQEIA
0028	001C	GQEHP	(EQU)	0040	0028	GQEIGQ	0056	0038	GQEDEV
0028	001C	GQEQPS		0044	002C	GQETBID	0058	003A	GQEINT
0028	001C	GQELQ		0047	002F	GQEDT	0059	003B	GQEEXT (EQU)
0036	0024	GQEQQQ	(EQU)	0048	0030	GQECSS	0060	003C	GQEREV

Alphabetical list of fields in CHAGQE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
GQECE	0017	0011 (EQU)	GQEINT	0058	003A	GQEREV	0060	003C
GQECN	0026	001A (EQU)	GQEIOR	0008	0008 (EQU)	GQERI	0019	0013 (EQU)
GQECNT	0024	0018	GQEIP	0017	0011 (EQU)	GQERPST	0017	0011 (EQU)
GQECSS	0048	0030	GQELGDT	0019	0013 (EQU)	GQESAT	0012	000C
GQEDE	0027	001B (EQU)	GQELOG	0020	0014 (EQU)	GQESK	0017	0011 (EQU)
GQEDEV	0056	0038	GQELQ	0028	001C	GQESLN	0012	000C
GQEDR	0019	0013 (EQU)	GQEMCB	0008	0008 (EQU)	GQESMG	0019	0013 (EQU)
GQEDT	0047	002F	GQEOT	0027	001B (EQU)	GQESN	0017	0011 (EQU)
GQEERR	0016	0010	GQEPA	0026	001A (EQU)	GQESNS	0040	0028
GQEEXT	0059	003B (EQU)	GQEPAR	0019	0013 (EQU)	GQESP	0027	001B (EQU)
GQEFT	0026	001A (EQU)	GQEPB	0019	0013 (EQU)	GQESPT	0036	0024
GQEFWD	0000	0000	GQEPCB	0020	0014	GQESS	0025	0019 (EQU)
GQEF0	0017	0011	GQEPE	0027	001B (EQU)	GQEST	0052	0034
GQEF1	0025	0019	GQEPI	0025	0019 (EQU)	GQESVC	0008	0008
GQEF2	0026	001A	GQEPIP	0016	0010 (EQU)	GQETBID	0044	002C
GQEF3	0027	001B	GQEPO	0025	0019 (EQU)	GQETIC	0024	0018 (EQU)
GQEF4	0019	0013	GQEPP	0019	0013 (EQU)	GQETSI	0004	0004
GQEF5	0018	0012	GQEPR	0017	0011 (EQU)	GQEUNPO	0015	000F
GQEHI	0027	001B (EQU)	GQEPTP	0026	001A (EQU)	GQEUNPR	0014	000E
GQEHP	0028	001C (EQU)	GQEP2	0017	0011 (EQU)	GQEVN	0025	0019 (EQU)
GQEIA	0055	0037	GQEQE	0027	001B (EQU)	GQEVS	0025	0019 (EQU)
GQEIG	0017	0011 (EQU)	GQEQQQ	0036	0024 (EQU)	GQEWS	0025	0019 (EQU)
GQEIGQ	0040	0028	GQEQPS	0028	001C	GQEWSP	0019	0013 (EQU)
GQEIL	0025	0019 (EQU)	GQERC	0025	0019 (EQU)	GQEXP	0027	001B (EQU)

Assembler listing of CHAGQE

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	3B 00000	CHAGQE	DSECT		GENERAL QUEUE ENTRY
3B 00000			DS	0F	
3B 00000		GQEFWD	DS	F	FORWARD LINK
3B 00004		GQETSI	DS	F	TSI POINTER
3B 00008		GQESVC	DS	F	SVC OR IORCB OR MCB POINTER
	3B 00008	GQEIOR	EQU	GQESVC	
	3B 00008	GQEMCB	EQU	GQESVC	
3B 0000C		GQESAT	DS	0F	
3B 0000C		GQESLN	DS	H	9 BIT SLOT MASK
3B 0000E		GQEUNPR	DS	XL1	NUMBER OF UNPROCESSED PCBES
3B 0000F		GQEUNPO	DS	XL1	NUMBER OF UNPOSTED PCBES
3B 00010		GQEERR	DS	XL1	I/O ERROR COUNT
	3B 00010	GQEPIP	EQU	GQEERR	PROGRAM INTERRUPT PRIORITY CODE
		*			
3B 00011		GQEF0	DS	XL1	
	3B 00011	GQECE	EQU	GQEF0	CONTROL UNIT END FLAG
	00000080	GQECM	EQU	X'80'	CONTROL UNIT END MASK
	3B 00011	GQESN	EQU	GQEF0	SENSE DATA PRESENT FLAG
	00000040	GQESNM	EQU	X'40'	SENSE DATA PRESENT MASK
	3B 00011	GQEP2	EQU	GQEF0	SECOND TSEND PAGE SCAN REQUIRED FLAG
		*			
	00000020	GQEP2M	EQU	X'20'	SECOND TSEND PAGE SCAN REQUIRED MASK
		*			
	3B 00011	GQEIP	EQU	GQEF0	PAGING INTERRUPT FLAG
	00000010	GQEIPM	EQU	X'10'	PAGING INTERRUPT MASK
	3B 00011	GQEPR	EQU	GQEF0	I/O PURGED FLAG
	00000008	GQEPRM	EQU	X'08'	I/O PURGED MASK
	3B 00011	GQEIG	EQU	GQEF0	IGNORE DEVICE END FLAG
	00000004	GQEIGM	EQU	X'04'	IGNORE DEVICE END MASK
	3B 00011	GQESK	EQU	GQEF0	SKIP I/O REQUEST FLAG

(Listing of CHAGQE continued on page 211)



(Listing of CHAGQE continued from page 210)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000002	GQESKM	EQU	X'02'	SKIP I/O REQUEST MASK
	3B 00011	GQERPST	EQU	GQEF0	PCB REPOSTING FLAG 1 = REPOST
		*			
	00000001	GQERPSTM	EQU	X'01'	
3B 00012		GQEF5	DS	XL1	RESERVED FOR SIPE
3B 00013		GQEF4	DS	XL1	
	3B 00013	GQEDR	EQU	GQEF4	DRAM IORCB POSTING REQUEST FLAG
		*			
	00000080	GQEDRM	EQU	X'80'	
	3B 00013	GQEPB	EQU	GQEF4	CEAAS WAITING ON BUSY PATH FLAG
		*			
	00000040	GQEPBM	EQU	X'40'	
	3B 00013	GQESMG	EQU	GQEF4	SHARED PAGE MIGRATION FLAG
	00000020	GQESMGM	EQU	X'20'	SHARED PAGE MIGRATION MASK
	3B 00013	GQEWSP	EQU	GQEF4	SHARED PAGE POSTING FLAG
	00000010	GQEWSPM	EQU	X'10'	SHARED PAGE POSTING MASK
	3B 00013	GQELGDT	EQU	GQEF4	PTR TO GQELOG OR GQEIGQ IS PRESENT
		*			
	00000008	GQELGDTM	EQU	X'08'	
	3B 00013	GQERI	EQU	GQEF4	REACTIVATE INTERRUPT FLAG
	00000004	GQERIM	EQU	X'04'	REACTIVATE INTERRUPT MASK
	3B 00013	GQEPAR	EQU	GQEF4	PARTIALLY PROCESSED FLAG
	00000002	GQEPARM	EQU	X'02'	PARTIALLY PROCESSED MASK
	3B 00013	GQEPP	EQU	GQEF4	TWAIT PAGEOUT IN PROGRESS FLAG
		*			
	00000001	GQEPPM	EQU	X'01'	TWAIT PAGEOUT IN PROGRESS MASK
		*			
3B 00014			DS	0F	
3B 00014		GQEPCB	DS	F	PCB POINTER
	3B 00014	GQELOG	EQU	GQEPCB	CHANNEL LOGOUT DATA
3B 00018		GQECNT	DS	XL1	PCB COUNT
	3B 00018	GQETIC	EQU	GQECNT	TYPE OF INTERRUPT
3B 00019		GQEF1	DS	XL1	
	3B 00019	GQEPI	EQU	GQEF1	PAGING IN FLAG
		*			1=ON
	00000080	GQEPIM	EQU	X'80'	
	3B 00019	GQEPO	EQU	GQEF1	PAGING OUT FLAG
		*			1=ON
	00000040	GQEPOM	EQU	X'40'	
	3B 00019	GQEVs	EQU	GQEF1	VAM OR SYSTEM PAGING FLAG
		*			1=VAM
	00000020	GQEVSM	EQU	X'20'	
	3B 00019	GQEWS	EQU	GQEF1	WAITING ON SENSE FLAG
		*			1=ON
	00000010	GQEWSM	EQU	X'10'	
	3B 00019	GQESS	EQU	GQEF1	SEEK ARG. TABLE SETUP FLAG
		*			1=ON
	00000008	GQESSM	EQU	X'08'	
	3B 00019	GQEVr	EQU	GQEF1	VAM READ-AFTER-WRITE CHECK FLAG
		*			
	00000004	GQEVrM	EQU	X'04'	
	3B 00019	GQEIL	EQU	GQEF1	INSTRUCTION LENGTH CODE
		*			
	00000002	GQEILM	EQU	X'02'	0= DIRECT SVC;1= EXECUTE SVC
		*			
	3B 00019	GQERC	EQU	GQEF1	IORCB ASSOCIATED WITH GQE
		*			1=YES
	00000001	GQERCM	EQU	X'01'	
3B 0001A		GQEF2	DS	XL1	
	3B 0001A	GQEPA	EQU	GQEF2	PATH
		*			
	00000040	GQEPAM	EQU	X'40'	
	3B 0001A	GQEPTP	EQU	GQEF2	PTP PAGING REQUESTED FLAG
		*			N470
	00000008	GQEPTPM	EQU	X'08'	PTP PAGING REQUESTED MASK
		*			N470
	3B 0001A	GQECN	EQU	GQEF2	CPU NUMBER
		*			

(Listing of CHAGQE continued on page 212)

(Listing of CHAGQE continued from page 211)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000006	GQECNM	EQU	X'06'	CPU NUMBER MASK
	3B 0001A	GQEFT	EQU	GQEFT2	FORCED TIME SLICE END FLAG 1=ON
	00000001	*			
3B 0001B		GQEFTM	EQU	X'01'	
		GQEF3	DS	XL1	
	3B 0001B	GQESP	EQU	GQEF3	SHARED PAGE TABLE FLAG 1=ON
	00000080	*			
		GQESPM	EQU	X'80'	
	3B 0001B	GQEQE	EQU	GQEF3	QUEUE ERROR FLAG 1=ON
	00000040	*			
		GQEQEM	EQU	X'40'	
	3B 0001B	GQEOT	EQU	GQEF3	TWAIT FLAG
	00000010	GQEOTM	EQU	X'10'	TWAIT MASK
	000000EF	GQEOTC	EQU	255-GQEOTM	TWAIT MASK COMPLEMENT
	3B 0001B	GQEXP	EQU	GQEF3	ASAQP PROCESS FLAG 1=ON
	00000008	GQEXPM	EQU	X'08'	
	3B 0001B	GQEPE	EQU	GQEF3	PATH ERROR FLAG
	00000004	GQEPEM	EQU	X'04'	
	3B 0001B	GQEHI	EQU	GQEF3	HALT I/O ISSUED FLAG
	00000002	GQEHIM	EQU	X'02'	
	3B 0001B	GQEDE	EQU	GQEF3	AWAITING DEVICE END FLAG
	00000001	GQEDEM	EQU	X'01'	
3B 0001C		GQELQ	DS	0H	LOC ON QUEUE
3B 0001C		GQEQPS	DS	4H	QUEUE PROCESSOR STRINGS
	3B 0001C	GQEHP	EQU	GQEQPS	HIGH PRIORITY PAGING OPERATION FLAG
	00000080	*			
		GQEHPM	EQU	X'80'	HIGH PRIORITY PAGING OPERATION MASK
		*			
		** EACH OF THE 4 ENTRIES IN GQEQPS WILL USE THIS			
		*GQEHPM MASK			
		* GQEQPS AND QGESPT ARE ALSO USED AS REGISTER SAVE			
		* AREAS BY THE			
		* 'QUEUE GQE ON TSI' SUBROUTINE.			
3B 00024		DS	0F		
3B 00024		GQESPT	DS	F	SHARED PAGE TABLE POINTER
		*			
	3B 00024	GQEQQQ	EQU	GQESPT	BYTE USED BY QUEUE GQE ON TSI.
		*			
3B 00028		DS	0D		
3B 00028		GQEIGQ	DS	F	PTR. TO I/O INTERRUPT GQE
3B 0002C		GQETBID	DS	F	PTR. TO BLOCK FOR CONTIG CORE ALLOC.
		*			
	3B 00028		<u>ORG</u>	GQEIGQ	
3B 00028		GQESNS	<u>DS</u>	D	SENSE DATA
	3B 00028		<u>ORG</u>	GQESNS	
3B 00028			<u>DS</u>	XL7	SENSE DATA
3B 0002F		GQEDT	<u>DS</u>	XL1	
3B 00030		GQECSW	<u>DS</u>	D	CHANNEL STATUS WORD
	3B 00030		<u>ORG</u>	GQECSW	
3B 00030			<u>DS</u>	XL4	RESERVED FOR CSW
3B 00034		GQEST	<u>DS</u>	XL2	CHANNEL STATUS
3B 00036			<u>DS</u>	XL1	RESERVED FOR CSW
3B 00037		GQEIA	<u>DS</u>	XL1	
3B 00038		GQEDEV	<u>DS</u>	H	SYMBOLIC DEVICE
3B 0003A		GQEINT	<u>DS</u>	H	INTERNAL INTERRUPT CODE
	3B 0003B	GQEEXT	EQU	GQEINT+1	EXTERNAL INTERRUPT CODE FIELD
		*			
		*			0=VSEND, 1=XSEND
3B 0003C			<u>DS</u>	0F	
3B 0003C		GQEREV	<u>DS</u>	F	REVERSE LINK

General Services Macro Table (CHAGSM)

The General Services Macro Table (GSM) provides a format for parameter input to the Common OPEN and Common CLOSE routines in data management. This GSM input list is built by the OPEN or CLOSE macro instruction expansion at assembly time.

The GSM, a variable length table, occupies from 8 bytes (minimum) to 800 bytes (maximum) in virtual storage, aligned on doubleword boundaries.

The fields in the GSM are:

GSMADD: Pointer to DCB.

GSMCOD: Option byte -- contains the OPEN or CLOSE options and control information for the Common OPEN or Common CLOSE routines. The following bits are equated to GSMCOD:

GSMC0 (C0M EQU X'80'): Last DCB to be processed bit.

GSMC1 (C1M EQU X'40'): Type T close bit.

GSMC2 (C2M EQU X'30'): Codemask for reread and leave.

GSMC3 (C3C EQU X'0F'): Codemask for options.

The coding for Common OPEN is:

<u>Bit</u>	<u>Binary Contents</u>	<u>Meaning</u>
0	0	Another DCB to be opened
0	1	Last DCB to be opened
1	-	Not Used
2-3	01	Reread
2-3	11	Leave
4-7	0000	Input
	1111	Output
	0011	Inout
	0111	Outin
	0001	Readback
	0100	Update

The coding for Common CLOSE is:

<u>Bit</u>	<u>Binary Contents</u>	<u>Meaning</u>
0	0	Another DCB to be opened
0	1	Last DCB to be opened
1	0	Normal Close
1	1	Type T Close
2-3	01	Reread
2-3	11	Leave
47	-	Not Used

GSMRSV: Not Used

Note: The GSM contains one doubleword entry (100 entries maximum, 1 entry minimum) for each DCB which is to be opened or closed.

CHAGSM Storage map

DEC	HEX	
0	0	GSMADD   GSMCOD   GSMRSV

Fields in CHAGSM -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	GSMADD	0004	0004	GSMC1	(EQU) 0005	0005	GSMRSV
0004	0004	GSMC3	(EQU) 0004	0004	GSMC0	(EQU)		
0004	0004	GSMC2	(EQU) 0004	0004	GSMCOD			

Alphabetical list of fields in CHAGSM

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
GSMADD	0000	0000	GSMC1	0004	0004 (EQU)	GSMRSV	0005	0005
GSMCOD	0004	0004	GSMC2	0004	0004 (EQU)			
GSMC0	0004	0004 (EQU)	GSMC3	0004	0004 (EQU)			

Assembler listing of CHAGSM

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	3C 00000	CHAGSM	DSECT		GENERAL SERVICES MACRO TABLE
		*			
3C 00000			DS	0D	
3C 00000		GSMADD	DS	F	DCB ADDRESS
3C 00004		GSMCOD	DS	X	OPTIONS BYTE
	3C 00004	GSMC0	EQU	GSMCOD	
	00000080	GSMC0M	EQU	X'80'	LAST DCB TO BE PROCESSED BIT
		*			
	3C 00004	GSMC1	EQU	GSMCOD	
	00000040	GSMC1M	EQU	X'40'	TYPE T CLOSE BIT
	3C 00004	GSMC2	EQU	GSMCOD	
	00000030	GSMC2C	EQU	X'30'	CODEMASK FOR REREAD AND LEAVE
		*			
	3C 00004	GSMC3	EQU	GSMCOD	
	0000000F	GSMC3C	EQU	X'0F'	CODEMASK FOR OPTIONS
3C 00005		GSMRSV	DS	CL3	NOT USED

Available Device Table (CHAHED, CHAAHD, and CHAAVE)

The Available Device Table contains a count of each class of allocatable device within the system.

The Available Device Table resides in shared virtual storage, aligned on double-word boundaries.

Note: The device type codes found in field AHDDTC are:

Code	Device Type
0801	2540 card reader
0802	2540 card reader
0808	1403 printer
0810	2671 perforated tape reader
2001	2311 disk pack
2002	2301 drum
2003	2321 data cell
2008	2314 disk
8001	2400 tape drive

CHAHED Storage map

DEC	HEX			
0	0	HEDLCK	HEDCNT	HEDSPR

Fields in CHAHED -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	HEDLCK	0001	0001	HEDCNT	0003	0003	HEDSPR

Alphabetical list of fields in CHAHED

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
HEDCNT	0001	0001	HEDLCK	0000	0000	HEDSPR	0003	0003

Assembler listing of CHAHED

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	3D 00000	CHAHED	DSECT		DSECT FOR THE AVAILABLE
		*			DEVICE TABLE
3D 00000			DS	0D	ALIGN TO DOUBLE WORD
		*			BOUNDARY
3D 00000		HEDLCK	DS	XL1	LOCK BYTE X'00' = UNLOCKED
3D 00001		HEDCNT	DS	XL2	COUNT OF SUBQUEUE HEADERS
3D 00003		HEDSPR	DS	CL5	SPARE BYTES
	3E 00000	CHAAHD	DSECT		DSECT FOR SUBQUEUE
		*			HEADERS
3E 00000			DS	0D	ALIGN TO DOUBLE WORD
3E 00000		AHDDTC	DS	H	DEVICE TYPE CODE (SAME AS
		*			SDADEV, CHASDA 2.4.38
3E 00002			DS	H	RESERVED
3E 00004		AHDADR	DS	F	POINTER TO FIRST SUBQUEUE
		*			ENTRY
3E 00008		AHDLCK	DS	XL1	HEADER LOCK BYTE
3E 00009		AHDCNT	DS	XL2	NO. OF ENTRIES IN THE
		*			SUBQUEUE
3E 0000B		AHDSPR	DS	CL5	SPARE BYTES
3E 00010		AHDEND	DS	0X	END OF AVAILABLE DEVICE
		*			TABLE I5943
	00000010	AHDSZE	EQU	AHDEND-AHDDTC	AVAILABLE DEVICE TABLE
		*			SIZE I5943
	3F 00000	CHAAVE	DSECT		DSECT FOR SUBQUEUE ENTRY
3F 00000			DS	0D	ALIGNMENT
3F 00000		AVEDEV	DS	F	FULL DEVICE CODE - HEX
3F 00004		AVEPNT	DS	F	POINTER TO SDAT ENTRY
		*			(2.4.38)

CHAAHD Storage map

DEC	HEX			
0	0	AHDDTC	UNNAMED	AHDADR
8	8	AHDLCK	AHDCNT	AHDSPR

Fields in CHAAHD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	AHDDTC	0008	0008	AHDLCK	0011	000B	AHDSPR
0004	0004	AHDADR	0009	0009	AHDCNT	0016	0010	AHDEND

Alphabetical list of fields in CHAAHD

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
AHDADR	0004	0004	AHDDTC	0000	0000	AHDLCK	0008	0008
AHDCNT	0009	0009	AHDEND	0016	0010	AHDSPR	0011	000B

CHAAVE Storage map

DEC	HEX		
0	0	AVEDEV	AVEPNT

Fields in CHAAVE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	AVEDEV	0004	0004	AVEPNT			

Alphabetical list of fields in CHAAVE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
AVEDEV	0000	0000	AVEPNT	0004	0004			

Interrupt Control Block (CHAICB)

The Interrupt Control Block contains interruption information necessary for interruption handling routines. The ICB is constructed by any of the following macro expansions:

- Specify Program Entry Condition (SPEC)
- Specify SVC Entry Condition (SSEC)
- Specify External Entry Condition (SEEC)
- Specify Asynchronous I/O Entry Condition (SAEC)
- Specify Timer Entry Condition (STEC)
- Specify Synchronous I/O Entry Condition (SIEC)
- Set Interval Timer (STIMER)

The ICB may be used by the Task Monitor Queue Linkage Editor, Scanner-Dispatcher Specify Interrupt routine, Delete Interrupt routine, and the Interrupt Inquiry routine.

The 44 byte ICB resides in virtual storage, aligned on doubleword boundaries.

CHAICB Storage map

DEC	HEX	
0	0	ICBCOM   ICBDCB
8	8	ICBOVY
16	10	ICBEPV   ICBEPR
24	18	ICBEP2   UNNAMED   ICBINH   UNNAMED   ICBDET
32	20	ICBRSA   ICBPMS
40	28	ICBAMS

ORG ICBOVY

8	8	ICBPIM
---	---	--------

ORG ICBOVY

8	8	UNNAMED   ICBSVC
---	---	------------------

ORG ICBOVY

8	8	UNNAMED   ICBXML   ICBXMN   ICBXMP
---	---	------------------------------------

ORG ICBOVY

8	8	UNNAMED   ICBATM
---	---	------------------

ORG ICBOVY

8	8	ICBTMC   ICBTIM   ICBTNO   ICBTIN
---	---	-----------------------------------

Fields in CHAICB -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	(EQU)
0000	0000	ICBCOM	0010	000A	ICBXMN	0029	001D	ICBHDR	
0004	0004	ICBDCB	0010	000A	ICBSVC	0029	001D	ICBINH	
0008	0008	ICBTMC	0012	000C	ICBTIN	0031	001F	ICBDET	
0008	0008	ICBPIM	0012	000C	ICBATM	0032	0020	ICBRSA	
0008	0008	ICBOVY	0012	000C	ICBXMP	0036	0024	ICBPMS	
0009	0009	ICBTIM	0016	0010	ICBEPV	0040	0028	ICBAMS	
0009	0009	ICBXML	0020	0014	ICBEPR				
0010	000A	ICBTNO	0024	0018	ICBEP2				

Alphabetical list of fields in CHAICB

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ICBAMS	0040	0028	ICBHDR	0029	001D (EQU)	ICBTIN	0012	000C
ICBATM	0012	000C	ICBINH	0029	001D	ICBTMC	0008	0008
ICBCOM	0000	0000	ICBOVY	0008	0008	ICBTNO	0010	000A
ICBDCB	0004	0004	ICBPIM	0008	0008	ICBXML	0009	0009
ICBDET	0031	001F	ICBPMS	0036	0024	ICBXMN	0010	000A
ICBEPR	0020	0014	ICBRSA	0032	0020	ICBXMP	0012	000C
ICBEPV	0016	0010	ICBSVC	0010	000A			
ICBEP2	0024	0018	ICBTIM	0009	0009			

Assembler listing of CHAICB

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	40 00000	CHAICB	DSECT		
		* INTERRUPT CONTROL BLOCK --- ICB ---			
40 00000			DS	0D	
40 00000		ICBCOM	DS	F	PTR TO COMAREA
40 00004		ICBDCB	DS	F	PTR TO DCB - I/O INTERRUPTS ONLY
		* OVERLAID FIELDS FOR VARIOUS INT. TYPES			
40 00008		ICBOVY	DS	2F	
		* ENTRY POINT 1 V CON			
40 00010		ICBEPV	DS	F	
40 00014		ICBEPR	DS	F	ENTRY POINT 1 R CON
40 00018		ICBEP2	DS	F	ENTRY POINT 2
40 0001C			DS	CL1	UNUSED
40 0001D		ICBINH	DS	X	PRIV AND HEADER FLAG
		* N456			
	00000001	ICBINHM	EQU	X'01'	PRIV AND HEADER MASK
		* N456			
	40 0001D	ICBHDR	EQU	ICBINH	PASS HEADER FLAG
		* N456			
	00000080	ICBHDRM	EQU	X'80'	PASS HEADER MASK
		* N456			
40 0001E			DS	CL1	UNUSED
40 0001F		ICBDET	DS	XL1	DE TYPE CODE
	00000000	ICBDEP	EQU	X'00'	PROGRAM
	00000001	ICBDES	EQU	X'01'	SVC
	00000002	ICBDEX	EQU	X'02'	EXTERNAL
	00000003	ICBDEA	EQU	X'03'	ASYNCHRONOUS
	00000004	ICBDTT	EQU	X'04'	TIMER
	00000005	ICBDEI	EQU	X'05'	SYNCHRONOUS
40 00020		ICBRSA	DS	F	SAVE AREA FOR MODE EQUALS R
40 00024		ICBPMS	DS	F	PROGRAM MASK SAVE AREA
40 00028		ICBAMS	DS	F	ATTENTION MASK SAVE AREA
	40 00008		ORG	ICBOVY	
		* AREAS USED FOR PROGRAM INTERRUPTS			
40 00008		ICBPIM	DS	F	PROGRAM INTERRUPT MASK
	40 00008		ORG	ICBOVY	
		* AREAS USED FOR SVC INTERRUPTS			
40 00008			DS	CL2	UNUSED
40 0000A		ICBSVC	DS	CL2	SVC INTEGER
	40 00008		ORG	ICBOVY	
		* AREAS USED FOR EXTERNAL INTERRUPTS			
40 00008			DS	CL1	UNUSED
40 00009		ICBXML	DS	CL1	MESSAGE LENGTH

(Listing of CHAICB continued on page 219)



(Listing of CHAICB continued from page 218)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
40 0000A		ICBXMN	DS	CL2	MESSAGE NUMBER
40 0000C		ICBXMP	DS	F	MESSAGE AREA PTR
	40 00008		ORG	ICBOVY	
		* AREAS	USED	FOR ASYNCHRONOUS INTERRUPTS	
40 00008			DS	F	UNUSED
40 0000C		ICBATM	DS	F	ATTENTION TYPE MASK
	00000001	ICBANM	EQU	X'01'	ATTENTION KEY MASK BIT
	40 00008		ORG	ICBOVY	
		* AREAS	USED	FOR TIMER INTERRUPTS	
40 00008		ICBTMC	DS	CL1	TIMER CODE
40 00009		ICBTIM	DS	CL1	TIMER TYPE - TASK OR REAL
40 0000A		ICBTNO	DS	CL2	TIMER NUMBER
40 0000C		ICBTIN	DS	F	PTR TO TIMER INTERVAL
		*			REQUESTED
		* SYNCHRONOUS I/O HAS NO			SPECIAL FIELDS

Interrupt Device Entry (CHAIDE)

The Interrupt Device Entry (IDE) handles queuing of interruption types for the various devices. The IDE is constructed by one of two methods. The Specify Interrupt Routine (SIR) constructs and queues the appropriate interruption chain in the Task Monitor Interrupt Table (CHBITB); or the IDE exists, predefined, in the ITB.

Predefined IDEs exist for four of the six interruption types (program, SVC, external and timer). The asynchronous and synchronous I/O interruption IDEs are built by SIR for each symbolic device allocation table (SDAT) defined device. When Interrupt Request Entries (IRE) are built for interruption handling routines, the IREs are queued in the IDE.

The IDE is used by the Task Monitor's Queue Linkage Entry, Scanner-Dispatcher routines, SIR, Delete Interrupt, and Interrupt Inquiry routines. The 32 byte IDE resides in virtual storage, aligned on doubleword boundaries.

CHAIDE Storage map

DEC	HEX	FIELD
0	0	IDEID UNNAMED IDETYP IDEFPR
8	8	IDEBPR IDEHRE
16	10	IDESDT IDEHAR
24	18	UNNAMED UNNAMED

Fields in CHAIDE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	IDEID	0008	0008	IDEBPR	0020	0014	IDEHAR
0003	0003	IDETYP	0012	000C	IDEHRE			
0004	0004	IDEFPR	0016	0010	IDESDT			

Alphabetical list of fields in CHAIDE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
IDEBPR	0008	0008	IDEHRE	0012	000C	IDETYP	0003	0003
IDEFPR	0004	0004	IDEID	0000	0000			
IDEHAR	0020	0014	IDESDT	0016	0010			

Assembler listing of CHAIDE

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
41 00000	41 00000	CHAIDE	DSECT	0D	
41 00000		IDEID	DS	CL2	ID= 'DE'
41 00002			DS	CL1	UNUSED
41 00003		IDETYP	DS	XL1	DETP CODE
	00000000	IDEDEP	EQU	X'00'	PROGRAM TYPE
	00000001	IDEDES	EQU	X'01'	SVC TYPE
	00000002	IDEDEX	EQU	X'02'	EXTERNAL TYPE
	00000003	IDEDEA	EQU	X'03'	ASYNCHRONOUS TYPE
	00000004	IDEDTT	EQU	X'04'	TIMER TYPE
	00000005	IDEDEI	EQU	X'05'	SYNCHRONOUS TYP
41 00004		IDEFPR	DS	F	FORWARD PTR
41 00008		IDEBPR	DS	F	BACKWARD PTR
41 0000C		IDEHRE	DS	F	HIGHEST PRTY RE
41 00010		IDESDT	DS	F	SDAT PTR
41 00014		IDEHAR	DS	F	HIGHEST PRTY ACTIVE RE
41 00018			DS	F	UNUSED
41 0001C			DS	F	UNUSED

I/O Inboard Error Record (CHAIER)

The I/O Inboard Error Record (CHAIER) contains data from an I/O inboard error, and is preserved in drum storage.

CHAIER is constructed by virtual storage error recording or core error recording, depending on the type of I/O operation (task or paging).

CHAIER Storage map

DEC	HEX	
0	0	UNNAMED   IERRL   UNNAMED   IERTYP   UNNAMED
8	8	IERSDA   IERALT   IERLP   UNNAMED
16	10	IERLSA
24	18	IERTIM
32	20	IERPID
40	28	IERCSW
48	30	IERLOG
72	48	IERMAP
80	50	IERNCC   UNNAMED   IERFCC
88	58	IERCCW

Fields in CHAIER -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0002	0002	IERRL	0016	0010	IERLSA	0072	0048	IERMAP
0005	0005	IERTYP	0024	0018	IERTIM	0080	0050	IERNCC
0008	0008	IERSDA	0032	0020	IERPID	0084	0054	IERFCC
0010	000A	IERALT	0040	0028	IERCSW	0088	0058	IERCCW
0012	000C	IERLP	0048	0030	IERLOG			

Alphabetical list of fields in CHAIER

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
IERALT	0010	000A	IERLP	0012	000C	IERRL	0002	0002
IERCCW	0088	0058	IERLSA	0016	0010	IERSDA	0008	0008
IERCSW	0040	0028	IERMAP	0072	0048	IERTIM	0024	0018
IERFCC	0084	0054	IERNCC	0080	0050	IERTYP	0005	0005
IERLOG	0048	0030	IERPID	0032	0020			

Assembler listing of CHAIER

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
42 00000	42 00000	CHAIER	DSECT		
**** I/O INBOARD ERROR RECORD (DWB 2.4.55) ****					
42 00000			DS	0D	
42 00000			DS	H	SPARE
42 00002	IERRL		DS	H	RECORD LENGTH (120 TO 160 BYTES)
	*				
42 00004			DS	C	SPARE
42 00005	IERTYP		DS	X	RECORD TYPE (2C OR 2D)
42 00006			DS	H	SPARE
42 00008	IERSDA		DS	XL2	SYMBOLIC DEVICE ADDRESS
42 0000A	IERALT		DS	XL2	ALTERNATE PATH IF DRUM; OTHERWISE UNUSED
	*				
42 0000C	IERLP		DS	XL2	PATH LAST USED (ACTUAL I/O ADDRESS)
	*				
42 0000E			DS	H	SPARE
42 00010	IERLSA		DS	XL8	LAST SEEK ADDRESS IF DRUM; ELSE UNUSED
	*				
42 00018	IERTIM		DS	2F	TIME AND DATE OF ERROR INCIDENT N392
	*				
42 00020	IERPID		DS	CL8	PROGRAM ID
42 00028	IERCSW		DS	XL8	CHANNEL STATUS WORD
42 00030	IERLOG		DS	3XL8	CHANNEL LOG
42 00048	IERMAP		DS	XL8	CHANNEL MAP
42 00050	IERNCC		DS	H	NO. OF CCW'S IN CCW LIST
42 00052			DS	H	SPARE
42 00054	IERFCC		DS	XL4	POINTER TO FAILING CCW
42 00058	IERCCW		DS	9XL8	CCW LIST (4 TO 9 CCW'S)

I/O Paging Control Block (CHAIOP)

The I/O Paging Control Block (IOPCB) serves as the communication link between the page oriented access methods (VAM) and the resident supervisor.

The IOPCB, a variable length parameter list, follows a PGOUT supervisor call. The PGOUT is issued when a program in virtual storage requests the execution of a page oriented I/O operation. Since the IOPCB cannot appear in-line, both the PGOUT and its IOPCB are stored in a constant area. The SVC is executed by an in-line execute instruction. The IOPCB must be in core storage at PGOUT time.

The IOPCB occupies from 12 to 40 bytes in virtual and core storage, aligned on word boundaries and contained within one page.

Only one 32-bit virtual storage page address is given. For multiple page operations the subsequent virtual storage pages immediately follow the specified page.

CHAIOP Storage map

DEC	HEX				
0	0	IOPSV	IOPFG	IOPCT	IOPVM
8	8	IOPSS1	IOPEP1	IOPSS2	IOPEP2
16	10	IOPSS3	IOPEP3	IOPSS4	IOPEP4
24	18	IOPSS5	IOPEP5	IOPSS6	IOPEP6
32	20	IOPSS7	IOPEP7	IOPSS8	IOPEP8

Fields in CHAIOP -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	IOPSV	0012	000C	IOPEP2	0028	001C	IOPEP6
0000	0000	IOPBEG	0014	000E	IOPEP2	0028	001C	IOPEP6
0002	0002	IOPVCR (EQU)	0016	0010	IOPSS3	0030	001E	IOPEP6
0002	0002	IOPFG	0016	0010	IOPEP3	0032	0020	IOPSS7
0002	0002	IOPEL	0018	0012	IOPEP3	0032	0020	IOPEP7
0003	0003	IOPCT	0020	0014	IOPSS4	0034	0022	IOPEP7
0004	0004	IOPVM	0020	0014	IOPEP4	0036	0024	IOPSS8
0008	0008	IOPSS1	0022	0016	IOPEP4	0036	0024	IOPEP8
0008	0008	IOPEP1	0024	0018	IOPSS5	0038	0026	IOPEP8
0010	000A	IOPEP1	0024	0018	IOPEP5			
0012	000C	IOPSS2	0026	001A	IOPEP5			

Alphabetical list of fields in CHAIOP

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
IOPBEG	0000	0000	IOPEP1	0008	0008	IOPSS3	0016	0010
IOPCT	0003	0003	IOPEP2	0012	000C	IOPSS4	0020	0014
IOPEL	0002	0002	IOPEP3	0016	0010	IOPSS5	0024	0018
IOPEP1	0010	000A	IOPEP4	0020	0014	IOPSS6	0028	001C
IOPEP2	0014	000E	IOPEP5	0024	0018	IOPSS7	0032	0020
IOPEP3	0018	0012	IOPEP6	0028	001C	IOPSS8	0036	0024
IOPEP4	0022	0016	IOPEP7	0032	0020	IOPSV	0000	0000
IOPEP5	0026	001A	IOPEP8	0036	0024	IOPVCR	0002	0002 (EQU)
IOPEP6	0030	001E	IOPFG	0002	0002	IOPVM	0004	0004
IOPEP7	0034	0022	IOPSS1	0008	0008			
IOPEP8	0038	0026	IOPSS2	0012	000C			

Assembler listing of CHAIOP

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	43 00000	CHAIOP	DSECT		INPUT/OUTPUT PAGING CONTROL BLOCK
		*			
43 00000		IOPBEG	DS	0F	ALIGN ON A WORD BOUNDARY
43 00000		IOPSV	DS	H	SVC FOR PGOUT
43 00002		IOPEL	DS	0H	FLAG AND COUNT FIELD
43 00002		IOPFG	DS	XL1	FLAG BYTE
	43 00002	IOPVCR	EQU	IOPFG	VALIDITY CHECK REQUIRED
		*			FLAG

(Listing of CHAIOP continued on page 224)

(Listing of CHAIOP continued from page 223)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000080	IOPVCRM	EQU	X'80'	VALIDITY CHECK REQUIRED MASK
43 00003	*	IOPCT	DS	XL1	COUNT OF NO. ENTRIES IN EXT STORAGE LIST
43 00004	*	IOPVM	DS	F	VIRTUAL MEMORY PAGE ADDRESS
43 00008	*	IOPEs1	DS	0F	EXTERNAL STORAGE ADDRESS 1
43 00008	*	IOPSS1	DS	H	SYSTEM SYMBOLIC DEVICE ADDRESS 1
43 0000A	*	IOPEP1	DS	H	EXTERNAL PAGE NUMBER 1
43 0000C	*	IOPEs2	DS	0F	EXTERNAL STORAGE ADDRESS 2 (SEE NOTE 1)
43 0000C	*	IOPSS2	DS	H	SYSTEM SYMBOLIC DEVICE ADDRESS 2
43 0000E	*	IOPEP2	DS	H	EXTERNAL PAGE NUMBER 2
43 00010	*	IOPEs3	DS	0F	EXTERNAL STORAGE ADDRESS 3 (SEE NOTE 1)
43 00010	*	IOPSS3	DS	H	SYSTEM SYMBOLIC DEVICE ADDRESS 3
43 00012	*	IOPEP3	DS	H	EXTERNAL PAGE NUMBER 3
43 00014	*	IOPEs4	DS	0F	EXTERNAL STORAGE ADDRESS 4 (SEE NOTE1)
43 00014	*	IOPSS4	DS	H	SYSTEM SYMBOLIC DEVICE ADDRESS 4
43 00016	*	IOPEP4	DS	H	EXTERNAL PAGE NUMBER 4
43 00018	*	IOPEs5	DS	0F	EXTERNAL STORAGE ADDRESS 5 (SEE NOTE 1)
43 00018	*	IOPSS5	DS	H	SYSTEM SYMBOLIC DEVICE ADDRESS 5
43 0001A	*	IOPEP5	DS	H	EXTERNAL PAGE NUMBER 5
43 0001C	*	IOPEs6	DS	0F	EXTERNAL STORAGE ADDRESS 6 (SEE NOTE 1)
43 0001C	*	IOPSS6	DS	H	SYSTEM SYMBOLIC DEVICE ADDRESS 6
43 0001E	*	IOPEP6	DS	H	EXTERNAL PAGE NUMBER 6
43 00020	*	IOPEs7	DS	0F	EXTERNAL STORAGE ADDRESS 7 (SEE NOTE 1)
43 00020	*	IOPSS7	DS	H	SYSTEM SYMBOLIC DEVICE ADDRESS 7
43 00022	*	IOPEP7	DS	H	EXTERNAL PAGE NUMBER 7
43 00024	*	IOPEs8	DS	0F	EXTERNAL STORAGE ADDRESS 8 (SEE NOTE 1)
43 00024	*	IOPSS8	DS	H	SYSTEM SYMBOLIC DEVICE ADDRESS 8
43 00026	*	IOPEP8	DS	H	EXTERNAL PAGE NUMBER 8
					* NOTE 1- IF THE COUNT OF THE NUMBER OF EXTERNAL * STORAGE LIST ENTRIES * IS NOT EQUAL TO OR GREATER THAN THIS * ENTRY NUMBER, THEN THIS * WORD DOES NOT EXIST IN THE ACTUAL TABLE.

I/O Request Control Block (CHAIOR)

The I/O Request Control Block (IORCB) provides one of the basic communication links between virtual storage and the resident supervisor.

The IORCB consists of an 80 byte, fixed-length area followed by three variable subareas: data buffer, page list, and channel command word list. The three subareas jointly may not exceed 1840 bytes of storage, and this space must be used in increments of doubleword size. Only the page list has a maximum size (8 doublewords).

The IORCB resides in both virtual storage and core storage, aligned on doubleword boundaries.

CHAIOR Storage map

DEC	HEX								
0	0	IORSV		IORCSB	IORF3	IORDA0	IORDA1	IORDA2	IORDA3
8	8	IORLN	IORGL	IORPO	IORKY	IORSF	IORCL	IORCS	IORST
16	10	IORBL	IORBS	IORAP		IORDA4	IORDA5	IORS	
24	18	IORDE				IORDC			
32	20	IORPV				IORPR			
40	28	IORDT	IORDA6	IORBB		IORCN	IORDR		
48	30	IORSB0	IORSB1	IORSB2	IORSB3	IORSB4	IORSB5	IORSB6	IORSB7
56	38	IORSN	IORSU		IORSL	IORHF	IORBY5	IORBY6	IORDBA
64	40	IORDA7	IORDA8	IORDA9	IORHE	IORF1	IORF2	IORF4	IORF5
72	48	IORSA	IORSE			IORS	IORF6	IORSH	
80	50	=							
		RESERVED							
		=							
4096	1000	IORRHO	IORRHE			IORRHF	RESERVED	IORRHC	
4104	1008	IORRZO	IORRZE			IORRZF	RESERVED	IORRZC	
4112	1010	UNNAMED			IORHAF	IORHCC		IORHHH	
4120	1018	IORDCY		IORDHD	IORDRC	UNNAMED			
4128	1020	IORACY		IORAHD	IORARC	UNNAMED			
4136	1028	IORSER	IORSEM	IORSEB	IORSEC		IORSEH		
4144	1030	IORSCY		IORSRW	IORS	IORSKL	IORDL		
4152	1038	IORRJNCC	IORRJNGC	IORRJNTC	IORRJNUE	IORRJNIL	IORRJNBY	IORRJNAT	IORRJNSM
4160	1040	=							
		IORJESAV							
		=							
4224	1080	IORJEFCE							

(CHAIOR continued on page 226)

(CHAIOR continued from page 225)

DEC HEX

		IORTBR	
4368	1110	RESERVED	
8192	2000	IORPL	

ORG IORDT

40	28	IORVB	
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ORG IORDB

4096	1000	IORJESNS		IORJEFLG	UNNAMED
4104	1008	IORJESW			

ORG IORJESW

4104	1008	IORJECKY	IORJECAD		IORJECST		IORJECCT		
4112	1010	IORJECC	IORJEIC	IORJECDC	IORJELD	IORJETO	IORJEIR	IORJEBO	IORJEDC
4120	1018	IORJEOV	IORJEIL	IORJENEC	IORJENLD	IORJENTO	IORJENBO	IORJENDC	IORJENOV
4128	1020	IORJENCR	IORJENCC	IORJENGCC	IORJENTC	IORJENUE	IORJENIL	IORJENBY	IORJENAT
4136	1028	IORJENSM	IORRJCD	IORRJLD	IORRJTO	IORRJIR	IORRJBO	IORRJDC	IORRJJOV
4144	1030	IORRJIL	IORRJNEC	IORRJNLD	IORRJNTO	IORRJNBO	IORRJNDC	IORRJNOV	IORRJNCR

ORG IORPL

8192	2000	IORPN		IORPF	UNNAMED	IORCA	
------	------	-------	--	-------	---------	-------	--

ORG IORBEG+12288

2288	8F0	IORCW	
------	-----	-------	--

ORG IORCW

2288	8F0	IOROP	IORPP	IORFDA	IORFDB	IORCF	UNNAMED	IORCT	
------	-----	-------	-------	--------	--------	-------	---------	-------	--



Fields in CHAIOR -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD			
0000	0000	IORSV	0055	0037	IORSB7	0077	004D	IORP	(EQU)		
0000	0000	IORBEG	0056	0038	IORSN	0077	004D	IORDTSI	(EQU)		
0002	0002	IORCSB	0057	0039	IORSU	0077	004D	IORMC	(EQU)		
0003	0003	IORSWA	(EQU)	0059	003B	IORSM	(EQU)	0077	004D	IORPG	(EQU)
0003	0003	IOREOT	(EQU)	0059	003B	IORSL		0077	004D	IORF6	
0003	0003	IORGET	(EQU)	0060	003C	IORHF		0078	004E	IORSH	
0003	0003	IORRJ	(EQU)	0061	003D	IORDAA	(EQU)	0080	0050	IORFE	
0003	0003	IOROB	(EQU)	0061	003D	IORBY5		2288	3000	IOROP	
0003	0003	IORCE	(EQU)	0062	003E	IORDDA	(EQU)	2288	3000	IORCW	
0003	0003	IORF3		0062	003E	IORDCA	(EQU)	2289	3001	IORPP	
0004	0004	IORPRO	(EQU)	0062	003E	IORBY6		2290	3002	IORFDA	
0004	0004	IORPT0	(EQU)	0063	003F	IORDBA		2290	3002	IORFD	
0004	0004	IORCRO	(EQU)	0064	0040	IORDA7		2290	3002	IORF0	(EQU)
0004	0004	IORMT0	(EQU)	0065	0041	IORDA8		2291	3003	IORFDB	
0004	0004	IORDA0		0066	0042	IORDA9		2292	3004	IORCF	
0005	0005	IORPR1	(EQU)	0067	0043	IORRDN	(EQU)	2292	3004	IORPC	(EQU)
0005	0005	IORPT1	(EQU)	0067	0043	IORWTR	(EQU)	2292	3004	IORSK	(EQU)
0005	0005	IORCR1	(EQU)	0067	0043	IORDCDA	(EQU)	2292	3004	IORSI	(EQU)
0005	0005	IORMT1	(EQU)	0067	0043	IORCLE	(EQU)	2292	3004	IORCO	(EQU)
0005	0005	IORDA1		0067	0043	IORAPE	(EQU)	2292	3004	IORCD	(EQU)
0006	0006	IORIN	(EQU)	0067	0043	IORMDS	(EQU)	2294	3006	IORCT	
0006	0006	IORMT2	(EQU)	0067	0043	IOROPSK	(EQU)	4096	1000	IORJESNS	
0006	0006	IORDA2		0067	0043	IOROPP	(EQU)	4096	1000	IORRHO	
0007	0007	IORMT3	(EQU)	0067	0043	IORHE		4096	1000	IORRHA	
0007	0007	IORDA3		0068	0044	IORUE	(EQU)	4096	1000	IORHA	(EQU)
0008	0008	IORLN		0068	0044	IORAT	(EQU)	4096	1000	IORDB	
0009	0009	IORGL		0068	0044	IORUR	(EQU)	4097	1001	IORRHE	
0010	000A	IORPO		0068	0044	IORHI	(EQU)	4100	1004	IORRHF	
0011	000B	IORKY		0068	0044	IORER	(EQU)	4102	1006	IORJFLG	
0012	000C	IORSF		0068	0044	IORSC	(EQU)	4102	1006	IORTAB	(EQU)
0013	000D	IORCL		0068	0044	IORRS	(EQU)	4102	1006	IORJEAN	(EQU)
0014	000E	IORCS		0068	0044	IORIS	(EQU)	4102	1006	IORJEDB	(EQU)
0015	000F	IORST		0068	0044	IORSP	(EQU)	4102	1006	IORJEOT	(EQU)
0016	0010	IORBL		0068	0044	IORF1		4102	1006	IORJEOC	(EQU)
0017	0011	IORBS		0068	0044	IORFL		4102	1006	IORJEWE	(EQU)
0018	0012	IORAP		0069	0045	IORCR	(EQU)	4102	1006	IORJESN	(EQU)
0020	0014	IORMT4	(EQU)	0069	0045	IORSB	(EQU)	4102	1006	IORRHC	
0020	0014	IORDA4		0069	0045	IORRB	(EQU)	4104	1008	IORJECKY	
0021	0015	IORMT5	(EQU)	0069	0045	IORBH	(EQU)	4104	1008	IORJECSSW	
0021	0015	IORDA5		0069	0045	IORIB	(EQU)	4104	1008	IORRZO	
0022	0016	IORSD		0069	0045	IORWE	(EQU)	4104	1008	IORRZA	
0024	0018	IORDE		0069	0045	IORNP	(EQU)	4105	1009	IORJECAD	
0028	001C	IORDC		0069	0045	IORES	(EQU)	4105	1009	IORRZE	
0032	0020	IORPV		0069	0045	IORF2		4108	100C	IORJECST	
0036	0024	IORPR		0070	0046	IORAM	(EQU)	4108	100C	IORRZF	
0040	0028	IORVB		0070	0046	IORQI	(EQU)	4110	100E	IORJECCT	
0040	0028	IORCI	(EQU)	0070	0046	IORIOC	(EQU)	4110	100E	IORRZC	
0040	0028	IORRV	(EQU)	0070	0046	IORIC	(EQU)	4112	1010	IORJECC	
0040	0028	IORCV	(EQU)	0070	0046	IORDS	(EQU)	4112	1010	IORJECT	(EQU)
0040	0028	IORMD	(EQU)	0070	0046	IORDR	(EQU)	4113	1011	IORJEIC	
0040	0028	IORDT		0070	0046	IORVT	(EQU)	4114	1012	IORJECD	
0041	0029	IORDA6		0070	0046	IORIP	(EQU)	4115	1013	IORJELD	
0042	002A	IORBB		0070	0046	IORF4		4115	1013	IORHAF	
0044	002C	IORSO	(EQU)	0071	0047	IORAL	(EQU)	4116	1014	IORJETO	
0044	002C	IORTC	(EQU)	0071	0047	IORVA	(EQU)	4116	1014	IORHCC	
0044	002C	IORTO	(EQU)	0071	0047	IORBP	(EQU)	4117	1015	IORJEIR	
0044	002C	IORCN		0071	0047	IORFC	(EQU)	4118	1016	IORJEBO	
0044	002C	IORBA		0071	0047	IORFP	(EQU)	4118	1016	IORHHH	
0045	002D	IORDR		0071	0047	IORM	(EQU)	4119	1017	IORJEDC	
0048	0030	IORSB0		0071	0047	IOREC	(EQU)	4120	1018	IORJEOV	
0048	0030	IORSNS		0071	0047	IORGI	(EQU)	4120	1018	IORDCY	
0049	0031	IORSB1		0071	0047	IORF5		4120	1018	IORDTA	
0050	0032	IORSB2		0072	0048	IORSA		4121	1019	IORJEIL	
0051	0033	IORSB3		0072	0048	IORSNC		4122	101A	IORJENEC	
0052	0034	IORSB4		0073	0049	IORSE		4122	101A	IORDHD	
0053	0035	IORSB5		0076	004C	IORSG		4123	101B	IORJENLD	
0054	0036	IORSB6		0077	004D	IORMOD	(EQU)	4124	101C	IORJENTO	

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DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
4124	101C	IORDRC	4137	1029	IORSEM	4150	1036	IORRJNOV
4125	101D	IORJENBO	4138	102A	IORRJLD	4150	1036	IORDL
4126	101E	IORJENDC	4138	102A	IORSEB	4151	1037	IORRJNCR
4127	101F	IORJENOV	4139	102B	IORRJTO	4152	1038	IORRJNCC
4128	1020	IORJENCR	4140	102C	IORRJIR	4152	1038	IORBDB
4128	1020	IORACY	4140	102C	IORSEC	4153	1039	IORRJNGC
4128	1020	IORATA	4141	102D	IORRJBO	4154	103A	IORRJNTC
4129	1021	IORJENCC	4142	102E	IORRJDC	4155	103B	IORRJNUE
4130	1022	IORJENG	4142	102E	IORSEH	4156	103C	IORRJNIL
4130	1022	IORAHD	4143	102F	IORRJJOV	4157	103D	IORRJNBY
4131	1023	IORJENTC	4144	1030	IORRJIL	4158	103E	IORRJNAT
4132	1024	IORJENUE	4144	1030	IORSY	4159	103F	IORRJNSM
4132	1024	IORARC	4144	1030	IORSCH	4160	1040	IORJESAV
4133	1025	IORJENIL	4145	1031	IORRJNEC	4160	1040	IORRJND (EQU)
4134	1026	IORJENBY	4145	1031	IORRJNCT (EQU)	4224	1080	IORJEFCE
4135	1027	IORJENAT	4146	1032	IORRJNLD	4228	1084	IORTBR
4136	1028	IORJENSM	4146	1032	IORSRW	8192	2000	IORPN
4136	1028	IORSER	4147	1033	IORRJNTO	8192	2000	IORPL
4136	1028	IORSEK	4148	1034	IORRJNBO	8195	2003	IORPF
4137	1029	IORRJCD	4148	1034	IORSR	8195	2003	IORPS (EQU)
4137	1029	IORRJCT (EQU)	4149	1035	IORRJNDC	8195	2003	IORAG (EQU)
4137	1029	IORJEND (EQU)	4149	1035	IORSKL	8197	2005	IORCA

Alphabetical list of fields in CHAIOR

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
IORACY	4128	1020	IORDA5	0021	0015	IORHAF	4115	1013
IORAG	8195	2003 (EQU)	IORDA6	0041	0029	IORHCC	4116	1014
IORAHD	4130	1022	IORDA7	0064	0040	IORHE	0067	0043
IORAL	0071	0047 (EQU)	IORDA8	0065	0041	IORHF	0060	003C
IORAM	0070	0046 (EQU)	IORDA9	0066	0042	IORHHH	4118	1016
IORAP	0018	0012	IORDB	4096	1000	IORHI	0068	0044 (EQU)
IORAPE	0067	0043 (EQU)	IORDBA	0063	003F	IORIB	0069	0045 (EQU)
IORARC	4132	1024	IORDC	0028	001C	IORIC	0070	0046 (EQU)
IORAT	0068	0044 (EQU)	IORDCA	0062	003E (EQU)	IORIN	0006	0006 (EQU)
IORATA	4128	1020	IORDCDA	0067	0043 (EQU)	IORIOC	0070	0046 (EQU)
IORBA	0044	002C	IORDCY	4120	1018	IORIP	0070	0046 (EQU)
IORBB	0042	002A	IORDDA	0062	003E (EQU)	IORIS	0068	0044 (EQU)
IORBDB	4152	1038	IORDE	0024	0018	IORJEAN	4102	1006 (EQU)
IORBEG	0000	0000	IORDHD	4122	101A	IORJEBO	4118	1016
IORBH	0069	0045 (EQU)	IORDL	4150	1036	IORJECAD	4105	1009
IORBL	0016	0010	IORDR	0045	002D	IORJECC	4112	1010
IORBP	0071	0047 (EQU)	IORDRC	4124	101C	IORJECCT	4110	100E
IORBS	0017	0011	IORDS	0070	0046 (EQU)	IORJECED	4114	1012
IORBY5	0061	003D	IORDT	0040	0028	IORJECKY	4104	1008
IORBY6	0062	003E	IORDTA	4120	1018	IORJECST	4108	100C
IORCA	8197	2005	IORDTSA	0077	004D (EQU)	IORJECST	4104	1008
IORCD	2292	3004 (EQU)	IOREC	0071	0047 (EQU)	IORJECT	4112	1010 (EQU)
IORCE	0003	0003 (EQU)	IOREOT	0003	0003 (EQU)	IORJEDB	4102	1006 (EQU)
IORCF	2292	3004	IORER	0068	0044 (EQU)	IORJEDC	4119	1017
IORCI	0040	0028 (EQU)	IORES	0069	0045 (EQU)	IORJEFCE	4224	1080
IORCL	0013	000D	IORFC	0071	0047 (EQU)	IORJEFLG	4102	1006
IORCLE	0067	0043 (EQU)	IORFD	2290	3002	IORJEIC	4113	1011
IORCN	0044	002C	IORFDA	2290	3002	IORJEIL	4121	1019
IORCO	2292	3004 (EQU)	IORFDB	2291	3003	IORJEIR	4117	1015
IORCR	0069	0045 (EQU)	IORFE	0080	0050	IORJELD	4115	1013
IORCR0	0004	0004 (EQU)	IORFL	0068	0044	IORJENAT	4135	1027
IORCR1	0005	0005 (EQU)	IORFP	0071	0047 (EQU)	IORJENBO	4125	101D
IORCS	0014	000E	IORF0	2290	3002 (EQU)	IORJENBY	4134	1026
IORCSB	0002	0002	IORF1	0068	0044	IORJENCC	4129	1021
IORCT	2294	3006	IORF2	0069	0045	IORJENCR	4128	1020
IORCV	0040	0028 (EQU)	IORF3	0003	0003	IORJEND	4137	1029 (EQU)
IORCW	2288	3000	IORF4	0070	0046	IORJENDC	4126	101E
IORDAA	0061	003D (EQU)	IORF5	0071	0047	IORJENEC	4122	101A
IORDA0	0004	0004	IORF6	0077	004D	IORJENG	4130	1022
IORDA1	0005	0005	IORGET	0003	0003 (EQU)	IORJENIL	4133	1025
IORDA2	0006	0006	IORGI	0071	0047 (EQU)	IORJENLD	4123	101B
IORDA3	0007	0007	IORGL	0009	0009	IORJENOV	4127	101F
IORDA4	0020	0014	IORHA	4096	1000 (EQU)	IORJENSM	4136	1028

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FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
IORJENTC	4131	1023	IORRDN	0067	0043 (EQU)	IORSB3	0051	0033
IORJENTO	4124	101C	IORRHA	4096	1000	IORSB4	0052	0034
IORJENUE	4132	1024	IORRHC	4102	1006	IORSB5	0053	0035
IORJEOC	4102	1006 (EQU)	IORRHE	4097	1001	IORSB6	0054	0036
IORJEOT	4102	1006 (EQU)	IORRHF	4100	1004	IORSB7	0055	0037
IORJEOV	4120	1018	IORRHO	4096	1000	IORSC	0068	0044 (EQU)
IORJESAV	4160	1040	IORRJ	0003	0003 (EQU)	IORSCH	4144	1030
IORJESN	4102	1006 (EQU)	IORRJBO	4141	102D	IORSCR	4148	1034
IORJESNS	4096	1000	IORRJCD	4137	1029	IORSCY	4144	1030
IORJETO	4116	1014	IORRJCT	4137	1029 (EQU)	IORSD	0022	0016
IORJEWE	4102	1006 (EQU)	IORRJDC	4142	102E	IORSE	0073	0049
IORKY	0011	000B	IORRJIL	4144	1030	IORSEB	4138	102A
IORLN	0008	0008	IORRJIR	4140	102C	IORSEC	4140	102C
IORMC	0077	004D (EQU)	IORRJLD	4138	102A	IORSEH	4142	102E
IORMD	0040	0028 (EQU)	IORRJNAT	4158	103E	IORSEK	4136	1028
IORMDS	0067	0043 (EQU)	IORRJNBO	4148	1034	IORSEM	4137	1029
IORMOD	0077	004D (EQU)	IORRJNB	4157	103D	IORSER	4136	1028
IORMT0	0004	0004 (EQU)	IORRJNCC	4152	1038	IORSF	0012	000C
IORMT1	0005	0005 (EQU)	IORRJNCR	4151	1037	IORSG	0076	004C
IORMT2	0006	0006 (EQU)	IORRJNCT	4145	1031 (EQU)	IORSH	0078	004E
IORMT3	0007	0007 (EQU)	IORRJND	4160	1040 (EQU)	IORSI	2292	3004 (EQU)
IORMT4	0020	0014 (EQU)	IORRJNDC	4149	1035	IORSK	2292	3004 (EQU)
IORMT5	0021	0015 (EQU)	IORRJNEC	4145	1031	IORSKL	4149	1035
IORNP	0069	0045 (EQU)	IORRJNGC	4153	1039	IORSL	0059	003B
IOROB	0003	0003 (EQU)	IORRJNIL	4156	103C	IORSM	0059	003B (EQU)
IOROP	2288	3000	IORRJNLD	4146	1032	IORSN	0056	0038
IOROPP	0067	0043 (EQU)	IORRJNOV	4150	1036	IORSNC	0072	0048
IOROPSK	0067	0043 (EQU)	IORRJNSM	4159	103F	IORSNS	0048	0030
IORP	0077	004D (EQU)	IORRJNTC	4154	103A	IORSO	0044	002C (EQU)
IORPC	2292	3004 (EQU)	IORRJNTO	4147	1033	IORSP	0068	0044 (EQU)
IORPF	8195	2003	IORRJNUE	4155	103B	IORSRW	4146	1032
IORPG	0077	004D (EQU)	IORRJJOV	4143	102F	IORST	0015	000F
IORPL	8192	2000	IORRJTO	4139	102B	IORSU	0057	0039
IORPN	8192	2000	IORM	0071	0047 (EQU)	IORSV	0000	0000
IORPO	0010	000A	IORRS	0068	0044 (EQU)	IORSWA	0003	0003 (EQU)
IORPP	2289	3001	IORRV	0040	0028 (EQU)	IORTAB	4102	1006 (EQU)
IORPR	0036	0024	IORRZA	4104	1008	IORTBR	4228	1084
IORPRO	0004	0004 (EQU)	IORRZC	4110	100E	IORTC	0044	002C (EQU)
IORPR1	0005	0005 (EQU)	IORRZE	4105	1009	IORTO	0044	002C (EQU)
IORPS	8195	2003 (EQU)	IORRZF	4108	100C	IORUE	0068	0044 (EQU)
IORPT0	0004	0004 (EQU)	IORRZO	4104	1008	IORUR	0068	0044 (EQU)
IORPT1	0005	0005 (EQU)	IORSA	0072	0048	IORVA	0071	0047 (EQU)
IORPV	0032	0020	IORSB	0069	0045 (EQU)	IORVB	0040	0028
IORQI	0070	0046 (EQU)	IORSB0	0048	0030	IORVT	0070	0046 (EQU)
IORRB	0069	0045 (EQU)	IORSB1	0049	0031	IORWE	0069	0045 (EQU)
IORRD	0070	0046 (EQU)	IORSB2	0050	0032	IORWTR	0067	0043 (EQU)

Assembler listing of CHAIOR

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	44 00000	CHAIOR	DSECT		INPUT/OUTPUT REQUEST
		*			CONTROL BLOCK
44 00000		IORBEG	DS	0D	ALIGN ON DOUBLE WORD
		*			BOUNDARY
44 00000		IORSV	DS	H	SVC FOR IOCAL
44 00002		IORCSB	DS	XL1	CSW CHANNEL STATUS BYTE
44 00003		IORF3	DS	XL1	IORCB FLAG BYTE 3
	44 00003	IORCE	EQU	IORF3	PENDING 'COMPLETE WITH
		*			ERRORS'
	00000080	IORCEM	EQU	X'80'	IORCE FLAG
	44 00003	IOROB	EQU	IORF3	IORCB ISSUED BY OBTAIN OR
		*			RETAIN
	00000040	IOROBM	EQU	X'40'	IOROB FLAG
	44 00003	IORRJ	EQU	IORF3	REMOTE JOB ENTRY FLAG
	00000020	IORRJM	EQU	X'20'	REMOTE JOB ENTRY MASK
	44 00003	IORGET	EQU	IORF3	ON=GET, OFF=PUT FLAG
	00000010	IORGETM	EQU	X'10'	ON=GET, OFF=PUT MASK
	44 00003	IOREOT	EQU	IORF3	EOT WRITTEN BY THIS IORCB

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000008	IOREOTM	EQU	X'08'	IOREOT MASK
	44 00003	IORSA	EQU	IORF3	SWITCH ACKNOWLEDGEMENTS IN THIS IORCB FLG
	00000004	IORSWAM	EQU	X'04'	SWITCH ACKNOWLEDGEMENTS IN THIS IORCB MSK
44 00004		IORDA0	DS	XL1	D/A SEEK CHECK RETRY CNTR
	44 00004	IORMT0	EQU	IORDA0	MAG TAPE DATA CHECK WRITE RETRY CNTR
	44 00004	IORCR0	EQU	IORDA0	CARD RDR/PCH CHNL DATA CHK RETRY CNT
	44 00004	IORPT0	EQU	IORDA0	PAPER TAPE EQUIP CHECK RETRY CNTR
	44 00004	IORPR0	EQU	IORDA0	PRINTER CODE GEN STOR PARITY RETRY
44 00005		IORDA1	DS	XL1	D/A OVERRUN RETRY CNTR
	44 00005	IORMT1	EQU	IORDA1	MAG TAPE OVERRUN RETRY CNTR
	44 00005	IORCR1	EQU	IORDA1	CARD RDR/PCH BUS-OUT CHECK RETRY CNT
	44 00005	IORPT1	EQU	IORDA1	PAPER TAPE BUS OUT CHECK RETRY CNTR
	44 00005	IORPR1	EQU	IORDA1	PRINTER BUS OUT CHECK CNTR
44 00006		IORDA2	DS	XL1	D/A NO RECORD FOUND RETRY CNTR
	44 00006	IORMT2	EQU	IORDA2	MAG TAPE DATA CHK CONTROL RETRY CNTR
	44 00006	IORIN	EQU	IORDA2	UNIT RECORD INITIAL SELECTION RETRY
44 00007		IORDA3	DS	XL1	D/A MISSING ADDRESS MARKERS RETRY
	44 00007	IORMT3	EQU	IORDA3	MAG TAPE CHAINING CHECK RETRY CNTR
44 00008		IORLN	DS	XL1	LENGTH OF IORCB (MODULO 64)
44 00009		IORGL	DS	XL1	LENGTH OF PAGE LIST (MODULO 8)
44 0000A		IORPO	DS	XL1	RELATIVE ORIGIN OF PAGE LIST (MODULO 8)
44 0000B		IORKY	DS	XL1	PROTECTION KEY
	0000000F	IORKYM	EQU	X'0F'	PROTECTION KEY MASK
	00000001	IOREQ1	EQU	X'01'	CHANNEL PROTECT KEY - 1
	00000002	IOREQ2	EQU	X'02'	2
	00000004	IOREQ4	EQU	X'04'	4
44 0000C		IORSF	DS	XL1	START INPUT/OUTPUT FAILURE COUNT
44 0000D		IORCL	DS	XL1	LENGTH OF CCW LIST (MODULO 8)
44 0000E		IORCS	DS	XL1	RELATIVE ORIGIN OF CCW LIST (MODULO 8)
44 0000F		IORST	DS	XL1	RELATIVE ORIGIN OF START CCW
44 00010		IORBL	DS	XL1	LENGTH OF DATA BUFFER (MODULO 8)
44 00011		IORBS	DS	XL1	RELATIVE ORIGIN OF DATA BUFFER (MODULO 8)
44 00012		IORAP	DS	H	ACTUAL PATH
44 00014		IORDA4	DS	XL1	D/A CHAINING CHK RETRY CNTR
	44 00014	IORMT4	EQU	IORDA4	MAG TAPE DATA CHK RE-READ RETRY CNTR
44 00015		IORDA5	DS	XL1	D/A DATA CHK RETRY CNTR
	44 00015	IORMT5	EQU	IORDA5	MAG TAPE BUS-OUT CHECK RETRY CNTR
44 00016		IORSD	DS	H	SYSTEM SYMBOLIC DEVICE ADDRESS
44 00018		IORDE	DS	F	DATA EXTENT BLOCK POINTER
44 0001C		IORDC	DS	F	DATA EVENT CONTROL BLOCK POINTER
44 00020		IORPV	DS	F	VCON POINTER TO POSTING ROUTINE
44 00024		IORPR	DS	F	RCON POINTER TO POSTING

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(Listing of CHAIOR continued from page 230)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
44 00028		IORDT	DS	XL1	ROUTINE DEVICE TYPE AND CODES
	000000F0	IORDTM	EQU	X'F0'	DEVICE TYPE MASK
	00000010	IORDRM	EQU	X'10'	PRINTER
	00000020	IORDPM	EQU	X'20'	PAPER TAPE
	00000030	IORDCM	EQU	X'30'	CARD READER/PUNCH
	00000040	IORDMM	EQU	X'40'	MAGNETIC TAPE
	00000050	IORDAM	EQU	X'50'	2321 DIR ACC DEVICE
	00000060	IOR02M	EQU	X'60'	2302
	00000070	IOR11M	EQU	X'70'	2311
	00000080	IOR14	EQU	X'80'	2314
44 00028		IORMD	EQU	IORDT	MOVE DATA TO USER'S VIRTUAL MEMORY
		*			
	00000008	IORMDM	EQU	X'08'	MOVE DATA TO USER'S VIRTUAL MEMORY MASK
		*			
	44 00028	IORCV	EQU	IORDT	CODE CONVERSION REQUIRED
	00000004	IORCVM	EQU	X'04'	CODE CONVERSION REQUIRED MASK
		*			
	44 00028	IORRV	EQU	IORDT	READ VARIABLE LENGTH DISK RECORDS
		*			
	00000002	IORRVM	EQU	X'02'	READ VARIABLE LENGTH DISK RECORDS MASK
		*			
	44 00028	IORCI	EQU	IORDT	CONTROL ROUTINE IORCB
	00000001	IORCIM	EQU	X'01'	CONTROL ROUTINE IORCB MASK
44 00029		IORDA6	DS	XL1	D/A NO REC.FOUND + MISS ADD MARK
		*			
44 0002A		IORBB	DS	H	LENGTH OF DATA BUFFER IN BYTES
		*			
	44 00028		<u>ORG</u>	IORDT	
44 00028		IORVB	DS	F	POINTER TO IORCB VIRTUAL MEMORY BUFFER
		*			
44 0002C		IORBA	DS	0F	WORD BOUNDARY ALIGNED LABEL FOR DATA BUFFER ADDRE
		*			
				SS	
44 0002C		IORCN	DS	XL1	CONDITION CODES
	44 0002C	IORTO	EQU	IORCN	CONDITION CODE FOR TIO
	00000030	IORTOM	EQU	X'30'	CONDITION CODE FOR TIO MASK
	44 0002C	IORTC	EQU	IORCN	CONDITION CODE FOR TCH
	0000000C	IORTCM	EQU	X'0C'	CONDITION CODE FOR TCH MASK
	44 0002C	IORSO	EQU	IORCN	CONDITION CODE FOR SIO OR HIO
		*			
	00000003	IORSOM	EQU	X'03'	CONDITION CODE FOR SIO OR HIO MASK
		*			
44 0002D		IORDR	DS	XL3	POINTER TO DATA BUFFER RESIDENT ADDRESS
		*			
44 00030		IORSNS	DS	0D	SENSE BYTES 6,0-7
		*			
44 00030		IORSB0	DS	XL1	SENSE BYTE 0
44 00031		IORSB1	DS	XL1	SENSE BYTE 1
44 00032		IORSB2	DS	XL1	SENSE BYTE 2
44 00033		IORSB3	DS	XL1	SENSE BYTE 3
44 00034		IORSB4	DS	XL1	SENSE BYTE 4
44 00035		IORSB5	DS	XL1	SENSE BYTE 5
44 00036		IORSB6	DS	XL1	SENSE BYTE 6
44 00037		IORSB7	DS	XL1	SENSE BYTE 7
44 00038		IORSN	DS	XL1	CONDITION CODES FROM SENSE FOR TEST I/O
	00000030	IORSDM	EQU	X'30'	FOR TEST I/O
	0000000C	IORSTM	EQU	X'0C'	FOR TEST CHANNEL
	00000003	IORSSM	EQU	X'03'	FOR START I/O
44 00039		IORSU	DS	XL2	SENSE STATUS FIELD
44 0003B		IORSL	DS	XL1	SENSE FAILURE FLAGS
	44 0003B	IORSM	EQU	IORSL	INTERRUPTS STORED FOR OTHER DEVICE FLAG
		*			
	00000080	IORSMM	EQU	X'80'	INTERRUPTS STORED FOR OTHER DEVICE MASK
		*			
44 0003C		IORHF	DS	XL1	HIO RETRY COUNT
44 0003D		IORBY5	DS	XL1	DIRECT ACCESS COUNTERS
	44 0003D	IORDAA	EQU	IORBY5	APPENDED'SEEK'RETRY COUNTER

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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	0000000F	IORDMA	EQU	X'0F'	IORDAA MASK
44 0003E		IORBY6	DS	XL1	DIRECT ACCESS COUNTERS
	44 0003E	IORDCA	EQU	IORBY6	REISSUE ORIG'SEEK'RETRY CTR
	000000C0	IORXC0	EQU	X'C0'	IORDCA MASK
	44 0003E	IORDDA	EQU	IORBY6	32 RETRIES CTR (2321)
	0000003F	IORX3F	EQU	X'3F'	IORDDA MASK
44 0003F		IORDBA	DS	XL1	2321 'DATA CHK' MAX NO
		*			RETRY CTR
	000000FF	IORXFF	EQU	X'FF'	IORDBA MASK AND CTR EQU 255
		*			(BITS 0-7)
44 00040		IORDA7	DS	XL1	D/A BUS-OUT CHECK RETRY
		*			CNTR
44 00041		IORDA8	DS	XL1	D/A CHANNEL DATA CHK RETRY
		*			CNTR
44 00042		IORDA9	DS	XL1	D/A HOME ADDRESS RETRY
		*			COUNTER
44 00043		IORHE	DS	XL1	ALTERNATE PATH RETRY
		*			COUNTER
	00000080	IORINBD	EQU	X'80'	INBOARD FAILURE MASK
	00000040	IOROUTBD	EQU	X'40'	OUTBOARD FAILURE MASK
	00000007	IORAPCNT	EQU	X'07'	ALTERNATE PATH RETRY
		*			COUNTER MASK
	44 00043	IOROPP	EQU	IORHE	TAPE-READ OPPOSITE
		*			N217.4
	00000020	IOROPPM	EQU	X'20'	N217.4
	44 00043	IOROPSK	EQU	IORHE	TAPE-READ OPPOSITE WITH
		*			SKIP N217.4
	00000010	IOROPSKM	EQU	X'10'	N217.4
	44 00043	IORMDS	EQU	IORHE	TAPE-MODE SET
		*			N217.4
	00000008	IORMDSM	EQU	X'08'	N217.4
	44 00043	IORAPE	EQU	IORHE	TAPE-CCW APPENDAGE
		*			N217.4
	00000004	IORAPEM	EQU	X'04'	N217.4
	44 00043	IORCLE	EQU	IORHE	TAPE-CLEANER ACTION
		*			N217.4
	00000002	IORCLEM	EQU	X'02'	N217.4
	44 00043	IORDCDA	EQU	IORHE	D/A DATA CHECK FLAG
	00000010	IORDCDAM	EQU	X'10'	D/A DATA CHECK MASK
	44 00043	IORWTR	EQU	IORDCDA	WRITE AFTER FAILING READ
		*			FLAG
	00000020	IORWTRM	EQU	X'20'	WRITE AFTER FAILING READ
		*			MASK
	44 00043	IORRDN	EQU	IORDCDA	READ WITH NO TRANSMIT FLAG
	00000008	IORRDNM	EQU	X'08'	READ WITH NO TRANSMIT MASK
44 00044		IORFL	DS	0F	IORCB FLAGS
44 00044		IORF1	DS	XL1	IORCB FLAG BYTE 1
	44 00044	IORSP	EQU	IORF1	SPECIFIC PATH
	00000080	IORSPM	EQU	X'80'	SPECIFIC PATH MASK
	44 00044	IORIS	EQU	IORF1	IGNORE SICK INDICATOR
	00000040	IORISM	EQU	X'40'	IGNORE SICK INDICATOR MASK
	44 00044	IORRS	EQU	IORF1	REISSUE START INPUT/OUTPUT
	00000020	IORRSM	EQU	X'20'	REISSUE START INPUT/OUTPUT
		*			MASK
	44 00044	IORSC	EQU	IORF1	SOFTWARE COMMAND CHAIN
	00000010	IORSCM	EQU	X'10'	SOFTWARE COMMAND CHAIN MASK
	44 00044	IORER	EQU	IORF1	ERROR RETRY
	00000008	IORERM	EQU	X'08'	ERROR RETRY MASK
	44 00044	IORHI	EQU	IORF1	ISSUE HALT INPUT/OUTPUT
	00000004	IORHIM	EQU	X'04'	ISSUE HALT INPUT/OUTPUT
		*			MASK
	44 00044	IORUR	EQU	IORF1	ON UNIT CHECK READ R0
	00000002	IORURM	EQU	X'02'	ON UNIT CHECK READ R0 MASK
	44 00044	IORAT	EQU	IORF1	ALTERNATE TRACK FLAG DIR
		*			ACCESS
	00000001	IORATM	EQU	X'01'	IORAT MASK
	44 00044	IORUE	EQU	IORF1	UNIT EXCEPTION REQUIRED
		*			FLAG

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000001	IORUEM	EQU	X'01'	IORUE FLAG
44 00045		IORF2	DS	XL1	IORCB FLAG BYTE 2
	44 00045	IORES	EQU	IORF2	PCI EQUAL CHANNEL/DEVICE
		*			END FLAG
	00000080	IORESM	EQU	X'80'	PCI EQUAL CHANNEL/DEVICE
		*			END MASK
	44 00045	IORNPM	EQU	IORF2	NO PATH EXISTS FLAG
	00000040	IORNPM	EQU	X'40'	NO PATH EXISTS MASK
	44 00045	IORWE	EQU	IORF2	CCW SPECIFICATION ERROR
		*			FLAG
	00000020	IORWEM	EQU	X'20'	CCW SPECIFICATION ERROR
		*			MASK
	44 00045	IORIB	EQU	IORF2	SIO FAILED FLAG
	00000010	IORIBM	EQU	X'10'	SIO FAILED MASK
	44 00045	IORBH	EQU	IORF2	HIO FAILED
	00000008	IORBHM	EQU	X'08'	HIO FAILED MASK
	44 00045	IORRB	EQU	IORF2	READ R0 FAILED
	00000004	IORRBM	EQU	X'04'	READ R0 FAILED MASK
	44 00045	IORSB	EQU	IORF2	SENSE FAILED
	00000002	IORSBM	EQU	X'02'	SENSE FAILED MASK
	44 00045	IORCR	EQU	IORF2	CHANNEL COMMAND WORDS ARE
		*			RELOCATED
	00000001	IORCRM	EQU	X'01'	CHANNEL COMMAND WORDS ARE
		*			RELOCATED MASK
44 00046		IORF4	DS	XL1	IORCB FLAG BYTE 3
	44 00046	IORIP	EQU	IORF4	IORCB IS INTERCEPTED
	00000080	IORIPM	EQU	X'80'	IORCB IS INTERCEPTED MASK
	44 00046	IORVT	EQU	IORF4	SAVE RETRY COUNT
	00000040	IORVTM	EQU	X'40'	SAVE RETRY COUNT MASK
	44 00046	IORRD	EQU	IORF4	RESET DEVICE
	00000020	IORRDM	EQU	X'20'	RESET DEVICE MASK
	44 00046	IORDS	EQU	IORF4	RESET SUPPRESS FLAG F1 FLAG
	00000010	IORDSM	EQU	X'10'	RESET SUPPRESS FLAG F1 MASK
	44 00046	IORIC	EQU	IORF4	INTERRUPT CODE STORED FLAG
	00000008	IORICM	EQU	X'08'	INTERRUPT CODE STORED MASK
	44 00046	IORIOC	EQU	IORF4	IORCB CHAINING FLAG
	00000004	IORIOM	EQU	X'04'	IORCB CHAINING MASK
	44 00046	IORQI	EQU	IORF4	QUEUE CHANNEL INTERRUPT GQE
		*			FLAG
	00000002	IORQIM	EQU	X'02'	QUEUE CHANNEL INTERRUPT GQE
		*			MASK
	44 00046	IORAM	EQU	IORF4	DRUM REQUEST ACCESS METHOD
		*			FLAG
	00000001	IORAMM	EQU	X'01'	DRUM REQUEST ACCESS METHOD
		*			MASK
44 00047		IORF5	DS	XL1	IORCB FLAG BYTE 5
	44 00047	IORGI	EQU	IORF5	INCORRECT LENGTH IS AN
		*			ERROR FIG
	00000080	IORGIM	EQU	X'80'	INCORRECT LENGTH IS AN
		*			ERROR MSK
	44 00047	IOREC	EQU	IORF5	ERROR CHECK OCCURED
	00000040	IORECM	EQU	X'40'	ERROR CHECK OCCURED MASK
	44 00047	IORRM	EQU	IORF5	MULTIPLE I/O RETURN FLAG
	00000020	IORRMM	EQU	X'20'	MULTIPLE I/O RETURN MASK
	44 00047	IORFP	EQU	IORF5	FORCE CE/DE/PCI ON FIRST
		*			SCC
	00000010	IORFPM	EQU	X'10'	
	44 00047	IORFC	EQU	IORF5	IOS FLAG TO INDICATE FORCE
		*			DE ON 1ST SCC
	00000008	IORFCM	EQU	X'08'	
	44 00047	IORBP	EQU	IORF5	LINE BEING PREPARED FLAG
	00000004	IORBPM	EQU	X'04'	LINE BEING PREPARED MASK
	44 00047	IORVA	EQU	IORF5	VSS I/O FLAG
	00000002	IORVAM	EQU	X'02'	VSS I/O MASK
	44 00047	IORAL	EQU	IORF5	USE ALTERNATE PATH AND
		*			DISABLE ACTUAL
		*			PATH TO DEVICE
	00000001	IORALM	EQU	X'01'	MASK

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
44 00048		IORSNC	DS	0D	SENSE COMMAND
44 00048		IORSA	DS	XL1	SENSE OP CODE
44 00049		IORSE	DS	XL3	SENSE ADDRESS
44 0004C		IORSB	DS	XL1	SENSE FLAGS
44 0004D		IORF6	DS	XL1	IORCB FLAG BYTE 6
	44 0004D	IORPG	EQU	IORF6	I/O OPERATION PURGED
	00000080	IORPGM	EQU	X'80'	I/O OPERATION PURGED MASK
	44 0004D	IORMC	EQU	IORF6	EXTERNAL MACH CHECK ERROR
		*			FLAG
	00000040	IORMCM	EQU	X'40'	MACH CHECK MASK
	44 0004D	IORDTSI	EQU	IORF6	TASK DELETED FLAG
		*			N405.1
	00000020	IORDTSIM	EQU	X'20'	TASK DELETED MASK
		*			N405.1
	44 0004D	IORP	EQU	IORF6	IF ON, LAST PCI
		*			N486
	00000010	IORPM	EQU	X'10'	N486
	44 0004D	IORMOD	EQU	IORF6	MODE OF BULKIO OPERATION
		*			N486
	00000008	IORMODM	EQU	X'08'	0=TIMER DRIVEN; 1=INTRPT
		*			DRIVEN N486
44 0004E		IORSB	DS	H	SENSE COUNT
44 00050		IORFE	DS	0D	END OF FIXED AREA
	00000050	IORFAS	EQU	IORFE-IORBEG	FIXED AREA SIZE
	44 01000		ORG	IORBEG+4096	
44 01000		IORDB	DS	0D	DATA BUFFER %SEE NOTE 1<
	44 01000	IORHA	EQU	IORDB	READ @HOME ADDRESS@STORAGE
44 01000		IORRHA	DS	0D	READ HA CCW
44 01000		IORRHO	DS	XL1	OP CODE
44 01001		IORRHE	DS	XL3	ADDRESS
44 01004		IORRHF	DS	XL1	FLAGS
44 01006		IORRHC	DS	H	COUNT
44 01008		IORRZA	DS	0D	READ RECORD ZERO CCW
44 01008		IORRZO	DS	XL1	OP CODE
44 01009		IORRZE	DS	XL3	ADDRESS
44 0100C		IORRZF	DS	XL1	FLAGS
44 0100E		IORRZC	DS	H	COUNT
44 01010			DS	XL3	NOT USED
44 01013		IORHAF	DS	XL1	'HOME ADDRESS' FLAG BYTE
44 01014		IORHCC	DS	H	@HOME ADDRESS@ %CC< BYTES
44 01016		IORHHH	DS	H	@HOME ADDRESS@ %HH< BYTES
44 01018		IORDTA	DS	0D	DEFECTIVE TRK ADDR (R0
		*			COUNT AREA)
44 01018		IORDCY	DS	H	DEFECTIVE TRK CYLINDER
		*			NO.(CC)
44 0101A		IORDHD	DS	H	DEFECTIVE TRK R/W HEAD
		*			NO.(HH)
44 0101C		IORDRC	DS	XL1	DEFECTIVE TRK RECORD NO (R)
44 0101D			DS	XL3	NOT USED
44 01020		IORATA	DS	0D	ALTERNATE TRK ADDR (R0 DATA
		*			AREA)
44 01020		IORACY	DS	H	ALTERNATE TRK CYLINDER
		*			NO.(CC)
44 01022		IORAH	DS	H	ALTERNATE TRK R/W HEAD
		*			NO.(HH)
44 01024		IORARC	DS	XL1	ALTERNATE TRK RECORD NO (R)
44 01025			DS	XL3	NOT USED
44 01028		IORSEK	DS	0D	SEEK ARGUMENT
44 01028		IORSER	DS	XL1	TRACK RECORD NO (R)
44 01029		IORSEM	DS	XL1	EXTENT NO (M)
44 0102A		IORSEB	DS	H	BIN OR CELL NO.(BB)
44 0102C		IORSEC	DS	H	TRACK CYLINDER NO(CC)
44 0102E		IORSEH	DS	H	TRACK R/W HEAD NO(HH)
44 01030		IORSCH	DS	0D	SEARCH ARG. OR NEXT I/O
		*			ADDR
44 01030		IORSCY	DS	H	CYLINDER NO(CC)
44 01032		IORSRW	DS	H	TRACK R/W HEAD NO.(HH)
44 01034		IORSR	DS	XL1	TRACK RECORD NO (R)

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
44 01035		IORSKL	DS	XL1	KEY LENGTH
44 01036		IORDL	DS	H	DATA LENGTH
44 01038		IORBDB	DS	0D	START OF FIRST DATA BYTE
	44 01000		ORG	IORDB	
		*			THE FOLLOWING SECTION OF
		*			THE IORCB IS
		*			USED FOR 'REMOTE JOB
		*			ENTRY' I/O ERROR
		*			RETRY INFORMATION, AND
		*			OCCUPIES THE AREA
		*			NORMALLY OCCUPIED BY THE
		*			DATA BUFFER
		*			INDIVIDUAL ERROR COUNTERS
		*			ARE INCLUDED
		*			FOR EACH I/O ERROR DEFINED
		*			AS RETRYABLE.
		*			USE OF THESE ERROR
		*			COUNTERS MAY BE
		*			QUALIFIED AS TO TYPE OF
		*			CCW AND WHETHER
		*			THE SYSTEM IS RECEIVING OR
		*			TRANSMITTING
		*			DATA. THESE QUALIFICATIONS
		*			APPEAR IN THE
		*			COMMENTS FIELD AND OBSERVE
		*			THIS NOTATION
		*			ZZZ DS COUNT
		*			ZZZ (LC,M/N,M/N,...)
		*			INDICATES THAT ERROR
		*			'ZZZ' OCCURRED UNDER
		*			SPECIFIED CONDITIONS
		*			WHERE:
		*			LC = LINE CONTROL
		*			M = R(RECEIVE MODE) OR
		*			M = T(TRANSMIT MODE)
		*			N = R(READ CCW) OR
		*			N = W(WRITE CCW)
44 01000		IORJESNS	DS	XL6	INITIAL ERROR SENSE DATA
44 01006		IORJEFLG	DS	XL1	FLAGS(SEE BELOW)
44 01007			DS	XL1	UNUSED
44 01008		IORJESW	DS	XL8	INITIAL ERROR CSW
	44 01008		ORG	IORJESW	
44 01008		IORJECKY	DS	XL1	PROTECTION KEY
44 01009		IORJECAD	DS	XL3	CCW ADDRESS+8
44 0100C		IORJECST	DS	XL2	CSW STATUS
44 0100E		IORJECCT	DS	XL2	RESIDUAL BYTE COUNT
		*			THE FOLLOWING TWO
		*			SUBSECTIONS ARE
		*			ACCUMULATIVE ERROR RETRY
		*			COUNTERS
		*			INDICATING THE TOTAL
		*			NUMBER OF ERROR
		*			OCCURRANCES PER IORCB
	44 01010	IORJECT	EQU	*	
44 01010		IORJECC	DS	X	CHANNEL CONTROL BLOCK
44 01011		IORJEIC	DS	X	INTERFACE CONTROL CHECK
44 01012		IORJECD	DS	X	CHANNEL DATA CHECK
44 01013		IORJELD	DS	X	UNIT CHECK/LOST DATA (R/R)
44 01014		IORJETO	DS	X	UNIT CHECK/TIME OUT
		*			(R/R,T/R)
44 01015		IORJEIR	DS	X	UNIT CHECK INTERVENTION REQ
44 01016		IORJEBO	DS	X	UNIT CHECK/BUS OUT CHECK
		*			(LC,R/W,T/W)
44 01017		IORJEDC	DS	X	UNIT CHECK/DATA CHECK
		*			(R/R)
44 01018		IORJEV	DS	X	UNIT CHECK/OVERRUN
		*			(R/R)
44 01019		IORJEIL	DS	X	INCORRECR LENGTH (R/R,T/R)

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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			THE FOLLOWING ERRORS
		*			SHOULD NOT OCCUR
44 0101A		IORJENEC DS		X	UNIT CHECK/EQUIPMENT CHECK
44 0101B		IORJENLD DS		X	UNIT CHECK/LOST DATA
		*			(R/W,T/R,T/W)
44 0101C		IORJENTO DS		X	UNIT CHECK/TIME OUT
		*			(LC,R/W,T/W)
44 0101D		IORJENBO DS		X	UNIT CHECK/BUS OUT
		*			CHECK(R/R,T/R)
44 0101E		IORJENDC DS		X	UNIT CHECK/DATA CHECK
		*			(LC,R/W,T/R,T/W)
44 0101F		IORJENOV DS		X	UNIT CHECK/OVERRUN
		*			(LC,R/W,T/R,T/W)
44 01020		IORJENCR DS		X	UNIT CHECK/COMMAND REJECT
44 01021		IORJENCC DS		X	CHAINING CHECK
44 01022		IORJENG C DS		X	PROGRAM CHECK
44 01023		IORJENTC DS		X	PROTECTION CHECK
44 01024		IORJENUE DS		X	UNIT EXCEPTION
		*			(LC,R/W,T/W)
44 01025		IORJENIL DS		X	INCORRECT LENGTH
		*			(LC,R/W,T/W)
44 01026		IORJENBY DS		X	BUSY
44 01027		IORJENAT DS		X	ATTENTION
44 01028		IORJENSM DS		X	STATUS MODIFIER
	44 01029	IORJEND EQU		*	
		*			THE FOLLOWING TWO
		*			SUBSECTIONS ARE ERROR
		*			RETRY COUNTERS RECORDING
		*			THE NUMBER OF
		*			ERROR OCCURRANCES IN THE
		*			CURRENT
		*			INTERMITTANT I/O ERROR
		*			RETRY SEQUENCE
	44 01029	IORRJCT EQU		*	
44 01029		IORRJCD DS		X	CHANNEL DATA CHECK
44 0102A		IORRJLD DS		X	UNIT CHECK LOST DATA
44 0102B		IORRJTO DS		X	UNIT CHECK/TIME OUT
		*			(R/R,T/R)
44 0102C		IORRJIR DS		X	UNIT CHECK INTERNENTION REQ
44 0102D		IORRJBO DS		X	UNIT CHECK/BUS OUT CHECK
		*			(LC,R/W,T/W)
44 0102E		IORRJDC DS		X	UNIT CHECK/DATA CHECK
		*			(R/R)
44 0102F		IORRJOV DS		X	UNIT CHECK/OVERRUN
		*			(R/R)
44 01030		IORRJIL DS		X	INCORRECT LENGTH
		*			THE FOLLOWING ERRORS
		*			SHOULD NOT OCCUR
	44 01031	IORRJNCT EQU		*	
44 01031		IORRJNEC DS		X	UNIT CHECK/EQUIPMENT CHECK
44 01032		IORRJNLD DS		X	UNIT CHECK/LOST DATA
		*			(R/W,T/R,T/W)
44 01033		IORRJNTO DS		X	UNIT CHECK/TIME OUT
		*			(LC,R/W,T/W)
44 01034		IORRJNBO DS		X	UNIT CHECK/BUS OUT CHECK
		*			(R/R,T/R)
44 01035		IORRJNDC DS		X	UNIT CHECK/DATA CHECK
		*			(R/W,T/R,T/W)
44 01036		IORRJNOV DS		X	UNIT CHECK/OVERRUN
		*			(LC,R/W,T/R,T/W)
44 01037		IORRJNCR DS		X	UNIT CHECK/COMMAND REJECT
44 01038		IORRJNCC DS		X	CHAINING CHECK
44 01039		IORRJNGC DS		X	PROGRAM CHECK
44 0103A		IORRJNTC DS		X	PROTECTION CHECK
44 0103B		IORRJNUE DS		X	UNIT EXCEPTION
		*			(LC,R/W,T/W)
44 0103C		IORRJNIL DS		X	INCORRECT LENGTH
		*			(LC,R/W,T/W)

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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
44 0103D		IORRJNBY	DS	X	BUSY
44 0103E		IORRJNAT	DS	X	ATTENTION
44 0103F		IORRJNSM	DS	X	STATUS MODIFIER
	44 01040	IORRJND	EQU	*	
44 01040			DS	0F	
44 01040		IORJESAV	DS	XL(IORRJND-IORJESNS)	PREVIOUS ERROR SAVE AREA
44 01080			DS	0F	
44 01080		IORJEFCE	DS	XL4	FARTHEST CCW EXECUTED
		*			NOTE: RETRY THRESHOLD VALUES IN THE RJE AND SDT TABLES MUST HAVE A ONE-TO ONE CORRESPONDENCE WITH THE 'SHOULD OCCUR' ERROR RETRY COUNTERS AT IORRJCT. ONE RETRY THRESHOLD WILL EXIST IN THOSE TABLES FOR 'SHOULD NOT OCCUR ERRORS'
		*			LENGTH DATA FOR ABOVE SECTION OF IORCB
	00000084	IORJESZ	EQU	*-IORJESNS	BYTE LENGTH
	00000011	IORJDSZ	EQU	(IORJESZ+7)/8	DOUBLE WORD LENGTH ROUNDED UP TO DOUBLE WORD BOUNDARY
	00000019	IORJELN	EQU	IORJEND-IORJECT	BYTE LENGTH OF SECTION 1
	00000017	IORRJLN	EQU	IORRJND-IORRJCT	BYTE LENGTH OF SECTION 2
	44 01006	IORJESN	EQU	IORJEFLG	ERROR SHOULD NOT OCCUR FLAG
	00000080	IORJESNM	EQU	X'80'	ERROR SHOULD NOT OCCUR MASK
	44 01006	IORJEWE	EQU	IORJEFLG	ERROR OCCURRED ON WRITE ENQ FLAG
	00000040	IORJEWEM	EQU	X'40'	ERROR OCCURRED ON WRITE ENQ MASK
	44 01006	IORJEOC	EQU	IORJEFLG	ONE CARD READ INTO BUFFER FLAG
	00000020	IORJEOCM	EQU	X'20'	ONE CARD READ INTO BUFFER MASK
	44 01006	IORJEOT	EQU	IORJEFLG	IO ERROR ON WR EOT
	00000010	IORJEOTM	EQU	X'10'	IORJEOT MASK
	44 01006	IORJEDB	EQU	IORJEFLG	DISREGARD PREVIOUS BUFFER
	00000008	IORJEDBM	EQU	X'08'	
	44 01006	IORJEAN	EQU	IORJEFLG	EOT WRITTEN AFTER SOLID RD NAK ERROR
	00000004	IORJEANM	EQU	X'04'	
	44 01006	IORTAB	EQU	IORJEFLG	TAB RECORD FLAG N412.2
	00000002	IORTABM	EQU	X'02'	TAB RECORD MASK N412.2
44 01084		IORTBR	DS	XL144	RJE PRINTER TAB RECORD N412.2
	00000114	IORJTSZ	EQU	*-IORJESNS	TOTAL BUFFER LENGTH N412.2
	00000023	IORJTDSZ	EQU	(IORJTSZ+7)/8	TOTAL DOUBLEWORD BUFFER LNG N412.2
	44 02000		<u>ORG</u>	IORBEG+8192	
44 02000		IORPL	DS	D	PAGE LIST (SEE NOTE 2)
	44 02000		<u>ORG</u>	IORPL	
44 02000		IORPN	DS	XL3	HIGH ORDER 20 BITS OF VIRTUAL ADDRESS
	44 02003	IORPF	DS	XL1	PAGE LIST FLAGS
	44 02003	IORAG	EQU	IORPF	ANY PAGE
	00000080	IORAGM	EQU	X'80'	ANY PAGE MASK
	44 02003	IORPS	EQU	IORPF	SHARED PAGE FLAG N405.1
	00000020	IORPSM	EQU	X'20'	SHARED PAGE MASK N405.1
44 02004			DS	XL1	NOT USED
44 02005		IORCA	DS	XL3	CORE LOCATION OF VIRTUAL

(Listing of CHAIOR continued on page 238)

(Listing of CHAIOR continued from page 237)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			BUFFER PAGES
44 03000	44 03000	IORCW	ORG  DS	IORBEG+12288 D	CHANNEL COMMAND WORD LIST (SEE NOTE 3)
	44 03000	*	ORG	IORCW	
44 03000		IOROP	DS	XL1	OPERATION CODE
44 03001		IORPP	DS	XL1	POSITION OF PAGE LIST ENTRY (MODULO 8)
		*			
44 03002		IORFD	DS	0H	FLAGS AND DISPLACEMENT
44 03002		IORFDA	DS	XL1	FLAGS AND HI ORDER 4 BITS OF DISPLACEMENT
	44 03002	IORF0	EQU	IORFDA	INHIBIT RELOCATION OF CCW ADDRESS FLAG
		*			
	00000080	IORF0M	EQU	X'80'	INHIBIT RELOCATION OF CCW ADDRESS MASK
		*			
	0000000F	IORFDM	EQU	X'0F'	DISPLACEMENT MASK - 4 HI ORDER BITS
		*			
44 03003		IORFDB	DS	XL1	DISPLACEMENT-LOW ORDER 8 BITS
		*			
44 03004		IORCF	DS	XL1	CHANNEL COMMAND WORD FLAGS
	44 03004	IORCD	EQU	IORCF	CHAIN DATA
	00000080	IORCDM	EQU	X'80'	CHAIN DATA MASK
	44 03004	IORCO	EQU	IORCF	CHAIN COMMAND
	00000040	IORCOM	EQU	X'40'	CHAIN COMMAND MASK
	44 03004	IORSI	EQU	IORCF	SUPPRESS INCORRECT LENGTH
	00000020	IORSIM	EQU	X'20'	SUPPRESS INCORRECT LENGTH MASK
		*			
	44 03004	IORSK	EQU	IORCF	SKIP
	00000010	IORSKM	EQU	X'10'	SKIP MASK
	44 03004	IORPC	EQU	IORCF	PROGRAM CONTROLLED INTERRUPTION
		*			
	00000008	IORPCM	EQU	X'08'	PROGRAM CONTROLLED INTERRUPTION MASK
		*			
44 03005			DS	XL1	THIS BYTE AND PRECEDING 3 BITS MUST=0
		*			
44 03006		IORCT	DS	H	BYTE COUNT
		*			
		* NOTE 1- THE DATA BUFFER IS VARIABLE IN LENGTH AND MUST BE ADDRESSED USING THE CONTENTS OF THE IORBS FIELD AS A BASE ADDRESS. THE EXTENT (IN DOUBLE WORDS) OF THE DATA BUFFER IS SPECIFIED BY THE CONTENTS OF THE FIELD LABELED IORBL.			
		* NOTE 2- THE PAGE LIST IS VARIABLE IN LENGTH (MAXIMUM SIZE = 8 DOUBLE WORDS) AND MUST BE ADDRESSED USING THE CONTENTS OF THE IORPO FIELD AS A BASE ADDRESS. THE EXTENT (IN DOUBLE WORDS) OF THE PAGE LIST IS SPECIFIED BY THE CONTENTS OF THE FIELD LABELED IORGL.			
		* NOTE 3- THE CHANNEL COMMAND WORD LIST IS VARIABLE IN LENGTH AND MUST BE ADDRESSED USING THE CONTENTS OF THE FIELD LABELED IORCS AS A BASE ADDRESS. THE EXTENT (IN DOUBLE WORDS) OF THE CHANNEL COMMAND WORD LIST IS SPECIFIED BY THE CONTENTS OF THE FIELD LABELED IORCL.			

Interrupt Queue Entry (CHAIQE)

The Interrupt Queue Entry (IQE) contains interrupt data from the VPSW and sense and status data from the ISA that is required by the Task Monitor's Scanner-Dispatcher. Some IQE data is moved to a user-defined communications area (COM) for analysis of conditions and status at interrupt time.

The IQE is built by the Queue LE routine in the Task Monitor for each interrupt. The IQE is queued on the Interrupt Request Entry (IRE) for that type of interrupt. The IQE occupies 32 bytes of virtual storage, aligned on doubleword boundaries.

CHAIQE Storage map

DEC	HEX	
0	0	IQEID   IQELE   UNNAMED   IQEFPR
8	8	IQEBPR   IQEDET
		IQEOVY

ORG IQEOVY

13	D	UNNAMED   IQEINT
16	10	IQEPSW   IQEPIM
24	18	UNNAMED

ORG IQEOVY

13	D	UNNAMED   IQESVC
16	10	UNNAMED   UNNAMED

ORG IQEOVY

13	D	IQEXML   IQEXMN
16	10	IQEMSG   UNNAMED

ORG IQEOVY

13	D	UNNAMED   IQEASI
16	10	IQESNS   UNNAMED
24	18	IQEATM   UNNAMED

(CHAIQE continued on page 240)

(CHAIQE continued from page 239)

DEC HEX  
ORG IQEOVY

13	D		IQETIM	IQETNO
16	10	UNNAMED		
			UNNAMED	

ORG IQEOVY

13	D		UNNAMED	IQESTA
16	10	UNNAMED		
			UNNAMED	

ORG IQEOVY

13	D		UNNAMED	
16	10	IQEVAD	IQERAD	
24	18	IQEGRO	IQEGR1	

Fields in CHAIQE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	IQEID	0014	000E	IQESTA	0016	0010	IQEMSG
0002	0002	IQELE	0014	000E	IQETNO	0016	0010	IQEPSW
0004	0004	IQEFPR	0014	000E	IQEXMN	0020	0014	IQERAD
0008	0008	IQEBPR	0014	000E	IQESVC	0020	0014	IQEPIM
0012	000C	IQEDET	0014	000E	IQEINT	0024	0018	IQEGRO
0013	000D	IQETIM	0015	000F	IQEASI	0024	0018	IQEATM
0013	000D	IQEXML	0016	0010	IQEVAD	0028	001C	IQEGR1
0013	000D	IQEOVY	0016	0010	IQESNS			

Alphabetical list of fields in CHAIQE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
IQEASI	0015	000F	IQEINT	0014	000E	IQESTA	0014	000E
IQEATM	0024	0018	IQELE	0002	0002	IQESVC	0014	000E
IQEBPR	0008	0008	IQEMSG	0016	0010	IQETIM	0013	000D
IQEDET	0012	000C	IQEOVY	0013	000D	IQETNO	0014	000E
IQEFPR	0004	0004	IQEPIM	0020	0014	IQEVAD	0016	0010
IQEGRO	0024	0018	IQEPSW	0016	0010	IQEXML	0013	000D
IQEGR1	0028	001C	IQERAD	0020	0014	IQEXMN	0014	000E
IQEID	0000	0000	IQESNS	0016	0010			

Assembler listing of CHAIQE

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	45 00000	CHAIQE	DSECT		
		*			INTERRUPT QUEUE ENTRY
45 00000			DS	0D	
		*			COMMONLY USED PORTIONS OF QE
45 00000		IQEID	DS	CL2	ID EQUALS QE
45 00002		IQELE	DS	CL1	CODE FOR LE TYPE QE
	000000D3	IQELEC	EQU	C'L'	LE TYPE CODE
45 00003			DS	CL1	UNUSED
45 00004		IQEFPR	DS	F	FORWARD POINTER
45 00008		IQEBPR	DS	F	BACKWARD POINTER
45 0000C		IQEDET	DS	CL1	DE TYPE CODE

(Listing of CHAIQE continued on page 241)

## (Listing of CHAIQE continued from page 240)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000000	IQEDEP	EQU	X'00'	PROGRAM
	00000001	IQEDES	EQU	X'01'	SVC
	00000002	IQEDEX	EQU	X'02'	EXTERNAL
	00000003	IQEDEA	EQU	X'03'	ASYNCHRONOUS
	00000004	IQEDTT	EQU	X'04'	TIMER
	00000005	IQEDEI	EQU	X'05'	SYNCHRONOUS
45 0000D		IQEOVY	DS	CL19	OVERLAID FIELDS FOR VARIOUS INT. TYPES
		*			
	45 0000D		ORG	IQEOVY	
		* FIELDS USED		FOR PROGRAM INTERRUPTS	
45 0000D		DS	CL1		UNUSED
45 0000E		IQEINT	DS	CL2	INTERRUPT CODEFROM VPSW
45 00010		IQEPSW	DS	F	ADDR IN VPSW AT INTERRUPT
45 00014		IQEPIM	DS	F	PROGRAM INTERRUPT MASK
45 00018		DS	CL8		UNUSED
	45 0000D		ORG	IQEOVY	
		* FIELDS USED		FOR SVC INTER9UPTS	
45 0000D		DS	CL1		UNUSED
45 0000E		IQESVC	DS	CL2	SVC INTEGER FROM VPSW
45 00010		DS	F		VPSW ADDR - USES IQEPSW
45 00014		DS	CL12		UNUSED
	45 0000D		ORG	IQEOVY	
		* FIELDS USED		FOR EXTERNAL INTERRUPTS	
45 0000D		IQEXML	DS	CL1	MESSAGE LENGTH
45 0000E		IQEXMN	DS	CL2	MESSAGE NUMBER
45 00010		IQEMSG	DS	F	PTR TO MESSAGE AREA
45 00014		DS	CL12		UNUSED
	45 0000D		ORG	IQEOVY	
		* FIELDS USED		FOR ASYNCHRONOUS INTERRUPTS	
45 0000D		DS	CL2		UNUSED
45 0000F		IQEASI	DS	CL1	TYPE CODE FO-9 ASYNCHRONOUS
	00000005	IQEATC	EQU	X'05'	ATTENTION KEY
45 00010		IQESNS	DS	F	SENSE INFO
45 00014		DS	F		UNUSED
45 00018		IQEATM	DS	F	ATTENTION TYPE MASK
	00000001	IQEANM	EQU	X'01'	ATTENTION KEY MASK
45 0001C		DS	CL4		UNUSED
	45 0000D		ORG	IQEOVY	
		* FIELDS USED		FOR TIMER INTERRUPTS	
45 0000D		IQETIM	DS	CL1	TIMER TYPE - TASK OR REAL
	000000D9	IQETMR	EQU	C'R'	REAL TIMER
	000000E3	IQETMT	EQU	C'T'	TASK TIMER
45 0000E		IQETNO	DS	CL2	TIMER NUMBER
45 00010		DS	F		VPSW ADDR - USES IQEPSW
45 00014		DS	CL12		UNUSED
	45 0000D		ORG	IQEOVY	
		* FIELDS USED		FOR SYNCHRONOUS INTERRUPTS	
45 0000D		DS	CL1		UNUSED
45 0000E		IQESTA	DS	CL2	CSW STATUS INFORMATION
45 00010		DS	F		SENSE INFO - USES IQESNS
45 00014		DS	CL12		UNUSED
	45 0000D		ORG	IQEOVY	
		*			FIELDS USED FOR LE TYPE QE'S
45 0000D		DS	CL3		UNUSED
45 00010		IQEVAD	DS	F	VCON FOR LE
45 00014		IQERAD	DS	F	RCON FOR LE
45 00018		IQEGRO	DS	F	INFO FOR REG 0
45 0001C		IQEGRI	DS	F	INFO FOR REG 1

Interrupt Request Entry (CHAIRE)

The Interrupt Request Entry (IRE) describes the priority status, and mode of operation for the routine specified in its Interrupt Control Block (ICB).

The IRE is built by the Specify Interrupt Routine (SIR) in the Task Monitor. It is deleted by the Delete Interrupt Routine (DIR).

An IRE is built each time an ICB is made available to the system via a SIR macro instruction; it is then queued on the appropriate Interrupt Device Entry (IDE) in the Task Monitor's Interrupt Table (CHBITB).

The IRE occupies 32 bytes of virtual storage, aligned on doubleword boundaries.

CHAIRE Storage map

DEC	HEX				
0	0	IREID	IRELE	IREACT	IREFPR
8	8	IREBPR		IREAPR	
16	10	IREPDS		IREQEP	
24	18	IREICB	IREINS	IREDLT	IREINH IREPRY

Fields in CHAIRE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	IREID	0012	000C	IREAPR	0029	001D	IREDLT
0002	0002	IRELE	0016	0010	IREPDS	0030	001E	IREINH
0003	0003	IREACT	0020	0014	IREQEP	0031	001F	IREPRY
0004	0004	IREFPR	0024	0018	IREICB			
0008	0008	IREBPR	0028	001C	IREINS			

Alphabetical list of fields in CHAIRE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
IREACT	0003	0003	IREICB	0024	0018	IREPDS	0016	0010
IREAPR	0012	000C	IREID	0000	0000	IREPRY	0031	001F
IREBPR	0008	0008	IREINH	0030	001E	IREQEP	0020	0014
IREDLT	0029	001D	IREINS	0028	001C			
IREFPR	0004	0004	IRELE	0002	0002			

Assembler listing of CHAIRE

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	46 00000	CHAIRE	DSECT		START DSECT
46 00000			DS	0D	
46 00000		IREID	DS	CL2	ID = 'RE'
46 00002		IRELE	DS	CL1	LE CODE INDICATOR
	000000D3	IRELEC	EQU	C'L'	CODE FOR REL
46 00003		IREACT	DS	CL1	ACTIVITY CODE
	000000C1	IREACC	EQU	C'A'	ACTIVE INDICATOR
46 00004		IREFPR	DS	F	FORWARD PTR
46 00008		IREBPR	DS	F	BACKWARD PTR
46 0000C		IREAPR	DS	F	ACTIVE PTR TO A LOWER
		*			PRIORITY
46 00010		IREPDS	DS	F	PTR TO PUSHDOWN SAVE AREA
46 00014		IREQEP	DS	F	PTR TO FIRST QE
46 00018		IREICB	DS	F	PTR TO ICB
46 0001C		IREINS	DS	CL1	INSERT CODE
	00000001	IREINC	EQU	X'01'	INSERTED
46 0001D		IREDLT	DS	CL1	DELETE CODE
	000000C4	IREDLT	EQU	C'D'	DELETED
46 0001E		IREINH	DS	CL1	P-NP INHIBIT SWITCH
	00000001	IREPRV	EQU	X'01'	PRIVILEGED
	00000000	IRENPR	EQU	X'00'	NON-PRIVILEGED
	00000000	IREENA	EQU	X'00'	INTERRUPTS ENABLED
	00000010	IREDIS	EQU	X'10'	INTERRUPTS DISABLED
46 0001F		IREPRY	DS	CL1	PRIORITY



Interrupt Storage Area (CHAISA)

The Interrupt Storage Area (ISA), a prefixed storage area for virtual storage, serves as a virtual storage holding area during task interrupts.

The ISA includes a set of old and new Virtual Program Status Words (VPSW) for all presently defined task interrupts. The ISA also contains space to save general purpose registers, floating point registers, channel status word, sense data, constants, and flags used by virtual storage programs.

The ISA page (4096 bytes) is located at segment zero, page zero of virtual storage, and is aligned on doubleword boundaries.

CHAISA Storage map

DEC	HEX	
0	0	UNNAMED
48	30	
56	38	
64	40	RESERVED
1560	618	
1568	620	
		ISAPIF   ISAPIC   ISAPICT
		ISAPI13   ISAPI14
1600	640	ISAORP
1608	648	ISAORV   ISAORE
1616	650	ISARS
1648	670	ISAOV
1656	678	ISAVS
1680	690	ISADTY   UNNAMED   ISAF5   ISAU1   ISARSP   ISARTN

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DEC	HEX	
1688	698	ISALOG
1712	6B0	ISAMSA   UNNAMED
1720	6B8	ISASOF   ISASOC   ISASOI
1728	6C0	ISAS13   ISAS14
1760	6E0	UNNAMED   ISA113
1768	6E8	ISA1SA   ISA114
1776	6F0	ISA115   ISA10
1784	6F8	ISA11   ISA12
1800	708	ISA15
1832	728	ISAPSF   UNNAMED   UNNAMED
1840	730	ISA1OP
1848	738	ISA1F0
1856	740	ISA1F2
1864	748	ISA1F4
1872	750	ISA1F6
1880	758	UNNAMED   ISA213
1888	760	ISA2SA   ISA214
1896	768	ISA215   ISA20
1904	770	ISA21   ISA22
1920	780	ISA25

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DEC 1952	HEX 7A0	UNNAMED				
1960	7A8	ISA2OP				
1968	7B0	ISA2F0				
1976	7B8	ISA2F2				
1984	7C0	ISA2F4				
1992	7C8	ISA2F6				
2000	7D0	ISAPT	ISACP	ISAIN	ISAIC	
2008	7D8	ISAOS				
2016	7E0	ISAOX				
2024	7E8	ISAOA				
2032	7F0	ISAOT				
2040	7F8	ISAOI				
2048	800	ISANP				
2056	808	ISANS				
2064	810	ISANX				
2072	818	ISANA				
2080	820	ISANT				
2088	828	ISANI				
2096	830	ISANR				
2104	838	ISANV				
2112	840	ISAPP3	ISAF1	ISAABN	ISAF3	ISAF4
2120	848	ISAVMP	ISANAS	UNNAMED		
2128	850	ISATDT	ISAF4	ISAFB	ISAVLKCT	ISAVLK
2136	858	ISASPN	ISAP3	ISAP1	UNNAMED	
2144	860	ISACVP				
2152	868	ISATDY	ISASDS			
2160	870	ISASLP	ISAJLC			
2168	878	ISAUTH	ISAEF	ISALCK	ISAVAR	ISATMP
2176	880	ISARCB				

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(CHAISA continued from page 245)

DEC HEX

ORG ISASNS

48	30	ISASN1	UNNAMED
----	----	--------	---------

ORG ISASNS

48	30	ISASN2	UNUSED
----	----	--------	--------

ORG ISACSW

56	38	ISAKEY	ISAF10	ISARCL	ISAIC1	ISAIC2	ISACNT
----	----	--------	--------	--------	--------	--------	--------

ORG ISAS14

1732	6C4		ISAS14R
1736	6C8	ISAS15R	ISAS0R
1744	6D0	ISAS1R	ISAS2R
1752	6D8	ISAS3R	ISAS4R

Fields in CHAISA -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0048	0030	ISASN2	1600	0640	ISAORP	1772	06EC	ISA1R
0048	0030	ISASN1	1600	0640	ISAOR	1776	06F0	ISA115
0048	0030	ISAN28 (EQU)	1608	0648	ISAORV	1780	06F4	ISA10
0048	0030	ISAN27 (EQU)	1612	064C	ISAORE	1784	06F8	ISA11
0048	0030	ISAN26 (EQU)	1616	0650	ISARS	1788	06FC	ISA12
0048	0030	ISAN25 (EQU)	1648	0670	ISAOV	1800	0708	ISA15
0048	0030	ISAN24 (EQU)	1656	0678	ISAVS	1832	0728	ISANPIR (EQU)
0048	0030	ISAN23 (EQU)	1680	0690	ISADTY	1832	0728	ISAPSF
0048	0030	ISAN22 (EQU)	1682	0692	ISAIP (EQU)	1840	0730	ISA1OP
0048	0030	ISAN21 (EQU)	1682	0692	ISACI (EQU)	1848	0738	ISA1F0
0048	0030	ISAN18 (EQU)	1682	0692	ISAF5	1856	0740	ISA1F2
0048	0030	ISAN17 (EQU)	1683	0693	ISAU1	1864	0748	ISA1F4
0048	0030	ISAN16 (EQU)	1684	0694	ISARSP	1872	0750	ISA1F6
0048	0030	ISAN15 (EQU)	1686	0696	ISARTN	1880	0758	ISALS2
0048	0030	ISAN14 (EQU)	1688	0698	ISALOG	1884	075C	ISA213
0048	0030	ISAN13 (EQU)	1712	06B0	ISAMSA	1888	0760	ISA2SA
0048	0030	ISAN12 (EQU)	1720	06B8	ISAPF (EQU)	1892	0764	ISA214
0048	0030	ISAN11 (EQU)	1720	06B8	ISASOF	1892	0764	ISA2R
0048	0030	ISASNS	1720	06B8	ISASO	1896	0768	ISA215
0049	0031	UNUSED	1720	06B8	ISASSA	1900	076C	ISA20
0056	0038	ISAF10	1722	06BA	ISASOC	1904	0770	ISA21
0056	0038	ISACSW	1724	06BC	ISASOI	1908	0774	ISA22
0057	0039	ISAF10	1728	06C0	ISAS13	1920	0780	ISA25
0058	003A	ISARCL	1728	06C0	ISASR	1960	07A8	ISA2OP
0060	003C	ISAIC1	1732	06C4	ISAS14R	1968	07B0	ISA2F0
0061	003D	ISAIC2	1732	06C4	ISAS14	1976	07B8	ISA2F2
0062	003E	ISACNT	1736	06C8	ISAS15R	1984	07C0	ISA2F4
1560	0618	ISAPIP (EQU)	1740	06CC	ISASOR	1992	07C8	ISA2F6
1560	0618	ISAPIF	1744	06D0	ISAS1R	2000	07D0	ISAI1 (EQU)
1560	0618	ISAPIV	1748	06D4	ISAS2R	2000	07D0	ISATR (EQU)
1560	0618	ISAPISA	1752	06D8	ISAS3R	2000	07D0	ISAA1 (EQU)
1562	061A	ISAPIC	1756	06DC	ISAS4R	2000	07D0	ISAXI (EQU)
1564	061C	ISAPICT	1760	06E0	ISALS1	2000	07D0	ISAAP (EQU)
1568	0620	ISAPI13	1764	06E4	ISA113	2000	07D0	ISAPP2 (EQU)
1568	0620	ISAPIR	1768	06E8	ISA1SA	2000	07D0	ISAPV (EQU)
1572	0624	ISAPI14	1772	06EC	ISA114	2000	07D0	ISAPT

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DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
2000	07D0	ISAOP	2116	0844	ISAVSC (EQU)	2119	0847	ISAWO (EQU)
2001	07D1	ISASF (EQU)	2116	0844	ISASHUT (EQU)	2119	0847	ISAOLT (EQU)
2001	07D1	ISAEU (EQU)	2116	0844	ISASPP (EQU)	2119	0847	ISAF4
2001	07D1	ISADO (EQU)	2116	0844	ISAHLD (EQU)	2120	0848	ISAVMP
2001	07D1	ISAF0 (EQU)	2116	0844	ISAPCS (EQU)	2124	084C	ISANAS
2001	07D1	ISAPM (EQU)	2116	0844	ISAF1	2128	0850	ISATDT
2001	07D1	ISACC (EQU)	2116	0844	ISAF1G	2132	0854	ISAF4
2001	07D1	ISALC (EQU)	2117	0845	ISAABNF4 (EQU)	2133	0855	ISAFB
2001	07D1	ISACP	2117	0845	ISAABNF3 (EQU)	2134	0856	ISAVLKCT
2002	07D2	ISAIN	2117	0845	ISAABNF2 (EQU)	2135	0857	ISAPP1R (EQU)
2004	07D4	ISAIC	2117	0845	ISAABNF1 (EQU)	2135	0857	ISAVLK
2008	07D8	ISAOS	2117	0845	ISAABN	2136	0858	ISASPN
2016	07E0	ISAOX	2118	0846	ISACF (EQU)	2138	085A	ISAP3
2024	07E8	ISAOA	2118	0846	ISAVEF (EQU)	2139	085B	ISAP1
2032	07F0	ISAOT	2118	0846	ISALP (EQU)	2144	0860	ISACVP
2040	07F8	ISAOI	2118	0846	ISADF (EQU)	2152	0868	ISATDY
2048	0800	ISANP	2118	0846	ISAD2 (EQU)	2156	086C	ISASDS
2056	0808	ISANS	2118	0846	ISAP2 (EQU)	2160	0870	ISASLP
2064	0810	ISANX	2118	0846	ISACPU (EQU)	2164	0874	ISAJLC
2072	0818	ISANA	2118	0846	ISAF3	2168	0878	ISAUTH
2080	0820	ISANT	2119	0847	ISATI (EQU)	2169	0879	ISAEF
2088	0828	ISANI	2119	0847	ISASP (EQU)	2170	087A	ISALCK
2096	0830	ISANR	2119	0847	ISAPS (EQU)	2171	087B	ISAVAR
2104	0838	ISANV	2119	0847	ISASI (EQU)	2172	087C	ISATMP
2112	0840	ISAPP3	2119	0847	ISAAT (EQU)	2176	0880	ISARCB
2116	0844	ISARIN (EQU)	2119	0847	ISADL (EQU)			

Alphabetical list of fields in CHAISA

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ISAABN	2117	0845	ISAJLC	2164	0874	ISAOR	1600	0640
ISAABNF1	2117	0845 (EQU)	ISAKEY	0056	0038	ISAORE	1612	064C
ISAABNF2	2117	0845 (EQU)	ISALC	2001	07D1 (EQU)	ISAORP	1600	0640
ISAABNF3	2117	0845 (EQU)	ISALCK	2170	087A	ISAORV	1608	0648
ISAABNF4	2117	0845 (EQU)	ISALOG	1688	0698	ISAOS	2008	07D8
ISAAI	2000	07D0 (EQU)	ISALP	2118	0846 (EQU)	ISAOT	2032	07F0
ISAAP	2000	07D0 (EQU)	ISALS1	1760	06E0	ISAOV	1648	0670
ISAAT	2119	0847 (EQU)	ISALS2	1880	0758	ISAOX	2016	07E0
ISACC	2001	07D1 (EQU)	ISAMSA	1712	06B0	ISAPCS	2116	0844 (EQU)
ISACF	2118	0846 (EQU)	ISANA	2072	0818	ISAPF	1720	06B8 (EQU)
ISACI	1682	0692 (EQU)	ISANAS	2124	084C	ISAPIC	1562	061A
ISACNT	0062	003E	ISANI	2088	0828	ISAPICT	1564	061C
ISACP	2001	07D1	ISANP	2048	0800	ISAPIF	1560	0618
ISACPU	2118	0846 (EQU)	ISANPIR	1832	0728 (EQU)	ISAPIP	1560	0618 (EQU)
ISACSW	0056	0038	ISANR	2096	0830	ISAPIR	1568	0620
ISACVP	2144	0860	ISANS	2056	0808	ISAPISA	1560	0618
ISADF	2118	0846 (EQU)	ISANT	2080	0820	ISAPIV	1560	0618
ISADL	2119	0847 (EQU)	ISANV	2104	0838	ISAPI13	1568	0620
ISADO	2001	07D1 (EQU)	ISANX	2064	0810	ISAPI14	1572	0624
ISADTY	1680	0690	ISAN11	0048	0030 (EQU)	ISAPM	2001	07D1 (EQU)
ISAD2	2118	0846 (EQU)	ISAN12	0048	0030 (EQU)	ISAPP1R	2135	0857 (EQU)
ISAEF	2169	0879	ISAN13	0048	0030 (EQU)	ISAPP2	2000	07D0 (EQU)
ISAEU	2001	07D1 (EQU)	ISAN14	0048	0030 (EQU)	ISAPP3	2112	0840
ISAF4	2132	0854	ISAN15	0048	0030 (EQU)	ISAPS	2119	0847 (EQU)
ISAFB	2133	0855	ISAN16	0048	0030 (EQU)	ISAPSF	1832	0728
ISAF1G	2116	0844	ISAN17	0048	0030 (EQU)	ISAPT	2000	07D0
ISAF0	2001	07D1 (EQU)	ISAN18	0048	0030 (EQU)	ISAPV	2000	07D0 (EQU)
ISAF1	2116	0844	ISAN21	0048	0030 (EQU)	ISAP1	2139	085B
ISAF10	0057	0039	ISAN22	0048	0030 (EQU)	ISAP2	2118	0846 (EQU)
ISAF3	2118	0846	ISAN23	0048	0030 (EQU)	ISAP3	2138	085A
ISAF4	2119	0847	ISAN24	0048	0030 (EQU)	ISARCB	2176	0880
ISAF5	1682	0692	ISAN25	0048	0030 (EQU)	ISARCL	0058	003A
ISAHLD	2116	0844 (EQU)	ISAN26	0048	0030 (EQU)	ISARIN	2116	0844 (EQU)
ISAIC	2004	07D4	ISAN27	0048	0030 (EQU)	ISARS	1616	0650
ISAIC1	0060	003C	ISAN28	0048	0030 (EQU)	ISARSP	1684	0694
ISAIC2	0061	003D	ISAOA	2024	07E8	ISARTN	1686	0696
ISAI	2000	07D0 (EQU)	ISAOI	2040	07F8	ISASDS	2156	086C
ISAIN	2002	07D2	ISAOLT	2119	0847 (EQU)	ISASF	2001	07D1 (EQU)
ISAIP	1682	0692 (EQU)	ISAOP	2000	07D0	ISASHUT	2116	0844 (EQU)

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FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ISASI	2119	0847	(EQU) ISATDT	2128	0850	ISA10	1780	06F4
ISASLP	2160	0870	ISATDY	2152	0868	ISA11	1784	06F8
ISASNS	0048	0030	ISATI	2119	0847	(EQU) ISA113	1764	06E4
ISASN1	0048	0030	ISATMP	2172	087C	ISA114	1772	06EC
ISASN2	0048	0030	ISATR	2000	07D0	(EQU) ISA115	1776	06F0
ISASO	1720	06B8	ISAUTH	2168	0878	ISA12	1788	06FC
ISASOC	1722	06BA	ISAU1	1683	0693	ISA15	1800	0708
ISASOF	1720	06B8	ISAVAR	2171	087B	ISA2F0	1968	07B0
ISASOI	1724	06BC	ISAVEF	2118	0846	(EQU) ISA2F2	1976	07B8
ISASP	2119	0847	(EQU) ISAVLK	2135	0857	ISA2F4	1984	07C0
ISASPN	2136	0858	ISAVLKCT	2134	0856	ISA2F6	1992	07C8
ISASPP	2116	0844	(EQU) ISAVMP	2120	0848	ISA2OP	1960	07A8
ISASR	1728	06C0	ISAVS	1656	0678	ISA2R	1892	0764
ISASSA	1720	06B8	ISAVSC	2116	0844	(EQU) ISA2SA	1888	0760
ISAS0R	1740	06CC	ISAWO	2119	0847	(EQU) ISA20	1900	076C
ISAS1R	1744	06D0	ISAXI	2000	07D0	(EQU) ISA21	1904	0770
ISAS13	1728	06C0	ISA1F0	1848	0738	ISA213	1884	075C
ISAS14	1732	06C4	ISA1F2	1856	0740	ISA214	1892	0764
ISAS14R	1732	06C4	ISA1F4	1864	0748	ISA215	1896	0768
ISAS15R	1736	06C8	ISA1F6	1872	0750	ISA22	1908	0774
ISAS2R	1748	06D4	ISA1OP	1840	0730	ISA25	1920	0780
ISAS3R	1752	06D8	ISA1R	1772	06EC	UNUSED	0049	0031
ISAS4R	1756	06DC	ISA1SA	1768	06E8			

Assembler listing of CHAISA

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	47 00000	CHAISA	DSECT		--- INTERRUPT STORAGE
		*			AREA --- I S A ---
47 00000			DS	0D	
47 00000			DS	12F	UNUSED
47 00030		ISASNS	DS	D	SENSE DATA
		***			
		*** THE FOLLOWING DETAIL OF THE SENSE DATA FIELD			
		*APPLIES ONLY TO THE			
		*** 2702. FOR OTHER DEVICES THE DEFINITION OF THE			
		*FIELD SHOULD BE			
		*** REDEFINED BY INSERTING CARDS IN THIS DSECT,			
		*BEGINNING WITH AN			
		*** ORG ISASNS CARD. THE ENTIRE EIGHT BYTES SHOULD			
		*BE DEFINED.			
	47 00030		ORG	ISASNS	
47 00030		ISASN1	DS	XL1	SENSE BYTE ZERO
	47 00030	ISAN11	EQU	ISASN1	2702 COMMAND REJECT
	00000080	ISA11M	EQU	X'80'	2702 COMMAND REJECT MASK
	47 00030	ISAN12	EQU	ISASN1	2702 INTERVENTION REQUIRED
	00000040	ISA12M	EQU	X'40'	2702 INTERV REQ MASK
	47 00030	ISAN13	EQU	ISASN1	2702 BUS OUT CHECK
	00000020	ISA13M	EQU	X'20'	2702 BUS OUT CHECK MASK
	47 00030	ISAN14	EQU	ISASN1	2702 EQUIPMENT CHECK
	00000010	ISA14M	EQU	X'10'	2702 EQUIPMENT CHECK MASK
	47 00030	ISAN15	EQU	ISASN1	2702 DATA CHECK
	00000008	ISA15M	EQU	X'08'	2702 DATA CHECK MASK
	47 00030	ISAN16	EQU	ISASN1	2702 OVERRUN
	00000004	ISA16M	EQU	X'04'	2702 OVERRUN MASK
	47 00030	ISAN17	EQU	ISASN1	2702 RECEIVING CHECK
	00000002	ISA17M	EQU	X'02'	2702 RECEIVING CHECK MASK
	47 00030	ISAN18	EQU	ISASN1	2702 TIME OUT
	00000001	ISA18M	EQU	X'01'	2702 TIME OUT MASK
47 00031			DS	CL7	2702 UNUSED
	47 00030		ORG	ISASNS	SENSE DATA FOR 2701
47 00030		ISASN2	DS	XL1	SENSE BYTE ZERO
	47 00030	ISAN21	EQU	ISASN2	2701 COMMAND REJECT
	00000080	ISA21M	EQU	X'80'	2701 COMMAND REJECT MASK
	47 00030	ISAN22	EQU	ISASN2	2701 INTERVENTION REQUIRED
	00000040	ISA22M	EQU	X'40'	INTERVENTION REQUIRED MASK
	47 00030	ISAN23	EQU	ISASN2	2701 BUS OUT CHECK
	00000020	ISA23M	EQU	X'20'	2701 BUS OUT CHECK MASK

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	47 00030	ISAN24	EQU	ISASN2	2701 EQUIPMENT CHECK
	00000010	ISA24M	EQU	X'10'	2701 EQUIPMENT CHECK MASK
	47 00030	ISAN25	EQU	ISASN2	2701 DATA CHECK
	00000008	ISA25M	EQU	X'08'	2701 DATA CHECK MASK
	47 00030	ISAN26	EQU	ISASN2	2701 OVER RUN
	00000004	ISA26M	EQU	X'04'	2701 OVER RUN MASK
	47 00030	ISAN27	EQU	ISASN2	2701 LOST DATA
	00000002	ISA27M	EQU	X'02'	2701 LOST DATA MASK
	47 00030	ISAN28	EQU	ISASN2	2701 TIME OUT
	00000001	ISA28M	EQU	X'01'	2701 TIME OUT MASK
47 00038		ISACSW	DS	D	CHANNEL STATUS WORD
	47 00038		ORG	ISACSW	
47 00038		ISAKEY	DS	XL1	CSW KEY
47 00039		ISAF10	DS	XL1	UNUSED FOR RELATIVE POSITIONING
		*			
47 0003A		ISARCL	DS	XL2	RELATIVE CCW LOCATION DW MOD
		*			
47 0003C		ISAIC1	DS	XL1	INTERRUPT CODE BYTE 1
	00000080	ISAC11	EQU	X'80'	ATTENTION
	00000040	ISAC12	EQU	X'40'	STATUS MODIFIER
	00000020	ISAC13	EQU	X'20'	CONTROL UNIT END
	00000010	ISAC14	EQU	X'10'	BUSY
	00000008	ISAC15	EQU	X'08'	CHANNEL END
	00000004	ISAC16	EQU	X'04'	DEVICE END
	00000002	ISAC17	EQU	X'02'	UNIT CHECK
	00000001	ISAC18	EQU	X'01'	UNIT EXCEPTION
47 0003D		ISAIC2	DS	XL1	INTERRUPT CODE BYTE 2
	00000080	ISAC21	EQU	X'80'	PCI
	00000040	ISAC22	EQU	X'40'	INCORRECT LENGTH
	00000020	ISAC23	EQU	X'20'	PROGRAM CHECK
	00000010	ISAC24	EQU	X'10'	PROTECTION CHECK
	00000008	ISAC25	EQU	X'08'	CHANNEL DATA CHECK
	00000004	ISAC26	EQU	X'04'	CHANNEL CONTROL CHECK
	00000002	ISAC27	EQU	X'02'	INTERFACE CONTROL CHECK
	00000001	ISAC28	EQU	X'01'	CHAINING CHECK
47 0003E		ISACNT	DS	H	BYTE COUNT
	47 00618		ORG	**+1496	
47 00618		ISAPISA	DS	0XL40	PGM INT SHORT SAVE AREA
47 00618		ISAPIV	DS	0D	OLD PGM INT. VPSW
47 00618		ISAPIF	DS	XL2	FLAGS
	47 00618	ISAPIP	EQU	ISAPIF	PRIVILEGED STATUS INDICATOR
	00000080	ISAPIPM	EQU	X'80'	PRIVILEGED STATUS MASK
47 0061A		ISAPIC	DS	H	INTERRUPT CODE
47 0061C		ISAPICT	DS	F	INSTRUCTION COUNTER
47 00620		ISAPIR	DS	0XL32	SHORT SAVE REG. SAVE AREA
		*			13 - 4
47 00620		ISAPI13	DS	F	REGISTER 13
47 00624		ISAPI14	DS	7F	REGISTERS 14 TO 4
47 00640		ISAOR	DS	0CL16	RECOVERABLE DATA SET PAGING
		*			ERROR VPSW
47 00640		ISAORP	DS	D	OLD VPSW PORTION
47 00648		ISAORV	DS	F	VM ADDRESS PORTION
47 0064C		ISAORE	DS	F	EXT. ADDRESS PORTION
47 00650		ISARS	DS	8F	SHORT SAVE AREA FOR RECOV. DATA SET PAGING
		*			
47 00670		ISAOV	DS	D	OLD VSS INTERRUPT VPSW
47 00678		ISAVS	DS	6F	SHORT SAVE AREA FOR VSS
		*			INTERRUPTS
47 00690		ISADTY	DS	XL1	TERMINAL TYPE
		*			NSRB 403
	00000001	ISADTY1	EQU	X'01'	1050 PTTC/8
	00000002	ISADTY2	EQU	X'02'	2741 CORRESPONDENCE
	00000003	ISADTY3	EQU	X'03'	2741 PTTC/8
	00000004	ISADTY4	EQU	X'04'	TELETYPE TTY35
	00000005	ISADTY5	EQU	X'05'	1052-7 OPERATOR CONSOLE
47 00691			DS	XL1	UNUSED
47 00692		ISAF5	DS	XL1	24 OR 32 BIT MODE FLAGS
	47 00692	ISACI	EQU	ISAF5	CURRENT SYSTEM INDICATOR

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
		*			(VMA)
	00000002	ISACIM	EQU	X'02'	CURRENT SYSTEM MASK
		*			1=ON
	47 00692	ISAIP	EQU	ISAF5	CURRENT SYSTEM PACKING
		*			INDICATOR (VMA)
	00000008	ISAIPM	EQU	X'08'	CURRENT SYSTEM PACKING MASK
		*			1=ON
*****					
		* TASK INTERRUPT HANDLING MACROS ARE REQUIRED TO			
		* REFER TO ISAU1			
		* WITH AN ABSOLUTE ADDRESS OF 1683 DECIMAL.			
		* THEREFORE, IF THIS			
		* CELL IS MOVED THOSE MACROS MUST BE REDEFINED.			
47 00693		ISAU1	DS	XL1	1683 U1 FLAG
	00000080	ISAU1M	EQU	X'80'	
*****					
47 00694		ISARSP	DS	H	RSPRV INSTRUCTION
47 00696		ISARTN	DS	H	RTRN INSTRUCTION
47 00698		ISALOG	DS	XL24	1688 CHANNEL LOGOUT
47 006B0		ISAMSA	DS	F	LOCATION OF MINIMAL SAVE
		*			AREA
47 006B4			DS	F	UNUSED
47 006B8		ISASSA	DS	0XL40	1720 SHORT SAVE AREA
47 006B8		ISASO	DS	0D	SHORT SAVE AREA OLD VIRTUAL
		*			PSW
47 006B8		ISASOF	DS	XL2	1720 FLAGS
	47 006B8	ISAPF	EQU	ISASOF	PRIVILEGED STATUS IND.
	00000080	ISAPFM	EQU	X'80'	
47 006BA		ISASOC	DS	H	INTERRUPT CODE
47 006BC		ISASOI	DS	F	INSTRUCTION COUNTER
47 006C0		ISASR	DS	0XL32	1728 SHORT SAVE REG. SAVE
		*			AREA 13-4
47 006C0		ISAS13	DS	1F	REGISTER 13
47 006C4		ISAS14	DS	7F	REGISTERS 14 TO 4
	47 006C4	ORG		ISAS14	
47 006C4		ISAS14R	DS	F	REGISTER 14
47 006C8		ISAS15R	DS	F	REGISTER 15
47 006CC		ISAS0R	DS	F	REGISTER 0
47 006D0		ISAS1R	DS	F	REGISTER 1
47 006D4		ISAS2R	DS	F	REGISTER 2
47 006D8		ISAS3R	DS	F	REGISTER 3
47 006DC		ISAS4R	DS	F	REGISTER 4
47 006E0		ISALS1	DS	0XL120	1760 LONG SAVE AREA 1
47 006E0			DS	1F	LENGTH OF LONG SAVE AREA -
		*			30 WDS
47 006E4		ISA113	DS	1F	REG. 13 SAVE AREA
47 006E8		ISA1SA	DS	1F	SAVE AREA OF CALLED PROGRAM
47 006EC		ISA1R	DS	0XL28	1772 BEGINNING OF REG SAVE
		*			AREA
47 006EC		ISA114	DS	1F	REGISTER 14
47 006F0		ISA115	DS	1F	REGISTER 15
47 006F4		ISA10	DS	1F	REGISTER 0
47 006F8		ISA11	DS	1F	REGISTER 1
47 006FC		ISA12	DS	3F	REGISTER 2 - 4
47 00708		ISA15	DS	8F	REGISTER 5 - 12
47 00728		ISAPSF	DS	XL1	FLAGS SAVED IN LONG SAVE
		*			AREA
	47 00728	ISANPIR	EQU	ISAPSF	NON-PRIV PROG INTR FLAG
	00000080	ISANPIRM	EQU	X'80'	RECOVERY=1 NO RECOVERY=0
47 00729			DS	XL3	UNUSED
47 0072C			DS	1F	UNUSED
47 00730		ISA10P	DS	D	OLD PSW SAVE AREA
47 00738		ISA1F0	DS	D	FP REGISTER 0
47 00740		ISA1F2	DS	D	FP REGISTER 2
47 00748		ISA1F4	DS	D	FP REGISTER 4
47 00750		ISA1F6	DS	D	FP REGISTER 6
47 00758		ISALS2	DS	0XL120	1880 LONG SAVE AREA 2
47 00758			DS	1F	LENGTH OF LONG SAVE AREA -

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
		*			30 WDS
47 0075C		ISA213	DS	1F	REG. 13 SAVE AREA
47 00760		ISA2SA	DS	1F	SAVE AREA OF CALLED PROGRAM
47 00764		ISA2R	DS	0XL28	1892BEGINNING OF REG SAVE AREA
		*			
47 00764		ISA214	DS	1F	REGISTER 14
47 00768		ISA215	DS	1F	REGISTER 15
47 0076C		ISA20	DS	1F	REGISTER 0
47 00770		ISA21	DS	1F	REGISTER 1
47 00774		ISA22	DS	3F	REGISTER 2 - 4
47 00780		ISA25	DS	8F	REGISTER 5 - 12
47 007A0			DS	2F	NOT USED
47 007A8		ISA20P	DS	D	OLD PSW SAVE AREA
47 007B0		ISA2F0	DS	D	FP REGISTER 0
47 007B8		ISA2F2	DS	D	FP REGISTER 2
47 007C0		ISA2F4	DS	D	FP REGISTER 4
47 007C8		ISA2F6	DS	D	FP REGISTER 6
47 007D0		ISAOP	DS	0D	OLD PROGRAM VIRTUAL PSW
47 007D0		ISAPT	DS	X	STATE AND MASK FLAG
		*			I3472
	47 007D0	ISAPV	EQU	ISAPT	PRIVILEGE STATE FLAG
		*			I3472
	00000080	ISAPVM	EQU	X'80'	NON-PRIVILEGED=1
		*			I3472
	47 007D0	ISAPP2	EQU	ISAPT	PAGING INTERRUPT FLAG
		*			I3472
	00000020	ISAPP2M	EQU	X'20'	PAGING INTERRUPT MASK
		*			I3472
	47 007D0	ISAAP	EQU	ISAPT	ASYNCHRONOUS PROGRAM INTERRUPT I3472
		*			
	00000010	ISAAPM	EQU	X'10'	PROGRAM INTERRUPT MASK
		*			I3472
	0000001F	ISASTM	EQU	X'1F'	PROGRAM INTERRUPT MASK
		*			I3472
	47 007D0	ISAXI	EQU	ISAPT	EXTERNAL INTERRUPT FLAG
		*			I3472
	00000008	ISAXIM	EQU	X'08'	EXTERNAL INTERRUPT MASK
		*			I3472
	47 007D0	ISAAI	EQU	ISAPT	ASYNCHRONOUS INTERRUPT MASK
	00000004	ISAAIM	EQU	X'04'	
	47 007D0	ISATR	EQU	ISAPT	TIMER INTERRUPT MASK
	00000002	ISATRM	EQU	X'02'	
	47 007D0	ISAI	EQU	ISAPT	I/O INTERRUPT MASK
	00000001	ISAIIM	EQU	X'01'	
47 007D1		ISACP	DS	XL1	ILC,CC,AND PROGRAM MASK
	47 007D1	ISALC	EQU	ISACP	INSTRUCTION LENGTH CODE (ILC)
		*			
	000000C0	ISALCM	EQU	X'C0'	
	47 007D1	ISACC	EQU	ISACP	CONDITION CODE (CC)
	00000030	ISACCM	EQU	X'30'	
	47 007D1	ISAPM	EQU	ISACP	PROGRAM MASK
	0000000F	ISAPMM	EQU	X'0F'	
	47 007D1	ISAFO	EQU	ISACP	FLOATING POINT OVERFLOW MASK
		*			
	00000008	ISAFOM	EQU	X'08'	
	47 007D1	ISADO	EQU	ISACP	DECIMAL OVERFLOW MASK
	00000004	ISADOM	EQU	X'04'	
	47 007D1	ISAEU	EQU	ISACP	EXPONENTIAL UNDERFLOW MASK
	00000002	ISAEUM	EQU	X'02'	
	47 007D1	ISASF	EQU	ISACP	SIGNIFICANCE MASK
	00000001	ISASFM	EQU	X'01'	
47 007D2		ISAIN	DS	XL2	INTERRUPT CODE
47 007D4		ISAIC	DS	F	INSTRUCTION COUNTER
47 007D8		ISAOS	DS	D	OLD SUPERVISOR CALL VIRTUAL PSW
		*			
47 007E0		ISAOX	DS	D	OLD EXTERNAL VIRTUAL PSW
47 007E8		ISAOA	DS	D	OLD ASYNCHRONOUS I/O VIRTUAL PSW
		*			

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(Listing of CHAISA continued from page 251)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
47 007F0		ISAOT	DS	D	OLD TIMER VIRTUAL PSW
47 007F8		ISAOI	DS	D	OLD SYNCHRONOUS I/O VIRTUAL PSW
		*			
47 00800		ISANP	DS	D	NEW PROGRAM VIRTUAL PSW
47 00808		ISANS	DS	D	NEW SUPERVISOR CALL VIRTUAL PSW
		*			
47 00810		ISANX	DS	D	NEW EXTERNAL VIRTUAL PSW
47 00818		ISANA	DS	D	NEW ASYNCHRONOUS I/O VIRTUAL PSW
		*			
47 00820		ISANT	DS	D	NEW TIMER VIRTUAL PSW
47 00828		ISANI	DS	D	NEW SYNCHRONOUS I/O VIRTUAL PSW
		*			
47 00830		ISANR	DS	D	NEW RECOV. DATA SET PAGING VPSW
		*			
47 00838		ISANV	DS	D	NEW VSS VPSW
47 00840		ISAPP3	DS	F	PUSHDOWN POINTER FOR TYPE-3 LINKAGE
		*			
47 00844		ISAF1G	DS	OF	FULL WORD OF FLAGS
47 00844		ISAF1	DS	XL1	2116 FLAG BYTE 1
	47 00844	ISAPCS	EQU	ISAF1	PCS PROGRAM INTERRUPT FLAG
	00000080	ISAPCSM	EQU	X'80'	PCS PROGRAM INTERRUPT MASK
	47 00844	ISAHL	EQU	ISAF1	SYSIN TERMINAL IS BEING HELD N393
		*			
	00000040	ISAHLDM	EQU	X'40'	N393
	47 00844	ISASPP	EQU	ISAF1	SPECIAL PRIVILEGE PROGRAM FLAG
		*			
	00000020	ISASPPM	EQU	X'20'	SPECIAL PRIVILEGE PROGRAM MASK
		*			
	47 00844	ISASHUT	EQU	ISAF1	FORCED SHUTDOWN FLAG
	00000010	ISASHUTM	EQU	X'10'	FORCED SHUTDOWN MASK
	47 00844	ISAVSC	EQU	ISAF1	VSS CONNECTED FLAG
	00000008	ISAVSCM	EQU	X'08'	VSS CONNECTED MASK
	47 00844	ISARIN	EQU	ISAF1	ITI RESET FLAG
	00000004	ISARINM	EQU	X'04'	ITI RESET MASK
47 00845		ISAABN	DS	XL1	ABEND FLAGS
	47 00845	ISAABNF1	EQU	ISAABN	ABEND IN TASK BEING CREATED
	00000080	ISAABN1M	EQU	X'80'	
	47 00845	ISAABNF2	EQU	ISAABN	RECURSION IN COMPCODE 2
		*			ABEND
	00000002	ISAABN2M	EQU	X'02'	
	47 00845	ISAABNF3	EQU	ISAABN	LOGOFF IN PROCESS
	00000004	ISAABN3M	EQU	X'04'	
	47 00845	ISAABNF4	EQU	ISAABN	RECURSION IN COMPCODE ABEND 1
		*			
	00000001	ISAABN4M	EQU	X'01'	
	00000083	ISAABNM	EQU	X'83'	ABEND IN PROCESS
47 00846		ISAF3	DS	XL1	2118 FLAG BYTE 3
	47 00846	ISACPU	EQU	ISAF3	CPU NUMBER (2 BITS)
	000000C0	ISACPUM	EQU	X'C0'	CPU NUMBER MASK
	47 00846	ISAP2	EQU	ISAF3	P2 FLAG - DATA SET PAGING INT.
		*			
	00000020	ISAP2M	EQU	X'20'	
	47 00846	ISAD2	EQU	ISAF3	SECOND IMPLICIT DYNAMIC LOAD FL
		*			
	00000010	ISAD2M	EQU	X'10'	
	47 00846	ISADF	EQU	ISAF3	DYNAMIC LOADER BIT
	00000008	ISADFM	EQU	X'08'	
	47 00846	ISALP	EQU	ISAF3	LOGON IN PROGRESS FLAG
	00000004	ISALPM	EQU	X'04'	
	47 00846	ISAVEF	EQU	ISAF3	VSS ACTIVE FLAG
	00000002	ISAVEFM	EQU	X'02'	
	47 00846	ISACF	EQU	ISAF3	CLEANUP FLAG
	00000001	ISACFM	EQU	X'01'	
47 00847		ISAF4	DS	XL1	FLAG BYTE 4
	47 00847	ISAOLT	EQU	ISAF4	INTERLOCK FOR OLTS
	00000080	ISAOLTM	EQU	X'80'	
	47 00847	ISAWO	EQU	ISAF4	
	00000040	ISAWOM	EQU	X'40'	

(Listing of CHAISA continued on page 253)

(Listing of CHAISA continued from page 252)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	47 00847	ISADL	EQU	ISAF4	IMPLICIT DYNAMIC LINKAGE FLAG
	00000020	ISADLM	EQU	X'20'	
	47 00847	ISAAT	EQU	ISAF4	ATTENTION FLAG
	00000010	ISAATM	EQU	X'10'	
	47 00847	ISASI	EQU	ISAF4	SYSTEM INDICATOR (VMA)
	00000008	ISASIM	EQU	X'08'	
	47 00847	ISAPS	EQU	ISAF4	PUBLIC SEGMENT INDICATOR (VMA)
	00000004	ISAPSM	EQU	X'04'	
	47 00847	ISASP	EQU	ISAF4	SYSTEM PACKING PARAMER (VMA)
	00000002	ISASPM	EQU	X'02'	
	47 00847	ISATI	EQU	ISAF4	TASK INITIATION FLAG 1 = ON
	00000001	ISATIM	EQU	X'01'	
47 00848			DS	OF	
47 00848		ISAVMP	DS	F	VIRTUAL MEMORY PACKING ORIGIN
47 0084C		ISANAS	DS	XL2	NEXT AVAILABLE SEGMENT I6235
47 0084E			DS	XL2	RESERVED I6235
47 00850		ISATDT	DS	F	TDT ORIGIN - DATA MANAGEMENT
47 00854		ISAF A	DS	XL1	2132 FLAG A
47 00855		ISAF B	DS	XL1	2133 FLAG B
47 00856		ISAVLKCT	DS	XL1	VAM INTERLOCK HELD COUNT
47 00857		ISAVLK	DS	XL1	VAM INTERLOCK WAIT FLAG
	00000080	ISAVLKM	EQU	X'80'	VAM INTERLOCK WAIT MASK
	47 00857	ISAPPIR	EQU	ISAVLK	PRIV PROG INTR FLAG
	00000040	ISAPPIRM	EQU	X'40'	RECOVERY=1 NO RECOVERY=0
47 00858		ISASPN	DS	H	SHARED PAGE TABLE NUMBER OF PUB SEG
47 0085A		ISAP3	DS	C	P3 FLAG--ONE BYTE COUNTER
*****					
* TASK INTERRUPT HANDLING MACROS ARE REQUIRED TO					
* REFER TO ISAP1					
* WITH AN ABSOLUTE ADDRESS OF 2139 DECIMAL.					
* THEREFORE, IF THIS					
* CELL IS MOVED THOSE MACROS MUST BE REDEFINED.					
47 0085B		ISAP1	DS	XL1	P1 FLAG
	00000080	ISAP1M	EQU	X'80'	
47 0085C			DS	F	UNUSED
47 00860		ISACVP	DS	D	CURRENT VIRTUAL PSW (COPY)
47 00868		ISATDY	DS	F	POINTER TO DYNAMIC LOADER TABLE
47 0086C		ISASDS	DS	F	POINTER TO SDST
47 00870		ISASLP	DS	F	SYSLIB DCB
47 00874		ISAJLC	DS	F	JOBLIB DCB CHAIN
47 00878		ISAUTH	DS	XL1	2168 AUTHORITY CODE
47 00879		ISAEF	DS	XL1	ENTER FLAG -- ONE BYTE COUNTER
47 0087A		ISALCK	DS	XL1	2170 TASK INTERRUPT INHIBITION LOCK BYTE
47 0087B		ISAVAR	DS	XL1	VARIABLE LENGTH SEGMENT INCRMNT
47 0087C		ISATMP	DS	F	POINTER TO TASK MONITOR PSECT
47 00880		ISARCB	DS	240D	IORCB AREA

Internal Symbol Dictionary (CHAISD)

The Internal Symbol Dictionary (ISD) is used by the program checkout subsystem (PCS) for processing checkout statements.

An ISD is produced by the Assembler, FORTRAN Compiler, or Linkage Editor. The Assembler and FORTRAN ISDs contain a section name table identifying control sections by name and version, and a symbol table listing relocatable values. The Assembler ISD maintains a using table containing USING and DROP statements. The FORTRAN ISD maintains a number table containing an entry for each source statement and offset in a FORTRAN program.

The Linkage Editor ISD contains a series of control sections listing the output control section name, the number of these output control sections, and the name and displacement of the input control section.

The ISD resides in virtual storage and is aligned on word boundaries.

CHAISD Storage map

DEC	HEX			
0	0	ISDTYP	ISDIVL	ISDLNG
8	8	ISDDST		ISDNSN
16	10	ISDNUT		ISDNSM

ORG ISDNUT

16	10	ISDNST
----	----	--------

ORG ISDDST

8	8	ISDDPI	ISDOMN
16	10	ISDOMN (CONT)	ISDNIM

ORG CHAISD

0	0	ISDSNM		
8	8	ISDVID		

ORG CHAISD

0	0	ISDSXN	ISDDIS	ISDFLG	UNNAMED	ISDSNR
8	8	ISDBAS				

ORG CHAISD

0	0	ISDSMN				
8	8	ISDSTP	ISDNDM	ISDELN	ISDSNO	ISDDCS

(CHAISD continued on page 255)

DEC HEX

ORG ISDSNO

12	C		ISDIMV
16	10	ISDSLN	ISDDMF

ORG CHAISD

0	0	ISDSTN	ISDDI
---	---	--------	-------

ORG CHAISD

0	0	ISDIMN	
8	8	ISDDNX	ISDDIM
16	10	ISDOCS	

ORG CHAISD

0	0	ISDCSN	
8	8	ISDNCS	

ORG CHAISD

0	0	ISDINM	
8	8	ISDTXT	

Fields in CHAISD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ISDINM	0001	0001	ISDDIS	0010	000A	ISDELN
0000	0000	ISDICS	0002	0002	ISDLVL	0012	000C	ISDDIM
0000	0000	ISDCSN	0004	0004	ISDSDI	0012	000C	ISDIMV
0000	0000	ISDCSH	0004	0004	ISDFLG	0012	000C	ISDSNO
0000	0000	ISDIMN	0004	0004	ISDLNG	0012	000C	ISDOMN
0000	0000	ISDIMH	0007	0007	ISDSNR	0012	000C	ISDNSN
0000	0000	ISDSTN	0008	0008	ISDTXT	0013	000D	ISDDCS
0000	0000	ISDSNT	0008	0008	ISDNCS	0016	0010	ISDOCS
0000	0000	ISDSMN	0008	0008	ISDDNX	0016	0010	ISDSLN
0000	0000	ISDSYM	0008	0008	ISDSTP	0016	0010	ISDNST
0000	0000	ISDSXN	0008	0008	ISDBAS	0016	0010	ISDNUT
0000	0000	ISDUSE	0008	0008	ISDVID	0020	0014	ISDDMF
0000	0000	ISDSNM	0008	0008	ISDDPI	0020	0014	ISDNIM
0000	0000	ISDSCT	0008	0008	ISDDST	0020	0014	ISDNSM
0000	0000	ISDTYP	0009	0009	ISDNDM			

Alphabetical list of fields in CHAISD

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ISDBAS	0008	0008	ISDIMV	0012	000C	ISDSL	0016	0010
ISDCSH	0000	0000	ISDINM	0000	0000	ISDSMN	0000	0000
ISDCSN	0000	0000	ISDLNG	0004	0004	ISDSNM	0000	0000
ISDDCS	0013	000D	ISDLVL	0002	0002	ISDSNO	0012	000C
ISDDIM	0012	000C	ISDNCS	0008	0008	ISDSNR	0007	0007
ISDDIS	0001	0001	ISDNDM	0009	0009	ISDSNT	0000	0000
ISDDMF	0020	0014	ISDNIM	0020	0014	ISDSTN	0000	0000
ISDDNX	0008	0008	ISDNSM	0020	0014	ISDSTP	0008	0008
ISDDPI	0008	0008	ISDNSN	0012	000C	ISDSXN	0000	0000
ISDDST	0008	0008	ISDNST	0016	0010	ISDSYM	0000	0000
ISDELN	0010	000A	ISDNUT	0016	0010	ISDTXT	0008	0008
ISDFLG	0004	0004	ISDOCS	0016	0010	ISDTYP	0000	0000
ISDICS	0000	0000	ISDOMN	0012	000C	ISDUSE	0000	0000
ISDIMH	0000	0000	ISDSCT	0000	0000	ISDVID	0008	0008
ISDIMN	0000	0000	ISDSDI	0004	0004			

Assembler listing of CHAISD

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	48 00000	CHAISD	DSECT		ISD HEADING
		*			INTERNAL SYMBOL DICTIONARY
48 00000		ISDTYP	DS	H	TYPE
	00000000	ISDLED	EQU	0	LINKAGE EDITOR
	00000004	ISDASM	EQU	4	ASSEMBLER
	00000008	ISDFOR	EQU	8	FORTRAN
48 00002		ISDLVL	DS	H	LEVEL
48 00004		ISDLNG	DS	F	LENGTH
48 00008		ISDDST	DS	F	DELTA TO SYMBOL TABLE
48 0000C		ISDNSN	DS	F	NO. OF SECTION NAMES
48 00010		ISDNUT	DS	F	NO. OF USING TABLES
	48 00010		ORG	ISDNUT	
48 00010		ISDNST	DS	F	NO. OF STATEMENT NOS.
48 00014		ISDNSM	DS	F	NO. OF SYMBOLS
	48 00008		ORG	ISDDST	
48 00008		ISDDPI	DS	F	DELTA TO PRECEDING ISD
48 0000C		ISDOMN	DS	CL8	OUTPUT MODULE NAME
48 00014		ISDNIM	DS	F	NUMB. OF INPUT MODULES
	00000018	ISDHSZ	EQU	*-CHAISD	SIZE OF ISD HEADING
	48 00000		ORG	CHAISD	
48 00000		ISDSCT	DS	0F	SECTION NAME TBL
48 00000		ISDSNM	DS	CL8	SECTION NAME
48 00008		ISDVID	DS	CL8	VERSION ID
	00000010	ISDSSZ	EQU	*-ISDSCT	SIZE OF SECTION NAME TABLE
	48 00000		ORG	CHAISD	
48 00000		ISDUSE	DS	0F	USING TABLE
48 00000		ISDSXN	DS	XL1	SECTION NUMBER
48 00001		ISDDIS	DS	XL3	DISPLACEMENT
	00000004	ISDUHS	EQU	*-ISDUSE	SIZE OF USING TABLE HEADER
48 00004		ISDFLG	DS	XL1	UNUSED/ABS FLAGS
	00000080	ISDUNU	EQU	X'80'	UNUSED BIT
	00000001	ISDABS	EQU	X'01'	ABSOLUTE
	00000081	ISDUAB	EQU	X'81'	BOTH
48 00005			DS	XL2	NOT USED
48 00007		ISDSNR	DS	XL1	SECTION NUMBER REGISTER 1
		*			ETC
48 00008		ISDBAS	DS	F	BASE VALUE OR DISP
	00000008	ISDUES	EQU	*-ISDFLG	SIZE OF USING TABLE ENTRY
	48 00000		ORG	CHAISD	
48 00000		ISDSYM	DS	0F	SYMBOL TABLE
48 00000		ISDSMN	DS	CL8	NAME
48 00008		ISDSTP	DS	XL1	TYPE
	00000001	ISDINS	EQU	1	INSTRUCTION
	00000002	ISDEQU	EQU	2	IMMEDIATE VALUE (EQUATE)
	00000003	ISDSNA	EQU	3	SECTION NAME
	00000004	ISDINT	EQU	4	INTEGER CONSTANT
	00000005	ISDREL	EQU	5	REAL NUMBER

(Listing of CHAISD continued on page 257)

(Listing of CHAISD continued from page 256)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000006	ISDCHC	EQU	6	CHAR. CONSTANT
	00000007	ISDHEX	EQU	7	HEX. CONSTANT
	00000008	ISDBIN	EQU	8	BINARY CONSTANT
	00000009	ISDPAC	EQU	9	PACKED DECIMAL CONSTANT
	0000000A	ISDZON	EQU	10	ZONED DECIMAL CONSTANT
	0000000B	ISDSAD	EQU	11	S ADCON
	0000000C	ISDOTH	EQU	12	OTHER ADCON
	0000000D	ISDCOM	EQU	13	COMPLEX
	0000000E	ISDLOG	EQU	14	LOGICAL
	00000080	ISDDSB	EQU	X'80'	DSECT BIT
	00000040	ISDDUM	EQU	X'40'	DUMMY VARIABLE IN SUBRO ARG
48 00009		ISDNDM	DS	XL1	NO. OF DIMENSIONS
48 0000A		ISDELN	DS	H	ENTRY LENGTH
48 0000C		ISDSNO	DS	XL1	SECTION NO.
48 0000D		ISDDCS	DS	XL3	DISP. IN CTL SECTION
	48 0000C		ORG	ISDSNO	
48 0000C		ISDIMV	DS	F	IMMEDIATE VALUE
	0000000C	ISDDIV	EQU	ISDIMV-ISDSYM	POSN. OF IMMED. VALUE
		*			ENTRY
48 00010		ISDSLN	DS	F	SYMBOL LENGTH
48 00014		ISDDMF	DS	F	DIMENSION FACTOR
	00000018	ISDSTS	EQU	*-ISDSYM	SIZE OF SYMBOL TABLE
	48 00000		ORG	CHAISD	
48 00000		ISDSNT	DS	0F	STATEMENT NO. TABLE
48 00000		ISDSTN	DS	F	STMT NO.
48 00004		ISDSDI	DS	F	DISPLACEMENT
	00000008	ISDSNS	EQU	*-ISDSNT	SIZE OF STMT NO. TABLE
	48 00000		ORG	CHAISD	
48 00000		ISDIMH	DS	0F	INPUT MODULE HEADING
48 00000		ISDIMN	DS	CL8	INPUT MODULE NAME
48 00008		ISDDNX	DS	F	DELTA TO NEXT INPUT MODULE
48 0000C		ISDDIM	DS	F	DELTA TO ISD FOR MODULE
48 00010		ISDOCS	DS	F	NO OF OUTPUT CS FROM INPUT
		*			MOD
	00000014	ISDMHS	EQU	*-ISDIMH	SIZE OF MODULE HEADING
	48 00000		ORG	CHAISD	
48 00000		ISDCSH	DS	0F	OUTPUT CTL SECTION
48 00000		ISDCSN	DS	CL8	OUTPUT CONTROL SECTION NAME
48 00008		ISDNCS	DS	F	NUMB OF INPUT C.S.
	0000000C	ISDCSS	EQU	*-ISDCSH	SIZE OF CTL SECTION HEADING
	48 00000		ORG	CHAISD	
48 00000		ISDICS	DS	0F	INPUT CTL SECTION
48 00000		ISDINM	DS	CL8	NAME
48 00008		ISDTXT	DS	F	TEXT ORIGIN-RELATIVE TO
		*			O.C.S.
	0000000C	ISDISZ	EQU	*-ISDICS	SIZE OF INPUT CTL SECTION

Task Monitor Interruption Table (CHAITB)

The Task Monitor Interruption Table (ITB) maintains information for queuing and dispatching interruptions.

ITB, located in the Task Monitor PSECT, contains two sections; the preface, and the body. The preface maintains request activity information, and necessary pointers and flags. The body maintains the following entries:

- Device entry (DE) - contains information for the device type for each interruption type. Each DE carries a queue of request entries.
- Request entry (RE) - contains information for interruption type, interruption handling routines, and dispatching priority. Predefined REs exist for standard IBM routines; additional entries may be added or deleted. Each RE carries a Queue Entry queue.
- Queue entry (QE) - contains information for real or simulated interruption or dispatch.

The 4096-byte ITB resides in the Task Monitor PSECT, aligned on doubleword boundaries.

CHAITB Storage map

DEC	HEX		
0	0	ITBDEP	ITBDES
8	8	ITBDEX	ITBDEA
16	10	ITBDET	ITBDEI
24	18	ITBNAP	ITBHAR
32	20	ITBCAP	ITBQCT
40	28	ITBRDP	ITBRDS
48	30	ITBRSD	ITBRXC
56	38	ITBRXN	ITBRPV
64	40	ITBRNP	ITBSDT
72	48	ITBHDE	ITBACT
80	50	ITBPDE	
112	70	ITBSDE	
144	90	ITBXDE	

(CHAITB continued on page 259)



(CHAITB continued from page 258)

DEC 176	HEX B0	ITBTDE
208	D0	ITBDPR
240	F0	ITBDSR
272	110	ITBSDR
304	130	ITBXXR
336	150	ITBUXR
368	170	ITBMPR
400	190	ITBMNR

(CHAITB continued on page 260)

(CHAITB continued from page 259)

DEC	HEX	
432	1B0	ITBDPI
472	1D8	UNNAMED
480	1E0	ITBDIC
520	208	ITBAIC
528	210	ITBDPC
544	220	ITBDCO
560	230	ITBE01
592	250	RESERVED
4088	FF8	ITBPPF

Fields in CHAITB -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ITBDEP	0048	0030	ITBRSD	0240	00F0	ITBDSR
0004	0004	ITBDES	0052	0034	ITBRXC	0272	0110	ITBSDR
0008	0008	ITBDEX	0056	0038	ITBRXN	0304	0130	ITBXXR
0012	000C	ITBDEA	0060	003C	ITBRPV	0336	0150	ITBUXR
0016	0010	ITBDET	0064	0040	ITBRNP	0368	0170	ITBMPR
0020	0014	ITBDEI	0068	0044	ITBSDT	0400	0190	ITBMNR
0024	0018	ITBNAP	0072	0048	ITBHDE	0432	01B0	ITBDPI
0028	001C	ITBHAR	0076	004C	ITBACT	0480	01E0	ITBDIC
0032	0020	SYSCAP (EQU)	0080	0050	ITBPDE	0524	020C	ITBAIC
0032	0020	ITBCAP	0112	0070	ITBSDE	0528	0210	ITBDPC
0036	0024	ITBQCT	0144	0090	ITBXDE	0544	0220	ITBDCO
0040	0028	ITBRDP	0176	00B0	ITBTDE	0560	0230	ITBE01
0044	002C	ITBRDS	0208	00D0	ITBDPR	4092	0FFC	ITBPPF

Alphabetical list of fields in CHAITB

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ITBACT	0076	004C	ITBDEX	0008	0008	ITBMNR	0400	0190
ITBAIC	0524	020C	ITBDIC	0480	01E0	ITBMPR	0368	0170
ITBCAP	0032	0020	ITBDPC	0528	0210	ITBNAP	0024	0018
ITBDCO	0544	0220	ITBDPI	0432	01B0	ITBPDE	0080	0050
ITBDEA	0012	000C	ITBDPR	0208	00D0	ITBPPF	4092	0FFC
ITBDEI	0020	0014	ITBDSR	0240	00F0	ITBQCT	0036	0024
ITBDEP	0000	0000	ITBE01	0560	0230	ITBRDP	0040	0028
ITBDES	0004	0004	ITBHAR	0028	001C	ITBRDS	0044	002C
ITBDET	0016	0010	ITBHDE	0072	0048	ITBRNP	0064	0040

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<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
ITBRPV	0060	003C	ITBSDE	0112	0070	ITBUXR	0336	0150
ITBRSD	0048	0030	ITBSDR	0272	0110	ITBXDE	0144	0090
ITBRXC	0052	0034	ITBSDT	0068	0044	ITBXXR	0304	0130
ITBRXN	0056	0038	ITBTDE	0176	00B0	SYSCAP	0032	0020 (EQU)

Assembler listing of CHAITB

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	49 00000	CHAITB	DSECT		INTERRUPT      TABLE ---
		*			ITB ---
49 00000			DS	0D	
49 00000	ITBDEP		DS	F	PTR TO PROGRAM DE
49 00004	ITBDES		DS	F	PTR TO SVC DE
49 00008	ITBDEX		DS	F	PTR TO EXTERNAL DE
49 0000C	ITBDEA		DS	F	PTR TO FIRST ASYNCHRONOUS
	*				I/O DE
49 00010	ITBDET		DS	F	PTR TO TIMER DE
49 00014	ITBDEI		DS	F	PTR TO FIRST SYNCHRONOUS
	*				I/O DE
49 00018	ITBNAP		DS	F	PTR TO NEXT AVAILABLE BLOCK
	*				IN TABLE
49 0001C	ITBHAR		DS	F	PTR TO HIGHEST PRIORITY
	*				ACTIVE RE
49 00020	ITBCAP		DS	F	PTR TO CURRENT ACTIVE RE
	49 00020	SYSCAP	EQU	ITBCAP	FOR SYSTEM REFERENCE
49 00024	ITBQCT		DS	F	QE COUNT
49 00028	ITBRDP		DS	F	PTR TO REL FOR PROGRAM
	*				DIAGNO
49 0002C	ITBRDS		DS	F	PTR TO REL FOR SVC DIAGNO
49 00030	ITBRSD		DS	F	PTR TO SHUTDOWN REL
49 00034	ITBRXC		DS	F	PTR TO EXTERNAL REL
49 00038	ITBRXN		DS	F	PTR TO EXTERNAL REL NO USER
	*				MATCH
49 0003C	ITBRPV		DS	F	PTR TO PRIVILEGED REL
49 00040	ITBRPN		DS	F	PTR TO NON-PRIVILEGED REL
49 00044	ITBSDT		DS	F	PTR TO SYSIN SDAT
	* **				THE NEXT FIELD IS THE HIGHEST VALID DE
	* **				TYPE SHIFTED LEFT 2
	* **				IT IS USED WHEN SEARCHING THE DE CHAIN TO
	* **				DETERMINE WHEN
	* **				THE END HAS BEEN REACHED.
49 00048	ITBHDE		DS	F	HIGHEST VALID DE TYPE
49 0004C	ITBACT		DS	F	COUNT OF DISPATCHED
	*				NON-PRIV N369.2
	*				INTERRUPT ROUTINES
	*				N369.2
49 00050			DS	0D	
49 00050	ITBPDE		DS	8F	PROGRAM DE
49 00070	ITBSDE		DS	8F	SVC DE
49 00090	ITBXDE		DS	8F	EXTERNAL DE
49 000B0	ITBTDE		DS	8F	TIMER DE
49 000D0	ITBDPR		DS	8F	DIAGNO REL FOR PROGRAM
49 000F0	ITBDSR		DS	8F	DIAGNO REL FOR SVC
49 00110	ITBSDR		DS	8F	SHUTDOWN REL
49 00130	ITBXXR		DS	8F	EXTERNAL REL
49 00150	ITBUXR		DS	8F	EXTERNAL REL NO USER MATCH
49 00170	ITBMPR		DS	8F	PRIVILEGED REL
49 00190	ITBMNR		DS	8F	NON-PRIVILEGED REL
49 001B0	ITBDPI		DS	11F	ICB FOR DIAGNO RELS
49 001DC			DS	F	NOT USED
49 001E0	ITBDIC		DS	11F	DUMMY ICB FOR OTHER RELS
49 0020C	ITBAIC		DS	F	PTR TO DUMMY ICB
49 00210	ITBDPC		DS	4F	COM AREA FOR DIAGNO
	*				DISPATCHES
49 00220	ITBDCO		DS	4F	DUMMY COM AREA FOR DUMMY
	*				ICB
49 00230	ITBE01		DS	8F	FIRST AVAILABLE BLOCK IN
	*				TABLE
	* **				THE SPACE FROM ITBE01 TO THE LAST WORD IN
	* **				THE TABLE IS DIVIDED
	* **				INTO 110 BLOCKS OF 8 WORDS EACH TO BE USED
	* **				AS DE, RE OR QE.
	49 00FFC		ORG	CHAITB+4092	
49 00FFC	ITBPFP		DS	F	PTR TO NEXT PAGE OF ITB IF
	*				NEEDED

Data Set Header/Trailer Label 1 (CHALB1)

The Data Set Header/Trailer Label 1 (LB1) contains the system data and device-dependent information required to locate, and verify, the data set and its references. The information contained in LB1 also serves to protect the data set from unauthorized use.

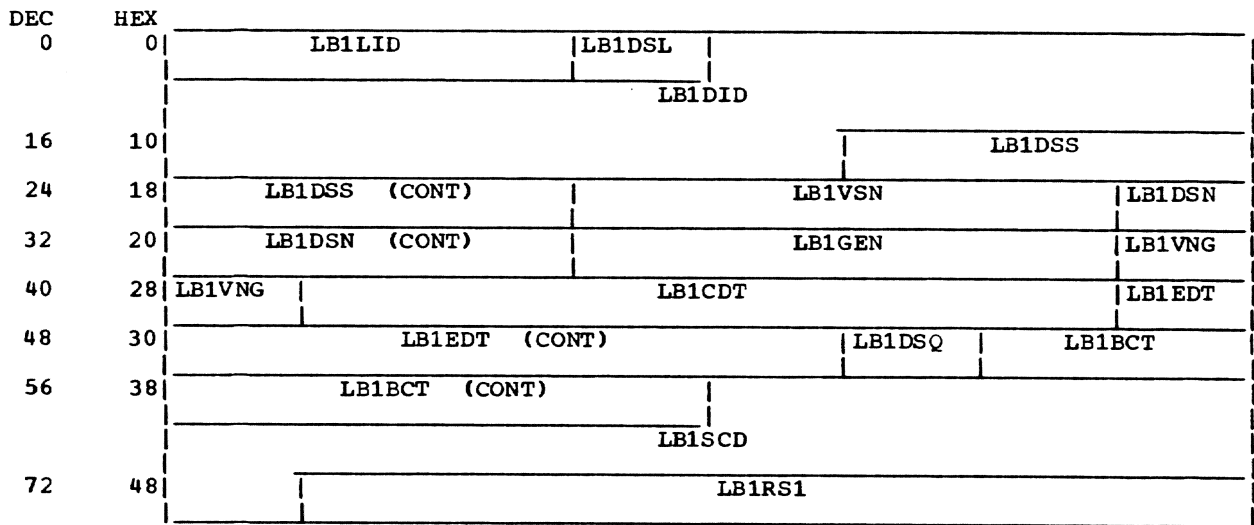
LB1 is IBM Standard File Label 1 which is 80 EBCDIC characters written on nine-track tape or BCD written on seven-track tape. In addition, LB1 must be written in even parity. The format of a tape volume is:

- I. Volume labels (up to 8).
- II. Data Set plus data set labels.
  - 1. Standard header labels 1 and 2
  - 2. User header labels (up to 8)
  - 3. Tape mark
  - 4. Data Set Records
  - 5. Tape mark
  - 6. Standard Trailer labels 1 and 2
  - 7. User trailer labels (up to 8)
  - 8. Tape mark
- III. Additional data sets as in II above.
- IV. Tape mark.

Standard header label 1 and standard trailer label 1 are identical in format and are also identical in content for a given data set, except for the label identification and block count.

The LB1 table occupies 80 bytes of virtual storage, aligned on doubleword boundaries.

CHALB1 Storage map



Fields in CHALB1 -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	LB1LID	0031	001F	LB1DSN	0054	0036	LB1BCT
0000	0000	LB1	0035	0023	LB1GEN	0060	003C	LB1SCD
0003	0003	LB1DSL	0039	0027	LB1VNG	0073	0049	LB1RS1
0004	0004	LB1DID	0041	0029	LB1CDT	0080	0050	LB1END (EQU)
0021	0015	LB1DSS	0047	002F	LB1EDT			
0027	001B	LB1VSN	0053	0035	LB1DSQ			

Alphabetical list of fields in CHALB1

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
LB1	0000	0000	LB1DSQ	0053	0035	LB1RS1	0073	0049
LB1BCT	0054	0036	LB1DSS	0021	0015	LB1SCD	0060	003C
LB1CDT	0041	0029	LB1EDT	0047	002F	LB1VNG	0039	0027
LB1DID	0004	0004	LB1END	0080	0050 (EQU)	LB1VSN	0027	001B
LB1DSL	0003	0003	LB1GEN	0035	0023			
LB1DSN	0031	001F	LB1LID	0000	0000			

Assembler listing of CHALB1

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	4A 00000	CHALB1	DSECT		
4A 00000		LB1	DS	0F	
4A 00000		LB1LID	DS	CL3	LABEL IDENTIFIER
4A 00003		LB1DSL	DS	CL1	DATA SET LABEL NUMBER
4A 00004		LB1DID	DS	CL17	DATA SET IDENTIFIER
4A 00015		LB1DSS	DS	CL6	DATA SET SERIAL NUMBER
4A 0001B		LB1VSN	DS	CL4	VOLUME SEQUENCE NUMBER
4A 0001F		LB1DSN	DS	CL4	DATA SET SEQUENCE NUMBER
4A 00023		LB1GEN	DS	CL4	GENERATION NUMBER
4A 00027		LB1VNG	DS	CL2	VERSION NUMBER OF GENERATION
		*			
4A 00029		LB1CDT	DS	CL6	CREATION DATE
4A 0002F		LB1EDT	DS	CL6	EXPIRATION DATE
4A 00035		LB1DSQ	DS	CL1	DATA SET SECURITY NUMBER
4A 00036		LB1BCT	DS	CL6	BLOCK COUNT
4A 0003C		LB1SCD	DS	CL13	SYSTEM CODE
4A 00049		LB1RS1	DS	CL7	RESERVED IN LABEL1
	4A 00050	LB1END	EQU	*	END OF LABEL1
	00000050	LB1SZ	EQU		LB1END-LB1 SIZE OF TAPE LABEL 1

Data Set Header/Trailer Label 2 (CHALB2)

The Data Set Header/Trailer Label 2 (LB2) contains the data set attributes. These attributes assist in reading the data set from the tape and also serve as a source of fill for the null parameters in the Data Control Block (DCB).

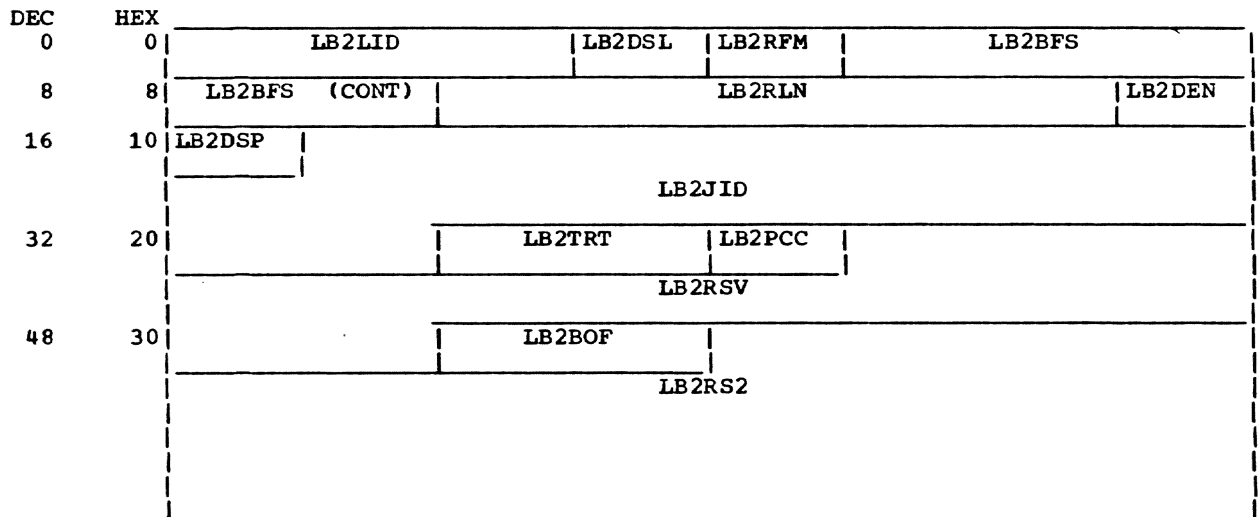
LB2 is IBM OS/360 Standard Tape File Label 2 which is written in EBCDIC on nine-track tape or in BCD in seven-track tape. In addition, LB2 must be written in even parity. The format of a tape volume is:

- I. Volume labels (up to 8).
- II. Data Set plus data set labels.
  - 1. Standard header labels 1 and 2
  - 2. User header labels (up to 8)
  - 3. Tape mark
  - 4. Data Set Records
  - 5. Tape mark
  - 6. Standard Trailer labels 1 and 2
  - 7. User trailer labels (up to 8)
  - 8. Tape mark
- III. Additional data sets as in II above.
- IV. Tape mark.

Standard header label 2 and standard trailer label 2 are identical in format and are also identical in content for a given data set, except for the label identification and block count.

The LB2 table occupies 80 bytes of virtual storage, aligned on doubleword boundaries.

CHALB2 Storage map



Fields in CHALB2 -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	LB2LID	0010	000A	LB2RLN	0036	0024	LB2PCC
0000	0000	LB2	0015	000F	LB2DEN	0037	0025	LB2RSV
0003	0003	LB2DSL	0016	0010	LB2DSP	0050	0032	LB2BOF
0004	0004	LB2RFM	0017	0011	LB2JID	0052	0034	LB2RS2
0005	0005	LB2BFS	0034	0022	LB2TRT	0080	0050	LB2END (EQU)

Alphabetical list of fields in CHALB2

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
LB2	0000	0000	LB2DSP	0016	0010	LB2RFM	0004	0004
LB2BFS	0005	0005	LB2END	0080	0050 (EQU)	LB2RLN	0010	000A
LB2BOF	0050	0032	LB2JID	0017	0011	LB2RSV	0037	0025
LB2DEN	0015	000F	LB2LID	0000	0000	LB2RS2	0052	0034
LB2DSL	0003	0003	LB2PCC	0036	0024	LB2TRT	0034	0022

Assembler listing of CHALB2

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	4B 00000	CHALB2	DSECT		
4B 00000		LB2	DS	0F	
4B 00000		LB2LID	DS	CL3	LABEL IDENTIFIER
4B 00003		LB2DSL	DS	CL1	FILE LABEL NUMBER
4B 00004		LB2RFM	DS	CL1	RECORD FORMAT
4B 00005		LB2BFS	DS	CL5	BLOCK LENGTH
4B 0000A		LB2RLN	DS	CL5	LOGICAL RECORD LENGTH
4B 0000F		LB2DEN	DS	CL1	DENSITY
4B 00010		LB2DSP	DS	CL1	FILE POSITION
4B 00011		LB2JID	DS	CL17	JOB/STEP IDENTIFICATION
4B 00022		LB2TRT	DS	CL2	TAPE RECORDING TECHNIQUE
4B 00024		LB2PCC	DS	CL1	PRINT CONTROL CHARACTER
4B 00025		LB2RSV	DS	CL13	RESERVED IN LABEL2
4B 00032		LB2BOF	DS	CL2	BUFFER OFFSET (ASCII)
4B 00034		LB2RS2	DS	CL28	RESERVED IN LABEL2
	4B 00050	LB2END	EQU	*	END OF LABEL 2
	00000050	LB2SZ	EQU	LB2END-LB2	SIZE OF TAPE LABEL 2



System Operator Log (CHALOG) Header

The System Operator Log (SYSLOG) contains a record of the communications between the operator and the system.

Each data set in SYSLOG, a generation data group, is VAM sequential and contains the log information for a startup-to-shutdown session.

SYSLOG occupies a minimum of 33 bytes of virtual storage, aligned on doubleword boundaries.

CHALOG Storage map

DEC	HEX		
0	0	LOGLEN	LOGDAT
8	8	LOGDAT (CONT)	LOGTIM
16	10	LOGTIM (CONT)	LOGSPR
24	18	LOGUSE	

Fields in CHALOG -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	LOGLEN	0012	000C	LOGTIM	0024	0018	LOGUSE
0004	0004	LOGDAT	0018	0012	LOGSPR	0032	0020	LOGMES

Alphabetical list of fields in CHALOG

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
LOGDAT	0004	0004	LOGMES	0032	0020	LOGTIM	0012	000C
LOGLEN	0000	0000	LOGSPR	0018	0012	LOGUSE	0024	0018

Assembler listing of CHALOG

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	4C 00000	CHALOG	DSECT		HEADER FOR MESSAGES TO BE PUT IN SYSLOG-(
		*			
4C 00000			DS	0D	
4C 00000		LOGLEN	DS	F	LENGTH OF MESSAGE (INCLUDING HEADING OF 32 BYTES)
		*			
4C 00004		LOGDAT	DS	CL8	DATE 'MM/DD/YY' FORMAT
4C 0000C		LOGTIM	DS	CL6	TIME 'HH:MM' FORMAT
4C 00012		LOGSPR	DS	6C	SIX SPARE BYTES
4C 00018		LOGUSE	DS	8C	EIGHT CHARACTER USER-1D OF MESSAGE SENDER
		*			
4C 00020		LOGMES	DS	0C	MESSAGE TEXT MAX. OF 18888 CHARACTERS
		*			

Message Control Block (CHAMCB)

The Message Control Block (MCB) controls message transmission between tasks. It contains a length indicator which counts the number of doublewords of textual information, a code to determine the type of intertask message being sent, and indicators that a message reply is expected or that a message constitutes a reply to some other message.

The MCB also contains an SVC which the supervisor recognizes as a VSEND, or intertask communication operation, consisting of: task identification of the sending and receiving tasks; and, the address of a Message Event Control Block (MEB), if a reply is expected.

The MCB serves the users of the VSEND operation; e.g., Device Management, Batch Monitor, etc.

The MCB occupies a maximum of 1920 bytes of virtual storage, aligned on doubleword boundaries, and is contained within one page of storage.

CHAMCB Storage map

DEC	HEX						
0	0	MCBLNG	MCBCOD	MCBRCD	MCBCD1	MCBSVC	MCBSPR
8	8	MCBSND		MCBRCV		MCBECB	

Fields in CHAMCB -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	MCBLNG	0002	0002	MCBRCD	0010	000A	MCBRCV
0001	0001	MCBCN (EQU)	0003	0003	MCBCD1	0012	000C	MCBMEB (EQU)
0001	0001	MCBRE (EQU)	0004	0004	MCBSVC	0012	000C	MCBECB
0001	0001	MCBRX (EQU)	0006	0006	MCBSPR	0016	0010	MCBTXT
0001	0001	MCBCOD	0008	0008	MCBSND			

Alphabetical list of fields in CHAMCB

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
MCBCD1	0003	0003	MCBMEB	0012	000C (EQU)	MCBSND	0008	0008
MCBCN	0001	0001 (EQU)	MCBRCD	0002	0002	MCBSPR	0006	0006
MCBCOD	0001	0001	MCBRCV	0010	000A	MCBSVC	0004	0004
MCBECB	0012	000C	MCBRE	0001	0001 (EQU)	MCBTXT	0016	0010
MCBLNG	0000	0000	MCBRX	0001	0001 (EQU)			

Assembler listing of CHAMCB

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	4E 00000	CHAMCB	DSECT		
4E 00000			DS	0D	
4E 00000		MCBLNG	DS	XL1	MESSAGE LENGTH IN DOUBLE WORDS
		*			
4E 00001		MCBCOD	DS	XL1	FLAG BYTE
	4E 00001	MCBRX	EQU	MCBCOD	MCBCOD REPLY EXPECTED FLAG
	00000080	MCBRXM	EQU	X'80'	REPLY EXPECTED MASK
	4E 00001	MCBRE	EQU	MCBCOD	REPLY FLAG- MEB ADDRESS
		*			IMPLIED IF ON (1)
	00000040	MCBREM	EQU	X'40'	REPLY MASK
	4E 00001	MCBCN	EQU	MCBCOD	REPLY CANCELLATION MESSAGE
	00000020	MCBCNM	EQU	X'20'	REPLY CANCELLATION MESSAGE MASK
		*			
4E 00002		MCBRCD	DS	XL1	RETURN CODE FOR MEB
4E 00003		MCBCD1	DS	XL1	MCB MESSAGE CODE

(Listing of CHAMCB continued on page 269)

(Listing of CHAMCB continued from page 268)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
4E 00004			DS	0H	
4E 00004		MCBSVC	DS	H	VSEND SVC
4E 00006		MCBSPR	DS	H	SPARE SPACE
4E 00008		MCBSND	DS	H	TID OF THE SENDING TASK
4E 0000A		MCBRCV	DS	H	TID OF THE RECEIVING TASK
4E 0000C			DS	0F	
4E 0000C		MCBECB	DS	F	ADDRESS OF EVENT CONTROL BLOCK
	4E 0000C	*			
		MCBMEB	EQU	MCBECB	EVENT CONTROL BLOCK
4E 00010			DS	0D	
4E 00010		MCBTXT	DS	0C	MESSAGE TEXT

Multiplexer Channel Table (CHAMCH)

The Multiplexer Channel Table (CHAMCH) contains status information concerning the connection between the multiplexer channel and its assigned control units. CHAMCH occupies from 4 to 64 bytes of core storage, aligned on word boundaries.

CHAMCH Storage map

DEC	HEX			
0	0	MCHF	UNNAMED	UNNAMED

ORG MCHBEG

0	0	MCHF1	MCHF2	MCHCTD
---	---	-------	-------	--------

Fields in CHAMCH -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	MCHF1	0000	0000	MCHE	(EQU)	0001	0001	MCHF2
0000	0000	MCHFLG	0000	0000	MCHP	(EQU)	0002	0002	MCHCTD
0000	0000	MCHS	(EQU)	0000	0000	MCHF			
0000	0000	MCHR	(EQU)	0000	0000	MCHBEG			

Alphabetical list of fields in CHAMCH

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
MCHBEG	0000	0000	MCHFLG	0000	0000	MCHR	0000	0000 (EQU)
MCHCTD	0002	0002	MCHF1	0000	0000	MCHS	0000	0000 (EQU)
MCHE	0000	0000 (EQU)	MCHF2	0001	0001			
MCHF	0000	0000	MCHP	0000	0000 (EQU)			

Assembler listing of CHAMCH

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	4F 00000	CHAMCH	DSECT		MULTIPLEXOR CHANNEL (N) TABLE (N=0 TO 31)
		*			
4F 00000		MCHBEG	DS	0F	ALIGN TABLE ON WORD BOUNDARY
		*			
4F 00000		MCHF	DS	C	NOT USED
4F 00001			DS	XL1	RESERVED
4F 00002			DS	H	NOT USED
	4F 00000		ORG	MCHBEG	
4F 00000		MCHFLG	DS	0H	FLAG FIELD
4F 00000		MCHF1	DS	X	FIRST BYTE OF FLAG FIELD
	4F 00000	MCHP	EQU	MCHF1	PARTITIONED FLAG
	00000080	MCHPM	EQU	X'80'	PARTITIONED FLAG MASK
	4F 00000	MCHE	EQU	MCHF1	NONEXISTENT FLAG
	00000040	MCHEM	EQU	X'40'	NONEXISTENT FLAG MASK
	4F 00000	MCHR	EQU	MCHF1	RESERVED FLAG
	00000020	MCHRM	EQU	X'20'	RESERVED MASK
	4F 00000	MCHS	EQU	MCHF1	SELECTOR SUBCHAN ON MPX FLAG
		*			
	00000001	MCHSM	EQU	X'01'	SELECTOR SUBCHAN ON MPX MASK
		*			
4F 00001		MCHF2	DS	X	SECOND BYTE OF FLAG FIELD
4F 00002		MCHCTD	DS	H	CONTROL UNIT TABLE DISPLACEMENT
		*			
		*			* NOTE 1- THERE IS A ONE WORD ENTRY (I.E., FIELDS
		*			* LABELED MCHFLG AND
		*			* MCHCTD ARE REPEATED) FOR EVERY CONTROL
		*			* UNIT ADDRESS ON THIS
		*			* CHANNEL BEGINNING WITH ZERO AND
		*			* CONTINUING IN SEQUENTIAL
		*			* ORDER UP TO AND INCLUDING THE HIGHEST
		*			* ACTIVE ADDRESS (I.E.,
		*			* HIGHEST CONTROL UNIT ADDRESS THAT HAS
		*			* BEEN SPECIFIED AS
		*			* HAVING A CONTROL UNIT PHYSICALLY COUPLED
		*			* TO IT).

Message Event Control Block (CHAMEB)

The Message Event Control Block (MEB) controls both the waiting for completion of a VSEND event and the posting of the event.

The MEB aids the message control block (MCB) in inter-task communication. When an MCB is constructed to send a message which requires a reply, an MEB is also constructed containing an AWAIT or TWAIT SVC.

The MEB furnishes data to the main operator control program, batch monitor, and CLI, etc.

Sixteen bytes of virtual storage are allocated to the MEB, aligned on doubleword boundaries.

CHAMEB Storage map

DEC	HEX				
0	0	MEBECB	MEBSVC	MEBTID	MEBKEY
8	8	MEBMCB		UNNAMED	

Fields in CHAMEB -- by displacement

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD
0000	0000	MEBEV	(EQU)	0002	0002	MEBSVC		0008	0008	MEBMCB
0000	0000	MEBWT	(EQU)	0004	0004	MEBTID				
0000	0000	MEBECB		0006	0006	MEBKEY				

Alphabetical list of fields in CHAMEB

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX	
MEBECB	0000	0000		MEBMCB	0008	0008		MEBWT	0000	0000	(EQU)
MEBEV	0000	0000	(EQU)	MEBSVC	0002	0002					
MEBKEY	0006	0006		MEBTID	0004	0004					

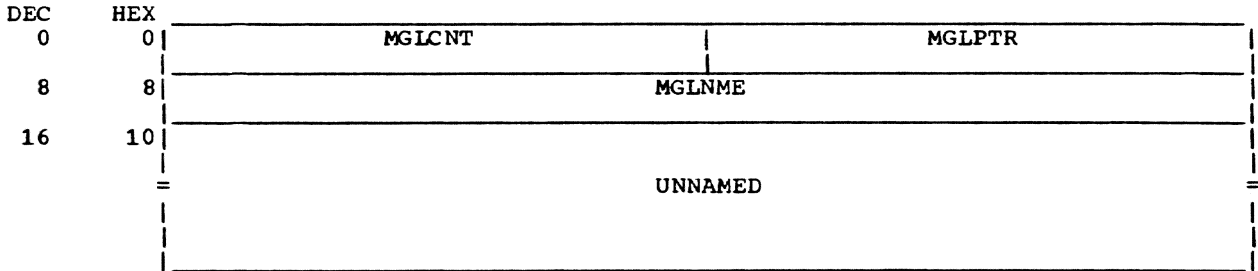
Assembler listing of CHAMEB

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
50 00000	50 00000	CHAMEB	DSECT	0D	MESSAGE EVENT CONTROL BLOCK
50 00000			DS	0D	DOUBLE WORD BOUNDARY
50 00000		*			ALIGNMENT
50 00000	50 00000	MEBECB	DS	XL2	EVENT COMPLETION FLAGS
	00000080	MEBWT	EQU	MEBECB	WAIT FLAG
	50 00000	MEBWTM	EQU	X'80'	WAIT MASK
	00000040	MEBEV	EQU	MEBECB	EVENT COMPLETION FLAG
50 00002		MEBEVM	EQU	X'40'	EVENT COMPLETION MASK
50 00004		MEBSVC	DS	H	SCV HALFWORD
50 00004		MEBTID	DS	H	TID OF RECEIVING TASK
50 00006		MEBKEY	DS	H	RETURN CODE
50 00008		MEBMCB	DS	F	ADDRESS OF MCB
50 0000C			DS	F	UNUSED

Merge List (CHAMGL)

The PL/I merge list supplies the Object Data Set Converter (ODC) with object module names for conversion to TSS object modules. CHAMGL is built by the PL/I Program Language Controller (PLC). The 128-byte Merge List is aligned on word boundaries.

CHAMGL Storage map



Fields in CHAMGL -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	MGLCNT	0004	0004	MGLPTR	0008	0008	MGLNME

Alphabetical list of fields in CHAMGL

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
MGLCNT	0000	0000	MGLNME	0008	0008	MGLPTR	0004	0004

Assembler listing of CHAMGL

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	51 00000	CHAMGL	DSECT		DSECT FOR MERGELIST BLOCKS
51 00000		MGLCNT	DS	F	COUNT OF MODULE NAMES IN THIS BLOCK
		*			
51 00004		MGLPTR	DS	F	FORWARD POINTER TO NEXT BLOCK
		*			
51 00008		MGLNME	DS	D	FIRST MODULE NAME IN THE BLOCK
		*			
51 00010			DS	14D	SPACE RESERVED FOR 14 MORE NAMES
		*			

Symbol Control Block (CHAMSW)

The Symbol Control Block is used to define a symbol and contains all of the symbol attributes. It may also be used to resolve a literal. During language area processing, one SCB will exist for each symbol or literal in the polish string.

CHAMSW Storage map

DEC	HEX		
0	0	MSWLEN	MSWSIZE
8	8	MSWUNUS	MSWTYPE   MSWCLASS   MSWFLAGS   MSWBLENK1
16	10	MSWBASE	MSWPTR
24	18	MSWSDEV   MSWCYL   MSWTRK	MSWREC   MSWDEVC   MSWMODE
32	20	MSWQUAL	MSWBKPT
40	28	MSWSYMB	

Fields in CHAMSW -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	MSWLEN	0014	000E	MSWSUBJ (EQU)	0028	001C	MSWREC
0004	0004	MSWSIZE	0014	000E	MSWNULL (EQU)	0030	001E	MSW2301 (EQU)
0008	0008	MSWUNUS	0014	000E	MSWUNDF (EQU)	0030	001E	MSW2314 (EQU)
0012	000C	MSWINT (EQU)	0014	000E	MSWFLAGS	0030	001E	MSW2311 (EQU)
0012	000C	MSWCHAR (EQU)	0015	000F	MSWBUND (EQU)	0030	001E	MSW1403 (EQU)
0012	000C	MSWHEX (EQU)	0015	000F	MSWBINT (EQU)	0030	001E	MSW2400 (EQU)
0012	000C	MSWTYPE	0015	000F	MSWBINS (EQU)	0030	001E	MSW2540 (EQU)
0013	000D	MSWNAD (EQU)	0015	000F	MSWBEOF (EQU)	0030	001E	MSWTERM (EQU)
0013	000D	MSWLIT (EQU)	0015	000F	MSWBOVF (EQU)	0030	001E	MSWDEVC
0013	000D	MSWEXT (EQU)	0015	000F	MSWBREC (EQU)	0031	001F	MSWMODE
0013	000D	MSWSP (EQU)	0015	000F	MSWBFLG (EQU)	0032	0020	MSWEXTN (EQU)
0013	000D	MSWSYS (EQU)	0015	000F	MSWBRET (EQU)	0032	0020	MSWVM1 (EQU)
0013	000D	MSWCLASS	0015	000F	MSWBLENK1	0032	0020	MSWVM (EQU)
0014	000E	MSWRCD (EQU)	0016	0010	MSWBASE	0032	0020	MSWRM1 (EQU)
0014	000E	MSWTRCK (EQU)	0020	0014	MSWPTR	0032	0020	MSWRM (EQU)
0014	000E	MSWCYLR (EQU)	0024	0018	MSWSDEV	0032	0020	MSWQUAL
0014	000E	MSWPHYS (EQU)	0026	001A	MSWCYL	0036	0024	MSWBKPT
0014	000E	MSWVKAR (EQU)	0027	001B	MSWTRK	0040	0028	MSWSYMB

Alphabetical list of fields in CHAMSW

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
MSWBASE	0016	0010	MSWFLAGS	0014	000E	MSWSUBJ	0014	000E (EQU)
MSWBEOF	0015	000F (EQU)	MSWHEX	0012	000C (EQU)	MSWSYMB	0040	0028 (EQU)
MSWBFLG	0015	000F (EQU)	MSWINT	0012	000C (EQU)	MSWSYS	0013	000D (EQU)
MSWBINS	0015	000F (EQU)	MSWLEN	0000	0000	MSWTERM	0030	001E (EQU)
MSWBINT	0015	000F (EQU)	MSWLIT	0013	000D (EQU)	MSWTRCK	0014	000E (EQU)
MSWBKPT	0036	0024	MSWMODE	0031	001F	MSWTRK	0027	001B
MSWBLENK1	0015	000F	MSWNAD	0013	000D (EQU)	MSWTYPE	0012	000C
MSWBOVF	0015	000F (EQU)	MSWNULL	0014	000E (EQU)	MSWUNDF	0014	000E (EQU)
MSWBREC	0015	000F (EQU)	MSWPHYS	0014	000E (EQU)	MSWUNUS	0008	0008
MSWBRET	0015	000F (EQU)	MSWPTR	0020	0014	MSWVM	0032	0020 (EQU)
MSWBUND	0015	000F (EQU)	MSWQUAL	0032	0020	MSWVM1	0032	0020 (EQU)
MSWCHAR	0012	000C (EQU)	MSWRCD	0014	000E (EQU)	MSWVKAR	0014	000E (EQU)
MSWCLASS	0013	000D	MSWREC	0028	001C	MSW1403	0030	001E (EQU)
MSWCYL	0026	001A	MSWRM	0032	0020 (EQU)	MSW2301	0030	001E (EQU)
MSWCYLR	0014	000E (EQU)	MSWRM1	0032	0020 (EQU)	MSW2311	0030	001E (EQU)
MSWDEVC	0030	001E	MSWSDEV	0024	0018	MSW2314	0030	001E (EQU)
MSWEXT	0013	000D (EQU)	MSWSIZE	0004	0004	MSW2400	0030	001E (EQU)
MSWEXTN	0032	0020 (EQU)	MSWSP	0013	000D (EQU)	MSW2540	0030	001E (EQU)



Assembler listing of CHAMSW

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
53 00000	53 00000	CHAMSW	DSECT		
***** S Y M B O L C O N T R O L B L O C K *****					
53 00000		MSWLEN	DS	CL4	BYTES NEEDED FOR AN ITEM 0-64K
*****					
53 00004		MSWSIZE	DS	CL4	NUMBER MEMORY ELEMENTS NEEDED 0-64K
*****					
53 00008		MSWUNUS	DS	CL4	CLASSIFICATION UNUSED BYTES TO KEEP MSW DW BOUNDARY
*****					
53 0000C		MSWTYPE	DS	CL1	DESIGNATION ASTO VALUE
	53 0000C	MSWHEX	EQU	MSWTYPE	
	00000001	MSWHEXM	EQU	X'01'	HEX
	53 0000C	MSWCHAR	EQU	MSWTYPE	
	00000002	MSWCHARM	EQU	X'02'	CHARACTER
	53 0000C	MSWINT	EQU	MSWTYPE	
	00000003	MSWINTM	EQU	X'03'	INTEGER
*****					
53 0000D		MSWCLASS	DS	CL1	DESIGNATES TYPE OF SYMBOL
	53 0000D	MSWSYS	EQU	MSWCLASS	
	00000001	MSWSYSM	EQU	X'01'	SYSTEM-\$
	53 0000D	MSWSP	EQU	MSWCLASS	
	00000002	MSWSPM	EQU	X'02'	SP
	53 0000D	MSWEXT	EQU	MSWCLASS	
	00000003	MSWEXTM	EQU	X'03'	EXTERNAL
	53 0000D	MSWLIT	EQU	MSWCLASS	
	00000004	MSWLITM	EQU	X'04'	LITERAL
	53 0000D	MSWNAD	EQU	MSWCLASS	
	00000005	MSWNADM	EQU	X'05'	IMMEDIATE DATA - NO ADDRESS FLAG
*****					
53 0000E		MSWFLAGS	DS	CL1	
	53 0000E	MSWUNDF	EQU	MSWFLAGS	0 - UNDEFINED SYMBOL X'80'
	00000080	MSWUNDFM	EQU	X'80'	
	53 0000E	MSWNULL	EQU	MSWFLAGS	1 - NULL MSW X'40'
	00000040	MSWNULLM	EQU	X'40'	
	53 0000E	MSWSUBJ	EQU	MSWFLAGS	2 - SUBJECT MSW X'20'
	00000020	MSWSUBJM	EQU	X'20'	
	53 0000E	MSWVKAR	EQU	MSWFLAGS	3 - DATA IN WORK AREA X'10'
	00000010	MSWVKARM	EQU	X'10'	
	53 0000E	MSWPHYS	EQU	MSWFLAGS	4 - PHYSICAL DATA X'08'
	00000008	MSWPHYSM	EQU	X'08'	
	53 0000E	MSWCYLR	EQU	MSWFLAGS	
	00000004	MSWCYLRM	EQU	X'04'	BIT 5 - CYLINDER =
	53 0000E	MSWTRCK	EQU	MSWFLAGS	
	00000002	MSWTRCKM	EQU	X'02'	BIT 6 - TRACK =
	53 0000E	MSWRCD	EQU	MSWFLAGS	
	00000001	MSWRCDM	EQU	X'01'	BIT 7 - RECORD =
*****					
53 0000F		MSWBLENK1	DS	CL1	KEYWORD FLAGS
	53 0000F	MSWBRET	EQU	MSWBLENK1	
	00000080	MSWBRETM	EQU	X'80'	MORE DATA TO FORMAT DUMP
	53 0000F	MSWBFLG	EQU	MSWBLENK1	
	00000040	MSWBFLGM	EQU	X'40'	ALL OF AT OR PATCH TABLE
	53 0000F	MSWBREC	EQU	MSWBLENK1	
	00000020	MSWBRECM	EQU	X'20'	RECORD OVER 4096 BYTES
	53 0000F	MSWBOVF	EQU	MSWBLENK1	
	00000010	MSWBOVFM	EQU	X'10'	SET OVERFLOW CONDITION
	53 0000F	MSWBEOF	EQU	MSWBLENK1	
	00000008	MSWBEOFM	EQU	X'08'	END OF FILE CONDITION FROM I/O
	53 0000F	MSWBINS	EQU	MSWBLENK1	
	00000004	MSWBINSM	EQU	X'04'	ONE BYTE OF INSTRUCTION IN ACB
	53 0000F	MSWBINT	EQU	MSWBLENK1	
	00000002	MSWBINTM	EQU	X'02'	TWO BYTES OF INSTRUCTION IN

(Listing of CHAMSW continued on page 276)

(Listing of CHAMSW continued from page 275)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			ACB
	53 000F	MSWBUND	EQU	MSWBUNK1	
	00000001	MSWBUNDM	EQU	X'01'	UNUSED FLAG
*****					
53	00010	MSWBASE	DS	CL4	ADDRESS OF MEMORY AREA
*****					
53	00014	MSWPTR	DS	CL4	CONSTANT USED TO CALCULATE ADDRESS
*****					
53	00018	MSWSDEV	DS	CL2	DEVICE ADDRESS
53	0001A	MSWCYL	DS	CL1	CYLINDER NUMBER
53	0001B	MSWTRK	DS	CL1	TRACK NUMBER
53	0001C	MSWREC	DS	CL2	RECORD NUMBER
53	0001E	MSWDEV	DS	CL1	DEVICE CODE IN HEX
	53 0001E	MSWTERM	EQU	MSWDEV	
	00000000	MSWTERMM	EQU	X'00'	TERMINAL
	53 0001E	MSW2540	EQU	MSWDEV	
	00000001	MSW2540M	EQU	X'01'	2540 CARD READ PUNCH
	53 0001E	MSW2400	EQU	MSWDEV	
	00000002	MSW2400M	EQU	X'02'	2400 MAGNETIC TAPE
	53 0001E	MSW1403	EQU	MSWDEV	
	00000003	MSW1403M	EQU	X'03'	1403 PRINTER
	53 0001E	MSW2311	EQU	MSWDEV	
	00000004	MSW2311M	EQU	X'04'	2311 DISK STORAGE DRIVE
	53 0001E	MSW2314	EQU	MSWDEV	
	00000005	MSW2314M	EQU	X'05'	2314 STORAGE FACILITY
	53 0001E	MSW2301	EQU	MSWDEV	
	00000006	MSW2301M	EQU	X'06'	2301 DRUM STORAGE
53	0001F	MSWMODE	DS	CL1	MODE SET
*****					
53	00020	MSWQUAL	DS	CL4	SYMBOL RESIDES IN RM OR VM ONE BYTE EQUALS QUALIFICATION
		*			
	53 00020	MSWRM	EQU	MSWQUAL	
	00000000	MSWRMM	EQU	X'00'	REAL MEMORY UNQUALIFIED
	53 00020	MSWRM1	EQU	MSWQUAL	
	00000001	MSWRM1M	EQU	X'01'	REAL MEMORY QUALIFIED
	53 00020	MSWVM	EQU	MSWQUAL	
	00000002	MSWVMM	EQU	X'02'	VIRTUAL MEMORY UNQUALIFIED
	53 00020	MSWVM1	EQU	MSWQUAL	
	00000003	MSWVM1M	EQU	X'03'	VIRTUAL MEMORY QUALIFIED
	53 00020	MSWEXTN	EQU	MSWQUAL	
	00000004	MSWEXTNM	EQU	X'04'	EXTERNAL QUALIFICATION THREE BYTES EQUAL PREFIX FOR RM OR TASKID
*****					
53	00024	MSWBKPT	DS	CL4	POINTS TO ORIGINAL MSW FOR \$ OR SP
*****					
53	00028	MSWSYMB	DS	CL8	STRING OF ALPHA OR NUMERIC CHAR
*****					

Multiterminal Status Control Block (CHAMTS)

There are two types of CHAMTS used by RTAM: a system CHAMTS contains a pointer to the system Terminal Control Table; an application CHAMTS contains pointers to the application Terminal Control Table. Both types of CHAMTS serve as the basic communication links between a task, in virtual storage, and the resident portion of RTAM; they enable both virtual and resident storage programs to reference the Terminal Control Tables. CHAMTS occupies 64 bytes of storage.

CHAMTS Storage map

DEC	HEX			
0	0	MTSCPTB	MTSLCK	UNNAMED
8	8	MTSAPN		
16	10	MTSTCP	MTSBUF	
24	18	MTSMAX	MTSCUR	MTSBLH
32	20	MTSFLG1	MTSFLG2	MTSVMP
40	28	MTSCSW		
48	30	MTSTLM	MTSRAN	UNNAMED

Fields in CHAMTS -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	MTSCPTB	0026	001A	MTSCUR	0036	0024	MTSSLT
0004	0004	MTSLCK	0028	001C	MTSBLH	0038	0026	MTSRCT
0008	0008	MTSAPN	0030	001E	MTSDSH	0040	0028	MTSCSW
0016	0010	MTSTCP	0032	0020	MTSFLG1	0048	0030	MTSTLM
0020	0014	MTSBUF	0033	0021	MTSFLG2	0050	0032	MTSRAN
0024	0018	MTSMAX	0034	0022	MTSVMP			

Alphabetical list of fields in CHAMTS

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
MTSAPN	0008	0008	MTSDSH	0030	001E	MTSRCT	0038	0026
MTSBLH	0028	001C	MTSFLG1	0032	0020	MTSSLT	0036	0024
MTSBUF	0020	0014	MTSFLG2	0033	0021	MTSTCP	0016	0010
MTSCPTB	0000	0000	MTSLCK	0004	0004	MTSTLM	0048	0030
MTSCSW	0040	0028	MTSMAX	0024	0018	MTSVMP	0034	0022
MTSCUR	0026	001A	MTSRAN	0050	0032			

Assembler listing of CHAMTS

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	54 00000	CHAMTS	DSECT		
54 00000		MTSCPTB	DS	A	ADDR OF PG TBLS FOR TSS
		*			N349.10
54 00004		MTSLCK	DS	X	LOCK BYTE
54 00005			DS	3X	UNUSED
54 00008		MTSAPN	DS	D	APPLICATION NAME
54 00010		MTSTCP	DS	F	TCT POINTER (VM)
54 00014		MTSBUF	DS	F	BUFFER POINTER (VM)
54 00018		MTSMAX	DS	H	MAX NUMBER OF LINES
54 0001A		MTSCUR	DS	H	CURRENT NUMBER OF USERS
54 0001C		MTSBLH	DS	H	BUFFER LENGTH
54 0001E		MTSDSH	DS	H	DRUM SHARE
54 00020		MTSFLG1	DS	XL1	FLAG BYTE 1
		*			NO BITS ASSIGNED YET
54 00021		MTSFLG2	DS	XL1	FLAG BYTE 2
	00000080	MTSPGE	EQU	X'80'	OBTAIN BUFFER PAGE-1 / TCT
		*			PAGE-0
	00000040	MTSRPG	EQU	X'40'	RELEASE BUFFER PAGE-1 / TCT
		*			PAGE-0
	00000020	MTSFRE	EQU	X'20'	FREE ALL USERS
	00000010	MTSFIN	EQU	X'10'	FINISH BIT
	00000008	MTSBEL	EQU	X'08'	1052-7 BELL INDICATOR
54 00022		MTSVMP	DS	H	TOTAL VM PAGES FOR BUFFER +
		*			TCT
54 00024		MTSSLT	DS	H	NUMBER OF BUFFER SLOTS
54 00026		MTSRCT	DS	H	COUNT
54 00028		MTSCSW	DS	D	CSW FOR 1052-7
54 00030		MTSTLM	DS	H	CURRENT CONV. TASK LIMIT
		*			N38
				6	
54 00032		MTSRAN	DS	H	RELATIVE APPLICATION NUMBER
		*			N38
				6	
54 00034			DS	3XL4	RESERVED
		*			N386
	00000040	MTSLGH	EQU	*-CHAMTS	MTS LENGTH
		*			N349.10

Module Usage Table (CHAMUT)

The Module Usage Table (MUT) maintains a list of CALLS in a task. This list reflects the linkage between called and calling modules. Each MUT entry contains a linkage to the PMD of the calling module and a linkage to the called module PMD. The MUT is created by the Dynamic Loader. The MUT resides in virtual storage aligned on fullword boundaries.

CHAMUT Storage map

DEC	HEX		
0	0	MUTFPL	MUTBPL
8	8	MUTSVC	MUTFBL
16	10	MUTBBL	MUTCDP

Fields in CHAMUT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	MUTFPL	0008	0008	MUTSVC	0016	0010	MUTBBL
0004	0004	MUTBPL	0012	000C	MUTFBL	0020	0014	MUTCDP

Alphabetical list of fields in CHAMUT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
MUTBBL	0016	0010	MUTCDP	0020	0014	MUTFPL	0000	0000
MUTBPL	0004	0004	MUTFBL	0012	000C	MUTSVC	0008	0008

Assembler listing of CHAMUT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	55 00000	CHAMUT	DSECT		MUT ENTRY STRUCTURE
*****					
* MODULE USAGE TABLE (MUT) ENTRY DSECT					
*****					
55 00000		MUTFPL	DS	F	FORWARD PAPA LINK
55 00004		MUTBPL	DS	F	BACKWARD PAPA LINK
55 00008		MUTSVC	DS	F	ADDRESS OF CALLING SVC
55 0000C		MUTFBL	DS	F	FORWARD BABY LINK
55 00010		MUTBBL	DS	F	BACKWARD BABY LINK
55 00014		MUTCDP	DS	F	ADDRESS OF PMD CALLED BY SVC
		*			
	00000018	MUTESZ	EQU	*-CHAMUT	

New Task Common (CHANTC)

The New Task Common (CHANTC), replacing CHATCM, contains system values referenced by more than one system module in a single task.

CHANTC, read-protected from the user, is initialized by the operator task, LOGEX, or TSS2SIM.

CHANTC resides in virtual storage (in module CZBNTC), aligned on word boundaries.

CHANTC Storage map

DEC	HEX	
0	0	NTCTSK
8	8	NTCBID
16	10	NTCSWQ
24	18	NTCNAM
32	20	NTCDNO                      NTCTID                      NTCCPI                      RESERVED
40	28	RESERVED
64	40	NTCAIC                      NTCVSS                      NTCMTU                      NTCSUE                      RESERVED
72	48	NTCTMR

ORG NTCSWQ

16	10	NTCSW1	NTCSW2	NTCSW3	NTCSW4	NTCSW5	NTCSW6
----	----	--------	--------	--------	--------	--------	--------

Fields in CHANTC -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	NTCTSK	0021	0015	NTCSW5	0066	0042	NTCAIC
0008	0008	NTCBID	0022	0016	NTCSW6	0067	0043	NTCVSS
0016	0010	NTCSW1	0024	0018	NTCNAM	0068	0044	NTCMTU
0016	0010	NTCSWQ	0032	0020	NTCDNO	0069	0045	NTCSUE
0018	0012	NTCSW2	0036	0024	NTCTID	0072	0048	NTCTMR
0019	0013	NTCSW3	0038	0026	NTCCPI			
0020	0014	NTCSW4	0040	0028	NTCPCT			(EQU)

Alphabetical list of fields in CHANTC

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
NTCAIC	0066	0042	NTCSUE	0069	0045	NTCSW6	0022	0016
NTCBID	0008	0008	NTCSWQ	0016	0010	NTCTID	0036	0024
NTCCPI	0038	0026	NTCSW1	0016	0010	NTCTMR	0072	0048
NTCDNO	0032	0020	NTCSW2	0018	0012	NTCTSK	0000	0000
NTCMTU	0068	0044	NTCSW3	0019	0013	NTCVSS	0067	0043
NTCNAM	0024	0018	NTCSW4	0020	0014			
NTCPCT	0040	0028 (EQU)	NTCSW5	0021	0015			

Assembler listing of CHANTC

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	56 00000	CHANTC	DSECT		NEW TASK
		*			COMMON
56 00000		NTCTSK	DS	CL8	TASK NAME...INITIALIZED
		*			SET TO 'OPERATOR' BY LOGON3
56 00008		NTCBID	DS	CL8	BULKIO TASK ID
56 00010		NTCSWQ	DS	CL8	SWQ KEY
		*			THIS IS INITIALIZED IN THE FOLLOWING SUB
		*			FIELDS BY LOGON3
	56 00010		ORG	NTCSWQ	
56 00010		NTCSW1	DS	H	H'0' TASK
56 00012		NTCSW2	DS	C	C'0' JOB CATEGORY
56 00013		NTCSW3	DS	C	C'0' NOT USED
56 00014		NTCSW4	DS	C	C'1' CONVERSATIONAL
	00000001	NTCCOV	EQU	X'1'	
56 00015		NTCSW5	DS	C	C'0' PRIORITY
56 00016		NTCSW6	DS	H	H'0' SEQUENCE NUMBER
		*			* SEE ALSO CHASWQ FOR FURTHER DESCRIPTION.
56 00018		NTCNAM	DS	CL8	NAME OF CURRENT
		*			PROGRAM...SET BY CAE
		*			...SET BY LOGON2
56 00020		NTCDNO	DS	F	DEFAULT NUMBER...SET TO 0
		*			BY LOGON2
		*			INCREMENTED FOR EACH
		*			DEFAULT COMMAND
		*			*THIS COUNTER CAN BE INTERROGATED TO SEE IF A
		*			*DEFAULT HAS OCCURRED
		*			SINCE THE LAST INQUIRY.
56 00024		NTCTID	DS	H	TASK ID. SET BY LOGON2 FROM
		*			MCB
56 00026		NTCCPI	DS	XL1	CSECT PACKING INDICATOR
		*			* THE CR OF THE FOLLOWING CODES INDICATES PACKING
		*			X'01'='PRIVATE STORAGE KEY A
		*			X'02'='PRIVATE STORAGE KEY B
		*			X'04'='PRIVATE STORAGE KEY C
		*			X'08'='PUBLIC STORAGE KEY A
		*			X'10'='PUBLIC STORAGE KEY B
		*			X'20'='PUBLIC STORAGE KEY C
56 00028			DS	0F	
	56 00028	NTCPCT	EQU	*	PROFILE CHARACTER AND
		*			SWITCH TABLE
	56 00042		ORG	NTCPCT+X'1A'	N366
56 00042		NTCAIC	DS	CL1	ATTENTION INDICATOR
		*			CHARACTER
		*			SET TO ' ' BY LOGON2.
56 00043		NTCVSS	DS	XL1	VSS IN OPERATION SWITCH.
		*			SET TO 0 BY LOGON3.
56 00044		NTCMTU	DS	XL1	MULTIPLE TASK USER FLAG
		*			...SET AND USED BY
		*			RESOURCE CONTROL
56 00045		NTCSUE	DS	XL1	SHARED USER EXTENDING FLAG
		*			...SET AND USED BY
		*			RESOURCE CONTROL
56 00048		NTCTMR	DS	A	TASK MONITOR REG 13 SAVE
		*			N369.2
	0000004C	NTCLEN	EQU	*-CHANTC	LENGTH OF CHANTC TABLE

Operator's Device Path Table (CHAODP)

The Operator's Device Path Table (ODP) contains one entry for each path to the operator's device(s). ODP entries are contiguous in core storage and aligned on word boundaries.

CHAODP Storage map

DEC	HEX			
0	0	ODPLOCK	UNNAMED	ODPATH

Fields in CHAODP -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ODPLOCK	0002	0002	ODPATH			

Alphabetical list of fields in CHAODP

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ODPATH	0002	0002	ODPLOCK	0000	0000			

Assembler listing of CHAODP

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	57 00000	CHAODP	DSECT		
57 00000			DS	OF	
57 00000		ODPLOCK	DS	C	LOCK BYTE
57 00001			DS	C	SPARE
57 00002		ODPATH	DS	H	PATH ADDRESS
	00000004	ODPSIZE	EQU	*-ODPLOCK	SIZE OF TABLE ENTRY



I/O Outboard Error Record (CHAOER)

The I/O Outboard Error Record (OER) specifies a record format containing statistical data on outboard errors. In the event of a solid outboard error on a task or paging I/O device, or SDR bucket overflow, an I/O outboard error record is constructed and stored on drum.

Prior to the creation and storage of an OER, the required information will be temporarily stored in the I/O Statistical Data Table for task I/O devices, or it will be stored in the Direct Access Paging Statistical Data Record for paging I/O devices. The OER contains edited data.

The OER occupies from 104 to 176 bytes of virtual and core storage, aligned on doubleword boundaries.

Note 1. The retry threshold depends upon the type of the error condition and device. Thus, each byte of the OERRTH field is assigned to a specific error condition as its retry threshold bytes device dependent.

Note 2. The SDR save areas contain 4-bit frequency counters for each bit of the sense data. An SDR area is incremented by 1 each time its associated sense bit is 1 in the summary sense data on a VMSDR or RCSDR call.

CHAOER Storage map

DEC	HEX	Field Name
0	0	UNNAMED   OERRL   OERDVC   OERTYP   OERDVT
8	8	OERSDA   OERALT   OERCS   OERCNT
16	10	OERLSA
24	18	OERLP   OEREIC   OERRET   OERKEY   OERFCC
32	20	OERADD
40	28	OERTM2
48	30	OERTM1
56	38	OERSDR
88	58	OERSNS
96	60	OERVID   OERNCC
104	68	OERCCW

Fields in CHAOER -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0002	0002	OERRL	0016	0010	OERLSA	0032	0020	OERADD
0004	0004	OERDVC	0024	0018	OERLP	0040	0028	OERTM2
0005	0005	OERTYP	0026	001A	OEREIC	0048	0030	OERTM1
0006	0006	OERDVT	0028	001C	OERRET	0056	0038	OERSDR
0008	0008	OERSDA	0030	001E	OERKEY	0088	0058	OERSNS
0010	000A	OERALT	0031	001F	OERFCC	0096	0060	OERVID
0012	000C	OERCS	0032	0020	OERSID	(EQU) 0102	0066	OERNCC
0014	000E	OERCNT	0032	0020	OERHMA	(EQU) 0104	0068	OERCCW

Alphabetical list of fields in CHAOER

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
OERADD	0032	0020	OERFCC	0031	001F	OERSDA	0008	0008
OERALT	0010	000A	OERHMA	0032	0020 (EQU)	OERSDR	0056	0038
OERCCW	0104	0068	OERKEY	0030	001E	OERSID	0032	0020 (EQU)
OERCNT	0014	000E	OERLP	0024	0018	OERSNS	0088	0058
OERCS	0012	000C	OERLSA	0016	0010	OERTM1	0048	0030
OERDVC	0004	0004	OERNCC	0102	0066	OERTM2	0040	0028
OERDVT	0006	0006	OERRET	0028	001C	OERTYP	0005	0005
OEREIC	0026	001A	OERRL	0002	0002	OERVID	0096	0060

Assembler listing of CHAOER

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	58 00000	CHAOER	DSECT		
		*	I/O	OUTBOARD	ERROR RECORD
58 00000			DS	0D	
58 00000			DS	H	SPARE
58 00002		OERRL	DS	H	RECORD LENGTH (96 TO 184 BYTES)
		*			
58 00004		OERDVC	DS	XL1	DEVICE CLASS CODE
58 00005		OERTYP	DS	XL1	RECORD TYPE
58 00006		OERDVT	DS	H	DEVIVE TYPE CODE
58 00008		OERSDA	DS	XL2	SYMBOLIC DEVICE ADDRESS
58 0000A		OERALT	DS	XL2	ALT PATH IF DRUM; OTHERWISE UNUSED
		*			
58 0000C		OERCS	DS	H	CSW STATUS BITS
58 0000E		OERCNT	DS	H	CSW BYTE COUNT
58 00010		OERLSA	DS	XL8	LAST SEEK ADDRESS
58 00018		OERLP	DS	XL2	PATH LAST USED (ACTUAL I/O ADDRESS)
		*			
58 0001A		OEREIC	DS	XL2	TOTAL ERROR COUNT
58 0001C		OERRET	DS	XL2	TOTAL RETRY COUNT
58 0001E		OERKEY	DS	XL1	CSW KEY
58 0001F		OERFCC	DS	XL1	POINTER TO FAILING CCW
58 00020		OERADD	DS	2F	HOME ADDRESS OR RJE STATION ID
		*			
	58 00020	OERHMA	EQU	OERADD	HOME ADDRESS
	58 00020	OERSID	EQU	OERADD	RJE STATION ID
58 00028		OERTM2	DS	2F	DATE AND TIME OF RECORDING (LAST ERROR)
		*			
58 00030		OERTM1	DS	2F	DATE AND TIME OF RECORDING (FIRST ERROR)
		*			
58 00038		OERSDR	DS	8XL4	SDR BUCKETS (64 1/2 BYTE)
58 00058		OERSNS	DS	2F	LAST SENSE DATA
58 00060		OERVID	DS	3H	VOLUME ID
58 00066		OERNCC	DS	H	NO. OF CCW'S IN CCW LIST
58 00068			DS	0D	15926
58 00068		OERCCW	DS	10XL8	CCW LIST (MAXIMUM OF 10 CCW'S)
		*			

Option O UFLOW Macro Table (CHAOFL)

CHAOFL defines the entries set for the UFLOW macro, option O. Option O sets the user limit, which must be set to a non-negative value less than the maximum value imposed by the MTT administrator.

The list in the buffer is ended with eight bytes of X'FF'. CHAOFL defines the same entries upon return from the UFLOW macro. If an invalid OFLNAME or OFLRAN field is given, OFLLMT and OFLMAX are set to X'FFFF'. If an invalid OFLLMT is given, OFLLMT and OFLMAX are set to C'\*\*\*' and the limit OFLMAX is placed in OFLBLK.

CHAOFL Storage map

DEC	HEX	Field
0	0	OFLNAME
8	8	OFLRAN      OFLLMT      OFLMAX      OFLBLK

Fields in CHAOFL -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	OFLNAME	0010	000A	OFLMT	0014	000E	OFLBLK
0008	0008	OFLRAN	0012	000C	OFLMAX			

Alphabetical list of fields in CHAOFL

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
OFLBLK	0014	000E	OFLMAX	0012	000C	OFLRAN	0008	0008
OFLMT	0010	000A	OFLNAME	0000	0000			

Assembler listing of CHAOFL

```

LOCATION INSTRUCTION SOURCE INST OPER COMMENT
59 00000 CHAOFL DSECT NSRB 386
*****
* CHAOFL COVERS THE ENTRIES SET FOR THE UFLOW MACRO, OPTION O. *
* THIS OPTION SETS THE USER LIMIT, WHICH MUST BE SET TO A NON-NEG *
* VALUE LESS THAN THE MAX IMPOSED BY THE MTT ADMINISTRATOR. *
* THE LIST IN THE BUFFER IS ENDED WITH 8 BYTES OF X'FF'. *
* IT ALSO COVERS THE SAME ENTRIES UPON RETURN FROM UFLOW. *
* WHEN AN INVALID OFLNAME OR OFLRAN FIELD WAS GIVEN, OFLLMT AND *
* OFLMAX ARE SET TO X'FFFF' *
* WHEN AN INVALID OFLLMT IS GIVEN, OFLLMT AND OFLMAX ARE SET TO *
* C'***' AND THE LIMIT OFLMAX IS PLACED IN OFLBLK. *
*****
59 00000 OFLNAME DS CL8 APPLICATION NAME
59 00008 OFLRAN DS H RELATIVE APPLICATION NUMBER
59 0000A OFLLMT DS H MTT USER LIMIT
59 0000C OFLMAX DS H MAXIMUM NUMBER OF MTT USERS
59 0000E OFLBLK DS H BLOCK SIZE

```

Operator Header (CHAOPH)

The Operator Header (OPH) describes the header required on all messages sent to the system operators.

The OPH is preceded by the MCB header in the 32-byte preface attached to system operator messages.

CHAOPH Storage map

DEC	HEX	
0	0	OPHUID
8	8	OPHMFL   OPHDES   OPHCOD   OPHRCD   OPHMNO   OPHTID

Fields in CHAOPH -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD		
0000	0000	OPHUID	0008	0008	OPHRC	(EQU)	0010	000A	OPHCOD	
0008	0008	OPHF2	(EQU)	0008	0008	OPHRR	(EQU)	0011	000B	OPHRCD
0008	0008	OPHMO	(EQU)	0C08	0008	OPHTM	(EQU)	0012	000C	OPHMNO
0008	0008	OPHF1	(EQU)	0008	0008	OPHMFL		0014	000E	OPHTID
0008	0008	OPHHP	(EQU)	0009	0009	OPHWTL	(EQU)			
0008	0008	OPHVT	(EQU)	0009	0009	OPHDES				

Alphabetical list of fields in CHAOPH

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
OPHCOD	0010	000A	OPHMNO	0012	000C	OPHTM	0008	0008 (EQU)
OPHDES	0009	0009	OPHMO	0008	0008 (EQU)	OPHUID	0000	0000
OPHF1	0008	0008 (EQU)	OPHRC	0008	0008 (EQU)	OPHVT	0008	0008 (EQU)
OPHF2	0008	0008 (EQU)	OPHRCD	0011	000B	OPHWTL	0009	0009 (EQU)
OPHHP	0008	0008 (EQU)	OPHRR	0008	0008 (EQU)			
OPHMFL	0008	0008	OPHTID	0014	000E			

Assembler listing of CHAOPH

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	5A 00000	CHAOPH	DSECT		OPERATOR HEADER
5A 00000		OPHUID	DS	0D	
5A 00000		*	DS	CL8	USERID OF MESSAGE
5A 00008		OPHMFL	DS	XL1	ORIGINATOR
	5A 00008	OPHTM	EQU	OPHMFL	MESSAGE FLAGS
		*			MUST BE ON, INDICATES TEXT
		*			MES
		*			SAGE
	00000080	OPHTMM	EQU	X'80'	
	5A 00008	OPHRR	EQU	OPHMFL	REPLY REQUIRED
	00000040	OPHRRM	EQU	X'40'	
	5A 00008	OPHRC	EQU	OPHMFL	REPLY CHECKING REQUIRED
	00000020	OPHRCM	EQU	X'20'	
	5A 00008	OPHVT	EQU	OPHMFL	VARIABLE TEXT IN REPLY
	00000010	OPHVTM	EQU	X'10'	
	5A 00008	OPHHP	EQU	OPHMFL	HIGH PRIORITY MESSAGE
	00000008	OPHHPM	EQU	X'08'	
	5A 00008	OPHF1	EQU	OPHMFL	MUST BE OFF
	00000004	OPHF1M	EQU	X'04'	
	5A 00008	OPHMO	EQU	OPHMFL	REPLY TO BE PROCESSED IN
		*			MAIN
	00000002	OPHMOM	EQU	X'02'	OPERATOR TASK
	5A 00008	OPHF2	EQU	OPHMFL	MUST BE OFF
	00000001	OPHF2M	EQU	X'01'	
5A 00009		OPHDES	DS	XL1	DESTINATION CODE
	5A 00009	OPHWTL	EQU	OPHDES	MESSAGE TO LOG ONLY FLAG
	00000080	OPHWTLM	EQU	X'80'	MESSAGE TO LOG ONLY MASK
	00000000	OPHDEM	EQU	X'00'	
	00000001	OPHDE1	EQU	X'01'	
	00000002	OPHDE2	EQU	X'02'	
	00000004	OPHDE3	EQU	X'04'	

(Listing of CHAOPH continued on page 287)

(Listing of CHAOPH continued from page 286)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
5A 0000A		OPHCOD	DS	XL1	IF OPHMC IS OFF, THIS BYTE CONTAINS A RETURN IDENTIFIER SPECIFIED BY THE SENDER. THE REPLY TO HIS MESSAGE WILL BE RETURNED TO HIM WITH THIS CODE. . IF OPHMC IS ON, THIS BYTE CONTAINS A CODE. IT IDENTIFIES THE ROUTINE IN THE MAIN OPERATOR TASK THAT IS TO PROCESS THE REPLY. 0 = MAIN OPERATOR HOUSEKEEPING ROUTINE (REMAINING CODES UNSPECIFIED)
5A 0000B		OPHRCD	DS	XL1	REPLY CODE - 0 = DO NOT CHECK REPLY 1-255 = COMPARE THE ACTUAL REPLY TO THE 7 BYTE REPLIES ASSOCIATED WITH THIS NUMBER IN THE REPLY CHECKING TABLE (2.4.138)
5A 0000C		OPHMNO	DS	XL2	IF THE MCB IS FROM THE REPLY COMMAND ROUTINE THIS FIELD CONTAINS THE NUMBER OF THE MESSAGE BEING REPLIED TO. OTHERWISE THE FIELD IS UNUSED.
5A 0000E		OPHTID	DS	XL2	IF THE MCB IS FROM THE REPLY COMMAND ROUTINE THIS FIELD CONTAINS THE TASKID OF THE TASK RECEIVING A REPLY. OTHERWISE THE FIELD IS UNUSED.

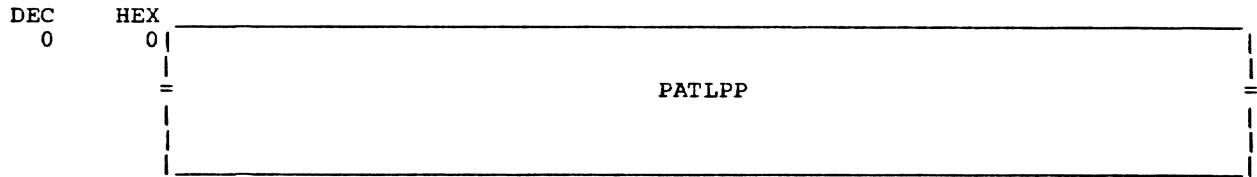
Page Allocation Table (CHAPAT)

The Page Allocation Table (CHAPAT) contains entries for each page on a volume; it occupies one page for a 2311, and two pages for a 2314. Each PAT entry is one byte long, and contains information indicating page type (DSCB, data, error) and availability. The last 384 bytes on the PAT page contain 96 relocation entries and one relocation control entry. The relocation entries, each one word in length, are in reverse order (from byte 4094 to byte 3708) on the page; they are structured such that the first halfword of each entry contains the error page number, and the second halfword contains the new page number. The fullword relocation control entry contains a halfword count of relocation entries, and a halfword of X'FFFF' if any relocation entries exist.

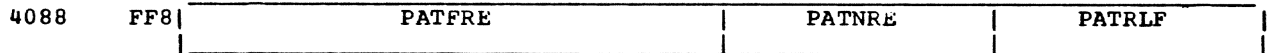
The one-byte PAT entries may have the following bit settings:

- X'00' Page available
- X'80' DSCB page with less than 12 slots used
- X'82' DSCB page with 12 to 15 slots used
- X'83' DSCB page with all slots used
- X'01' Data page
- X'41' Data page not yet in a DSCB
- X'C0' Error page
- X'7F' Page Allocation Table page

CHAPAT Storage map



ORG PATLPP+4088



Fields in CHAPAT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	PATLPP	4088	0FF8	PATFRE	4092	0FFC	PATNRE
						4094	0FFE	PATRLF

Alphabetical list of fields in CHAPAT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
PATFRE	4088	0FF8	PATLPP	0000	0000	PATNRE	4092	0FFC
						PATRLF	4094	0FFE

Assembler listing of CHAPAT

```

LOCATION INSTRUCTION SOURCE INST OPER COMMENT
      5B 00000 CHAPAT DSECT DSECT FOR PAGE ALLOCATION
      *
      *
      * THE FIRST SECTION OF THE PAT DESCRIBES THE STATUS OF EACH PAGE ON *
      * THE DEVICE AND CONSISTS OF ONE-BYTE ENTRIES DEFINED AS FOLLOWS: *
      * DUE TO OVERLAPPING BIT DEFINITIONS IN THE PATLPP FIELD THE USER MUST*
      * EXERCISE CAUTION WHEN USING THE EQU LABELS IN THIS FIELD FOR *
      * IMMEDIATE OPERATIONS *
      5B 00000 PATLPP DS 4096XL1 PAGE STATUS ENTRY
      *
      00000000 PATPA EQU X'00' PAGE AVAILABLE
      *
      0000000F PATD4 EQU X'0F' DATA PAGE (LAST FOUR BITS=
      *
      * NUMBER OF USERS *
      0000004F PATD5 EQU X'4F' DATA PAGE (NOT YET INCLUDED
(Listing of CHAPAT continued on page 289)

```

(Listing of CHAPAT continued from page 288)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
*		*			IN DSCB)*
				LAST FOUR	BITS=NUMBER OF USERS
0000007F	PATPT	EQU	X'7F'		PAT TABLE ENTRY
		*			*
00000080	PATD1	EQU	X'80'		DSCB PAGE (LESS THAN 12
		*			SLOTS USED) *
00000082	PATD2	EQU	X'82'		DSCB PAGE (12 TO 15 SLOTS
		*			USED) *
00000083	PATD3	EQU	X'83'		DSCB PAGE (ALL SLOTS USED)
		*			*
000000C0	PATER	EQU	X'C0'		ERROR PAGE
* THE NUMBER OF PAGE STATUS ENTRIES IS DEVICE DEPENDENT *					
* AS FOLLOWS: *					
			2311 =	1624	
			2314 =	6496	
* THE 2311 USES ONLY 1 PAGE TO CONTAIN THE COMPLETE *					
* PAT. THE 2314 USES 2 PAGES *					
*****					
* THE PAGE RELOCATION ENTRIES RESIDE AT THE END OF THE LAST PAT PAGE. *					
* RELOCATION ENTRIES IN THE FOLLOWING FORMAT WILL BEGIN AT PATFRE AND *					
* PROCEED TOWARD THE LAST ALLOWABLE ENTRY AT PATREL. *					
				BITS 0 - 15	PAGE NO. OF ERROR PAGE
				16 - 31	NEW PAGE NUMBER
* TO ADDRESS RELOCATION ENTRIES - SET USING TO *					
* ADDRESS=PAT ORIGIN + 4096*(NUM PAT PAGES-1) *					
	5B 00E7C		ORG	PATLPP+3708	*
5B 00E7C	PATREL	DS	0F		LAST ALLOWABLE RELOCATION
	*				ENTRY IN LAST PAT PAGE *
	5B 00FF8		ORG	PATLPP+4088	*
5B 00FF8	PATFRE	DS	F		FIRST RELOCATION ENTRY
	*				*
5B 00FFC	PATNRE	DS	H		NO. OF RELOCATION ENTRIES
	*				*
5B 00FFE	PATRLF	DS	H		FFFF = RELOCATION ENTRIES
	*				EXIST *
*****					

Page Control Block (CHAPCB)

The Page Control Block (PCB) controls the movement of virtual storage pages between core, auxiliary, and external storage. This movement of virtual storage pages consists of: reading pages into core storage from auxiliary or external storage; writing pages out of core storage to auxiliary or external storage; and posting to the program's page tables.

A complete PCB table consists of one or more 64-byte data blocks. The first PCB table block is located by the GQE; subsequent PCB table blocks are located by the previous table block, through the chain address (last 4 bytes in each block).

Sixty-four bytes of core storage, aligned on word boundaries, are allocated to each PCB.

CHAPCB Storage map

DEC	HEX						
0	0	PCBIA		PCBDEV		PCBHN	PCBSN
8	8	PCBVA		PCBF1	PCBF2	PCBF3	PCBF4
16	10	PCBER					
				PCBE2			
40	28						
		PCBE3					
56	38	PCBCA					

Fields in CHAPCB -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	PCBIA	0013	000D	PCBVM	(EQU)	0014	000E	PCBX2 (EQU)
0000	0000	PCBE1	0013	000D	PCBAD	(EQU)	0014	000E	PCBX1 (EQU)
0000	0000	PCBBEG	0013	000D	PCBXP	(EQU)	0014	000E	PCBF3
0004	0004	PCBDEV	0013	000D	PCBCR	(EQU)	0015	000F	PCBRC (EQU)
0004	0004	PCBXA	0013	000D	PCBDP	(EQU)	0015	000F	PCBSA (EQU)
0006	0006	PCBHN	0013	000D	PCBRW	(EQU)	0015	000F	PCBPP (EQU)
0007	0007	PCBSN	0013	000D	PCBWC	(EQU)	0015	000F	PCBVV (EQU)
0008	0008	PCBVA	0013	000D	PCBF2		0015	000F	PCBSP (EQU)
0012	000C	PCBPC (EQU)	0014	000E	PCBMS	(EQU)	0015	000F	PCBTS (EQU)
0012	000C	PCBNS (EQU)	0014	000E	PCBDS	(EQU)	0015	000F	PCBF4
0012	000C	PCBVX (EQU)	0014	000E	PCBRI	(EQU)	0016	0010	PCBER
0012	000C	PCBBY (EQU)	0014	000E	PCBIC	(EQU)	0020	0014	PCBE2
0012	000C	PCBVS (EQU)	0014	000E	PCBTW	(EQU)	0040	0028	PCBE3
0012	000C	PCBF1	0014	000E	PCBX4	(EQU)	0060	003C	PCBCA
0013	000D	PCBXT (EQU)	0014	000E	PCBX3	(EQU)			

Alphabetical list of fields in CHAPCB

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
PCBAD	0013	000D (EQU)	PCBF4	0015	000F	PCBTW	0014	000E (EQU)
PCBBEG	0000	0000	PCBHN	0006	0006	PCBVA	0008	0008
PCBBY	0012	000C (EQU)	PCBIA	0000	0000	PCBVM	0013	000D (EQU)
PCBCA	0060	003C	PCBIC	0014	000E (EQU)	PCBVS	0012	000C (EQU)
PCBCR	0013	000D (EQU)	PCBMS	0014	000E (EQU)	PCBVV	0015	000F (EQU)
PCBDEV	0004	0004	PCBNS	0012	000C (EQU)	PCBVX	0012	000C (EQU)
PCBDP	0013	000D (EQU)	PCBPC	0012	000C (EQU)	PCBWC	0013	000D (EQU)
PCBDS	0014	000E (EQU)	PCBPP	0015	000F (EQU)	PCBXA	0004	0004
PCBER	0016	0010	PCBRC	0015	000F (EQU)	PCBXP	0013	000D (EQU)
PCBE1	0000	0000	PCBRI	0014	000E (EQU)	PCBXT	0013	000D (EQU)
PCBE2	0020	0014	PCBRW	0013	000D (EQU)	PCBX1	0014	000E (EQU)
PCBE3	0040	0028	PCBSA	0015	000F (EQU)	PCBX2	0014	000E (EQU)
PCBF1	0012	000C	PCBSN	0007	0007	PCBX3	0014	000E (EQU)
PCBF2	0013	000D	PCBSP	0015	000F (EQU)	PCBX4	0014	000E (EQU)
PCBF3	0014	000E	PCBTS	0015	000F (EQU)			



Assembler listing of CHAPCB

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	5C 00000	CHAPCB	DSECT		PAGE CONTROL BLOCK TABLE AND ENTRY
		*			
5C 00000		PCBBEG	DS	0F	ALIGN ON A WORD BOUNDARY
5C 00000		PCBE1	DS	0CL20	PCB ENTRY (1)
5C 00000		PCBIA	DS	F	INTERNAL ADDRESS OF PAGE
5C 00004		PCBXA	DS	0F	EXTERNAL ADDRESS OF PAGE
5C 00004		PCBDEV	DS	H	DEVICE
5C 00006		PCBHN	DS	C	HEAD NUMBER
5C 00007		PCBSN	DS	C	SLOT NUMBER
5C 00008		PCBVA	DS	F	STET
		*			* WHEN PCBX1 FLAG INDICATES VIRTUAL MEMORY PAGE,
		*			* PCBVA WILL CONTAIN VIRTUAL MEMORY ADDRESS.
		*			* THE LOW ORDER 12 BITS WILL CONTAIN IDENTIFICATION
		*			* WITHIN TYPE FOR AN XTSI PAGE (PTP, AST, ETC) AND
		*			* HIGH
		*			* ORDER 20 BITS WILL BE ZERO, WHEN PCBF3
		*			* FLAG INDICATES XTSI TYPE OF PAGE (PCBX2, PCBX3 ON
		*			* SINGLY
		*			OR IN COMBINATION)
5C 0000C		PCBF1	DS	XL1	PCB FLAGS
	5C 0000C	PCBVS	EQU	PCBF1	VAM PAGEOUT SEQUENCE NUMBER
	000000E0	PCBVSM	EQU	X'E0'	
	5C 0000C	PCBBY	EQU	PCBF1	BYPASS FLAG
	00000010	PCBBYM	EQU	X'10'	
	5C 0000C	PCBVX	EQU	PCBF1	VIRT MEMORY OR XTSI PAGE
		*			FLAGS
	0000000C	PCBVXM	EQU	X'0C'	
	5C 0000C	PCBNS	EQU	PCBF1	NULL STATE FLAG
	00000002	PCBNSM	EQU	X'02'	
	5C 0000C	PCBPC	EQU	PCBF1	PCB PROCESSED-CHANNEL
		*			PROGRAM BUILT
	00000001	PCBPCM	EQU	X'01'	
5C 0000D		PCBF2	DS	XL1	PCB FLAGS
	5C 0000D	PCBWC	EQU	PCBF2	WRITE CHECK OPERATION FLAG
	00000080	PCBWC	EQU	X'80'	
	5C 0000D	PCBRW	EQU	PCBF2	READ/WRITE FLAG
	00000040	PCBRWM	EQU	X'40'	
	5C 0000D	PCBDP	EQU	PCBF2	DEVICE PREFERENCE FLAG
	00000020	PCBDPM	EQU	X'20'	
	5C 0000D	PCBCR	EQU	PCBF2	USER CORE RELEASE FLAG
	00000010	PCBCRM	EQU	X'10'	
	5C 0000D	PCBXP	EQU	PCBF2	XTSI OR PSW PAGE FLAG
	00000008	PCBXP	EQU	X'08'	
	5C 0000D	PCBAD	EQU	PCBF2	PREFERENCE FOR AUXILIARY
		*			DISK FLAG
	00000004	PCBADM	EQU	X'04'	
	5C 0000D	PCBVM	EQU	PCBF2	VIRTUAL MEMORY PAGE
	00000002	PCBVMM	EQU	X'02'	
	5C 0000D	PCBXT	EQU	PCBF2	XTSI PAGE
	00000001	PCBXTM	EQU	X'01'	
5C 0000E		PCBF3	DS	XL1	PCB FLAGS
	5C 0000E	PCBX1	EQU	PCBF3	TYPE 1-V.M. PAGE
	00000000	PCBX1M	EQU	X'00'	
	5C 0000E	PCBX2	EQU	PCBF3	TYPE 2 - PAGE TABLE PAGE
		*			(PTP)
	00000040	PCBX2M	EQU	X'40'	
	5C 0000E	PCBX3	EQU	PCBF3	TYPE 3 - AUXSEGMENT
		*			PAGE(AST)
	00000080	PCBX3M	EQU	X'80'	
	5C 0000E	PCBX4	EQU	PCBF3	TYPE 4-SEGMENT TABLE PG
		*			(ST) OR 1ST XTSI PAGE
	000000C0	PCBX4M	EQU	X'C0'	
	5C 0000E	PCBTW	EQU	PCBF3	TWAIT PAGING OPERATION
	00000020	PCBTWM	EQU	X'20'	
	5C 0000E	PCBIC	EQU	PCBF3	IOCAL PAGING OPERATION
	00000010	PCBICM	EQU	X'10'	
	5C 0000E	PCBRI	EQU	PCBF3	RELOCATION PAGING OPERATION
	00000008	PCBRIM	EQU	X'08'	

(Listing of CHAPCB continued on page 292)

(Listing of CHAPCB continued from page 291)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	5C 0000E	PCBDS	EQU	PCBF3	DISPATCHER PAGING OPERATION
	00000002	PCBDMS	EQU	X'02'	
	5C 0000E	PCBMS	EQU	PCBF3	MONITOR SHARING PAGING OPERATION
		*			
5C 0000F	00000001	PCBMSM	EQU	X'01'	
		PCBF4	DS	XL1	PCB FLAGS
	5C 0000F	PCBTS	EQU	PCBF4	TSEND PAGING OPERATION
	00000080	PCBTSM	EQU	X'80'	
	5C 0000F	PCBSP	EQU	PCBF4	SUPPRESS POSTING FOR THIS PAGING OPERATION
		*			
	00000040	PCBSPM	EQU	X'40'	
	5C 0000F	PCBVV	EQU	PCBF4	PAGING REQUESTED BY VAM
	00000020	PCBVVM	EQU	X'20'	
	5C 0000F	PCBPP	EQU	PCBF4	PAGE POSTING READ
	00000010	PCBPPM	EQU	X'10'	
	5C 0000F	PCBSA	EQU	PCBF4	SUPPRESS ALLOCATION
	00000008	PCBSAM	EQU	X'08'	
	5C 0000F	PCBRC	EQU	PCBF4	STOLEN PAGE RECLAIMED FLAG (MT/T)
		*			
	00000004	PCBRM	EQU	X'04'	STOLEN PAGE RECLAIMED MASK (MT/T)
		*			
5C 00010		PCBER	DS	F	TWAIT MIGRATION XPT POINTER SAVE AREA
		*			
5C 00014		PCBE2	DS	CL20	PCB ENTRY (2)
5C 00028		PCBE3	DS	CL20	PCB ENTRY (3)
5C 0003C		PCBCA	DS	F	PCB CHAIN ADDRESS
	00000040	PCBTSZ	EQU	64	TABLE SIZE
	00000014	PCBESZ	EQU	20	ENTRY SIZE
	00000003	PCBENM	EQU	PCBTSZ/PCBESZ	NUMBER OF ENTRIES

Task Monitor Push Down Save Area (CHAPDS)

The Task Monitor Push Down Save Area (PDS) maintains program and machine status from the last task interruption, and a save area used by the interruption handling routine.

The 256-byte PDS resides in privileged or nonprivileged virtual storage depending on the privilege level of the dispatched routine.

CHAPDS Storage map

DEC	HEX			
0	0	PDSID	UNNAMED	PDSFPR
8	8	PDSFPF		PDSPIC
16	10	PDSSIZ		PDSR13
24	18	UNNAMED		PDSR14
32	20	PDSR15		PDSR0
40	28	PDSR1		
		PDSR2		
88	58	PDSPSF	UNNAMED	UNNAMED
96	60	PDSOP		
104	68	PDSF0		
112	70	PDSF2		
120	78	PDSF4		
128	80	PDSF6		
136	88	PDSFLG		PDSPP3
144	90	PDSSAV		

Fields in CHAPDS -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	PDSID	0036	0024	PDSR0	0112	0070	PDSF2	
0004	0004	PDSFPR	0040	0028	PDSR1	0120	0078	PDSF4	
0008	0008	PDSFPF	0044	002C	PDSR2	0128	0080	PDSF6	
0012	000C	PDSPIC	0056	0038	PDSR5	(EQU)	0136	0088	PDSFLG
0016	0010	PDSSIZ	0088	0058	PDSNPIR	(EQU)	0140	008C	PDSPP3
0020	0014	PDSR13	0088	0058	PDSPSF	0144	0090	PDSSAV	
0028	001C	PDSR14	0096	0060	PDSOP				
0032	0020	PDSR15	0104	0068	PDSF0				

Alphabetical list of fields in CHAPDS

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
PDSFLG	0136	0088	PDSOP	0096	0060	PDSR14	0028	001C
PDSFPR	0004	0004	PDSPFP	0008	0008	PDSR15	0032	0020
PDSF0	0104	0068	PDSPIC	0012	000C	PDSR2	0044	002C
PDSF2	0112	0070	PDSPP3	0140	008C	PDSR5	0056	0038 (EQU)
PDSF4	0120	0078	PDSPSF	0088	0058	PDSSAV	0144	0090
PDSF6	0128	0080	PDSR0	0036	0024	PDSSIZ	0016	0010
PDSID	0000	0000	PDSR1	0040	0028			
PDSNPIR	0088	0058 (EQU)	PDSR13	0020	0014			

Assembler listing of CHAPDS

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	5E 00000	CHAPDS		DSECT	
		* TASK MONITOR		PUSH DOWN	SAVE AREA
5E 00000			DS	0D	
5E 00000		PDSID	DS	CL2	ID FIELD
5E 00002			DS	CL2	UNUSED
5E 00004		PDSFPR	DS	F	FORWARD PTR TO NEXT ENTRY
5E 00008		PDSPFP	DS	F	FORWARD PAGE PTR - 1ST
		*			ENTRY ONLY
5E 0000C		PDSPIC	DS	F	PTR TO PDSSIZ
5E 00010		PDSSIZ	DS	F	SIZE OF SAVE AREA
5E 00014		PDSR13	DS	F	SAVE FOR REG 13
5E 00018			DS	F	UNUSED
5E 0001C		PDSR14	DS	F	SAVE FOR REG 14
5E 00020		PDSR15	DS	F	SAVE FOR REG 15
5E 00024		PDSR0	DS	F	SAVE FOR REG 0
5E 00028		PDSR1	DS	F	SAVE FOR REG 1
5E 0002C		PDSR2	DS	11F	SAVE FOR REGS 2 TO 12
	5E 00038	PDSR5	EQU	PDSR2+12	
5E 00058		PDSPSF	DS	XL1	FLAGS SAVED IN LONG SAVE
		*			AREA
	5E 00058	PDSNPIR	EQU	PDSPSF	NON-PRIV INTR FLAG
	00000080	PDSNPIRM	EQU	X'80'	RECOVERY=1 NO RECOVERY=0
5E 00059			DS	XL3	UNUSED
5E 0005C			DS	1F	UNUSED
5E 00060		PDSOP	DS	D	OLD VPSW
5E 00068		PDSF0	DS	D	FP REG 0
5E 00070		PDSF2	DS	D	FP REG 2
5E 00078		PDSF4	DS	D	FP REG 4
5E 00080		PDSF6	DS	D	FP REG 6
5E 00088		PDSFLG	DS	F	PUSHDOWN FLAG
5E 0008C		PDSPP3	DS	F	PUSHDOWN PTR FROM ISA
5E 00090		PDSSAV	DS	28F	SAVE AREA FOR USER

Paging-Error Control Block (CHAPEC)

The Paging-Error Control Block (PECB) is the common information storage area for the paging error recovery subroutines.

The Paging I/O Error Recovery Control subroutine (CEAAM) creates a PECB upon the first entry to CEAAM for a paging operation error. The PECB is chained to either the Drum Interface Control Block (SYSDIC), (for drum paging errors) by a pointer in SYS-PEB, or to the Direct Access Interface Block (DAIB), (for disk paging errors) by a pointer in DIAPEB.

The PECB occupies 192 bytes of core storage-aligned on doubleword boundaries.

CHAPEC Storage map

DEC	HEX	
0	0	PECSAV
64	40	
72	48	PECSPM   PECAPM   PECMCDC   PECMATN   PECMCC   PECMNSTD   PECMEC   UNNAMED
80	50	UNNAMED (CONT)   PECMIR   PECMBOC   PECMDC   UNNAMED   PECMOVRN
88	58	UNNAMED   PECMNSND   PECFL2   UNNAMED   PECFL0   PECFL1   PECPSD
96	60	PECCCW
168	A8	
176	B0	PECSAR
184	B8	PECNCW   ORG OVERLAP   PECRCW   ORG OVERLAP

ORG PECAPM+1

74	4A	PECKCDC   PECKATN   PECKCC   PECKNSTD   PECKEC   PECKNRF1
80	50	PECKNRF2   PECKNRF3   PECKSC   PECKIR   PECKBOC   PECKDC1   PECKDC2   PECKOVRN
88	58	PECKMAM   PECKNSND

ORG PECNCW

184	B8	PECCPS
-----	----	--------

ORG PECRCW

188	BC	PECEPT
-----	----	--------

Fields in CHAPEC -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	PECSAV	0084	0054	PECMBOC	0092	005C	PECFLO
0064	0040	PECSDC	0085	0055	PECKDC1	0093	005D	PECDS (EQU)
0072	0048	PECSPM	0085	0055	PECMDC	0093	005D	PECRHA5 (EQU)
0073	0049	PECAPM	0086	0056	PECKDC2	0093	005D	PECRHA4 (EQU)
0074	004A	PECKCDC	0087	0057	PECKOVRN	0093	005D	PECRHA3 (EQU)
0074	004A	PECMCDC	0087	0057	PECMOVRN	0093	005D	PECRHA2 (EQU)
0075	004B	PECKATN	0088	0058	PECKMAM	0093	005D	PECRHA1 (EQU)
0075	004B	PECMATN	0089	0059	PECKNSND	0093	005D	PECRH (EQU)
0076	004C	PECKCC	0089	0059	PECMNSND	0093	005D	PECAB (EQU)
0076	004C	PECMCC	0090	005A	PECSNS (EQU)	0093	005D	PECRR (EQU)
0077	004D	PECKNSTD	0090	005A	PECREM (EQU)	0093	005D	PECFL1
0077	004D	PECMNSTD	0090	005A	PECIR (EQU)	0094	005E	PECPSD
0078	004E	PECKEC	0090	005A	PECFL2	0096	0060	PECCCW
0078	004E	PECMC	0092	005C	PECDV (EQU)	0168	00A8	PECRHA
0079	004F	PECKNRF1	0092	005C	PECCU (EQU)	0176	00B0	PECSAR
0080	0050	PECKNRF2	0092	005C	PECCH (EQU)	0184	00B8	PECCPS
0081	0051	PECKNRF3	0092	005C	PECSA (EQU)	0184	00B8	PECNCW
0082	0052	PECKSC	0092	005C	PECAR (EQU)	0188	00BC	PECEPT
0083	0053	PECKIR	0092	005C	PECSR (EQU)	0188	00BC	PECRCW
0083	0053	PECMIR	0092	005C	PECOE (EQU)			
0084	0054	PECKBOC	0092	005C	PECRW (EQU)			

Alphabetical list of fields in CHAPEC

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
PECAB	0093	005D (EQU)	PECKIR	0083	0053	PECPSD	0094	005E
PECAPM	0073	0049	PECKMAM	0088	0058	PECRCW	0188	00BC
PECAR	0092	005C (EQU)	PECKNRF1	0079	004F	PECREM	0090	005A (EQU)
PECCCW	0096	0060	PECKNRF2	0080	0050	PECRH	0093	005D (EQU)
PECCH	0092	005C (EQU)	PECKNRF3	0081	0051	PECRHA	0168	00A8
PECCPS	0184	00B8	PECKNSND	0089	0059	PECRHA1	0093	005D (EQU)
PECCU	0092	005C (EQU)	PECKNSTD	0077	004D	PECRHA2	0093	005D (EQU)
PECDS	0093	005D (EQU)	PECKOVRN	0087	0057	PECRHA3	0093	005D (EQU)
PECDV	0092	005C (EQU)	PECKSC	0082	0052	PECRHA4	0093	005D (EQU)
PECEPT	0188	00BC	PECMATN	0075	004B	PECRHA5	0093	005D (EQU)
PECFLO	0092	005C	PECMBOC	0084	0054	PECRR	0093	005D (EQU)
PECFL1	0093	005D	PECMCC	0076	004C	PECRW	0092	005C (EQU)
PECFL2	0090	005A	PECMCDC	0074	004A	PECSA	0092	005C (EQU)
PECIR	0090	005A (EQU)	PECMDC	0085	0055	PECSAR	0176	00B0
PECKATN	0075	004B	PECMC	0078	004E	PECSAV	0000	0000
PECKBOC	0084	0054	PECMIR	0083	0053	PECSDC	0064	0040
PECKCC	0076	004C	PECMNSND	0089	0059	PECSNS	0090	005A (EQU)
PECKCDC	0074	004A	PECMNSTD	0077	004D	PECSPM	0072	0048
PECKDC1	0085	0055	PECMOVRN	0087	0057	PECSR	0092	005C (EQU)
PECKDC2	0086	0056	PECNCW	0184	00B8			
PECKEC	0078	004E	PECOE	0092	005C (EQU)			

Assembler listing of CHAPEC

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	5F 00000	CHAPEC	DSECT		PAGING ERROR CONTROL BLOCK
5F 00000		PECSAV	DS	8D	CEAAM GENERAL REGISTER 0-15
		*			SAVE AREA
5F 00040		PECSDC	DS	XL8	SENSE DATA CELL
5F 00048		PECSPM	DS	X	'SAME PATH RETRY' MASTER
		*			ERROR COUNTER
5F 00049		PECAPM	DS	X	'ALTERNATE PATH RETRY'
		*			MASTER ERROR COUNTER
		*		2301/2820 DRUM	RETRY COUNTERS
5F 0004A		PECMCDC	DS	X	CHANNEL CONTROL CHECK,
		*			N429
		*			INTERFACE CONTROL CHECK OR
		*			N429
		*			CHANNEL DATA CHECK
		*			N429
5F 0004B		PECMATN	DS	X	ATTENTION

(Listing of CHAPEC continued on page 297)

(Listing of CHAPEC continued from page 296)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
5F 0004C		PECMCC	DS	X	CHAINING CHECK
5F 0004D		PECMNSTD	DS	X	NO STATUS DATA PRESENT
5F 0004E		PECMC	DS	X	UNIT CHECK-EQUIPMENT CHECK
5F 0004F			DS	XL4	NOT USED
5F 00053		PECMIR	DS	X	UNIT CHECK-INTERVENTION REQUIRED
5F 00054		PECMBOC	DS	X	UNIT CHECK-BUS OUT CHECK
5F 00055		PECMDC	DS	X	UNIT CHECK-DATA CHECK
5F 00056			DS	X	NOT USED
5F 00057		PECMOVRN	DS	X	UNIT CHECK-OVERRUN
5F 00058			DS	X	RESERVED
5F 00059		*			N429
		PECMNSND	DS	X	NO SENSE DATA AFTER UNIT CHECK
		*			
		*			2311/2841 AND 2314 DISK RETRY COUNTERS
5F 0004A	5F 0004A	PECKCDC	DS	X	CHANNEL CONTROL CHECK, N429
		*			INTERFACE CONTROL CHECK OR N429
		*			CHANNEL DATA CHECK N429
5F 0004B		PECKATN	DS	X	ATTENTION
5F 0004C		PECKCC	DS	X	CHAINING CHECK
5F 0004D		PECKNSTD	DS	X	NO STATUS DATA PRESENT
5F 0004E		PECKEC	DS	X	UNIT CHECK-EQUIPMENT CHECK
5F 0004F		PECKNRF1	DS	X	UNIT CHECK-NO RECORD FOUND (INCT TK)
5F 00050		PECKNRF2	DS	X	UNIT CHECK-NO RECORD FOUND (MAM)
5F 00051		PECKNRF3	DS	X	UNIT CHECK-NO RECORD FOUND (DIFF TK)
5F 00052		PECKSC	DS	X	UNIT CHECK-SEEK CHECK
5F 00053		PECKIR	DS	X	UNIT CHECK-INTERVENTION REQUIRED
5F 00054		PECKBOC	DS	X	UNIT CHECK-BUS OUT CHECK
5F 00055		PECKDC1	DS	X	UNIT CHECK-DATA CHECK
5F 00056		PECKDC2	DS	X	UNIT CHECK-DATA CHECK * 16
5F 00057		PECKOVRN	DS	X	UNIT CHECK-OVERRUN
5F 00058		PECKMAM	DS	X	UNIT CHECK-MISSING ADDRESS MARKER
5F 00059		PECKNSND	DS	X	NO SENSE DATA AFTER UNIT CHECK
		*			FLAGS
		*			N429
5F 0005A	5F 0005A	PECFL2	DS	X	FLAG FIELD 2 N429
		*			
	5F 0005A	PECIR	EQU	PECFL2	INTERVENTION REQUIRED WAITING N429 FOR DEVICE END N429
		*			
	00000080	PECIRM	EQU	X'80'	INTERVENTION REQUIRED MASK N429
		*			
	5F 0005A	PECREM	EQU	PECFL2	REMOUNT OF 2314 TO SAME N429 ADDRESS REQUESTED N429
		*			
	00000040	PECREMM	EQU	X'40'	REMOUNT REQUESTED MASK N429
		*			
	5F 0005A	PECSNS	EQU	PECFL2	ERROR RECOVERY SENSE FLAG N429
		*			
	00000020	PECSNSM	EQU	X'20'	ERROR RECOVERY SENSE MASK N429
		*			
5F 0005B			DS	X	RESERVED N429
		*			
5F 0005C		PECFL0	DS	X	FLAG FIELD 0
	5F 0005C	PECRW	EQU	PECFL0	RE-WRITE OPERATION AFTER SUCCESSFUL READ
		*			

(Listing of CHAPEC continued on page 298)

(Listing of CHAPEC continued from page 297)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000080	PECRWM	EQU	X'80'	PECRW MASK
	5F 0005C	PECOE	EQU	PECFL0	OUTBOARD ERROR INDICATOR
	00000040	PECOEM	EQU	X'40'	PECOE MASK
	5F 0005C	PECSR	EQU	PECFL0	CONTROL UNDER 'SAME PATH
		*			RETRY'
	00000020	PECSRM	EQU	X'20'	PECSR MASK
	5F 0005C	PECAR	EQU	PECFL0	CONTROL UNDER 'ALTERNATE
		*			PATH RETRY'
	00000010	PECARM	EQU	X'10'	PECAR MASK
	5F 0005C	PECSA	EQU	PECFL0	CONTROL UNDER 'STANDARD
		*			AREA RETRY'
	00000008	PECSAM	EQU	X'08'	PECSA MASK
	5F 0005C	PECCH	EQU	PECFL0	MALFUNCTIONING CHANNEL
		*			DETECTED
	00000004	PECCHM	EQU	X'04'	PECCH MASK
	5F 0005C	PECCU	EQU	PECFL0	MALFUNCTIONING DCU DETECTED
	00000002	PECCUM	EQU	X'02'	PECCU MASK
	5F 0005C	PECDV	EQU	PECFL0	MALFUNCTIONING DEVICE
		*			DETECTED
5F 0005D	00000001	PECDVM	EQU	X'01'	PECDV MASK
		PECFL1	DS	X	FLAG FIELD 1
	5F 0005D	PECRR	EQU	PECFL1	RE-READ OPERATION AFTER
		*			SUCCESSFUL READ
	00000040	PECRRM	EQU	X'40'	PECRR MASK
	5F 0005D	PECAB	EQU	PECFL1	ALTERNATE PATH BUSY
	00000020	PECABM	EQU	X'20'	PECAB MASK
	5F 0005D	PECRH	EQU	PECFL1	'READ HOME ADDRESS'
		*			OPERATION
	00000004	PECRHM	EQU	X'04'	PECRH MASK
	5F 0005D	PECRHA1	EQU	PECFL1	READ HOME ADDRESS FOR NO
		*			RECORD FOUND-CORRECT TK
	00000005	PECRHA1M	EQU	X'05'	PECRHA1 MASK
	5F 0005D	PECRHA2	EQU	PECFL1	READ HOME ADDRESS FOR
		*			NRF-MISSING ADDRESS MARKER1
	00000006	PECRHA2M	EQU	X'06'	PECRHA2 MASK
	5F 0005D	PECRHA3	EQU	PECFL1	READ HOME ADDRESS FOR
		*			NRF-MISSING ADDRESS MARKER2
	00000007	PECRHA3M	EQU	X'07'	PECRHA3 MASK
	5F 0005D	PECRHA4	EQU	PECFL1	READ HOME ADDRESS FOR DATA
		*			CHECK
	0000000C	PECRHA4M	EQU	X'0C'	PECRHA4 MASK
	5F 0005D	PECRHA5	EQU	PECFL1	READ HOME ADDRESS FOR
		*			MISSING ADDRESS MARKER
	0000000D	PECRHA5M	EQU	X'0D'	PECRHA5 MASK
	5F 0005D	PECDS	EQU	PECFL1	CURRENT AUXILIARY DEVICE
		*			HAS BEEN SUPPRESSED
5F 0005E	00000080	PECDSM	EQU	X'80'	PECDS MASK
		PECPSD	DS	H	DISPLACEMENT TO PAGING
		*			DEVICE ENTRY IN CHBPSD
5F 00060		PECCCW	DS	9D	CHANNEL PROGRAM AREA FOR
		*			ERROR RETRY
5F 000A8		PECRHA	DS	D	'READ HOME ADDRESS' INPUT
		*			AREA/WORK AREA
5F 000B0		PECSAR	DS	D	SEEK ARGUMENT AREA FOR
		*			ERROR RETRY/WORK AREA
5F 000B8		PECNCW	DS	X	NUMBER OF CCW'S IN FAILING
		*			CHANNEL PROGRAM SGMNT
	5F 000B8		<u>ORG</u>	PECNCW	
5F 000B8		PECCPS	DS	F	POINTER TO FAILING CHANNEL
		*			PROGRAM SEGMENT
5F 000BC		PECRCW	DS	X	RELATIVE NUMBER OF FAILING
		*			CCW WITHIN CHAN. PROG.
	5F 000BC		<u>ORG</u>	PECRCW	
5F 000BC		PECEPT	DS	F	POINTER TO: DIBE(DRUM) /
		*			PCBE(NON-DRUM DEV.)



User Profile (CHAPFL), Character Translation Table (CHACTT) and Profile Character and Switch Table (CHAPCT)

The User Profile (CHAPFL), providing means for storing user profile information on SYSLIB or USERLIB, consists of three contiguous tables:

1. Profile Character and Switch Table (CHAPCT)
2. Character Translation Table (CHACTT)
3. Primary Dictionary (see section CHADEN)

CHAPFL describes the profile as it exists in external storage as the System Prototype Profile in SYSLIB, or as a User Profile (saved by the PROFILE command) in USERLIB.

CHAPCT resides in New Task Common, aligned on word boundaries.

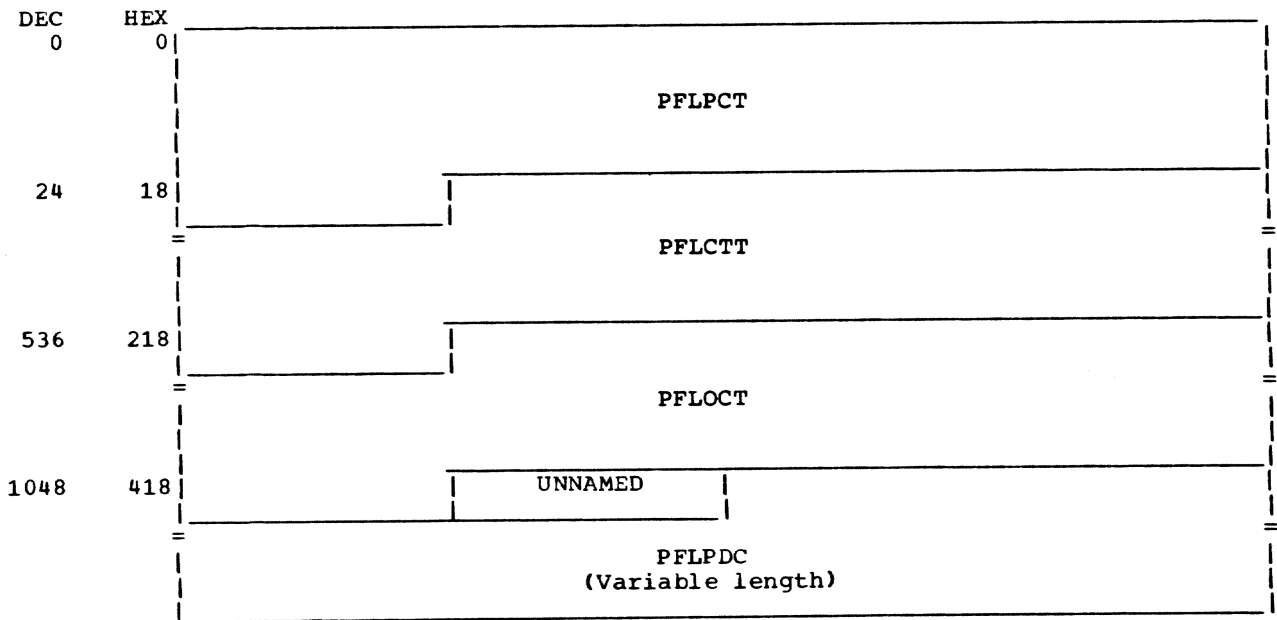
CHACTT is used by GATE to translate characters and to determine functions during input. CHACTT resides in the GATE psect, and consists of 256 contiguous entries in the following form:

CTTTR	(1 byte)	Translated value
CTTFN	(1 byte)	Function code

The complete list of available function codes are shown below with their meanings:

<u>Function Code</u>	<u>Meaning</u>
0	Translate
4	Backspace
8	End-of-block or new line
C	Cancel
10	Terminal null
14	Null

CHAPFL Storage map



Fields in CHAPFL -- by displacement

DEC	HEX	FIELD	(EQU)	DEC	HEX	FIELD	(EQU)	DEC	HEX	FIELD	(EQU)
0000	0000	PFLPCT	(EQU)	0026	001A	PFLCTT	(EQU)	0538	021A	PFLOCT	(EQU)
								1052	041C	PFLPDC	(EQU)

Alphabetical list of fields in CHAPFL

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>		<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>		<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	
PFLCTT	0026	001A	(EQU)	PFLOCT	0538	021A	(EQU)	PFLPCT	0000	0000	(EQU)
								PFLPDC	1052	041C	(EQU)

Assembler listing of CHAPFL

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
60	00000	CHAPFL	DSECT		
					* USER PROFILE IS MAINTAINED EXTERNALLY AS ONE
					* CONTIGUOUS TABLE
					* COMPOSED OF 3 SUB TABLES IN THE ORDER LISTED
					* BELOW
					* PROFILE CHARACTER AND SWITCH TABLE, LENGTH
					= PCTLEN
					* CHARACTER TRANSLATION TABLE, LENGTH = 512
					* BYTES
					* PRIMARY DICTIONARY, LENGTH VARIABLE.
	60 00000	PFLPCT	EQU	*	ORIGIN OF CHAPCT TABLE
	60 0001A		ORG	PFLPCT+X'1A'	N366
	60 0001A	PFLCTT	EQU	*	ORIGIN OF CHACTT TABLE
	60 0021A		ORG	PFLCTT+X'200'	
	60 0021A	PFLOCT	EQU	*	OUTPUT CHAR TRANSLATION TBL
					N366
	60 0041A		ORG	PFLOCT+X'200'	N366
60 0041C			DS	OF	
	60 0041C	PFLPDC	EQU	*	ORIGIN OF PRIMARY
					DICTIONARY

CHACTT Storage map

DEC	HEX		
0	0	CTTTR	CTTFN
ORG OVERLAP			

ORG CHACTT

0	0	UNNAMED	
---	---	---------	--

Fields in CHACTT -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	CTTTR	0001	0001	CTTFN			

Alphabetical list of fields in CHACTT

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
CTTFN	0001	0001	CTTTR	0000	0000			

Assembler listing of CHACTT

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	1E 00000	CHACTT	DSECT		CHARACTER
		*			TRANSLATION TABLE
1E 00000		CTTTR	DS	CL1	TRANSLATED VALUE
1E 00001		CTTFN	DS	XL1	FUNCTION CODE
		*			FUNCTION CODE VALUES
	00000000	CTTTRN	EQU	X'0'	TRANSLATE FUNCTION
	00000004	CTTBSP	EQU	X'4'	BACKSPACE FUNCTION
	00000008	CTTEOB	EQU	X'8'	END OF BLOCK OR NEW LINE
		*			FUNCTION
	0000000C	CTTCAN	EQU	X'C'	CANCEL FUNCTION
	00000010	CTTTLN	EQU	X'10'	TERMINAL NULL FUNCTION
	00000014	CTTNUL	EQU	X'14'	NULL FUNCTION
	1E 00000		<u>ORG</u>	CHACTT	
1E 00000			DS	256CL2	
	00000200	CTTLEN	EQU	*-CHACTT	LENGTH OF CHACTT TABLE

CHAPCT Storage map

DEC	HEX								
0	0	PCTCTT				PCTOCT			
8	8	PCTEB	PCTCN	PCTCL	PCTTR	PCTRCC	PCTSSM	PCTUSM	PCTPL
16	10	PCTPS							
24	18	PCTKC	PCTRS						

Fields in CHAPCT -- by displacement

<u>DEC</u> <u>HEX</u> <u>FIELD</u>	<u>DEC</u> <u>HEX</u> <u>FIELD</u>	<u>DEC</u> <u>HEX</u> <u>FIELD</u>
0000 0000 PCTCTT	0011 000B PCTTR	0016 0010 PCTPS
0004 0004 PCTOCT	0012 000C PCTRCC	0024 0018 PCTKC
0008 0008 PCTEB	0013 000D PCTSSM	0025 0019 PCTRS
0009 0009 PCTCN	0014 000E PCTUSM	
0010 000A PCTCL	0015 000F PCTPL	

Alphabetical list of fields in CHAPCT

<u>FIELD</u> <u>DEC</u> <u>HEX</u>	<u>FIELD</u> <u>DEC</u> <u>HEX</u>	<u>FIELD</u> <u>DEC</u> <u>HEX</u>
PCTCL 0010 000A	PCTOCT 0004 0004	PCTSSM 0013 000D
PCTCN 0009 0009	PCTPL 0015 000F	PCTTR 0011 000B
PCTCTT 0000 0000	PCTPS 0016 0010	PCTUSM 0014 000E
PCTEB 0008 0008	PCTRCC 0012 000C	
PCTKC 0024 0018	PCTRS 0025 0019	

Assembler listing of CHAPCT

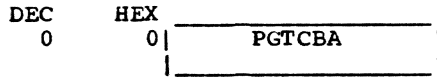
<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	5D 00000	CHAPCT	DSECT		PROFILE CHAR
		*			AND SWITCH TABLE
5D 00000		PCTCTT	DS	A	POINTER TO CHAR TRANSLATION
		*			TABLE
5D 00004		PCTOCT	DS	A	OUTPUT CHAR TRANSLATION TBL
		*			ADDRN366
5D 00008		PCTEB	DS	CL1	SOURCE LIST EOB CHARACTER
	00000026	PCTEBM	EQU	X'26'	HEX 26
5D 00009		PCTCN	DS	CL1	CONTROL LANGUAGE
		*			CONTINUATION CHAR
	00000060	PCTCNM	EQU	C'-'	HEX 60
5D 0000A		PCTCL	DS	CL1	CONTROL LANGUAGE PREFIX
		*			CHARACTER
	0000006D	PCTCLM	EQU	C'_'	UNDERSCORE CHARACTER
		*			N448
5D 0000B		PCTTR	DS	CL1	TRANSIENT PREFIX CHARACTER
	0000004F	PCTTRM	EQU	C' '	LOGICAL OR
		*			CHARACTER(VERTICAL) N448
5D 0000C		PCTRCC	DS	CL1	RECORD CONCATENATION
		*			CHARACTER N448
	0000007A	PCTRCCM	EQU	C':'	COLON
		*			N448
5D 0000D		PCTSSM	DS	XL1	SYSTEM SCOPE MASK
5D 0000E		PCTUSM	DS	XL1	USER SCOPE MASK
5D 0000F		PCTPL	DS	HL1	LENGTH OF COMMAND PROMPT
	00000002	PCTPLM	EQU	2	TWO BYTES
5D 00010		PCTPS	DS	CL8	COMMAND PROMPT STRING
	00006D16	PCTPSM	EQU	X'6D16'	BACKSPACE
5D 00018		PCTKC	DS	CL1	SYSIN KEYBD/CARD RDR SWITCH
	000000D2	PCTKCK	EQU	C'K'	KEYBOARD ONLY
	000000C5	PCTKCE	EQU	C'E'	EITHER KEYBOARD OR CARD
		*			READER
5D 00019		PCTRS	DS	CL1	CARRIAGE RETURN SUPPRESSION
		*			CHAR
	0000007A	PCTRSM	EQU	C':'	SUPPRESSION CHARACTER IS
		*			COLON N448
	0000001A	PCTLEN	EQU	*-CHAPCT	LENGTH OF CHAPCT TABLE

Page Table (CHAPGT, and External Page Table (CHAXPT))

The Page Table (PGT) is a contiguous list of 2 byte entries containing the address and availability indicator of a core block assigned to a task's virtual storage. One page table exists for each segment assigned to virtual storage. The PGT (2 - 512 bytes) resides in core storage aligned on fullword boundaries.

The External Page Table (XPT) contains information concerning page table entries assigned to a task's virtual storage. The XPT (8 - 2048 bytes) resides in core storage, preceded by the Page Table, aligned on fullword boundaries.

CHAPGT Storage map



Fields in CHAPGT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	PGTCBA	0001	0001	PGTPA	(EQU)		

Alphabetical list of fields in CHAPGT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
PGTCBA	0000	0000	PGTPA	0001	0001	(EQU)		

Assembler listing of CHAPGT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	62 00000	CHAPGT	DSECT		PAGE TABLE ENTRY
62 00000			DS	0H	
62 00000		PGTCBA	DS	H	CORE BLOCK ADDRESS
	62 00001	PGTPA	EQU	PGTCBA+1	PAGE AVAILABILITY FLAG
	00000008	PGTPAM	EQU	8	PAGE AVAILABILITY MASK

CHAXPT Storage map

DEC	HEX					
0	0	XPTXL	XPTF1	XPTF2	XPTPMC	XPTFLG

Fields in CHAXPT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD		
0000	0000	XPTXL	0004	0004	XPTUP	(EQU)	0005	0005	XPTF2	
0004	0004	XPTPU	(EQU)	0004	0004	XPTF1	0006	0006	XPTPMC	
0004	0004	XPTSP	(EQU)	0005	0005	XPTPC	(EQU)	0007	0007	XTPPP (EQU)
0004	0004	XPTPA	(EQU)	0005	0005	XPTAX	(EQU)	0007	0007	XPTPRO (EQU)
0004	0004	XPTCP	(EQU)	0005	0005	XPTBV	(EQU)	0007	0007	XPTPH (EQU)
0004	0004	XPTTP	(EQU)	0005	0005	XPTIV	(EQU)	0007	0007	XPTFLG
0004	0004	XPTPD	(EQU)	0005	0005	XPTTA	(EQU)			

Alphabetical list of fields in CHAXPT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
XPTAX	0005	0005	(EQU) XPTPA	0004	0004	(EQU) XPTPU	0004	0004
XPTBV	0005	0005	(EQU) XPTPC	0005	0005	(EQU) XPTSP	0004	0004
XPTCP	0004	0004	(EQU) XPTPD	0004	0004	(EQU) XPTTA	0005	0005
XPTFLG	0007	0007	XPTPH	0007	0007	(EQU) XPTTP	0004	0004
XPTF1	0004	0004	XPTPMC	0006	0006	XPTUP	0004	0004
XPTF2	0005	0005	XTPPP	0007	0007	(EQU) XPTXL	0000	0000
XPTIV	0005	0005	(EQU) XPTPRO	0007	0007	(EQU)		

Assembler listing of CHAXPT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	BA 00000	CHAXPT	DSECT		EXTERNAL PAGE TABLE ENTRY
		*			
BA 00000		XPTXL	DS	OF	
BA 00000		XPTF1	DS	F	EXTERNAL LOCATION OF PAGE
BA 00004		XPTUP	EQU	XPTF1	FLAG BYTE 1
	BA 00004	*			UPDATE IN PLACE FLAG
		*			
	00000080	XPTUPM	EQU	X'80'	
	BA 00004	XPTPD	EQU	XPTF1	PREFERED PAGING DEVICE
		*			1=DRUM
	00000040	XPTPDM	EQU	X'40'	
	BA 00004	XPTTP	EQU	XPTF1	TYPE PROGRAM OR DATA
		*			
	00000020	XPTTPM	EQU	X'20'	
	BA 00004	XPTCP	EQU	XPTF1	CHANGED PAGE BIT FLAG
	00000010	XPTCPM	EQU	X'10'	CHANGED PAGE BIT MASK
	BA 00004	XPTPA	EQU	XPTF1	PAGE ASSIGNED
		*			1=ASSIGN
	00000004	XPTPAM	EQU	X'04'	
	BA 00004	XPTSP	EQU	XPTF1	SHARED PAGE FLAG
	00000002	XPTSPM	EQU	X'02'	
	BA 00004	XPTPU	EQU	XPTF1	PAGE UNPROCESSED BY LOADER
		*			1=UNPROCESSED
	00000001	XPTPUM	EQU	X'01'	
BA 00005		XPTF2	DS	X	FLAG BYTE 2
	BA 00005	XPTTA	EQU	XPTF2	TEMPORARY EXTERNAL ADDRESS
	00000080	XPTTAM	EQU	X'80'	
	BA 00005	XPTIV	EQU	XPTF2	IVM PAGE NON DELETEABLE
		*			FLAG
	00000040	XPTIVM	EQU	X'40'	IVM PAGE NON DELETEABLE
		*			MASK
	BA 00005	XPTBV	EQU	XPTF2	SETXP ALLOWED AGAINST IVM
		*			PAGE
	00000020	XPTBVM	EQU	X'20'	SETXP ALLOWED AGAINST IVM
		*			PAGE MASK
	BA 00005	XPTAX	EQU	XPTF2	AUXILIARY STORAGE FLAG
		*			
	00000010	XPTAXM	EQU	X'10'	

(Listing of CHAXPT continued on page 305)

(Listing of CHAXPT continued from page 304)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	BA 00005	XPTPC	EQU	XPTF2	PROTECT CLASS 4 BITS
		*			
BA 00006			DS	0H	
BA 00006		XPTPMC	DS	XL1	2 BIT PAGE REFERENCE COUNTER
		*			
	00000002	XPTPMC1	EQU	X'02'	RESERVED FOR PARTIAL MIGRATION FROM DRUM
	00000001	XPTPMC2	EQU	X'01'	FLAG BYTE
BA 00007		XPTFLG	DS	X	PAGE HOLD COUNT FIELD
	BA 00007	XPTPH	EQU	XPTFLG	PAGE HOLD COUNT
	000000F0	XPTPHM	EQU	X'F0'	SVC PAGE HOLD FLAG
	00000008	XPTPH1	EQU	X'08'	ENTRY PROCESSED FLAG (MT/T)
	BA 00007	XPTPRO	EQU	XPTFLG	ENTRY PROCESSED MASK (MT/T)
		*			
	00000004	XPTPROM	EQU	X'04'	PREPAGE FLAG (MT/T)
		*			
	BA 00007	XPTPP	EQU	XPTFLG	PREPAGE MASK
	00000002	XPTPPM	EQU	X'02'	

Communications Bucket (CHAPLI)

The PL/I communications bucket maintains all user-supplied options for the PL/I Program Language Controller (PLC). The 40-byte communications bucket is aligned on a fullword boundary.

CHAPLI Storage map

DEC	HEX					
0	0	PLIFTM	PLISOD	PLILMN	PLIBRV	PLIERR
8	8	PLIDDN	PLILDN			
16	10	PLIMAC	PLIMRG			
24	18	PLIPDS	PLIPRT	PLILDS	PLICON	PLILOD
32	20	PLINAM				
40	28	PLIEXP	PLIXDS			

Fields in CHAPLI -- by displacement

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD
0000	0000	PLIFTM		0008	0008	PLIDDN		0029	001D	PLILDS
0003	0003	PLIFTP	(EQU)	0012	000C	PLILDN		0030	001E	PLICON
0004	0004	PLISOD		0016	0010	PLIMAC		0031	001F	PLILOD
0005	0005	PLILMN		0020	0014	PLIMRG		0032	0020	PLINAM
0006	0006	PLIBRV		0024	0018	PLIPDS		0040	0028	PLIEXP
0007	0007	PLIERR		0028	001C	PLIPRT		0044	002C	PLIXDS

Alphabetical list of fields in CHAPLI

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
PLIBRV	0006	0006	PLIFTP	0003	0003 (EQU)	PLIMRG	0020	0014
PLICON	0030	001E	PLILDN	0012	000C	PLINAM	0032	0020
PLIDDN	0008	0008	PLILDS	0029	001D	PLIPDS	0024	0018
PLIERR	0007	0007	PLILMN	0005	0005	PLIPRT	0028	001C
PLIEXP	0040	0028	PLILOD	0031	001F	PLISOD	0004	0004
PLIFTM	0000	0000	PLIMAC	0016	0010	PLIXDS	0044	002C

Assembler listing of CHAPLI

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	63 00000	CHAPLI	DSECT		DSECT FOR COMMUNICATION BUCKET
		*			
63 00000		PLIFTM	DS	F	
	63 00003	PLIFTP	EQU	PLIFTM+3	FOOTPRINT OF PATH THROUGH PLC
		*			
	00000000	PLIFT0	EQU	X'00'	PLC NOT PREVIOUSLY INTERRUPTED
		*			
	00000004	PLIFT1	EQU	X'04'	EDITOR END REQUIRED
	00000008	PLIFT2	EQU	X'08'	DATA SET CLEANUP REQUIRED
	0000000C	PLIFT3	EQU	X'0C'	PL/I COMPILER INVOKED
	00000010	PLIFT4	EQU	X'10'	DATA SET CLEANUP REQUIRED
	00000014	PLIFT5	EQU	X'14'	ODC END REQUIRED
	00000018	PLIFT6	EQU	X'18'	DATA SET CLEANUP REQUIRED
	0000001C	PLIFT7	EQU	X'1C'	CFBAK END RTN REQUIRED
		*			N480
	00000020	PLIFT8	EQU	X'20'	DATA SET CLEANUP REQUIRED
		*			N480
	00000024	PLIFT9	EQU	X'24'	PLC CALL COMPLETE
		*			N480
63 00004		PLISOD	DS	XL1	DIAGNOSTICS ON SYSOUT OPTION
		*			
	00000000	PLISD1	EQU	X'00'	DIAGNOSTICS ON SYSOUT
	00000001	PLISD2	EQU	X'01'	NO DIAGNOSTICS
63 00005		PLILMN	DS	CL1	VALUE OF "LIMEN"

(Listing of CHAPLI continued on page 307)



(Listing of CHAPLI continued from page 306)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	000000C9	PLILM1	EQU	C'I'	INFORMATION MESSAGES
	000000E6	PLILM2	EQU	C'W'	WARNING MESSAGES
	000000D5	PLILM3	EQU	C'N'	ERROR MESSAGES
	000000E7	PLILM4	EQU	C'X'	SERIOUS ERROR MESSAGES
63 00006	000000E3	PLILM5	EQU	C'T'	TERMINAL ERROR MESSAGES
		PLIBRV	DS	CL1	VALUE OF "BREVITY"
	000000D4	PLIBR1	EQU	C'M'	MESSAGE ID ONLY
	000000E2	PLIBR2	EQU	C'S'	NORMAL MESSAGE TEXT
	000000C5	PLIBR3	EQU	C'E'	EXTENDED MESSAGE TEXT
	000000E3	PLIBR4	EQU	C'T'	STANDARD TEXT-NO MSG ID
63 00007	000000E7	PLIBR5	EQU	C'X'	EXTENDED TEXT-NO MSG ID
		PLIERR	DS	XL1	ERROR LEVEL CODE
	00000000	PLIER0	EQU	X'00'	NO ERRORS DETECTED
	00000004	PLIER1	EQU	X'04'	TYPE 1 ERRORS
	00000008	PLIER2	EQU	X'08'	TYPE 1 ERRORS - ERRORS
	0000000C	PLIER3	EQU	X'0C'	TYPE 2 ERRORS - SEVERE
	00000010	PLIER4	EQU	X'10'	TYPE 3 ERRORS - TERMINAL
63 00008		PLIDDN	DS	F	POINTER TO SOURCE DCB
63 0000C		PLILDN	DS	F	POINTER TO LISTING DCB
63 00010		PLIMAC	DS	F	POINTER TO MACRO DATA SET
		*			NAME
63 00014		PLIMRG	DS	F	POINTER TO FIRST BLOCK OF
		*			MERGE LIST
63 00018		PLIPDS	DS	F	POINTER TO MERGE DATA SET
		*			NAME
63 0001C		PLIPRT	DS	XL1	PRINT OPTION
	00000000	PLIPR0	EQU	X'00'	NO PRINT
	00000041	PLIPR1	EQU	X'41'	PRINT - NO ERASE
	00000061	PLIPR2	EQU	X'61'	PRINT WITH ERASE
63 0001D		PLILDS	DS	XL1	LISTING DATA SET OPTION
	00000000	PLILS0	EQU	X'00'	LISTING DATA SET
	00000001	PLILS1	EQU	X'01'	LISTING ON SYSOUT
63 0001E		PLICON	DS	XL1	CONTINUATION OPTION
	00000000	PLICN1	EQU	X'00'	NO CONTINUATION
	000000C3	PLICN2	EQU	X'C3'	CONTINUE COMPILATIONS
63 0001F		PLILOD	DS	XL1	LOAD OPTION
	00000000	PLILD1	EQU	X'00'	LOAD - CONVERSION REQUIRED
	00000001	PLILD2	EQU	X'01'	NO LOAD - COMPILE ONLY
63 00020		PLINAM	DS	CL8	NAME OF CURRENT OBJECT
		*			MODULE
63 00028		PLIEXP	DS	A	POINTER TO EXPLICIT PARAM
		*			LIST N480
63 0002C		PLIXDS	DS	A	POINTER TO XFERDS NAME
		*			N480

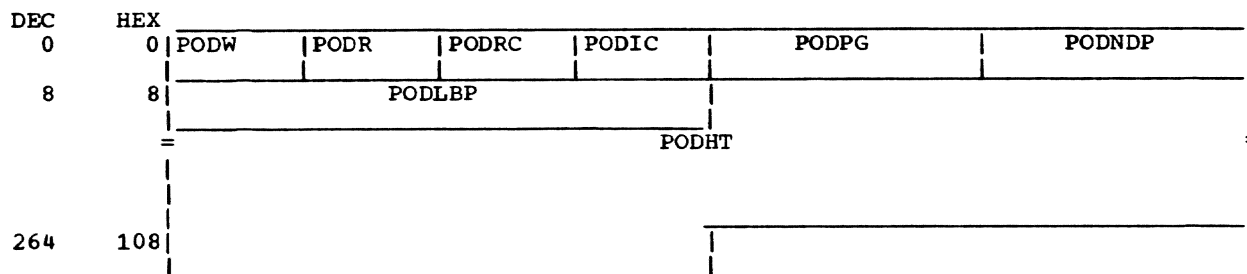
Partitioned Organization Directory (CHAPOD), Member Descriptor (CHAPOM), and Alias Descriptor (CHAPOE)

The Partitioned Organization Directory (POD) of a partitioned data set correlates the names of data set members to their positions within the data set. The POD Member Descriptor (POM) describes the characteristics of each member of the partitioned data set. The POD Alias Descriptor (POE) chains alias names and links these names to data set member entries.

The POD, including the POM and POE, remains in the user's virtual storage from open time to close time. At data set close time the POD is updated on the resident device. The POD is maintained by the virtual access method (VAM) section of data management.

In virtual storage, aligned on doubleword boundaries, the POD occupies 268 bytes, the POM from 27 to 1308 bytes, and the POE 16 bytes.

CHAPOD Storage map



Fields in CHAPOD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	PODW	0003	0003	PODIC	0008	0008	PODLBP
0000	0000	PODINT	0004	0004	PODPG	0012	000C	PODHT
0001	0001	PODR	0004	0004	PODSPA			
0002	0002	PODRC	0006	0006	PODNDP			

Alphabetical list of fields in CHAPOD

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
PODHT	0012	000C	PODNDP	0006	0006	PODSPA	0004	0004
PODIC	0003	0003	PODPG	0004	0004	PODW	0000	0000
PODINT	0000	0000	PODR	0001	0001			
PODLBP	0008	0008	PODRC	0002	0002			

Assembler listing of CHAPOD

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
64 00000	64 00000	CHAPOD	DSECT		PARTITIONED ORGANIZATION DIRECTORY
		*			
64 00000			DS	0D	
64 00000		PODINT	DS	0XL4	INTERLOCK CONTROL WORD
64 00000		PODW	DS	XL1	WRITE INTERLOCK
64 00001		PODR	DS	XL1	READ INTERLOCK
64 00002		PODRC	DS	XL1	READ INTERLOCK COUNTER
64 00003		PODIC	DS	XL1	CONTROL BYTE FOR PODR AND PODRC
		*			
64 00004		PODSPA	DS	0XL8	SPACE CONTROL FIELD
64 00004		PODPG	DS	XL2	NUMBER OF PAGES IN POD
64 00006		PODNDP	DS	XL2	NUMBER OF PAGES IN THE DATASET
		*			
64 00008		PODLBP	DS	XL4	LINKED BLOCK POINTER
64 0000C		PODHT	DS	64XL4	HASHING VALUE TABLE

CHAPOM Storage map

DEC	HEX				
0	0	POMNAM			
8	8	POMFLG	POMHAS	POMFP	POMPG
16	10	POMKL	POMIX	POMOV	POMDP
24	18	POMBU	POMUSE		

Fields in CHAPOM -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD		
0000	0000	POMNAM	0016	0010	POMSEQ	(EQU)	0022	0016	POMBLP	(EQU)
0008	0008	POMFLG	0016	0010	POMKL		0022	0016	POMDP	
0009	0009	POMHAS	0017	0011	POMIX		0024	0018	POMBU	
0012	000C	POMFP	0020	0014	POMOV		0026	001A	POMUSE	
0014	000E	POMPG	0021	0015	POMPAD					

Alphabetical list of fields in CHAPOM

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX		
POMBLP	0022	0016	(EQU)	POMHAS	0009	0009	POMPAD	0021	0015	
POMBU	0024	0018		POMIX	0017	0011	POMPG	0014	000E	
POMDP	0022	0016		POMKL	0016	0010	POMSEQ	0016	0010	(EQU)
POMFLG	0008	0008		POMNAM	0000	0000	POMUSE	0026	001A	
POMFP	0012	000C		POMOV	0020	0014				

Assembler listing of CHAPOM

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	66 00000	CHAPOM	DSECT		LINKED BLOCK MEMBER
		*			DESCRIPTOR
66 00000			DS	0D	
66 00000		POMNAM	DS	CL8	MEMBER NAME
66 00008		POMFLG	DS	XL1	FLAGS
66 00009		POMHAS	DS	XL3	HASHING CHAIN POINTER
66 0000C		POMFP	DS	H	FIRST PAGE RELATIVE TO DATA
		*			SET
66 0000E		POMPG	DS	H	NUMBER OF DATA PAGES IN
		*			MEMBER I6145
66 00010		POMKL	DS	XL1	KEY LENGTH
66 00011		POMIX	DS	XL3	MAX LOGICAL RECORD LENGTH
		*			(ISEQ)
	66 00010	POMSEQ	EQU	POMKL	MAX LOGICAL RECORD LENGTH
		*			(SEQ)
66 00014		POMOV	DS	XL1	NUMBER OF OVERFLOW PAGES
66 00015		POMPAD	DS	XL1	PERCENT PAD
	66 00016	POMBLP	EQU	POMDP	NUMBER OF BYTES LAST PAGE
		*			(SEQ)
66 00018		POMBU	DS	H	NUMBER BYTES USER DATA
66 0001A		POMUSE	DS	CL1	USER DATA

CHAPOE Storage map

DEC	HEX			
0	0	POENAM		
8	8	POEFLG	POEHAS	POEMEM

Fields in CHAPOE -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	POENAM	0008	0008	POEFLG	0009	0009	POEHAS
						0012	000C	POEMEM

Alphabetical list of fields in CHAPOE

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
POEFLG	0008	0008	POEHAS	0009	0009	POEMEM	0012	000C
						POENAM	0000	0000

Assembler listing of CHAPOE

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	65 00000	CHAPOE	DSECT		LINKED BLOCK ALIAS
		*			DESCRIPTOR
65 00000			DS	0D	
65 00000		POENAM	DS	CL8	ALIAS NAME
65 00008		POEFLG	DS	XL1	FLAGS
65 00009		POEHAS	DS	XL3	POINTER TO NEXT HASHING
		*			SYNONYM
65 0000C		POEMEM	DS	F	POINTER TO MEMBER
		*			DESCRIPTOR

Page Table Page Header (CHAPPH), and Page Table Page Entry Header (CHAPTH)

The page table header describes a page table page (PTP); and indicates, using forward and backward pointers, the position in a chain of pages. The table controls the space available in the PTP by using the next available byte, by counting the total available bytes, by counting the number of page tables in a page table page, and by indicating the address of the first page table.

The page table page header is 16 bytes in length, aligned on fullword boundaries. The table resides in virtual storage.

The Page Table Page Entry Header (PTH) controls the assignment of space within a page table page entry. The PTH describes the contents of a page table entry, as follows:

- the size of the page table entry, including header.
- the number of unused bytes.
- the availability status.
- a pointer to the segment table entry (CHAAST).

The 16 byte PTH resides in core storage aligned on fullword boundaries.

CHAPPH Storage map

DEC	HEX				
0	0	PPHFP		PPHRP	
8	8	PPHNB	PPHNA	PPHNS	PPHFS

Fields in CHAPPH -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	PPHFP	0008	0008	PPHNB	0012	000C	PPHNS
0004	0004	PPHRP	0010	000A	PPHNA	0014	000E	PPHFS

Alphabetical list of fields in CHAPPH

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
PPHFP	0000	0000	PPHNA	0010	000A	PPHNS	0012	000C
PPHFS	0014	000E	PPHNB	0008	0008	PPHRP	0004	0004

Assembler listing of CHAPPH

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	67 00000	CHAPPH	DSECT		PAGE TABLE PAGE HEADER
67 00000			DS	0F	
67 00000		PPHFP	DS	F	FORWARD POINTER TO NEXT PTP
		*			IN CHAIN
67 00004		PPHRP	DS	F	REVERSE POINTER TO PREV PTP
		*			IN CHAIN
67 00008			DS	0H	
67 00008		PPHNB	DS	H	LOC OF NEXT AVAILABLE BYTE
		*			IN PTP
67 0000A		PPHNA	DS	H	NUMBER OF BYTES AVAIL IN
		*			PTP
67 0000C		PPHNS	DS	H	NUMBER OF SEGMENTS IN THIS
		*			PTP
67 0000E		PPHFS	DS	H	LOC OF FIRST SEGMENT IN
		*			THIS PTP

CHAPTH Storage map

DEC	HEX	PTHSN		PTHSS		PTHSU		PTHID	PTHFL
0	0								
8	8	PTHSP				UNNAMED			

Fields in CHAPTH -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	(EQU)
0000	0000	PTHSN	0006	0006	PTHID	0007	0007	PTHDMP	(EQU)
0002	0002	PTHSS	0007	0007	PTHTSA	(EQU)	0007	0007	PTHFL
0004	0004	PTHSU	0007	0007	PTHPH	(EQU)	0008	0008	PTHSP

Alphabetical list of fields in CHAPTH

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
PTHDMP	0007	0007 (EQU)	PTHPH	0007	0007 (EQU)	PTHSP	0008	0008
PTHFL	0007	0007	PTHTSA	0007	0007 (EQU)	PTHSS	0002	0002
PTHID	0006	0006	PTHSN	0000	0000	PTHSU	0004	0004

Assembler listing of CHAPTH

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	6A 00000	CHAPTH	DSECT		PAGE TABLE HEADER FOR PTP ENTRY
		*			
6A 00000			DS	OF	
6A 00000		PTHSN	DS	H	SEGMENT NUMBER
6A 00002		PTHSS	DS	H	BLOCK SIZE INCLUDING HEADER
6A 00004		PTHSU	DS	H	NUMBER OF UNUSED BYTES IN BLOCK
		*			
6A 00006		PTHID	DS	X	TIME SLICE END ID OF LAST N470
		*			
		*			REFERENCED TIME SLICE N470
		*			
6A 00007		PTHFL	DS	X	FLAG BYTE N470
		*			
	6A 00007	PTHDMP	EQU	PTHFL	DRUM PREFERENCE FLAG N470
		*			
	00000004	PTHDMPM	EQU	X'04'	DRUM PREFERENCE MASK N470
		*			
	6A 00007	PTHPH	EQU	PTHFL	PAGE HOLD FLAG N470
		*			
	00000002	PTHPHM	EQU	X'02'	SOME PAGE IN 'PAGE HOLD' MASK N470
		*			
	6A 00007	PTHTSA	EQU	PTHFL	SEGMENT AVAILABILITY FLAG N470
		*			
	00000001	PTHTSAM	EQU	X'01'	1 STATE MEANS BLOCK CONTENTS ARE ACTIVE
		*			
6A 00008		PTHSP	DS	F	POINTER TO SEGMENT TABLE ENTRY
		*			
6A 0000C			DS	F	UNUSED, FOR EXPANSION

Prefixed Storage Area (CHAPSA)

The Prefixed Storage Area (PSA) contains data and programs that are unique and private to each CPU. While isolating one CPU from another, the PSA also functions as a logical extension of the general registers that make the supervisor program reenterable.

The PSA constitutes a page (4096 bytes) in core storage, aligned on a page boundary. It is automatically addressed whenever the high-order 12 bits of the data or instruction address are all 0s. These 12 high-order 0-bits in the original address are replaced with a 12-bit prefix value which is unique for each CPU, and predetermined by prefixing in the hardware.

Locations 0 through 127 of the PSA are reserved for status words, timer, interrupt indicators, etc. Locations 128 through 327 are permanently assigned to hardware diagnostic logouts. The CPU private working storage area (locations 328 through 455 and 512 through 551) is assigned to selected monitor programs. Some of the private area in the CPU is used for temporary storage of general registers, allowing the associated programs to save the general registers, without requiring a base register for generation of the register save-area address. Locations 440 through 455 are assigned to the inter-CPU communication routine, as the drop area for incoming messages from another CPU.

<u>HEX</u>	<u>DEC</u>	
0	0	PSW AREA
80	128	CPU LOGOUT
130	304	CHANNEL LOGOUT
148	328	CPU PRIVATE WORKING STORAGE
1C8	456	CPU STATUS TABLE (CHACST)
200	512	CPU PRIVATE WORKING STORAGE (continued)
228	552	RECOVERY NUCLEUS RESIDENCE (CEAIR)
880	2176	INTER-CPU COMMUNICATION ROUTINE RESIDENCE (CEAIC)
BE8	3048	DAMAGE REPORT (CHADMR) AND CPU PRIVATE WORKING STORAGE (continued)
C00	3072	SERR BOOTSTRAP RESIDENCE (CMASA)
1000	4096	

Note 1. For installations with more than 2 CPUs, 16 bytes per CPU (in excess of 2) will be removed from the recovery nucleus residence area and reassigned to the CPU status table.

Note 2. There is a PSA for each CPU in TSS.

CHAPSA Storage map

DEC	HEX	
0	0	PSAIPL
8	8	PSAG15   PSASFG   PSAIND   PSAEIC
16	10	PSASIC   PSAPIC   PSAMIC   PSAIIC
24	18	PSAEOP
32	20	PSASOP
40	28	PSAPOP
48	30	PSAMOP
56	38	PSAIOP
64	40	PSACSW
72	48	PSACAW   PSATSA
80	50	PSATIM   PSATRV
88	58	PSAENP
96	60	PSASNP
104	68	PSAPNP
112	70	PSAMNP
120	78	PSAINP
128	80	PSACLO
304	130	PSAILO
328	148	PSAISS
360	168	PSACAS
392	188	PSATPT   PSAQPT
400	190	PSADPT   PSAPAT
408	198	PSATPW

(CHAPSA continued on page 315)



(CHAPSA continued from page 314)

DEC 416	HEX 1A0	PSASCU			
432	1B0	PSACTL			
440	1B8	PSADAT			
448	1C0	PSAIMC	UNNAMED	PSACID	PSAILK
456	1C8	PSACST			
512	200	PSAWTM			
520	208	PSAETM			
528	210	PSAOTB	PSAPKB	UNNAMED	
536	218	UNNAMED			
544	220	PSASOA	PSASIP		
552	228	PSARE1			
2016	7E0	PSAISV			
2048	800	PSAIC			
3072	C00	PSAERC			
3624	E28	PSAEXS			
3640	E38	PSARE2			

Fields in CHAPSA -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	PSAIPL	0088	0058	PSAENP	0455	01C7	PSAILK
0008	0008	PSAG15	0096	0060	PSASNP	0456	01C8	PSACST
0012	000C	PSASFG	0104	0068	PSAPNP	0512	0200	PSAWTM
0013	000D	PSAIND	0112	0070	PSAMNP	0520	0208	PSAETM
0014	000E	PSAEIC	0120	0078	PSAINP	0528	0210	PSAOTB
0016	0010	PSASIC	0128	0080	PSACLO	0532	0214	PSAPKB
0018	0012	PSAPIC	0304	0130	PSAILO	0544	0220	PSASOA
0020	0014	PSAMIC	0328	0148	PSAISS	0548	0224	PSASIP
0022	0016	PSAIIC	0360	0168	PSACAS	0552	0228	PSARE1
0024	0018	PSAEOP	0392	0188	PSATPT	2020	07E4	PSAISV
0032	0020	PSASOP	0396	018C	PSAQPT	2048	0800	PSAIC
0040	0028	PSAPOP	0400	0190	PSADPT	3048	0BE8	PSADMR (EQU)
0048	0030	PSAMOP	0404	0194	PSAPAT	3064	0BF8	PSAFIC (EQU)
0056	0038	PSAIOP	0408	0198	PSATPW	3068	0BFC	PSAFTM (EQU)
0064	0040	PSACSW	0416	01A0	PSASCU	3072	0C00	PSAERC
0072	0048	PSACAW	0432	01B0	PSACTL	3628	0E2C	PSAEXS
0076	004C	PSATSA	0440	01B8	PSADAT	3640	0E38	PSARE2
0080	0050	PSATIM	0452	01C4	PSAIMC			
0084	0054	PSATRV	0454	01C6	PSACID			

Alphabetical list of fields in CHAPSA

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
PSACAS	0360	0168	PSAIC	2048	0800	PSAPOP	0040	0028
PSACAW	0072	0048	PSAIIC	0022	0016	PSAQPT	0396	018C
PSACID	0454	01C6	PSAILK	0455	01C7	PSARE1	0552	0228
PSACLO	0128	0080	PSAILO	0304	0130	PSARE2	3640	0E38
PSACST	0456	01C8	PSAIMC	0452	01C4	PSASCU	0416	01A0
PSACSW	0064	0040	PSAIND	0013	000D	PSASFG	0012	000C
PSACTL	0432	01B0	PSAINP	0120	0078	PSASIC	0016	0010
PSADAT	0440	01B8	PSAIOP	0056	0038	PSASIP	0548	0224
PSADMR	3048	0BE8 (EQU)	PSAIPL	0000	0000	PSASNP	0096	0060
PSADPT	0400	0190	PSAISS	0328	0148	PSASOA	0544	0220
PSAIC	0014	000E	PSAISV	2020	07E4	PSASOP	0032	0020
PSAENP	0088	0058	PSAMIC	0020	0014	PSATIM	0080	0050
PSAEOP	0024	0018	PSAMNP	0112	0070	PSATPT	0392	0188
PSAERC	3072	0C00	PSAMOP	0048	0030	PSATPW	0408	0198
PSAETM	0520	0208	PSAOTB	0528	0210	PSATRV	0084	0054
PSAEXS	3628	0E2C	PSAPAT	0404	0194	PSATSA	0076	004C
PSAFIC	3064	0BF8 (EQU)	PSAPIC	0018	0012	PSAWTM	0512	0200
PSAFTM	3068	0BFC (EQU)	PSAPKB	0532	0214			
PSAG15	0008	0008	PSAPNP	0104	0068			

Assembler listing of CHAPSA

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	68 00000	CHAPSA	DSECT		
		*****			PREFIXED STORAGE AREA *****
68 00000			DS	0D	
68 00000		PSAIPL	DS	XL8	IPL PSW
68 00008		PSAG15	DS	XL4	GR15 TEMPORARY SAVE AREA
		*			FOR RECOVERY NUCLEUS
68 0000C		PSASFG	DS	XL1	SIPE FLAG BYTE
68 0000D		PSAIND	DS	XL1	INDICATOR FOR DISPATCHER &
		*			DEACTIVATOR
		*			INTERRUPTION CODE AREA IN EXTENDED
		*			PSW MODE (LOC 14-23)
68 0000E		PSAEIC	DS	XL2	EXTERNAL INTERRUPTION
68 00010		PSASIC	DS	XL2	SVC INTERRUPTION
68 00012		PSAPIC	DS	XL2	PROGRAM INTERRUPTION
68 00014		PSAMIC	DS	XL2	MACHINE CHECK INTERRUPTION
68 00016		PSAIIC	DS	XL2	INPUT/OUTPUT INTERRUPTION
		*			OLD PSW AREA
68 00018		PSAEOP	DS	XL8	EXTERNAL OLP PSW
68 00020		PSASOP	DS	XL8	SUPERVISER CALL OLD PSW
68 00028		PSAPOP	DS	XL8	PROGRAM OLD PSW

(Listing of CHAPSA continued on page 317)

(Listing of CHAPSA continued from page 316)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
68 00030	PSAMOP	DS	XL8		MACHINE CHECK OLD PSW
68 00038	PSAIOP	DS	XL8		INPUT/OUTPUT OLD PSW
68 00040	PSACSW	DS	XL8		CHANNEL STATUS WORD
68 00048	PSACAW	DS	XL4		CHANNEL ADDRESS WORD
	*				TIMER
68 0004C	PSATSA	DS	XL4		TIMER SAVE AREA
68 00050	PSATIM	DS	XL4		TIMER
68 00054	PSATRV	DS	XL4		TIMER RESET VALUE
	*				NEW PSW AREA
68 00058	PSAENP	DS	XL8		EXTERNAL NEW PSW
68 00060	PSASNP	DS	XL8		SUPERVISOR CALL NEW PSW
68 00068	PSAPNP	DS	XL8		PROGRAM NEW PSW
68 00070	PSAMNP	DS	XL8		MACHINE CHECK NEW PSW
68 00078	PSAINP	DS	XL8		INPUT/OUTPUT NEW PSW
	*				CPU LOGOUT AREA (LOCATION 128 THRU
	*				303)
68 00080	PSACLO	DS	4XL4		
	*				CHANNEL LOGOUT AREA (LOCATION 304
	*				THRU 327)
68 00130	PSAILO	DS	6XL4		
	*				CPU PRIVATE WORKING STORAGE
68 00148	PSAISS	DS	8XL4		INTERRUPT STACKER SAVE AREA
68 00168	PSACAS	DS	8XL4		CORE ALLOCATION SAVE AREA
68 00188	PSATPT	DS	XL4		TSI POINTER
68 0018C	PSAQPT	DS	XL4		GQE POINTER
68 00190	PSADPT	DS	XL4		DCB POINTER
68 00194	PSAPAT	DS	XL4		FLAG BYTE USED BY I/O PATH
68 00198	PSATPW	DS	XL8		TEMPORARY PSW USED BY
	*				DISPATCHER
68 001A0	PSASCU	DS	2XL8		SUPVR CORE ALLOC USER SAVE
	*				AREA
68 001B0	PSACTL	DS	XL8		ECRG SAVE AREA USED BY SIO
	*				DROP AREA (INTERCOMM)
68 001B8	PSADAT	DS	3XL4		TEXT OF INTERCOMM MESSAGE
68 001C4	PSAIMC	DS	XL1		INTERCOMM MESSAGE CODE
68 001C5		DS	CL1		UNUSED
68 001C6	PSACID	DS	XL1		IDENTITY OF SENDING CPU
68 001C7	PSAILK	DS	XL1		INTERCOMM LOCK BYTE
68 001C8	PSACST	DS	7XL8		CPU STATUS TABLE
68 00200	PSAWTM	DS	XL8		WAIT TIME USED BY INTERRUPT
	*				STACKER
68 00208	PSAETM	DS	XL8		ELAPSED TIMER
68 00210	PSAOTB	DS	XL4		OLD TIMER USED BY INTERRUPT
	*				STACKER
68 00214	PSAPKB	DS	XL2		I/O ADDRESS OF 1052-7
	*				PRINTER KEYBOARD
68 00216		DS	XL2		UNUSED
68 00218		DS	XL8		USED BY STRATO
68 00220	PSASOA	DS	XL4		POINTER TO SERR OPERATING
	*				AREA
68 00224	PSASIP	DS	F		FOR PERFORMANCE
	*				MEASUREMENTS USE
68 00228	PSARE1	DS	367XL4		RESERVED
	*				M4285
68 007E4	PSAISV	DS	7XL4		INTERRUPT STACKER SAVE AREA
	*				2 M4285

\*  
 \*\*\*\* SERR AREA  
 \*

NSRB 406 \*  
 N 406 \*\*\*\*  
 NSRB 406 \*

(Listing of CHAPSA continued on page 318)

(Listing of CHAPSA continued from page 317)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
68 00800		PSAIC	DS	256XL4	INTER-COM RESIDENCE
		*			NSRB 406 *
	68 00BE8	PSADMR	EQU	PSAIC+1000	SERR DAMAGE REPORT
		*			NSRB 406 *
	68 00BF8	PSAFIC	EQU	PSADMR+16	MC INT. CODE FOR BAD CPU
		*			NSRB 406 *
	68 00BFC	PSAFTM	EQU	PSADMR+20	SAVED TIMER VALUE
		*			NSRB 406 *
68 00C00		PSAERC	DS	139XL4	ERROR RECOVERY CONTROL AREA
		*			NSRB 406 *
*					NSRB 406 *
****	END OF SERR AREA				N 406 ****
*					NSRB 406 *
68 00E2C		PSAEXS	DS	3XL4	PSAEOP + PSAEIC SAVE AREA
		*			FOR INT STACKER N 406
68 00E38		PSARE2	DS	114XL4	UNASSIGNED
		*			NSRB 406

Direct Access Paging Statistical Data Record (CHAPSD)

The Direct Access Paging Statistical Data Record (CHAPSD) maintains information for channel outboard failures on direct access paging devices.

The CHAPSD resides in core storage aligned on doubleword boundaries. The CHAPSD consists of a 8 byte header and one 80 byte statistical data record (SDR) entry for each paging device in the system.

CHAPSD Storage map

DEC	HEX	
0	0	PSDLSD   PSDLWA
8	8	PSSDA   PSDFB   UNNAMED
16	10	PSDLSA
24	18	PSDLP   PSDEIC   PSDRET   UNNAMED
32	20	PSDRTH
40	28	UNNAMED
48	30	PSDTS
56	38	PSDSDR

Fields in CHAPSD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD		
0000	0000	PSDLSD	0010	000A	PSDF1	(EQU)	0028	001C	PSDRET	
0004	0004	PSDLWA	0010	000A	PSDFB		0032	0020	PSDRTH	
0008	0008	PSSDA	0016	0010	PSDLSA		0048	0030	PSDTS	
0008	0008	PSDHEND	0024	0018	PSDLP		0056	0038	PSDSDR	
0010	000A	PSDIR	(EQU)	0026	001A	PSDEIC		0088	0058	PSDEND

Alphabetical list of fields in CHAPSD

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	
PSDEIC	0026	001A	PSDIR	0010	000A	(EQU)	PSDRET	0028	001C
PSDEND	0088	0058	PSDLP	0024	0018		PSDRTH	0032	0020
PSDFB	0010	000A	PSDLSA	0016	0010		PSSDA	0008	0008
PSDF1	0010	000A	(EQU)	PSDLSD	0000	0000	PSDSDR	0056	0038
PSDHEND	0008	0008	PSDLWA	0004	0004		PSDTS	0048	0030

Assembler listing of CHAPSD

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
69 00000	CHAPSD		DSECT		
**** DIRECT ACCESS PAGING STATISTICAL DATA RECORD ****					
***** HEADER *****					
69 00000			DS	0D	
69 00000	PSDLSL		DS	F	LENGTH OF SDR ENTRY (80 BYTES)
69 00004	PSDLWA		DS	XL4	LAST WORD ADDRESS
69 00008	PSDHEND		DS	0X	END OF PAGING STATISTICAL DATA I5943
	*				RECORD TABLE HEADER I5943
	*				I5943
00000008	PSDHDSZ		EQU		PSDHEND-PSDLSL PAGING STATISTICAL DATA RECORD I5943
	*				TABLE HEADER SIZE I5943
	*				I5943
***** SDR ENTRY (ONE ENTRY PER DEVICE) *****					
69 00008	PSDSDA		DS	XL2	SYMBOLIC DEVICE ADDRESS
69 0000A	PSDFB		DS	X	FLAG BYTE
69 0000A	PSDF1		EQU	PSDFB	DEMOUNTABLE DEVICE (1=DEMOUNTABLE)
	*				DEMOUNTABLE DEVICE MASK
00000080	PSDF1M		EQU	X'80'	IMMEDIATE REPORT FLAG N392
69 0000A	PSDIR		EQU	PSDFB	IMMEDIATE REPORT MASK N392
	*				
00000040	PSDIRM		EQU	X'40'	IMMEDIATE REPORT MASK N392
	*				
69 0000B			DS	5C	SPARE
69 00010	PSDLSA		DS	XL8	LAST SEEK ADDRESS
69 00018	PSDLP		DS	XL2	PATH LAST USED
69 0001A	PSDEIC		DS	XL2	TOTAL ERROR-INCIDENT COUNT
69 0001C	PSDRET		DS	XL2	TOTAL RETRY COUNT
69 0001E			DS	H	SPARE
69 00020	PSDRTH		DS	3XL4	RETRY THRESHOLDS
69 0002C			DS	F	SPARE
69 00030	PSDTS		DS	2F	DATE TIME STAMP OF FIRST SDR ERROR
	*				IN MICRO-SECONDS
	*				SDR BUCKETS (64 @ 1/2 BYTES)
69 00038	PSDSDR		DS	8XL4	END OF PAGING STATISTICAL DATA I5943
	*				RECORD TABLE ENTRY I5943
	*				I5943
00000050	PSDSZE		EQU		PSDEND-PSDSDA PAGING STATISTICAL DATA RECORD I5943
	*				TABLE ENTRY SIZE I5943
	*				
	*				

Public/Private Volume Table (CHAPVT)

The Public Volume Table identifies and locates all volumes. Two tables exist: a public table to identify and locate volumes in public storage; and a private table to identify and locate volumes in private virtual storage.

The public PVT is created at STARTUP-SYSGEN for all public data sets. At SYSGEN, the table is created, and the volume IDs are entered. At STARTUP, each volume is located; the device type code and the symbolic device address are entered.

A private PVT resides in private virtual storage for each private data set. The table is created by ADDCAT at OPEN from the volumes identified by the JFCB, Data Set Descriptor, or DSCB. Once built, the table resides in virtual storage, accepting no additions or deletions.

The public and private tables are identical, consisting of a 16-byte header and a variable number of 16-byte entries. Both tables reside in virtual storage, aligned on doubleword boundaries.

CHAPVT Storage map

DEC	HEX	
0	0	PVTHDR
16	10	
		PVTENT

ORG PVTHDR

0	0	UNNAMED	
8	8	PVTMCT	PVTECT

ORG PVTENT

16	10	PVTVID	PVTSDA
24	18	PVDVC	PVTAVS
		PVTFLG	UNNAMED

Fields in CHAPVT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	PVTHDR	0016	0010	PVTENT	0028	001C	PVTX80	(EQU)
0012	000C	PVTMCT	0022	0016	PVTSDA	0030	001E	PVTAVS	
0014	000E	PVTECT	0024	0018	PVDVC				
0016	0010	PVTVID	0028	001C	PVTFLG				

Alphabetical list of fields in CHAPVT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
PVTAVS	0030	001E	PVTFLG	0028	001C	PVTVID	0016	0010
PVDVC	0024	0018	PVTHDR	0000	0000	PVTX80	0028	001C (EQU)
PVTECT	0014	000E	PVTMCT	0012	000C			
PVTENT	0016	0010	PVTSDA	0022	0016			

Assembler listing of CHAPVT

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	6B 00000	CHAPVT	DSECT		VAM DATA SET VOLUME TABLE
6B 00000			DS	0D	ALIGN TO DOUBLE WORD
6B 00000		PVTHDR	DS	CL16	VOLUME TABLE HEADER
	6B 00000		{ORG}	PVTHDR	SUBFIELD ALIGNMENT
6B 00000			DS	CL12	RESERVED
6B 0000C		PVTMCT	DS	CL2	MAXIMUM VOLUME ENTRY COUNT
6B 0000E		PVTECT	DS	H	COUNT OF VOLUME ENTRIES
6B 00010		PVTENT	DS	CL16	VOLUME ENTRY.
	6B 00010		{ORG}	PVTENT	SUBFIELD ALIGNMENT
6B 00010		PVTVID	DS	CL6	VOLUME ID
6B 00016		PVTSDA	DS	H	SYMBOLIC DEVICE ADDR
6B 00018		PVTDVC	DS	F	DEVICE CODE
6B 0001C		PVTFLG	DS	XL1	FLAG BYTE
	6B 0001C	PVTX80	EQU	PVTFLG	RELOCATED PAGES FLAG
	00000080	PVTX80M	EQU	X'80'	RELOCATED PAGES MASK
6B 0001D			DS	XL1	UNUSED
6B 0001E		PVTAVS	DS	H	NUMBER OF AVAILABLE PAGES
		*			ON VOLUME



Reply Checking Table (CHARET, CHADES, & CHARWD)

The Reply Checking Table contains all the allowable reply words that an operator can use when answering messages sent to him from the system.

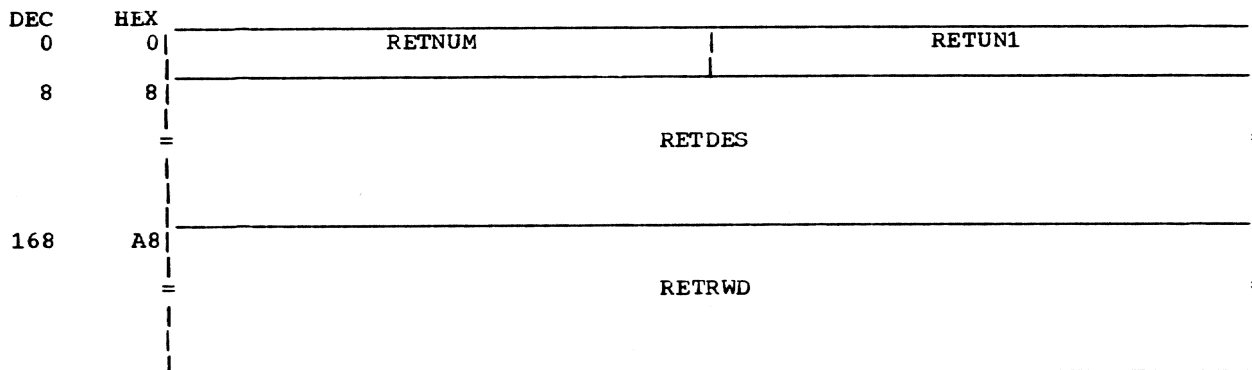
The Reply Checking Table consists of:

1. A table header (RET) indicating the number of code entries in the table.
2. A reply code descriptor (DES); and,
3. A reply checking word (RWD).

The Reply command, upon finding a reply check request, references the Reply Checking Table to locate the valid replies. A descriptor, located by the reply code number, points to the first valid reply word in the table, and also specifies how many reply words should be considered.

The Reply Checking Table occupies up to 2144 bytes of virtual storage, aligned on doubleword boundaries.

CHARET Storage map



Fields in CHARET -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	RETNUM	0004	0004	RETUN1	0008	0008	RETDES
						0168	00A8	RETRWD

Alphabetical list of fields in CHARET

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
RETDES	0008	0008	RETNUM	0000	0000	RETRWD	0168	00A8
						RETUN1	0004	0004

Assembler listing of CHARET

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
6D 00000	6D 00000	CHARET	DSECT		REPLY CHECKING TABLE HEADER
6D 00000		RETNUM	DS	0D	MAXIMUM NUMBER OF REPLY
		*			CODES
6D 00004		RETUN1	DS	F	UNUSED
6D 00008		RETDES	DS	20XL8	REPLY CODE DESCRIPTOR
6D 000A8		RETRWD	DS	245CL8	REPLY WORD ENTRY
	6E 00000	CHADES	DSECT		REPLY CODE DESCRIPTOR
6E 00000		DESWRD	DS	0D	NUMBER OF REPLY WORDS FOR
6E 00000		*			CODE
6E 00002		DESCOD	DS	H	REPLY CODE NUMBER
6E 00004		DESPNT	DS	F	POINTER TO FIRST REPLY WORD
	6F 00000	CHARWD	DSECT		REPLY WORD ENTRY
6F 00000			DS	0D	
6F 00000		RWDREP	DS	CL8	REPLY WORD DELIMITED BY
		*			COMMA

CHADES Storage map

DEC	HEX			
0	0	DESWRD	DESCOD	DESPNT

Fields in CHADES -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	DESWRD	0002	0002	DESCOD	0004	0004	DESPNT

Alphabetical list of fields in CHADES

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DESCOD	0002	0002	DESPNT	0004	0004	DESWRD	0000	0000

CHARWD Storage map

DEC	HEX	
0	0	RWDREP

Fields in CHARWD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	RWDREP						

Alphabetical list of fields in CHARWD

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
RWDREP	0000	0000						

## Relative External Storage Correspondence Table (CHARHD, CHADHD, CHAMHD, CHAEPE)

The RESTBL provides a correspondence between an open VAM data set and its external pages. The RESTBL maintains a list of external pages, vital information pertaining to the data set, and information concerning each DCB opened for use by the data set. The RESTBL is used to convert relative data set page numbers to external storage addresses, and to maintain the sharing of data set pages.

The RESTBL is a variable length table, write-protected from the user, and contained in virtual storage.

The RESTBL consists of four sections:

CHARHD	RESTBL Header
CHADHD	DCB Header
CHAMHD	Member Header
CHAEPE	External Page Entry

The four sections are fixed, but, except for the header, the number of these sections is variable. The RESTBL header is followed by the external page entries. The DCB headers and member headers originate at the end of the RESTBL and expand toward the external page entries.

### RESTBL Header (CHARHD)

The 48 byte RESTBL HEADER contains control information for the RESTBL and the data set it describes. A RESTBL has only one header.

The fields in the RESTBL HEADER are as follows:

RHDNAP - a two byte relative address, of the next available external page entry, pointing to the next available unused entry assigned to the data set. To obtain the actual relative value, shift left two bits to multiply. The two low-order bits, being zero, are not carried.

RHDFEP - a two byte offset which, when added to the address of RESTBL, yields the address of the first external page entry assigned to the data set. To obtain the actual relative value, multiply this field by four. The two low-order bits, being zero, are not carried.

RHDDIR - (two bytes)

- The number of index sequential directory pages for an index sequential data set.
- The number of pages in the POD for a partitioned data set.

RHDOVF = RHDBYT - (two bytes)

- The number of overflow pages for an index sequential data set.

- The number of bytes used in the last data page for a sequential data set.

RHDODC - a two byte address, of the first DCB header in a chain. The actual relative address is obtained by multiplying the entry by eight. The three low-order bits, being zero, are not carried.

RHDADC - a two byte relative address, of the next available DCB header. The actual relative address is obtained by multiplying the entry by eight. The three low-order bits, being zero, are not carried.

RHDOMC - a two byte relative address, of the first member header. The actual relative location is obtained by multiplying the entry by eight. The three low-order bits, being zero, are not carried.

RHDAMC - a two byte relative address, of the next available member header. The actual relative address is obtained by multiplying the entry by eight. The three low-order bits, being zero, are not carried.

RHDPOD - the virtual storage address of the partitioned organization directory (POD) for partitioned data sets.

### RESTBL External Page Entry (CHAEPE)

A four-byte field containing the address of the external device of a data page. The two high-order bits are used as flags indicating the condition of the data page. For shared data sets, the entry is preceded by a four byte interlock control word.

#### DCB Header (CHADHD)

Contains information necessary to associate a data set with a particular task; requires 64 bytes of storage.

Note 1. DHDNDH - a two-byte relative address of the next DCB header for DCBs opened for the data set. The field is zeroed when no chain exists, or if this is the last DCB. To obtain the actual relative address, multiply the entry by four. The two low-order bits, being zero, are not carried.

Note 2. DHDPDH - a two-byte relative address of the previous DCB header for the open DSBS. This entry is zeroed if it is the first entry of a chain. The actual

relative address is obtained by multiplying the entry by four. The two low-order bits, being zero, are not carried.

Member Header (CHAMHD)

Contains information necessary to associate a member of a partitioned data set with the data set described by a RESTBL. A RESTBL may contain a maximum of 65K member headers. CHAMHD requires 32 bytes of storage.

Note 1. MHDNMH - a two byte relative address of the next member header in the chain (zero, if this is the last member header). The actual relative address is obtained by multiplying the entry by eight. The three low-order bits, being zero, are not carried.

Note 2. MHDPMH - a two byte relative address of the previous member header in the chain (zero, if this is the first). The actual relative address is obtained by multiplying the entry by eight. The three low-order bits, being zero, are not carried.

CHARHD Storage map

DEC	HEX							
0	0	RHDINW	RHDINR	RHDINN	RHDINI	RHDNAP	RHDNEP	
8	8	RHD FEP		RHDDIR		RHDDAT	RHDOVF	
16	10	UNNAMED	RHDRPG	RHDTHD		RHD FLG	RHDIN1	
24	18	RHDODC		RHDADC		RHDOMC	RHDAMC	
32	20	RHDPOD			RHDTID			
40	28	RHDVTA			RHDSPT			
48	30	RHDCPO			UNNAMED			
56	38	RHDSAL		RHDRFM	RHDKYL	RHDPAD	RHDRKP	
64	40	RHDRCL			RHDDSO		RHDCRD	RHDOPC

ORG RHDINR

1	1	RHDTSLK
---	---	---------

Fields in CHARHD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	RHDINW	0020	0014	RHDCRG	(EQU)	0036	0024	RHDTID
0000	0000	RHDINT	0020	0014	RHDDSC	(EQU)	0040	0028	RHDVTA
0001	0001	RHDTSLK	0020	0014	RHDPDI	(EQU)	0044	002C	RHDSPT
0001	0001	RHDINR	0020	0014	RHDISD	(EQU)	0048	0030	RHDCPO
0002	0002	RHDINN	0020	0014	RHDSPR	(EQU)	0056	0038	RHDSAL
0003	0003	RHDINI	0020	0014	RHDISQ	(EQU)	0059	003B	RHDRFM
0004	0004	RHDNAP	0020	0014	RHDPRT	(EQU)	0060	003C	RHDKYL
0006	0006	RHDNEP	0020	0014	RHDSHR	(EQU)	0061	003D	RHDPAD
0008	0008	RHD FEP	0020	0014	RHD FLG		0062	003E	RHDRKP
0010	000A	RHDDIR	0021	0015	RHDIN1		0064	0040	RHDRCL
0012	000C	RHDDAT	0022	0016	RHDDCB		0068	0044	RHDDSO
0012	000C	RHDDBT	0024	0018	RHDODC		0070	0046	RHDREF (EQU)
0014	000E	RHD BYT (EQU)	0026	001A	RHDADC		0070	0046	RHDCHG (EQU)
0014	000E	RHDOVF	0028	001C	RHDOMC		0070	0046	RHDCRD
0017	0011	RHDRPG	0030	001E	RHDAMC		0071	0047	RHDOPC
0018	0012	RHDTHD	0032	0020	RHDPOD		0072	0048	RHDEND

Alphabetical list of fields in CHARHD

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
RHDADC	0026	001A	RHDINN	0002	0002	RHDPOD	0032	0020
RHDAMC	0030	001E	RHDINR	0001	0001	RHDPRT	0020	0014 (EQU)
RHDBYT	0014	000E (EQU)	RHDINT	0000	0000	RHDRCG	0020	0014 (EQU)
RHDCHG	0070	0046 (EQU)	RHDINW	0000	0000	RHDRCL	0064	0040
RHDCPO	0048	0030	RHDIN1	0021	0015	RHDREF	0070	0046 (EQU)
RHDCRD	0070	0046	RHDISD	0020	0014 (EQU)	RHDRFM	0059	003B
RHDDAT	0012	000C	RHDISQ	0020	0014 (EQU)	RHDRKP	0062	003E
RHDDCB	0022	0016	RHDKYL	0060	003C	RHDRPG	0017	0011
RHDDIR	0010	000A	RHDNAP	0004	0004	RHDSAL	0056	0038
RHDDSC	0020	0014 (EQU)	RHDNEP	0006	0006	RHDSHR	0020	0014 (EQU)
RHDDSO	0068	0044	RHDODC	0024	0018	RHDSPR	0020	0014 (EQU)
RHDDTB	0012	000C	RHDOMC	0028	001C	RHDSPT	0044	002C
RHDEND	0072	0048	RHDOPC	0071	0047	RHDTHD	0018	0012
RHDFEP	0008	0008	RHDOVF	0014	000E	RHDTID	0036	0024
RHDFLG	0020	0014	RHDPAD	0061	003D	RHDTSLK	0001	0001
RHDINI	0003	0003	RHDPDI	0020	0014 (EQU)	RHDVTA	0040	0028

Assembler listing of CHARHD

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	70 00000	CHARHD	DSECT		RESTBL HEADER
70 00000		RHDINT	DS	OF	INTERLOCK CONTROL
70 00000		RHDINW	DS	XL1	WRITE INTERLOCK FLAG
70 00001		RHDINR	DS	XL1	READ INTERLOCK FLAG
70 00002		RHDINN	DS	XL1	READ INTERLOCK COUNT
70 00003		RHDINI	DS	XL1	READ INTERLOCK CONTROL FLAG
		*			
	70 00001		<u>ORG</u>	RHDINR	
70 00001		RHDTSLK	DS	XL3	ADDRESS OF ROUTINE SETTING LOCK
		*			
70 00004		RHDNAP	DS	H	NEXT AVAILABLE PAGE ENTRY
70 00006		RHDNEP	DS	H	NO. AVAIL. EXTERNAL PAGES
70 00008		RHDFEP	DS	H	FIRST EXTERNAL PAGE ENTRY
70 0000A		RHDDIR	DS	H	NUMBER OF DIRECTORY PAGES
70 0000C		RHDDTB	DS	OF	
70 0000C		RHDDAT	DS	H	NUMBER OF DATA PAGES
70 0000E		RHDOVF	DS	H	NUMBER OF OVERFLOW PAGES
	70 0000E	RHDBYT	EQU	RHDOVF	BYTES IN LAST DATA PAGE
70 00010			DS	C	SPARE
70 00011		RHDRPG	DS	XL1	NO. OF RESTBL PAGES
70 00012		RHDTHD	DS	H	LOCATION OF LAST HDR SPACE
70 00014		RHDFLG	DS	XL1	FLAGS
	70 00014	RHDSHR	EQU	RHDFLG	SHARED FLAG
	00000080	RHDSHRM	EQU	X'80'	SHARED MASK
	70 00014	RHDPRT	EQU	RHDFLG	PARTITIONED FLAG
	00000040	RHDPRTM	EQU	X'40'	PARTITIONED MASK
	70 00014	RHDISQ	EQU	RHDFLG	INDEX SEQUENTIAL FLAG
	00000020	RHDISQM	EQU	X'20'	INDEX SEQUENTIAL MASK
	70 00014	RHDSPR	EQU	RHDFLG	SPARE FLAG
	00000010	RHDSPRM	EQU	X'10'	SPARE MASK
	70 00014	RHDISD	EQU	RHDFLG	ISD INTEGRITY FLAG
	00000008	RHDISDM	EQU	X'08'	ISD INTEGRITY MASK
	70 00014	RHDPDI	EQU	RHDFLG	POD INTEGRITY FLAG
	00000004	RHDPDIM	EQU	X'04'	POD INTEGRITY MASK
	70 00014	RHDDSC	EQU	RHDFLG	DSCB INTEGRITY FLAG
	00000002	RHDDSCM	EQU	X'02'	DSCB INTEGRITY MASK
	70 00014	RHDRCG	EQU	RHDFLG	RECATALOG FLAG
	00000001	RHDRCGM	EQU	X'01'	RECATALOG MASK
70 00015		RHDIN1	DS	XL1	INTERLOCK FOR FOLLOWING FIELDS
		*			
70 00016		RHDDCB	DS	H	NUMBER OF DCBS
70 00018		RHDODC	DS	H	LOC OF FIRST DCB HEADER
70 0001A		RHDADC	DS	H	NEXT AVAIL. DCB HDR SPACE
70 0001C		RHDOMC	DS	H	LOC OF FIRST MEMBER HEADER
70 0001E		RHDAMC	DS	H	NEXT MEMBER HEADER SPACE
70 00020		RHDPOD	DS	F	ADDRESS OF POD

(Listing of CHARHD continued on page 328)

(Listing of CHARHD continued from page 327)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
70 00024		RHDTID	DS	F	TASK ID WHICH SET RESTBL LOCK
		*			
70 00028		RHDVTA	DS	F	ADDRESS OF VOLUME TABLE
70 0002C		RHDSPT	DS	F	POINTER TO E DSCB OF DATA SET
		*			
70 00030		RHDCPO	DS	F	CURRENT PAGEOUT COUNT
70 00034			DS	F	RESERVED
70 00038		RHDSAL	DS	XL3	SECONDARY ALLOCATION(ESA)
70 0003B		RHDRFM	DS	XL1	RECORD FORMAT
70 0003C		RHDKYL	DS	XL1	KEY LENGTH
70 0003D		RHDPAD	DS	XL1	VI PAD FACTOR
70 0003E		RHDRKP	DS	XL2	RELATIVE KEY POSITION
70 00040		RHDRCL	DS	F	RECORD LENGTH
70 00044		RHDDSO	DS	XL2	DATA SET
		*			ORGANIZATION(DSORG)
70 00046		RHDCRD	DS	XL1	CHANGE/REFERENCE DATA FLAG BYTE
		*			
	70 00046	RHDCHG	EQU	RHDCRD	CHANGE DATA FLAG
	00000080	RHDCHGM	EQU	X'80'	CHANGE DATE MASK
	70 00046	RHDREF	EQU	RHDCRD	REFERENCE DATE FLAG
	00000040	RHDREFM	EQU	X'40'	REFERENCE DATE MASK
70 00047		RHDOPC	DS	XL1	OPTION CODES
70 00048		RHDEND	DS	0X	END OF RESTBL HEADER
		*			I6478
	00000048	RHDLNGTH	EQU	RHDEND-CHARHD	LENGTH OF RESTBL HEADER I6478
		*			
	00000004	RHDEPSZ	EQU	4	NON-SHARED EXT PAGE ENTRY SIZE I6478
		*			
	00000008	RHDSEPSZ	EQU	8	SHARED EXT PAGE ENTRY SIZE I6478
		*			
	00000003	RHDMODSZ	EQU	3	TWOS EXPONENT TO CONVERT I6478
		*			
		*			RESTBL PTRS TO
		*			DISPLACEMENTS I6478

CHADHD Storage map

DEC	HEX						
0	0	DHDDCB			DHDJFC		
8	8	DHDTSK			DHDRES		
16	10	DHDPOD			DHDLNK		
24	18	DHDOPN	DHDPRO	DHDINT	DHDCOP		
32	20	DHDISD			DHDCDP	DHDNOP	
40	28	DHDML			DHDNDH	DHDPDH	
48	30	DHDDUP			DHDSISD		
56	38	DHDDXP			DHDOXP		

Fields in CHADHD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	DHDDCB	0027	001B	DHDVRO	(EQU)	0040	0028	DHDML
0004	0004	DHDJFC	0028	001C	DHDFBP	(EQU)	0044	002C	DHDNDH
0008	0008	DHDTSK	0028	001C	DHDCOP		0046	002E	DHDPDH
0012	000C	DHDRES	0032	0020	DHDNBP	(EQU)	0048	0030	DHDDUP
0016	0010	DHDPOD	0032	0020	DHDISD		0052	0034	DHDSISD
0020	0014	DHDLNK	0036	0024	DHDFDP	(EQU)	0056	0038	DHDDXP
0024	0018	DHDOPN	0036	0024	DHDCDP		0060	003C	DHDCPR (EQU)
0025	0019	DHDPRO	0038	0026	DHDPCO	(EQU)	0060	003C	DHDOXP
0026	001A	DHDINT	0038	0026	DHDNOP		0064	0040	DHDEND

Alphabetical list of fields in CHADHD

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DHDCDP	0036	0024	DHDINT	0026	001A	DHDOXP	0060	003C
DHDCOP	0028	001C	DHDISD	0032	0020	DHDPCO	0038	0026 (EQU)
DHDCPR	0060	003C (EQU)	DHDJFC	0004	0004	DHDPDH	0046	002E
DHDDCB	0000	0000	DHDLNK	0020	0014	DHDPOD	0016	0010
DHDDUP	0048	0030	DHDML	0040	0028	DHDPRO	0025	0019
DHDDXP	0056	0038	DHDNBP	0032	0020 (EQU)	DHDRES	0012	000C
DHDEND	0064	0040	DHDNDH	0044	002C	DHDSISD	0052	0034
DHDFBP	0028	001C (EQU)	DHDNOP	0038	0026	DHDTSK	0008	0008
DHDFDP	0036	0024 (EQU)	DHDOPN	0024	0018	DHDVRO	0027	001B (EQU)

Assembler listing of CHADHD

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	2A 00000	CHADHD	DSECT		DCB HEADER
2A 00000		DHDDCB	DS	F	DCB ADDRESS
2A 00004		DHDJFC	DS	F	JFCB ADDRESS
2A 00008		DHDTSK	DS	F	TASK ID
2A 0000C		DHDRES	DS	F	RESTBL ADDRESS
2A 00010		DHDPOD	DS	F	POD ADDRESS
2A 00014		DHDLNK	DS	F	LINK TO MEMBER/RESTBL HEADER
2A 00018		DHDOPN	DS	XL1	OPEN OPTIONS
	00000000	DHDINP	EQU	X'00'	INPUT REQUEST
	0000003C	DHDOUT	EQU	X'3C'	OUTPUT REQUEST
2A 00019		DHDPRO	DS	XL1	PROTECTION CLASS
2A 0001A		DHDINT	DS	H	INTERLOCK SUMMARY
	2A 0001B	DHDVRO	EQU	DHDINT+1	READ-ONLY ACCESS
	00000080	DHDVROM	EQU	X'80'	READ-ONLY ACCESS MASK
2A 0001C		DHDCOP	DS	F	LOC OF CURRENT OFLO PAGE
	2A 0001C	DHDFBP	EQU	DHDCOP	LOC OF FIRST BUFFER PAGE
2A 00020		DHDISD	DS	F	LOC OF IND SEQ DIRECTORY
	2A 00020	DHDNBP	EQU	DHDISD	NO. OF BUFFER PAGES
2A 00024		DHDCDP	DS	H	CURRENT DATA PAGE

(Listing of CHADHD continued on page 330)

(Listing of CHADHD continued from page 329)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
2A 00026	2A 00024	DHDFDP	EQU	DHDCDP	FIRST DATA PAGE CHECKED OUT
		DHDNOP	DS	H	CURRENT OVERFLOW PAGE
	2A 00026	DHDFCO	EQU	DHDNOP	NO. DATA PAGES CHECKED OUT
2A 00028		DHDMRL	DS	F	MAX LOGICAL RECORD LENGTH
2A 0002C		DHDNDH	DS	H	NEXT DCB HEADER
2A 0002E		DHDPDH	DS	H	PREVIOUS DCB HEADER
2A 00030		DHDDUP	DS	F	ADDRESS OF DUPLEX COPY OF
		*			DS
2A 00034		DHDSISD	DS	F	ADDRESS SUPER INDEX
		*			SEQUENTIAL DIRECTORY
2A 00038		DHDDXP	DS	F	LAST DATA PAGE EXTERNAL
		*			ADDRESS
2A 0003C		DHDOXP	DS	F	LAST OVERFLOW PAGE EXTERNAL
		*			ADDRESS
	2A 0003C	DHDCPR	EQU	DHDOXP	NO PAGES IN LAST PAGING
		*			REQUEST
2A 00040		DHDEND	DS	0X	END OF DCB HEADER
		*			I6478
	00000040	DHDLNGTH	EQU	DHDEND-CHADHD	SIZE OF DCB HEADER
		*			I6478

CHAMHD Storage map

DEC	HEX								
0	0	MHDNAM							
8	8	MHD FEP		MHD DIR		MHD DAT		MHD OVF	
16	10	MHDW	MHDR	MHDN	MHDI	MHD FLG	MHDINT	MHDUSE	
24	18	MHDVAL			MHDNMH		MHDPMH		

Fields in CHAMHD -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	MHDNAM	0016	0010	MHDW	0022	0016	MHDUSE
0008	0008	MHD FEP	0017	0011	MHDR	0024	0018	MHDVAL
0010	000A	MHD DIR	0018	0012	MHDN	0028	001C	MHDNMH
0012	000C	MHD DAT	0019	0013	MHDI	0030	001E	MHDPMH
0014	000E	MHD BYT (EQU)	0020	0014	MHD FLG	0032	0020	MHDEND
0014	000E	MHD OVF	0021	0015	MHDINT			

Alphabetical list of fields in CHAMHD

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
MHD BYT	0014	000E (EQU)	MHDI	0019	0013	MHDPMH	0030	001E
MHD DAT	0012	000C	MHDINT	0021	0015	MHDR	0017	0011
MHD DIR	0010	000A	MHDN	0018	0012	MHDUSE	0022	0016
MHDEND	0032	0020	MHDNAM	0000	0000	MHDVAL	0024	0018
MHD FEP	0008	0008	MHDNMH	0028	001C	MHDW	0016	0010
MHD FLG	0020	0014	MHD OVF	0014	000E			



Assembler listing of CHAMHD

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	52 00000	CHAMHD	DSECT		MEMBER HEADER
52 00000		MHDNAM	DS	CL8	MEMBER NAME
52 00008		MHDFEP	DS	H	FIRST EXTERNAL PAGE (OFFSET)
52 0000A		MHDDIR	DS	H	NUMBER OF DIRECTORY PAGES
52 0000C		MHDDAT	DS	H	NUMBER OF DATA PAGES
52 0000E		MHDOVF	DS	H	NUMBER OVERFLOW PAGES
	52 0000E	MHDBYT	EQU	MHDOVF	BYTES USED LAST PAGES
52 00010		MHDW	DS	XL1	WRITE INTERLOCK
52 00011		MHDR	DS	XL1	READ INTERLOCK
52 00012		MHDN	DS	XL1	READ INTERLOCK COUNTER
52 00013		MHDI	DS	XL1	READ INTERLOCK CONTROL
52 00014		MHDFLG	DS	XL1	FLAGS (SHARED,PART.,ETC)
52 00015		MHDINT	DS	XL1	INTERLOCK FOR FOLLOWING FIELDS
		*			
52 00016		MHDUSE	DS	H	NUMBER OF USERS
52 00018		MHDVAL	DS	F	VALUE OF 1ST EXT PG ENTRY
52 0001C		MHDNMH	DS	H	NEXT MEMBER HEADER
52 0001E		MHDPMH	DS	H	PREVIOUS MEMBER HEADER
52 00020		MHDEND	DS	0X	END OF MEMBER HEADER
		*			16478
	00000020	MHDLNGTH	EQU	MHDEND-CHAMHD	LENGTH OF MEMBER HEADER
		*			16478

CHAEPE Storage map

DEC	HEX						
0	0	EPEINW	EPEINR	EPEINN	EPEINI	EPESDA	EPEEPN

Fields in CHAEPE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	EPEINW	0004	0004	EPEFL1	(EQU)	0004	0004	EPEEPE
0000	0000	EPEIN	0004	0004	EPERVN	(EQU)	0006	0006	EPEPNV (EQU)
0001	0001	EPEINK	0004	0004	EPEEDA	(EQU)	0006	0006	EPEEPN
0002	0002	EPEINN	0004	0004	EPEFLG	(EQU)			
0003	0003	EPEINI	0004	0004	EPESDA				

Alphabetical list of fields in CHAEPE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
EPEEDA	0004	0004 (EQU)	EPEIN	0000	0000	EPEPNV	0006	0006 (EQU)
EPEEPE	0004	0004	EPEINI	0003	0003	EPERVN	0004	0004 (EQU)
EPEEPN	0006	0006	EPEINN	0002	0002	EPESDA	0004	0004
EPEFLG	0004	0004 (EQU)	EPEINR	0001	0001			
EPEFL1	0004	0004 (EQU)	EPEINW	0000	0000			

Assembler listing of CHAEPE

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	32 00000	CHAEPE	DSECT		RESTBL EXTERNAL PAGE ENTRIES
		*			
32 00000		EPEIN	DS	0F	INTERLOCK CONTROL WORD
32 00000		EPEINW	DS	XL1	WRITE INTERLOCK
32 00001		EPEINR	DS	XL1	READ INTERLOCK
32 00002		EPEINN	DS	XL1	READ INTERLOCK COUNTER
32 00003		EPEINI	DS	XL1	READ INTERLOCK CONTROL
32 00004		EPEEPE	DS	0F	EXTERNAL ADDR OF PAGE

(Listing of CHAEPE continued on page 332)

(Listing of CHAEPE continued from page 331)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
32 00004		EPESDA	DS	H	SYMBOLIC DEVICE ADDRESS
32 00006		EPEEPN	DS	H	EXTERNAL PAGE NUMBER
32 00004	32 00004	EPEFLG	EQU	EPESDA	CONDITION FLAG
32 00004	32 00004	EPEEDA	EQU	EPESDA	EXTERNAL DEVICE CODE
32 00004	32 00004	EPERVN	EQU	EPESDA	RELATIVE VOLUME NUMBER.
32 00006	32 00006	EPEPNV	EQU	EPEEPN	PAGE NUMBER IN VOLUME.
32 00004	32 00004	EPEFL1	EQU	EPESDA	ASSIGNMENT FLAG.
000000C0		EPEFLME	EQU	X'C0'	PAGE IS IN ERROR
00000080		EPEFLM	EQU	X'80'	ASSIGNED AND NOT USED
00000040		EPEFLMR	EQU	X'40'	PAGE IS RELOCATED
00000000		EPEFLMA	EQU	X'00'	ASSIGNED AND IN USE

RJE Retry Threshold Value Table (CHARJE)

CHARJE maintains SYSGEN parameters establishing the maximum number of retry attempts for error recovery on a 2780. CHARJE occupies 12 bytes of storage.

CHARJE Storage map

DEC	HEX								
0	0	RJE27010	RJE27011	RJE27012	RJE27013	RJE27014	RJE27015	RJE27016	RJE27017
8	8	RJE27018	UNNAMED						

Fields in CHARJE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	RJE27010	0003	0003	RJE27013	0006	0006	RJE27016
0001	0001	RJE27011	0004	0004	RJE27014	0007	0007	RJE27017
0002	0002	RJE27012	0005	0005	RJE27015	0008	0008	RJE27018

Alphabetical list of fields in CHARJE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
RJE27010	0000	0000	RJE27013	0003	0003	RJE27016	0006	0006
RJE27011	0001	0001	RJE27014	0004	0004	RJE27017	0007	0007
RJE27012	0002	0002	RJE27015	0005	0005	RJE27018	0008	0008

Assembler listing of CHARJE

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	71 00000	CHARJE	DSECT		RJE RETRY THRESHOLD VALUES FOR 2780
		*			
71 00000		RJE27010	DS	X	CHANNEL DATA CHECK
71 00001		RJE27011	DS	X	UNIT CHECK/LOST DATA
71 00002		RJE27012	DS	X	UNIT CHECK/TIME OUT
71 00003		RJE27013	DS	X	UNIT CHECK/INTERVENTION REQUIRED
		*			
71 00004		RJE27014	DS	X	UNIT CHECK/BUS OUT CHECK
71 00005		RJE27015	DS	X	UNIT CHECK/DATA CHECK
71 00006		RJE27016	DS	X	UNIT CHECK/OVERRUN
71 00007		RJE27017	DS	X	INCORRECT LENGTH
71 00008		RJE27018	DS	X	'SHOULD NOT OCCUR ERRORS'
71 00009			DS	3X	UNUSED
		*			NOTE: THE FORMAT FOR THIS BLOCK MUST BE
		*			IDENTICAL TO THE
		*			FORMAT OF THE 2701 RETRY THRESHOLDS IN
		*			THE CHASDT DSECT.
		*			BOTH MUST MATCH THE FORMAT OF THE RETRY
		*			COUNTERS IN
		*			THE IORCB DSECT AT IORRJCT WITH THE
		*			EXCEPTION OF THE
		*			'SHOULD NOT OCCUR ERRORS' FOR WHICH
		*			THERE IS ONLY ONE VALUE.

Reply Queue Entry (CHARQE)

Each reply queue entry in the reply queue contains information for a message which requires an operator reply. This queue is periodically searched for overdue replies. Overdue replies, when found, will be processed so as not to delay the task that issued the message. CHARQE occupies 32 bytes of storage.

CHARQE Storage map

DEC	HEX	
0	0	RQELNG   RQERCD   RQECKN   RQELNK
8	8	RQESND   RQERNO   RQEMEB
16	10	RQETIM
24	18	RQEUID

Fields in CHARQE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	RQELNG	0004	0004	RQELNK	0012	000C	RQEMEB
0002	0002	RQERCD	0008	0008	RQESND	0016	0010	RQETIM
0003	0003	RQECKN	0010	000A	RQERNO	0024	0018	RQEUID

Alphabetical list of fields in CHARQE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
RQECKN	0003	0003	RQEMEB	0012	000C	RQESND	0008	0008
RQELNG	0000	0000	RQERCD	0002	0002	RQETIM	0016	0010
RQELNK	0004	0004	RQERNO	0010	000A	RQEUID	0024	0018

Assembler listing of CHARQE

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	72 00000	CHARQE	DSECT		
72 00000		RQELNG	DS	0D	
		*		H	TEST LENGTH OF
					MESSAGE=MCBLNG*8-16
72 00002		RQERCD	DS	XL1	MEB RETURN CODE FROM MCBRC
72 00003		RQECKN	DS	XL1	REPLY CHECKING NUMBER
72 00004		RQELNK	DS	F	REPLY QUEUE LINK FIELD
72 00008		RQESND	DS	H	SENDING TID - FRM MCBSND
72 0000A		RQERNO	DS	H	REPLY NUMBER - ASSIGNED BY
		*			CZACA (A)
72 0000C		RQEMEB	DS	F	ADDRESS OF MEB - FROM
		*			MCBMEB
72 00010		RQETIM	DS	CL8	LOG-IN TIME OR TIME OF LAST
		*			PROMPT
72 00018		RQEUID	DS	CL8	USERID OF SENDER - FROM
		*			OPHUID
	00000020	RQELN	EQU	*-CHARQE	LENGTH OF DSECT

Request Queue (CHARQU, CHASHD, & CHAENT)

The Request Queue maintains ordered lists of pending requests (by device class requested) for I/O devices in the system.  
The Request Queue consists of the following:

1. A table header (RQU).
2. A number of subqueue headers (SHD). Each of these subqueue headers describes the subqueue associated with one device class in the system. These headers are ordered on the device class field and contain a pointer to the first queue entry for that device class.
3. Subqueue entries (ENT). Each subqueue entry contains a pointer to the next entry in the same subqueue, along with an indicator of the type of request and the requesting task ID.

The Request Queue occupies a minimum of 824 bytes of virtual storage, aligned on doubleword boundaries.

CHARQU Storage map

DEC	HEX				
0	0	RQUFAV	RQUNOD	RQUBLK	RQULOK

Fields in CHARQU -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	RQUFAV	0004	0004	RQUNOD	0006	0006	RQUBLK
						0007	0007	RQULOK

Alphabetical list of fields in CHARQU

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
RQUBLK	0006	0006	RQUFAV	0000	0000	RQUIOK	0007	0007
						RQUNOD	0004	0004

Assembler listing of CHARQU

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	73 00000	CHARQU	DSECT		REQUEST QUEUE
73 00000		RQUFAV	DS	0D	
73 00000		*	DS	F	ADDRESS OF THE FIRST AVAILABLE ENTRY
73 00004		RQUNOD	DS	H	NO OF SUBQUEUE HEADERS
73 00006		RQUBLK	DS	CL1	SPARE
73 00007		RQULOK	DS	XL1	TABLE LOCK BYTE
	74 00000	CHASHD	DSECT		
74 00000			DS	0D	
74 00000		SHDLOC	DS	XL1	SUBQUEUE LOCK BYTE
74 00001		SHDNOQ	DS	XL1	NO OF REQUESTS IN THE SUBQUEUE
74 00002		*			
74 00002		SHSDA	DS	XL1	NO OF THE SDA REQUESTS IN THE SUBQUEUE
74 00003		*			
74 00003		SHDNCV	DS	XL1	NO OF CONVERSATIONAL REQUESTS IN THE SUBQUEUE
74 00004		*			
74 00004		SHDDTC	DS	H	DEVICE TYPE CODE-HEX
	74 00004	SHDCDR	EQU	SHDDTC	CARD READER FLAG
	0000801	SHDCDRM	EQU	X'0801'	CARD READER MASK
	74 00004	SHDCDP	EQU	SHDDTC	CARD PUNCH FLAG
	0000802	SHDCDPM	EQU	X'0802'	CARD PUNCH MASK
	74 00004	SHDPTR	EQU	SHDDTC	1403 PRINTER FLAG
	0000808	SHDPTRM	EQU	X'0808'	1403 PRINTER MASK
	74 00004	SHDD11	EQU	SHDDTC	2311 DISK FLAG
	00002001	SHDD11M	EQU	X'2001'	2311 DISK MASK
	74 00004	SHDD14	EQU	SHDDTC	2314 DISK FLAG
	00002008	SHDD14M	EQU	X'2008'	2314 DISK MASK
	74 00004	SHDDRU	EQU	SHDDTC	2301 DRUM FLAG
	00002002	SHDDRUM	EQU	X'2002'	2301 DRUM MASK
	74 00004	SHDDAC	EQU	SHDDTC	2321 DATA CELL FLAG
	00002003	SHDDACM	EQU	X'2003'	2321 DATA CELL MASK
	74 00004	SHDTPD	EQU	SHDDTC	2400 TAPE DRIVE FLAG

(Listing of CHARQU continued on page 336)

(Listing of CHARQU continued from page 335)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00008001	SHDTPDM	EQU	X'8001'	2400 TAPE DRIVE MASK
	74 00004	SHDD02	EQU	SHDDTC	2302 DRUM FLAG
	00002004	SHDD02M	EQU	X'2004'	2302 DRUM MASK
74 00006		SHDSP1	DS	H	SPARE
74 00008		SHDSAD	DS	F	ADDRESS OF THE FIRST QUEUE
		*			ENTRY
74 0000C		SHDLST	DS	F	ADDRESS OF THE LAST QUEUE
		*			ENTRY
	75 00000	CHAENT	DSECT		
75 00000			DS	0D	
75 00000		ENTNEX	DS	F	ADDRESS OF THE NEXT QUEUE
		*			ENTRY
75 00004		ENTEFL	DS	XL1	FLAG BYTE
	75 00004	ENTEL	EQU	ENTEFL	MESSAGE SENT FLAG
	00000080	ENTEML	EQU	X'80'	
	75 00004	ENTE0	EQU	ENTEFL	SDA FLAG
	00000040	ENTEOM	EQU	X'40'	
	75 00004	ENTEC	EQU	ENTEFL	CONVERSATIONAL FLAG
	00000020	ENTE0M	EQU	X'20'	
75 00005		ENTSPR	DS	XL1	SPARE
75 00006		ENTTID	DS	H	TASK I D
75 00008		ENTBCK	DS	F	BACKWARD LINK
75 0000C		ENTSDA	DS	F	SDAT ADDRESS
	75 0000C		ORG	*-4	
75 0000C		ENTSDS	DS	H	SDASDA-SYMBOLIC DEVICE
		*			ADDRESS
75 0000E		ENTDEV	DS	XL1	OPTIONAL FEATURES ON THE
		*			DEVICE
75 0000F		ENTSP	DS	XL1	SPARE
		*			DEVICE CODES FOR SHDDTC
		* 0801=2540	CARD READER		2001=2311 DISK PACK
		* 0802=2540	CARD PUNCH		2002=2301 DRUM
		* 0808=1403	PRINTER		2003=2321 DATA CELL
		* 0810=2671	PERFORATED		2004=2302 DISK
		*			TAPE READER 2008=2314
		*			8001=2400 TAPE DRIVE

CHASHD Storage map

DEC	HEX					SHDDTC	SHDSP1
0	0	SHDLOC	SHDNOQ	SHSDA	SHDNCV		
8	8	SHDSAD				SHDLST	

Fields in CHASHD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SHDLOC	0004	0004	SHDDAC (EQU)	0004	0004	SHDCDR (EQU)
0001	0001	SHDNOQ	0004	0004	SHDDRU (EQU)	0004	0004	SHDDTC (EQU)
0002	0002	SHSDA	0004	0004	SHDD14 (EQU)	0006	0006	SHDSP1 (EQU)
0003	0003	SHDNCV	0004	0004	SHDD11 (EQU)	0008	0008	SHDSAD (EQU)
0004	0004	SHDD02 (EQU)	0004	0004	SHDPTR (EQU)	0012	000C	SHDLST (EQU)
0004	0004	SHDTPD (EQU)	0004	0004	SHDCDP (EQU)			

Alphabetical list of fields in CHASHD

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SHDCDP	0004	0004 (EQU)	SHDD11	0004	0004 (EQU)	SHDPTR	0004	0004 (EQU)
SHDCDR	0004	0004 (EQU)	SHDD14	0004	0004 (EQU)	SHDSAD	0008	0008
SHDDAC	0004	0004 (EQU)	SHDLOC	0000	0000	SHSDA	0002	0002
SHDDRU	0004	0004 (EQU)	SHDLST	0012	000C	SHDSP1	0006	0006
SHDDTC	0004	0004 (EQU)	SHDNCV	0003	0003	SHDTPD	0004	0004 (EQU)
SHDD02	0004	0004 (EQU)	SHDNOQ	0001	0001			

CHAENT Storage map

DEC	HEX				ENTTID
0	0	ENTNEX	ENTEFL	ENTSPR	
8	8	ENTBCK	ENTSDA		
ORG	*-4				
12	C	ENTSDS		ENTDEV	ENTSP

Fields in CHAENT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ENTNEX	0004	0004	ENTEFL	0012	000C	ENTSDS
0004	0004	ENTEC (EQU)	0005	0005	ENTSPR	0012	000C	ENTSDA
0004	0004	ENTE0 (EQU)	0006	0006	ENTTID	0014	000E	ENTDEV
0004	0004	ENTEL (EQU)	0008	0008	ENTBCK	0015	000F	ENTSP

Alphabetical list of fields in CHAENT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ENTBCK	0008	0008	ENTEL	0004	0004 (EQU)	ENTSDS	0012	000C
ENTDEV	0014	000E	ENTE0	0004	0004 (EQU)	ENTSP	0015	000F
ENTEC	0004	0004 (EQU)	ENTNEX	0000	0000	ENTSPR	0005	0005
ENTEFL	0004	0004	ENTSDA	0012	000C	ENTTID	0006	0006

Resident Shared-Page Index (CHARSP)

The Resident Shared-Page Index (RSPI) contains the status and control information required by the Resident Supervisor to maintain the shared-page tables.

The RSPI indicates the core storage location (if available), the intransit state, and the length of shared-page tables. In addition, the RSPI indicates the existence and identity of items in a GQE chain of TSIs waiting for an in-transit condition to end. One RSPI entry is assigned for each currently active shared-page table number.

The RSPI is used or set by ADSPG, Page Posting, Page Turning, and Timer Interrupt Processor.

Sixteen bytes of core storage are allocated to RSPI, aligned on word boundaries.

CHARSP Storage map

DEC	HEX				
0	0	RSPPTL	RSPPTO	RSPSPT	RSPLOCK   RSPFL1
8	8	RSPGQE		RSPN	RSPU   RSPLNG

Fields in CHARSP -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	RSPPTL	0007	0007	RSPOI (EQU)	0007	0007	RSPFL1
0001	0001	RSPPTO	0007	0007	RSPII (EQU)	0008	0008	RSPGQE
0004	0004	RSPSPT	0007	0007	RSPAV (EQU)	0012	000C	RSPN
0006	0006	RSPLOCK	0007	0007	RSPPS (EQU)	0013	000D	RSPU
0007	0007	RSPGI (EQU)	0007	0007	RSPVA (EQU)	0014	000E	RSPLNG

Alphabetical list of fields in CHARSP

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
RSPAV	0007	0007 (EQU)	RSPLNG	0014	000E	RSPPTL	0000	0000
RSPFL1	0007	0007	RSPLOCK	0006	0006	RSPPTO	0001	0001
RSPGI	0007	0007 (EQU)	RSPN	0012	000C	RSPSPT	0004	0004
RSPGQE	0008	0008	RSPOI	0007	0007 (EQU)	RSPU	0013	000D
RSPII	0007	0007 (EQU)	RSPPS	0007	0007 (EQU)	RSPVA	0007	0007 (EQU)



Assembler listing of CHARSP

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	76 00000	CHARSP	DSECT		
76 00000			DS	0F	
76 00000		RSPPTL	DS	XL1	SHARED PAGE TABLE LENGTH
76 00001		RSPPTO	DS	XL3	SHARED PAGE TABLE ORIGIN
76 00004			DS	0H	
76 00004		RSPSPT	DS	H	SHARED PAGE TABLE NUMBER
76 00006		RSPLOCK	DS	XL1	LOCK BYTE FOR SHARED PAGE
		*			TABLE UPDATE
76 00007		RSPFL1	DS	XL1	FIRST FLAG BYTE
	76 00007	RSPVA	EQU	RSPFL1	VARIABLE SEGMENT FLAG
	00000080	RSPVAM	EQU	X'80'	VARIABLE SEGMENT MASK
	76 00007	RSPPS	EQU	RSPFL1	PUBLIC PAGE TABLE FLAG
	00000010	RSPPSM	EQU	X'10'	PUBLIC PAGE TABLE MASK
	76 00007	RSPAV	EQU	RSPFL1	SHARED PAGE TABLE
		*			AVAILABILITY FLAG
	00000008	RSPAVM	EQU	X'08'	SHARED PAGE TABLE
		*			AVAILABILITY MASK
	76 00007	RSPPII	EQU	RSPFL1	INCOMING IN-TRANSIT
		*			CONDITION FLAG
	00000004	RSPPIIM	EQU	X'04'	INCOMING IN-TRANSIT
		*			CONDITION MASK
	76 00007	RSPPOI	EQU	RSPFL1	OUTGOING IN-TRANSIT
		*			CONDITION FLAG
	00000002	RSPPOIM	EQU	X'02'	OUTGOING IN-TRANSIT
		*			CONDITION MASK
	76 00007	RSPGI	EQU	RSPFL1	GQE CHAIN INDICATOR FLAG
	00000001	RSPGIM	EQU	X'01'	GQE CHAIN INDICATOR MASK
76 00008			DS	0F	
76 00008		RSPGQE	DS	F	GQE CHAIN
76 0000C		RSPN	DS	XL1	IN-USE PAGE COUNT
76 0000D		RSPU	DS	XL1	UNUSED PAGE COUNT
76 0000E		RSPLNG	DS	H	NUMBER OF BYTES ASSIGNED
		*			THIS SPT

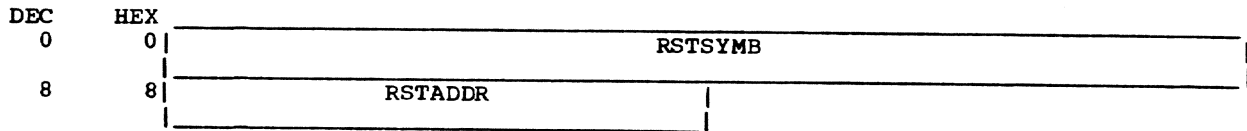
TSSS Real Symbol Table (CHARST)

The Real Symbol Table contains pointers to external symbols used in the TSSS Resident Support System (RSS) and in the Resident Supervisor, and is used for resolution of these symbols.

Each three-word entry contains a 2-word symbol name, and a 1-word address for that symbol. The last entry in the table is a two-word field of X'FFFFFFFFFFFFFF'.

The Real Symbol Table resides in virtual storage aligned on word boundaries.

CHARST Storage map



Fields in CHARST -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	RSTSYMB	0008	0008	RSTADDR			

Alphabetical list of fields in CHARST

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
RSTADDR	0008	0008	RSTSYMB	0000	0000			

Assembler listing of CHARST

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			REAL SYMBOL TABLE PROVIDED BY
		*			STARTUP
	77 00000	CHARST	DSECT		
77 00000		RSTSYMB	DS	2F	SYMBOL PORTION OF ENTRY
77 00008		RSTADDR	DS	F	ADDRESS PORTION OF ENTRY
		*			TWO FULL WORDSD
		*			TWO FULL WORDS OF 'ALL BITS ON'
		*			INDICATE THE END OF THE TABLE
		*			X'FFFFFFFFFFFFFF'

Real-Time Interrupt-Pending Queue (CHARTI) Entry

The Real-Time Interrupt-Pending Queue (RTI) contains information necessary for creating a real-time interruption. The variable length RTI consists of a string of 4-word RTI entries, aligned on doubleword boundaries.

CHARTI Storage map

DEC	HEX	
0	0	RTITIME
8	8	RTITSI   RTIFLAG   RTIADCON

Fields in CHARTI -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	RTITIME	0012	000C	RTIADP (EQU)	0012	000C	RTIFLAG
0008	0008	RTITSI	0012	000C	RTICNCL (EQU)	0013	000D	RTIADCON

Alphabetical list of fields in CHARTI

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
RTIADCON	0013	000D	RTICNCL	0012	000C (EQU)	RTITIME	0000	0000
RTIADP	0012	000C (EQU)	RTIFLAG	0012	000C	RTITSI	0008	0008

Assembler listing of CHARTI

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
78 00000		CHARTI	DSECT		REAL TIME INTERRUPT PENDING QUEUE ENTRY
*****					
* POINTERS AND COUNTS PERTAINING TO CHARTI ARE *					
* FOUND IN CHASYS (SYSRT1 THROUGH SYSRT6) AND ARE *					
* MAINTAINED BY SET REAL TIME INTERRUPT(CEAS7)AND CREATE *					
* REAL TIME INTERRUPT (CEAKR). INITIALLY, CEAS7 REQUESTS*					
* 64 BYTES OF CORE FOR CHARTI. FOUR FOUR-WORD ENTRIES *					
* ARE ARRANGED IN PHYSICAL SEQUENTIAL ORDER OF INCREASING*					
* REAL TIME WITHIN THIS CORE BLOCK. WHEN MORE SPACE IS *					
* NEEDED, LARGER CORE BLOCKS ARE OBTAINED IN MULTIPLES OF*					
* 64,THE EXISTING CORE BLOCK IS MOVED INTO THE LARGER ONE*					
* AND THE NEW ENTRIES ARE ADDED, AND THE OLD CORE BLOCK *					
* SPACE IS RELEASED. *					
*****					
78 00000		RTITIME	DS	D	TIME OF EXPECTED REAL-TIME INTERRUPT
78 00008		RTITSI	DS	F	ADDRESS OF TSI
78 0000C		RTIFLAG	DS	XL1	FLAG BYTE
78 0000D		RTIADCON	DS	XL3	ADDRESS OF ROUTINE FOR WHICH INTERRUPT IS INTENDED
78 0000C		RTICNCL	EQU	RTIFLAG	CANCEL INTERRUPT REQUEST FLAG
00000001		RTICNCLM	EQU	X'01'	CANCEL INTERRUPT REQUEST MASK
78 0000C		RTIADP	EQU	RTIFLAG	ADCON PRESENT FLAG
00000002		RTIADPM	EQU	X'02'	ADCON PRESENT MASK

Symbolic-to-Actual Conversion Table (CHASAC)

The Symbolic-to-Actual Address Conversion Table (SAC) enables direct lookup for converting symbolic device addresses to actual device addresses. SAC occupies from 4 to 32,768 bytes of core storage, aligned on fullword boundaries.

CHASAC Storage map

DEC	HEX		
0	0	SACHDA	UNNAMED

ORG SACBEG

0	0	SACDA	UNNAMED
---	---	-------	---------

Fields in CHASAC -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SACDA	0000	0000	SACHDA	0000	0000	SACBEG
0000	0000	SACDP	0000	0000	SACHED			

Alphabetical list of fields in CHASAC

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SACBEG	0000	0000	SACDP	0000	0000	SACHED	0000	0000
SACDA	0000	0000	SACHDA	0000	0000			

Assembler listing of CHASAC

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	79 00000	CHASAC	DSECT		SYMBOLIC TO ACTUAL ADDRESS CONVERSION TBL
		*			ALIGN ON FULL WORD BOUNDARY
79 00000		SACBEG	DS	0F	HEADER
79 00000		SACHED	DS	0F	MAX SYMB DEV ADDR IN TABLE
79 00000		SACHDA	DS	H	NOT USED
79 00002			DS	H	
	79 00000	ORG	SACBEG		
79 00000		SACDP	DS	0F	DEV GP TBL PTR (RTMOST 3 BYTES)
		*			ACTUAL DEVICE ADDRESS
79 00000		SACDA	DS	C	DEVICE GP TBL PTR
79 00001			DS	3C	
		* NOTE 1-	THE FULL WORD SYMBOLIC DEVICE ENTRY		
		*	(LABEL SACDA) IS		
		*	REPEATED N TIMES WHERE N IS THE MAXIMUM		
		*	SYSTEM SYMBOLIC		
		*	DEVICE ADDRESS.		

SERR Auxiliary Queue (CHASAQ)

The SERR Auxiliary Queue (SAQ) contains I/O status information required by Systems Error Routines (SERR). The SAQ, formed from pending I/O interruptions, describes the operational status of the I/O device(s) required by SERR (e.g., paging drum and/or operator's console). The status information is obtained from the Test I/O (TIO) procedure in the SERR Bootstrap module (CMASA).

The SAQ resides in real core storage, aligned on fullword boundaries. A 4 byte header is followed by reserved storage for at least six 44-byte entries.

CHASAQ Storage map

DEC	HEX	SAQLK	SAQCTL	SAQLN	SAQFLG	UNNAMED	SAQIC
0	0						
8	8	SAQCSW					
16	10	SAQSNS					
24	18	SAQCHL					

ORG SAQCSW

8	8	SAQTSI	
			SAQISP

Fields in CHASAQ -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SAQLK	0004	0004	SAQFB	(EQU) 0008	0008	SAQCSW
0001	0001	SAQDA	(EQU) 0004	0004	SAQFA	(EQU) 0012	000C	SAQISP
0001	0001	SAQCTL	0004	0004	SAQFLG	0016	0010	SAQSNS
0002	0002	SAQLN	0004	0004	SAQSSO	(EQU) 0024	0018	SAQCHL
0004	0004	SAQFI	(EQU) 0006	0006	SAQIC			
0004	0004	SAQFC	(EQU) 0008	0008	SAQTSI			

Alphabetical list of fields in CHASAQ

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SAQCHL	0024	0018	SAQFC	0004	0004	(EQU) SAQLN	0002	0002
SAQCSW	0008	0008	SAQFI	0004	0004	(EQU) SAQSNS	0016	0010
SAQCTL	0001	0001	SAQFLG	0004	0004	SAQSSO	0004	0004 (EQU)
SAQDA	0001	0001 (EQU)	SAQIC	0006	0006	SAQTSI	0008	0008
SAQFA	0004	0004 (EQU)	SAQISP	0012	000C			
SAQFB	0004	0004 (EQU)	SAQLK	0000	0000			

Assembler listing of CHASAQ

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	7A 00000	CHASAQ	DSECT		
		*****			
		*          HEADER          *			
		*****			
7A 00000			DS	0D	
7A 00000		SAQLK	DS	XL1	LOCK BYTE - USED BY
		*			INTERRUPT STACKER
7A 00001		SAQCTL	DS	XL1	CONTROL BYTE.
	7A 00001	SAQDA	EQU	SAQCTL	
	00000080	SAQDAM	EQU	X'80'	DATA IN QUEUE FLAG, SET BY
		*			SERR
7A 00002		SAQLN	DS	XL2	NUMBER OF QUEUE DATA
		*			SECTIONS. MINIMUM IS 6
	7A 00004	SAQSSO	EQU	*	ORIGIN OF REPEATING SECTION
		*****			
		*          QUEUE DATA SECTION          *			
		*****			
7A 00004		SAQFLG	DS	CL1	FLAG BYTE-CLEARED BY CEAJI
	7A 00004	SAQFA	EQU	SAQFLG	
	00000080	SAQFAM	EQU	X'80'	PSA CSW PRESENT
	7A 00004	SAQFB	EQU	SAQFLG	
	00000040	SAQFBM	EQU	X'40'	SENSE DATA PRESENT
	7A 00004	SAQFC	EQU	SAQFLG	
	00000020	SAQFCM	EQU	X'20'	CHANNEL LOGOUT PRESENT
	7A 00004	SAQFI	EQU	SAQFLG	
	00000010	SAQFIM	EQU	X'10'	QUEUE SPECIFIED PROG. INT
7A 00005			DS	CL1	SPARE REQUIRED FOR
		*			ALIGNMENT
7A 00006		SAQIC	DS	XL2	INTERRUPT CODE
7A 00008		SAQCSW	DS	XL8	CHANNEL STATUS WORD ENTRY
7A 00010		SAQSNS	DS	XL8	SENSE DATA ENTRY
7A 00018		SAQCHL	DS	XL24	CHANNEL LOG ENTRY
	7A 00008		<u>DS</u>	SAQCSW	
7A 00008		SAQTSI	DS	CL4	TSI POINTER
7A 0000C		SAQISP	DS	CL36	NOT USED IF SAQFIM ON
	0000002C	SAQLNG	EQU	*-SAQSSO	LENGTH OF SECTION

System Activity and Resources Table (CHASAR)

The System Activity and Resources Table (SAR) is defined for the SERR routines. SAR occupies 80 bytes of shared virtual storage.

CHASAR Storage map

DEC	HEX					
0	0	SARLCK	SARACT	SARCUR	SARSPA	SAREXC
8	8	SARPRI			SARPUN	
16	10	SARTAP			SARRJE	
24	18	SARREM			SARNRM	
32	20	SARMCA			SARREP	
40	28	SARTTS			SARPUB	
48	30	SARCON	SARBAK	SARRDA	SARAPR	
56	38	SARARD	SARAPN	SARATP	SARADK	
64	40	SARAUD			SARAUP	
72	48	SARTIM				
88	58	SARCNL	SARBTL	SARRML	SARMAL	
96	60	SARMMMA	SARMCN	SARMBT	SARMRM	
104	68	SARCNC	SARBAS	SARSPA2		

Fields in CHASAR -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SARLCK	0040	0028	SARTTS	0088	0058	SARCNL
0001	0001	SARACT	0044	002C	SARPUB	0090	005A	SARBTL
0002	0002	SARCUR	0048	0030	SARCON	0092	005C	SARRML
0003	0003	SARSPA	0050	0032	SARBAK	0094	005E	SARMAL
0004	0004	SAREXC	0052	0034	SARRDA	0096	0060	SARMMMA
0008	0008	SARPRI	0054	0036	SARAPR	0098	0062	SARMCN
0012	000C	SARPUN	0056	0038	SARARD	0100	0064	SARMBT
0016	0010	SARTAP	0058	003A	SARAPN	0102	0066	SARMRM
0020	0014	SARRJE	0060	003C	SARATP	0104	0068	SARCNC
0024	0018	SARREM	0062	003E	SARADK	0106	006A	SARBAS
0028	001C	SARNRM	0064	0040	SARAUD	0107	006B	SARSPA2
0032	0020	SARMCA	0068	0044	SARAUP	0112	0070	SAREND (EQU)
0036	0024	SARREP	0072	0048	SARTIM			

Alphabetical list of fields in CHASAR

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SARACT	0001	0001	SARCON	0048	0030	SARPUB	0044	002C
SARADK	0062	003E	SARCUR	0002	0002	SARPUN	0012	000C
SARAPN	0058	003A	SAREND	0112	0070 (EQU)	SARRDA	0052	0034
SARAPR	0054	0036	SAREXC	0004	0004	SARREM	0024	0018
SARARD	0056	0038	SARLCK	0000	0000	SARREP	0036	0024
SARATP	0060	003C	SARMAL	0094	005E	SARRJE	0020	0014
SARAUD	0064	0040	SARMBT	0100	0064	SARRML	0092	005C
SARAUP	0068	0044	SARMCA	0032	0020	SARSPA	0003	0003
SARBAK	0050	0032	SARMCN	0098	0062	SARSPA2	0107	006B
SARBAS	0106	006A	SARMMMA	0096	0060	SARTAP	0016	0010
SARBTL	0090	005A	SARMRM	0102	0066	SARTIM	0072	0048
SARCNC	0104	0068	SARNRM	0028	001C	SARTTS	0040	0028
SARCNL	0088	0058	SARPRI	0008	0008			

Assembler listing of CHASAR

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	7B 00000	CHASAR	DSECT		
7B 00000		SARLCK	DS	CL1	LOCK BYTE
7B 00001		SARACT	DS	CL1	SET TO 1 INDICATES SARD
		*			ACTIVE
7B 00002		SARCUR	DS	CL1	SET TO 1 INDICATES SARD IS
		*			CURRENT
7B 00003		SARSPA	DS	CL1	RESERVED
7B 00004		SAREXC	DS	CL4	NUM OF EXEC JOBS PENDING IN
		*			BWQ
7B 00008		SARPRI	DS	CL4	NUM OF PRINT JOBS PENDING
		*			IN BWQ
7B 0000C		SARPUN	DS	CL4	NUM OF PUNCH JOBS PENDING
		*			IN BWQ
7B 00010		SARTAP	DS	CL4	NUM OF TAPE JOBS PENDING IN
		*			BWQ
7B 00014		SARRJE	DS	CL4	NUM OF RJE JOBS PENDING IN
		*			BWQ
7B 00018		SARREM	DS	CL4	NUM OF TASKS RUNNING IN
		*			BACKGROUND
7B 0001C		SARNRM	DS	FL4	NUMBER OF BATCH TASKS IN
		*			EXECUTION N38
				6**	
7B 00020		SARMCA	DS	FL4	COUNT OF ACTIVE MTT
		*			ADMINISTRATORS N38
				6**	
7B 00024		SARREP	DS	CL4	NUM OF UNANSWERED REPLY
		*			MESSAGES
7B 00028		SARTTS	DS	CL4	NUM OF PUB STOR PAGES IN
		*			TEMP USE
7B 0002C		SARPUB	DS	CL4	AMOUNT OF AVAILABLE PUB
		*			STOR PAGES
7B 00030		SARCON	DS	CL2	NUM OF CONV TASKS LOGGED ON
7B 00032		SARBAK	DS	CL2	NUM OF NON-CONV TASKS
		*			LOGGED ON
7B 00034		SARRDA	DS	CL2	NUM OF ACTIVE RJE STATIONS
7B 00036		SARAPR	DS	CL2	NUM OF AVAILABLE PRINTERS
7B 00038		SARARD	DS	CL2	NUM OF AVAILABLE READERS
7B 0003A		SARAPN	DS	CL2	NUM OF AVAILABLE PUNCHES
7B 0003C		SARATP	DS	CL2	NUM OF AVAILABLE TAPES
7B 0003E		SARADK	DS	CL2	NUM OF AVAILABLE DISKS
7B 00040		SARAUD	DS	CL4	NUM OF AVAILABLE DRUM PAGES
7B 00044		SARAUP	DS	CL4	NUM OF AVAILABLE DISK PAGES
7B 00048		SARTIM	DS	CL16	CURRENT SARD TIME WHEN
		*			ACTIVE
7B 00058		SARCNL	DS	HL2	NUMBER OF CONV. TASKS
		*			CURRENTLY ALLOWED N38
				6**	
7B 0005A		SARBTL	DS	HL2	NUMBER OF BATCH TASKS
		*			CURRENTLY ALLOWED N38
				6**	
7B 0005C		SARRML	DS	HL2	NUMBER OF REMOTE TASKS
		*			CURRENTLY ALLOWED N38
				6**	
7B 0005E		SARMAL	DS	HL2	NUMBER OF MTT ADMIN.TASKS
		*			CURRENTLY ALLOWED N38
				6**	
7B 00060		SARMMA	DS	HL2	MAX.NUMBER OF MTT
		*			ADMIN.TASKS ALLOWED N38
				6**	

(Listing of CHASAR continued on page 347)



(Listing of CHASAR continued from page 346)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
7B 00062		SARMCN *	DS	HL2	MAXIMUM NUMBER OF CONV. TASKS ALLOWED N38
				6**	
7B 00064		SARMBT *	DS	HL2	MAXIMUM NUMBER OF BATCH TASKS ALLOWED N38
				6**	
7B 00066		SARMRM *	DS	HL2	MAXIMUM NUMBER OF REMOTE TASKS ALLOWED N38
				6**	
7B 00068		SARCNC *	DS	HL2	COUNT OF CURRENT CONVERSATIONAL TASKS N38
				6**	
7B 0006A		SARBAS *	DS	XL1	BULKIO SUPPRESS FLAG SET X'01' TO SUPPRESS BIO N38
				6**	
7B 0006B		SARSPA2 *	DS	XL5	RESERVED N386
	7B 00070	SAREND	EQU	*	
	00000070	SARLEN	EQU	SAREND-CHASAR	LENGTH OF SARD TABLE

System Accounting Table (CHASAT)

The System Accounting Table (SAT) contains accumulated CPU time used by an individual task. Records are maintained for individual charge numbers and user IDs. Entries are added and updated by the accounting routine.

An unfilled data set is defined at SYSGEN. Virtual storage contains the JFCB which is added to the task definition table upon initiation.

The SAT (24 bytes) resides on a system residence volume as a VISAM data set aligned on doubleword boundaries. The key is a combination of charge numbers and userid.

CHASAT Storage map

DEC	HEX	
0	0	SATCNO
8	8	SATUID
16	10	SATCPU

Fields in CHASAT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SATCNO	0008	0008	SATUID	0016	0010	SATCPU

Alphabetical list of fields in CHASAT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SATCNO	0000	0000	SATCPU	0016	0010	SATUID	0008	0008

Assembler listing of CHASAT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	7C 00000	CHASAT	DSECT		SYSTEM ACCOUNTING TABLE
7C 00000		SATCNO	DS	8C	CHARGE NUMBER
7C 00008		SATUID	DS	8C	USER IDENTIFICATION
7C 00010		SATCPU	DS	D	RUNNING COUNT OF CPU TIME

Screen Routines Common Area (CHASCA)

The Screen Routines Common Area (SCA) is a format of the common fields used by the EXHIBIT and the DISPLAY routines. The SCA occupies 25 bytes of virtual storage, aligned on word boundaries.

CHASCA Storage map

DEC	HEX		
0	0	SCADCB	SCAWRK
8	8	SCABUF	SCANUM
16	10	SCAENT	SCAFCT   SCACSW   SCALST

Fields in CHASCA -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SCADCB	0012	000C	SCANUM	0022	0016	SCACSW
0004	0004	SCAWRK	0016	0010	SCAENT	0023	0017	SCALST
0008	0008	SCABUF	0020	0014	SCAFCT			

Alphabetical list of fields in CHASCA

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SCABUF	0008	0008	SCAENT	0016	0010	SCANUM	0012	000C
SCACSW	0022	0016	SCAFCT	0020	0014	SCAWRK	0004	0004
SCADCB	0000	0000	SCALST	0023	0017			

Assembler listing of CHASCA

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	7D 00000	CHASCA	DSECT		
7D 00000		SCADCB	DS	A	XXXX DCB ADDRESS
7D 00004		SCAWRK	DS	A	WORK AREA ADDR FOR DISPLAY ROUTINES
		*			
7D 00008		SCABUF	DS	A	INTERNAL DISPLAY BUFFER ADDRESS
		*			
7D 0000C		SCANUM	DS	F	RESERVED
7D 00010		SCAENT	DS	A	ADDR OF ENTRY SAVE AREA
7D 00014		SCAFCT	DS	H	RESERVED
7D 00016		SCACSW	DS	X	COMMAND SYSTEM ENTRY SWITCH
7D 00017		SCALST	DS	XL1	RESERVED

SAM Communication Block (CHASCB)

The Sequential Access Method Communication Block (SCB) contains permanent processing data for any task that uses SAM modules. The SCB also functions as a communications pool for the following SAM modules: OPEN; CLOSE; EOVS; Label Processors; DEB modification/construction routines; and shared routines. In addition, the SCB holds those parameter lists which are required as an interface with routines external to SAM.

The SCB is read only to user and occupies 240 bytes of virtual storage, aligned on word boundaries, in the PSECT of the SAM OPEN (CECWO), CLOSE (CECWC) and EOVS (CECXE) routines.

CHASCB Storage map

DEC	HEX				
0	0	SCBPRG	SCBRS0	SCBERR	
8	8	SCBDCT		SCBDET	
16	10	SCBDT		SCBWKP	
24	18	SCBFM1		SCBFM3	
32	20	SCBDSB		SCBDCB	
40	28	SCBDEB		SCBJFC	
48	30	SCBIOA		SCBVCA	
56	38	SCBPSV		SCBPSR	
64	40	SCBLVE		SCBLVB	
72	48	SCBLVD		SCBLIO	
80	50	SCBJFM		SCBVMA	
88	58	SCBJFP		SCBVPA	
96	60	SCBSDT		SCBPAR	
104	68	SCBKEY		SCBCHR	
112	70	SCBIOB		SCBEXJ	
120	78	SCBEXD		SCBGVJ	
128	80	SCBGVE		SCBGTC	
136	88	SCBGTO		SCBGT1	
144	90	SCBGTI		SCBGT2	
152	98	SCBGOC		SCBTML	
160	A0	SCBTMO		SCBTMT	
168	A8	SCBRS1		SCBRS3	
176	B0	SCBRS4		SCBRS5	
184	B8	SCBVLM	SCBVLP	SCBPOS	SCBIOZ
192	C0	SCBF3Z	SCBDBZ	SCBEXT	SCBTP1   SCBTP2
200	C8	SCBCNT	SCBNXM   SCBFLG	SCBRVS	SCBTLN

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(CHASCB continued from page 350)

DEC	HEX	
208	D0	SCBRS6
216	D8	SCBWK1
224	E0	SCBWK2
232	E8	SCBWK3

ORG SCBERR

4	4	SCBABN	SCBMSG
---	---	--------	--------

ORG SCBGT1

140	8C		SCBWTO
144	90	SCBWTI	SCBWTZ

Fields in CHASCB -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SCBPRG	0088	0058	SCBJFP	0164	00A4	SCBTMT
0000	0000	SCBBEG	0092	005C	SCBVPA	0168	00A8	SCBRS1
0002	0002	SCBRS0	0096	0060	SCBSDT	0172	00AC	SCBRS3
0004	0004	SCBABN	0096	0060	SCBRET	0176	00B0	SCBRS4
0004	0004	SCBERR	0096	0060	SCBOBT	0180	00B4	SCBRS5
0006	0006	SCBMSG	0100	0064	SCBPAR	0184	00B8	SCBVLM
0008	0008	SCBDCT	0104	0068	SCBKEY	0184	00B8	SCBVAR
0012	000C	SCBDET	0108	006C	SCBCHR	0186	00BA	SCBVLP
0016	0010	SCBDT	0112	0070	SCBIOB	0188	00BC	SCBPOS
0020	0014	SCBWKP	0116	0074	SCBEXJ	0190	00BE	SCBIOZ
0024	0018	SCBFM1	0116	0074	SCBEXN	0192	00C0	SCBF3Z
0028	001C	SCBFM3	0120	0078	SCBEXD	0194	00C2	SCBDBZ
0032	0020	SCBDSB	0124	007C	SCBGVJ	0196	00C4	SCBEXT
0036	0024	SCBDCB	0124	007C	SCBGVB	0198	00C6	SCBTP1
0040	0028	SCBDEB	0128	0080	SCBGVE	0199	00C7	SCBTP2
0044	002C	SCBJFC	0132	0084	SCBGTC	0200	00C8	SCBCNT
0048	0030	SCBIOA	0132	0084	SCBGAT	0202	00CA	SCBNXM
0052	0034	SCBVCA	0136	0088	SCBGTO	0203	00CB	SCBFLG
0056	0038	SCBPSV	0140	008C	SCBWTO	0204	00CC	SCBRVS
0060	003C	SCBPSR	0140	008C	SCBGT1	0206	00CE	SCBTLN
0064	0040	SCBLVE	0144	0090	SCBWTI	0208	00D0	SCBRS6
0064	0040	SCBLVP	0144	0090	SCBGTI	0216	00D8	SCBWK1
0068	0044	SCBLVB	0148	0094	SCBWTZ	0216	00D8	SCBWRK
0072	0048	SCBLVD	0148	0094	SCBGT2	0224	00E0	SCBWK2
0076	004C	SCBLIO	0152	0098	SCBGOC	0232	00E8	SCBWK3
0080	0050	SCBJFM	0156	009C	SCBTML	0240	00F0	SCBEND (EQU)
0080	0050	SCBBMP	0156	009C	SCBTIM			
0084	0054	SCBVMA	0160	00A0	SCBTMO			

Alphabetical list of fields in CHASCB

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SCBABN	0004	0004	SCBEND	0240	00F0 (EQU)	SCBGTC	0132	0084
SCBBEG	0000	0000	SCBERR	0004	0004	SCBGTI	0144	0090
SCBBMP	0080	0050	SCBEXD	0120	0078	SCBGTO	0136	0088
SCBCHR	0108	006C	SCBEXJ	0116	0074	SCBGT1	0140	008C
SCBCNT	0200	00C8	SCBEXN	0116	0074	SCBGT2	0148	0094
SCBDBZ	0194	00C2	SCBEXT	0196	00C4	SCBGVB	0124	007C
SCBDCB	0036	0024	SCBFLG	0203	00CB	SCBGVE	0128	0080
SCBDCT	0008	0008	SCBFM1	0024	0018	SCBGVJ	0124	007C
SCBDEB	0040	0028	SCBFM3	0028	001C	SCBIOA	0048	0030
SCBDET	0012	000C	SCBF3Z	0192	00C0	SCBIOB	0112	0070
SCBDSB	0032	0020	SCBGAT	0132	0084	SCBIOZ	0190	00BE
SCBDT	0016	0010	SCBGOC	0152	0098	SCBJFC	0044	002C

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FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SCBJFM	0080	0050	SCBRET	0096	0060	SCBVAR	0184	00B8
SCBJFP	0088	0058	SCBRS0	0002	0002	SCBVCA	0052	0034
SCBKEY	0104	0068	SCBRS1	0168	00A8	SCBVLM	0184	00B8
SCBLIO	0076	004C	SCBRS3	0172	00AC	SCBVLP	0186	00BA
SCBLVB	0068	0044	SCBRS4	0176	00B0	SCBVMA	0084	0054
SCBLVD	0072	0048	SCBRS5	0180	00B4	SCBVPA	0092	005C
SCBLVE	0064	0040	SCBRS6	0208	00D0	SCBWKP	0020	0014
SCBLVP	0064	0040	SCBRVS	0204	00CC	SCBWK1	0216	00D8
SCBMSG	0006	0006	SCBSDT	0096	0060	SCBWK2	0224	00E0
SCBNXM	0202	00CA	SCBTIM	0156	009C	SCBWK3	0232	00E8
SCBOBT	0096	0060	SCBTLN	0206	00CE	SCBWRK	0216	00D8
SCBPAR	0100	0064	SCBTML	0156	009C	SCBWTI	0144	0090
SCBPOS	0188	00BC	SCBTMO	0160	00A0	SCBWTO	0140	008C
SCBPRG	0000	0000	SCBTMT	0164	00A4	SCBWTZ	0148	0094
SCBPSR	0060	003C	SCBTP1	0198	00C6			
SCBPSV	0056	0038	SCBTP2	0199	00C7			

Assembler listing of CHASCB

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	7E 00000	CHASCB	DSECT		SAM COMMUNICATION BLOCK
7E 00000		SCBBEG	DS	0F	ALIGN TABLE ON WORD
		*			BOUNDARY
7E 00000		SCBPRG	DS	H	PROGRAM MODULE CODE
7E 00002		SCBRS0	DS	H	RESERVED
7E 00004		SCBERR	DS	1F	ERROR PARAMETERS FOR
		*			MESSAGE WRITER
	7E 00004		<u>ORG</u>	SCBERR	
7E 00004		SCBABN	DS	H	ABEND CODE
7E 00006		SCBMSG	DS	H	MESSAGE WRITER CODE
7E 00008		SCBDCT	DS	F	PTR TO ACCESS METHOD DCB
7E 0000C		SCBDET	DS	F	PTR TO ACCESS METHOD DEB
7E 00010		SCBDT	DS	F	PTR TO ACCESS METHOD DECB
7E 00014		SCBWKP	DS	F	PTR TO SAM WORK PAGE
7E 00018		SCBFM1	DS	F	PTR TO A BUFFER FOR FORMAT
		*			1 DSCBS
7E 0001C		SCBFM3	DS	F	PTR TO BUFFER OF FORMAT 3
		*			DSCBS
7E 00020		SCBDSB	DS	F	PTR TO A CHAIN OF DSCBS
7E 00024		SCBDCB	DS	F	PTR TO THE USERS DCB BEING
		*			PROCESSED
7E 00028		SCBDEB	DS	F	PTR TO THE USERS DEB BEING
		*			PROCESSED
7E 0002C		SCBJFC	DS	F	PTR TO THE USERS JFCB
7E 00030		SCBIOA	DS	F	PTR TO I/O BUFFER FOR
		*			LABELS
7E 00034		SCBVCA	DS	F	ADDR OF A VOL SER FLD IN
		*			JFCB
7E 00038		SCBPSV	DS	F	POSTING V--ADDRESS CONSTANT
7E 0003C		SCBPSR	DS	F	POSTING R--ADDRESS CONSTANT
7E 00040		SCBLVP	DS	0F	ADDR OF LVPRV PARAMETER
		*			LIST
7E 00040		SCBLVE	DS	F	PTR TO V AND R CONSTANT
		*			LVPRV IS TO LINK
7E 00044		SCBLVB	DS	F	PTR TO WHAT IS TO BE PLACED
		*			IN GR 0-LVPRV
7E 00048		SCBLVD	DS	F	PTR TO WHAT IS TO BE PLACED
		*			IN GR 1-LVPRV
7E 0004C		SCBLIO	DS	F	I/O BUFFER POINTED TO BY
		*			SCBLVB FOR LVPRV
7E 00050		SCBBMP	DS	0F	ADDR OF BUMP PARAMETER LIST
7E 00050		SCBJFM	DS	F	PTR TO JFCB WHICH CONTAINS
		*			MOUNTED VOL
7E 00054		SCBVMA	DS	F	PTR TO VOL SER FIELD WHICH
		*			CONTAINS MOUNT
7E 00058		SCBJFP	DS	F	PTR TO JFCB WHICH WILL HAVE
		*			VOL MOUNTED
7E 0005C		SCBVPA	DS	F	PTR TO VOL SER FIELD TO GET

(Listing of CHASCB continued on page 353)

(Listing of CHASCB continued from page 352)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
		*			MOUNT
7E 00060		SCBOBT	DS	OF	ADDR OF OBTAIN PARAMETER LIST
		*			
7E 00060		SCBRET	DS	OF	ADDR OF RETAIN PARAMETER LIST
		*			
7E 00060		SCBSDT	DS	F	PTR TO CHASDT WHICH HAS DSCBS TO BE PROC
		*			
7E 00064		SCBPAR	DS	F	PTR TO A PACKED PAR AREA--(SCBTP1)
		*			
7E 00068		SCBKEY	DS	F	PTR TO THE KEY USED BY OBTAIN --FM-1-DSCB
		*			
7E 0006C		SCBCHR	DS	F	PTR TO CCHHR FOR RETAIN
7E 00070		SCBIOB	DS	F	PTR TO I/O BUFFER FOR OBTAIN/RETAIN
		*			
7E 00074		SCBEXN	DS	OF	ADDR OF EXTEND PARAMETER LIST
		*			
7E 00074		SCBEXJ	DS	F	PAR 1 OF EXTEND PAR LIST--PTR TO JFCB
		*			
7E 00078		SCBEXD	DS	F	PAR 2 OF EXTEND PAR LIST--PTR TO SCBDSB
		*			
7E 0007C		SCBGVB	DS	OF	ADDR OF GIVEKS PARAMETER LIST
		*			
7E 0007C		SCBGVJ	DS	F	PTR TO JFCB
7E 00080		SCBGVE	DS	F	PTR TO EXTENTS WITHIN DEB BEING RETURNED
		*			
7E 00084		SCBGAT	DS	OF	ADDR OF GATE PARAMETER LIST
7E 00084		SCBGTC	DS	F	GATE PAR 1 -- PTR TO GATE OP CODE--SCBGOC
		*			
7E 00088		SCBGTO	DS	F	GATE PAR 2 -- PTR TO OUTPUT MESSAGE
		*			
7E 0008C		SCBGT1	DS	F	GATE PAR 3 -- PTR TO SIZE OF OUTPUT MESSG
		*			
7E 00090		SCBGTI	DS	F	GATE PAR 4 -- PTR TO INPUT MESSAGE
		*			
7E 00094		SCBGT2	DS	F	GATE PAR 5 -- PTR TO SIZE OF INPUT MESSG
		*			
	7E 0008C		<u>ORG</u>	SCBGT1	
7E 0008C		SCBWTO	DS	F	WTO PAR 1 -- PTR TO OUTPUT MESSAGE
		*			
7E 00090		SCBWTI	DS	F	WTO PAR 2 -- PTR TO INPUT MESSAGE
		*			
7E 00094		SCBWTZ	DS	F	WTO PAR 3 -- SIZE OF INPUT MESSAGE
		*			
7E 00098		SCBGOC	DS	F	OPERATION CODE FOR GATE--PNTD TO BY GTC
		*			
	00000001	SCBGMR	EQU	X'01'	GATE OP CODE MASKS -- READ
	00000002	SCBGMW	EQU	X'02'	GATE OP CODE MASKS -- WRITE
	00000003	SCBGMA	EQU	X'03'	GATE OP CODE MASKS -- WAR
	00000004	SCBGMS	EQU	X'04'	GATE OP CODE MASKS -- WSR
7E 0009C		SCBTIM	DS	OF	ADDR OF EBCBTIME PARAMETER LIST
		*			
7E 0009C		SCBTML	DS	F	PTR TO OUTPUT MAP LENGTH
7E 000A0		SCBTMO	DS	F	PTR TO OUTPUT MAP
7E 000A4		SCBTMT	DS	F	PTR TO TIME TO BE CONVERTED, OR ZERO
		*			
7E 000A8		SCBRS1	DS	F	RESERVED
7E 000AC		SCBRS3	DS	F	RESERVED
7E 000B0		SCBRS4	DS	F	RESERVED
7E 000B4		SCBRS5	DS	F	RESERVED
7E 000B8		SCBVAR	DS	0CL32	BEGINNING OF VARIABLE SECTION OF TABLE
		*			
7E 000B8		SCBVLM	DS	H	RELATIVE VOLUME SEQUENCE OF MOUNTED VOL
		*			
7E 000BA		SCBVLP	DS	H	RELATIVE VOLUME SEQUENCE OF VOL TO MOUNT
		*			
7E 000BC		SCBPOS	DS	H	TAPE POSITIONING PARAMETER
7E 000BE		SCBIOZ	DS	H	I/O LABEL BUFFER SIZE
7E 000C0		SCBF3Z	DS	H	SIZE OF BUFFER POINTED TO

(Listing of CHASCB continued on page 354)

(Listing of CHASCB continued from page 353)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			BY SCBFM3
7E 000C2		SCBDBZ	DS	H	SIZE OF DEB BEING PROCESSED
7E 000C4		SCBEXT	DS	H	EXIT CODE USED FOR DCB EXIT
		*			LIST SCAN
7E 000C6		SCBTP1	DS	X	TYPE CODE FOR OBTAIN
	00000001	SCBOF1	EQU	X'01'	OBTAIN TYPE CODE FOR FM1
		*			DSCB'S
	00000000	SCBOF3	EQU	X'00'	OBTAIN TYPE CODE FOR
		*			FM3,4+5 DSCB'S
	00000005	SCBOLB	EQU	X'05'	OBTAIN TYPE CODE FOR LABELS
7E 000C7		SCBTP2	DS	X	TYPE CODE FOR RETAIN
	00000000	SCBRDS	EQU	X'00'	RETAIN TYPE CODE FOR DSCB'S
	00000001	SCBRLB	EQU	X'01'	RETAIN TYPE CODE FOR LABELS
	00000002	SCBRFM	EQU	X'02'	RETAIN TYPE CODE FOR FILE
		*			MARKS
7E 000C8		SCBCNT	DS	H	COUNT FOR RETAIN
7E 000CA		SCBNXM	DS	X	REL SEQUENCE OF NEXT EXTENT
		*			TO PROCESS
7E 000CB		SCBFLG	DS	X	FLAGS FOR INTER SAM MODULE
		*			COMMUNICATION
	00000080	SCBRF1	EQU	X'80'	REWRITE FM1 DSCB WITH INT
		*			BIT OFF ONLY
	00000040	SCBOPN	EQU	X'40'	SCB INITIALIZED BY OPEN
		*			-CZCWO-
	00000020	SCBEOV	EQU	X'20'	SCB INITIALIZED BY EOVS
		*			-CZCXE-
	00000010	SCBCLS	EQU	X'10'	SCB INITIALIZED BY CLOSE
		*			-CZCWC-
	00000008	SCBPOM	EQU	X'08'	INDICATOR FOR CZCWP TO
		*			RETURN TO CALLER ON ERROR
	00000001	SCBMUF	EQU	X'01'	USERS DEB IS TO BE MODIFIED
	00000002	SCBMTF	EQU	X'02'	TEMP DEB IS TO BE MODIFIED
7E 000CC		SCBRVS	DS	H	REL VOL SEQ TO CONVRT TO
		*			ADDR PTR--SCBVCA
7E 000CE		SCBTLN	DS	H	LENGTH OF OUTPUT MAP
7E 000D0		SCBRS6	DS	4H	RESERVED
7E 000D8		SCBWRK	DS	0DL3	BEGINNING OF WORK AREA
7E 000D8		SCBWK1	DS	D	WORK AREA 1
7E 000E0		SCBWK2	DS	D	WORK AREA 2
7E 000E8		SCBWK3	DS	D	WORK AREA 3
	7E 000F0	SCBEND	EQU	*	END OF BLOCK
	000000F0	SCBSZF	EQU		SCBEND-CHASCB COMPLETE TABLE SIZE
	00000020	SCBSZV	EQU		SCBWRK-SCBVAR SIZE OF VARIABLE
		*			SECTION OF TABLE
	00000018	SCBSZW	EQU		SCBEND-SCBWRK SIZE OF WORK AREA
		*			SECTION OF TABLE



Selector Channel Table (CHASCH)

The Selector Channel Table (CHASCH) contains status information concerning the connection between a selector channel and its assigned control units. CHASCH occupies from 4 to 128 bytes of core storage, aligned on word boundaries.

CHASCH Storage map

DEC	HEX		
0	0	SCHFLG	SCHCTD

Fields in CHASCH -- by displacement

DEC	HEX	FIELD	(EQU)	DEC	HEX	FIELD	(EQU)	DEC	HEX	FIELD
0000	0000	SCHR		0000	0000	SCHP	(EQU)	0000	0000	SCHBEG
0000	0000	SCHE	(EQU)	0000	0000	SCHFLG		0002	0002	SCHCTD

Alphabetical list of fields in CHASCH

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SCHBEG	0000	0000	SCHE	0000	0000	(EQU) SCHP	0000	0000 (EQU)
SCHCTD	0002	0002	SCHFLG	0000	0000	SCHR	0000	0000 (EQU)

Assembler listing of CHASCH

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	7F 00000	CHASCH	DSECT		SELECTOR CHANNEL (N) TABLE (N = 0 TO 31)
		*			
7F 00000		SCHBEG	DS	0F	ALIGN TABLE ON WORD BOUNDARY
		*			
7F 00000		SCHFLG	DS	XL2	FLAG FIELD
	7F 00000	SCHP	EQU	SCHFLG	PARTITIONED FLAG AREA
	00000080	SCHPM	EQU	X'80'	PARTITIONED MASK
	7F 00000	SCHE	EQU	SCHFLG	NONEXISTENT FLAG
	00000040	SCHEM	EQU	X'40'	NONEXISTENT FLAG MASK
	7F 00000	SCHR	EQU	SCHFLG	RESERVED FLAG
	00000020	SCHRM	EQU	X'20'	RESERVED MASK
	000000C0	SCHA	EQU	X'C0'	AVAILABILITY MASK
7F 00002		SCHCTD	DS	H	CONTROL UNIT TABLE DISPLACEMENT
		*			
	* NOTES:	1-	TABLE NONEXISTENT IN CONFIGURATIONS WITH NO SELECTOR CHANS*		
		2-	ENTRIES SEQUENTIAL. A SKIPPED UNIT RESERVES TABLE SPACE *		
			AND ITS ENTRY IS FLAGGED AS NON-EXISTENT. *		
		3-	SCH CANNOT ADDRESS TABLE ENTRIES ADDRESSED BY A CONTROL *		
			UNIT ASSIGNED TO THE MULTIPLEXOR CHANNEL TABLE (CHAMCH). *		

System Common (CHASCM)

System Common (SCM) contains those system values referenced by command language object modules in two or more tasks.

SCM, created by SYSGEN, has privileged protection and remains in the virtual storage of each active task from startup to shutdown time. SCM occupies 136 bytes of virtual storage, aligned on doubleword boundaries.

CHASCM Storage map

DEC	HEX	
0	0	SCMMWT
8	8	SCMLPR   SCMPDC   SCMCFM
16	10	SCMCFM (CONT)   SCMPFM
24	18	SCMPFM (CONT)   SCMNVC   SCMREM   SCMNCP   SCMOCF   SCMBPR   SCMOMS
32	20	SCMTAP   SCMTA1   SCMTA2   SCMTA3   SCMDA   SCMDA1   SCMDA2   SCMPTN
40	28	SCMPUN   SCMRDN   SCMPRN   SCMDET   SCMTDN   SCMORG   SCMLAB   SCMPRV
48	30	SCMPSP   SCMSSP   SCMPSC   SCMSSC
56	38	SCMSST   SCMUL1   SCMUL2
64	40	SCMMAV   SCMIT   SCMUN1
72	48	SCMTTS   SCMTPS
80	50	SCMUN3   SCMAUX
88	58	SCMAUXLK   SCMIDP   SCMIPL   SCMATH   SCMDA3   SCMFIR   SCMTIM
96	60	SCMTIM (CONT)   UNNAMED
104	68	UNNAMED (CONT)   SCMMVD   SCMATV   SCMSPA
120	78	RESERVED   SCMDSC
128	80	SCMQST

Fields in CHASCM -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SCMMWT	0031	001F	SCMOMS	0056	0038	SCMSST
0008	0008	SCMLF (EQU)	0032	0020	SCMTAP	0058	003A	SCMUL1
0008	0008	SCMLE (EQU)	0033	0021	SCMTA1	0061	003D	SCMUL2
0008	0008	SCMLD (EQU)	0034	0022	SCMTA2	0064	0040	SCMMAV
0008	0008	SCMLC (EQU)	0035	0023	SCMTA3	0068	0044	SCMITI (EQU)
0008	0008	SCMLB (EQU)	0036	0024	SCMDA	0068	0044	SCMIT
0008	0008	SCMLA (EQU)	0037	0025	SCMDA1	0069	0045	SCMUN1
0008	0008	SCMLP0 (EQU)	0038	0026	SCMDA2	0072	0048	SCMTTS
0008	0008	SCMLPR	0039	0027	SCMPTN	0076	004C	SCMTPS
0009	0009	SCMLP1 (EQU)	0040	0028	SCMPUN	0080	0050	SCMUN3
0010	000A	SCMLT (EQU)	0041	0029	SCMRDN	0084	0054	SCMAUX
0010	000A	SCMLP2 (EQU)	0042	002A	SCMPRN	0088	0058	SCMAUXLK
0011	000B	SCMLP3 (EQU)	0043	002B	SCMDET	0089	0059	SCMIDP
0012	000C	SCMPDC	0044	002C	SCMTDN	0090	005A	SCMIPL
0014	000E	SCMCFM	0045	002D	SCMORG	0091	005B	SCMATH
0020	0014	SCMPFM	0046	002E	SCMLAB	0092	005C	SCMDA3
0026	001A	SCMNVC	0047	002F	SCMPRV	0093	005D	SCMFIR
0027	001B	SCMREM	0048	0030	SCMPSP	0094	005E	SCMTIM
0028	001C	SCMNCP	0050	0032	SCMSSP	0106	006A	SCMLLER (EQU)
0029	001D	SCMOCF	0052	0034	SCMPSC	0106	006A	SCMALER (EQU)
0030	001E	SCMBPR	0054	0036	SCMSSC	0106	006A	SCMMV1 (EQU)

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<u>DEC</u> <u>HEX</u> <u>FIELD</u>	<u>DEC</u> <u>HEX</u> <u>FIELD</u>	<u>DEC</u> <u>HEX</u> <u>FIELD</u>
0106 006A SCMMVD	0109 006D SCMSPA	0128 0080 SCMQST
0107 006B SCMATV	0124 007C SCMDSC	0136 0088 SCMBDY

Alphabetical list of fields in CHASCM

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>		<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>		<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
SCMALER	0106	006A	(EQU)	SCMLD	0008	0008	(EQU)	SCMPSC	0052	0034
SCMATH	0091	005B		SCMLE	0008	0008	(EQU)	SCMPSP	0048	0030
SCMATV	0107	006B		SCMLF	0008	0008	(EQU)	SCMPTN	0039	0027
SCMAUX	0084	0054		SCMLLER	0106	006A	(EQU)	SCMPUN	0040	0028
SCMAUXLK	0088	0058		SCMLPR	0008	0008		SCMQST	0128	0080
SCMBDY	0136	0088		SCMLP0	0008	0008	(EQU)	SCMRDN	0041	0029
SCMBPR	0030	001E		SCMLP1	0009	0009	(EQU)	SCMREM	0027	001B
SCMCFM	0014	000E		SCMLP2	0010	000A	(EQU)	SCMSPA	0109	006D
SCMDA	0036	0024		SCMLP3	0011	000B	(EQU)	SCMSSC	0054	0036
SCMDA1	0037	0025		SCMLT	0010	000A	(EQU)	SCMSSP	0050	0032
SCMDA2	0038	0026		SCMMAV	0064	0040		SCMSST	0056	0038
SCMDA3	0092	005C		SCMMVD	0106	006A		SCMTAP	0032	0020
SCMDET	0043	002B		SCMMV1	0106	006A	(EQU)	SCMTA1	0033	0021
SCMDSC	0124	007C		SCMMWT	0000	0000		SCMTA2	0034	0022
SCMFIR	0093	005D		SCMNCP	0028	001C		SCMTA3	0035	0023
SCMIDP	0089	0059		SCMNCV	0026	001A		SCMTDN	0044	002C
SCMIPL	0090	005A		SCMOCF	0029	001D		SCMTIM	0094	005E
SCMIT	0068	0044		SCMOMS	0031	001F		SCMTPS	0076	004C
SCMITI	0068	0044	(EQU)	SCMORG	0045	002D		SCMTTS	0072	0048
SCMLA	0008	0008	(EQU)	SCMPDC	0012	000C		SCMUL1	0058	003A
SCMLAB	0046	002E		SCMPFM	0020	0014		SCMUL2	0061	003D
SCMLB	0008	0008	(EQU)	SCMPRN	0042	002A		SCMUN1	0069	0045
SCMLC	0008	0008	(EQU)	SCMPRV	0047	002F		SCMUN3	0080	0050

Assembler listing of CHASCM

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	80 00000	CHASCM	DSECT		SYSTEM COMMON
80 00000		SCMMWT	DS	D	MAXIMUM WAIT TIME FOR OPERATOR REPLY
		*			INST. LEGITIMATE PRIVILEGE CLASSES
80 00008		SCMLPR	DS	XL4	FIRST PRIVILEGE CLASS BYTE
		*			CLASS A
	80 00008	SCMLP0	EQU	SCMLPR	CLASS A MASK
	80 00008	SCMLA	EQU	SCMLP0	CLASS B
	00000080	SCMLAM	EQU	X'80'	CLASS B MASK
	80 00008	SCMLB	EQU	SCMLP0	CLASS C
	00000040	SCMLBM	EQU	X'40'	CLASS C MASK
	80 00008	SCMLC	EQU	SCMLP0	CLASS D
	00000020	SCMLCM	EQU	X'20'	CLASS D MASK
	80 00008	SCMLD	EQU	SCMLP0	CLASS E
	00000010	SCMLDM	EQU	X'10'	CLASS E MASK
	80 00008	SCMLE	EQU	SCMLP0	CLASS F
	00000008	SCMLEM	EQU	X'08'	CLASS F MASK
	80 00008	SCMLF	EQU	SCMLP0	SECOND PRIVILEGE CLASS BYTE
	00000004	SCMLFM	EQU	X'04'	THIRD PRIVILEGE CLASS BYTE
	80 00009	SCMLP1	EQU	SCMLPR+1	CLASS T
	80 0000A	SCMLP2	EQU	SCMLPR+2	CLASS T MASK
	80 0000A	SCMLT	EQU	SCMLP2	FOURTH PRIVILEGE CLASS BYTE
	00000010	SCMLTM	EQU	X'10'	NUMBER OF PUBLIC DEVICES IN SYSTEM
	80 0000B	SCMLP3	EQU	SCMLPR+3	INST. DEFAULT VALUE FOR CARD FORMS
80 0000C		SCMPDC	DS	H	INST. DEFAULT VALUE FOR PRINTER FORMS
		*			RESERVED
80 0000E		SCMCFM	DS	6C	N386**
		*			RESERVED
80 00014		SCMPFM	DS	6C	N386**
		*			NON-CONV. ORDER PRIORITY, 0=BATCH 1=BULKIO
80 0001A		SCMNCV	DS	XL1	
		*			
80 0001B		SCMREM	DS	XL1	
		*			
80 0001C		SCMNCP	DS	XL1	
		*			

(Listing of CHASCM continued on page 358)

(Listing of CHASCM continued from page 357)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
80 0001D		SCMOCF	DS	C	OPERATOR OR INSTALLATION DEFAULT VALUE FOR CONFIRMATION Y=YES N=NO
80 0001E		SCMBPR	DS	C	INST. BATCH MONITOR INTERNAL PRIORITY
80 0001F		SCMOMS	DS	C	OPERATOR OR INSTALLATION DEFAULT VALUE FOR MESSAGE OPTION M=FULL C=CODE
80 00020		SCMTAP	DS	XL1	INST. DEFAULT TAPE FLAG, 00=9 TRACK A0=7 TRACK NO DATA CONVERSION E0=7 TRACK DATA CONVERSION
80 00021		SCMTA1	DS	XL1	NUMBER OF 7 TRACK TAPES
80 00022		SCMTA2	DS	XL1	NUMBER OF 7 TRACK TAPES DATA CONVERSION
80 00023		SCMTA3	DS	XL1	NUMBER OF 9 TRACK TAPES
80 00024		SCMDA	DS	XL1	INST. DEFAULT DIRECT ACCESS FLAG, 01=2311 04= 2302
80 00025		SCMDA1	DS	XL1	NUMBER OF 2311 DIRECT ACCESS DEVICES
80 00026		SCMDA2	DS	XL1	NUMBER OF 2302 DIRECT ACCESS DEVICES
80 00027		SCMPTN	DS	XL1	NUMBER OF PAPER TAPES
80 00028		SCMPUN	DS	XL1	NUMBER OF PUNCHES
80 00029		SCMRDN	DS	XL1	NUMBER OF READERS
80 0002A		SCMPRN	DS	XL1	NUMBER OF PRINTERS
80 0002B		SCMDET	DS	XL1	TOTAL NUMBER OF DEVICES
80 0002C		SCMTDN	DS	XL1	INST. DEFAULT TAPE DENSITY FLAG, 03=200 43=500 83=800
80 0002D		SCMORG	DS	XL1	INST. DEFAULT DATA SET ORGANIZATION FLAG, 01=SAM 02=TAM 03=GAM 04=VAMI 05=VAMS 06=VAMP
80 0002E		SCMLAB	DS	XL1	INST. DEFAULT LABEL TYPE FLAG, 01=NONE (TAPE ONLY) 02=STANDARD 04=STANDARD AND USER
80 0002F		SCMPRV	DS	CL1	INST. DEFAULT PRIVILEGE CLASS, D=USER
80 00030		SCMPSP	DS	H	INST. DEFAULT PRIMARY PAGE SPACE ALLOCATION
80 00032		SCMSSP	DS	H	INST. DEFAULT SECONDARY PAGE SPACE ALLOCATION
80 00034		SCMPSC	DS	H	INST. DEFAULT PRIMARY CYLD. SPACE ALLOCATION
80 00036		SCMSSC	DS	H	INST. DEFAULT SECONDARY CYLD. SPACE ALLOCATION
80 00038		SCMSST	DS	H	INST. DEFAULT SECONDARY TRACK SPACE ALLOCATION
80 0003A		SCMUL1	DS	3C	USER LIBRARY PRIMARY PAGE SPACE ALLOCATION
80 0003D		SCMUL2	DS	3C	USER LIBRARY SECONDARY PAGE SPACE ALLOCATION
80 00040		SCMMAV	DS	F	MAX AUX STORAGE AVAIL PLUS DELTA
80 00044		SCMIT	DS	XL1	FLAG
	80 00044	SCMITI	EQU	SCMIT	INHIBIT TASK INITIATION FLAG
	00000080	SCMITIM	EQU	X'80'	INHIBIT TASK INITIATION MASK
80 00045		SCMUN1	DS	CL3	UNUSED
80 00048		SCMTTS	DS	F	TOTAL TEMPORARY STORAGE ALLOCATION
80 0004C		SCMTPS	DS	F	TOTAL PERMANENT STORAGE

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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			ALLOCATION
80 00050		SCMUN3	DS	F	UNUSED
80 00054		SCMAUX	DS	F	PRESENT AUX STORAGE SPACE
		*			AVAILABLE
80 00058		SCMAUXLK	DS	XL1	LOCK BYTE CONTROL FOR
		*			SCMAUX
80 00059		SCMIDP	DS	XL1	INST. DEFAULT EXTERNAL
		*			PRIORITY
80 0005A		SCMIPL	DS	XL1	INST. DEFAULT PROMPT LIMIT
80 0005B		SCMATH	DS	CL1	INST. DEFAULT
		*			AUTHORIZATION, U=USER P=SYS PROG
80 0005C		SCMDA3	DS	XL1	NUMBER OF 2314 DIRECT
		*			ACCESS DEVICES
80 0005D		SCMFIR	DS	C	FORTRAN INTERRUPT RECOVERY
80 0005E		SCMTIM	DS	XL8	USER-ESTIMATED RUNNING TIME
80 00066			DS	XL4	RESERVED
80 0006A		SCMMVD	DS	XL1	MULTI-VOLUME FLAGS
	80 0006A	SCMMV1	EQU	SCMMVD	MULTI-VOLUME PUBLIC D.S.
	00000080	SCMMV1M	EQU	X'80'	NO MULTI-VOLUME PUBLIC D.S.
	80 0006A	SCMALER	EQU	SCMMVD	BYPASS CHANGE MACRO FOR
		*			FUTHER ABENDS
	00000040	SCMALERM	EQU	X'40'	MASK TO BYPASS CHANGE MACRO
	80 0006A	SCMLLER	EQU	SCMMVD	BYPASS CHANGE MACRO FOR
		*			FUTHER LOGOFFS
	00000020	SCMLLERM	EQU	X'20'	MASK TO BYPASS CHANGE MACRO
80 0006B		SCMATV	DS	XL2	ACV THRESHOLD VALUE
80 0006D		SCMSPA	DS	XL12	RESERVED
80 0007C		SCMDSC	DS	F	POINTER TO FORMAT E DSCB
		*			FOR QKSTART
		*			BITS 00-03 DSCB SLOT NUMBER
		*			BITS 04-15 REL. VOL. NUMBER
		*			BITS 16-31 REL. PAGE NUMBER
80 00080		SCMQST	DS	D	DSNAME OF QKSTART TO BE
		*			CATALOGED
80 00088		SCMBDY	DS	0X	END OF SYSTEM COMMON
		*			I5943
	00000088	SCMSZE	EQU	SCMBDY-SCMMWT	SYSTEM COMMON SIZE
		*			I5943

Scan Table (CHASCN)

The Scan Table (SCANT), a resident control table, serves to locate all GQEs representing work-in-progress inside the supervisor. SCANT informs the supervisor concerning the storage location of the transient GQEs, at any time, by pointing to the first GQE in the GQE chain.

SCANT remains private to the Queue Scanner routine, which includes Enqueue, Dequeue, Set Suppress Flags, and Move GQE. The size of SCANT is primarily determined at system generation (SYSGEN) time and depends upon the installation configuration.

SCANT resides in core storage, aligned on doubleword boundaries, and contains one 16-byte entry for each I/O device or supervisor facility. The four-byte fields within each entry completely relate the supervisor queue processors to their facilities.

Note: One Scan Table entry is assigned for each I/O device or supervisor facility. The "processor pointer" field points to a unique processor for each entry with the exception of the I/O device entries. All I/O device processor SCANT entries point to the same processor program (since only one I/O device queue processor exists in the supervisor).

The functions of the flags are described below:

SCNFB1

Flag 0; Indicates work for processor remaining in the queue associated with this entry. Set by Interrupt Stacker or any processor via Enqueue or Move GQE routine. Reset by any processor via Dequeue routine.

SCNFQ (FQM EQU X'80') -- Queue flag.

Flags 1 through 7: Suppress Flags. Set by any processor via Set on Suppress Flag routine. Reset by any processor via Set Off Suppress Flag routine. Processor can not be activated if one or more flags are on. Meaning of each flag depends upon the processor associated with its table entry.

SCNF1 (F1M EQU X'40') -- I/O in progress.

SCNF2 (F2M EQU X'20') -- Path Busy.

SCNF3 (F3M EQU X'10')

SCNF4 (F4M EQU X'08')

SCNF5 (F5M EQU X'04')

SCNF6 (F6M EQU X'02')

SCNF7 (F7M EQU X'01')

SCNLQK: Processor Lock Byte. Set by Queue Scanner. Reset by processor via Dequeue or Set Suppress Flag routines. A CPU is currently assigned to process entries from this queue.

CHASCN Storage map

DEC	HEX					
0	0	SCNFB1	SCNIDX	SCNDID	SCNLQK	SCNPRO
8	8	SCNFQE			SCNLQE	

ORG SCNPRO

4	4	SCNF3LOK	UNNAMED
---	---	----------	---------

Fields in CHASCN -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD		
0000	0000	SCNF7	(EQU)	0000	0000	SCNF1	(EQU)	0004	0004	SCNF3LOK
0000	0000	SCNF6	(EQU)	0000	0000	SCNFQ	(EQU)	0004	0004	SCNPRO
0000	0000	SCNF5	(EQU)	0000	0000	SCNFB1		0008	0008	SCNFQE
0000	0000	SCNF4	(EQU)	0001	0001	SCNIDX		0012	000C	SCNLQE
0000	0000	SCNF3	(EQU)	0002	0002	SCNDID		0016	0010	SCNBDY
0000	0000	SCNF2	(EQU)	0003	0003	SCNLQK				

Alphabetical list of fields in CHASCN

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SCNBDY	0016	0010	SCNF2	0000	0000 (EQU)	SCNF7	0000	0000 (EQU)
SCNDID	0002	0002	SCNF3	0000	0000 (EQU)	SCNIDX	0001	0001
SCNFB1	0000	0000	SCNF3LOK	0004	0004	SCNLQ	0003	0003
SCNFQ	0000	0000 (EQU)	SCNF4	0000	0000 (EQU)	SCNPRO	0004	0004
SCNFQE	0008	0008	SCNF5	0000	0000 (EQU)			
SCNF1	0000	0000 (EQU)	SCNF6	0000	0000 (EQU)			

Assembler listing of CHASCN

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	81 00000	CHASCN	DSECT		SCAN TABLE
81 00000			DS	OF	
81 00000		SCNFB1	DS	XL1	FLAG BYTE NUMBER 1
	81 00000	SCNFQ	EQU	SCNFB1	QUEUE FLAG
	00000080	SCNFQM	EQU	X'80'	QUEUE MASK
	0000007F	SCNFQMC	EQU	X'7F'	QUEUE MASK COMPLEMENT
	81 00000	SCNF1	EQU	SCNFB1	I/O IN PROGRESS
	00000040	SCNF1M	EQU	X'40'	
	81 00000	SCNF2	EQU	SCNFB1	RESERVED
	00000020	SCNF2M	EQU	X'20'	RESERVED
	81 00000	SCNF3	EQU	SCNFB1	-SUPPRESS FLAGS
	00000010	SCNF3M	EQU	X'10'	-MEANING OF EACH DEPENDS
	81 00000	SCNF4	EQU	SCNFB1	-UPON THE PROCESSOR
	00000008	SCNF4M	EQU	X'08'	-ASSOCIATED WITH ITS
	81 00000	SCNF5	EQU	SCNFB1	-TABLE ENTRY
	00000004	SCNF5M	EQU	X'04'	-PROCESSOR CANNOT BE
	81 00000	SCNF6	EQU	SCNFB1	-ACTIVATED IF ONE OR
	00000002	SCNF6M	EQU	X'02'	-MORE FLAGS ARE ON
	81 00000	SCNF7	EQU	SCNFB1	
	00000001	SCNF7M	EQU	X'01'	
81 00001		SCNIDX	DS	XL1	CHBSST DISK INDEX
81 00002		SCNDID	DS	XL1	DIG CODE
81 00003		SCNLQ	DS	XL1	LOCK BYTE
81 00004			DS	OF	
81 00004		SCNPRO	DS	F	PROCESSOR POINTER
	81 00004		ORG	SCNPRO	REDEFINE FIELD
		*			M3532
81 00004		SCNF3LOK	DS	X	SCNF3 LOCK BYTE
		*			M3532
81 00005			DS	AL3	THREE BYTE FILL
		*			M3532
81 00008		SCNFQE	DS	F	FIRST QUEUE ENTRY
81 0000C		SCNLQE	DS	F	LAST QUEUE ENTRY
81 00010		SCNBDY	DS	0X	END OF SCAN TABLE
		*			I5943
	00000010	SCNSZE	EQU	SCNBDY-SCNFB1	SCAN TABLE SIZE
		*			I5943

Supervisor Core Control CHASCT)

The Supervisor Core Control (SCT) table indicates the availability of portions of pages (64 byte blocks), which can be temporarily allocated to the supervisor for bookkeeping operations, such as GQEs, PCBs, etc.

The SCT, a resident table, is privately maintained by the supervisor core control subroutine. Each table entry appears in the first block of each page currently used by SCT.

Note 1. The byte length for availability bits is variable and depends on block size. The block size is initially set at 24 bytes but can vary from 32 through 2048 bytes.

Note 2. The size of each table entry equals the block size.

Note 3. Flags field is currently unused.

CHASCT Storage map

DEC	HEX		
0	0	SCTFLK	SCTBLK
8	8	SCTIDE	SCTZZZ1   SCTFLG   SCTAVC
16	10	SCTAV1	SCTAV2

Fields in CHASCT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SCTFLK	0012	000C	SCTZZZ1	0016	0010	SCTAV1
0004	0004	SCTBLK	0013	000D	SCTFLG	0016	0010	SCTAVB
0008	0008	SCTIDE	0014	000E	SCTAVC	0020	0014	SCTAV2

Alphabetical list of fields in CHASCT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SCTAVB	0016	0010	SCTAV2	0020	0014	SCTFLK	0000	0000
SCTAVC	0014	000E	SCTBLK	0004	0004	SCTIDE	0008	0008
SCTAV1	0016	0010	SCTFLG	0013	000D	SCTZZZ1	0012	000C

Assembler listing of CHASCT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	82 00000	CHASCT	DSECT		SUPERVISOR CORE CONTROL TABLE
		*			
82 00000			DS	OF	
82 00000		SCTFLK	DS	F	FORWARD LINK
82 00004		SCTBLK	DS	F	BACKWARD LINK
82 00008		SCTIDE	DS	F	SPVR CORE CONTROL PAGE IDENT
		*			
82 0000C		SCTZZZ1	DS	XL1	UNUSED
82 0000D		SCTFLG	DS	XL1	FLAGS
82 0000E		SCTAVC	DS	XL2	COUNT OF AVAIL BLKS IN PAGE
82 00010		SCTAVB	DS	OF	AVAILABILITY BITS
82 00010		SCTAV1	DS	F	WORD 1
82 00014		SCTAV2	DS	F	WORD 2



Symbolic Device Allocation Table (CHASDA)

The Symbolic Device Allocation Table (SDA) provides information on the status and characteristics of each allocable I/O device in the system. SDA resides in virtual storage, aligned on doubleword boundaries.

SDA has an 8 byte header and a variable number of 64 byte entries. The entries are contiguous and are initialized by Device Management. Each entry is divided into a 32 byte fixed format area and a 32 byte device dependent area.

CHASDA Storage map

DEC	HEX	
0	0	SDAHPS   SDAHAL
8	8	SDALOC   SDAFLA   SDASDA   SDADEV
16	10	SDATID   SDAMRB   SDAUSC   SDAFLB   SDADCE   SDADM4
24	18	SDAUID
32	20	SDATAP   SDAVID
40	28	SDADM2   SDANLC   SDALCS   SDATRL
48	30	SDAOHI   SDAOHL   SDAOHK   SDADFL   SDATOL   SDADPT   SDADBT
56	38	SDAVTC   SDAPLO   SDADN   SDAGSC
64	40	SDAGSR   SDANPS

ORG \*-4

12	C	SDADEA   SDADEB   SDADEC   SDADED
----	---	-----------------------------------

ORG SDADM2

40	28	SDAPLM
----	----	--------

ORG SDADM2

40	28	SDASPC
----	----	--------

ORG SDALCS

44	2C	SDAPST
----	----	--------

48	30	SDAPID
----	----	--------

ORG SDAVTC

56	38	SDAPTO   SDAPVMA
----	----	------------------

(CHASDA continued on page 364)

(CHASDA continued from page 363)

DEC HEX  
ORG SDAPLO

61 3D

SDAVLC

ORG SDADN

62 3E

SDAINV

ORG \*-4

64 40 | SDAGSA | SDAGSB |

ORG SDAGSR

64 40 | SDAPSM |

ORG SDAPSM

64 40 | SDADAM | SDAPAM |

ORG SDATAM

40	28	SDAFORMN			
48	30	SDACARRG		SDACHTRN	
56	38	SDACHTRN (CONT)	SDADEN	SDAURSKY	
64	40	SDAURSKY	SDAUCSKY		SDAFOLD

Fields in CHASDA -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SDAHPS	0021	0015	SDAAM (EQU)	0048	0030	SDAPID
0004	0004	SDAHAL	0021	0015	SDAAX (EQU)	0048	0030	SDAOHI
0008	0008	SDALOC	0021	0015	SDAFLB	0049	0031	SDAOHL
0008	0008	SDATEN	0022	0016	SDAIOR (EQU)	0050	0032	SDACARRG (EQU)
0009	0009	SDACE (EQU)	0022	0016	SDAIREQ (EQU)	0050	0032	SDAOHK (EQU)
0009	0009	SDAVV (EQU)	0022	0016	SDADCE (EQU)	0051	0033	SDAX07 (EQU)
0009	0009	SDASD (EQU)	0023	0017	SDASF (EQU)	0051	0033	SDAX06 (EQU)
0009	0009	SDAPH (EQU)	0023	0017	SDAPF (EQU)	0051	0033	SDAX05 (EQU)
0009	0009	SDAPR (EQU)	0023	0017	SDADM4 (EQU)	0051	0033	SDADFL
0009	0009	SDAAV (EQU)	0024	0018	SDAUID (EQU)	0052	0034	SDATOL
0009	0009	SDAFLA	0032	0020	SDATAP	0054	0036	SDACHTRN
0010	000A	SDASDA	0034	0022	SDAVID	0054	0036	SDADPT
0012	000C	SDADEA	0040	0028	SDAFORMN	0055	0037	SDADBT
0012	000C	SDADEV	0040	0028	SDASPC	0056	0038	SDAPTO
0013	000D	SDADEB	0040	0028	SDAPLM	0056	0038	SDAVTC
0014	000E	SDADEC	0040	0028	SDADM2	0058	003A	SDADEN
0015	000F	SDADED	0040	0028	SDATM1	0058	003A	SDAPVMA
0016	0010	SDATID	0040	0028	SDATAM	0059	003B	SDAURSKY
0018	0012	SDAMRB	0041	0029	SDATM2 (EQU)	0061	003D	SDAVLC
0020	0014	SDAUSC	0042	002A	SDANLC	0061	003D	SDAPLO
0021	0015	SDARNG (EQU)	0042	002A	SDATM3 (EQU)	0062	003E	SDAINV
0021	0015	SDALAB (EQU)	0044	002C	SDAPST	0062	003E	SDADN
0021	0015	SDAVT (EQU)	0044	002C	SDALCS	0063	003F	SDAGSC
0021	0015	SDAPP (EQU)	0046	002E	SDATRL	0064	0040	SDADAM

(Continued on page 365)

(Continued from page 364)

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0064	0040	SDAPSM	0066	0042	SDAPAM	0072	0048	SDAND
0064	0040	SDAGSA	0066	0042	SDAGSB	0072	0048	SDAEND (EQU)
0064	0040	SDAGSR	0068	0044	SDANPS			
0065	0041	SDAUCSKY	0071	0047	SDAFOLD			

Alphabetical list of fields in CHASDA

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
SDAAM	0021	0015 (EQU)	SDAGSR	0064	0040	SDARNG	0021	0015 (EQU)
SDAAV	0009	0009 (EQU)	SDAHAL	0004	0004	SDASD	0009	0009 (EQU)
SDAAX	0021	0015 (EQU)	SDAHPS	0000	0000	SDASDA	0010	000A
SDACARRG	0050	0032	SDAINV	0062	003E	SDASF	0023	0017 (EQU)
SDACE	0009	0009 (EQU)	SDAIOR	0022	0016 (EQU)	SDASPC	0040	0028
SDACHTRN	0054	0036	SDAIREQ	0022	0016 (EQU)	SDATAM	0040	0028
SDADAM	0064	0040	SDALAB	0021	0015 (EQU)	SDATAP	0032	0020
SDADBT	0055	0037	SDALCS	0044	002C	SDATEN	0008	0008
SDADCE	0022	0016	SDALOC	0008	0008	SDATID	0016	0010
SDADEA	0012	000C	SDAMRB	0018	0012	SDATM1	0040	0028
SDADEB	0013	000D	SDAND	0072	0048	SDATM2	0041	0029 (EQU)
SDADEC	0014	000E	SDANLC	0042	002A	SDATM3	0042	002A (EQU)
SDADED	0015	000F	SDANPS	0068	0044	SDATOL	0052	0034
SDADEN	0058	003A	SDAOHI	0048	0030	SDATRL	0046	002E
SDADEV	0012	000C	SDAOHK	0050	0032	SDAUCSKY	0065	0041
SDADFL	0051	0033	SDAOHL	0049	0031	SDAUID	0024	0018
SDADM2	0040	0028	SDAPAM	0066	0042	SDAURSKY	0059	003B
SDADM4	0023	0017	SDAPF	0023	0017 (EQU)	SDAUSC	0020	0014
SDADN	0062	003E	SDAPH	0009	0009 (EQU)	SDAVID	0034	0022
SDADPT	0054	0036	SDAPID	0048	0030	SDAVLC	0061	003D
SDAEND	0072	0048 (EQU)	SDAPLM	0040	0028	SDAVT	0021	0015 (EQU)
SDAFLA	0009	0009	SDAPLO	0061	003D	SDAVTC	0056	0038
SDAFLB	0021	0015	SDAPP	0021	0015 (EQU)	SDAVV	0009	0009 (EQU)
SDAFOLD	0071	0047	SDAPR	0009	0009 (EQU)	SDAX05	0051	0033 (EQU)
SDAFORMN	0040	0028	SDAPSM	0064	0040	SDAX06	0051	0033 (EQU)
SDAGSA	0064	0040	SDAPST	0044	002C	SDAX07	0051	0033 (EQU)
SDAGSB	0066	0042	SDAPTO	0056	0038			
SDAGSC	0063	003F	SDAPVMA	0058	003A			

Assembler listing of CHASDA

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	83 00000	CHASDA	DSECT		SYMBOLIC DEVICE
		*			ALLOCATION TABLE
83 00000			DS	0D	ALIGN TO DOUBLE WORD
		*			BOUNDARY
83 00000		SDAHPS	DS	F	FIRST PUBLIC DEVICE
83 00004		SDAHAL	DS	F	ADDRESS OF LAST ENTRY
83 00008			DS	0D	ALIGN TO DOUBLE WORD
		*			BOUNDARY
83 00008		SDATEN	DS	0CL64	SDAT ENTRY
83 00008		SDALOC	DS	XL1	ENTRY LOCK BYTE X'FF' - IN
		*			USE
83 00009		SDAFLA	DS	XL1	FIRST FLAG BYTE
	83 00009	SDAAV	EQU	SDAFLA	AVAILABLE FLAG 1=AVAILABLE
	00000080	SDAAVM	EQU	X'80'	
	83 00009	SDAPR	EQU	SDAFLA	PARTITIONED FLAG 1=
		*			PARTIONED
	00000040	SDAPRM	EQU	X'40'	
	83 00009	SDAPH	EQU	SDAFLA	DETACHED FLAG 1=DETACHED
	00000020	SDAPHM	EQU	X'20'	
	83 00009	SDASD	EQU	SDAFLA	SYSTEM DEVICE FLAG
	00000010	SDASDM	EQU	X'10'	1 = RESERVED
	83 00009	SDAVV	EQU	SDAFLA	VOLUME VERIFICATION FLAG
	00000008	SDAVVM	EQU	X'08'	1 = VERIFIED
	83 00009	SDACE	EQU	SDAFLA	DEVICE HELD BY MAIN
		*			OPERATOR N393
	00000004	SDACEM	EQU	X'04'	1=HELD, SET BY HOLD AND

(Listing of CHASDA continued on page 366)

(Listing of CHASDA continued from page 365)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
		*			N393
		*			RESET BY DROP
		*			N393
83 0000A		SDASDA	DS	H	SYMBOLIC DEVICE ADDRESS
83 0000C			DS	0F	
83 0000C		SDADEV	DS	XL4	DEVICE CODE
	83 0000C		ORG	*-4	SUBFIELD ALIGNMENT
83 0000C		SDADEA	DS	XL1	MODEL CODE
	00000001	SDAMCA	EQU	X'01'	1050 TERMINAL SYSTEM MASK - TAM
	00000002	SDAMCB	EQU	X'02'	2741 TERMINAL MASK - TAM
	00000003	SDAMCC	EQU	X'03'	MOD 35 TTY MASK - TAM
	00000004	SDAMCD	EQU	X'04'	1052 - MOD 7 TERMINAL MASK - TAM
	00000000	SDAANT	EQU	X'00'	MODEL NOT A TERMINAL
83 0000D		SDADEB	DS	XL1	DEVICE CLASS
	00000001	SDADCA	EQU	X'01'	DIAL LINE MASK - TAM
	00000002	SDADCB	EQU	X'02'	DEDICATED LINE MASK - TAM
	00000004	SDADCD	EQU	X'04'	AUTOMATIC CALL FEATURE - TAM
	00000008	SDABUR	EQU	X'08'	DEVICE CLASS UNIT RECORD
	00000020	SDABDA	EQU	X'20'	DEVICE CLASS DIRECT ACCESS
	00000080	SDABMT	EQU	X'80'	DEVICE CLASS MAGNETIC TAPE
	00000040	SDARJE	EQU	X'40'	REMOTE JOB ENTRY DEVICE
83 0000E		SDADEC	DS	XL1	UNIT TYPE
	00000010	SDAUT1	EQU	X'10'	IBM TERMINAL CONTROL TYPE 1 MASK - TAM
	00000020	SDAUT2	EQU	X'20'	IBM TERMINAL CONTROL TYPE 2 MASK - TAM
	00000030	SDAUT3	EQU	X'30'	TELEGRAPH CONTROL TYPE 1 MASK - TAM
	00000040	SDAUT4	EQU	X'40'	TELEGRAPH CONTROL TYPE 2 MASK - TAM
	00000080	SDAUT5	EQU	X'80'	WORLD TRADE TERMINAL CONTROL MASK - TAM
	00000001	SDAUTA	EQU	X'01'	2702 TRANSMISSION CONTROL MASK - TAM
	00000002	SDAUTB	EQU	X'02'	2701 ON MULTIPLEXOR CHANNEL - TAM
	00000003	SDAUTC	EQU	X'03'	MULTIPLEXOR CHANNEL MASK - TAM (1052-7)
	00000004	SDAUTD	EQU	X'04'	SELECTOR CHANNEL MASK - TAM (1052-7)
	00000005	SDAUTE	EQU	X'05'	2701 ON SELECTOR CHANNEL
	00000006	SDAUTF	EQU	X'06'	2703 TRANSMISSION CONTROL
	00000001	SDACRD	EQU	X'01'	2540 OR 2780 CARD READER I5650
	00000002	SDACPN	EQU	X'02'	2540 CARD PUNCH
	00000008	SDACPT	EQU	X'08'	1403 OR 2780 PRINTER I5650
	00000010	SDAPPT	EQU	X'10'	2671 PPT READER
	00000001	SDADA11	EQU	X'01'	2311 D/A
	00000002	SDADA01	EQU	X'02'	2301 D/A
	00000003	SDADA21	EQU	X'03'	2321 D/A
	00000008	SDADA14	EQU	X'08'	2314 D/A
	00000001	SDATAPE	EQU	X'01'	2400 SERIES
83 0000F		SDADED	DS	XL1	OPTIONAL FEATURES
	00000010	SDAOFA	EQU	X'10'	IBM LINE ADAPTER TYPE 1 - TAM
	00000020	SDAOFB	EQU	X'20'	IBM LINE ADAPTER TYPE 2 - TAM
	00000030	SDA OFC	EQU	X'30'	DATA SET LINE ADAPTER - TAM
	00000040	SDA OFD	EQU	X'40'	AUTOMATIC CALL ADAPTER - TAM
	00000050	SDA OFE	EQU	X'50'	TELEGRAPH LINE ADAPTER - TAM
	00000000	SDA OF1	EQU	X'00'	SAD ZERO MASK - TAM
	00000001	SDA OF2	EQU	X'01'	SAD ONE MASK - TAM

(Listing of CHASDA continued on page 367)

(Listing of CHASDA continued from page 366)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000002	SDAOF3	EQU	X'02'	SAD TWO MASK - TAM
	00000003	SDAOF4	EQU	X'03'	SAD THREE MASK - TAM
	00000004	SDAPFR	EQU	X'40'	PUNCH FEED READ
	00000080	SDAOCI	EQU	X'80'	CARD IMAGE
	00000080	SDADUC	EQU	X'80'	UNIVERSAL CHARACTER SET - (PTR)
		*			
	00000080	SDASCN	EQU	X'80'	SCAN - D/A
	00000040	SDATRV	EQU	X'40'	TRACK OVERFLOW - D/A
	000000B0	SDASTO	EQU	X'B0'	SCAN AND TRACK OVERFLOW - D/A
		*			
	000000E0	SDATPW	EQU	X'E0'	7-TRACK WITH DATA CONVERSION
		*			
	000000A0	SDATPN	EQU	X'A0'	7-TRACK WITHOUT DATA CONVERSION
		*			
	000000C0	SDATR9	EQU	X'C0'	9-TRACK TAPE
	00000080	SDATP9	EQU	X'80'	9-TRACK TAPE
83 00010		SDATID	DS	H	TASK ID
83 00012		SDAMRB	DS	H	MAX NUMBER OF IORCB'S
83 00014		SDAUSC	DS	XL1	USER COUNT
83 00015		SDAFLB	DS	XL1	SECOND FLAG BYTE
	83 00015	SDAAX	EQU	SDAFLB	STORAGE FLAG 0=AUXILIARY
	00000080	SDAAXM	EQU	X'80'	1 = EXTERNAL
	83 00015	SDAAM	EQU	SDAFLB	V/S FLAG 0=VAM; 1=SAM
	00000040	SDAAMM	EQU	X'40'	1 = SAM
	83 00015	SDAPP	EQU	SDAFLB	PUBLIC AND PRIVATE
	00000020	SDAPPM	EQU	X'20'	0 = PRIVATE) 1= PUBLIC
	83 00015	SDAVT	EQU	SDAFLB	LOW VTOC COUNT 1=COW
	00000010	SDAVTM	EQU	X'10'	
	83 00015	SDALAB	EQU	SDAFLB	LABELLED TAPE INDICATOR N373**
		*			
	00000008	SDALABM	EQU	X'08'	LABELLED TAPE MASK N373**
		*			
	83 00015	SDARNG	EQU	SDAFLB	FILE PROTECT RING IN FOR WRITING N373**
		*			
	00000004	SDARNGM	EQU	X'04'	FILE PROTECT RING IN MASK N373**
		*			
83 00016		SDADCE	DS	X	KEYBOARD TYPE
	00000001	SDADC1	EQU	X'01'	1050 PTTTC/8 (FOLDED)
	00000002	SDADC2	EQU	X'02'	2741 CORRESPONDENCE (FOLDED)
		*			
	00000003	SDADC3	EQU	X'03'	2741 PTTTC/B (FOLDED)
	00000004	SDADC4	EQU	X'04'	TTY35 ASCII (FOLDED)
	00000005	SDADC5	EQU	X'05'	1052-7 EBCDIC
	83 00016	SDAIREQ	EQU	SDADCE	IOREQ FLAG BYTE
	83 00016	SDAIOR	EQU	SDAIREQ	IOREQ ALLOWED FLAG
	00000008	SDAIOM	EQU	X'08'	IOREQ ALLOWED MASK
83 00017		SDADM4	DS	XL1	THIRD FLAG BYTE
	83 00017	SDAPF	EQU	SDADM4	STATUS OF V-CON,1#PRIVILEGED
		*			
	00000080	SDAPFM	EQU	X'80'	
	83 00017	SDASF	EQU	SDADM4	ASYNC INTERRUPT SUPPRESS 1= YES
		*			
	00000040	SDASFM	EQU	X'40'	
83 00018		SDAUID	DS	CL8	USER ID
83 00020		SDATAP	DS	H	TAPE POSITION CODE
83 00022		SDAVID	DS	XL6	VOLUME ID
83 00028		SDATAM	DS	0CL3	TAM WORK AREA
83 00028		SDATM1	DS	0XL1	TAM DCB COUNT
	83 00029	SDATM2	EQU	SDATM1+1	TAM ACTIVE IORCB COUNT
	83 0002A	SDATM3	EQU	SDATM1+2	OPERATION CODE
	00000001	SDATM4	EQU	X'01'	READ OP CODE
	00000002	SDATM5	EQU	X'02'	WRITE OP CODE
83 00028		SDADM2	DS	CL2	
	83 00028	SDADM2	DS	CL2	
		ORG			
83 00028		SDAPLM	DS	XL2	PAT TABLE LOCK BIT MASK ONE BIT FOR EACH PAT PAGE
		*			
	83 00028	SDADM2	DS	CL2	
		ORG			
83 00028		SDASPC	DS	H	TOTAL SPACE CAPACITY OF

(Listing of CHASDA continued on page 368)

(Listing of CHASDA continued from page 367)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
83 0002A		* SDANLC	DS	H	VOLUME NO OF LOGICAL CYLINDERS/VOLUME
83 0002C		* SDALCS	DS	H	VOLUME NO OF TRACK/LOGICAL CYLINDER CYLINDERS
83 0002E		* SDATRL	DS	H	NO OF AVAILABLE BYTES/TRACK TRACK
83 00030		SDAOHI	DS	XL1	OVERHEAD FOR KEYED RECORD
83 00031		SDAOHL	DS	XL1	OVERHEAD FOR LAST KEYED RECORD ON TRACK
83 0002C	83 0002C	* SDAPST	<u>ORG</u> DS	SDALCS A	PSECT ADDR OF MODULE WHICH N333.1 REQUIRED LOCK SET N333.1
83 00030		* SDAPID	DS	XL2	TASKID WHICH SET SDAPLO LOCK N333.1
83 00032		* SDAOHK	DS	XL1	OVERHEAD BYTES TO BE SUBTRACTED IF NO KEY FLAG FIELD
83 00033		SDADFL	DS	XL1	CCHH IS USED AS IN 2301
	83 00033	SDAX05	EQU	SDADFL	
	00000004	SDAM05	EQU	X'04'	
	83 00033	SDAX06	EQU	SDADFL	CCHH IS USED AS IN 2321
	00000002	SDAM06	EQU	X'02'	
	83 00033	SDAX07	EQU	SDADFL	TOLERANCE MUST BE APPLIED
	00000001	SDAM07	EQU	X'01'	
83 00034		SDATOL	DS	H	TOLERANCE/512 GIVES EFFECTIVE LENGTH OF RECORD
83 00036		* SDADPT	DS	XL1	DSCB/TRACK
83 00037		SDADBT	DS	XL1	DIRECTORY BLOCKS/TRACK
83 00038		SDAVTC	<u>DS</u>	XL5	VTOC ADDRESS
83 00038	83 00038	* SDAPTO	<u>ORG</u> DS	SDAVTC H	VOL. PG. NO. OF 1ST PG. OF PAT TABLE
83 0003A		* SDAPVMA	DS	XL3	CONTAINS THE HI-ORDER 24 BITS OF THE 32-BIT V.M. ADDR. OF PAT TABLE
83 0003D		* SDAPLO	<u>DS</u>	XL1	PAT TABLE LOCK BYTE
83 0003D	83 0003D	* SDAVLC	<u>ORG</u> DS	SDAPLO XL1	VTOC LOCK BYTE X'FF' - IN USE
83 0003E		SDADN	DS	XL1	TAPE DENSITY
	00000003	SDADN1	EQU	X'03'	200 BPI
	00000043	SDADN2	EQU	X'43'	556 BPI
	00000083	SDADN3	EQU	X'83'	800 BPI
	83 0003E	* SDADN	<u>ORG</u>	SDADN	REDEFINE FIELD N472
83 0003E		* SDAINV	DS	X	FLAG BYTE N472
	00000080	* SDAINVM	EQU	X'80'	INVALID PAT ON THIS VOLUME N472
83 0003F		* SDAGSC	DS	XL1	GROSS AVAILABLE FLAG X'FF' IF
83 00040		* SDAGSR	DS	F	GSA AND GSB ARE VALID FOR VAM-TOTAL NUMBER OF AVAILABLE PAGES
	83 00040	* SDAGSR	<u>ORG</u>	*-4	FOR SAM-NUMBER OF COMPLETE CYLINDERS
83 00040		* SDAGSA	DS	H	AVAILABLE
83 00042		* SDAGSB	DS	H	FOR SAM NUMBER OF TRACKS AVAILABLE
	83 00040	* SDAGSR	<u>ORG</u> DS	SDAGSR F	WITHIN INCOMPLETE CYLINDERS
83 00040		SDAPSM	DS	F	PAT SUMMARY MASK

(Listing of CHASDA continued on page 369)

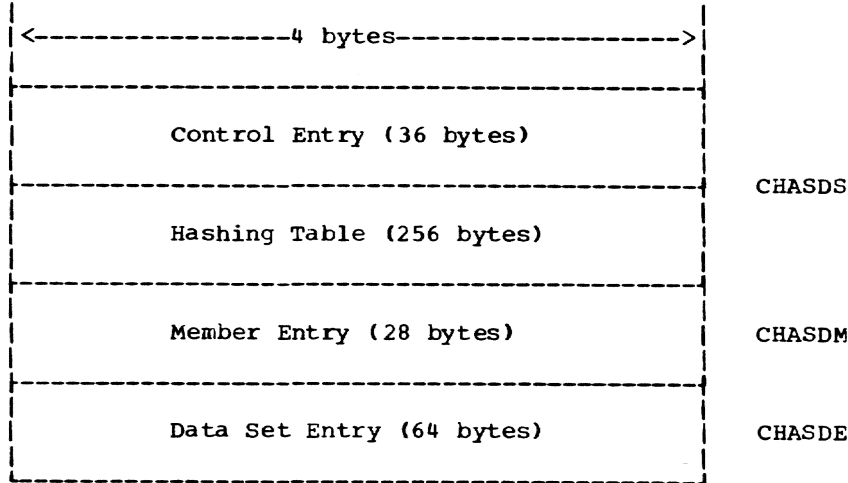
(Listing of CHASDA continued from page 368)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	83 00040	*			IF PAGE IS AVAILABLE BIT=0
83 00040		SDADAM	DS	H	DSCB AVAILABILITY MASK
83 00042		SDAPAM	DS	H	PAGE AVAILABILITY MASK
		*			WITHIN INCOMPLETE CYLINDERS
83 00044		SDANPS	DS	F	POINTER TO NEXT PUBLIC
		*			STORAGE
		*			ENTRY. IF THIS ENTRY IS
		*			NOT A
		*			PUBLIC DEVICE OR IF THIS IS
		*			THE LAST PUBLIC DEVICE, THIS
		*			FIELD IS EQUAL TO ZERO.
	83 00048	SDAEND	EQU	*	
	83 00028		ORG	SDATAM	REORIGIN FOR MSAM
83 00028		SDAFORMN	DS	CL10	PUNCH OR PRINT FORM NUMBER
83 00032		SDACARRG	DS	CL4	PRINTER CARRIAGE TAPE
		*			NUMBER
83 00036		SDACHTRN	DS	CL4	PRINTER CHAIN/TRAIN
83 0003A		SDADEN	DS	CL1	PRINT DENSITY
	000000F6	SDADEN6	EQU	C'6'	6 LINES/INCH
	000000F8	SDADEN8	EQU	C'8'	8 LINES/INCH
83 0003B		SDAURSKY	DS	CL6	SYSURS DATA SET KEY
83 00041		SDAUCSKY	DS	CL6	SYSUCS DATA SET KEY
83 00047		SDAFOLD	DS	CL1	UCS FOLD OPTION
	000000C6	SDAFOLDF	EQU	C'F'	FOLDED
	000000E4	SDAFOLDU	EQU	C'U'	UNFOLDED
83 00048		SDAND	DS	0X	END OF SDAT ENTRY
		*			I5943
	00000040	SDASZE	EQU	SDAND-SDATEN	SDAT ENTRY SIZE
		*			I5943
	00000048	SDASIZ	EQU	SDAEND-SDAHPS	LENGTH OF SDAT TABLE
*****					
SDADEV DEVICE					
		SDADEA			MODEL CODE
		SDADEB			DEVICE CLASSES
		SDADEC			UNIT TYPE
		SDADED			OPTIONAL FEATURES
	SDADEA		SDADEB		SDADEC
	SDADED				
	00		08=UNIT		01=2540 READER
	BIT 0=1 CARD IMAGE		RECORD		02=2540 PUNCH
			BIT 0=1 CARD IMAGE		
			BIT 1=1 PUNCH FEED		
			READ		
			08=1403 PRINTER		BIT 0=1
			UNIVERSAL		
			10=2671 PPT READER		NONE
			CHARACTER		
			20=DIRECT		01=2311
			BIT 0=1 SCAN		
			ACCESS		02=2301
			BIT 1=1 TRACK		
			03=2321		
			OVERFLOW		
			08=2314		
			80=MAGNETIC		01=2400 SERIES
			E0=7 TRACK WITH		
			TAPE		
			DATA CONVERSION		
			A0=7 TRACK WITHOUT		
			DATA CONVERSION		
			00,C0,80=9 TRACK		
*****					

Shared Data Set Table (CHASDS, CHASDM, & CHASDE)

The Shared Data Set Table (SDST), controls the use of shared data sets and shared data set members. The SDST consists of three sections. The first section, the control entry and hashing table (SDS), controls the available space in the SDST through links to data set entries, and deleted member entries. The second section of the SDST, the member entry (SDM), related members of the shared partitioned data set to shared pages. The third section, the data set entry (SDE), locates shared data sets and relates these data sets to shared pages.

The SDST occupies a minimum of 372 bytes of virtual storage, aligned on doubleword boundaries.



Shared Data Set Table (CHASDS, CHASDM, CHASDE)

CHASDS Storage map

DEC	HEX	Field
0	0	SDSINT   SDSLPN   SDSSPT   SDSAVA
8	8	SDSDE   SDSDME
16	10	SDSDSE   SDSHAS
272	110	SDSPLK   UNNAMED
280	118	SDSPSN
288	120	

Fields in CHASDS -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SDSINT	0004	0004	SDSAVA	0020	0014	SDSHAS
0000	0000	SDSCON	0008	0008	SDSDE	0276	0114	SDSPLK
0001	0001	SDSLPN	0012	000C	SDSDME	0280	0118	SDSPSN
0002	0002	SDSSPT	0016	0010	SDSDSE			



Alphabetical list of fields in CHASDS

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
SDSAVA	0004	0004	SDSDSE	0016	0010	SDSPLK	0276	0114
SDSCON	0000	0000	SDSHAS	0020	0014	SDSPSN	0280	0118
SDSDE	0008	0008	SDSINT	0000	0000	SDSSPT	0002	0002
SDSDME	0012	000C	SDSLPN	0001	0001			

Assembler listing of CHASDS

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	86 00000	CHASDS	DSECT		SHARED DATA SET TABLE
86 00000		DS	DS	0D	
86 00000		SDSCON	DS	0XL20	SHARED DATA SET CONTROL
		*			ENTRY
86 00000		SDSINT	DS	XL1	INTERLOCK CONTROL
86 00001		SDSLPN	DS	XL1	LAST RELATIVE PAGE NUMBER
86 00002		SDSSPT	DS	XL2	LAST ASSIGNED SPT NUMBER
86 00004		SDSAVA	DS	XL4	NEXT AVAILABLE SDST SPACE
86 00008		SDSDE	DS	XL4	FIRST DELETED DATA SET
		*			ENTRY
86 0000C		SDSDME	DS	XL4	FIRST DELETED MEMBER ENTRY
86 00010		SDSDSE	DS	XL4	FIRST DATA SET ENTRY
86 00014		SDSHAS	DS	XL256	MEMBER HASHING TABLE
86 00114		SDSPLK	DS	XL2	USERID OF TASK THAT HAS
		*			LOCKED M4171
		*			THE SDST
		*			M4171
86 00116			DS	XL2	RESERVED
		*			M4171
86 00118		SDSPSN	DS	3F	RESERVED
		*			M4171

CHASDM Storage map

DEC	HEX	FIELD
0	0	SDMCHN
8	8	SDMHPT
16	10	SDMNSP
24	18	SDMFSB

ORG SDMHPT

DEC	HEX	FIELD
8	8	SDMNSP
		SDMFSP

Fields in CHASDM -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	(EQU)
0000	0000	SDMCHN	0008	0008	SDMHPT	0024	0018	SDMNSP	
0004	0004	SDMNUR	0010	000A	SDMFSP	0024	0018	SDMFSB	
0006	0006	SDMSPT	0012	000C	SDMLSD				
0008	0008	SDMNSP	0016	0010	SDMNSP				

Alphabetical list of fields in CHASDM

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SDMCHN	0000	0000	SDMHPT	0008	0008	SDMNUR	0004	0004
SDMNSP	0008	0008	SDMLSD	0012	000C	SDMSPT	0006	0006
SDMFSB	0024	0018	SDMNSP	0016	0010			
SDMFSP	0010	000A						

Assembler listing of CHASDM

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	85 00000	CHASDM	DSECT		SHARED DATA SET MEMBER ENTRY
85 00000		*	DS	0D	
85 00000		SDMCHN	DS	XL4	MEMBER CHAIN ENTRY
85 00004		SDMNUR	DS	XL2	NUMBER USERS THIS MEMBER
85 00006		SDMSPT	DS	XL2	WHEN FFFF INDICATES TEMP LOCK M4171
		*			ON MEMBER. LATER IT
		*			CONTAINS M4171
		*			THE SHARED PAGE TABLE
		*			NUMBER M4171
		*			OF VMA ASSIGNED.
		*			M4171
85 00008		SDMHPT	DS	1F	POINTER TO HOST SDST IF SYMBIONT ENTRY
	85 00008	SDMNSP	DS	HL2	NUMBER OF SPT PGS OF HOST M4171
85 00008		SDMNSP	DS	HL2	TASKID THAT BUILT MEMBER M4171
85 0000A		SDMFSP	DS	XL2	LINK ADDR TO DATA SET ENTRY M4171
85 0000C		SDMLSD	DS	AL4	MEMBER NAME
85 00010		SDMNSP	DS	CL8	BYTE ADDRESS RELATIVE TO BEGINNING
85 00018		SDMFSB	DS	XL4	HOST/SYMBIONT CODE (ONE BYTE)
	85 00018	SDMNSP	EQU	SDMFSP	HOST CODE
	00000000	SDMHST	EQU	X'00'	SYMBIONT CODE
	00000001	SDMSYM	EQU	X'01'	CSECT PACKING INDICATOR
	00000002	SDMPAK	EQU	X'02'	M3234
		*			

CHASDE Storage map

DEC	HEX	SDECHN				SDEINW	SDEINR	SDEINN	SDEINI
0	0								
8	8	SDENUR	SDESPT	SDENSP		SDEFSP			
16	10	SDENAM							
56	38	SDESPR							

Fields in CHASDE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SDECHN	0007	0007	SDEINI	0014	000E	SDEFSP
0004	0004	SDEINW	0008	0008	SDENUR	0016	0010	SDENAM
0005	0005	SDEINR	0010	000A	SDESPT	0060	003C	SDESPR
0006	0006	SDEINN	0012	000C	SDENSP			

Alphabetical list of fields in CHASDE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SDECHN	0000	0000	SDEINR	0005	0005	SDENUR	0008	0008
SDEFSP	0014	000E	SDEINW	0004	0004	SDESPR	0060	003C
SDEINI	0007	0007	SDENAM	0016	0010	SDESPT	0010	000A
SDEINN	0006	0006	SDENSP	0012	000C			

Assembler listing of CHASDE

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	84 00000	CHASDE	DSECT		SHARED DATA SET ENTRY
84 00000		DS		0D	
84 00000		SDECHN	DS	XL4	DATA SET ENTRY CHAIN
84 00004		SDEINW	DS	XL1	WRITE INTERLOCK FLAG
84 00005		SDEINR	DS	XL1	READ INTERLOCK FLAG
84 00006		SDEINN	DS	XL1	READ INTERLOCK COUNTER
84 00007		SDEINI	DS	XL1	READ INTERLOCK CONTROL
		*			FLAG
84 00008		SDENUR	DS	XL2	NUMBER OF USERS THIS DATA
		*			SET
84 0000A		SDESPT	DS	XL2	WHEN FFFF INDICATES TEMP
		*			LOCK M4171
		*			ON DATA SET ENTRY. IT
		*			NORMALLY M4171
		*			CONTAINS THE SPT OF VMA
		*			AREA M4171
		*			DATA SET IS IN.
		*			M4171
84 0000C		SDENSP	DS	XL2	NUMBER OF SHARED PAGE
		*			ENTRIES
84 0000E		SDEFSP	DS	XL2	MAY HOLD USERID OR PRIV
		*			FLAG M4171
		*			FOR PUBLIC DS ENTRY IF SDESPT=FFFF THEN
		*			SDEFSP=USERID - LOCKED M4171
		*			IF SDESPT=SPT NO
		*			SDEFSP=USERID - UNLKD M4171
		*			A NORMAL SHARED PUBLIC SET WHEN FINALLY FILLED
		*			CONTAINS AN M4171
		*			SDESPT=SPT NO, SDENSP=NO OF SHARED PGS,
		*			SDEFSP=1ST SHARED PG M4171
		*			FOR PRIVATE DS ENTRY SDESPT=USERID AND
		*			SDEFSP=FFFF - NORMAL M4171
84 00010		SDENAM	DS	CL44	DATA SET NAME
84 0003C		SDESPR	DS	CL4	SPARE

I/O Statistical Data Table (CHASDT)

The I/O Statistical Data Table (SDT) accumulates statistical data on outboard failures of task I/O devices.

The SDT contains one Statistical Data Record (SDR) entry for each task I/O device in the system. Each of these SDR entries consists of statistical data on outboard failures of the associated task symbolic I/O device. The SDR entries are sorted on the symbolic device address (SDTSDA) field.

The SDT consists of an 8 byte header and from 10 to 200 SDR entries (72 bytes each).

The SDT occupies from 728 to 14,000 bytes of virtual storage; the header and each SDR entry are aligned on doubleword boundaries.

Note 1. Since the retry threshold depends upon the type of error condition and device, each byte of the SDTRTH field is assigned to a specific error condition as its retry threshold for the device. The assignment of the retry threshold bytes is device dependent.

Note 2. SDR save area (SDTSDB) contains a 4 bit frequency counter for each bit of sense data. An SDR field is incremented by 1 each time its associated sense bit registers 1 in the summary sense data, on a VMSSDR call. If an SDT field overflow occurs, the SDR entry of a symbolic I/O device is written on the drum for preservation recording.

CHASDT Storage map

DEC	HEX	
0	0	SDTLSD   SDTSP   SDTLCK   SDTLBA
8	8	SDTSDA   SDTFB   UNNAMED
16	10	SDTLP   SDTEIC   SDTRET   UNNAMED
24	18	SDTRT0   SDTRT1
32	20	SDTRT2   UNNAMED
40	28	SDTTS
48	30	SDTSDB

ORG SDTRT0

24	18	SDTDA0   SDTDA1   SDTDA2   SDTDA3
----	----	-----------------------------------

ORG SDTRT1

28	1C	SDTDA4   SDTDA5   SDTDA6   SDTDA7
----	----	-----------------------------------

ORG SDTRT2

32	20	SDTDA8   SDTDA9   SDTDA10   SDTDA11
----	----	-------------------------------------

Fields in CHASDT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SDTLSD	0025	0019	SDTT1 (EQU)	0028	001C	SDTT4 (EQU)
0002	0002	SDTSP	0025	0019	SDTPR1 (EQU)	0028	001C	SDTMT4 (EQU)
0003	0003	SDTLCK	0025	0019	SDTPT1 (EQU)	0028	001C	SDTRT1 (EQU)
0004	0004	SDTLBA	0025	0019	SDTPU1 (EQU)	0029	001D	SDTDA5 (EQU)
0008	0008	SDTSDA	0025	0019	SDTCR1 (EQU)	0029	001D	SDT27015 (EQU)
0008	0008	SDTHBDY	0025	0019	SDTMT1 (EQU)	0029	001D	SDTT5 (EQU)
0010	000A	SDTWTO (EQU)	0026	001A	SDTDA2 (EQU)	0029	001D	SDTMT5 (EQU)
0010	000A	SDTFB	0026	001A	SDT27012 (EQU)	0030	001E	SDTDA6 (EQU)
0016	0010	SDTLP	0026	001A	SDTT2 (EQU)	0030	001E	SDTT6 (EQU)
0018	0012	SDTEIC	0026	001A	SDTPR2 (EQU)	0031	001F	SDTDA7 (EQU)
0020	0014	SDTRET	0026	001A	SDTPU2 (EQU)	0031	001F	SDTT7 (EQU)
0024	0018	SDTDA0	0026	001A	SDTCR2 (EQU)	0032	0020	SDTDA8 (EQU)
0024	0018	SDT27010 (EQU)	0026	001A	SDTMT2 (EQU)	0032	0020	SDTT8 (EQU)
0024	0018	SDTT0 (EQU)	0027	001B	SDTDA3 (EQU)	0032	0020	SDTRT2 (EQU)
0024	0018	SDTPR0 (EQU)	0027	001B	SDTPR3 (EQU)	0033	0021	SDTDA9 (EQU)
0024	0018	SDTPT0 (EQU)	0027	001B	SDTPU3 (EQU)	0033	0021	SDTT9 (EQU)
0024	0018	SDTPU0 (EQU)	0027	001B	SDTCR3 (EQU)	0034	0022	SDTDA10 (EQU)
0024	0018	SDTCR0 (EQU)	0027	001B	SDT27013 (EQU)	0034	0022	SDTT10 (EQU)
0024	0018	SDTMT0 (EQU)	0027	001B	SDTT3 (EQU)	0035	0023	SDTDA11 (EQU)
0024	0018	SDTRT0	0027	001B	SDTMT3 (EQU)	0035	0023	SDTT11 (EQU)
0024	0018	SDTRTH	0028	001C	SDTDA4	0040	0028	SDTTS
0025	0019	SDTDA1	0028	001C	SDTPR4 (EQU)	0048	0030	SDTSDB
0025	0019	SDT27011 (EQU)	0028	001C	SDT27014 (EQU)	0080	0050	SDTBDY

Alphabetical list of fields in CHASDT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SDTBDY	0080	0050	SDTLSD	0000	0000	SDTSDA	0008	0008
SDTCR0	0024	0018 (EQU)	SDTMT0	0024	0018 (EQU)	SDTSDB	0048	0030
SDTCR1	0025	0019 (EQU)	SDTMT1	0025	0019 (EQU)	SDTSP	0002	0002
SDTCR2	0026	001A (EQU)	SDTMT2	0026	001A (EQU)	SDTTS	0040	0028
SDTCR3	0027	001B (EQU)	SDTMT3	0027	001B (EQU)	SDTT0	0024	0018 (EQU)
SDTDA0	0024	0018	SDTMT4	0028	001C (EQU)	SDTT1	0025	0019 (EQU)
SDTDA1	0025	0019	SDTMT5	0029	001D (EQU)	SDTT10	0034	0022 (EQU)
SDTDA10	0034	0022	SDTPR0	0024	0018 (EQU)	SDTT11	0035	0023 (EQU)
SDTDA11	0035	0023	SDTPR1	0025	0019 (EQU)	SDTT2	0026	001A (EQU)
SDTDA2	0026	001A	SDTPR2	0026	001A (EQU)	SDTT3	0027	001B (EQU)
SDTDA3	0027	001B	SDTPR3	0027	001B (EQU)	SDTT4	0028	001C (EQU)
SDTDA4	0028	001C	SDTPR4	0028	001C (EQU)	SDTT5	0029	001D (EQU)
SDTDA5	0029	001D	SDTPT0	0024	0018 (EQU)	SDTT6	0030	001E (EQU)
SDTDA6	0030	001E	SDTPT1	0025	0019 (EQU)	SDTT7	0031	001F (EQU)
SDTDA7	0031	001F	SDTPU0	0024	0018 (EQU)	SDTT8	0032	0020 (EQU)
SDTDA8	0032	0020	SDTPU1	0025	0019 (EQU)	SDTT9	0033	0021 (EQU)
SDTDA9	0033	0021	SDTPU2	0026	001A (EQU)	SDTWTO	0010	000A (EQU)
SDTEIC	0018	0012	SDTPU3	0027	001B (EQU)	SDT27010	0024	0018 (EQU)
SDTFB	0010	000A	SDTRET	0020	0014	SDT27011	0025	0019 (EQU)
SDTHBDY	0008	0008	SDTRTH	0024	0018	SDT27012	0026	001A (EQU)
SDTLBA	0004	0004	SDTRT0	0024	0018	SDT27013	0027	001B (EQU)
SDTLCK	0003	0003	SDTRT1	0028	001C	SDT27014	0028	001C (EQU)
SDTLP	0016	0010	SDTRT2	0032	0020	SDT27015	0029	001D (EQU)

Assembler listing of CHASDT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	87 00000	CHASDT	DSECT		
		****	I/O	STATISTICAL	DATA TABLE ****
87 00000			DS	OD	
87 00000		SDTLSD	DS	H	LENGTH OF SDR ENTRY(72 BYTES)
		*			
87 00002		SDTSP	DS	XL1	SPARE
87 00003		SDTLCK	DS	XL1	TABLE LOCK BYTE
87 00004		SDTLBA	DS	XL4	LAST BYTE ADDRESS OF SDT
87 00008		SDTHBDY	DS	0X	END OF IO STATISTICAL DATA
		*			I5943
(Listing of CHASDT continued on page 376)					

(Listing of CHASDT continued from page 375)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			TABLE HEADER
		*			I5943
	00000008	SDTHDSZ	EQU	SDTHBDY-SDTLS	IO STATISTICAL DATA
		*			TABLE I5943
		*			HEADER SIZE
		*			I5943
87 00008		SDTSDA	DS	XL2	SYMBOLIC DEVICE ADDRESS
87 0000A		SDTFB	DS	XL2	FLAG BYTES
	87 0000A	SDTWTO	EQU	SDTFB	WRITE TO OPERATOR FLAF (1
		*			IF IMMEDIATE)
	00000080	SDTIRM	EQU	X'80'	
87 0000C			DS	2H	SPARE
87 00010		SDTLP	DS	XL2	PATH LAST USED (ACTUAL I/O
		*			ADDRESS)
87 00012		SDTEIC	DS	H	TOTAL ERROR INCIDENT COUNT
87 00014		SDTRET	DS	H	TOTAL RETRY COUNT
87 00016			DS	H	SPARE
87 00018		SDTRTH	DS	0XL12	ERROR RETRY THRESHOLDS
87 00018		SDTRTO	DS	XL4	RETRY THRESHOLD BYTES 0-3
	87 00018		<u>ORG</u>	SDTRTO	
87 00018		SDTDA0	DS	X	D/A "SEEK CHECK" RETRY
		*			VALUE
	87 00018	SDTMT0	EQU	SDTDA0	MAG TAPE"DATA CHECK(WRITE)"
		*			RETRY VALUE
	87 00018	SDTCR0	EQU	SDTDA0	CARD READER "CHAN DATA CK"
		*			RETRY VALUE
	87 00018	SDTPU0	EQU	SDTDA0	CARD PUNCH "CHAN DATA CK"
		*			RETRY VALUE
	87 00018	SDTPT0	EQU	SDTDA0	PAPER TPE"EQUIP CHECK"RETRY
		*			VALUE
	87 00018	SDTPR0	EQU	SDTDA0	PRINTER "CHAN DATA CK"
		*			RETRY VALUE
	87 00018	SDTT0	EQU	SDTDA0	TERM.'EQUIP CHECK' RETRY
		*			VALUE
	87 00018	SDT27010	EQU	SDTDA0	CHANNEL/INTERFACE CONTROL
		*			CHECK
87 00019		SDTDA1	DS	X	D/A "OVERRUN" RETRY VALUE
	87 00019	SDTMT1	EQU	SDTDA1	MAG TAPE "OVERRUN" RETRY
		*			VALUE
	87 00019	SDTCR1	EQU	SDTDA1	CARD READER "BUS OUT CK"
		*			RETRY VALUE
	87 00019	SDTPU1	EQU	SDTDA1	CARD PUNCH "BUS OUT CK"
		*			RETRY VALUE
	87 00019	SDTPT1	EQU	SDTDA1	PAPER TAPE"BUS OUT
		*			CHECK"RETRY VALUE
	87 00019	SDTPR1	EQU	SDTDA1	PRINTER "BUS OUT CK" RETRY
		*			VALUE
	87 00019	SDTT1	EQU	SDTDA1	TERM.'BUS OUT CHECK' RETRY
		*			VALUE
	87 00019	SDT27011	EQU	SDTDA1	CHANNEL DATA CHECK/BUS OUT
		*			CHECK
87 0001A		SDTDA2	DS	X	D/A"NO RECORD FOUND"RETRY
		*			VALUE
	87 0001A	SDTMT2	EQU	SDTDA2	MAG TAPE"DATA
		*			CHK(CONTROL)"RETRY VALUE
	87 0001A	SDTCR2	EQU	SDTDA2	CARD READER "EQUIPMENT CK"
		*			RETRY VALUE
	87 0001A	SDTPU2	EQU	SDTDA2	CARD PUNCH "EQUIPMENT CK"
		*			RETRY VALUE
	87 0001A	SDTPR2	EQU	SDTDA2	PRINTER "EQUIPMENT CK"
		*			RETRY VALUE
	87 0001A	SDTT2	EQU	SDTDA2	TERM.'COMMAND REJECT' RETRY
		*			VALUE
	87 0001A	SDT27012	EQU	SDTDA2	UC/LD, UC/TO, IL
87 0001B		SDTDA3	DS	X	D/A"MISSING ADDRESS
		*			MARKERS"RETRY VALUE
	87 0001B	SDTMT3	EQU	SDTDA3	MAG TAPE"CHAINING CHK"RETRY
		*			VALUE

(Listing of CHASDT continued on page 377)

(Listing of CHASDT continued from page 376)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	87 0001B	SDTT3	EQU	SDTDA3	TERM.'OVERRUN' RETRY VALUE
	87 0001B	SDT27013	EQU	SDTDA3	UC/IR, UC/TO, UC/DT, UC/OV, IL
	87 0001B	SDTCR3	EQU	SDTDA3	CARD READER "DATA CHECK"
	87 0001B	SDTPU3	EQU	SDTDA3	RETRY VALUE CARD PUNCH "DATA CHECK"
	87 0001B	SDTPR3	EQU	SDTDA3	RETRY VALUE PRINTER "DATA CHECK" RETRY VALUE
87 0001C		SDTRT1	DS	XL4	RETRY THRESHOLD BYTES 4-7
87 0001C	87 0001C	SDTDA4	<u>ORG</u> DS	SDTRT1 X	D/A "CHAINING CHK"RETRY VALUE
	87 0001C	SDTMT4	EQU	SDTDA4	MAG TAPE'DATA CHK RE-READ'RETRY VALUE
	87 0001C	SDTT4	EQU	SDTDA4	TERM.'INTERVENTION REQUIRED' RETRY VALUE
	87 0001C	SDT27014	EQU	SDTDA4	'SHOULD NOT OCCUR' ERRORS
	87 0001C	SDTPR4	EQU	SDTDA4	PRINTER "CODE GEN STORAGE P" RETRY VALUE
87 0001D		SDTDA5	DS	X	D/A 'DATA CHK' RETRY VALUE
	87 0001D	SDTMT5	EQU	SDTDA5	MAG TAPE'BUS OUT CHECK'RETRY VALUE
	87 0001D	SDTT5	EQU	SDTDA5	TERM.'TIME OUT' RETRY VALUE
	87 0001D	SDT27015	EQU	SDTDA5	'0' FOR ERRORS NOT RETRIED
87 0001E		SDTDA6	DS	X	D/A'NO REC.FOUND OF MISS ADD MARK.'RETRY VALUE
	87 0001E	SDTT6	EQU	SDTDA6	TERM.'DATA CHECK' RETRY VALUE
87 0001F		SDTDA7	DS	X	D/A 'BUS OUT CHECK' RETRY VALUE
	87 0001F	SDTT7	EQU	SDTDA7	TERM.'RECEIVING CHECK' RETRY VALUE
87 00020		SDTRT2	DS	XL4	RETRY THRESHOLD BYTES 8-11
87 00020	87 00020	SDTDA8	<u>ORG</u> DS	SDTRT2 X	D/A'CHNL DATA CHK'RETRY VALUE
	87 00020	SDTT8	EQU	SDTDA8	TERM.'ILLEGAL UNIT EXCEPTION' RETRY VALUE
87 00021		SDTDA9	DS	X	UNUSED LABEL
	87 00021	SDTT9	EQU	SDTDA9	TERM.'INBOARD ERROR COUNT' RETRY VALUE
87 00022		SDTDA10	DS	X	UNUSED LABEL
	87 00022	SDTT10	EQU	SDTDA10	TERM.'MASTER CONSECUTIVE ERROR COUNT' RETRY VALUE
87 00023		SDTDA11	DS	X	UNUSED LABEL
	87 00023	SDTT11	EQU	SDTDA11	TERM.'MACHINE CHECK RETRY' RETRY VALUE
87 00024			DS	F	SPARE
87 00028		SDTTS	DS	2F	DATE TIME STAMP OF FIRST SDR ERROR
87 00030		SDTSDB	DS	8XL4	IN MICRO-SECONDS SDR BUCKETS (640 1/2 BYTES)
87 00050		SDTBDY	DS	0X	END OF IO STATISTICAL DATA I5943
					TABLE ENTRY I5943
	00000048	SDTSZ	EQU	SDTBDY-SDTSDA	IO STATISTICAL DATA TABLE I5943
					ENTRY SIZE I5943

OLTS Section Control Table (CHASKT)

Provides the OLTS section with all of the information required to perform the test.

CHASKT Storage map

DEC	HEX						
0	0	SKTRND	SKTSP1	SKTOPT	SKTRTE	SKTSP2	
8	8	SKTSYM	SKTFLG	SKTIDX	SKTDAD		
16	10	SKTCHR					

Fields in CHASKT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SKTRND	0006	0006	SKTSP2	0012	000C	SKTIDX
0000	0000	SKTBEG	0008	0008	SKTSYM	0014	000E	SKTDAD
0002	0002	SKTSP1	0010	000A	SKTLSB (EQU)	0016	0010	SKTMODC (EQU)
0003	0003	SKTERR (EQU)	0010	000A	SKTAFI (EQU)	0016	0010	SKTCHR
0003	0003	SKTLPE (EQU)	0010	000A	SKTTFL (EQU)	0017	0011	SKTFEAT (EQU)
0003	0003	SKTELP (EQU)	0010	000A	SKTPRV (EQU)	0018	0012	SKTCLAS (EQU)
0003	0003	SKTNPR (EQU)	0010	000A	SKTLDV (EQU)	0019	0013	SKTTYPE (EQU)
0003	0003	SKTOPT	0010	000A	SKTSIN (EQU)	0020	0014	SKTDE
0004	0004	SKTRTE	0010	000A	SKTINH (EQU)			
			0010	000A	SKTFLG			

Alphabetical list of fields in CHASKT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SKTAFI	0010	000A (EQU)	SKTINH	0010	000A (EQU)	SKTRND	0000	0000
SKTBEG	0000	0000	SKTLDV	0010	000A (EQU)	SKTRTE	0004	0004
SKTCHR	0016	0010	SKTLPE	0003	0003 (EQU)	SKTSIN	0010	000A (EQU)
SKTCLAS	0018	0012 (EQU)	SKTLSB	0010	000A (EQU)	SKTSP1	0002	0002
SKTDAD	0014	000E	SKTMODC	0016	0010 (EQU)	SKTSP2	0006	0006
SKTDE	0020	0014	SKTNPR	0003	0003 (EQU)	SKTSYM	0008	0008
SKTELP	0003	0003 (EQU)	SKTOPT	0003	0003 (EQU)	SKTTFL	0010	000A (EQU)
SKTERR	0003	0003 (EQU)	SKTPRV	0010	000A (EQU)	SKTTYPE	0019	0013 (EQU)
SKTFEAT	0017	0011 (EQU)						
SKTFLG	0010	000A						

Assembler listing of CHASKT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	8B 00000	CHASKT	DSECT		
		*			OLTS SECTION CONTROL TABLE
8B 00000	SKTBEG	DS	OF		FULL WORD ALIGN
8B 00000	SKTRND	DS	H		RANDOM NUMBER
8B 00002	SKTSP1	DS	XL1		SPARE
8B 00003	SKTOPT	DS	XL1		JOBOPTIONS
8B 00004	SKTRTE	DS	XL2		ROUTINE SELECTION
8B 00006	SKTSP2	DS	H		SPARE
	00000008	SKTDVCT	EQU	**SKTBEG	DEFINE START OF DEVICE TABLE
		*			
8B 00008	SKTSYM	DS	XL2		SYSTEM SYMBOLIC DEVICE NAME
8B 0000A	SKTFLG	DS	XL2		FLAGS
8B 0000C	SKTIDX	DS	XL2		INDEX INTO TERMINAL TABLE
8B 0000E	SKTDAD	DS	XL2		PHYSICAL PATH TO DEVICE
8B 00010	SKTCHR	DS	XL4		DEVICE CHARACTERISTICS
8B 00014	SKTDE	DS	0C		DEVICE FIELD END
	0000000C	SKTINC	EQU	SKTDE-SKTSYM	
		*			BIT DEFINITIONS FOR JOB OPTION BYTE
	8B 00003	SKTNPR	EQU	SKTOPT	DEFINE BYTE LOCATION FOR NO CONTROL PRINT FLAG
		*			
	8B 00003	SKTNPR	EQU	SKTOPT	DEFINE BYTE LOCATION FOR NO CONTROL PRINT FLAG

(Listing of CHASKT continued on page 379)



(Listing of CHASKT continued from page 378)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			ERROR PRINT FLAG
8B 00003	SKTCLP	EQU	SKTOPT		DEFINE BYTE LOCATION FOR
	*				ERROR LOOP FLAG
8B 00003	SKTLPE	EQU	SKTOPT		DEFINE BYTE LOCATION FOR
	*				JOB LOOP FLAG
8B 00003	SKTERR	EQU	SKTOPT		DEFINE BYTE LOCATION FOR
	*				ERROR DETECTED FLAG
00000008	SKTNPRM	EQU	X'08'		DEFINE BIT POSITION FOR NO
	*				CONTROL PRINT FLAG
00000004	SKTNEPM	EQU	X'04'		DEFINE BIT POSITION FOR NO
	*				ERROR PRINT FLAG
00000002	SKTELPM	EQU	X'02'		DEFINE BIT POSITION FOR
	*				ERROR LOOP FLAG
00000001	SKTLPEM	EQU	X'01'		DEFINE BIT POSITION FOR JOB
	*				LOOP FLAG
00000080	SKTERRM	EQU	X'80'		DEFINE BIT POSITION FOR
	*				ERROR DETECTED FLAG
	*				SCT FLAG DEFINITION
8B 0000A	SKTINH	EQU	SKTFLG		DEFINE BYTE LOCATION FOR
	*				'NO WRITING' FLAG
8B 0000A	SKTSIN	EQU	SKTFLG		DEFINE BYTE LOCATION FOR
	*				'THIS IS SYSIN' FLAG
8B 0000A	SKTLDV	EQU	SKTFLG		DEFINE BYTE LOCATION FOR
	*				LAST DVC IN SUBSYS FLAG
8B 0000A	SKTPRV	EQU	SKTFLG		DEFINE BYTE LOCATION FOR
	*				PREVIOUSLY DEFINED FLAG
8B 0000A	SKTTFL	EQU	SKTFLG		DEFINE BYTE LOCATION FOR
	*				TERMINAL FLAG
8B 0000A	SKTAFI	EQU	SKTFLG		DEFINE BYTE LOCATION FOR
	*				PATH PRESENT FLAG
8B 0000A	SKTLSB	EQU	SKTFLG		DEFINE BYTE LOCATION FOR
	*				LAST DVC LAST SUBS FLAG
00000040	SKTINH	EQU	X'40'		DEFINE BIT POSITION FOR 'NO
	*				WRITING' FLAG
00000020	SKTSIN	EQU	X'20'		DEFINE BIT POSITION FOR
	*				'THIS IS YSSIN' FLAG
00000010	SKTLDV	EQU	X'10'		DEFINE BIT POSITION FOR
	*				LAST DVC IN SUBSYS FLAG
00000008	SKTPRV	EQU	X'08'		DEFINE BIT POSITION FOR
	*				PREVIOUSLY DEFINED FLAG
00000004	SKTTFL	EQU	X'04'		
00000002	SKTAFI	EQU	X'02'		DEFINE BIT POSITION FOR
	*				PATH PRESENT FLAG
00000001	SKTLSB	EQU	X'01'		DEFINE BIT POSITION FOR
	*				LAST DVC LAST SUBSYS FLAG
	*				DEVICE CHARACTERISTICS DEFINITIONS
8B 00010	SKTMODC	EQU	SKTCHR+0		DEFINE BYTE LOCATION FOR
	*				MODEL CODE
8B 00011	SKTFEAT	EQU	SKTCHR+1		DEFINE BYTE LOCATION FOR
	*				FEATURES
8B 00012	SKTCLAS	EQU	SKTCHR+2		DEFINE BYTE LOCATION FOR
	*				DEVICE CLASS
8B 00013	SKTTYPE	EQU	SKTCHR+3		DEFINE BYTE LOCATION FOR
	*				DEVICE TYPE

Source List (CHASLP, CHASLH, CHASLM)

The Source List contains data which is used by the command system controller to direct the activities of a task. The Source List consists of:

1. Source List Page Header (CHASLP)
2. Sublist Header (CHASLH)
3. Source List Markers (CHASLM)

There is one CHASLP, for each page in the Source List, which points to the sublists on that page. Each sublist is headed by one CHASLH, and contains a variable length string of Source List Markers (CHASLM). -  
The Source List resides in virtual storage.

CHASLP Storage map

DEC	HEX		
0	0	SLPNXT	SLPCSL
8	8	SLPGIP	SLPAVL

Fields in CHASLP -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SLPNXT	0004	0004	SLPCSL	0008	0008	SLPGIP
						0012	000C	SLPAVL

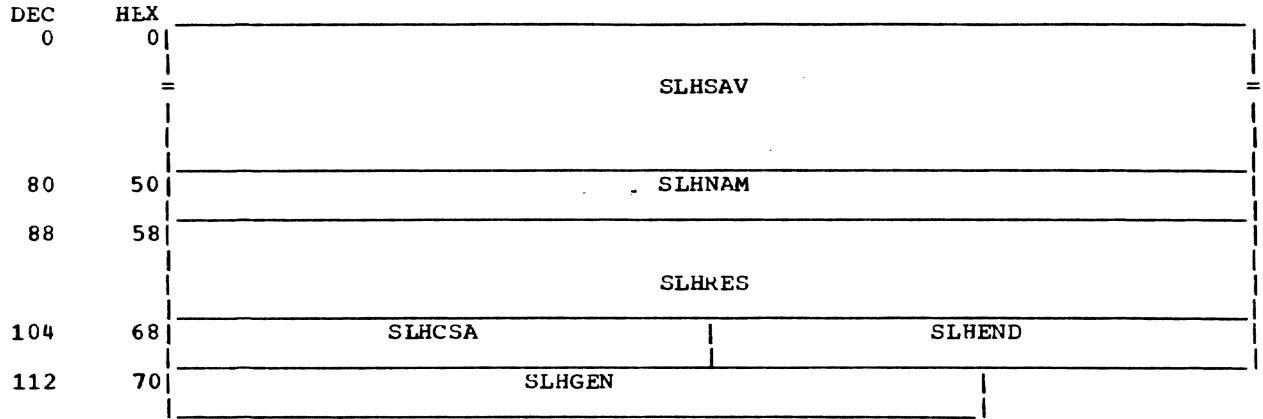
Alphabetical list of fields in CHASLP

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SLPAVL	0012	000C	SLPCSL	0004	0004	SLPGIP	0008	0008
						SLPNXT	0000	0000

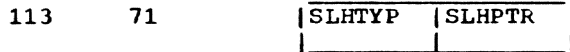
Assembler listing of CHASLP

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	8E 00000	CHASLP	DSECT		, SOURCE LIST
		*			PAGE HEADER.
8E 00000		SLPNXT	DS	A	POINTER TO NEXT PAGE.
8E 00004		SLPCSL	DS	A	POINTER TO CURRENT SUBLIST.
8E 00008		SLPGIP	DS	A	POINTER TO CURRENT G
		*			SUBLIST.
8E 0000C		SLPAVL	DS	H	AVAILABLE BYTES ON CURRENT
		*			PAGE

CHASLH Storage map



ORG SLHGEN+1



Fields in CHASLH -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SLHSAV	0104	0068	SLHCSA	0113	0071	SLHTYP
0080	0050	SLHNAM	0108	006C	SLHEND	0114	0072	SLHPTR
0088	0058	SLHRES	0112	0070	SLHGEN	0118	0076	SLHALL (EQU)

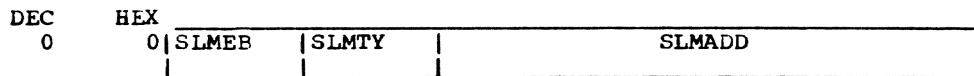
Alphabetical list of fields in CHASLH

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SLHALL	0118	0076 (EQU)	SLHGEN	0112	0070	SLHRES	0088	0058
SLHCSA	0104	0068	SLHNAM	0080	0050	SLHSAV	0000	0000
SLHEND	0108	006C	SLHPTR	0114	0072	SLHTYP	0113	0071

Assembler listing of CHASLH

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT	SUBLIST
8C 00000		CHASLH	DSECT		HEADER.	
		*			REGISTER SAVE AREA	
8C 00000		SLHSAV	DS	20A	CURRENT MODULE NAME	
8C 00050		SLHNAM	DS	CL8	COMMUNICATION AREA	
8C 00058		SLHRES	DS	4A	CURRENT STARTING ADDRESS.	
8C 00068		SLHCSA	DS	A	END POINTER.	
8C 0006C		SLHEND	DS	A	GENERATION MARKER.	
8C 00070		SLHGEN	DS	CL6	SUBLIST TEXT BEGINNING	
	8C 00076	SLHALL	<u>EQU</u>	*		
	8C 00071		<u>ORG</u>	SLHGEN+1		
8C 00071		SLHTYP	DS	CL1	MARKER TYPE FIELD	
8C 00072		SLHPTR	DS	CL1	MARKER POINTER FIELD	

CHASLM Storage map



Fields in CHASLM -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	SLMEB	0001	0001	SLMTY	0002	0002	SLMADD

Alphabetical list of fields in CHASLM

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
SLMADD	0002	0002	SLMEB	0000	0000	SLMTY	0001	0001

Assembler listing of CHASLM

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>	
8D 00000		CHASLM	DSECT			SOURCE LIST
		*			MARKER.	
8D 00000		SLMEB	DS	CL1	EOB CHARACTER POSITION.	
	00000026	SLMEBM	EQU	X'26'	EOB HEX VALUE	
8D 00001		SLMTY	DS	CL1	MARKER TYPE POSITION.	
	000000C7	SLMTYG	EQU	C'G'	G MARKER.	
	000000E3	SLMTYT	EQU	C'T'	T MARKER.	
	000000E4	SLMTYU	EQU	C'U'	U MARKER.	
	000000C5	SLMTYE	EQU	C'E'	E MARKER.	
	000000D7	SLMTYP	EQU	C'P'	P MARKER.	
	000000E2	SLMTYS	EQU	C'S'	S MARKER.	
8D 00002		SLMADD	DS	XL4	MARKER ADDRESS	

Symbolic Library Index (CHASLX)

The Symbolic Library Index (SLX) is used by the symbolic library search routine to retrieve information (a macro definition, for example) from the symbolic library.

The SLX consists of a header and as many index entries as there are parcels and aliases in the associated library. The entries appear in ascending order corresponding to the EBCDIC collating sequence of the parcel names.

The SLX occupies from 21 to 1,048,675 bytes of virtual storage, aligned on word boundaries.

CHASLX Storage map

DEC	HEX	
0	0	SLXDMY   SLXNLN   SLXLEN
8	8	SLXSSP   SLXRLN
16	10	SLXRLN (CONT)

Fields in CHASLX -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SLXDMY	0008	0008	SLXSSP	0020	0014	SLXNAMA
0002	0002	SLXNLN	0012	000C	SLXRLN			
0004	0004	SLXLEN	0012	000C	SLXNAM			

Alphabetical list of fields in CHASLX

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SLXDMY	0000	0000	SLXNAMA	0020	0014	SLXSSP	0008	0008
SLXLEN	0004	0004	SLXNLN	0002	0002			
SLXNAM	0012	000C	SLXRLN	0012	000C			

Assembler listing of CHASLX

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
		* CHASLX	MACRO	AND COPY	LIBRARY INDEX DSECT
	8F 00000	CHASLX	DSECT		
		*			INDEX HEADER
8F 00000		SLXDMY	DS	H	NOT USED
8F 00002		SLXNLN	DS	H	PARCEL NAME LENGTH
8F 00004		SLXLEN	DS	F	INDEX LENGTH
8F 00008		SLXSSP	DS	F	BINARY SEARCH STARTING
		*			POINT
		*			INDEX ENTRY
8F 0000C		SLXNAM	DS	0C	PARCEL NAME (VARIABLE
		*			LENGTH)
8F 0000C		SLXRLN	DS	CL8	RETRIEVAL LINE NO (INDEXED)
8F 00014		SLXNAMA	DS	0C	NEXT PARCEL NAME

Scan Master Control Table (CHASMC and CHASME)

The Scan Master Control Table (STMCT) provides data to facilitate the Queue Scanner's search of the Scan Table (CHASCN).

SCTMCT consists of a set of Device Interaction Groups (DIGs). A DIG is a subset of entries in the Scan Table containing one queue processor, or a collection of I/O devices having a common device controller(s). CHASMC is a header, having information concerning the DIG entries in the table. The fields for each DIG are defined by a separate DSECT (CHASME).

The STMCT resides in core storage, aligned on a doubleword boundary. CHASMC is 16 bytes, as is each CHASME in the chain.

CHASMC Storage map

DEC	HEX					
0	0	SMCMLB	UNNAMED	SMCMCT	SMCDCT	SMCCMF
8	8	UNNAMED				

Fields in CHASMC -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SMCMLB	0004	0004	SMCDCT	0016	0010	SMCEND
0002	0002	SMCMCT	0006	0006	SMCCMF			

Alphabetical list of fields in CHASMC

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SMCCMF	0006	0006	SMCEND	0016	0010	SMCMLB	0000	0000
SMCDCT	0004	0004	SMCMCT	0002	0002			

Assembler listing of CHASMC

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	90 00000	CHASMC	DSECT		SCAN MASTER CONTROL TABLE
90 00000		SMCMLB	DS	0D	MASTER LOCK BYTE
90 00001			DS	CL1	SPARE
90 00002		SMCMCT	DS	H	MASTER COUNT OF GQE'S
90 00004		SMCDCT	DS	H	COUNT OF DIGS
90 00006		SMCCMF	DS	H	MASTER COUNT OF MATCHED
		*			FACILITIES
90 00008			DS	2F	UNUSED
90 00010		SMCEND	DS	0X	END OF SCAN MASTER CONTROL
		*			I5943
		*			TABLE HEADER
		*			I5943
	00000010	SMCSZ	EQU	SMCEND-SMCMLB	SCAN MASTER CONTROL
		*			TABLE I5943
		*			HEADER SIZE
		*			I5943
	91 00000	CHASME	DSECT		
91 00000			DS	0D	DSECT FOR ONE DIG ENTRY
91 00000		SMEDLB	DS	CL1	DIG LOCK BYTE
91 00001		SMEBFG	DS	XL1	FLAG BYTE
	00000080	SMEBFM	EQU	X'80'	BUSY FLAG MASK
	0000007F	SMEBFMC	EQU	X'7F'	BUSY FLAG COMPLEMENT
91 00002		SMECMF	DS	H	COUNT OF MATCHED FACILITIES
91 00004		SMEFEA	DS	F	FIRST ENTRY ADDRESS
91 00008		SMECEA	DS	F	CURRENT ENTRY ADDRESS
91 0000C		SMELEA	DS	F	LAST ENTRY ADDRESS
91 00010		SMEEND	DS	0X	END OF DIG ENTRY
		*			I5943
	00000010	SMESZ	EQU	SMEEND-SMEDLB	DIG ENTRY SIZE
		*			I5943

CHASME Storage map

DEC	HEX				
0	0	SMEDLB	SMEBFG	SMECMF	SMEFEA
8	8	SMECEA			SMELEA

Fields in CHASME -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SMEDLB	0004	0004	SMEFEA	0016	0010	SMEEND
0001	0001	SMEBFG	0008	0008	SMECEA			
0002	0002	SMECMF	0012	000C	SMELEA			

Alphabetical list of fields in CHASME

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SMEBFG	0001	0001	SMEDLB	0000	0000	SMELEA	0012	000C
SMECEA	0008	0008	SMEEND	0016	0010			
SMECMF	0002	0002	SMEFEA	0004	0004			

System Operator ID Table (CHASOT) and CHASOT Entry (CHASID)

The System Operators ID Table (SOT) and the CHASOT Entries (SID) identify the main operator in the system.

SOT resides in shared virtual storage, with privileged access. The main operator control program (MOCP) has read-only access to SOT. The SOT resides in virtual storage aligned on word boundaries.

CHASOT Storage map

DEC	HEX			
0	0	SOTLNG	SOTBCK	SOTUID
8	8	SOTUID (CONT)	SOTDES	SOTLOG
16	10	SOTSIN		SOTTID

Fields in CHASOT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SOTLNG	0012	000C	SOTDES	0016	0010	SOTSIN
0002	0002	SOTBCK	0013	000D	SOTLOG			
0004	0004	SOTUID	0014	000E	SOTTID			

Alphabetical list of fields in CHASOT

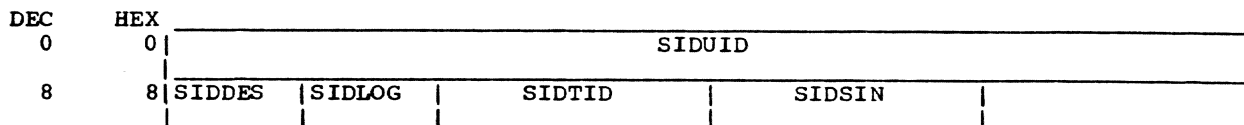
FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SOTBCK	0002	0002	SOTLOG	0013	000D	SOTUID	0004	0004
SOTDES	0012	000C	SOTSIN	0016	0010			
SOTLNG	0000	0000	SOTTID	0014	000E			

Assembler listing of CHASOT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	92 00000	CHASOT	DSECT		SYSTEM OPERATOR ID TABLE
92 00000			DS	0F	
92 00000		SOTLNG	DS	H	NUMBER OF TABLE
		*			ENTRIES-BINARY
92 00002		SOTBCK	DS	H	SYMBOLIC DEVICE ADDRESS OF
		*			BACKUP TER
		*			MINAL
92 00004		SOTUID	DS	CL8	USER IDENTIFICATION-EBCDIC
92 0000C		SOTDES	DS	XL1	DESTINATION FLAG-BINARY
	00000000	SOTDM	EQU	X'00'	#0 MAIN
	00000001	SOTD1	EQU	X'01'	#1 TAPE
	00000002	SOTD2	EQU	X'02'	#2 DISC
	00000004	SOTD3	EQU	X'04'	#4 UNIT RECORD EQUIPMENT
92 0000D		SOTLOG	DS	XL1	LOGON FLAG-BINARY
		*			#0 NOT LOGGED ON #1 LOGGED ON
92 0000E		SOTTID	DS	H	TASKID-BINARY
92 00010		SOTSIN	DS	H	CONSOLE SYMBOLIC DEVICE
		*			ADDRESS



CHASID Storage map



Fields in CHASID -- by displacement

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD
0000	0000	SIDUID		0008	0008	SIDD0	(EQU)	0012	000C	SIDSIN
0008	0008	SIDD4	(EQU)	0008	0008	SIDDES		0014	000E	SIDEND
0008	0008	SIDD2	(EQU)	0009	0009	SIDLOG				
0008	0008	SIDD1	(EQU)	0010	000A	SIDTID				

Alphabetical list of fields in CHASID

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX
SIDDES	0008	0008		SIDD4	0008	0008	(EQU)	SIDTID	0010	000A
SIDD0	0008	0008	(EQU)	SIDEND	0014	000E		SIDUID	0000	0000
SIDD1	0008	0008	(EQU)	SIDLOG	0009	0009				
SIDD2	0008	0008	(EQU)	SIDSIN	0012	000C				

Assembler listing of CHASID

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	8A 00000	CHASID	DSECT		DSECT FOR TABLE ENTRY
8A 00000		*	DS	0D	ALIGN TO DOUBLE WORD BOUNDRY
8A 00000		SIDUID	DS	CL8	USER ID - PADDED WITH ZEROS
8A 00008		SIDDES	DS	XL1	DESTINATION FLAG - BINARY
	8A 00008	SIDD0	EQU	SIDDES	MAIN SYSTEM OPERATOR
	00000000	SIDD0M	EQU	X'00'	
	8A 00008	SIDD1	EQU	SIDDES	TAPE SUB-OPERATOR
	00000001	SIDD1M	EQU	X'01'	
	8A 00008	SIDD2	EQU	SIDDES	DISK SUB-OPERATOR
	00000002	SIDD2M	EQU	X'02'	
	8A 00008	SIDD4	EQU	SIDDES	UNIT RECORD SUB-OPERATOR
	00000004	SIDD4M	EQU	X'04'	
8A 00009		SIDLOG	DS	XL1	LOGON FLAG - BINARY
		*			1 = LOGGED ON
8A 0000A		SIDTID	DS	H	TASK ID - BINARY
8A 0000C		SIDSIN	DS	H	TERMINAL SYMBOLIC DEVICE ADDRESS
		*			
8A 0000E		SIDEND	DS	0X	END OF TABLE ENTRY
		*			I5943
	0000000E	SIDSZE	EQU	SIDEND-SIDUID	TABLE ENTRY SIZE
		*			I5943

SERR/Reconfiguration Path Table (CHASPP)

The SERR/Reconfiguration Path Table (SPP) lists one entry for each path to the paging drum(s) containing the SERR and reconfiguration modules.

SPP entries are contiguous in core storage and aligned on word boundaries.

CHASPP Storage map

DEC	HEX			
0	0	SPPLOK	SPPAP1	SPPATH

Fields in CHASPP -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SPPLOK	0001	0001	SPPAP1	0002	0002	SPPATH

Alphabetical list of fields in CHASPP

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SPPAP1	0001	0001	SPPATH	0002	0002	SPPLOK	0000	0000

Assembler listing of CHASPP

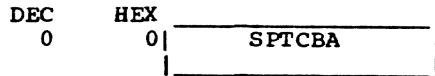
LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	93 00000	CHASPP	DSECT		
93 00000			DS	0F	
93 00000		SPPLOK	DS	C	LOCK BYTE
93 00001		SPPAP1	DS	C	SDA+1 OF DRUM
93 00002		SPPATH	DS	H	PATH ADDRESS
	00000004	SPPSIZE	EQU	*-SPPLOK	SIZE OF TABLE ENTRY

Shared Page Table (CHASPT) and External Shared Page Table (CHAXSP)

The Shared Page Table (SPT) contains a list of entries representing shared pages. The SPT is identical to the page table (CHAPGT). The 2-byte SPT resides in core storage aligned on halfword boundaries.

The External Shared Page Table (XSPT) contains control information required by the Supervisor for proper paging of shared virtual storage pages. The XSPT must immediately follow its SPT. The XSPT (12-3072 bytes) resides in core storage aligned on fullword boundaries.

CHASPT Storage map



Fields in CHASPT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	(EQU)	DEC	HEX	FIELD
0000	0000	SPTCBA	0001	0001	SPTPA	(EQU)			

Alphabetical list of fields in CHASPT

FIELD	DEC	HEX	FIELD	DEC	HEX	(EQU)	FIELD	DEC	HEX
SPTCBA	0000	0000	SPTPA	0001	0001	(EQU)			

Assembler listing of CHASPT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
94 00000	94 00000	CHASPT	DSECT		SHARED PAGE TABLE ENTRY
94 00000		SPTCBA	DS	0H	
	94 00001	SPTPA	DS	H	12 BIT CORE BLOCK ADDRESS
	00000008	SPTPAM	EQU	SPTCBA+1	PAGE AVAILABILITY FLAG
			EQU	8	PAGE AVAILABILITY MASK

CHAXSP Storage map

DEC	HEX					
0	0	XSPXL	XSPF1	XSPF2	UNNAMED	XSPFLG
8	8	XSPGQE				

Fields in CHAXSP -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD		
0000	0000	XSPXL	0004	0004	XSPUP	(EQU)	0007	0007	XSPGQ	
0004	0004	XSPPU	(EQU)	0004	0004	XSPF1		0007	0007	XSPIO
0004	0004	XSPSP	(EQU)	0005	0005	XSPPC	(EQU)	0007	0007	XSPPI
0004	0004	XSPPA	(EQU)	0005	0005	XSPAX	(EQU)	0007	0007	XSPPH
0004	0004	XSPRS	(EQU)	0005	0005	XSPBV	(EQU)	0007	0007	XSPFLG
0004	0004	XSPCP	(EQU)	0005	0005	XSPIV	(EQU)	0008	0008	XSPGQE
0004	0004	XSPTP	(EQU)	0005	0005	XSPTA	(EQU)			
0004	0004	XSPPD	(EQU)	0005	0005	XSPF2				

Alphabetical list of fields in CHAXSP

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
XSPAX	0005	0005	(EQU)	XSPPI	0007	0007	(EQU)	XSPRS
XSPBV	0005	0005	(EQU)	XSPIO	0007	0007	(EQU)	XSPSP
XSPCP	0004	0004	(EQU)	XSPIV	0005	0005	(EQU)	XSPTA
XSPFLG	0007	0007		XSPPA	0004	0004	(EQU)	XSPTP
XSPF1	0004	0004		XSPPC	0005	0005	(EQU)	XSPUP
XSPF2	0005	0005		XSPPD	0004	0004	(EQU)	XSPXL
XSPGQ	0007	0007	(EQU)	XSPPH	0007	0007	(EQU)	
XSPGQE	0008	0008		XSPPU	0004	0004	(EQU)	

Assembler listing of CHAXSP

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	BB 00000	CHAXSP	DSECT		EXTERNAL TABLE
		*			SHARED PAGE
BB 00000			DS	OF	
BB 00000		XSPXL	DS	F	EXTERNAL LOCATION OF PAGE
BB 00004		XSPF1	DS	XL1	FLAG BYTE 1
	BB 00004	XSPUP	EQU	XSPF1	UPDATE IN PLACE FLAG
	00000080	XSPUPM	EQU	X'80'	
	BB 00004	XSPPD	EQU	XSPF1	PREFERED PAGING DEVICE
		*			1=DRUM
	00000040	XSPDPM	EQU	X'40'	
	BB 00004	XSPTP	EQU	XSPF1	TYPE PROGRAM OR DATA
		*			*
	00000020	XSPTPM	EQU	X'20'	
	BB 00004	XSPCP	EQU	XSPF1	CHANGED PAGE BIT FLAG
	00000010	XSPCPM	EQU	X'10'	CHANGED PAGE BIT MASK
	BB 00004	XSPRS	EQU	XSPF1	RSS PAGE FLAG
	00000008	XSPRSM	EQU	X'08'	RSS PAGE MASK
	BB 00004	XSPPA	EQU	XSPF1	PAGE ASSIGNED
		*			1=ASSIGN
	00000004	XSPDAM	EQU	X'04'	
	BB 00004	XSPSP	EQU	XSPF1	SHARED PAGE FLAG
	00000002	XSPSPM	EQU	X'02'	
	BB 00004	XSPPU	EQU	XSPF1	PAGE UNPROCESSED BY LOADER
		*			1=UNPROCESSED
	00000001	XSPDUM	EQU	X'01'	
BB 00005		XSPF2	DS	XL1	FLAG BYTE 2
	BB 00005	XSPTA	EQU	XSPF2	TEMPORARY EXTERNAL ADDRESS
	00000080	XSPDAM	EQU	X'80'	
	BB 00005	XSPIV	EQU	XSPF2	IVM PAGE NON DELETEABLE
		*			FLAG
	00000040	XSPIVM	EQU	X'40'	IVM PAGE NON DELETEABLE
		*			MASK
	BB 00005	XSPBV	EQU	XSPF2	SEXP ALLOWED AGAINST IVM
		*			PAGE

(Listing of CHAXSP continued on page 391)

(Listing of CHAXSP continued from page 390)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000020	XSPBVM	EQU	X'20'	SETXP ALLOWED AGAINST PAGE MASK
		*			
	BB 00005	XSPAX	EQU	XSPF2	AUXILIARY STORAGE FLAG
		*			*
	00000010	XSPAXM	EQU	X'10'	
	BB 00005	XSPPC	EQU	XSPF2	PROTECT CLASS
		*			4 BITS
BB 00006			DS	X	RESERVED
		*			N405.1
BB 00007		XSPFLG	DS	XL1	FLAG BYTE
	BB 00007	XSPPH	EQU	XSPFLG	PAGE HOLD COUNT FIELD
	000000F0	XSPPHM	EQU	X'F0'	
	00000008	XSPPH1	EQU	X'08'	SVC PAGE HOLD FLAG
		*			N405.1
	BB 00007	XSPII	EQU	XSPFLG	INCOMING IN-TRANSIT FLAG
	00000004	XSPIIM	EQU	X'04'	INCOMING IN-TRANSIT MASK
	BB 00007	XSPIO	EQU	XSPFLG	OUTGOING IN-TRANSIT FLAG
	00000002	XSPIOM	EQU	X'02'	OUTGOING IN-TRANSIT MASK
	BB 00007	XSPGQ	EQU	XSPFLG	GQE CHAIN FLAG
	00000001	XSPGQM	EQU	X'01'	GQE CHAIN MASK
BB 00008			DS	0F	
BB 00008		XSPGQE	DS	F	GQE CHAIN POINTER

System Statistics Table (CHASST)

CHASST maintains system statistics information which is collected and stored by the STATSAVE macro instruction. The collection of these statistics permits measurements of TSS while the system is in operation. The 664-byte CHASST is aligned on word boundaries.

CHASST Storage map

DEC	HEX		
0	0	SSTLHT	SSTLH1
8	8	SSTLH2	SSTLH3
16	10	SSTZET	
24	18	SSTPLT	SSTQLT
32	20	SSTLCT	SSTTWT
40	28	SSTTST	SSTALT
48	30	SSTMIP	SSTDCP
56	38	SSTCCP	SSTSCP
64	40	SSTPCP	SSTXCP
72	48	SSTAWT	UNNAMED

ORG SSTLHT

0	0	SSTDRRS	SSTDRRP
8	8	SSTDROWS	SSTDROWP

ORG SSTLHT

0	0	SSTDSRS	SSTDSRP
8	8	SSTDWS	SSTDWSWP

Fields in CHASST -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SSTDSRS	0012	000C	SSTDSWP	0044	002C	SSTALT
0000	0000	SSTDRRS	0012	000C	SSTDROWP	0048	0030	SSTMIP
0000	0000	SSTLHT	0012	000C	SSTLH3	0052	0034	SSTDCP
0004	0004	SSTDSRP	0016	0010	SSTZET	0056	0038	SSTCCP
0004	0004	SSTDRRP	0024	0018	SSTPLT	0060	003C	SSTSCP
0004	0004	SSTLH1	0028	001C	SSTQLT	0064	0040	SSTPCP
0008	0008	SSTDWS	0032	0020	SSTLCT	0068	0044	SSTXCP
0008	0008	SSTDROWS	0036	0024	SSTTWT	0072	0048	SSTAWT
0008	0008	SSTLH2	0040	0028	SSTTST	0080	0050	SSTLST

Alphabetical list of fields in CHASST

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
SSTALT	0044	002C	SSTDSRS	0000	0000	SSTMIP	0048	0030
SSTAWT	0072	0048	SSTDSWP	0012	000C	SSTPCP	0064	0040
SSTCCP	0056	0038	SSTDSWS	0008	0008	SSTPLT	0024	0018
SSTDCP	0052	0034	SSTLCT	0032	0020	SSTQLT	0028	001C
SSTDRRP	0004	0004	SSTLHT	0000	0000	SSTSCP	0060	003C
SSTDRRS	0000	0000	SSTLH1	0004	0004	SSTTST	0040	0028
SSTDRWP	0012	000C	SSTLH2	0008	0008	SSTTWT	0036	0024
SSTDWS	0008	0008	SSTLH3	0012	000C	SSTXCP	0068	0044
SSTDSRP	0004	0004	SSTLST	0080	0050	SSTZET	0016	0010

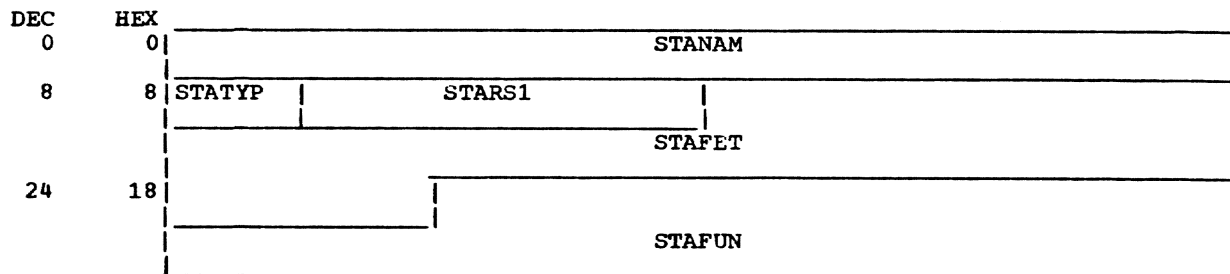
Assembler listing of CHASST

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	95 00000	CHASST	DSECT		SYSTEM STATISTICS TABLE
95 00000		SSTLHT	DS	F	SST TOTAL LENGTH-BYTES
95 00004		SSTLH1	DS	F	SST AREA 1-BYTES
95 00008		SSTLH2	DS	F	SST AREA 2-BYTES
95 0000C		SSTLH3	DS	F	SST AREA 3-BYTES
95 00010		SSTZET	DS	D	ZERO SST PSAETM TIME
95 00018		SSTPLT	DS	F	NR. TSE-PAGE LIMIT
95 0001C		SSTQLT	DS	F	NR. TSE-QUANTA LIMIT
95 00020		SSTLCT	DS	F	NR. TSE-LO-CORE
95 00024		SSTTWT	DS	F	NR. TSE-TWAIT
95 00028		SSTTST	DS	F	NR. TSE-TSEND SVC
95 0002C		SSTALT	DS	F	NR TSE-ALL
		*			SSTALT INCLUDES TYPES OF TSES
		*			NOT INDIVIDUALLY SUMMARIZED IN
		*			SST
95 00030		SSTMIP	DS	F	NR MIGRATED PAGES
95 00034		SSTDCP	DS	F	NR DELETED CORE PAGES
95 00038		SSTCCP	DS	F	NR CREATED CORE PAGES
95 0003C		SSTSCP	DS	F	NR RECLAIMED SHARED PAGES
95 00040		SSTPCP	DS	F	NR RECLAIMED PRIVATE PAGES
95 00044		SSTXCP	DS	F	NR RELOCATION EXCEPTIONS
95 00048		SSTAWT	DS	F	NR. TSE-AWAIT
	00000010	SSTLEN	EQU	16	TABLE ENTRY LENGTH=16 BYTES
	95 00000		<u>ORG</u>	SSTLHT	
95 00000		SSTDRRS	DS	F	NR DRUM READS SHARED
95 00004		SSTDRRP	DS	F	NR DRUM READS PRIVATE
95 00008		SSTDWS	DS	F	NR DRUM WRITES SHARED
95 0000C		SSTDRWP	DS	F	NR DRUM WRITES PRIVATE
	95 00000		<u>ORG</u>	SSTLHT	
95 00000		SSTDSRS	DS	F	NR DISK READS SHARED
95 00004		SSTDSRP	DS	F	NR DISK READS PRIVATE
95 00008		SSTDSWS	DS	F	NR DISK WRITES SHARED
95 0000C		SSTDSWP	DS	F	NR DISK WRITES PRIVATE
	95 0004C		<u>ORG</u>		
95 0004C			DS	F	
95 00050		SSTLST	DS	OF	
	00000050	SSTFSL	EQU	SSTLST-CHASST	

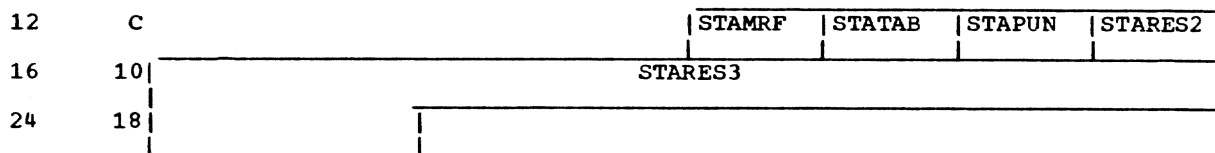
Station Identification and Features (CHASTA)

CHASTA contains information about the hardware features of an RJE work station, and about which functional options requested at the work station.

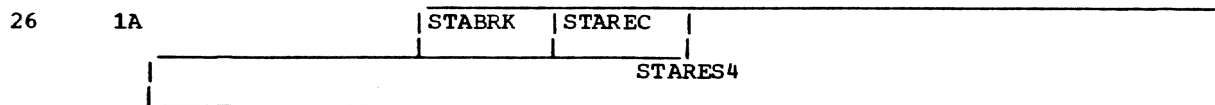
CHASTA Storage map



ORG STAFET



ORG STAFUN



Fields in CHASTA -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	STANAM	0012	000C	STAFET	0026	001A	STABRK
0000	0000	STAORG	0013	000D	STATAB	0026	001A	STAFUN
0008	0008	STATYP	0014	000E	STAPUN	0027	001B	STAREC
0009	0009	STARS1	0015	000F	STARES2	0028	001C	STARES4
0012	000C	STAMRF	0016	0010	STARES3			

Alphabetical list of fields in CHASTA

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
STABRK	0026	001A	STAORG	0000	0000	STARES4	0028	001C
STAFET	0012	000C	STAPUN	0014	000E	STARS1	0009	0009
STAFUN	0026	001A	STAREC	0027	001B	STATAB	0013	000D
STAMRF	0012	000C	STARES2	0015	000F	STATYP	0008	0008
STANAM	0000	0000	STARES3	0016	0010			



Assembler listing of CHASTA

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
96 00000	96 00000	CHASTA	DSECT		NSRB 412.2
*****					
* CHASTA - DSECT FOR STATION ID'S AND THEIR FEATURES *					
*****					
96 00000		STAORG	DS	0D	START OF STATION DSECT
96 00000		STANAM	DS	CL8	STATION NAME OR KEY
96 00008		STATYP	DS	X	STATION TYPE (CODE)
	00000001	STA278	EQU	X'01'	INDICATES 2780
96 00009		STARS1	DS	XL3	RESERVED
96 0000C		STAFET	DS	14X	STATION FEATURES
	96 0000C		<u>ORG</u>	STAFET	
96 0000C		STAMRF	DS	XL1	MULTIPLE RECORD FEATURE
		*			FLAG
	00000001	STAMRFM	EQU	X'01'	MULTIPLE RECORD FEATURE
		*			MASK
96 0000D		STATAB	DS	XL1	2780 TABBING INDICATOR
	00000001	STATABM	EQU	X'01'	2780 TABBING PRESENT
96 0000E		STAPUN	DS	XL1	2780 PUNCH INDICATOR
	00000001	STAPUNM	EQU	X'01'	2780 PUNCH PRESENT
96 0000F		STARES2	DS	XL1	RESERVED
96 00010		STARES3	DS	XL10	RESERVED
96 0001A		STAFUN	DS	14X	FUNCTIONAL REQUESTS
	96 0001A		<u>ORG</u>	STAFUN	
96 0001A		STABRK	DS	XL1	PRINT BREAK CHARS DESIRED
	00000001	STABRKM	EQU	X'01'	BREAK CHARS DESIRED
96 0001B		STAREC	DS	XL1	RECIEVE FROM OTHER STATIONS
	00000001	STARECM	EQU	X'01'	YES
96 0001C		STARES4	DS	3XL4	RESERVED
	00000028	STALEN	EQU	*--STAORG	LENGTH OF STATION FEATURE
		*			DSECT

Schedule Table Entry (CHASTE)

The Schedule Table Entry (STE) contains all scheduling parameters established by the system administrator at SYSGEN/STARTUP. Each STE controls the priority of a task and the time allowed a task before time slice end. The 28-byte STE resides in read-only core storage, aligned on word boundaries.

CHASTE Storage map

DEC	HEX						
0	0	STELEVEL	STEPRIOR	STETSVAL	STEQUNT	STEDELTA	STEMRQ
8	8	STEMAXCR		STEMAXRD	STEST	STEPULSE	STEAWTEX
16	10	STETSEND	STEMPRE	STEAWAIT	STETWAIT	STEFLAGS	STEHLCK
24	18	STECWO	STELCF	STEMBS	STENSL	STEDSH	STERESV

Fields in CHASTE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	STELEVEL	0014	000E	STEAWTEX	0021	0015	STEHLCK
0001	0001	STEPRIOR	0016	0010	STETSEND	0022	0016	STELCHL
0002	0002	STETSVAL	0017	0011	STEMPRE	0023	0017	STEWLCK
0004	0004	STEQUNT	0018	0012	STEAWAIT	0024	0018	STECWO
0005	0005	STEDELTA	0019	0013	STETWAIT	0025	0019	STELCF
0006	0006	STEMRQ	0020	0014	STESDTR (EQU)	0026	001A	STEMBS
0008	0008	STEMAXCR	0020	0014	STESRI (EQU)	0027	001B	STENSL
0010	000A	STEMAXRD	0020	0014	STEPMPRT (EQU)	0028	001C	STEDSH
0012	000C	STEST	0020	0014	STERCMP (EQU)	0030	001E	STERESV
0013	000D	STEPULSE	0020	0014	STEFLAGS			

Alphabetical list of fields in CHASTE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
STEAWAIT	0018	0012	STEMAXCR	0008	0008	STERCMP	0020	0014 (EQU)
STEAWTEX	0014	000E	STEMAXRD	0010	000A	STERESV	0030	001E
STECWO	0024	0018	STEMBS	0026	001A	STESDTR	0020	0014 (EQU)
STEDELTA	0005	0005	STEMPRE	0017	0011	STESRI	0020	0014 (EQU)
STEDSH	0028	001C	STEMRQ	0006	0006	STEST	0012	000C
STEFLAGS	0020	0014	STENSL	0027	001B	STETSEND	0016	0010
STEHLCK	0021	0015	STEPRIOR	0001	0001	STETSVAL	0002	0002
STELCF	0025	0019	STEPMPRT	0020	0014 (EQU)	STETWAIT	0019	0013
STELCHL	0022	0016	STEPULSE	0013	000D	STEWLCK	0023	0017
STELEVEL	0000	0000	STEQUNT	0004	0004			

Assembler listing of CHASTE

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LOCATION INSTRUCTION SOURCE INST OPER COMMENT
97 00000 CHASTE DSECT SCHEDULE TABLE ENTRY
* * * * *
* THE SCHEDULE TABLE ENTRY CONTROLS THE PRIORITY OF A TASK AND, ONCE *
* IT GETS CONTROL, THE AMOUNT OF TIME IT CAN RUN BEFORE REACHING *
* TIME SLICE END. *
* FIELDS IN THE SCHEDULE TABLE ENTRY ALSO CONTROL THE DETERMINATION *
* OF THE NEXT ENTRY TO BE USED WHEN ANY OF SEVERAL STIMULI OCCUR. *
* * * * *
97 00000 STELEVEL DS XL1 RELATIVE ENTRY NUMBER IN
* SCHED
97 00001 STEPRIOR DS XL1 THIS FIELD GOVERNS
* ALLOCATION
* CPU RESOURCES TO COMPETING TASKS *
97 00002 STETSVAL DS H LENGTH OF THE TIME SLICE IN
*
* UNITS OF 3.33... MILLISECONDS *
97 00004 STEQUANT DS XL1 THE NUMBER OF TIME SLICES A
*
* TASK IS TO BE GIVEN BEFORE *
(Listing of CHASTE continued on page 397)

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(Listing of CHASTE continued from page 396)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
*			TIME	SLICE	END OCCURS.
97 00005		STEDelta	DS	X	RELATIVE LENGTH OF THE INTERVAL WHICH TASK SHOULD BE SCHEDULED TO RECEIVE TIME SLICE, IN UNITS OF 853.3 MILLISECONDS.(256 TIMES UNIT)
97 00006		STEMRQ	DS	HL2	MAXIMUM RELOCATION/Q
97 00008		STEMAXCR	DS	HL2	THE MAXIMUM NUMBER OF PAGES
*					ALLOWED IN CORE FOR THIS TASK DURING A TIME SLICE.
97 0000A		STEMAXRD	DS	H	MAXIMUM NUMBER OF DISK READS OR WRITES A TASK MAY PERFORM DURING ONE TIME SLICE
97 0000C		STEST	DS	XL1	SCAN THRESHOLD
97 0000D		STEPULSE	DS	XL1	THE SCHEDULE TABLE ENTRY TO BE USED WHEN A PULSE CONDITION OCCURS ON A PULSE STE SVC.
97 0000E		STEAWTEX	DS	H	MAX TIME, IN UNITS 3.33 MILLISEC THAT A TASK ISSUING AWAIT IS ALLOWED TO REMAIN IN DISP. LIST BEFORE BEING FORCED TO TIME SLICE END
97 00010		STETSEND	DS	XL1	SCHEDULE TABLE ENTRY TO BE USED WHEN TIME SLICE END OCCURS
97 00011		STEMPRE	DS	XL1	SCHEDULE TABLE ENTRY TO BE USED IF A TASK IS FORCED TO TIME SLICE END BECAUSE OF MAX PAGE READS.
97 00012		STEAWAIT	DS	XL1	THE SCHEDULE TABLE ENTRY TO BE USED WHEN A TASK LEAVES AWAIT STATUS
97 00013		STETWAIT	DS	XL1	THE SCHEDULE TABLE ENTRY TO BE USED WHEN A TASK LEAVES TWAIT STATUS.
97 00014		STEFLLGS	DS	XL1	FLAG BYTE
	97 00014	STERCMP	EQU	STEFLLGS	IF THE FLAG IS ON, SCHEDULED
	00000080	STERCMPM	EQU	X'80'	STA TIME IS COMPUTED AS PRESENT TIME THE DELTA TO RUN WHEN THE TASK LEAVES THE INACTIVE LIST. IF FLAG IS OFF, THE SCHEDULED START TIME IS COMPUTED AS SCHEDULED START TIME PLUS THE DELTA-TO-RUN PLUS THE TIME IN THE INACTIVE LIST, AT EXIT INACTIVE LIST.
	97 00014	STEPRMPM	EQU	STEFLLGS	PRE-EMPT FLAG
	00000040	STEPRMPM	EQU	X'40'	PRE-EMPT MASK
	97 00014	STESRI	EQU	STEFLLGS	STEAL REQUEST FLAG
	00000020	STESRIM	EQU	X'20'	STEAL REQUEST MASK
	97 00014	STESDTR	EQU	STEFLLGS	STEDelta SHOULD BE SUBTRACTED FROM THE SCHEDULED START TIME CALCULATION FOR THE TASK BEING PLACED INTO THE ELIGIBLE LIST RATHER THAN ADDED.
	00000010	STESDTRM	EQU	X'10'	HOLDING INTERLOCK CHANGE LEVEL
97 00015		STHLCK	DS	XL1	

(Listing of CHASTE continued on page 398)

(Listing of CHASTE continued from page 397)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
97 00016		STELCHL	DS	XL1	LO CORE/HOLDING INTERLOCK LEVEL
		*			
97 00017		STEWLCK	DS	XL1	WAITING ON INTERLOCK CHANGE LVL
		*			
97 00018		STECWO	DS	XL1	CONVERSATIONAL WR ONLY EXIT HUB
		*			
97 00019		STELCF	DS	XL1	LOW CORE FTSE EXIT HUB
97 0001A		STEMBS	DS	HL1	MAXIMUM BEHIND SCHEDULE TIME N488 IN UNITS OF 6.7 SECONDS N488
		*			
		*			
97 0001B		STENSL	DS	XL1	NEXT STEALING LEVEL
97 0001C		STEDSH	DS	H	NUMBER OF DRUM PAGES FOR FAIR SHARE
		*			
97 0001E		STERESV	DS	XL2	RESERVED N470.2
	00000020	STESIZE	EQU	*-CHASTE	SIZE OF SCHEDULE TABLE ENTRY
		*			
*****					

Stack Entry Table (CHASTK)

CHASTK contains the status of interrupted user programs. The registers and PSW as they were at the time of the user interruption are saved in this table if the user causes another user program to be invoked instead of immediately resuming the interrupted program.

CHASTK Storage map

DEC	HEX	Field
0	0	STKPRV   STKAET
8	8	STKSAV   STKPRG
16	10	STKPRG (CONT)   STKFL1   STKATN   STKFL2
24	18	STKRCN   STKLS1
144	90	

Fields in CHASTK -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	STKPRV	0020	0014	STKEND (EQU)	0021	0015	STKATN
0004	0004	STKAET	0020	0014	STKSCN (EQU)	0022	0016	STKFL2
0008	0008	STKSAV	0020	0014	STKUST (EQU)	0024	0018	STKRCN
0012	000C	STKPRG	0020	0014	STKLPC (EQU)	0028	001C	STKLS1
0020	0014	STKVMM (EQU)	0020	0014	STKACT (EQU)			
0020	0014	STKPSH (EQU)	0020	0014	STKFL1 (EQU)			

Alphabetical list of fields in CHASTK

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
STKACT	0020	0014 (EQU)	STKLPC	0020	0014 (EQU)	STKSAV	0008	0008
STKAET	0004	0004	STKLS1	0028	001C	STKSCN	0020	0014 (EQU)
STKATN	0021	0015	STKPRG	0012	000C	STKUST	0020	0014 (EQU)
STKEND	0020	0014 (EQU)	STKPRV	0000	0000	STKVMM	0020	0014 (EQU)
STKFL1	0020	0014	STKPSH	0020	0014 (EQU)			
STKFL2	0022	0016	STKRCN	0024	0018			

Assembler listing of CHASTK

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
98 00000		CHASTK	DSECT		STACK ENTRY DSECT
		*			N369.2
*****					
					NSRB 369.2
*					*
*					THIS DSECT COVERS A SYSTEM TABLE IN WHICH IS SAVED THE STATUS
*					(REGISTERS ANS PSW) OF INTERRUPTED USER PROGRAMS. STATUS IS SAVED
*					IF THE USER CAUSES ANOTHER USER PROGRAM TO BE INVOKED INSTEAD OF
*					IMMEDIATELY RESUMING THE HALTED PROGRAM.
*****					
98 00000	STKPRV	DS	A		SAVE AREA POINTER TO CZAMZ1
	*				CALLER
	*				WHICH INITIATED PROGRAM
98 00004	STKAET	DS	A		ADDRESS OF AETD ISSUED BY
	*				PROGRAM
98 00008	STKSAV	DS	A		CURRENT SOURCE LIST
	*				ADDRESS(SLPCSL)
	*				WHEN PROGRAM WAS INITIATED
98 0000C	STKPRG	DS	CL8		NAME BY WHICH PROGRAM WAS
	*				INVOKED
98 00014	STKFL1	DS	X		FLAGS
					(Listing of CHASTK continued on page 400)

(Listing of CHASTK continued from page 399)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
98 00014	STKACT	EQU	STKFL1		LEVEL ACTIVE FLAG
00000080	STKACTM	EQU	X'80'		1=IN USE AND NOT CANCELLED
98 00014	STKLPC	EQU	STKFL1		LPC FLAG
00000040	STKLPCM	EQU	X'40'		1=LEVEL IS LPC OR LPC ROUTINE
	*				
98 00014	STKUST	EQU	STKFL1		USATT FLAG
00000020	STKUSTM	EQU	X'20'		1=USATT ACTIVE ON THIS LEVEL
	*				
98 00014	STKSCN	EQU	STKFL1		LPC SCAN ROUTINE FLAG
00000010	STKSCNM	EQU	X'10'		1=PROGRAM IS LPC SCAN ROUTINE
	*				
98 00014	STKEND	EQU	STKFL1		LPC END ROUTINE FLAG
00000008	STKENDM	EQU	X'08'		1=PROGRAM IS AN LPC END ROUTINE
	*				
98 00014	STKPSH	EQU	STKFL1		PUSH COMMAND FLAG
00000004	STKPSHM	EQU	X'04'		1=ENTRY CREATED BY PUSH COMMAND
	*				
98 00014	STKVMM	EQU	STKFL1		RESERVED FLAG
	*				I6353
00000020	STKVMM	EQU	X'20'		RESERVED MASK
	*				I6353
98 00015	STKATN	DS	HL1		AETD LEVEL(ATTENTION COUNT) WHEN
	*				
	*				THIS ENTRY WAS CREATED
98 00016	STKFL2	DS	XL2		RESERVED
	*				I6717
98 00018	STKRCN	DS	A		RCON VALUE OF STACK ENTRY
	*				I6468
98 0001C	STKLS1	DS	XL120		ISALS1 WHEN THIS ENTRY WAS
	*				CREATED
00000094	STKLEN	EQU	*-CHASTK		ENTRY LENGTH

System Table (CHASYS)

The System Table (SYS) maintains information used for accessing the task status index chain, and Resident Shared Page Index. SYS contains the time-of-day clock, low core thresholds, number of tasks within the wall and in each level, interruption information, and data used in time slice and calculations. Pointers to queues and to other system control blocks, and paging counts can also be found in the System table.

CHASYS Storage map

DEC	HEX	
0	0	SYSPEC   SYSLOW   SYSHI
8	8	SYSFLI   RESERVED   SYSRSP
16	10	SYSSPC   SYSZZZ1   SYSZZZ2   SYSKEL
24	18	SYSFW   SYSTR
32	20	SYSECB   SYSPDDLK   UNNAMED   SYSXPG   SYSMGPTP
40	28	SYSPSW
48	30	SYSTOD
56	38	SYSYMD
64	40	SYSFIT   SYSLIT
72	48	SYSLT   SYSPWP
80	50	SYSRT1   SYSRT2
88	58	SYSRT3   SYSRT4   SYSRT5
96	60	SYSRT6   SYSPTN   SYSTCT   SYSTLM
104	68	SYSTID   SYSZZZ3   SYSTSILK   SYSXMC   SYSTMLK   SYSBUF
112	70	SYSTSIAD   SYSSSKLK   SYSP2L   SYSCMT   SYSSFS   SYSSCT   SYSSTL
120	78	SYSCCS
152	98	SYSPLS
160	A0	SYSPLR
168	A8	SYSSPP   SYSSRP
176	B0	SYSODP   SYSDPP
184	B8	SYSSPL   SYSSRL   SYSODL   SYSDPL   SYSSRA   SYSODA
192	C0	SYSRSV   SYSRSC   SYSMSK   SYSAMW
200	C8	SYSMWX   SYSMWT   SYSSHALK   SYSZZZ6   SYSCCL   SYSITL
208	D0	SYSTWA   SYSPCB   SYSIAX   SYSFV
216	D8	SYSMXD   SYSMND   SYSFL2   SYSNWK   SYSSCN   UNNAMED

(CHASYS continued on page 402)

(CHASYS continued from page 401)

DEC	HEX						
224	E0	SYSTKSP	SYSTKTK	SYSTSKLK	SYNFL3	SYSTKID	SYSDATA
232	E8	SYSXTS	SYSMC	SYSILK	SYSPSL	SYSPSC	
240	F0	SYSCCAIV			SYSRSS	RESERVED	
248	F8	SYSRCT			RESERVED		
256	100	SYRSR1					
264	108	SYRSR2					
272	110	SYRSR3					
280	118	SYRSR4					
288	120	SYRSR5					
296	128	SYRSR6					
304	130	SYSRPP	SYSRFL		SYSRCB		
312	138	SYSRCS					
320	140	SYSRPS					
328	148	SYSRIO2					
352	160	SYSAST	SYSAPT		SYSAAC		
360	168	UNNAMED	SYSSHP		SYSMXS	SYSMNS	
368	170	SYSSCH			SYSLSST		
376	178	SYSNTSI			SYSIDL		
384	180	SYSCPT			SYSDLY		
392	188	SYSDTRL	SYSTEMSEM	SYSPMT	SYSTCR	SYSTSILG	
400	190	SYSTIMLG			SYSTSIAG		
408	198	SYSF2G			SYSSHALG		
416	1A0	SYSTKSG			SYSTKTG		
424	1A8	SYSTSKLG			SYSP1		
432	1B0	SYSP2			SYSP3		
440	1B8	SYSELG			SYSINA		
448	1C0	SYSVMB			SYSQLK	SYSQLK2	
456	1C8	SYSPF	UNNAMED	SYSLOQ		SYSDIP	
464	1D0	UNNAMED					

(CHASYS continued on page 403)



(CHASYS continued from page 402)

DEC 472	HEX 1D8	RESERVED								
4096	1000	SYSPEB				SYSUC				
4104	1008	SYSSYM		SYSPTH		SYSSLT		SYSLOW1	SYSLOW2	
4112	1010	SYSHI1	SYSHI2	RESERVED						
4120	1018	SYSKEY	SYSDAD		SYSSTD	SYSSTC	SYSRCN			
4128	1020	SYSSCP								
4136	1028	SYSO0	SYSO1	SYSO2	SYSO3	SYSO4	SYSO5	SYSO6	SYSO7	
4144	1030	SYS89LK	SYSRTCT	UNNAMED		UNNAMED				
4168	1048	SYSLOG				SYSZZZ9	SYSN1	RESERVED		
4176	1050	SYSBIN		SYSCYL		SYSHED		SYSREC	SYSFLG	
4184	1058	SYSPCIOR				SYSGQE				
4192	1060	UNNAMED								
4320	10E0	SYSBINR		SYSCYLR		SYSHEDR		SYSRECR	SYSFLGR	
4328	10E8	SYSPCIR				SYSGQER				
4336	10F0	UNNAMED								
4464	1170	SYSSEEK1								
4472	1178	SYSSRCH1								
4480	1180	SYSTIC1								
4488	1188	SYSRWR1								
4496	1190	UNNAMED								
4752	1290	SYSNOP1								
4760	1298	SYSSEEK2								
4768	12A0	SYSSRCH2								

(CHASYS continued on page 404)

(CHASYS continued from page 403)

DEC	HEX	
4776	12A8	SYSTIC2
4784	12B0	SYSRW2
4792	12B8	
		UNNAMED
5048	13B8	SYSNOP2

ORG SYSZZZ2

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SYSRAN

Fields in CHASYS -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SYSPEC	0115	0073	SYSCNT	0235	00EB	SYSILK
0004	0004	SYSLOW	0116	0074	SYSSFS	0236	00EC	SYSPSL
0006	0006	SYSHI	0118	0076	SYSSCT	0238	00EE	SYSPSC
0008	0008	SYSSMG (EQU)	0119	0077	SYSSTL	0240	00F0	SYSCCAIV
0008	0008	SYSLC (EQU)	0120	0078	SYSCCS	0244	00F4	SYSRSS
0008	0008	SYSWE (EQU)	0152	0098	SYSPLS	0248	00F8	SYSRCT
0008	0008	SYSWA (EQU)	0160	00A0	SYSPLR	0256	0100	SYSRs1
0008	0008	SYSTI (EQU)	0168	00A8	SYSSPP	0264	0108	SYSRs2
0008	0008	SYSPC (EQU)	0172	00AC	SYSRAS	(EQU) 0272	0110	SYSRs3
0008	0008	SYSPS (EQU)	0172	00AC	SYSSRP	0280	0118	SYSRs4
0008	0008	SYSFLI	0176	00B0	SYSODP	0288	0120	SYSRs5
0012	000C	SYSRSP	0180	00B4	SYSDPP	0296	0128	SYSRs6
0016	0010	SYSSPC	0184	00B8	SYSSPL	0304	0130	SYSRPP
0018	0012	SYSZZZ1	0185	00B9	SYSSRL	0304	0130	SYSRIO
0019	0013	SYSRAN	0186	00BA	SYSODL	0306	0132	SYSSR (EQU)
0019	0013	SYSZZZ2	0187	00BB	SYSDPL	0306	0132	SYSSE (EQU)
0020	0014	SYSKEL	0188	00BC	SYSSRA	0306	0132	SYSAR (EQU)
0024	0018	SYSFW	0190	00BE	SYSODA	0306	0132	SYSIR (EQU)
0028	001C	SYSRT	0192	00C0	SYRSV	0306	0132	SYSAI (EQU)
0032	0020	SYSECB	0196	00C4	SYRSRSC	0306	0132	SYSII (EQU)
0034	0022	SYSRDDLK	0198	00C6	SYMSK	0306	0132	SYSRFL
0036	0024	SYSXPG	0199	00C7	SYSAMW	0308	0134	SYSRCB
0038	0026	SYSMGPTP	0200	00C8	SYSMWX	0312	0138	SYSRCS
0040	0028	SYSPSW	0202	00CA	SYSMWT	0320	0140	SYSRPS
0048	0030	SYSTOD	0204	00CC	SYSSHALK	0328	0148	SYSRIO2
0056	0038	SYSYMD	0205	00CD	SYSZZZ6	0352	0160	SYSAST
0064	0040	SYSFIT	0206	00CE	SYSCCL	0354	0162	SYSAPT
0068	0044	SYSLIT	0207	00CF	SYSITL	0356	0164	SYSAAC
0072	0048	SYSILT	0208	00D0	SYSTWA	0362	016A	SYSSHHP
0076	004C	SYSPPW	0210	00D2	SYSPCB	0364	016C	SYSMXS
0080	0050	SYSRT1	0212	00D4	SYSIAX	0366	016E	SYSMNS
0084	0054	SYSRT2	0214	00D6	SYSFSV	0368	0170	SYSSCH
0088	0058	SYSRT3	0216	00D8	SYSMXD	0372	0174	SYSLSST
0092	005C	SYSRT4	0218	00DA	SYSMND	0376	0178	SYSNTSI
0094	005E	SYSRT5	0220	00DC	SYSLOCO (EQU)	0380	017C	SYSIDL
0096	0060	SYSRT6	0220	00DC	SYSRCRD (EQU)	0384	0180	SYSCTP
0098	0062	SYSPTN	0220	00DC	SYSFL2	0388	0184	SYSDLY
0100	0064	SYSTCT	0221	00DD	SYSNWK	0392	0188	SYSDTRL
0102	0066	SYSTLM	0222	00DE	SYSSCN	0393	0189	SYSTSEM
0104	0068	SYSTID	0224	00E0	SYSTKSP	0394	018A	SYSPMT
0106	006A	SYSZZZ3	0225	00E1	SYSTKTK	0395	018B	SYSTCR
0107	006B	SYSTSILK	0226	00E2	SYSTSKLK	0396	018C	SYSTSILG
0108	006C	SYSXMC	0227	00E3	SYSASM (EQU)	0400	0190	SYSTIMLG
0109	006D	SYSTIMLK	0227	00E3	SYSFL3	0404	0194	SYSTSIAG
0110	006E	SYSBUF	0228	00E4	SYSTKID	0408	0198	SYSF2G
0112	0070	SYSTSIAD	0230	00E6	SYSDATA	0412	019C	SYSSHALG
0113	0071	SYSSSKLK	0232	00E8	SYSXTS	0416	01A0	SYSTKSG
0114	0072	SYSF2L	0234	00EA	SYSMC	0420	01A4	SYSTKTG

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DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0424	01A8	SYSTSKLG	4136	1028	SYSD0	4176	1050	SYSBIN
0428	01AC	SYSPT1	4136	1028	SYSSDA	4176	1050	SYSARG
0432	01B0	SYSPT2	4137	1029	SYSD1	4178	1052	SYSCYL
0436	01B4	SYSPT3	4138	102A	SYSD2	4180	1054	SYSHED
0440	01B8	SYSELG	4139	102B	SYSD3	4182	1056	SYSREC
0444	01BC	SYSINA	4140	102C	SYSD4	4183	1057	SYSACT (EQU)
0448	01C0	SYSVMB	4141	102D	SYSD5	4183	1057	SYSFLG1 (EQU)
0452	01C4	SYSBLK	4142	102E	SYSD6	4183	1057	SYSFLG
0454	01C6	SYSBLK2	4143	102F	SYSD7	4184	1058	SYSPCIOR
0456	01C8	SYSLP (EQU)	4144	1030	SYS89LK	4188	105C	SYSGQE
0456	01C8	SYSPF	4145	1031	SYSRTCT	4320	10E0	SYSBINR
0456	01C8	SYSPDD	4168	1048	SYSLOG	4320	10E0	SYSARGR
0458	01CA	SYSLOQ	4172	104C	SYSSIX (EQU)	4322	10E2	SYSCYLR
0460	01CC	SYSDIP	4172	104C	SYSFVE (EQU)	4324	10E4	SYSHEDR
4096	1000	SYSPEB	4172	104C	SYSFOR (EQU)	4326	10E6	SYSRECR
4096	1000	SYSDIC	4172	104C	SYSTR (EQU)	4327	10E7	SYSACR (EQU)
4100	1004	SYSUC	4172	104C	SYSTWO (EQU)	4327	10E7	SYSFLGS (EQU)
4104	1008	SYSSYM	4172	104C	SYSONE (EQU)	4327	10E7	SYSFLGR
4106	100A	SYSPTH	4172	104C	SYSTON (EQU)	4328	10E8	SYSPCIR
4108	100C	SYSSLT	4172	104C	SYSOON (EQU)	4332	10EC	SYSGQER
4110	100E	SYSLOW1	4172	104C	SYSLK (EQU)	4464	1170	SYSSEEK1
4111	100F	SYSLOW2	4172	104C	SYSZZZ9	4472	1178	SYSSRCH1
4112	1010	SYSHI1	4173	104D	SYSRAC (EQU)	4480	1180	SYSTIC1
4113	1011	SYSHI2	4173	104D	SYSBY (EQU)	4488	1188	SYSRWR1
4120	1018	SYSKEY	4173	104D	SYSPE (EQU)	4752	1290	SYSNOP1
4120	1018	SYSCSW	4173	104D	SYSSFL (EQU)	4760	1298	SYSSEEK2
4121	1019	SYSDAD	4173	104D	SYSDR (EQU)	4768	12A0	SYSSRCH2
4124	101C	SYSSTD	4173	104D	SYSPCI (EQU)	4776	12A8	SYSTIC2
4125	101D	SYSSTC	4173	104D	SYSWC (EQU)	4784	12B0	SYSRW2
4126	101E	SYSRCN	4173	104D	SYSSN (EQU)	5048	13B8	SYSNOP2
4128	1020	SYSSCP	4173	104D	SYSN1			

Alphabetical list of fields in CHASYS

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SYSAAC	0356	0164	SYSD0	4136	1028	SYSILK	0235	00EB
SYSACR	4327	10E7 (EQU)	SYSD1	4137	1029	SYSINA	0444	01BC
SYSACT	4183	1057 (EQU)	SYSD2	4138	102A	SYSIR	0306	0132 (EQU)
SYSAI	0306	0132 (EQU)	SYSD3	4139	102B	SYSITL	0207	00CF
SYSAMW	0199	00C7	SYSD4	4140	102C	SYSKEL	0020	0014
SYSAPT	0354	0162	SYSD5	4141	102D	SYSKEY	4120	1018
SYSAR	0306	0132 (EQU)	SYSD6	4142	102E	SYSLC	0008	0008 (EQU)
SYSARG	4176	1050	SYSD7	4143	102F	SYSLIT	0068	0044
SYSARGR	4320	10E0	SYSECB	0032	0020	SYSLK	4172	104C (EQU)
SYSASM	0227	00E3 (EQU)	SYSELG	0440	01B8	SYSLOCO	0220	00DC (EQU)
SYSAST	0352	0160	SYSFIT	0064	0040	SYSLOG	4168	1048
SYSBIN	4176	1050	SYSFLG	4183	1057	SYSLOQ	0458	01CA
SYSBINR	4320	10E0	SYSFLGR	4327	10E7	SYSLOW	0004	0004
SYSBLK	0452	01C4	SYSFLGS	4327	10E7 (EQU)	SYSLOW1	4110	100E
SYSBLK2	0454	01C6	SYSFLG1	4183	1057 (EQU)	SYSLOW2	4111	100F
SYSBUF	0110	006E	SYSFLI	0008	0008	SYSLP	0456	01C8 (EQU)
SYSBY	4173	104D (EQU)	SYSFL2	0220	00DC	SYSLSST	0372	0174
SYSCCAIV	0240	00F0	SYSFL3	0227	00E3	SYSLT	0072	0048
SYSCCL	0206	00CE	SYSFOR	4172	104C (EQU)	SYSMC	0234	00EA
SYSCCS	0120	0078	SYSFSV	0214	00D6	SYSMGPTP	0038	0026
SYSCNT	0115	0073	SYSFVE	4172	104C (EQU)	SYSMND	0218	00DA
SYSCSW	4120	1018	SYSFW	0024	0018	SYSMNS	0366	016E
SYSCTP	0384	0180	SYSF2G	0408	0198	SYSMSK	0198	00C6
SYSCYL	4178	1052	SYSF2L	0114	0072	SYSMWT	0202	00CA
SYSCYLR	4322	10E2	SYSGQE	4188	105C	SYSMWX	0200	00C8
SYSDAD	4121	1019	SYSGQER	4332	10EC	SYSMXD	0216	00D8
SYSDATA	0230	00E6	SYSHED	4180	1054	SYSMXS	0364	016C
SYSDIC	4096	1000	SYSHEDR	4324	10E4	SYSNOP1	4752	1290
SYSDIP	0460	01CC	SYSHI	0006	0006	SYSNOP2	5048	13B8
SYSDLY	0388	0184	SYSHI1	4112	1010	SYSNTSI	0376	0178
SYSDPL	0187	00BB	SYSHI2	4113	1011	SYSNWK	0221	00DD
SYSDPP	0180	00B4	SYSIAX	0212	00D4	SYSN1	4173	104D
SYSDR	4173	104D (EQU)	SYSIDL	0380	017C	SYSODA	0190	00BE
SYSDTRL	0392	0188	SYSII	0306	0132 (EQU)	SYSODL	0186	00BA

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FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SYSODP	0176	00B0	SYSRSV	0192	00C0	SYSSSKLK	0113	0071
SYSONE	4172	104C (EQU)	SYSRS1	0256	0100	SYSTTL	0119	0077
SYSOON	4172	104C (EQU)	SYSRS2	0264	0108	SYSSYM	4104	1008
SYSPC	0008	0008 (EQU)	SYSRS3	0272	0110	SYSTCR	0395	018B
SYSPCB	0210	00D2	SYSRS4	0280	0118	SYSTCT	0100	0064
SYSPCI	4173	104D (EQU)	SYSRS5	0288	0120	SYSTHR	4172	104C (EQU)
SYSPCIOR	4184	1058	SYSRS6	0296	0128	SYSTI	0008	0008 (EQU)
SYSPCIR	4328	10E8	SYSRT	0028	001C	SYSTIC1	4480	1180
SYSPDD	0456	01C8	SYSRTCT	4145	1031	SYSTIC2	4776	12A8
SYSPDDLK	0034	0022	SYSRT1	0080	0050	SYSTID	0104	0068
SYSPE	4173	104D (EQU)	SYSRT2	0084	0054	SYSTIMLG	0400	0190
SYSPEB	4096	1000	SYSRT3	0088	0058	SYSTIMLK	0109	006D
SYSPEC	0000	0000	SYSRT4	0092	005C	SYSTKID	0228	00E4
SYSPEL	0456	01C8	SYSRT5	0094	005E	SYSTKSG	0416	01A0
SYSPLR	0160	00A0	SYSRT6	0096	0060	SYSTKSP	0224	00E0
SYSPLS	0152	0098	SYSRWR1	4488	1188	SYSTKTP	0420	01A4
SYSPMT	0394	018A	SYSRWR2	4784	12B0	SYSTKTK	0225	00E1
SYSPS	0008	0008 (EQU)	SYSSCH	0368	0170	SYSTLM	0102	0066
SYSPSC	0238	00EE	SYSSCN	0222	00DE	SYSTOD	0048	0030
SYSPSL	0236	00EC	SYSSCP	4128	1020	SYSTON	4172	104C (EQU)
SYSPSW	0040	0028	SYSSCT	0118	0076	SYSTSEM	0393	0189
SYSPTH	4106	100A	SYSSDA	4136	1028	SYSTSIAD	0112	0070
SYSPTN	0098	0062	SYSSE	0306	0132 (EQU)	SYSTSIAG	0404	0194
SYSPT1	0428	01AC	SYSSEK1	4464	1170	SYSTSILG	0396	018C
SYSPT2	0432	01B0	SYSSEK2	4760	1298	SYSTSILK	0107	006B
SYSPT3	0436	01B4	SYSSFL	4173	104D (EQU)	SYSTSKLG	0424	01A8
SYSPWP	0076	004C	SYSSFS	0116	0074	SYSTSKLK	0226	00E2
SYSRAC	4173	104D (EQU)	SYSSHALG	0412	019C	SYSTWA	0208	00D0
SYSRAN	0019	0013	SYSSHALK	0204	00CC	SYSTWO	4172	104C (EQU)
SYSRAS	0172	00AC (EQU)	SYSSHHP	0362	016A	SYSUC	4100	1004
SYSRCB	0308	0134	SYSSIX	4172	104C (EQU)	SYSVMB	0448	01C0
SYSRCN	4126	101E	SYSSLT	4108	100C	SYSWA	0008	0008 (EQU)
SYSRCRD	0220	00DC (EQU)	SYSSMG	0008	0008 (EQU)	SYSWC	4173	104D (EQU)
SYSRCS	0312	0138	SYSSN	4173	104D (EQU)	SYSWE	0008	0008 (EQU)
SYSRCT	0248	00F8	SYSSPC	0016	0010	SYSXMC	0108	006C
SYSREC	4182	1056	SYSSPL	0184	00B8	SYSXPG	0036	0024
SYSRECR	4326	10E6	SYSSPP	0168	00A8	SYSXTS	0232	00E8
SYSRFL	0306	0132	SYSSR	0306	0132 (EQU)	SYSYMD	0056	0038
SYSRIO	0304	0130	SYSSRA	0188	00BC	SYSZZZ1	0018	0012
SYSRIO2	0328	0148	SYSSRCH1	4472	1178	SYSZZZ2	0019	0013
SYSRPP	0304	0130	SYSSRCH2	4768	12A0	SYSZZZ3	0106	006A
SYSRPS	0320	0140	SYSSRL	0185	00B9	SYSZZZ6	0205	00CD
SYSRSC	0196	00C4	SYSSRP	0172	00AC	SYSZZZ9	4172	104C
SYSRSP	0012	000C	SYSSTC	4125	101D	SYS89LK	4144	1030
SYSRSS	0244	00F4	SYSSTD	4124	101C			

Assembler listing of CHASYS

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
99 00000	99 00000	CHASYS	DSECT		SYSTEM TABLE
99 00000		SYSPEC	DS	F	PTR TO START DISPATCHABLE & ACTIVE LIST
99 00004		SYSLOW	DS	H	LOW CORE THRESHOLD (LOW)
99 00006		SYSHI	DS	H	LOW CORE THRESHOLD (HIGH)
99 00008		SYSFLI	DS	XL1	FLAGS
	99 00008	SYSPS	EQU	SYSFLI	PUBLIC SEGMENT INDICATOR
	00000080	SYSPSM	EQU	X'80'	
	99 00008	SYSPC	EQU	SYSFLI	PACKING INDICATOR
	00000040	SYSPCM	EQU	X'40'	
	99 00008	SYSTI	EQU	SYSFLI	TASK INITIATION INHIBITION
	00000020	SYSTIM	EQU	X'20'	
	99 00008	SYSWA	EQU	SYSFLI	WRITE CHECK OPTION FOR PAGING TO AUX.
		*			
	00000010	SYSWAM	EQU	X'10'	
	99 00008	SYSWE	EQU	SYSFLI	WRITE CHECK OPTION FOR PAGING TO EXT
		*			
	00000008	SYSTEM	EQU	X'08'	
	99 00008	SYSLC	EQU	SYSFLI	LOW CORE INDICATOR

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000002	SYSLCM	EQU	X'02'	
	99 00008	SYSSMG	EQU	SYSFLI	SHARED PAGE MIGRATION FLAG
	00000001	SYSSMGM	EQU	X'01'	SHARED PAGE MIGRATION MASK
99 0000C			DS	0F	
99 0000C		SYSRSP	DS	F	RSPI POINTER
99 00010		SYSSPC	DS	H	RSPI COUNT
99 00012		SYSZZZ1	DS	XL1	FOR STATISTICAL GATHERING PURPOSES
		*			UNUSED
99 00013		SYSZZZ2	DS	XL1	
	99 00013	ORG	SYSZZZ2		
99 00013		SYSRAN	DS	X	CURRENT REL APPLICATION NUMBER N386
		*			
99 00014		SYSKEL	DS	F	AUX/EXT LOCATION OF SKELETON XTISI
		*			
99 00018		SYSFW	DS	F	PTR TO START OF ELIGIBLE LIST
		*			
99 0001C		SYSRT	DS	F	RUN TIME TO DATE
99 00020		SYSECB	DS	H	ESTIMATED CORE BLOCKS AVAILABLE
		*			
99 00022		SYSPDDLK	DS	X	LOCK ON SYSTEM PDD COUNT M4138
		*			
99 00023			DS	X	RESERVED N470
		*			
99 00024		SYSXPG	DS	H	COUNT TO TRIGGER XTISI PAGING N470
		*			
99 00026		SYSMGPTP	DS	H	COUNT OF PAGE TABLE PAGES FOR N470 MIGRATION
		*			
		*			N470
99 00028			DS	0D	
99 00028		SYSPSW	DS	D	LOW CORE PSW SAVE AREA
99 00030		SYSTOD	DS	D	TIME-OF-DAY CLOCK
99 00038		SYSYMD	DS	D	DAY-MONTH-YEAR IN SERIAL DAYS
		*			
99 00040		SYSFIT	DS	F	POINTER TO FIRST INACTIVE TSI
		*			
99 00044		SYSLIT	DS	F	POINTER TO LAST INACTIVE TSI
		*			
99 00048		SYSLT	DS	F	PTR TO END OF ACTIVE LIST
99 0004C		SYSPWP	DS	F	NUMBER OF PAGE WRITES PENDING
		*			
99 00050		SYSRT1	DS	F	STARTING ADDRESS OF REAL TIME INTERVAL
		*			
		*			QUEUE CORE BLOCK
99 00054		SYSRT2	DS	F	START ADDRESS OF FIRST VALID ENTRY
		*			
		*			IN REAL TIME INTERVAL PENDING QUEUE
99 00058		SYSRT3	DS	F	ADDRESS PAST LAST ENTRY IN REAL TIME
		*			
		*			INTERVAL PENDING QUEUE
99 0005C		SYSRT4	DS	H	TOTAL NUMBER BYTES IN CURRENT REAL TIME INTERVAL QUEUE CORE BLOCK
		*			
		*			NUMBER OF BYTES USED IN CURRENT REAL TIME INTERVAL PENDING QUEUE
99 0005E		SYSRT5	DS	H	NUMBER OF BYTES USED IN CURRENT REAL TIME INTERVAL PENDING QUEUE
		*			
		*			NUMBER BYTES RELEASED FROM CURRENT REAL-TIME INTERVAL QUEUE CORE BLOCK
99 00060		SYSRT6	DS	H	NUMBER BYTES RELEASED FROM CURRENT REAL-TIME INTERVAL QUEUE CORE BLOCK
		*			
		*			NUMBER BYTES RELEASED FROM CURRENT REAL-TIME INTERVAL QUEUE CORE BLOCK
99 00062		SYSPTN	DS	H	NEXT AVAILABLE SHARED PAGE TABLE NUMBER
		*			
99 00064		SYSTCT	DS	H	SYSTEM TSI COUNT
99 00066		SYSTLM	DS	H	SYSTEM TSI LIMIT
99 00068		SYSTID	DS	H	LAST TASK ID NUMBER ASSIGNED
		*			
99 0006A		SYSZZZ3	DS	XL1	UNUSED

(Listing of CHASYS continued on page 408)

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
99 0006B		SYSTSILK	DS	XL1	LOCK BYTE FOR SCHEDULING ALGORITHM
		*			
99 0006C		SYXMC	DS	XL1	EXTERNAL MACHINE CHECK BYTE
99 0006D		SYSTIMLK	DS	XL1	REAL TIME LOCK BYTE
99 0006E		SYSBUF	DS	H	BUFFER SIZE ON DRUM
99 00070		SYSTSIAD	DS	XL1	ACTIVATE/DEACTIVATE ROUTINES LOCKBYTE
		*			
99 00071		SYSSSKLK	DS	X	LOCK FOR SSK INSTRUCTIONS I7128
		*			
99 00072		SYSF2L	DS	XL1	LOCK FOR F2 COUNT
99 00073		SYSCNT	DS	XL1	F2 PENDING COUNT
99 00074		SYSSFS	DS	H	SUM OF SPECIFIED FAIR SHARE VALUES FOR SPECIAL TASKS (MT/T)
		*			
99 00076		SYSSCT	DS	XL1	NUMBER OF SPECIAL TASKS WITH SPECIFIED FAIR SHARE VALUES (MT/T)
		*			
		*			
99 00077		SYSSTL	DS	XL1	ACTUAL MAXIMUM SCHEDULE TABLE LEVEL (MT/T)
		*			
99 00078			DS	0D	ALIGN TO A DOUBLE WORD BOUNDARY
		*			
99 00078		SYSCCS	DS	8F	CONFIGURATION CONSOLE SWITCH SETTINGS
		*			
99 00098		SYSPLS	DS	D	PAGE LOC OF SERR
99 000A0		SYSPLR	DS	D	PAGE LOC OF RECONFIGURATION
99 000A8		SYSSPP	DS	F	POINTER TO SERR/RECON PATH TBL
		*			
99 000AC		SYSSRP	DS	F	POINTER TO SYS RES PATH TABLE
		*			
	99 000AC	SYSRAS	EQU	SYSSRP	STATUS OF IPL VOLUME
	00000080	SYSRASM	EQU	X'80'	* 1=IPL VOLUME REMOVED AFTER STARTUP
		*			
		*			* 0=IPL VOLUME MOUNTED
99 000B0		SYSODP	DS	F	POINTER TO OPER DEV PATH TBL
		*			
99 000B4		SYSDPP	DS	F	POINTER TO PAGING DRUM ADDR TBL
		*			
99 000B8		SYSSPL	DS	XL1	LENGTH OF SERR/RECON PATH TBL
		*			
99 000B9		SYSSRL	DS	XL1	LENGTH OF SYS RES PATH TBL
99 000BA		SYSODL	DS	XL1	LENGTH OF OPER DEV PATH TBL
99 000BB		SYSDPL	DS	XL1	LENGTH OF PAGING DRUM ADDR TBL
		*			
99 000BC		SYSSRA	DS	H	SYS RES DEV ADDR
99 000BE		SYSODA	DS	H	OPER DEV ADDR
99 000C0			DS	0F	ALIGN TO A FULL WORD BOUNDARY
		*			
99 000C0		SYRSRV	DS	F	POINTER TO SUPERVISOR CORE'S RESERVE LIST.
		*			
99 000C4		SYRSRC	DS	H	COUNT OF PAGES IN ABOVE LIST.
		*			
99 000C6		SYMSK	DS	XL1	SYSTEM MASK
	00000080	SYMSKM	EQU	X'80'	MAJOR OR MINOR ERROR FLAG
99 000C7		SYSAMW	DS	XL1	ASCII, MACH CK MASKS.
		*			
99 000C8			DS	0F	WAIT/PROB STATE
		*			
99 000C8		SYSMWX	DS	H	ALIGN TO A FULL WORD BOUNDARY
		*			
99 000CA		SYSMWT	DS	H	MAXIMUM SHARED PAGES TO PURGE
99 000CC		SYSSHALK	DS	XL1	SCAN SHARED PAGES THRESHOLD
		*			
99 000CD		SYZZZ6	DS	XL1	LOCK BYTE FOR SHARED PAGE TABLE CHAINS
		*			
99 000CE		SYSCCL	DS	XL1	UNUSED
99 000CF		SYSTITL	DS	XL1	CONFIGURATION CONSOLE LOCK
99 000D0			DS	0F	INITIAL TASK LEVEL
		*			
99 000D0		SYSTWA	DS	H	ALIGN TO A FULL WORD BOUNDARY
		*			
					AVERAGE CORE USED FOR

(Listing of CHASYS continued on page 409)

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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			MIGRATION
99 000D2		SYSPCB	DS	H	NUMBER OF PCB'S TO
		*			MIGRATION
99 000D4		SYSIAX	DS	H	MAXIMUM PAGES PER CYLINDER
99 000D6		SYSFSV	DS	H	FAIR SHARE VALUE, PARTIAL
		*			DRUM MIGRATION
99 000D8		SYSMXD	DS	H	UPPER SHARED PAGE DRUM
		*			THRESHOLD
99 000DA		SYSMND	DS	H	LOWER SHARED PAGE DRUM
		*			THRESHOLD
99 000DC		SYSFL2	DS	XL1	FLAGS
	99 000DC	SYSRCRD	EQU	SYSFL2	UNUSED
	00000080	SYSRCRDM	EQU	X'80'	
	99 000DC	SYSLOCO	EQU	SYSFL2	LOW CORE FLAG
		*			N447S
	00000010	SYSLOCOM	EQU	X'10'	LOW CORE MASK
		*			N447S
99 000DD		SYSNWK	DS	XL1	NO INT SCHED WORK FLAG
	00000080	SYSNWKM	EQU	X'80'	NO INT SCHED WORK MASK
99 000DE		SYSSCN	DS	XL1	SCAN FLAG FOR WRITE SHARED
		*			PAGES
	00000040	SYSSCNM	EQU	X'40'	ON=SCAN ONLY; OFF= PURGE
		*			ALSO
99 000DF			DS	XL1	UNUSED
99 000E0			DS	0F	ALIGN TO A FULL WORD
		*			BOUNDARY
99 000E0		SYSTKSP	DS	XL1	TASK TO SUPERVISOR LOCK
99 000E1		SYSTKTK	DS	XL1	TASK TO TASK LOCK BYTE
99 000E2		SYSTSKLK	DS	XL1	LOCK ON SYSTEM TSI COUNT
99 000E3		SYSFL3	DS	XL1	FLAG BYTE
	99 000E3	SYSASM	EQU	SYSFL3	AUXILIARY SHUTDOWN MESSAGE
		*			FLAG
	00000080	SYSASMM	EQU	X'80'	AUXILIARY SHUTDOWN MESSAGE
		*			MASK
99 000E4		SYSTKID	DS	H	TASK ID FOR DRAM
99 000E6		SYSDATA	DS	H	NO. OF ENTRIES TO EXPAND
		*			PAGE TABLE
99 000E8		SYSXTS	DS	H	XTSI SIZE LIMIT
99 000EA		SYSMC	DS	XL1	MIGRATION COUNT
99 000EB		SYSILK	DS	XL1	CPU INTERCOMMUNICATION LOCK
		*			BYTE
99 000EC		SYSPSL	DS	H	MAX. NO. OF PUBLIC SEGMENTS
		*			ALLOWED
99 000EE		SYSpsc	DS	H	COUNT OF PUBLIC SEGMENTS
99 000F0		SYSccAIV	DS	F	INTERRUPTION TIMER VALUE
99 000F4		SYSRSS	DS	C	RSS ACTIVE
	00000080	SYSRSM	EQU	X'80'	RSS ACTIVE MASK
99 000F8		SYSRCT	DS	F	RSS COMMUNICATION TABLE
		*			ADDR
99 00100		SYSRS1	DS	D	LPSW TO ENTER RSS VIA
		*			PROGRAM INT
99 00108		SYSRS2	DS	D	LPSW TO ENTER RSS VIA SVC
		*			INT
99 00110		SYSRS3	DS	D	LPSW TO ENTER RSS VIA INT
		*			KEY.
99 00118		SYSRS4	DS	D	LPSW TO ENTER RSS VIA I/O
		*			INT.
99 00120		SYSRS5	DS	D	LPSW TO ENTER RSS VIA
		*			CHANNEL INT PROC
99 00128		SYSRS6	DS	D	LPSW TO ENTER RSS VIA Q GQE
		*			ON TSI
99 00130		SYSRIO	DS	0D	RSS I/O DEVICE TABLE ENTRY
99 00130		SYSRPP	DS	H	PHYSICAL PATH
99 00132		SYSRFL	DS	H	FLAGS
	000000C0	SYSRFM	EQU	X'C0'	I/O OR ATTENTION INTERRUPT
		*			EXPECTED MASK
	99 00132	SYSII	EQU	SYSRFL	I/O INTERRUPT EXPECTED
	00000080	SYSIIF	EQU	X'80'	I/O INTERRUPT EXPECTED MASK

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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	99 00132	SYSAI	EQU	SYSRFL	ATTENTION INTERRUPT
		*			EXPECTED
	00000040	SYSAIF	EQU	X'40'	ATTENTION INTERRUPT
		*			EXPECTED MASK
	99 00132	SYSIR	EQU	SYSRFL	I/O INTERRUPT RECEIVED
	00000020	SYSIRM	EQU	X'20'	I/O INTERRUPT RECEIVED MASK
	99 00132	SYSAR	EQU	SYSRFL	ATTENTION INTERRUPT
		*			RECEIVED
	00000010	SYSARM	EQU	X'10'	ATTENTION INTERRUPT
		*			RECEIVED MASK
	99 00132	SYSSE	EQU	SYSRFL	CSW STORED ON SIO EXPECTED
	00000008	SYSSEM	EQU	X'08'	CSW STORED ON SIO EXPECTED
		*			MASK
	99 00132	SYSSR	EQU	SYSRFL	CSW STORED ON SIO RECEIVED
	00000004	SYSSRM	EQU	X'04'	CSW STORED ON SIO RECEIVED
		*			MASK
99 00134		SYSRCB	DS	F	POINTER TO SIORCB
99 00138		SYSRCS	DS	D	CSW
99 00140		SYSRPS	DS	D	PSW
99 00148		SYSRIO2	DS	3D	SECOND RSS I/O DEVICE ENTRY
99 00160		SYSAST	DS	H	AUXILIARY STOP THRESHOLD
		*			PARAMETER
99 00162		SYSAPT	DS	H	AUXILIARY PRIMARY THRESHOLD
		*			PARAMETER
99 00164		SYSAAC	DS	F	ASSIGNED AUXILIARY COUNT
		*			FIELD
99 00168			DS	H	UNUSED
99 0016A		SYSSHHP	DS	H	COUNT OF SHARED PAGES IN
		*			CORE
99 0016C		SYSMXS	DS	H	MAXIMUM NUMBER OF SHARED
		*			PAGES
99 0016E		SYSTEMNS	DS	H	MINIMUM NUMBER OF SHARED
		*			PAGES
99 00170		SYSSCH	DS	F	SVC CHARGE VALUE
99 00174		SYLSST	DS	F	LOWEST SST AHEAD OF
		*			SCHEDULED SST VALUE
99 00178		SYSNTSI	DS	F	NEXT ELIGIBLE TASK TO CHECK
99 0017C		SYSIDL	DS	F	IDLE TIMER SETTING
99 00180		SYSCTP	DS	F	CHANGE TASK SCHEDULE ENTRY
99 00184		SYSDLY	DS	F	TSEND DELAY TIME
99 00188		SYSDTRL	DS	XL1	DELTA LENGTH
99 00189		SYSTSEM	DS	XL1	TSE MAXIMUM COUNT
99 0018A		SYSPTM	DS	XL1	COUNT OF PERMITTED TSI'S IN
		*			DISP. LIST
99 0018B		SYSTCR	DS	XL1	TASK CORE
		*			REQUIREMENT(INITIAL VALUE=64)
99 0018C		SYSTSILG	DS	F	ROUTINE TO LAST ACCESS
		*			SYSTSILK
99 00190		SYSTIMLG	DS	F	ROUTINE TO LAST ACCESS
		*			SYSTIMLK
99 00194		SYTSIAG	DS	F	ROUTINE TO LAST ACCESS
		*			SYTSIAD
99 00198		SYSF2G	DS	F	ROUTINE TO LAST ACCESS
		*			SYSF2L
99 0019C		SYSSHALG	DS	F	ROUTINE TO LAST ACCESS
		*			SYSSHALK
99 001A0		SYSTKSG	DS	F	ROUTINE TO LAST ACCESS
		*			SYSTKSP
99 001A4		SYSTKTG	DS	F	ROUTINE TO LAST ACCESS
		*			SYSTKTK
99 001A8		SYSTSKLG	DS	F	ROUTINE TO LAST ACCESS
		*			SYSTSKLK
99 001AC		SYSPT1	DS	F	POINTER TO FIXED AREA OF
		*			CHASST
99 001B0		SYSPT2	DS	F	POINTER TO DRUM AREA OF
		*			CHASST
99 001B4		SYSPT3	DS	F	POINTER TO DISK AREA OF
		*			CHASST

(Listing of CHASYS continued on page 411)



## (Listing of CHASYS continued from page 410)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
99 001B8		SYSELG	DS	F	NUMBER OF ELIGIBLE TASKS
99 001BC		SYSINA	DS	F	NUMBER OF INACTIVE TASKS
99 001C0		SYSVMB	DS	F	NUMBER OF TIME IN TICKS
99 001C4		SYSBLK	DS	H	MAX PAGES BLOCKED TO DRUM
99 001C6		SYSBLK2	DS	H	MAX PAGES BLOCKED TO DRUM AND DISK
	000001C8	SYSIZE	EQU	*--CHASYS	SIZE OF FIXED LENGTH SECTION OF TABLE
		*			
99 001C8		SYSPDD	DS	0D	DOUBLE WORD ALIGNMENT
		*			***** (SEE NOTE 1) *****
99 001C8		SYSPF	DS	XL1	PAGING DRUM DIRECTORY FLAGS
	99 001C8	SYSLP	EQU	SYSPF	LAST PDD ENTRY FLAG
	00000080	SYSLPM	EQU	X'80'	LAST PDD ENTRY MASK
			DS	C	UNUSED
99 001C9		SYSLOQ	DS	H	LOCATION ON QUEUE VALUE
99 001CA		SYSLOQ	DS	H	LOCATION ON QUEUE VALUE
99 001CC		SYSDIP	DS	F	POINTER TO DRUM INTERFACE CONTROL BLOCK
		*			
99 001D0			DS	D	DRUM QUEUE PROCESSOR ENTRY
	99 01000		<u>ORG</u>	CHASYS+4096	
99 01000		SYSDDIC	DS	0D	DOUBLE WORD ALIGNMENT
99 01000		SYSPEB	DS	F	POINTER TO PAGING ERROR CONTROL BLOCK
		*			
99 01004		SYSUC	DS	F	TOTAL COUNT OF UNPROCESSED OPERATIONS
		*			
99 01008		SYSSYM	DS	H	DRUM SYMBOLIC DEVICE ADDRESS
		*			
99 0100A		SYSPTH	DS	H	LAST PATH USED TO ADDRESS DRUM
		*			
99 0100C		SYSSLT	DS	H	DICB SLOT MASK
99 0100E		SYSLOW1	DS	XL1	LOWEST SLOT USED-CHAIN 1
99 0100F		SYSLOW2	DS	XL1	LOWEST SLOT USED-CHAIN 2
99 01010		SYSHI1	DS	XL1	HIGHEST SLOT USED-CHAIN 1
99 01011		SYSHI2	DS	XL1	HIGHEST SLOT USED-CHAIN 2
99 01018		SYSCSW	DS	0D	CHANNEL STATUS WORD
99 01018		SYSKEY	DS	XL1	KEY FIELD
99 01019		SYSDDAD	DS	3C	COMMAND ADDRESS
99 0101C		SYSSTD	DS	XL1	DEVICE STATUS
99 0101D		SYSSTC	DS	XL1	CHANNEL STATUS
99 0101E		SYSRCN	DS	H	BYTE COUNT
99 01020		SYSSCP	DS	D	PAGING DRUM SENSE CHANNEL PROGRAM
		*			
99 01028		SYSSDA	DS	0D	SENSE DATA AREA
99 01028		SYS0	DS	XL1	SENSE BYTE ONE
99 01029		SYS1	DS	XL1	SENSE BYTE TWO
99 0102A		SYS2	DS	XL1	SENSE BYTE THREE
99 0102B		SYS3	DS	XL1	SENSE BYTE FOUR
99 0102C		SYS4	DS	XL1	SENSE BYTE FIVE
99 0102D		SYS5	DS	XL1	SENSE BYTE SIX
99 0102E		SYS6	DS	XL1	SENSE BYTE SEVEN
99 0102F		SYS7	DS	XL1	SENSE BYTE EIGHT
99 01030		SYS89LK	DS	XL1	LOCK BYTE PROHIBITS INTERACTION BETWEEN CEAA8 AND CEAA9 FOR A PARTICULAR DRUM
		*			
		*			
		*			
99 01031		SYSRTCT	DS	X	SIO RETRY COUNT
		*			M4244
99 01032			DS	XL2	RESERVED
		*			M4244
99 01034			DS	5F	UNUSED
99 01048		SYSLOG	DS	F	POINTER TO CHANNEL LOGOUT GQE
		*			
99 0104C		SYSZZZ9	DS	XL1	UNUSED
	99 0104C	SYSLK	EQU	SYSZZZ9	CURRENT CHAIN STATUS
	99 0104C	SYSOON	EQU	SYSLK	CHAIN 1 CAN BE WORKED ON
	00000080	SYSOONM	EQU	X'80'	
	99 0104C	SYSTON	EQU	SYSLK	CHAIN 2 CAN BE WORKED ON
	00000040	SYSTONM	EQU	X'40'	
	99 0104C	SYSONE	EQU	SYSLK	CHAIN 1 HAS BEEN POSTED

(Listing of CHASYS continued on page 412)

(Listing of CHASYS continued from page 411)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000020	SYSONEM	EQU	X'20'	
	99 0104C	SYSTWO	EQU	SYSLK	CHAIN 2 HAS BEEN POSTED
	00000010	SYSTWOM	EQU	X'10'	
	99 0104C	SYSTHR	EQU	SYSLK	1 IS LINKED TO 2
	00000008	SYSTHRM	EQU	X'08'	
	99 0104C	SYSFOR	EQU	SYSLK	2 IS LINKED TO 1
	00000004	SYSFORM	EQU	X'04'	
	99 0104C	SYSFVE	EQU	SYSLK	CHAIN 1 IS RUNNING
	00000002	SYSFVEM	EQU	X'02'	
	99 0104C	SYSSIX	EQU	SYSLK	CHAIN 2 IS RUNNING
	00000001	SYSSIXM	EQU	X'01'	
99 0104D		SYSN1	DS	XL1	
	99 0104D	SYSSN	EQU	SYSN1	WAITING ON SENSE OPERATION
	00000080	SYSSNM	EQU	X'80'	
	99 0104D	SYSWC	EQU	SYSN1	WRITE CHECK OPTION SELECTED
	00000040	SYSWCM	EQU	X'40'	
	99 0104D	SYSPCI	EQU	SYSN1	PCI PENDING
	00000020	SYSPCIM	EQU	X'20'	
	99 0104D	SYSDR	EQU	SYSN1	UNUSED
	00000010	SYSDRM	EQU	X'10'	
	99 0104D	SYSSFL	EQU	SYSN1	SENSE FAIL FLAG
	00000008	SYSSFLM	EQU	X'08'	SENSE FAIL MASK
	99 0104D	SYSPE	EQU	SYSN1	PAGING ERROR RECOVERY IN PROGRESS
		*			
	00000004	SYSPEM	EQU	X'04'	
	99 0104D	SYSBY	EQU	SYSN1	ERROR RECOVERY ALTERNATE PATH BUSY
		*			
	00000002	SYSBYM	EQU	X'02'	
	99 0104D	SYSRAC	EQU	SYSN1	REACTIVATION FLAG
	00000001	SYSRACM	EQU	X'01'	REACTIVATION MASK
		*			CHAIN SEEK ARGUMENTS
99 01050		SYSARG	DS	0D	
99 01050		SYSBIN	DS	H	BB
99 01052		SYSCYL	DS	H	CC
99 01054		SYSHED	DS	H	HH
99 01056		SYSREC	DS	C	R
99 01057		SYSFLG	DS	XL1	FLAGS
	99 01057	SYSFLG1	EQU	SYSFLG	DRAM OPERATION
	00000080	SYSFLGM	EQU	X'80'	
	99 01057	SYSACT	EQU	SYSFLG	THIS ARG IS ACTIVE
	00000040	SYSACTM	EQU	X'40'	
99 01058		SYSPCIOR	DS	F	PCB/IORCB ADDRESS
99 0105C		SYSGQE	DS	F	GQE ADDRESS
99 01060			DS	16D	REMAINING SEEK ARGUMENTS
99 010E0		SYSARGR	DS	0D	
99 010E0		SYSBINR	DS	H	BB
99 010E2		SYSCYLR	DS	H	CC
99 010E4		SYSHEDR	DS	H	HH
99 010E6		SYSRECR	DS	C	R
99 010E7		SYSFLGR	DS	XL1	FLAGS
	99 010E7	SYSFLGS	EQU	SYSFLGR	DRAM OPERATION
	00000080	SYSFLGSM	EQU	X'80'	
	99 010E7	SYSACR	EQU	SYSFLGR	THIS ARG IS ACTIVE
	00000040	SYSACRM	EQU	X'40'	
99 010E8		SYSPCIR	DS	F	PCB/IORCB ADDRESS
99 010EC		SYSGQER	DS	F	GQE ADDRESS
99 010F0			DS	16D	REMAINING SEEK ARGUMENTS
		*			CHAIN CHANNEL PROGRAMS
99 01170		SYSSEEK1	DS	D	SEEK CCW-CHAIN 1
99 01178		SYSSRCH1	DS	D	SEARCH CCW-CHAIN 1
99 01180		SYSTIC1	DS	D	TIC CCW-CHAIN 1
99 01188		SYSRWR1	DS	D	READ/WRITE CCW-CHAIN 1
99 01190			DS	32D	8 CCW PROGRAMS AS ABOVE
99 01290		SYSNOP1	DS	D	TIC/NOP CCW BETWEEN CHAIN 1 AND 2
		*			
99 01298		SYSSEEK2	DS	D	SEEK CCW-CHAIN 2
99 012A0		SYSSRCH2	DS	D	SEARCH CCW-CHAIN 2
99 012A8		SYSTIC2	DS	D	TIC CCW-CHAIN 2

(Listing of CHASYS continued on page 413)

(Listing of CHASYS continued from page 412)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
99 012B0		SYSRW2	DS	D	READ/WRITE CCW-CHAIN 2
99 012B8			DS	32D	8 CCW PROGRAMS AS ABOVE
99 013B8		SYSNOP2	DS	D	TIC/NOP CCW BETWEEN CHAIN 2 AND 1
		*			
		*			NOTE 1- THE PAGING DRUM DIRECTORY SECTION OF
		*			CHASYS (LABELS SYSPF
		*			TO SYSDIP) IS VARIABLE IN LENGTH. THERE
		*			WILL BE ONE 16
		*			BYTE ENTRY FOR EACH PAGING DRUM IN THE
		*			SYSTEM CONFIGURATION -
		*			8 BYTES FOR THE INTERRUPT PROCESSOR AND
		*			8 BYTES FOR THE QUEUE PROCESSOR

TBLOCKS (CHATBD,CHATBC,CHATBS,CHATBO)

TBLOCKS are built by the LOCFQN function of LOCATE in reply to the ERASE, DELETE,DSS?,PC?,UPTDUSER, and QUIT commands.

TBD is the main TBLOCK; one TBD is created for each dataset. Continuations of TBD are placed in TBCs, sharing information is contained in TBSS, and dataset owner sharing information is returned in TBOs.

All TBLOCKS occupy 96 bytes of virtual storage, aligned on doubleword boundaries.

TBLOCK Data Set Descriptor (CHATBD)

The TBLOCK Data Set Descriptor (TBD) describes the sharing status, access status, device type, and volume number of a data set.

The TBD is created by the LOCFQN function of LOCATE. LOCFQN obtains the information used in TBD from the catalog entry of the dataset. For a dataset residing on more than one private volume, LOCFQN creates a chain of continuation blocks (TBCs), as many as required.

TBLOCK Continuation (CHATBC)

The TBLOCK continuation (CHATBC) supplements the sharing status and volume information for a dataset by the TBLOCK dataset descriptors.

One TBC, capable of describing seven private volumes, is created if a dataset resides on more than two private volumes; the first two private volumes being described in the TBD. If the dataset contains more than nine private volumes, LOCFQN creates two or more TBCs and joins them with pointers to form a chain. The LOCFQN routine obtains the information used in a TBC from the dataset catalog entry.

TBLOCK Sharers (CHATBS)

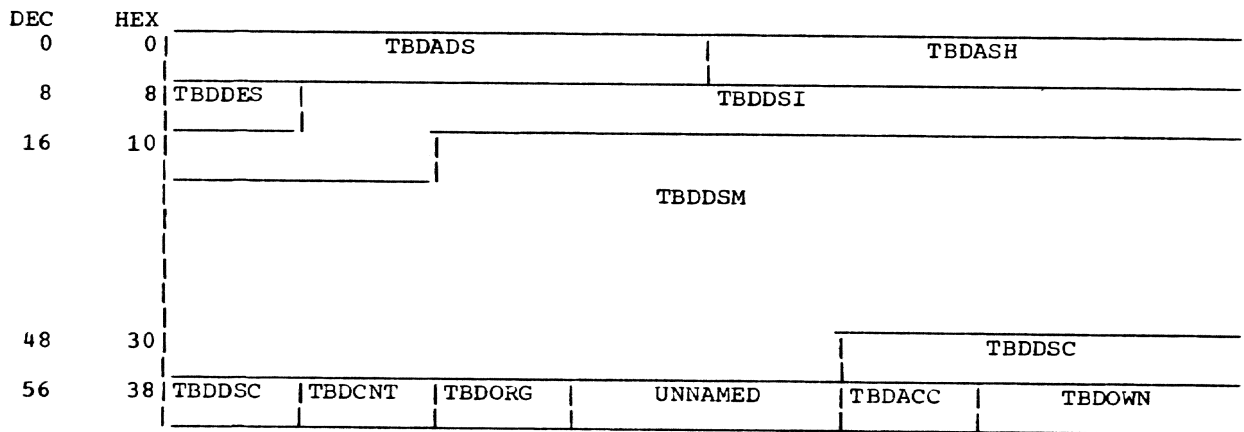
The TBLOCK Sharers (TBS) lists the users who may share a data set, and specifies their sharing level and access status.

The TBS is created by the LOCFQN routine when a data set with sharers is being processed. If a data set has many sharers, LOCFQN may create two or more TBSS and join them together with pointers to form a chain. At the end of the chain TDBASH (or TBDASH if there is no chain) contains X'FFFFFFFF'.

TBLOCK Owner Table (CHATBO)

CHATBO contains the fully qualified name of the dataset owner as established during SHARE command processing. If the processing of the owner's catalog is inhibited by the input option or if the search into the owner's catalog is unsuccessful, the reason for the error is returned in the TBO.

CHATBD Storage map



(CHATBD continued on page 415)

## (CHATBD continued from page 414)

DEC	HEX			TBDOWN (CONT)	TBDVON	TBDDVF
64	40			TBDOWN (CONT)	TBDVON	TBDDVF
72	48	TBDDVF (CONT)		TBDVIF		
80	50	TBDVIF	TBDFSF	TBDDVL		TBDVIL
88	58	TBDVIL (CONT)		TBDFSFL	TBDFLL	

Fields in CHATBD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TBDADS	0057	0039	TBDCNT	0083	0053	TBDDVL
0004	0004	TBDASH	0058	003A	TBDORG	0083	0053	TBDVOL
0008	0008	TBD05 (EQU)	0061	003D	TBD14 (EQU)	0087	0057	TBDVIL
0008	0008	TBD03 (EQU)	0061	003D	TBD13 (EQU)	0093	005D	TBDFSFL
0008	0008	TBD02 (EQU)	0061	003D	TBD12 (EQU)	0095	005F	TBDF8 (EQU)
0008	0008	TBD01 (EQU)	0061	003D	TBDACC	0095	005F	TBDF7 (EQU)
0008	0008	TBDES	0062	003E	TBDOWN	0095	005F	TBDF5 (EQU)
0008	0008	TBDFLG	0070	0046	TBDVON	0095	005F	TBDF4 (EQU)
0009	0009	TBDDSI	0071	0047	TBDDVF	0095	005F	TBDF3 (EQU)
0009	0009	TBDDSN	0071	0047	TBDVOF	0095	005F	TBDF2 (EQU)
0018	0012	TBDDSM	0075	004B	TBDVIF	0095	005F	TBDF1 (EQU)
0053	0035	TBDDSC	0081	0051	TBDFSFL	0095	005F	TBDFLL

Alphabetical list of fields in CHATBD

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TBDACC	0061	003D	TBDFLL	0095	005F	TBDVIF	0075	004B
TBDADS	0000	0000	TBDFSFL	0081	0051	TBDVIL	0087	0057
TBDASH	0004	0004	TBDFSFL	0093	005D	TBDVOF	0071	0047
TBDCNT	0057	0039	TBDF1	0095	005F (EQU)	TBDVOL	0083	0053
TBDES	0008	0008	TBDF2	0095	005F (EQU)	TBDVON	0070	0046
TBDDSC	0053	0035	TBDF3	0095	005F (EQU)	TBD01	0008	0008 (EQU)
TBDDSI	0009	0009	TBDF4	0095	005F (EQU)	TBD02	0008	0008 (EQU)
TBDDSM	0018	0012	TBDF5	0095	005F (EQU)	TBD03	0008	0008 (EQU)
TBDDSN	0009	0009	TBDF7	0095	005F (EQU)	TBD05	0008	0008 (EQU)
TBDDVF	0071	0047	TBDF8	0095	005F (EQU)	TBD12	0061	003D (EQU)
TBDDVL	0083	0053	TBDORG	0058	003A	TBD13	0061	003D (EQU)
TBDFLG	0008	0008	TBDOWN	0062	003E	TBD14	0061	003D (EQU)

Assembler listing of CHATBD

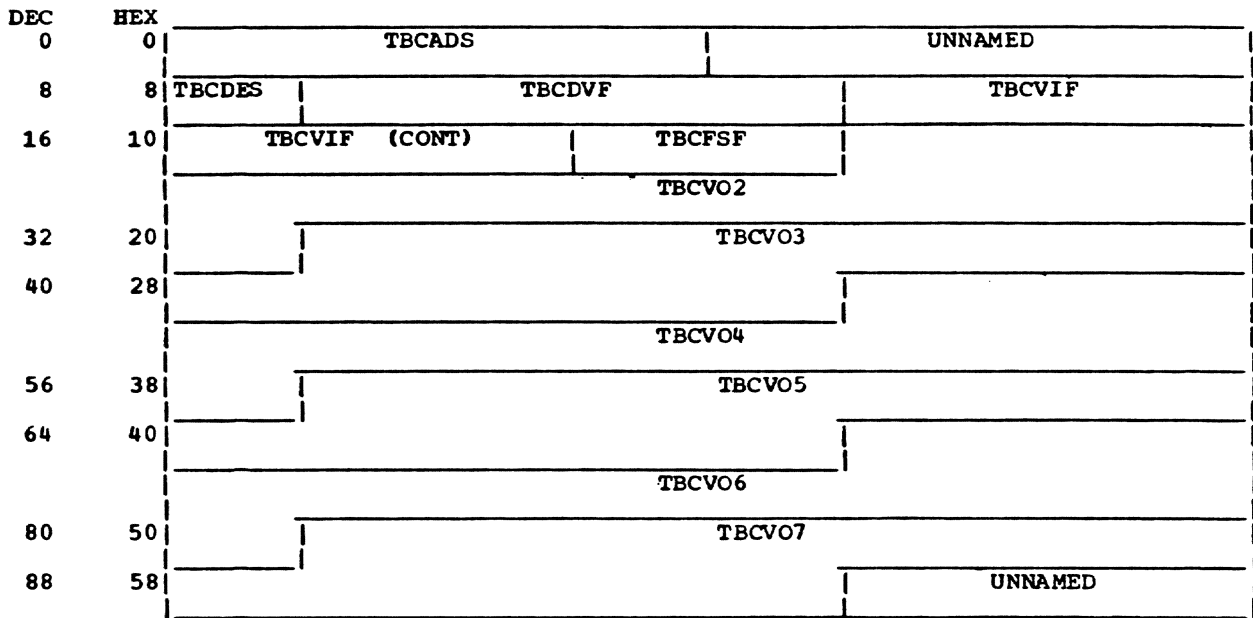
LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	9B 00000	CHATBD	DSECT		TBLOCK DATA SET DESCRIPTOR
9B 00000			DS	0D	
9B 00000			DS	0XL96	
9B 00000		TBDADS	DS	XL4	POINTER TO NEXT CHATBD OR CHATBC
		*			
9B 00004		TBDASH	DS	A	ADDR OF CHATBS OR CHATBO
		*			N466
9B 00008		TBDFLG	DS	0XL1	FLAG
9B 00008		TBDES	DS	XL1	
	9B 00008	TBD01	EQU	TBDFLG	TBLOCK DSD
	9B 00008	TBD02	EQU	TBDFLG	TBLOCK CONTINUATION DSD
	9B 00008	TBD03	EQU	TBDFLG	TBLOCK SHARING LIST
	9B 00008	TBD05	EQU	TBDFLG	TBLOCK OWNER FLAG
		*			N466
	00000010	TBD01M	EQU	X'10'	DSD MASK
	00000020	TBD02M	EQU	X'20'	CONTINUATION DSD MASK
	00000080	TBD03M	EQU	X'80'	SHARING LIST MASK
	00000008	TBD05M	EQU	X'08'	TBLOCK OWNER MASK
		*			N466
9B 00009		TBDDSN	DS	0CL44	DATA SET NAME
9B 00009		TBDDSI	DS	CL9	DATA SET USER-ID AND DELIM
9B 00012		TBDDSM	DS	CL35	DATA SET QUALIFIERS
9B 00035		TBDDSC	DS	CL4	FORMAT "E" DSCB POINTER
9B 00039		TBDCNT	DS	XL1	INDEX SHARING LEVEL
9B 0003A		TBDORG	DS	X	DSORG FLAG

(Listing of CHATBD continued on page 416)

(Listing of CHATBD continued from page 415)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000001	* TBDSAM	EQU	X'01'	N466 SAM MASK
	00000004	* TBDVIM	EQU	X'04'	N466 VISAM MASK
	00000005	* TBDVSM	EQU	X'05'	N466 VSAM MASK
	00000006	* TBDVPM	EQU	X'06'	N466 VPAM MASK
9B 0003B		*	DS	2X	N466 RESERVED
9B 0003D		* TBDACC	DS	XL1	N466 ACCESS
	9B 0003D	TBD12	EQU	TBDACC	READ ONLY ACC
	9B 0003D	TBD13	EQU	TBDACC	READ WRITE ACC
	9B 0003D	TBD14	EQU	TBDACC	UNLIMITED ACC
	00000000	TBD12M	EQU	X'00'	READ ONLY ACC MASK
	00000001	TBD13M	EQU	X'01'	READ WRITE ACC MASK
	00000002	TBD14M	EQU	X'02'	UNLIMITED ACC MASK
9B 0003E		TBDOWN	DS	CL8	OWNER ID IF SHARED
		*			N466
9B 00046		TBDVON	DS	XL1	NUMBER OF VOLUMES ON WHICH DS RESIDES
		*			
9B 00047		TBDVOF	DS	0CL12	FIRST VOLUME FIELD
9B 00047		TBDDVF	DS	XL4	FIRST DEVICE CODE
9B 0004B		TBDVIF	DS	CL6	FIRST VOLUME ID
9B 00051		TBDFSF	DS	XL2	FIRST FILE SEQUENCE NUMBER
9B 00053		TBDVOL	DS	0CL12	LAST VOLUME FIELD
9B 00053		TBDDVL	DS	XL4	LAST DEVICE CODE
9B 00057		TBDVIL	DS	CL6	LAST VOLUME ID
9B 0005D		TBDFSL	DS	XL2	LAST FILE SEQUENCE NUMBER
9B 0005F		TBDFLL	DS	XL1	FLAG FIELD
	9B 0005F	TBDF1	EQU	TBDFLL	PUBLIC VOLUME
	9B 0005F	TBDF2	EQU	TBDFLL	BULKIO PENDING
	9B 0005F	TBDF3	EQU	TBDFLL	ERASE AFTER BULKIO PENDING
	9B 0005F	TBDF4	EQU	TBDFLL	EMPTY INDEX
	9B 0005F	TBDF5	EQU	TBDFLL	TEMP. DATA SET FLAG
	9B 0005F	TBDF7	EQU	TBDFLL	SAM ORGANIZATION
	9B 0005F	TBDF8	EQU	TBDFLL	DELETE SHARED DS
	00000080	TBDF1M	EQU	X'80'	PUBLIC VOLUME MASK
	00000040	TBDF2M	EQU	X'40'	BULKIO PENDING MASK
	00000020	TBDF3M	EQU	X'20'	ERASE AFTER BULKIO PENDING MASK
		*			
	00000010	TBDF4M	EQU	X'10'	EMPTY INDEX MASK
	00000008	TBDF5M	EQU	X'08'	TEMP. DATA SET MASK
	00000002	TBDF7M	EQU	X'02'	SAM ORGANIZATION MASK
	00000001	TBDF8M	EQU	X'01'	DELETE SHARED DS MASK

CHATBC Storage map



Fields in CHATBC -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>		<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>		<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	TBCADS		0008	0008	TBCFLG		0033	0021	TBCVO3
0008	0008	TBC05	(EQU)	0009	0009	TBCDVF		0045	002D	TBCVO4
0008	0008	TBC03	(EQU)	0009	0009	TBCVOF		0057	0039	TBCVO5
0008	0008	TBC02	(EQU)	0013	000D	TBCVIF		0069	0045	TBCVO6
0008	0008	TBC01	(EQU)	0019	0013	TBCFSF		0081	0051	TBCVO7
0008	0008	TBCDES		0021	0015	TBCVO2				

Alphabetical list of fields in CHATBC

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
TBCADS	0000	0000	TBCVOF	0009	0009	TBCVO7	0081	0051
TBCDES	0008	0008	TBCVO2	0021	0015	TBC01	0008	0008 (EQU)
TBCDVF	0009	0009	TBCVO3	0033	0021	TBC02	0008	0008 (EQU)
TBCFLG	0008	0008	TBCVO4	0045	002D	TBC03	0008	0008 (EQU)
TBCFSF	0019	0013	TBCVO5	0057	0039	TBC05	0008	0008 (EQU)
TBCVIF	0013	000D	TBCVO6	0069	0045			

Assembler listing of CHATBC

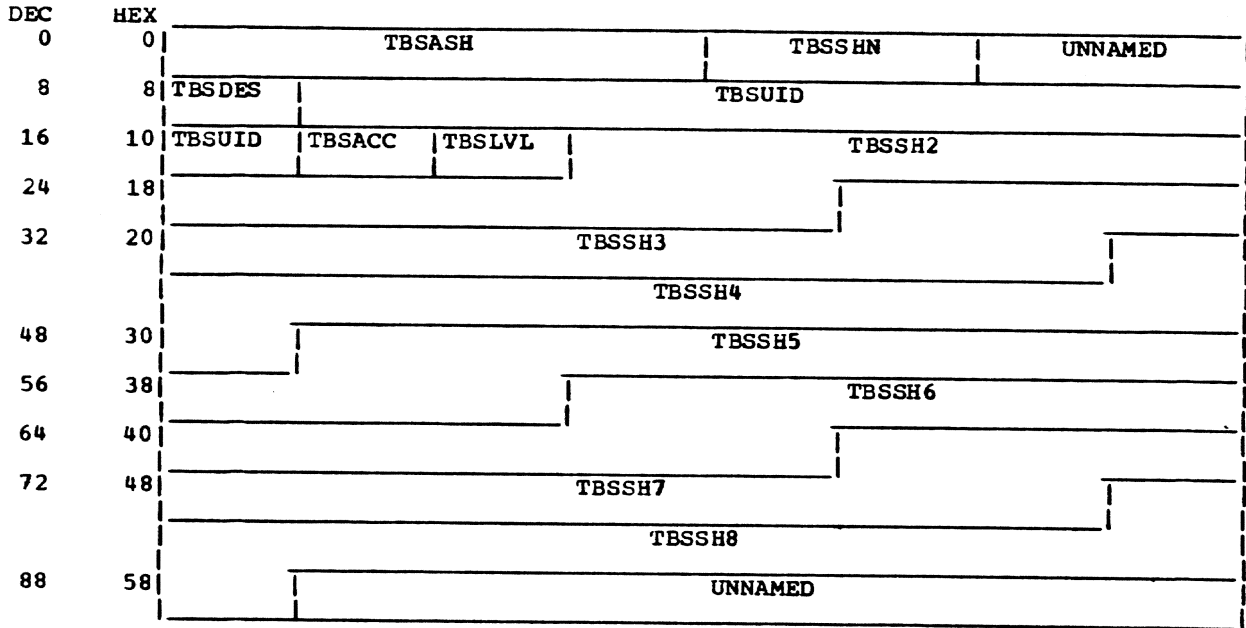
<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	9A 00000	CHATBC	DSECT		TBLOCK CONTINUATION
9A 00000			DS	0D	
9A 00000			DS	0XL96	
9A 00000		TBCADS	DS	F	POINTER TO NEXT CHATBC OR
		*			CHATBD
9A 00004			DS	XL4	UNUSED
9A 00008		TBCFLG	DS	0XL1	FLAG
9A 00008		TBCDES	DS	XL1	DESCRIBES THIS TBLOCK
	9A 00008	TBC01	EQU	TBCFLG	TBLOCK DSD
	9A 00008	TBC02	EQU	TBCFLG	TBLOCK CONTINUATION DSD
	9A 00008	TBC03	EQU	TBCFLG	TBLOCK SHARING LIST
	9A 00008	TBC05	EQU	TBCFLG	TBLOCK OWNER FLAG
		*			N466
	0000010	TBC01M	EQU	X'10'	DSD MASK
	0000020	TBC02M	EQU	X'20'	CONTINUATION MASK
	0000080	TBC03M	EQU	X'80'	SHARING LIST MASK
	0000008	TBC05M	EQU	X'08'	TBLOCK OWNER MASK
		*			N466

(Listing of CHATBC continued on page 418)

(Listing of CHATBC continued from page 417)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
9A 00009		TBCVOF	DS	OCL12	FIRST VOLUME FIELD
9A 00009		TBCDVF	DS	XL4	FIRST DEVICE CODE
9A 0000D		TBCVIF	DS	CL6	FIRST VOLUME ID
9A 00013		TBCFSF	DS	XL2	FIRST FILE SEQUENCE NUMBER
9A 00015		TBCVO2	DS	CL12	SECOND VOLUME FIELD
9A 00021		TBCVO3	DS	CL12	THIRD VOLUME FIELD
9A 0002D		TBCVO4	DS	CL12	FOURTH VOLUME FIELD
9A 00039		TBCVO5	DS	CL12	FIFTH VOLUME FIELD
9A 00045		TBCVO6	DS	CL12	SIXTH VOLUME FIELD
9A 00051		TBCVO7	DS	CL12	SEVENTH VOLUME FIELD
9A 0005D			DS	CL3	SPARE

CHATBS Storage map



Fields in CHATBS -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TBSASH	0009	0009	TBSUID	0029	001D	TBSH3
0004	0004	TBSH1	0009	0009	TBSH1	0039	0027	TBSH4
0008	0008	TBS05 (EQU)	0017	0011	TBS14 (EQU)	0049	0031	TBSH5
0008	0008	TBS03 (EQU)	0017	0011	TBS13 (EQU)	0059	003B	TBSH6
0008	0008	TBS02 (EQU)	0017	0011	TBS12 (EQU)	0069	0045	TBSH7
0008	0008	TBS01 (EQU)	0017	0011	TBSACC	0079	004F	TBSH8
0008	0008	TBSDES	0018	0012	TBSLVL			
0008	0008	TBSFLG	0019	0013	TBSH2			

Alphabetical list of fields in CHATBS

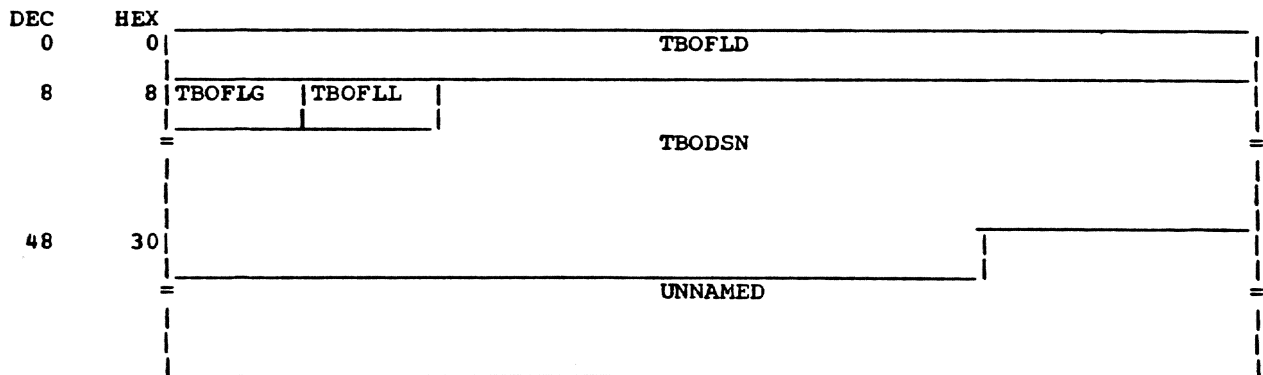
FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TBSACC	0017	0011	TBSH3	0029	001D	TBS02	0008	0008 (EQU)
TBSASH	0000	0000	TBSH4	0039	0027	TBS03	0008	0008 (EQU)
TBSDES	0008	0008	TBSH5	0049	0031	TBS05	0008	0008 (EQU)
TBSFLG	0008	0008	TBSH6	0059	003B	TBS12	0017	0011 (EQU)
TBSLVL	0018	0012	TBSH7	0069	0045	TBS13	0017	0011 (EQU)
TBSH1	0009	0009	TBSH8	0079	004F	TBS14	0017	0011 (EQU)
TBSH2	0019	0013	TBSUID	0009	0009			
			TBS01	0008	0008 (EQU)			



Assembler listing of CHATBS

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
9D 00000	9D 00000	CHATBS	DSECT		TBLOCK SHARERS
9D 00000			DS	0D	
9D 00000			DS	0CL96	
9D 00000		TBSASH	DS	CL4	ADDRESS OF NEXT CHATBS
9D 00004		TBSSH1	DS	CL2	NUMBER OF SHARERS FOR THIS CHATBS
		*			CHATBS
9D 00006			DS	CL2	SPARE
9D 00008		TBSFLG	DS	0CL1	FLAG
9D 00008		TBSDES	DS	X11	DESCRIBES THIS TBLOCK
	9D 00008	TBS01	EQU	TBSFLG	TBLOCK DSD
	9D 00008	TBS02	EQU	TBSFLG	TBLOCK CONTINUATION DSD
	9D 00008	TBS03	EQU	TBSFLG	TBLOCK SHARING LIST
	9D 00008	TBS05	EQU	TBSFLG	TBLOCK OWNER FLAG
		*			N466
	00000010	TBS01M	EQU	X'10'	DSD MASK
	00000020	TBS02M	EQU	X'20'	CONTINUATION DSD MASK
	00000080	TBS03M	EQU	X'80'	SHARING LIST MASK
	00000008	TBS05M	EQU	X'08'	TBLOCK OWNER MASK
		*			N466
9D 00009		TBSSH1	DS	0CL10	FIRST SHARER FIELD
9D 00009		TBSUID	DS	CL8	SHARER ID
9D 00011		TBSACC	DS	CL1	SHARER ACCESS
	9D 00011	TBS12	EQU	TBSACC	READ ONLY ACC
	9D 00011	TBS13	EQU	TBSACC	READ WRITE ACC
	9D 00011	TBS14	EQU	TBSACC	UNLIMITED ACC
	00000000	TBS12M	EQU	X'00'	READ ONLY ACC MASK
	00000001	TBS13M	EQU	X'01'	READ WRITE ACC MASK
	00000002	TBS14M	EQU	X'02'	UNLIMITED ACC MASK
9D 00012		TBSLVL	DS	CL1	LEVEL OF SHARING
9D 00013		TBSSH2	DS	CL10	SECOND SHARER FIELD
9D 0001D		TBSSH3	DS	CL10	THIRD SHARER FIELD
9D 00027		TBSSH4	DS	CL10	FOURTH SHARER FIELD
9D 00031		TBSSH5	DS	CL10	FIFTH SHARER FIELD
9D 0003B		TBSSH6	DS	CL10	SIXTH SHARER FIELD
9D 00045		TBSSH7	DS	CL10	SEVENTH SHARER FIELD
9D 0004F		TBSSH8	DS	CL10	EIGHTH SHARER FIELD
9D 00059			DS	CL7	SPARE

CHATBO Storage map



Fields in CHATBO -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TBOFLD	0008	0008	TBO01	(EQU)	0009	0009 TBOF1
0008	0008	TBO05	(EQU)	0008	0008 TBOFLG	(EQU)	0009	0009 TBOFLL
0008	0008	TBO04	(EQU)	0009	0009 TBOF4	(EQU)	0010	000A TBODSN
0008	0008	TBO03	(EQU)	0009	0009 TBOF3	(EQU)		
0008	0008	TBO02	(EQU)	0009	0009 TBOF2	(EQU)		

Alphabetical list of fields in CHATBO

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TBODSN	0010	000A	TBOF2	0009	0009	(EQU)	TBO03	0008 0008
TBOFLD	0000	0000	TBOF3	0009	0009	(EQU)	TBO04	0008 0008
TBOFLG	0008	0008	TBOF4	0009	0009	(EQU)	TBO05	0008 0008
TBOFLL	0009	0009	TBO01	0008	0008	(EQU)		
TBOF1	0009	0009	(EQU)	TBO02	0008	0008	(EQU)	

Assembler listing of CHATBO

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
9C 00000		CHATBO	DSECT		TBLOCK OWNER DSECT
*****					
				NSRB 466	
				*	
				*	THIS DSECT CONTAINS THE FULLY QUALIFIED NAME OF THE DATASET OWNER
				*	AS ESTABLISHED AT 'SHARE' TIME, IF THE PROCESSING OF THE OWNERS
				*	CATALOG IS INHIBITED BY THE THE INPUT OPTION OR THE SEARCH INTO THE
				*	OWNER'S CATALOG IS UNSUCCESSFUL. THE REASON FOR THE ERROR IS ALSO
				*	GIVEN.
*****					
9C 00000			DS	0D	
9C 00000			DS	8X	RESERVED
9C 00008		TBOFLD	DS	X	FLAG TO DESCRIBE THIS BLOCK
	9C 00008	TBO01	EQU	TBOFLG	TBLOCK DSD FLAG
	00000010	TBO01M	EQU	X'10'	TBLOCK DSD MASK
	9C 00008	TBO02	EQU	TBOFLG	TBLOCK CONTINUATION DSD
		*			FLAG
	00000020	TBO02M	EQU	X'20'	TBLOCK CONTINUATION DSD
		*			MASK
	9C 00008	TBO03	EQU	TBOFLG	TBLOCK SHARERS MASK
	00000080	TBO03M	EQU	X'80'	TBLOCK SHARERS FLAG
	9C 00008	TBO04	EQU	TBOFLG	TBLOCK VOLUME FLAG
	00000040	TBO04M	EQU	X'40'	TBLOCK VOLUME MASK
	9C 00008	TBO05	EQU	TBOFLG	TBLOCK OWNER FLAG
	00000008	TBO05M	EQU	X'08'	TBLOCK OWNER MASK
9C 00009		TBOFLL	DS	X	FLAG TO DESCRIBE
		*			UNSUCCESSFUL SEARCH
		*			INTO THE OWNER'S CATALOG.
		*			NO FLAG IS
		*			SET IF OWNER'S CATALOG NOT
		*			PROCESSED
	9C 00009	TBOF1	EQU	TBOFLL	OWNER ID NOT JOINED FLAG
	00000001	TBOF1M	EQU	X'01'	OWNER ID NOT JOINED MASK
	9C 00009	TBOF2	EQU	TBOFLL	OWNER DSNAM NONEXISTANT
		*			FLAG
	00000002	TBOF2M	EQU	X'02'	OWNER DSNAM NONEXISTANT
		*			MASK
	9C 00009	TBOF3	EQU	TBOFLL	SHARER ACCESS NOT
		*			AUTHORIZED FLAG
	00000004	TBOF3M	EQU	X'04'	SHARER ACCESS NOT
		*			AUTHORIZED MASK
	9C 00009	TBOF4	EQU	TBOFLL	RESERVED FLAG
	00000008	TBOF4M	EQU	X'08'	RESERVED MASK
9C 0000A		TBODSN	DS	CL44	OWNER FULLY QUALIFIED
		*			DSNAME AS
		*			EXTRACTED FROM SHARING
		*			DESCRIPTOR
9C 00036			DS	42X	RESERVED

Task Common (CHATCM)

Task Common (TCM) provides a single area for those system values referenced in a single task by multiple Command Language object modules.  
 TCM resides in virtual storage aligned on fullword boundaries.

CHATCM Storage map

DEC	HEX	
0	0	TCMCOV   TCMCOF   TCMOPT   TCMLVL   TCMPRV
8	8	TCMUID
16	10	TCMPWD
24	18	TCMCNO
32	20	TCMSIN   TCMSOT   TCMTID   TCMUN1   TCMEXP
40	28	TCMPNT   TCMUN3   TCMLOK   TCMRUN   TCMLFP   TCMATT   TCMLOD   TCMTMT
48	30	TCMLNG   TCMDDN
56	38	TCMVLU   TCMTDT
64	40	TCMINP
1560	618	TCMGRD   TCMSFG   TCMAUD
1568	620	TCMDC1

ORG TCMDC1

1568	620	TCMDCU
1768	6E8	TCMBSN   TCMBSM
1776	6F0	TCMFIR   TCMABN   TCMMTT   TCMSPA   TCMABV
1784	6F8	TCMABR   TCMTOS
1792	700	TCMTOS (CONT)   TCMSTA
1800	708	TCMSTA (CONT)   TCMTCT
1808	710	TCMAUX   TCMCXD
1816	718	TCMAST   TCMLST

Fields in CHATCM -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>		<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>		<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	
0000	0000	TCMCV1	(EQU)	0038	0026	TCMDMR1	(EQU)	0052	0034	TCMDDN	
0000	0000	TCMCOV		0038	0026	TCMDMR	(EQU)	0056	0038	TCMVLU	
0001	0001	TCMCF1	(EQU)	0038	0026	TCMBACK	(EQU)	0060	003C	TCMTDT	
0001	0001	TCMCOF		0038	0026	TCMACR	(EQU)	0064	0040	TCMINP	
0002	0002	TCMOP2	(EQU)	0038	0026	TCMBPW	(EQU)	1564	061C	TCMGD2	(EQU)
0002	0002	TCMOP1	(EQU)	0038	0026	TCMUN1		1564	061C	TCMGD1	(EQU)
0002	0002	TCMOPT		0039	0027	TCMEXP4	(EQU)	1564	061C	TCMGRD	
0003	0003	TCMLV2	(EQU)	0039	0027	TCMEXP3	(EQU)	1565	061D	TCMSF2	(EQU)
0003	0003	TCMLV1	(EQU)	0039	0027	TCMEXP2	(EQU)	1565	061D	TCMSF1	(EQU)
0003	0003	TCMLVL		0039	0027	TCMEXP1	(EQU)	1565	061D	TCMSFG	
0004	0004	TCMPF	(EQU)	0039	0027	TCMEXP		1566	061E	TCMAUD	
0004	0004	TCMPE	(EQU)	0040	0028	TCMPN1	(EQU)	1568	0620	TCMDCU	
0004	0004	TCMPD	(EQU)	0040	0028	TCMPNT		1568	0620	TCMDC1	
0004	0004	TCMPC	(EQU)	0041	0029	TCMUN3		1768	06E8	TCMBSN	
0004	0004	TCMPB	(EQU)	0042	002A	TCMOK1	(EQU)	1772	06EC	TCMBSM	
0004	0004	TCMPA	(EQU)	0042	002A	TCMLOK		1776	06F0	TCMFIR	
0004	0004	TCMPRO	(EQU)	0043	002B	TCMRN1	(EQU)	1777	06F1	TCMABN	
0004	0004	TCMPRV		0043	002B	TCMRUN		1778	06F2	TCMMT	
0005	0005	TCMPR1	(EQU)	0044	002C	TCMLP1	(EQU)	1779	06F3	TCMSPA	
0006	0006	TCMPT	(EQU)	0044	002C	TCMLFP		1780	06F4	TCMABV	
0006	0006	TCMPR2	(EQU)	0045	002D	TCMMT2	(EQU)	1784	06F8	TCMABR	
0007	0007	TCMPR3	(EQU)	0045	002D	TCMMT1	(EQU)	1788	06FC	TCMTOS	
0008	0008	TCMUID		0045	002D	TCMATT		1796	0704	TCMSTA	
0016	0010	TCMPWD		0046	002E	TCMLD1	(EQU)	1804	070C	TCMTCT	
0024	0018	TCMCNO		0046	002E	TCMLOD		1808	0710	TCMAUX	
0032	0020	TCMSIN		0047	002F	TCMTM2	(EQU)	1812	0714	TCMCXD	
0034	0022	TCMSOT		0047	002F	TCMTM1	(EQU)	1816	0718	TCMAST	
0036	0024	TCMTID		0047	002F	TCMTMT		1820	071C	TCMLST	
0038	0026	TCMABS	(EQU)	0048	0030	TCMLNG					

Alphabetical list of fields in CHATCM

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>		<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>		<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	
TCMABN	1777	06F1		TCMFIR	1776	06F0		TCMPN1	0040	0028	(EQU)
TCMABR	1784	06F8		TCMGD1	1564	061C	(EQU)	TCMPRV	0004	0004	
TCMABS	0038	0026	(EQU)	TCMGD2	1564	061C	(EQU)	TCMPRO	0004	0004	(EQU)
TCMABV	1780	06F4		TCMGRD	1564	061C		TCMPR1	0005	0005	(EQU)
TCMACR	0038	0026	(EQU)	TCMINP	0064	0040		TCMPR2	0006	0006	(EQU)
TCMAST	1816	0718		TCMLD1	0046	002E	(EQU)	TCMPR3	0007	0007	(EQU)
TCMATT	0045	002D		TCMLFP	0044	002C		TCMPT	0006	0006	(EQU)
TCMAUD	1566	061E		TCMLNG	0048	0030		TCMPWD	0016	0010	
TCMAUX	1808	0710		TCMLOD	0046	002E		TCMRN1	0043	002B	(EQU)
TCMBACK	0038	0026	(EQU)	TCMLOK	0042	002A		TCMRUN	0043	002B	
TCMBPW	0038	0026	(EQU)	TCMLP1	0044	002C	(EQU)	TCMSFG	1565	061D	
TCMBSM	1772	06EC		TCMLST	1820	071C		TCMSF1	1565	061D	(EQU)
TCMBSN	1768	06E8		TCMLVL	0003	0003		TCMSF2	1565	061D	(EQU)
TCMCF1	0001	0001	(EQU)	TCMLV1	0003	0003	(EQU)	TCMSIN	0032	0020	
TCMCNO	0024	0018		TCMLV2	0003	0003	(EQU)	TCMSOT	0034	0022	
TCMCOF	0001	0001		TCMMT	1778	06F2		TCMSPA	1779	06F3	
TCMCOV	0000	0000		TCMMT2	0045	002D	(EQU)	TCMSTA	1796	0704	
TCMCV1	0000	0000	(EQU)	TCMMT1	0045	002D	(EQU)	TCMTCT	1804	070C	
TCMCXD	1812	0714		TCMOK1	0042	002A	(EQU)	TCMTDT	0060	003C	
TCMDCU	1568	0620		TCMOPT	0002	0002		TCMTID	0036	0024	
TCMDC1	1568	0620		TCMOP1	0002	0002	(EQU)	TCMTMT	0047	002F	
TCMDDN	0052	0034		TCMOP2	0002	0002	(EQU)	TCMTM1	0047	002F	(EQU)
TCMDMR	0038	0026	(EQU)	TCMPA	0004	0004	(EQU)	TCMTM2	0047	002F	(EQU)
TCMDMR1	0038	0026	(EQU)	TCMPB	0004	0004	(EQU)	TCMTOS	1788	06FC	
TCMEXP	0039	0027		TCMPC	0004	0004	(EQU)	TCMUID	0008	0008	
TCMEXP1	0039	0027	(EQU)	TCMPD	0004	0004	(EQU)	TCMUN1	0038	0026	
TCMEXP2	0039	0027	(EQU)	TCMPE	0004	0004	(EQU)	TCMUN3	0041	0029	
TCMEXP3	0039	0027	(EQU)	TCMPF	0004	0004	(EQU)	TCMVLU	0056	0038	
TCMEXP4	0039	0027	(EQU)	TCMPNT	0040	0028					

Assembler listing of CHATCM

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
9E 00000	9E 00000	CHATCM	DSECT		TASK COMMON
9E 00000		TCMCOV	DS	XL1	CONVERSATIONAL FLAG - BINARY
		*			
	9E 00000	TCMCV1	EQU	TCMCOV	TASK IS CONVERSATIONAL FLAG
	00000001	TCMCV1M	EQU	X'01'	TASK IS CONVERSATIONAL MASK
9E 00001		TCMCOF	DS	XL1	CONFIRMATION FLAG - BINARY
	9E 00001	TCMCF1	EQU	TCMCOF	CONFIRMATION=YES FLAG
	00000001	TCMCF1M	EQU	X'01'	CONFIRMATION=YES MASK
9E 00002		TCMOPT	DS	XL1	MESSAGE OPTION FLAG - BINARY
		*			
	9E 00002	TCMOP1	EQU	TCMOPT	TEXT OPTION FLAG
	00000000	TCMOP1M	EQU	X'00'	TEXT OPTION MASK
	9E 00002	TCMOP2	EQU	TCMOPT	CODE OPTION FLAG
	00000001	TCMOP2M	EQU	X'01'	CODE OPTION MASK
9E 00003		TCMLVL	DS	XL1	NON-CONVERSATIONAL LEVEL FLAG-BINARY
		*			
	9E 00003	TCMLV1	EQU	TCMLVL	NON BULKIO FLAG
	00000000	TCMLV1M	EQU	X'00'	NON BULKIO MASK
	9E 00003	TCMLV2	EQU	TCMLVL	BULKIO FLAG
	00000008	TCMLV2M	EQU	X'08'	BULKIO MASK
9E 00004		TCMPRV	DS	XL4	TASK COMMAND PRIVILEGE CLASS-BITS
		*			
	9E 00004	TCMPRO	EQU	TCMPRV	FIRST CLASS BYTE
	9E 00004	TCMPA	EQU	TCMPRO	CLASS A
	00000080	TCMPAM	EQU	X'80'	
	9E 00004	TCMPB	EQU	TCMPRO	CLASS B
	00000040	TCMPBM	EQU	X'40'	
	9E 00004	TCMPC	EQU	TCMPRO	CLASS C
	00000020	TCMPCM	EQU	X'20'	
	9E 00004	TCMPD	EQU	TCMPRO	CLASS D
	00000010	TCMPDM	EQU	X'10'	
	9E 00004	TCMPE	EQU	TCMPRO	CLASS E
	00000008	TCMPEM	EQU	X'08'	
	9E 00004	TCMPF	EQU	TCMPRO	CLASS F
	00000004	TCMPFM	EQU	X'04'	
	9E 00005	TCMPR1	EQU	TCMPRV+1	SECOND CLASS BYTE
	9E 00006	TCMPR2	EQU	TCMPRV+2	THIRD CLASS BYTE
	9E 00006	TCMPT	EQU	TCMPR2	CLASS T
	00000010	TCMPTM	EQU	X'10'	CLASS T MASK
	9E 00007	TCMPR3	EQU	TCMPRV+3	FOURTH CLASS BYTE
9E 00008		TCMUID	DS	CL8	USER IDENTIFICATION - EBCDIC
		*			
	9E 00010	TCMPWD	DS	CL8	PASSWORD - EBCDIC
	9E 00018	TCMCNO	DS	CL8	CHARGE NUMBER - EBCDIC
	9E 00020	TCMSIN	DS	H	SYSIN BINARY
	9E 00022	TCMSOT	DS	H	SYSOUT BINARY
	9E 00024	TCMTID	DS	H	TASK IDENTIFICATION - BINARY
		*			
9E 00026		TCMUN1	DS	XL1	
	9E 00026	TCMBPW	EQU	TCMUN1	PRINT SYSOUT FLAG
	00000080	TCMBPWM	EQU	X'80'	PRINT SYSOUT MASK
	9E 00026	TCMACR	EQU	TCMUN1	ACCOUNTING SUBROUTINE HAS BEEN
		*			M02362
	00000002	TCMACRM	EQU	X'02'	ENTERED WHEN ON
		*			M02362
	9E 00026	TCMBACK	EQU	TCMUN1	BACK TASK
		*			I05594
	00000008	TCMBACKM	EQU	X'08'	BACK TASK MASK
		*			I05594
	9E 00026	TCMDMR	EQU	TCMUN1	
	9E 00026	TCMDMR1	EQU	TCMDMR	ABEND IN PROGRESS FLAG
	00000010	TCMDMR1M	EQU	X'10'	ABEND IN PROGRESS MASK
	9E 00026	TCMABS	EQU	TCMUN1	ABEND FLAG TO INITIALIZE
		*			USEACT
	00000001	TCMABSM	EQU	X'01'	ABEND MASK TO INITIALIZE
		*			USEACT
9E 00027		TCMEXP	DS	XL1	EXPRESS MODE FLAG
	9E 00027	TCMEXP1	EQU	TCMEXP	EXPRESS MODE 1ST PASS FLAG

(Listing of CHATCM continued on page 424)

(Listing of CHATCM continued from page 423)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000080	TCMEXP1M	EQU	X'80'	EXPRESS MODE 1ST PASS MASK
9E 00027	TCMEXP2	EQU	TCMEXP		EXPRESS MODE NOT 1ST PASS
	00000040	TCMEXP2M	EQU	X'40'	FLAG
9E 00027	TCMEXP3	EQU	TCMEXP		EXPRESS MODE NOT 1ST PASS
	00000020	TCMEXP3M	EQU	X'20'	MASK
9E 00027	TCMEXP4	EQU	TCMEXP		ABEND CC = 2 IN EXPRESS
	00000010	TCMEXP4M	EQU	X'10'	BATCH FLAG
9E 00028	TCMPNT	DS	XL1		ABEND CC = 2 IN EXPRESS
	9E 00028	TCMPN1	EQU	TCMPNT	BATCH MASK
	00000001	TCMPN1M	EQU	X'01'	EXPRESS BATCH SYNAD FLAG
9E 00029	TCMUN3	DS	X		M3895
	00000001	TCMSOP	EQU	X'01'	EXPRESS BATCH SYNAD MASK
9E 0002A	TCMLOK	DS	XL1		M3895
	9E 0002A	TCMOK1	EQU	TCMLOK	NON- CONVERSATIONAL PRINT
	00000001	TCMOK1M	EQU	X'01'	FLAG - BIN.
9E 0002B	TCMRUN	DS	XL1		PRINT SYSOUT FLAG
	9E 0002B	TCMRN1	EQU	TCMRUN	PRINT SYSOUT MASK
	00000001	TCMRN1M	EQU	X'01'	FLAGS
9E 0002C	TCMLFP	DS	XL1		I6503
	9E 0002C	TCMLP1	EQU	TCMLFP	SYSOUT PRINTED FLAG
	00000001	TCMLP1M	EQU	X'01'	I6503
9E 0002D	TCMATT	DS	XL1		LOGON OK FLAG - BINARY
	9E 0002D	TCMMT1	EQU	TCMATT	TASK LOGGED ON FLAG
	00000000	TCMMT1M	EQU	X'00'	TASK LOGGED ON MASK
9E 0002D	TCMMT2	EQU	TCMATT		RUN FLAG
	00000001	TCMMT2M	EQU	X'01'	USER PROGRAM FLAG
9E 0002E	TCMLOD	DS	XL1		USER PROGRAM MASK
	9E 0002E	TCMLD1	EQU	TCMLOD	LEFT PAREN SWITCH FLAG
	00000001	TCMLD1M	EQU	X'01'	IS LEFT PAREN FLAG
9E 0002F	TCMTMT	DS	XL1		IS LEFT PAREN FLAG
	9E 0002F	TCMTM1	EQU	TCMTMT	ATTENTION INTERRUPT FLAG.
	00000000	TCMTM1M	EQU	X'00'	SET BY THE DIRECTOR.
	9E 0002F	TCMTM2	EQU	TCMTMT	SYSTEM CONTROLS ATTENTION
	00000001	TCMTM2M	EQU	X'01'	INTERRUPT FLAG
9E 00030	TCMLNG	DS	F		SYSTEM CONTROLS ATTENTION
	9E 00030	TCMDDN	DS	F	INTERRUPT MASK
	00000001	TCMDDN	DS	F	USER CONTROLS OWN ATTENTION
9E 00034	TCMVLJ	DS	A		INT FLAG
	9E 00034	TCMVLJ	DS	A	USER CONTROLS OWN ATTENTION
	00000001	TCMVLJ	DS	A	INT MASK
9E 00038	TCMVDL	DS	A		LOAD FLAG - BINARY
	9E 00038	TCMVDL	DS	A	MODULE LOADED BUT NOT RUN
	00000001	TCMVDL	DS	A	FLAG
9E 0003C	TCMTDT	DS	F		MODULE LOADED BUT NOT RUN
	9E 0003C	TCMTDT	DS	F	MASK
	00000001	TCMTDT	DS	F	TERMINAL COMPONENT FLAG
9E 00040	TCMINP	DS	1500CL1		TYPEWRITE FLAG
9E 0061C	TCMGRD	DS	XL1		TYPEWRITER MASK
	9E 0061C	TCMGD1	EQU	TCMGRD	CARD READER FLAG
	00000000	TCMGD1M	EQU	X'00'	CARD READER MASK
	9E 0061C	TCMGD2	EQU	TCMGRD	MAX. CHARACTER LINE LENGTH
	00000001	TCMGD2M	EQU	X'01'	- BINARY
9E 0061D	TCMSFG	DS	XL1		GENERATED DDNAME COUNTER -
	9E 0061D	TCMSF1	EQU	TCMSFG	BINARY
	00000001	TCMSF1M	EQU	X'01'	ADDR. OF USER TABLE ENTRY
	9E 0061D	TCMSF2	EQU	TCMSFG	IN SHARED VM
	00000001	TCMSF2M	EQU	X'01'	TASK DEFINITION TABLE
	00000001	TCMSF2M	EQU	X'01'	POINTER - ADCON
	00000001	TCMSF2M	EQU	X'01'	COMMAND INPUT AREA
	00000001	TCMSF2M	EQU	X'01'	RECORD LENGTH TYPE
	00000001	TCMSF2M	EQU	X'01'	RECORD LENGTH VARIABLE FLAG
	00000001	TCMSF2M	EQU	X'01'	RECORD LENGTH VARIABLE MASK
	00000001	TCMSF2M	EQU	X'01'	RECORD LENGTH FIXED FLAG
	00000001	TCMSF2M	EQU	X'01'	RECORD LENGTH FIXED MASK
	00000001	TCMSF2M	EQU	X'01'	SHUTDOWN FLAG
	00000001	TCMSF2M	EQU	X'01'	SHUTDOWN IN PROGRESS FLAG
	00000001	TCMSF2M	EQU	X'01'	SHUTDOWN IN PROGRESS MASK
	00000001	TCMSF2M	EQU	X'01'	TASK HAS ABENDED FLAG

(Listing of CHATCM continued on page 425)

(Listing of CHATCM continued from page 424)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			I6385
	00000002	TCMSF2M	EQU	X'02'	TASK HAS ABENDED MASK
		*			I6385
9E 0061E		TCMAUD	DS	AL2	OFFSET IN CHAAUL OF THIS
		*			TASK
9E 00620			DS	0F	ALIGNMENT FOR USER TABLE
		*			DCB
9E 00620		TCMDC1	DS	368CL1	RESERVE SPACE FOR USER
		*			TABLE DCB
	9E 00620		<u>ORG</u>	TCMDC1	
		*			USER TABLE DCB
		TCMDCU	DCB	DSORG=VI,	DDNAME=SYSUSE, LRECL=256, RKP=8, KEYLEN=
9E 00620		TCMDCU	DS	0D	DOUBLE WORD ALIGNMENT
9E 00620			DC	AL1(113)	DSORG BYTE
		*			0
9E 00621			DC	FL1'0'	BYTE 1
9E 00622			DC	FL2'0'	MACRF NOT SPECIFIED BYTES
		*			2-3
9E 00624			DC	A(0)	EXLIST
		*			BYTES 4-7
9E 00628			DC	CL8'SYSUSE'	DDNAME
		*			BYTES 8-15
9E 00630			DC	A(0)	SYNAD NOT SPECIFIED BYTES
		*			16-19
9E 00634			DC	A(0)	SYNAD NOT SPECIFIED BYTES
		*			20-23
9E 00638			DC	A(0)	EODAD NOT SPECIFIED BYTES
		*			24-27
9E 0063C			DC	A(0)	EODAD NOT SPECIFIED BYTES
		*			28-31
9E 00640			DC	AL2(0)	BUFL BYTES
		*			32-33
9E 00642			DC	AL1(0)	DEVD BYTE
		*			34
9E 00643			DC	FL1'0'	BUFNO NOT SPECIFIED BYTE
		*			35
9E 00644			DC	F'0'	BUFCB NOT SPECIFIED BYTES
		*			36-39
9E 00648			DC	FL1'0'	BFTEK=S OR NOT SPEC BYTE
		*			40
9E 00649			DC	FL1'0'	NCP NOT SPECIFIED BYTE
		*			41
9E 0064A			DC	AL1(0)	RECFM BYTE
		*			42
9E 0064B			DC	AL1(4)	OPTCD (PKP=0, PAD=0) BYTE 43
9E 0064C			DC	A(256)	LRECL BYTES
		*			44-47
9E 00650			DC	FL2'0'	BLKSIZE NOT SPEC. BYTES
		*			48-49
9E 00652			DC	AL1(8)	KEYLEN BYTE
		*			50
9E 00653			DC	FL1'0'	DEVICE DEP. PARAM 2 NOT
		*			SPEC. BYTE 51
9E 00654			DC	FL1'0'	EROPT NOT SPECIFIED BYTE
		*			52
9E 00655			DC	FL1'0'	PAD NOT SPECIFIED BYTE
		*			53
9E 00656			DC	AL2(8)	RKP BYTES
		*			54-55
9E 00658			DC	3F'0'	BYTES 56-67
9E 00664			DC	C'***'	DCB I. D. BYTES
		*			68-71
9E 00668			DC	3F'0'	BYTES 72-83
9E 00674			DC	X'FFFFFFF'	IMSK
		*			BYTES 84
9E 00678			DC	4D'0'	
9E 00698			DC	X'0'	RETRY NOT SPECIFIED
9E 00699			DC	X'0'	NO POCKET SPECIFIED

(Listing of CHATCM continued on page 426)

(Listing of CHATCM continued from page 425)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
9E 0069A		*	DC	X'00'	INHMSG NOT SPECIFIED BYTE 122 NO COMBINE
9E 0069B		*	DC	X'0'	
9E 0069C		*	DC	F'0'	
9E 006A0		*	DC	7D'0'	
9E 006D8		*	DC	F'0'	
9E 006DC		*	DC	CL1'0'	FORMTYP NOT SPECIFIED BYTE 188
9E 006DD		*	DC	3X'00'	
9E 006E0		*	DC	F'0'	
9E 006E4		*	DC	X'00'	RJE NOT SPECIFIED BYTE 196
9E 006E5		*	DC	3X'00'	
9E 006E8		TCMBSN	DS	CL4	NON CONVERSATIONAL TASKS BATCH SEQUENCE NUMBER
9E 006EC		TCMBSM	DS	CL4	BSN ASSGND CMD/MACRO ISSUED I5525
9E 006F0		TCMFIR	DS	CL1	FORTRAN INTERRUPT RECOVERY
9E 006F1		TCMABN	DS	CL1	
9E 006F2	00000001	TCMSAR	EQU	X'01'	SPECIAL PURPOSE ABEND
		TCMMTT	DS	CL1	MTT APPLICATION TASK FLAG N386**
	00000001	TCMMTM	EQU	X'01'	MTT APPLICATION TASK MASK N386**
9E 006F3		TCMSPA	DS	XL1	RESERVED N386
9E 006F4		TCMABV	DS	CL4	VCON OF SPECIAL PURPOSE
9E 006F8		TCMABR	DS	CL4	RCON-ABEND ROUTINE
9E 006FC		TCMTOS	DS	2F	SIGN-ON TIME--MICROSECONDS SINCE 3/1/00
9E 00704		TCMSTA	DS	CL8	RJE STATION IDENTIFICATION
9E 0070C		TCMTCT	DS	F	TCT POINTER FOR TASK (RTAM)
9E 00710		TCMAUX	DS	F	AMT OF AUX STORAGE ASSIGNED TO TASK
9E 00714		TCMCXD	DS	F	LENGTH OF CURRENT PRV TABLE N480
9E 00718		TCMAST	DS	A	ADDR OF AVAILABLE SLOT TABLE N480
9E 0071C		TCMLST	DS	F	LENGTH OF AVAILABLE SLOT TABLE N480



Terminal Control Table (CHATCT)

Two types of TCT exist in TSS: system TCTs contain an entry for each task attached to the system, and are used by RTAM to locate a task which is ready to use TSS/360; application TCTs contain data describing the activity of each terminal attached to an MTT task, and are used by RTAM to regulate the processing of all attached tasks. CHATCT occupies one full page of storage.

CHATCT Storage map

DEC	HEX				
0	0	TCTLCK	TCTSTS	TCTMLN	TCTVMA
8	8	TCTTIO		TCTRLN	TCTFL1   TCTFL2
16	10	TCTCOL			
24	18	TCTTDE		TCTDTY	TCTWFD
32	20	TCTPDA	TCTSDA	TCTBUF	
40	28	TCTCNT	TCTUSE	TCTFL4   UNNAMED	TCTTSI
48	30	RESERVED			
4080	FF0	TCTFPV		TCTBPV	
4088	FF8	TCTABC	TCTLOC	TCTATS	UNNAMED

ORG TCTCOL

16	10	TCTWTC	TCTCWT	TCTRDC	TCTCRD
----	----	--------	--------	--------	--------

ORG TCTWFD

29	1D	TCTWSV	TCTWVK	TCTWRS
----	----	--------	--------	--------

Fields in CHATCT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TCTLCK	0020	0014	TCTRDC	0040	0028	TCTCNT
0001	0001	TCTSTS	0023	0017	TCTCRD	0041	0029	TCTTTY (EQU)
0002	0002	TCTMLN	0024	0018	TCTTDE	0041	0029	TCTUSE
0004	0004	TCTVMA	0028	001C	TCTDTY	0042	002A	TCTCK (EQU)
0008	0008	TCTTIO	0029	001D	TCTWSV	0042	002A	TCTFL4
0012	000C	TCTRLN	0029	001D	TCTWFD	0044	002C	TCTTSI
0014	000E	TCTFL1	0030	001E	TCTWVK	4080	0FF0	TCTFPV
0015	000F	TCTFL2	0031	001F	TCTWRS	4084	0FF4	TCTBPV
0016	0010	TCTWTC	0032	0020	TCTPDA	4088	0FF8	TCTABC
0016	0010	TCTCOL	0034	0022	TCTSDA	4090	0FFA	TCTLOC
0019	0013	TCTCWT	0036	0024	TCTBUF	4091	0FFB	TCTATS

Alphabetical list of fields in CHATCT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TCTABC	4088	0FF8	TCTFL2	0015	000F	TCTTDE	0024	0018
TCTATS	4091	0FFB	TCTFL4	0042	002A	TCTTIO	0008	0008
TCTBPV	4084	0FF4	TCTFPV	4080	0FF0	TCTTSI	0044	002C
TCTBUF	0036	0024	TCTLCK	0000	0000	TCTTTY	0041	0029 (EQU)
TCTCK	0042	002A (EQU)	TCTLOC	4090	0FFA	TCTUSE	0041	0029
TCTCNT	0040	0028	TCTMLN	0002	0002	TCTVMA	0004	0004
TCTCOL	0016	0010	TCTPDA	0032	0020	TCTWFD	0029	001D
TCTCRD	0023	0017	TCTRDC	0020	0014	TCTWRS	0031	001F
TCTCWT	0019	0013	TCTRLN	0012	000C	TCTWSV	0029	001D
TCTDTY	0028	001C	TCTSDA	0034	0022	TCTWTC	0016	0010
TCTFL1	0014	000E	TCTSTS	0001	0001	TCTWWK	0030	001E

Assembler listing of CHATCT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	9F 00000	CHATCT	DSECT		
9F 00000		TCTLCK	DS	X	LOCK BYTE
9F 00001		TCTSTS	DS	X	STATUS BYTE -(SET BY TCS ROUT)
	00000080	TCTCMP	EQU	X'80'	PREPARE CCW INDICATOR BIT
	00000040	TCTRDR	EQU	X'40'	READ REQUIRED BIT
	00000020	TCTBFO	EQU	X'20'	BUFFER OVERFLOW
	00000010	TCTPCI	EQU	X'10'	PCI BIT
	00000008	TCTDAT	EQU	X'08'	TWO PAGE DATA AREA
	00000004	TCTSPP	EQU	X'04'	SUPERVISOR PAGE FOR WRITE DATA
	00000002	TCTCNP	EQU	X'02'	COMPLETE IO BIT
	00000001	TCTHIO	EQU	X'01'	HALT I/O FLAG
9F 00002		TCTMLN	DS	H	MESSAGE LENGTH IN AND OUT
9F 00004		TCTVMA	DS	F	VM ADDRESS OF BUFFER
9F 00008		TCTTIO	DS	F	REAL CORE ADDRESS -FIRST TIOCB
		*			
9F 0000C		TCTRLN	DS	H	RELATIVE LINE NUMBER
9F 0000E		TCTFL1	DS	X	FLAG BYTE 1 -(SET BY MACRO SVC)
		*			
	00000080	TCTFRD	EQU	X'80'	READ OPERATION
	00000040	TCTFWT	EQU	X'40'	WRITE OPERATION
	00000020	TCTFWR	EQU	X'20'	WRITE/RESPONSE OPERATION
	00000010	TCTFCL	EQU	X'10'	CLEAR OPERATION
	00000008	TCTFFR	EQU	X'08'	FREE OPERATION
9F 0000F		TCTFL2	DS	X	FLAG BYTE 2 -(SET BY MACRO SVC)
		*			
	00000080	TCTFIR	EQU	X'80'	INTERRUPT REQUIRED ON TASK
	00000040	TCTFTI	EQU	X'40'	TRANSLATE ON IN MESSAGES
	00000020	TCTFTO	EQU	X'20'	TRANSLATE ON OUT MESSAGES
	00000010	TCTFBK	EQU	X'10'	BREAK TO BE ISSUED
9F 00010		TCTCOL	DS	D	CONTROL CHARACTERS
	9F 00010	ORG	TCTCOL		
9F 00010		TCTWTC	DS	3X	WRITE CONTROL
9F 00013		TCTCWT	DS	X	COMPONENT WRITE CONTROL
9F 00014		TCTRDC	DS	3X	READ CONTROL
9F 00017		TCTCRD	DS	X	COMPONENT READ CONTROL
9F 00018		TCTTDE	DS	F	REAL CORE ADDRESS OF TDE ENTRY
		*			
9F 0001C		TCTDTY	DS	X	DEVICE TYPE
	00000000	TCTDT0	EQU	X'00'	SLOT AVAILABLE MASK
	00000001	TCTDT1	EQU	X'01'	1050 PTTC/8
	00000002	TCTDT2	EQU	X'02'	2741 CORRESPONDENCE
	00000003	TCTDT3	EQU	X'03'	2741 PTTC/8
	00000004	TCTDT4	EQU	X'04'	TTY35 ASCII
	00000005	TCTDT5	EQU	X'05'	1052-7
9F 0001D		TCTWFD	DS	3X	WORK FIELD
	9F 0001D	ORG	TCTWFD		
9F 0001D		TCTWSV	DS	X	SAVE BYTE
9F 0001E		TCTWWK	DS	X	WORK BYTE
	00000080	TCTWW1	EQU	X'80'	MESSAGE IN

(Listing of CHATCT continued on page 429)

(Listing of CHATCT continued from page 428)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000040	TCTWW2	EQU	X'40'	MESSAGE OUT
	00000020	TCTWW3	EQU	X'20'	ATTENTION
	00000010	TCTWW4	EQU	X'10'	INITIAL CONNECTION
	00000008	TCTWW5	EQU	X'08'	UNRECOVERABLE ERROR
	00000004	TCTWW6	EQU	X'04'	NEG POLLING RESPONSE
	00000002	TCTWW7	EQU	X'02'	BUFFER OVERFLOW FLAG
	00000001	TCTWW8	EQU	X'01'	REISSUE I/O FOR VSS
	00000028	TCTWW9	EQU	X'28'	SOLID IO FAILURE WITH INT REQ
		*			
9F 0001F		TCTWRS	DS	X	RESET BYTE
9F 00020		TCTPDA	DS	H	PHYSICAL DEVICE ADDRESS
9F 00022		TCTSDA	DS	H	SYMBOLIC DEVICE ADDRESS
9F 00024		TCTBUF	DS	F	REAL BUFFER ADDRESS
9F 00028		TCTCNT	DS	X	RETRY COUNTER
	00000004	TCTMAX	EQU	X'04'	MAX COUNT
	00000000	TCTZER	EQU	X'00'	ZERO COUNT
9F 00029		TCTUSE	DS	X	CONTROL BYTE
	00000080	TCTTSS	EQU	X'80'	TCT IS FOR TSS USE
	9F 00029	TCTTTY	EQU	TCTUSE	LINE FEED SUPPRESS FLAG
	00000040	TCTTTYM	EQU	X'40'	LINE FEED SUPPRESS MASK
	00000020	TCTHLD	EQU	X'20'	TERMINAL HELD; TASK BEING N393
		*			
		*			ABENDED (1=HELD), SET BY ABEND N393
		*			
	00000010	TCTDED	EQU	X'10'	RETRY ON INTERVENTION REQUIRED
		*			
	00000008	TCTPWRT	EQU	X'08'	FOR DEDICATED LINES PREVIOUS OPERATION WRITE FOR 1050 N383
		*			
9F 0002A		TCTFL4	DS	X	FOURTH FLAG BYTE N445.2
		*			
	9F 0002A	TCTCK	EQU	TCTFL4	CKALOC ISSUED FOR TERMINAL N445.2
		*			
	00000080	TCTCKM	EQU	X'80'	CKALOC ISSUED MASK N445.2
		*			
9F 0002B			DS	X	RESERVED N445.2
		*			
9F 0002C		TCTTSI	DS	F	TSI POINTER
	00000030	TCTLGH	EQU	*-TCTLCK	LENGTH OF ENTRY
	9F 00FF0		ORG	TCTLCK+4080	
	00000FEF	TCTMLG	EQU	*-TCTLCK-1	LENGTH OF TABLE
9F 00FF0		TCTFPV	DS	F	TCT FORWARD POINTER
9F 00FF4		TCTBPV	DS	F	TCT BACKWARD POINTER
9F 00FF8		TCTABC	DS	H	UNUSED
9F 00FFA		TCTLOC	DS	X	LOCK BYTE
9F 00FFB		TCTATS	DS	X	ACTIVE SLOT
	00000055	TCTMAT	EQU	(TCTMLG+1)/TCTLGH	NUMBER OF ENTRIES
9F 00FFC			DS	F	UNUSED

Terminal Device Table (CHATDE)

CHATDE is a resident table which contains one entry for each terminal using RTAM. Each entry contains STARTUP/SYSGEN information for one symbolic Terminal Device. Each CHATDE entry occupies 24 bytes of storage.

CHATDE Storage map

DEC	HEX	TDEFTD				TDELTD
0	0					
8	8	TDESDA	TDESTA	TDELCD	TDEDEV	
16	10	TDELOCK	TDESIOCT	TDESTA2	UNNAMED	TDECNT

ORG TDEDEV

DEC	HEX	TDEDEA	TDEDEB	TDEDEC	TDEDED
12	C				

Fields in CHATDE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TDEFTD	0012	000C	TDEDEA	0016	0010	TDELOCK
0004	0004	TDELTD	0012	000C	TDEDEV	0017	0011	TDESIOCT
0008	0008	TDESDA	0013	000D	TDEDEB	0018	0012	TDESTA2
0010	000A	TDESTA	0014	000E	TDEDEC	0020	0014	TDECNT
0011	000B	TDELCD	0015	000F	TDEDED			

Alphabetical list of fields in CHATDE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TDECNT	0020	0014	TDEDEV	0012	000C	TDESDA	0008	0008
TDEDEA	0012	000C	TDEFTD	0000	0000	TDESIOCT	0017	0011
TDEDEB	0013	000D	TDELCD	0011	000B	TDESTA	0010	000A
TDEDEC	0014	000E	TDELOCK	0016	0010	TDESTA2	0018	0012
TDEDED	0015	000F	TDELTD	0004	0004			

Assembler listing of CHATDE

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	A0 00000	CHATDE	DSECT		
A0 00000	TDEFTD	DS	F		FIRST TERMINAL DEVICE POINTER
A0 00004	TDELTD	DS	F		LAST TERMINAL DEVICE POINTER
A0 00008	TDESDA	DS	H		SYMBOLIC DEVICE ADDRESS
A0 0000A	TDESTA	DS	X		TERMINAL STATUS BYTE
	00000080	TDEST1	EQU	X'80'	INITIAL INTERRUPT
	00000040	TDEST2	EQU	X'40'	TERMINAL TYPE
	00000020	TDEST3	EQU	X'20'	INITIAL READ OPERATION
	00000010	TDEST4	EQU	X'10'	LINE CODE AND DESTINATION
	00000008	TDEST5	EQU	X'08'	HIO FOR TIMER ISSUED
		*			M3660
	00000004	TDEST6	EQU	X'04'	EXIT TO QUEUE SCANNER
	00000002	TDEST7	EQU	X'02'	TERMINAL HELD BY OPERATOR
		*			N393
		*			(1=HELD) SET OR RESET BY
		*			HOLD N393
		*			AND DROP VIA SETTDE MACRO
		*			N393
A0 0000B	00000001	TDEST8	EQU	X'01'	PATHFINDING MASK
		TDELCD	DS	X	LINE CODE
	00000001	TDELC1	EQU	X'01'	1050 PTTTC/8 (FOLDED)
	00000002	TDELC2	EQU	X'02'	2741 CORRESPONDENCE
	00000003	TDELC3	EQU	X'03'	2741 PTTTC/8 (FOLDED)
	00000004	TDELC4	EQU	X'04'	TTY35 ASCII (FOLDED)

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(Listing of CHATDE continued from page 430)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000005	TDELC5	EQU	X'05'	1052-7
A0 0000C		TDEDEV	DS	F	DEVICE CODE
	A0 0000C		ORG	TDEDEV	
A0 0000C		TDEDEA	DS	X	MODEL CODE
	00000001	TDEMCA	EQU	X'01'	1050 TERMINAL
	00000002	TDEMCB	EQU	X'02'	2741 TERMINAL
	00000003	TDEMCC	EQU	X'03'	TTY35 TERMINAL
	00000004	TDEMCD	EQU	X'04'	1052 MOD-7 TERMINAL
A0 0000D		TDEDEB	DS	X	DEVICE CLASS
	00000001	TDEDCA	EQU	X'01'	DIAL LINE
	00000002	TDEDCB	EQU	X'02'	DEDICATED LINE
	00000004	TDEDCD	EQU	X'04'	AUTOMATIC CALL FEATURE
	00000008	TDEBUR	EQU	X'08'	DEVICE CLASS UNIT RECORD
	00000020	TDEBDA	EQU	X'20'	DEVICE CLASS DIRECT ACCESS
	00000080	TDEBMT	EQU	X'80'	DEVICE CLASS MAGNETIC TAPE
A0 0000E		TDEDEC	DS	X	UNIT TYPE
	00000010	TDEUT1	EQU	X'10'	IBM TERMINAL CONTROL TYPE 1
	00000020	TDEUT2	EQU	X'20'	IBM TERMINAL CONTROL TYPE 2
	00000030	TDEUT3	EQU	X'30'	TELEGRAPH CONTROL TYPE 1
	00000040	TDEUT4	EQU	X'40'	TELEGRAPH CONTROL TYPE 2
	00000080	TDEUT5	EQU	X'80'	WORLD TRADE TERMINAL
		*			CONTROL
	00000001	TDEUTA	EQU	X'01'	2702 TRANSMISSION CONTROL
	00000002	TDEUTB	EQU	X'02'	2701 ON MULTIPLEXOR CHANNEL
	00000003	TDEUTC	EQU	X'03'	MULTIPLEXOR CHANNEL MASK
	00000004	TDEUTD	EQU	X'04'	SELECTOR CHANNEL
	00000005	TDEUTE	EQU	X'05'	2701 ON SELECTOR CHANNEL
	00000006	TDEUTF	EQU	X'06'	2703 TRANSMISSION CONTROL
	00000001	TDECRD	EQU	X'01'	2540 CARD READER
	00000002	TDECPN	EQU	X'02'	2540 CARD PUNCH
	00000008	TDECPY	EQU	X'08'	1403 PRINTER
	00000010	TDEPPT	EQU	X'10'	2671 PPT READER
	00000001	TDEDA11	EQU	X'01'	2311 D/A
	00000002	TDEDA01	EQU	X'02'	2301 D/A
	00000003	TDEDA21	EQU	X'03'	2321 D/A
	00000008	TDEDA14	EQU	X'08'	2314 D/A
	00000001	TDETAPE	EQU	X'01'	2400 SERIES
A0 0000F		TDEDED	DS	X	OPTIONAL FEATURES
	00000010	TDEOFA	EQU	X'10'	IBM LINE ADAPTER TYPE 1
	00000020	TDEOFB	EQU	X'20'	IBM LINE ADAPTER TYPE 2
	00000030	TDEOFC	EQU	X'30'	DATA SET LINE ADAPTER
	00000040	TDEOFD	EQU	X'40'	AUTOMATIC CALL ADAPTER
	00000050	TDEOFE	EQU	X'50'	TELEGRAPH LINE ADAPTER
	00000000	TDEOF1	EQU	X'00'	SAD ZERO
	00000001	TDEOF2	EQU	X'01'	SAD ONE
	00000002	TDEOF3	EQU	X'02'	SAD TWO
	00000003	TDEOF4	EQU	X'03'	SAD THREE
	00000040	TDEPFR	EQU	X'40'	PUNCH FEED READ
	00000080	TDEOCI	EQU	X'80'	CARD IMAGE
	00000080	TDEDUC	EQU	X'80'	UNIVERSAL CHARACTER SET
	00000080	TDESCN	EQU	X'80'	SCAN
	00000040	TDETRV	EQU	X'40'	TRACK OVERFLOW
	000000B0	TDESTO	EQU	X'B0'	SCAN AND TRACK OVERFLOW
	000000E0	TDETPW	EQU	X'E0'	7-TRACK WITH DATA
		*			CONVERSION
	000000A0	TDETPN	EQU	X'A0'	7-TRACK WITHOUT DATA
		*			CONVERSION
	000000C0	TDETR9	EQU	X'C0'	9-TRACK TAPE
	00000080	TDETP9	EQU	X'80'	9-TRACK TAPE
A0 00010		TDELOCK	DS	X	INDIVIDUAL TERMINAL LOCK
		*			M3660
A0 00011		TDESIOCT	DS	X	ENABLE/PREPARE COUNT
		*			M3302
	00000003	TDESIOCM	EQU	X'03'	MAX ENABLE/PREPARE
		*			M3302
A0 00012		TDESTA2	DS	X	TDE FLAG BYTE TWO
	A0 00012	TDEATM	EQU	TDESTA2	ATTENTION TIMER FLAG
	00000080	TDEATMM	EQU	X'80'	1=ATTENTION TIMER RUNNING

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(Listing of CHATDE continued from Page 431)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	A0 00012	TDEFRT	EQU	TDESTA2	FREEQ FLAG
	00000040	TDEFRTM	EQU	X'40'	1=FREEQ DURING ATTN. TIMEOUT
		*			M4335
A0 00013			DS	X	RESERVED
A0 00014		TDECNT	DS	F	ERROR COUNTS
*	BITS USE		INDEX	VALUE	
*	0-5	INITIAL ERR	INDEX	0	*
*	6-7	LOST DATA		2	*
*	8-9	DATA CHECK		4	*
*	10-11	INTERVENTION	REQD	6	*
*	12-13	TIME OUT		8	*
*	14-15	OVERRUN		A	*
*	16-17	BUS-OUT CHECK		C	*
*	18-19	UNIT EX. DATA	OUT	E	*
*	20-21	UNUSED		10	*
	00000010	TDELGH	EQU	*-TDESDA	LENGTH OF TDE ENTRY

Task Data Definition Table (CHATDT)

The Task Data Definition Table (TDT) describes the characteristics and current status of all the data sets associated with a task.

The TDT, residing in a protected area of a task's virtual storage, is located by a pointer at a fixed address in segment 0, page 0. The TDT consists of a 16 byte header and a variable number of job file control block (JFCB) entries.

Sixteen bytes of virtual storage are allocated to the TDT header while each JFCB occupies 240 bytes of virtual storage, both aligned on doubleword boundaries. In addition, a 32 byte appendage to the volume field of the JFCB is required for more than three volume serials. This appendage is also aligned on doubleword boundaries.

CHATDT Storage map

DEC	HEX							
0	0	TDTJ10		TDTF10				
8	8	TDTPL1		TDTT11				
16	10	TDTDDN						
24	18	TDTDS1						
56	38	TDTDS2						
96	60	TDTDSV						
104	68	TDTDSR						
112	70	TDTDSM						
120	78	TDTDEV		TDTUAF				
128	80	TDTSP0	TDTSP1	TDTSP2	TDTSP3			
136	88	TDTARL		TDTVNO	TDTVSQ			
144	90	TDTCDT		TDTEDT	TDTOPN			
152	98	TDTVPY	TDTREF	TDTFSQ	TDTCFL	TDTAQL	TDTSHC	TDTLAB
160	A0	TDTDEB			TDTDSP	TDTPAR	TDTDCI	
168	A8	TDTPVS			TDTLLK			
176	B0	TDTTLK			TDTCNC			
184	B8	TDTCC1			TDTBLK	TDTSDA		
192	C0	TDTDSO	TDTMAC		TDTBFL	TDTDVD	TDTBFN	
200	C8	TDTBTK	TDTNCP	TDTRFM	TDTOCD	TDTLRL		
208	D0	TDTBSZ		TDTOP1	TDTOP2	TDTERO	TDTPAD	TDRKRP
216	D8	TDTIMK			UNNAMED		TDTRES	

(CHATDT continued on page 434)

(CHATDT continued from page 433)

DEC	HEX		
224	E0	TDTV F1	TDTID1
232	E8	TDTID2	
248	F8	TDTAPN	TDTAPP
256	100	TDTAV1	TDTAI1
264	108	TDTAI2	
280	118	TDTAP1	TDTAP2

ORG TDTDEV

120	78	TDTMDL	TDTDVT	TDTUNT	TDTFEA
-----	----	--------	--------	--------	--------

ORG TDTUAF

124	7C	TDTDSC
-----	----	--------

ORG TDTARL

136	88	TDTDUP
-----	----	--------

ORG TDTDSP

164	A4	TDTDP1	TDTDS
-----	----	--------	-------

ORG TDTV F1+1

225	E1	TDTLFN
-----	----	--------

ORG TDTID1

226	E2	TDTSMA	TDTSDI
-----	----	--------	--------

Fields in CHATDT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TDTJ10	0123	007B	TDTFEA	0152	0098	TDTV PY
0004	0004	TDTF10	0124	007C	TDTDSC	0153	0099	TDTREF
0008	0008	TDTPL1	0124	007C	TDTUAF	0154	009A	TDTFSQ
0012	000C	TDTT1	0128	0080	TDTSP0	0156	009C	TDT CFL
0016	0010	TDTDDN	0129	0081	TDTSP1	0157	009D	TDTARO (EQU)
0024	0018	TDTDS1	0132	0084	TDTSP2	0157	009D	TDTARW (EQU)
0059	003B	TDTDS2	0133	0085	TDTSP3	0157	009D	TDTAU (EQU)
0103	0067	TDTDSV	0136	0C88	TDTDUP	0157	009D	TDTDAC (EQU)
0104	0068	TDTDSR	0136	0088	TDTARL	0157	009D	TDTDAL (EQU)
0112	0070	TDTDSM	0140	008C	TDTVNO	0157	009D	TDTNDF (EQU)
0120	0078	TDTMDL	0142	008E	TDTVSQ	0157	009D	TDTTDS (EQU)
0120	0078	TDTDEV	0144	0090	TDTCDT	0157	009D	TDT PDS (EQU)
0121	0079	TDTDVT	0147	0093	TDTEDT	0157	009D	TDTAQL
0122	007A	TDTUNT	0150	0096	TDTOPN	0158	009E	TDTSHC

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DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD		
0159	009F	TDTRPS2	(EQU)	0192	00C0	TDTDCB	0224	00E0	TDTVVF1	
0159	009F	TDTRPS1	(EQU)	0194	00C2	TDTMAC	0224	00E0	TDTVOL	
0159	009F	TDTRPS	(EQU)	0196	00C4	TDTBFL	0225	00E1	TDTLFN	
0159	009F	TDTAUL	(EQU)	0198	00C6	TDTDVD	0225	00E1	TDTV9 (EQU)	
0159	009F	TDTAL	(EQU)	0199	00C7	TDTBFN	0225	00E1	TDTV8 (EQU)	
0159	009F	TDTSU	(EQU)	0200	00C8	TDTBTK	0226	00E2	TDTSMA	
0159	009F	TDTSL	(EQU)	0201	00C9	TDTNCP	0226	00E2	TDTID1	
0159	009F	TDTNL	(EQU)	0202	00CA	TDTRFM	0228	00E4	TDTSDI	
0159	009F	TDTLAB		0203	00CB	TDOCD	0232	00E8	TDTID2	
0160	00A0	TDTDEB		0204	00CC	TDTLRL	0248	00F8	TDTAPN	
0164	00A4	TDTDP1		0208	00D0	TDTBSZ	0252	00FC	TDTAPP	
0164	00A4	TDTDSP		0210	00D2	TDTOP1	0256	0100	TDTA7 (EQU)	
0165	00A5	TDTDS		0211	00D3	TDTOP2	0256	0100	TDTA6 (EQU)	
0165	00A5	TDTRCT	(EQU)	0212	00D4	TDTERO	0256	0100	TDTA5 (EQU)	
0166	00A6	TDTSDI	(EQU)	0213	00D5	TDTBOF	(EQU)	0256	0100	TDTA4 (EQU)
0166	00A6	TDTVRO	(EQU)	0213	00D5	TDTPAD		0256	0100	TDTA3 (EQU)
0166	00A6	TDTPAR		0214	00D6	TDTRKP		0256	0100	TDTA2 (EQU)
0167	00A7	TDTDCS	(EQU)	0216	00D8	TDTVTA	(EQU)	0256	0100	TDTA1 (EQU)
0167	00A7	TDTNDC	(EQU)	0216	00D8	TDTIMK		0256	0100	TDTA0 (EQU)
0167	00A7	TDTDCI		0222	00DE	TDTRES		0256	0100	TDTAV1
0168	00A8	TDTPVS		0224	00E0	TDTV7	(EQU)	0257	0101	TDTA9 (EQU)
0172	00AC	TDTLLK		0224	00E0	TDTV6	(EQU)	0257	0101	TDTA8 (EQU)
0176	00B0	TDTTLK		0224	00E0	TDTV5	(EQU)	0258	0102	TDTAI1
0180	00B4	TDTCNC		0224	00E0	TDTV4	(EQU)	0260	0104	TDTAD1 (EQU)
0184	00B8	TDTCC1		0224	00E0	TDTV3	(EQU)	0264	0108	TDTAI2
0188	00BC	TDTBLK		0224	00E0	TDTV2	(EQU)	0280	0118	TDTAP1
0190	00BE	TDTSDA		0224	00E0	TDTV1	(EQU)	0284	011C	TDTAP2
0192	00C0	TDTDSO		0224	00E0	TDTV0	(EQU)			

Alphabetical list of fields in CHATDT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX			
TDTAD1	0260	0104	(EQU)	TDTDCB	0192	00C0	TDTNL	0159	009F	(EQU)	
TDTAI1	0258	0102		TDTDCI	0167	00A7	TDOCD	0203	00CB		
TDTAI2	0264	0108		TDTDCS	0167	00A7	(EQU)	TDTOPN	0150	0096	
TDTAL	0159	009F	(EQU)	TDTDDN	0016	0010		TDTOP1	0210	00D2	
TDTAPN	0248	00F8		TDTDEB	0160	00A0		TDTOP2	0211	00D3	
TDTAPP	0252	00FC		TDTDEV	0120	0078		TDTPAD	0213	00D5	
TDTAP1	0280	0118		TDTDP1	0164	00A4		TDTPAR	0166	00A6	
TDTAP2	0284	011C		TDTDS	0165	00A5		TDTPDS	0157	009D	(EQU)
TDTAQL	0157	009D		TDTDSC	0124	007C		TDTPL1	0008	0008	
TDTARL	0136	0088		TDTDSM	0112	0070		TDTPVS	0168	00A8	
TDTARO	0157	009D	(EQU)	TDTDSO	0192	00C0		TDTRCT	0165	00A5	(EQU)
TDTARW	0157	009D	(EQU)	TDTDSP	0164	00A4		TDTREF	0153	0099	
TDTAU	0157	009D	(EQU)	TDTDSR	0104	0068		TDTRES	0222	00DE	
TDTAUL	0159	009F	(EQU)	TDTDSV	0103	0067		TDTRFM	0202	00CA	
TDTAV1	0256	0100		TDTDS1	0024	0018		TDTRKP	0214	00D6	
TDTA0	0256	0100	(EQU)	TDTDS2	0059	003B		TDRPS	0159	009F	(EQU)
TDTA1	0256	0100	(EQU)	TDTDUP	0136	0088		TDRPS1	0159	009F	(EQU)
TDTA2	0256	0100	(EQU)	TDTDVD	0198	00C6		TDRPS2	0159	009F	(EQU)
TDTA3	0256	0100	(EQU)	TDTDVT	0121	0079		TDTSDA	0190	00BE	
TDTA4	0256	0100	(EQU)	TDTEDT	0147	0093		TDTSDI	0228	00E4	
TDTA5	0256	0100	(EQU)	TDTERO	0212	00D4		TDTSHC	0158	009E	
TDTA6	0256	0100	(EQU)	TDTFEA	0123	007B		TDTSL	0159	009F	(EQU)
TDTA7	0256	0100	(EQU)	TDTFSQ	0154	009A		TDTSMA	0226	00E2	
TDTA8	0257	0101	(EQU)	TDTF10	0004	0004		TDTSP0	0128	0080	
TDTA9	0257	0101	(EQU)	TDTID1	0226	00E2		TDTSP1	0129	0081	
TDTBFL	0196	00C4		TDTID2	0232	00E8		TDTSP2	0132	0084	
TDTBFN	0199	00C7		TDTIMK	0216	00D8		TDTSP3	0133	0085	
TDTBLK	0188	00BC		TDTJ10	0000	0000		TDTSU	0159	009F	(EQU)
TDTBOF	0213	00D5	(EQU)	TDTLAB	0159	009F		TDTTDS	0157	009D	(EQU)
TDTBSZ	0208	00D0		TDTLFN	0225	00E1		TDTTLK	0176	00B0	
TDTBTK	0200	00C8		TDTLLK	0172	00AC		TDTTT1	0012	000C	
TDTCC1	0184	00B8		TDTLRL	0204	00CC		TDTUAF	0124	007C	
TDTCDT	0144	0090		TDTMAC	0194	00C2		TDTUNT	0122	007A	
TDTCFL	0156	009C		TDTMDL	0120	0078		TDTVVF1	0224	00E0	
TDTCNC	0180	00B4		TDTNCP	0201	00C9		TDTVNO	0140	008C	
TDTDAC	0157	009D	(EQU)	TDTNDC	0167	00A7	(EQU)	TDTVOL	0224	00E0	
TDTDAL	0157	009D	(EQU)	TDTNDF	0157	009D	(EQU)				

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FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX	
TDTV PY	0152	0098		TDTV1	0224	00E0	(EQU)	TDTV6	0224	00E0	(EQU)
TDTV RO	0166	00A6	(EQU)	TDTV2	0224	00E0	(EQU)	TDTV7	0224	00E0	(EQU)
TDTV SQ	0142	008E		TDTV3	0224	00E0	(EQU)	TDTV8	0225	00E1	(EQU)
TDTV TA	0216	00D8	(EQU)	TDTV4	0224	00E0	(EQU)	TDTV9	0225	00E1	(EQU)
TDTV O	0224	00E0	(EQU)	TDTV5	0224	00E0	(EQU)				

Assembler listing of CHATDT

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	A2 00000	CHATDT	DSECT		TASK DATA DEFINITION TABLE
		* TO ADDRESS	HEADER	...	SET USING TO CHATDT
		* TO ADDRESS	A JFCB	...	SET USING TO TDTDDN
A2 00000			DS	0D	ALIGN TO DOUBLEWORD BOUNDARY
A2 00000	TDTJ10		DS	F	POINTER TO LAST ENTERED JFCB (BINARY)
A2 00004	TDTF10		DS	F	POINTER TO NEXT FREE MEMORY AREA (BINARY)
A2 00008	TDTPL1		DS	F	POINTER TO LAST ENTERED JFCB IN PROG. LIBRARY LIST (BINARY)
A2 0000C	TDTT1		DS	F	POINTER TO LAST ENTERED JFCB IN TEMP. TAB (BINARY)
A2 00010	TDTDDN		DS	CL8	DDNAME (EBCDIC)
A2 00018	TDTDS1		DS	CL35	DSNAME IN DD OR CATALOG
A2 0003B	TDTDS2		DS	CL44	DSNAME IN DSCB OR HEADER LABEL (USERID.DSNAME) (EBCDIC)
A2 00067	TDTDSV		DS	XL1	VAM OR SAM INDICATOR 01=SAM 04=VAMI 07=RX IOREQ 02=TAM 05=VAMS 06=PARTITIONED
A2 00068	TDTDSR		DS	CL8	ABSOLUTE GENERATION NUMBER (EBCDIC)
A2 00070	TDTDSM		DS	CL8	MEMBER NAME, PARTITIONED DS (EBCDIC)
A2 00078	TDTDEV		DS	F	DEVICE CODE
	A2 00078		ORG	TDTDEV	REDEFINE DEVICE FIELD I6453
A2 00078	TDTMDL		DS	X	DEVICE MODEL I6453
	00000000		TDTMD1	EQU	0 DEVICE OTHER TAHN A TERMINAL I6453
A2 00079	TDTDVT		DS	X	TYPE OF DEVICE I6453
	00000080		TDTDTP	EQU	X'80' MAGNETIC TAPE I6453
	00000020		TDTQDA	EQU	X'20' DIRECT ACCESS I6453
A2 0007A	TDTUNT		DS	X	UNIT TYPE I6453
A2 0007B	TDTFEA		DS	X	OPTIONAL FEATURES I6453
	00000020		TDT07	EQU	X'20' 7 TRACK COMPATIBILITY I6453
A2 0007C	TDTUAF		DS	F	UNIT AFFINITY FLAG, POINTER TO DDNAME(BINARY), 0 IF NO UNIT AFFINITY
	A2 0007C		ORG	TDTUAF	
A2 0007C	TDTDSC		DS	F	POINTER TO FORMAT E DSCB BITS 0-3 = DSCB NUMBER BITS 4-15 = REL VOL. NO. BITS 16-31 = REL PG. NO.
A2 00080	TDTSP0		DS	XL1	SPACE ALLOCATION TYPE-HEX CODES 00=PAGE 02=TRACK 01=CYLINDER 03=RECORD
A2 00081	TDTSP1		DS	XL3	PRIMARY SPACE ALLOCATION

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
A2 00084		TDTSP2	DS	XL1	SPACE RELEASE FLAG 01= NO RELEASE
A2 00085		TDTSP3	DS	XL3	SECONDARY SPACE ALLOCATION
A2 00088		TDTARL	DS	F	AVERAGE RECORD LENGTH
	A2 00088		[ORG]	TDTARL	
A2 00088		TDTDUP	DS	F	POINTER TO JFCB OF OTHER COPY OF DUPLEXED DATA SET.
		*			IF DATA SET IS NOT DUPLEXED, TDTDUP = ALL ZEROES.
		*			
A2 0008C		TDTVNO	DS	H	COUNT OF NUMBER OF VOLUMES SPECIFIED
		*			
A2 0008E		TDTVSQ	DS	H	VOLUME SEQUENCE NUMBER
A2 00090		TDTCDT	DS	XL3	DS CREATION DATE (YDD)
		*			Y=YEAR (0-99),DD=DAY (1-366)
		*			DISCONTINUOUS BINARY
A2 00093		TDTEDT	DS	XL3	DS EXPIRATION DATE(YDD)
		*			DISCONTINUOUS BINARY
A2 00096		TDTOPN	DS	H	NUMBER OF DCBS OPEN FOR THIS DS
		*			
A2 00098		TDTVPI	DS	XL1	PRIVILEGE FLAG 1=PRIVILEGED ACCESS
		*			
A2 00099		TDTREF	DS	XL1	REFERENCE FLAG 1=DS OPENED
A2 0009A		TDTFSQ	DS	H	FILE SEQUENCE NUMBER (TAPE ONLY) BINARY
		*			
A2 0009C		TDTCFL	DS	XL1	CATALOG FLAG 1=CATALOGED DS
A2 0009D		TDTAQL	DS	XL1	ACCESS QUALIFIER
		*			00=UNLIMITED
		*			01=READ/WRITE
		*			02=READ ONLY
	A2 0009D	TDTPDS	EQU	TDTAQL	PERMANENT DATA SET FLAG
	00000000	TDTPDSM	EQU	X'00'	PERMANENT DATA SET MASK
	A2 0009D	TDTTDS	EQU	TDTAQL	TEMPORARY DATA SET FLAG
	00000080	TDTTDSM	EQU	X'80'	TEMPORARY DATA SET MASK
	A2 0009D	TDTNDF	EQU	TDTAQL	NO DELETION FLAG
	00000000	TDTNDFM	EQU	X'00'	NO DELETION MASK
	A2 0009D	TDTDAL	EQU	TDTAQL	DELETE AT LOGOFF FLAG
	00000004	TDTDALM	EQU	X'04'	DELETE AT LOGOFF MASK
	A2 0009D	TDTDAC	EQU	TDTAQL	DELETE AT CLOSE FLAG
	00000008	TDTDACM	EQU	X'08'	DELETE AT CLOSE MASK
	A2 0009D	TDTAU	EQU	TDTAQL	ACCESS-UNLIMITED FLAG
	00000000	TDTAUM	EQU	X'00'	ACCESS-UNLIMITED MASK
	A2 0009D	TDTARW	EQU	TDTAQL	ACCESS-READ/WRITE FLAG
	00000001	TDTARWM	EQU	X'01'	ACCESS-READ/WRITE MASK
	A2 0009D	TDTARO	EQU	TDTAQL	ACCESS-READ ONLY FLAG
	00000002	TDTAROM	EQU	X'02'	ACCESS-READ ONLY MASK
A2 0009E		TDTSHC	DS	XL1	SHARING FLAG (CATALOGED DS)
		*			HEX-00=PRIVATE, 01=SHARED
A2 0009F		TDTLAB	DS	XL1	LABEL TYPE
	A2 0009F	TDTNL	EQU	TDTLAB	NO LABELS (TAPE ONLY) FLAG
	00000001	TDTNLM	EQU	X'01'	NO LABELS (TAPE ONLY) MASK
	A2 0009F	TDTSL	EQU	TDTLAB	STANDARD LABELS FLAG
	00000002	TDTSLM	EQU	X'02'	STANDARD LABELS MASK
	A2 0009F	TDTSU	EQU	TDTLAB	STANDARD & USER LABELS FLAG
	00000004	TDTSUM	EQU	X'04'	STANDARD & USER LABELS MASK
	A2 0009F	TDTAL	EQU	TDTLAB	ASCII STANDARD LABEL FLAG
	00000012	TDTALM	EQU	X'12'	ASCII STANDARD LABEL MASK
	A2 0009F	TDTAUL	EQU	TDTLAB	ASCII STANDARD & USER LABEL FLAG
		*			
	00000014	TDTAULM	EQU	X'14'	ASCII STANDARD & USER LABEL MASK
		*			
	A2 0009F	TDRPS	EQU	TDTLAB	RPS INPUT DATA SET FLAG
	00000080	TDRPSM	EQU	X'80'	RPS INPUT DATA SET MASK
	A2 0009F	TDRPS1	EQU	TDTLAB	RPS IDS CHANGE DSCB FLAG
	00000040	TDRPSD	EQU	X'40'	RPS IDS CHANGE DSCB MASK
	A2 0009F	TDRPS2	EQU	TDTLAB	RPS IDS VOL TABLE IN JFCB FLAG
		*			
	00000020	TDRPSV	EQU	X'20'	RPS IDS VOL TABLE IN JFCB MASK
		*			

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LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
A2 000A0		TDTDEB	DS	F	RESTABLE-VAM-OR DEB-SAM- POINTER
		*			DISPOSITION
A2 000A4		TDTDSP	DS	H	
	A2 000A4		ORG	TDTDSP	
A2 000A4		TDTDP1	DS	XL1	DISPOSITION FLAG 1
	00000000	TDTDP1N	EQU	X'00'	DISPOSITION = NEW
	00000001	TDTDP1L	EQU	X'01'	DISPOSITION = OLD
	00000002	TDTDP1M	EQU	X'02'	DISPOSITION = MODIFY
A2 000A5		TDTDS	DS	XL1	DISPOSITION FLAG 2
	A2 000A5	TDTRCT	EQU	TDTDS	RECATALOG DATA SET FLAG
	00000001	TDTRCTM	EQU	X'01'	RECATALOG DATA SET MASK
A2 000A6		TDTPAR	DS	XL1	TAPE PARITY INDICATOR
	A2 000A6	TDTVRO	EQU	TDTPAR	VAM READ-ONLY ACCESS
	00000080	TDTVROM	EQU	X'80'	READ-ONLY ACCESS MASK
	A2 000A6	TDTSDE	EQU	TDTPAR	SDST ENTRY UPDATED/CREATED
		*			FLG I6536
	00000001	TDTSDEM	EQU	X'01'	SDST ENTRY UPDATED/CREATED
		*			MSK I6536
A2 000A7		TDTDCI	DS	XL1	DUPLEX COPY INDICATOR
	A2 000A7	TDTNDC	EQU	TDTDCI	DS IS NOT DUPLEXED OR,
	00000000	TDTNDCM	EQU	X'00'	DS IS THE PRIMARY COPY
	A2 000A7	TDTDCS	EQU	TDTDCI	DATA SET IS DUPLEXED,
	00000001	TDTDCSM	EQU	X'01'	AND IS THE SECONDARY COPY
A2 000A8		TDTPVS	DS	F	PREVIOUS JFCB ADDRESS
A2 000AC		TDTLK	DS	F	LIBRARY LINK
A2 000B0		TDTTLK	DS	F	TEMPORARY TABULATION LINK
		*			(BINARY)
A2 000B4		TDTCNC	DS	F	CONCATENATION LINK, FORWARD
A2 000B8		TDTCC1	DS	F	CONCATENATION LINK,
		*			BACKWARD
A2 000BC		TDTBLK	DS	H	COUNT OF MODULES LOADED
		*			FROM LIBRARY
A2 000BE		TDTSDA	DS	H	SYMBOLIC DEVICE ADDRESS
A2 000C0		TDTDCB	DS	0XL32	DATA CONTROL BLOCK
A2 000C0		TDTDSO	DS	XL2	DSORG
A2 000C2		TDTMAC	DS	XL2	MACRF
A2 000C4		TDTBFL	DS	XL2	BUFL
A2 000C6		TDTDVD	DS	XL1	DEV
A2 000C7		TDTBFN	DS	XL1	BUFNO
A2 000C8		TDTBTK	DS	XL1	BFTEK
A2 000C9		TDTNCP	DS	XL1	NCP
A2 000CA		TDTRFM	DS	XL1	RECFM
	000000C4	TDTRFMD	EQU	C'D'	RECORD FORMAT=VARIABLE
		*			(ASCII)
	000000C6	TDTRFMF	EQU	C'F'	RECORD FORMAT = FIXED
	000000E5	TDTRFMV	EQU	C'V'	RECORD FORMAT = VARIABLE
	000000E4	TDTRFMU	EQU	C'U'	RECORD FORMAT = UNDEFINED
A2 000CB		TDTOCD	DS	XL1	OPTCD
	00000020	TDTOCDA	EQU	X'20'	ASCII TAPE REQUEST
A2 000CC		TDTLRL	DS	F	LRECL
A2 000D0		TDTBSZ	DS	XL2	BLKSIZE
A2 000D2		TDTOP1	DS	XL1	KEYLEN, PRTSP, STACK, DEN, CODE
A2 000D3		TDTOP2	DS	XL1	MODE, TRTCH
A2 000D4		TDTERO	DS	XL1	EROPT
A2 000D5		TDTPAD	DS	XL1	PAD
	A2 000D5	TDTBOF	EQU	TDTPAD	BUFFER OFFSET
A2 000D6		TDTRKP	DS	XL2	RKP
A2 000D8		TDTIMK	DS	F	IMSK DEFAULT=FFFFFFFF
	A2 000D8	TDTVTA	EQU	TDTIMK	(PUBLIC/PRIVATE) VOLUME
		*			TABLE POINTER
A2 000DC			DS	XL2	RESERVED
		*			15759
A2 000DE		TDTRES	DS	H	RESERVED
A2 000E0		TDTVOL	DS	0CL32	
A2 000E0		TDTVF1	DS	XL2	VOLUME FLAG
	A2 000E0	TDTV0	EQU	TDTVF1	VOLUME MOUNTED FLAG
	00000080	TDTVOM	EQU	X'80'	VOLUME MOUNTED MASK
	A2 000E0	TDTV1	EQU	TDTVF1	PRIVATE - PUBLIC FLAG

(Listing of CHATDT continued on page 439)

(Listing of CHATDT continued from page 438)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000040	TDTV1M	EQU	X'40'	PUBLIC MASK
	A2 000E0	TDTV2	EQU	TDTV1	ORIGINAL DS VOLUME FLAG
	00000020	TDTV2M	EQU	X'20'	ORIGINAL DS VOLUME MASK
	A2 000E0	TDTV3	EQU	TDTV1	POST PROCESS DS FLAG
	00000010	TDTV3M	EQU	X'10'	POST PROCESS DS MASK
	A2 000E0	TDTV4	EQU	TDTV1	NOT USED
	00000008	TDTV4M	EQU	X'08'	
	A2 000E0	TDTV5	EQU	TDTV1	NOT USED
	00000004	TDTV5M	EQU	X'04'	
	A2 000E0	TDTV6	EQU	TDTV1	VOLUME CHAIN FIELD INDICATOR
		*			
	00000002	TDTV6M	EQU	X'02'	VOLUME CHAIN FIELD MASK
	A2 000E0	TDTV7	EQU	TDTV1	NULL/VALID INDICATOR
	00000001	TDTV7M	EQU	X'01'	VALID MASK
	A2 000E1	TDTV8	EQU	TDTV1+1	DSNAME NOT FOUND IN VTOC
	00000080	TDTV8M	EQU	X'80'	DSNAME NOT FOUND IN VTOC MASK
		*			
	A2 000E1	TDTV9	EQU	TDTV1+1	1=UNSUCCESSFUL OPERATION DUE TO SYSTEM FAILURE
		*			
	00000040	TDTV9M	EQU	X'40'	NOTE-WHEN BOTH FLAGS ARE ON, NEW NAME SPECIFIED FOR A RENAME OPERATION IS NOT UNIQUE.
		*			
		*			
	A2 000E1		ORG	TDTV1+1	I5759
A2 000E1		TDTL FN	DS	AL1	TAPE LOGICAL FILE SEQ NUMBER I5759
		*			
A2 000E2		TDTID1	DS	XL6	VOLUME SERIAL-IF NOT MOUNTED
		*			
	A2 000E2		ORG	TDTID1	
A2 000E2		TDT SMA	DS	XL2	SYMBOLIC DEVICE ADDRESS IF MOUNTED
		*			
A2 000E4		TDTSDI	DS	F	SDAT POINTER
A2 000E8		TDTID2	DS	4F	2ND AND 3RD VOLUMES
A2 000F8		TDTAPN	DS	F	CHAIN FLAG-SAME AS TDTV6 AND V7
		*			
A2 000FC		TDTAPP	DS	F	CHAIN ADDRESS-CHAIN OF ADDITIONAL VOLUME ID'S
		*			
		*			
		*	DSECT		APPENDAGE TO
		*	VOL FLAG		
A2 00100		TDTAV1	DS	XL2	VOLUME FLAG
	A2 00100	TDTA0	EQU	TDTAV1	VOLUME MOUNTED FLAG
	00000080	TDTA0M	EQU	X'80'	VOLUME MOUNTED MASK
	A2 00100	TDTA1	EQU	TDTAV1	PRIVATE/PUBLIC FLAG
	00000040	TDTA1M	EQU	X'40'	PUBLIC MASK
	A2 00100	TDTA2	EQU	TDTAV1	ORIGINAL DS VOL FLAG
	00000020	TDTA2M	EQU	X'20'	ORIGINAL DS VOL MASK
	A2 00100	TDTA3	EQU	TDTAV1	DS VOLUME FLAG
	00000010	TDTA3M	EQU	X'10'	DS VOLUME MASK
	A2 00100	TDTA4	EQU	TDTAV1	NOT USED
	00000008	TDTA4M	EQU	X'08'	
	A2 00100	TDTA5	EQU	TDTAV1	NOT USED
	00000004	TDTA5M	EQU	X'04'	
	A2 00100	TDTA6	EQU	TDTAV1	VOLUME CHAIN FIELD INDICATOR
		*			
	00000002	TDTA6M	EQU	X'02'	VOLUME CHAIN FIELD MASK
	A2 00100	TDTA7	EQU	TDTAV1	NULL/VALID INDICATOR
	00000001	TDTA7M	EQU	X'01'	VALID MASK
	A2 00101	TDTA8	EQU	TDTAV1+1	1=DSNAME NOT FOUND IN VTOC
	00000080	TDTA8M	EQU	X'80'	
	A2 00101	TDTA9	EQU	TDTAV1+1	1=UNSUCCESSFUL OPERATION DUE TO SYSTEM FAILURE
		*			
	00000040	TDTA9M	EQU	X'40'	NOTE:WHEN BOTH FLAGS ARE ON, NEW NAME SPECIFIED FOR A RENAME OPERATION IS NOT UNIQUE.
		*			
		*			
		*			
A2 00102		TDTAI1	DS	XL6	VOLUME SERIAL NUMBER
	A2 00104	TDTAD1	EQU	TDTAI1+2	SDAT POINTER
A2 00108		TDTAI2	DS	4F	2ND AND 3RD VOLUMES

(Listing of CHATDT continued on page 440)

(Listing of CHATDT continued from page 439)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
A2 00118		TDTAP1	DS	F	CHAIN FLAG
A2 0011C		TDTAP2	DS	F	CHAIN ADDRESS
		* THE DEVICE CODE, TDTDEV, IS DEFINED AS FOLLOWS			
		* BYTE 0		BYTE 1	BYTE 2
		*	BYTE 3		
		* MODEL		DEVICE	UNIT
		*	OPT FEATURES		
		* X'01'=-TERMINAL		X'00'	X'00'
		*	X'00'		
		* X'00'=-OTHER		X'80'=-TAPE	X'01'=-2400
		*	X'A0'=-7TRACK		
					NO DATA CONV
					X'E0'=-7TRACK
					WITH DATA CONV
					X'00'=-9TRACK
					X'20'=-DIR. ACCESS
					X'01'=-2311
					X'04'=-2302           X'00'
					X'08'=-2314
					X'08'=-UNIT RECORD
					X'01'=-CARD READER X'00'
					X'02'=-CARD PUNCH
					X'08'=-PRINTER
					X'10'=-PAPER TAPE

Task Dictionary Table (CHATDY, CHATDH, CHAMAP, and CHAPGH)

The Task Dictionary Table (TDY) contains information required by the dynamic loader to load and unload the linked program modules in a particular task.

TDY consists of a Table Header (CHATDH), hash tables for system (CHASHT) and user (CHAUHT), a Memory Map Table (CHAMAP), and one Program Module Dictionary (PMD) for each module loaded during the task, and PMD group header (CHAPGH),

TDY resides in virtual storage aligned on word boundaries, and is initialized by STARTUP and maintained by the Dynamic Loader.

TDH, used by the Dynamic Loader to locate various tables, occupies 28 bytes of virtual storage, aligned on word boundaries.

MAP entries are contained in a linked list and terminated by a MAP entry with a null link. A single linked available space list is superimposed upon the MAP table. A control link heads the table which is terminated by a "physical table bottom" flag word of all zeroes. Links to locations within MAP are word-oriented, relative to MAP origin. A MAP entry occupies 8 bytes of virtual storage.

CHATDY contains nested DSECTs, each of which is shown below in a separate storage map.

CHATDY Storage map

DEC	HEX		
0	0	TDYLNPN	TDYBCH
8	8	TDYPCH	TDYNCS TDYFGS
16	10	TDYJFC	TDYLDC
24	18	TDYLPA	TDYLPL
32	20	TDYLTA	TDYLTL
40	28	TDYLIA	TDYLIL
48	30	TDYSWI	TDYMSN
56	38	UNNAMED	

Fields in CHATDY -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TDYLNPN	0016	0010	TDYJFC	0040	0028	TDYLIA
0004	0004	TDYBCH	0020	0014	TDYLDC	0044	002C	TDYLIL
0008	0008	TDYPCH	0024	0018	TDYLPA	0048	0030	TDYSWI
0012	000C	TDYNCS	0028	001C	TDYLPL	0052	0034	TDYMSN
0014	000E	TDYLDL (EQU)	0032	0020	TDYLTA			
0014	000E	TDYFGS	0036	0024	TDYLTL			

Alphabetical list of fields in CHATDY

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TDYBCH	0004	0004	TDYLIL	0044	002C	TDYMSN	0052	0034
TDYFGS	0014	000E	TDYLNPN	0000	0000	TDYNCS	0012	000C
TDYJFC	0016	0010	TDYLPA	0024	0018	TDYPCH	0008	0008
TDYLDC	0020	0014	TDYLPL	0028	001C	TDYSWI	0048	0030
TDYLDL (EQU)	0014	000E	TDYLTA	0032	0020			
TDYLIA	0040	0028	TDYLTL	0036	0024			

Assembler listing of CHATDY

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
A3 00000		CHATDY	DSECT		TDY ENTRY STRUCTURE
*****					
	*				PMD PREFACE DSECT
*****					
	*				PMD PREFACE BEGINS HERE
A3 00000		TDYLNPN	DS	F	LINK TO NEXT PMD PREFACE
A3 00004		TDYBCH	DS	F	BABY CHAIN HEAD
A3 00008		TDYPCH	DS	F	PAPA CHAIN HEAD
A3 0000C		TDYNCS	DS	H	MUT COUNT(NO. EXPLICIT
	*				CALLS ON THIS MODULE)
A3 0000E		TDYFGS	DS	H	PMD FLAGS

(Listing of CHATDY continued on page 442)

(Listing of CHATDY continued from page 441)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	A3 0000E	TDYLDL	EQU	TDYFGS	HIGH ORDER BYTE OF FLAG
		*			FIELD
	00000080	TDYLDLM	EQU	X'80'	LOADED BY DYNAMIC
		*			LOADER--MASK
	00000001	TDYFGP	EQU	X'01'	PUBLIC IF 1
	00000002	TDYFGC	EQU	X'02'	DELETION CANDIDATE IF 1
A3 00010		TDYJFC	DS	F	POINTER TO JFCB FOR LIBRARY
A3 00014		TDYLDC	DS	F	DCB ADDRESS FOR LIBRARY
		*USER INFORMATION FOR MODULE IS STORED HERE			
A3 00018		TDYLPA	DS	F	PMD RETRIEVAL ADDRESS(WILL
		*			BE 0)
A3 0001C		TDYLPPL	DS	F	PMD LENGTH IN BYTES
A3 00020		TDYLTA	DS	F	TEXT RETRIEVAL
		*			ADDRESS(RELATIVE TO LPA)
A3 00024		TDYLTL	DS	F	TEXT LENGTH IN BYTES
A3 00028		TDYLIA	DS	F	ISD RETRIEVAL
		*			ADDRESS(RELATIVE TO LPA)
A3 0002C		TDYLIL	DS	F	ISD LENGTH IN BYTES
A3 00030		TDYSWI	DS	F	SYSLIB SWITCH-1 IF SYSLIB
A3 00034		TDYMSN	DS	F	MODULE SEQUENCE NUMBER
A3 00038			DS	F	RESERVED
	0000003C	TDYPSZ	EQU	*-CHATDY	SIZE OF PMD PREFACE
*****					
		*			PMD BODY DSECT
*****					
	A4 00000	TDYPMD	DSECT		PMD ITSELF BEGINS HERE
A4 00000		TDYPML	DS	F	PMD LENGTH IN BYTES
A4 00004		TDYDIA	DS	C	DIAGNOSTIC CODE
A4 00005		TDYPCS	DS	XL1	PCS COMMUNICATION INDICATOR
	00000001	TDYVHX	EQU	X'01'	ON IF VERSION ID IS HEX
		*			CREATION DATE
		*			OFF IF ALPHAMERIC
	00000002	TDYFMP	EQU	X'02'	FORTAN MAIN PROGRAM MODULE
	00000004	TDYFMD	EQU	X'04'	FORTAN MODULE
	00000010	TDYUNL	EQU	X'10'	CALL PCS BEFORE UNLOAD
	00000020	TDYLEM	EQU	X'20'	MODULE PRODUCED BY LINK ED.
	00000040	TDYISD	EQU	X'40'	MODULE HAS ISD
	00000080	TDYMMI	EQU	X'80'	MODULE MODIFICATION
		*			INDICATOR
		*			RESERVED FOR INTERNAL IBM
		*			USE
A4 00006		TDYPMH	DS	H	PMD HEADING LENGTH IN BYTES
A4 00008		TDYIDF	DS	F	ID FOR DECK PUNCHOUT
A4 0000C		TDYMID	DS	CL8	VERSION ID
A4 00014		TDYNRF	DS	H	NUMBER REFS FOR SEP
A4 00016		TDYNMD	DS	H	NUMBER MODS FOR SEP
		*DEF FOR STANDARD ENTRY POINT(SEP) BEGINS HERE			
A4 00018		TDYSDF	DS	0F	SEP DEF
A4 00018		TDYSNM	DS	CL8	MODULE NAME
A4 00020		TDYSEP	DS	F	SEP DEF VALUE(SEP)
A4 00024		TDYSRD	DS	F	SEP R-VALUE DISPLACEMENT
A4 00028		TDYSCL	DS	F	SEP CSD LINK
A4 0002C			DS	F	RESERVED
A4 00030		TDYSSL	DS	F	SEP SEARCH LINK
	00000034	TDYPBH	EQU	*-TDYPMD	SIZE OF PMD HEADING
		*			EXCLUSIVE OF REFS AND
		*			MODIFIERS
		*REF(S) AND MODIFIER(S) FOR STANDARD ENTRY POINT			
		*BEGIN HERE			
*****					
		*			CSD DSECT
*****					
	A5 00000	TDYCSD	DSECT		CSD ENTRY STRUCTURE
A5 00000		TDYCLN	DS	F	CSD LENGTH IN BYTES
A5 00004		TDYCTL	DS	F	CONTROL SECTION TEXT LENGTH
A5 00008		TDYCFP	DS	F	PG NO. IN MODULE TEXT OF CS
		*			1ST PAGE

(Listing of CHATDY continued on page 443)



(Listing of CHATDY continued from page 442)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
A5 0000C		TDYCID	DS	CL8	CREATION DATE ELAPSED MICROSECONDS SINCE MAR. 1, 1900
A5 00014		TDYCLK	DS	F	ADDRESS THIS PMD PREFACE
A5 00018		TDYCQR	DS	H	COUNT OF CXDREFS AND QREFS N443.2
	A5 00018	TDYCCR	EQU	TDYCQR	BIT 0 0=NO CXDREF PRESENT N443.2
	00000080	TDYCCRM	EQU	X'80'	1=CXDREF PRESENT N443.2 BIT 1 RESERVED N443.2
					BIT 2-15 NO. OF QREFS. N443.2
A5 0001A		TDYCUS	DS	H	USER COUNT(NO. REFS INTO THIS CS)
A5 0001C		TDYCRD	DS	H	NO. RELOCATABLE DEFS
A5 0001E		TDYCAD	DS	H	NO. ABSOLUTE DEFS
A5 00020		TDYCCD	DS	H	NO. COMPLEX DEFS
A5 00022		TDYCRF	DS	H	NO. REFS IN REF TABLE
A5 00024		TDYCAT	DS	XL2	ATTRIBUTES OF CONTROL SECTION FLAGS
	A5 00024	TDYCAT1	EQU	TDYCAT	FLAGS SET BY DYNAMIC LOADER
	00000080	TDYPNM	EQU	X'80'	PUBLIC NAME FLAG
	00000040	TDYCPR	EQU	X'40'	CSD HAS BEEN ALLOCATED STORAGE
	00000020	TDYAPR	EQU	X'20'	'PCSA' CALLED FOR THIS CSD
	00000010	TDYCON	EQU	X'10'	PUBLIC STORAGE ASSIGNED BY CONNECT
	00000002	TDYPCR	EQU	X'02'	PCS FLAG-COMMON CSECT REJECTED M2588
	00000001	TDYQFLG	EQU	X'01'	TDYCQR VALIDITY FLAG N443.2
					0=IGNORE TDYCQR FIELD N443.2
					1=TDYCQR IS VALID N443.2
	A5 00025	TDYCAT2	EQU	TDYCAT+1	CSECT ATTRIBUTES ATTRIBUTES SET BY LANGUAGE PROCESSOR
	00000002	TDYFXL	EQU	X'02'	'FIXED-LENGTH' IS BIT OFF, V/L = ON
	00000004	TDYRDO	EQU	X'04'	'READ-ONLY' IS BIT ON
	00000008	TDYPUB	EQU	X'08'	'PUBLIC' IS BIT ON
	00000010	TDYPRO	EQU	X'10'	'PSECT' IS BIT ON
	00000020	TDYCOM	EQU	X'20'	'COMMON' IS BIT ON
	00000040	TDYPVG	EQU	X'40'	'PRIVILEGED' IS BIT ON
	00000080	TDYSYS	EQU	X'80'	'SYSTEM' IS BIT ON
	0000000C	TDYPBRO	EQU	TDYPUB+TDYRDO	PUBLIC, READ ONLY MASK
	0000004C	TDYPROV	EQU	TDYPBRO+TDYPVG	PRIV/PUB, READ ONLY MASK
	0000000C	TDYPVSY	EQU	TDYPVG+TDYSYS	PRIVILEGED, SYSTEM MASK
	00008000	TDYPUN	EQU	X'8000'	PUBLIC NAME IS BIT ON
A5 00026		TDYCVN	DS	H	NO. PAGES OF TEXT IN VIRTUAL MEMORY
	00000028	TDYCSZ	EQU	*-TDYCSZ	SIZE OF CSD HEADING *DEF FOR CSECT NAME BEGINS HERE
A5 00028		TDYCDF	DS	OF	CSECT NAME DEF
A5 00028		TDYCNM	DS	CL8	CS NAME
A5 00030		TDYCBV	DS	F	CS BASE
A5 00034		TDYCRV	DS	F	CS R-VAL DISPLACEMENT
A5 00038		TDYCDC	DS	F	CSD LINK
A5 0003C			DS	F	RESERVED
A5 00040		TDYCBS	DS	F	SEARCH LINK

\*\*\*\*\*  
(Listing of CHATDY continued on page 444)

(Listing of CHATDY continued from page 443)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
*****					
* REF DSECT					
*****					
	A6 00000	TDYDEF	DSECT		DEF ENTRY STRUCTURE
A6 00000		TDYDNM	DS	CL8	DEF NAME
A6 00008		TDYDVL	DS	F	DEF VALUE
A6 0000C		TDYDRD	DS	F	R-VALUE DISPLACEMENT
A6 00010		TDYDCS	DS	F	CSD ADDRESS
A6 00014			DS	F	RESERVED
A6 00018		TDYDSL	DS	F	DEF SEARCH LINK
	0000001C	TDYDSZ	EQU	*-TDYDEF	SIZE OF DEF
*****					
* REF DSECT					
*****					
	A7 00000	TDYREF	DSECT		REF ENTRY STRUCTURE
A7 00000		TDYRNM	DS	CL8	REF NAME
A7 00008		TDYRVL	DS	F	VALUE OF REF
A7 0000C		TDYRRV	DS	F	R-VALUE OF REF
A7 00010		TDYRCS	DS	F	DEFINING CSD ADDRESS
A7 00014			DS	F	RESERVED
	00000018	TDYRSZ	EQU	*-TDYREF	SIZE OF REF
	A7 00000		<u>ORG</u>	TDYRNM	QREF STRUCTURE
					N443.2
A7 00000		TDYQNM	DS	CL8	QREF NAME, DEFINED BY PL/I
					OR N443.2
					A 'DXD' ASSEMBLER
					N443.2
					INSTRUCTION
					N443.2
A7 00008		TDYQVL	DS	A	QREF VALUE - A DISPLACEMENT
					N443.2
					SET BY DYNAMIC LOADER
					N443.2
A7 0000C		TDYQLN	DS	0F	QREF ALIGNMENT AND LENGTH
					N443.2
A7 0000C		TDYQAL	DS	X	ALIGNMENT FOR QREF
					N443.2
	00000000	TDYQALBM	EQU	X'00'	BYTE ALIGNMENT
					N443.2
	00000001	TDYQALHM	EQU	X'01'	HALFWORD ALIGNMENT
					N443.2
	00000002	TDYQALFM	EQU	X'02'	FULLWORD ALIGNMENT
					N443.2
	00000003	TDYQALDM	EQU	X'03'	DOUBLEWORD ALIGNMENT
					N443.2
A7 0000D		TDYQLG	DS	XL3	LENGTH OF QREF-DEFINED AREA
					N443.2
A7 00010		TDYQLF	DS	A	A(QREF WITH DIFFERENT NAME)
					N443.2
A7 00014		TDYQLS	DS	A	A(QREF WITH SAME NAME)
					N443.2
	A7 00000		<u>ORG</u>	TDYRNM	CXDREF STRUCTURE
					N443.2
A7 00000			DS	2F	RESERVED
					N443.2
A7 00008		TDYCXD	DS	F	CUMULATIVE EXTERNAL DUMMY
					N443.2
					SECTION BYTE LENGTH, SET
					N443.2
					BY LOADER AFTER PROCESS-
					N443.2
					ING QREFS
					N443.2
A7 0000C			DS	2F	RESERVED
					N443.2
A7 00014		TDYCRL	DS	A	A(NEXT CXDREF)

(Listing of CHATDY continued on page 445)

(Listing of CHATDY continued from page 444)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
*****					
* TDYRLD---RLD POINTER DSECT *					
*****					
A8 00000	A8 00000	TDYRLD	DSECT		MODIFIER POINTER
A8 00000		TDYDMP	DS	H	NUMBER OF MODIFIERS FOR PAGE
A8 00002		TDYLFM	DS	H	LOCATION OF FIRST MODIFIER FOR THIS PAGE
*****					
* TDYDMF---RLD MODIFIER *					
*****					
A9 00000	A9 00000	TDYDMF	DSECT		MODIFIER
A9 00000		TDYMRN	DS	H	ORDINAL NUMBER OF REFERENCE USED IN MODIFICATION
A9 00000		TDYMEL	EQU	TDYMRN	FIRST 2 BITS-LENGTH OF ADCON TO BE MODIFIED
A9 00002		TDYBYT	DS	H	DISPLACEMENT OF ADCON TO BE MODIFIED
A9 00002		TDYMFT	EQU	TDYBYT	OPERATION PERFORMED IN MODIFICATION
*****					
* TDYVMP---VIRTUAL MEMORY PAGE TABLE DSECT *					
*****					
AA 00000	AA 00000	TDYVMPT	DSECT		VIRTUAL MEMORY PAGE TABLE ENTRY
AA 00000		TDYVMP	DS	H	
*****					

TDYPMD Storage map

DEC	HEX	FIELD
0	0	TDYPML
8	8	TDYIDF
16	10	TDYMID (CONT)
24	18	TDYSNM
32	20	TDYSEP
40	28	TDYSCL
48	30	TDYSSL

Fields in TDYPMD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TDYPML	0012	000C	TDYMID	0032	0020	TDYSEP
0004	0004	TDYDIA	0020	0014	TDYNRF	0036	0024	TDYSRD
0005	0005	TDYPCS	0022	0016	TDYNMD	0040	0028	TDYSCL
0006	0006	TDYPMH	0024	0018	TDYSNM	0048	0030	TDYSSL
0008	0008	TDYIDF	0024	0018	TDYSDF			

Alphabetical list of fields in TDYPMD

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TDYDIA	0004	0004	TDYPCS	0005	0005	TDYSEP	0032	0020
TDYIDF	0008	0008	TDYPMH	0006	0006	TDYSNM	0024	0018
TDYMID	0012	000C	TDYPML	0000	0000	TDYSRD	0036	0024
TDYNMD	0022	0016	TDYSCL	0040	0028	TDYSSL	0048	0030
TDYNRF	0020	0014	TDYSDF	0024	0018			

TDYCSD Storage map

DEC	HEX				
0	0	TDYCLN		TDYCTL	
8	8	TDYCFP		TDYCID	
16	10	TDYCID (CONT)		TDYCLK	
24	18	TDYCQR	TDYCUS	TDYCRD	TDYCAD
32	20	TDYCCD	TDYCRF	TDYCAT	TDYCVN
40	28	TDYCNM			
48	30	TDYCBV		TDYCRV	
56	38	TDYCDC		UNNAMED	
64	40	TDYCBS			

Fields in TDYCSD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TDYCLN	0028	001C	TDYCRD	0040	0028	TDYCNM
0004	0004	TDYCTL	0030	001E	TDYCAD	0040	0028	TDYCDF
0008	0008	TDYCFP	0032	0020	TDYCCD	0048	0030	TDYCBV
0012	000C	TDYCID	0034	0022	TDYCRF	0052	0034	TDYCRV
0020	0014	TDYCLK	0036	0024	TDYCAT1 (EQU)	0056	0038	TDYCDC
0024	0018	TDYCCR (EQU)	0036	0024	TDYCAT	0064	0040	TDYCBS
0024	0018	TDYCQR	0037	0025	TDYCAT2 (EQU)			
0026	001A	TDYCUS	0038	0026	TDYCVN			

Alphabetical list of fields in TDYCSD

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TDYCAD	0030	001E	TDYCDC	0056	0038	TDYCRD	0028	001C
TDYCAT	0036	0024	TDYCDF	0040	0028	TDYCRF	0034	0022
TDYCAT1	0036	0024 (EQU)	TDYCFP	0008	0008	TDYCRV	0052	0034
TDYCAT2	0037	0025 (EQU)	TDYCID	0012	000C	TDYCTL	0004	0004
TDYCBS	0064	0040	TDYCLK	0020	0014	TDYCUS	0026	001A
TDYCBV	0048	0030	TDYCLN	0000	0000	TDYCVN	0038	0026
TDYCCD	0032	0020	TDYCNM	0040	0028			
TDYCCR	0024	0018 (EQU)	TDYCQR	0024	0018			

TDYDEF Storage map

DEC	HEX		
0	0	TDYDNM	
8	8	TDYDVL	TDYDRD
16	10	TDYDCS	UNNAMED
24	18	TDYDSL	

Fields in TDYDEF -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TDYDNM	0012	000C	TDYDRD	0024	0018	TDYDSL
0008	0008	TDYDVL	0016	0010	TDYDCS			

Alphabetical list of fields in TDYDEF

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TDYDCS	0016	0010	TDYDRD	0012	000C	TDYDVL	0008	0008
TDYDNM	0000	0000	TDYDSL	0024	0018			

TDYREF Storage map

DEC	HEX		
0	0	TDYRNM	
8	8	TDYRVL	TDYRRV
16	10	TDYRCS	UNNAMED

ORG TDYRNM

DEC	HEX			
0	0	TDYQNM		
8	8	TDYQVL	TDYQAL	TDYQLG
16	10	TDYQLF	TDYQLS	

ORG TDYRNM

DEC	HEX		
0	0	UNNAMED	
8	8	TDYCXD	UNNAMED
16	10	UNNAMED (CONT)	TDYCRL

Fields in TDYREF -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TDYQNM	0012	000C	TDYQAL	0016	0010	TDYRCS
0000	0000	TDYRNM	0012	000C	TDYQLN	0020	0014	TDYCRL
0008	0008	TDYCXD	0012	000C	TDYRRV	0020	0014	TDYQLS
0008	0008	TDYQVL	0013	000D	TDYQLG			
0008	0008	TDYRVL	0016	0010	TDYQLF			

Alphabetical list of fields in TDYREF

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TDYCRL	0020	0014	TDYQLN	0012	000C	TDYRNM	0000	0000
TDYCXD	0008	0008	TDYQLS	0020	0014	TDYRRV	0012	000C
TDYQAL	0012	000C	TDYQNM	0000	0000	TDYRVL	0008	0008
TDYQLF	0016	0010	TDYQVL	0008	0008			
TDYQLG	0013	000D	TDYRCS	0016	0010			

TDYRLD Storage map

DEC	HEX		
0	0	TDYNMP	TDYLFM

Fields in TDYRLD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TDYNMP	0002	0002	TDYLFM

Alphabetical list of fields in TDYRLD

FIELD	DEC	HEX	FIELD	DEC	HEX
TDYLFM	0002	0002	TDYNMP	0000	0000

TDYMDF Storage map

DEC	HEX		
0	0	TDYMRN	TDYBYT

Fields in TDYMDF -- by displacement

DEC	HEX	FIELD	(EQU)	DEC	HEX	FIELD	(EQU)
0000	0000	TDYMEL		0000	0000	TDYMRN	
				0002	0002	TDYMFT	(EQU)
				0002	0002	TDYBYT	

Alphabetical list of fields in TDYMDF

FIELD	DEC	HEX		FIELD	DEC	HEX	(EQU)	FIELD	DEC	HEX	(EQU)
TDYBYT		0002	0002	TDYMEL	0000	0000		TDYMFT	0002	0002	(EQU)
								TDYMRN	0000	0000	

TDYVMP Storage map

DEC	HEX	
0	0	TDYVMP

Fields in TDYVMP -- by displacement

DEC	HEX	FIELD
0000	0000	TDYVMP

Alphabetical list of fields in TDYVMP

FIELD	DEC	HEX
TDYVMP	0000	0000

CHATDH Storage map

DEC	HEX		
0	0	TDHPMG	TDHLHT
8	8	TDHPSH	TDHPUH
16	10	TDHPMP	TDHLMP
24	18	TDHCME	TDHIVMP

Fields in CHATDH -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TDHPMG	0012	000C	TDHPUH	0024	0018	TDHCME
0004	0004	TDHLHT	0016	0010	TDHPMP	0028	001C	TDHIVMP
0008	0008	TDHPSH	0020	0014	TDHLMP			

Alphabetical list of fields in CHATDH

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TDHCME	0024	0018	TDHLMP	0020	0014	TDHPSH	0008	0008
TDHIVMP	0028	001C	TDHPMG	0000	0000	TDHPUH	0012	000C
TDHLHT	0004	0004	TDHPMP	0016	0010			

Assembler listing of CHATDH

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	A1 00000	CHATDH	DSECT		TDY HEADING STRUCTURE
A1 00000		TDHPMG	DS	F	LINK TO PMD GROUP (VM ADD.)
A1 00004		TDHLHT	DS	F	HASH DIVISOR
A1 00008		TDHPSH	DS	F	ADDR. OF PRIVILEGED SYSTEM
		*			HASH TABLE. ADD HASH
		*			TABLE LENGTH (TDHHTL) TO GET ADDR. OF
		*			NONPRIVILEGED
		*			SYSTEM HASH TABLE.
A1 0000C		TDHPUH	DS	F	ADDRESS OF USER HASH TABLE
A1 00010		TDHPMP	DS	F	ADDRESS OF MAP ORIGIN
A1 00014		TDHLMP	DS	F	MAXIMUM LENGTH OF MAP
A1 00018		TDHCME	DS	F	COUNT OF VALID MAP ENTRIES
A1 0001C		TDHIVMP	DS	F	VM ADDR OF NEXT TO LAST PMD
		*			GRP IN TDY
	00000020	TDHSIZ	EQU	*-CHATDH	SIZE OF HEADER
	000001FD	TDHHTL	EQU	509	HASH TABLE LENGTH
	000001FD	TDHHDV	EQU	509	VALUE OF HASH DIVISOR

CHAMAP Storage map

DEC	HEX		
0	0	MAPBCS	MAPCSD

Fields in CHAMAP -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	MAPBCS	0004	0004	MAPCSD			

Alphabetical list of fields in CHAMAP

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
MAPBCS	0000	0000	MAPCSD	0004	0004			

Assembler listing of CHAMAP

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	4D 00000	CHAMAP	DSECT		MAP ENTRY STRUCTURE
		*			** 9-30-66 R. GILINSKY
		*			*****
					MAP ENTRY DSECT
					*****
4D 00000		MAPBCS	DS	F	VM ADD ORIGIN OF CSECT
4D 00004		MAPCSD	DS	F	VM ADDRESS OF CSD

CHAPGH Storage map

DEC	HEX	FIELD	FIELD
0	0	PGHNGH	PGHPGH
8	8	PGHLPM	PGHEGR

Fields in CHAPGH -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	PGHNGH	0004	0004	PGHPGH	0008	0008	PGHLPM
						0012	000C	PGHEGR

Alphabetical list of fields in CHAPGH

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
PGHEGR	0012	000C	PGHLPM	0008	0008	PGHNGH	0000	0000
						PGHPGH	0004	0004

Assembler listing of CHAPGH

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	61 00000	CHAPGH	DSECT		PMD GROUP HEADER
61 00000		PGHNGH	DS	F	POINTER TO NEXT PMD GROUP
		*			HEADER
61 00004		PGHPGH	DS	F	POINTER TO PREVIOUS GROUP
		*			HEADER
61 00008		PGHLPM	DS	F	POINTER TO LAST PMD IN THIS
		*			GROUP
61 0000C		PGHEGR	DS	F	POINTER TO END OF GROUP
	00000010	PGHSZ	EQU	*-CHAPGH	GROUP HEADER SIZE



Terminal Interrupt Information DSECT (CHATII)

CHATII contains interrupt information (message text) which is passed from real core to virtual storage. CHATII occupies 12 bytes of storage.

CHATII Storage map

DEC	HEX			
0	0	TIIRLN	TIIMLN	TIIVMA
8	8	TIIWWK	TIIDTY	TIISDA

Fields in CHATII -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TIIRLN	0004	0004	TIIVMA	0009	0009	TIIDTY
0002	0002	TIIMLN	0008	0008	TIIWWK	0010	000A	TIISDA

Alphabetical list of fields in CHATII

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TIIDTY	0009	0009	TIIRLN	0000	0000	TIIVMA	0004	0004
TIIMLN	0002	0002	TIISDA	0010	000A	TIIWWK	0008	0008

Assembler listing of CHATII

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	AB 00000	CHATII	DSECT		TERMINAL INTERRUPT
		*			INFORMATION DSECT (TII)
AB 00000			DS	0D	ALIGN ON DOUBLE WORD
AB 00000		TIIRLN	DS	H	RELATIVE LINE NUMBER FROM
		*			TCT BEGINNING
AB 00002		TIIMLN	DS	H	MESSAGE LENGTH
AB 00004		TIIVMA	DS	F	VM ADDRESS OF MESSAGE
AB 00008		TIIWWK	DS	X	CAUSE OF INTERRUPT
	00000080	TIIWW1	EQU	X'80'	MESSAGE IN
	00000040	TIIWW2	EQU	X'40'	MESSAGE OUT
	00000020	TIIWW3	EQU	X'20'	ATTENTION
	00000010	TIIWW4	EQU	X'10'	INITIAL CONNECTION
	00000008	TIIWW5	EQU	X'08'	UNRECOVERABLE ERROR
	00000004	TIIWW6	EQU	X'04'	NEGATIVE POLLING RESPONSE
	00000002	TIIWW7	EQU	X'02'	BUFFER OVERFLOW FLAG
AB 00009		TIIDTY	DS	X	DEVICE TYPE
	00000001	TIIDT1	EQU	X'01'	1050 PTT/8
	00000002	TIIDT2	EQU	X'02'	2741 CORRESPONDENCE
	00000003	TIIDT3	EQU	X'03'	2741 PTT/8
	00000004	TIIDT4	EQU	X'04'	TTY35 ASCII
	00000005	TIIDT5	EQU	X'05'	1052-7
AB 0000A		TIISDA	DS	XL2	SYMBOLIC DEVICE ADDRESS

Terminal I/O Control Block (CHATIO)

The Terminal I/O Control Block contains channel programs, and related control information for terminal I/O. CHATIO occupies 64 bytes of storage.

CHATIO Storage map

DEC	HEX	TIOFPT			TIORPT		
0	0						
8	8	TIORSB	TIORTY	TIORCA	TIOFB	UNNAMED	UNNAMED
16	10	UNNAMED	TIOFL1	UNNAMED	TIOMCB		
24	18	TIOCOC	TIOCAD		TIOCF1	UNNAMED	TIOCNT
32	20	UNNAMED					
40	28	UNNAMED					
48	30	UNNAMED					
56	38	UNNAMED					

ORG CHATIO+46

46	2E						TIODSP
48	30	TIOCSW					
56	38	TIOSI	UNNAMED	TIOTDA	TIOTDE		

Fields in CHATIO -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TIOFPT	0020	0014	TIOMCB	0056	0038	TIOSI
0004	0004	TIORPT	0024	0018	TIOCOC	0056	0038	TIOCR (EQU)
0008	0008	TIORSB	0024	0018	TIOCCW	0056	0038	TIOIR (EQU)
0010	000A	TIORTY	0025	0019	TIOCAD	0056	0038	TIOBO (EQU)
0011	000B	TIORCA	0028	001C	TIOPCI (EQU)	0056	0038	TIOEC (EQU)
0012	000C	TIOFB	0028	001C	TIOSKIP (EQU)	0056	0038	TIODC (EQU)
0017	0011	TIOTMR (EQU)	0028	001C	TIOSLI (EQU)	0056	0038	TIOR (EQU)
0017	0011	TIUXXC (EQU)	0028	001C	TIOCC (EQU)	0056	0038	TIOLD (EQU)
0017	0011	TIOSI (EQU)	0028	001C	TIOCOC (EQU)	0056	0038	TIOTO (EQU)
0017	0011	TIOSNS (EQU)	0028	001C	TIOCF1	0058	003A	TIOTDA
0017	0011	TIOHIO (EQU)	0030	001E	TIOCNT	0060	003C	TIOTDE
0017	0011	TIOSIO (EQU)	0046	002E	TIODSP	0060	003C	TIORR (EQU)
0017	0011	TIOFL1	0048	0030	TIOCSW			
0020	0014	TIORTC (EQU)	0052	0034	TIOST (EQU)			

Alphabetical list of fields in CHATIO

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TIORCA	0011	000B	TIOFB	0012	000C	TIORTY	0010	000A
TIORPT	0004	0004	TIOFL1	0017	0011	TIOSI	0056	0038
TIORSB	0008	0008	TIOFPT	0000	0000	TIOSIO	0017	0011 (EQU)
TIOTMR	0017	0011 (EQU)	TIOHIO	0017	0011 (EQU)	TIOSKIP	0028	001C (EQU)
TIUXXC	0017	0011 (EQU)	TIOHSI	0017	0011 (EQU)	TIOSLI	0028	001C (EQU)
TIOSI	0017	0011	TIOIR	0056	0038 (EQU)	TIOSNS	0017	0011 (EQU)
TIOSNS	0017	0011	TIOLD	0056	0038 (EQU)	TIOST	0052	0034 (EQU)
TIOHIO	0017	0011	TIOMCB	0020	0014	TIOTDA	0058	003A
TIOSIO	0017	0011	TIOOR	0056	0038 (EQU)	TIOTDE	0060	003C
TIOFL1	0017	0011	TIOPCI	0028	001C (EQU)	TIOTMR	0017	0011 (EQU)
TIOCCW	0024	0018	TIORCA	0011	000B	TIOTO	0056	0038 (EQU)
TIOCOC	0024	0018	TIORPT	0004	0004	TIUXXC	0017	0011 (EQU)
TIOCD	0028	001C (EQU)	TIORSB	0008	0008			
TIOCF1	0028	001C	TIORTC	0020	0014 (EQU)			
TIOCNT	0030	001E						
TIODSP	0046	002E						
TIOCR	0056	0038 (EQU)						
TIOCSW	0048	0030						
TIODC	0056	0038 (EQU)						
TIOEC	0056	0038 (EQU)						
TIORR	0060	003C (EQU)						

Assembler listing of CHATIO

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	AC 00000	CHATIO	DSECT		TERMINAL I/O CONTROL BLOCK(TIOCB)
		*			
AC 00000			DS	0D	
AC 00000		TIOFPT	DS	F	FORWARD POINTER
AC 00004		TIORPT	DS	F	REVERSE POINTER
AC 00008		TIORSD	DS	H	RESIDUAL COUNT FROM ERROR
		*			CSW
AC 0000A		TIORTY	DS	XL1	RETRY COUNT FOR ERROR
		*			RECOVERY PROCEDURES
AC 0000B		TIORCA	DS	XL1	RELATIVE COMMAND ADDRESS OF
		*			ERROR CCW
AC 0000C		TIOFB	DS	XL1	FUNCTION BYTE FOR CCW 1
	00000001	TIODO	EQU	X'01'	DATA OUT FUNCTION CODE
	00000002	TIODI	EQU	X'02'	DATA IN FUNCTION CODE
	00000004	TIOWA	EQU	X'04'	WRITE ADDRESSING FUNCTION
		*			CODE
	00000008	TIOWP	EQU	X'08'	WRITE POLLING FUNCTION CODE
	00000010	TIORP	EQU	X'10'	RESPONSE POLLING FUNCTION
		*			CODE
	00000020	TIORA	EQU	X'20'	RESPONSE ADDRESSING
		*			FUNCTION CODE
	00000040	TIOCL	EQU	X'40'	CONTROL FUNCTION CODE
	00000080	TIOTC	EQU	X'80'	TIC FUNCTION CODE
AC 0000D			DS	XL1	FUNCTION BYTE FOR CCW 2
AC 0000E			DS	XL1	FUNCTION BYTE FOR CCW 3
AC 0000F			DS	XL1	FUNCTION BYTE FOR CCW 4
AC 00010			DS	XL1	FUNCTION BYTE FOR CCW 5
AC 00011		TIOFL1	DS	XL1	FLAG BYTE
	AC 00011	TIOSIO	EQU	TIOFL1	START I/O
	00000080	TIOSIOM	EQU	X'80'	1=START I/O HAS BEEN ISSUED
	AC 00011	TIOHIO	EQU	TIOFL1	HALT I/O
	00000040	TIOHIOM	EQU	X'40'	1=HALT I/O HAS BEEN ISSUED
	AC 00011	TIOSNS	EQU	TIOFL1	SENSE
	00000020	TIOSNSM	EQU	X'20'	1=SENSE HAS BEEN ISSUED
	AC 00011	TIOHSI	EQU	TIOFL1	
	00000010	TIOHSIM	EQU	X'10'	
	AC 00011	TIOUXC	EQU	TIOFL1	UNIT EXCEPTION AND UNIT
		*			CHECK FLAG
	00000008	TIOUXCM	EQU	X'08'	1=UNIT EXCEPTION AND CHECK
		*			OCCURRED TOGETHER
	AC 00011	TIOTMR	EQU	TIOFL1	TIMER ISSUED FLAG
	00000004	TIOTMRM	EQU	X'04'	1=TIMER ISSUED
AC 00012			DS	XL2	RESERVED FOR FUTURE USE
AC 00014		TIOMCB	DS	F	MCB POINTER
AC 00018		TIOCCW	DS	0D	CCW 1
AC 00018		TIOC0D	DS	XL1	COMMAND CODE - OPERATION TO
		*			BE DONE
	00000001	TIOC0D1	EQU	X'01'	WRITE
	00000002	TIOC0D2	EQU	X'02'	READ
	00000004	TIOC0D3	EQU	X'04'	SENSE
	0000000D	TIOC0D4	EQU	X'0D'	BREAK
	00000006	TIOC0D5	EQU	X'06'	PREPARE
	0000000A	TIOC0D6	EQU	X'0A'	INHIBIT
	00000013	TIOC0D7	EQU	X'13'	SADZER
	00000017	TIOC0D8	EQU	X'17'	SADONE
	0000001B	TIOC0D9	EQU	X'1B'	SADTWO
	0000001F	TIOC0DA	EQU	X'1F'	SADTHREE
	00000027	TIOC0DB	EQU	X'27'	ENABLE
	0000002F	TIOC0DC	EQU	X'2F'	DISABLE
	00000003	TIOC0DD	EQU	X'03'	NO-OP
	00000008	TIOC0DE	EQU	X'08'	TIC
AC 00019		TIOC0AD	DS	XL3	DATA ADDRESS - CORE ADDRESS
		*			FOR DATA
AC 0001C		TIOCF1	DS	XL1	FLAG BYTE 1
	AC 0001C	TIOC0D	EQU	TIOCF1	CHAIN-DATA(CD) FLAG
	00000080	TIOC0DM	EQU	X'80'	CD=1 - CHAINING OF DATA
	AC 0001C	TIOCC	EQU	TIOCF1	CHAIN-COMMAND(CC) FLAG
	00000040	TIOCCM	EQU	X'40'	CC=1 AND CD=0 - CHAINING

(Listing of CHATIO continued on page 452)

(Listing of CHATIO continued from page 451)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
		*			COMMANDS
AC 0001C		TIOSLI	EQU	TIOCF1	
00000020		TIOSLIM	EQU	X'20'	SUPPRESS-LENGTH-INDICATION(SLI) FLA CONTROLS SIGNALING OF INCORRECT LENGTH NOTE: SEE SYSTEM/360 PRINCIPALS OF OPERATION FOR DETAILS
AC 0001C		TIOSKIP	EQU	TIOCF1	SKIP(SKIP)FLAG
00000010		TIOSKIPM	EQU	X'10'	SKIP=1 - NO TRANSFER OF DATA TO STORAGE
AC 0001C		TIOPCI	EQU	TIOCF1	
00000008		TIOPCIM	EQU	X'08'	PROGRAMMED-CONTROLLED-INTERRUPT(PCI)F PCI=1 - CAUSE INTERRUPT WHEN CCW BECOMES ACTIV
AC 0001D			DS	XL1	* BITS 37 THROUGH 39 OF THE CCE MUST BE ZERO
AC 0001E		TIOCNT	DS	H	UNUSED IN THE CCW COUNT OF STORAGE BYTES ASSOCIATED WITH CCW
AC 00020			DS	D	CCW 2
AC 00028			DS	D	CCW 3
AC 00030			DS	D	CCW 4
AC 00038			DS	D	CCW 5
AC 0002E	AC 0002E	TIODSP	ORG  DS	CHATIO+46 H	AREA TO SAVE INFO ON SENSE DISPLACEMENT TO LAST DATA IN CHARACTER
AC 00030		TIOCSW	DS	D	CSW FOR ERROR CAUSING SENSE
AC 00038	AC 00034	TIOST	EQU	TIOCSW+4	STATUS PORTION FROM CSW
		TIOSI	DS	XL1	SENSE INFORMATION BYTE
	AC 00038	TIOTO	EQU	TIOSI	TIMEOUT
	00000001	TIOTOM	EQU	X'01'	1=TIMEOUT OCCURED
	AC 00038	TIOLD	EQU	TIOSI	LOST DATA
	00000002	TIOLDM	EQU	X'02'	1=DATA HAS BEEN LOST
	AC 00038	TIOOR	EQU	TIOSI	OVERRUN
	00000004	TIOORM	EQU	X'04'	1=CHANNEL FAILED TO RESPOND ON TIME
	AC 00038	TIODC	EQU	TIOSI	DATA CHECK
	00000008	TIODCM	EQU	X'08'	1=DATA ERROR OTHER THAN BUS-OUT
	AC 00038	TIOEC	EQU	TIOSI	EQUIPMENT CHECK
	00000010	TIOECM	EQU	X'10'	1=EQUIPMENT MALFUNCTION
	AC 00038	TIOBO	EQU	TIOSI	BUS-OUT CHECK
	00000020	TIOBOM	EQU	X'20'	1=INVALID PARITY DETECTED
	AC 00038	TIOIR	EQU	TIOSI	INTERVENTION REQUIRED
	00000040	TIOIRM	EQU	X'40'	1=NO EXECUTION INTERVENTION NEEDED AT DEVICE
	AC 00038	TIOCR	EQU	TIOSI	COMMAND REJECT
	00000080	TIOCRM	EQU	X'80'	1=DEVICE DETECTED PROGRAMMING ERROR
AC 00039			DS	XL1	UNUSED
AC 0003A		TIOTDA	DS	H	TEMPORARY PHYSICAL DEVICE ADDRESS
AC 0003C		TIOTDE	DS	F	TEMPORARY TDE ENTRY POINTER
	AC 0003C	TIOERR	EQU	TIOTDE	ON SENSE CONTAINS PTR TO ERROR TIOCB
	00000040	TIOLGH	EQU	**TIOFPT	
	AC 00014	TIORTC	EQU	TIOMCB	TEMP
		*			*****

Terminal Access Operational Status Table (CHATOS)

The Terminal Access (TAM) Operational Status Table (TOS) provides intercommunication between TAM read/write and TAM posting, and also provides work and save areas relative to each section. The TOS occupies one page (4096 bytes) of virtual storage, aligned on page boundaries.

The TOS page, connected to a user-opened DCB, is obtained by TAM OPEN for each DCB opened and remains active until the DCB is closed.

CHATOS Storage map

DEC	HEX				
0	0	TOSIOR			
1920	780				
		TOSCCW			
3520	DC0				
		TOSLF			
3720	E88				
		TOSEB	TOSTN		
3728	E90	TOSWL	TOSR1	UNNAMED	
3736	E98	TOSDD	TOSOT	TOSSQC	TOSTEM1
3744	EA0	TOSEOL	TOSBZ	TOSP50	TOSP55
3752	EA8	TOSRSC			
		TOSRS1			
3816	EE8		TOSRS2		
3824	EF0	TOSRS3		TOSRS4	
3832	EF8	TOSRSF	TOSRS6	TOSRS7	TOSRS8
3840	F00	TOSRS9	TOSRS0	TOSRSA	TOSRSB
3848	F08	TOSRSE			
3872	F20			RESERVED	
3880	F28	TOSPS1			

(CHATOS continued on page 454)

(CHATOS continued from page 453)

DEC 3944	HEX F68	TOSRCD					
4016	FB0	ORG OVERLAP					
4040	FC8	TOSPS2			TOSPS4		TOSPS5
4048	FD0	TOSPS6			TOSPS7		
4056	FD8	TOSP60	TOSPP3	TOSPP4	TOSP45	TOSPCW	TOSBFL
4064	FE0	TOSEMCD	TOSTEM2	TOSRV2		TOSRSV	
4072	FE8	TOSSLN	RESERVED			TOSFCCW	
4080	FF0	TOSSDT					
4088	FF8	TOSRV3					

ORG TOSDD

3736	E98	TOSD1	TOSD2
------	-----	-------	-------

ORG TOSD1

3736	E98	TOSDT	TOSDC	TOSAT	TOSAA
------	-----	-------	-------	-------	-------

ORG TOSOT

3740	E9C	TOSOB	TOSFA
------	-----	-------	-------

ORG TOSRSF

3832	EF8	TOSSF1	TOSFS2
------	-----	--------	--------

ORG TOSRCD

3944	F68	TOSRC1	TOSRC2	TOSRC3	TOSRC4	TOSRC5	TOSRC6	TOSRC7	TOSRC8
3952	F70	TOSRC9	TOSRCA	TOSTOF	RESERVED				
3960	F78	TOSRCS							
3968	F80	TOSRSN	TOSRSD		TOSRDT	TOSRCH	TOSRLF	TOSRWE	
3976	F88	TOSE08		TOSE00	TOSE10	TOSE01	TOSE02	TOSE03	TOSE04
3984	F90	TOSE05	TOSE06	TOSE07	TOSS3C	TOSTEM3			

Fields in CHATOS -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>			
0000	0000	TOSIOR	3740	0E9C	TOSW6	(EQU)	3951	0F6F	TOSRC8		
1920	0780	TOSCCW	3740	0E9C	TOSR5	(EQU)	3952	0F70	TOSRC9		
3520	0DC0	TOSER3	(EQU)	3740	0E9C	TOSW5	(EQU)	3953	0F71	TOSRCA	
3520	0DC0	TOSER2	(EQU)	3740	0E9C	TOSR4	(EQU)	3954	0F72	TOSTOF	
3520	0DC0	TOSER1	(EQU)	3740	0E9C	TOSW4	(EQU)	3954	0F72	TOSTO	(EQU)
3520	0DC0	TOSCO	(EQU)	3740	0E9C	TOSR3	(EQU)	3960	0F78	TOSRCS	(EQU)
3520	0DC0	TOSPS	(EQU)	3740	0E9C	TOSW3	(EQU)	3968	0F80	TOSRSN	(EQU)
3520	0DC0	TOSAR	(EQU)	3740	0E9C	TOSW2	(EQU)	3969	0F81	TOSRSD	(EQU)
3520	0DC0	TOSWP	(EQU)	3740	0E9C	TOSR0	(EQU)	3971	0F83	TOSRDT	(EQU)
3520	0DC0	TOSWA	(EQU)	3740	0E9C	TOSR1	(EQU)	3972	0F84	TOSRCH	(EQU)
3520	0DC0	TOSRE	(EQU)	3740	0E9C	TOSW1	(EQU)	3973	0F85	TOSRLF	(EQU)
3520	0DC0	TOSWO	(EQU)	3740	0E9C	TOSOT		3974	0F86	TOSRWE	(EQU)
3520	0DC0	TOSDI	(EQU)	3741	0E9D	TOSFA		3976	0F88	TOSE08	(EQU)
3520	0DC0	TOSDO	(EQU)	3741	0E9D	TOSSA	(EQU)	3978	0F8A	TOSE00	(EQU)
3520	0DC0	TOSEC	(EQU)	3741	0E9D	TOSSL	(EQU)	3979	0F8B	TOSE10	(EQU)
3520	0DC0	TOSDL	(EQU)	3742	0E9E	TOSSQC		3980	0F8C	TOSE01	(EQU)
3520	0DC0	TOSLF		3743	0E9F	TOSTEM1		3981	0F8D	TOSE02	(EQU)
3720	0E88	TOSEB		3744	0EA0	TOSEOL		3982	0F8E	TOSE03	(EQU)
3724	0E8C	TOSTN		3748	0EA4	TOSSBZ		3983	0F8F	TOSE04	(EQU)
3728	0E90	TOSWL		3750	0EA6	TOSP50		3984	0F90	TOSE05	(EQU)
3732	0E94	TOSR1		3751	0EA7	TOSP55		3985	0F91	TOSE06	(EQU)
3736	0E98	TOSDT		3752	0EA8	TOSRSC		3986	0F92	TOSE07	(EQU)
3736	0E98	TOSD1		3756	0EAC	TOSRS1		3987	0F93	TOSS3C	(EQU)
3736	0E98	TOST4	(EQU)	3820	0EEC	TOSRS2		3988	0F94	TOSTEM3	(EQU)
3736	0E98	TOST3	(EQU)	3824	0EF0	TOSRS3		4040	0FC8	TOSPS2	(EQU)
3736	0E98	TOST2	(EQU)	3828	0EF4	TOSRS4		4044	0FCC	TOSPS4	(EQU)
3736	0E98	TOST1	(EQU)	3832	0EF8	TOSSF1		4046	0FCE	TOSPS5	(EQU)
3736	0E98	TOSDD		3832	0EF8	TOSF20	(EQU)	4048	0FD0	TOSPS6	(EQU)
3737	0E99	TOSDC		3832	0EF8	TOSF21	(EQU)	4052	0FD4	TOSPS7	(EQU)
3737	0E99	TOSC2	(EQU)	3832	0EF8	TOSF19	(EQU)	4056	0FD8	TOSP60	(EQU)
3737	0E99	TOSC1	(EQU)	3832	0EF8	TOSF18	(EQU)	4058	0FDA	TOSP37	(EQU)
3738	0E9A	TOSAT		3832	0EF8	TOSF17	(EQU)	4058	0FDA	TOSP36	(EQU)
3738	0E9A	TOSD2		3832	0EF8	TOSF16	(EQU)	4058	0FDA	TOSP35	(EQU)
3738	0E9A	TOSU4	(EQU)	3832	0EF8	TOSF13	(EQU)	4058	0FDA	TOSP34	(EQU)
3738	0E9A	TOSU3	(EQU)	3832	0EF8	TOSF12	(EQU)	4058	0FDA	TOSP33	(EQU)
3738	0E9A	TOSU2	(EQU)	3832	0EF8	TOSF11	(EQU)	4058	0FDA	TOSP32	(EQU)
3738	0E9A	TOSU1	(EQU)	3832	0EF8	TOSF10	(EQU)	4058	0FDA	TOSP31	(EQU)
3738	0E9A	TOSUT	(EQU)	3832	0EF8	TOSRSF		4058	0FDA	TOSP30	(EQU)
3738	0E9A	TOSA5	(EQU)	3833	0EF9	TOSFS2		4058	0FDA	TOSPP3	(EQU)
3738	0E9A	TOSA4	(EQU)	3834	0EFA	TOSRS6		4059	0FDB	TOSP44	(EQU)
3738	0E9A	TOSA3	(EQU)	3836	0EFC	TOSRS7		4059	0FDB	TOSP43	(EQU)
3738	0E9A	TOSA2	(EQU)	3838	0EFE	TOSRS8		4059	0FDB	TOSP42	(EQU)
3738	0E9A	TOSA1	(EQU)	3840	0F00	TOSRS9		4059	0FDB	TOSP41	(EQU)
3739	0E9B	TOSAA		3842	0F02	TOSRS0		4059	0FDB	TOSPP4	(EQU)
3740	0E9C	TOSOB		3844	0F04	TOSRSA		4060	0FDC	TOSP45	(EQU)
3740	0E9C	TOSOA	(EQU)	3846	0F06	TOSRSB		4061	0FDD	TOSPCW	(EQU)
3740	0E9C	TOSO9	(EQU)	3848	0F08	TOSRSE		4062	0FDE	TOSBFL	(EQU)
3740	0E9C	TOSO8	(EQU)	3880	0F28	TOSPS1		4064	0FE0	TOSEMCD	(EQU)
3740	0E9C	TOSO7	(EQU)	3944	0F68	TOSRC1		4065	0FE1	TOSTEM2	(EQU)
3740	0E9C	TOSO6	(EQU)	3944	0F68	TOSRCD		4066	0FE2	TOSRV2	(EQU)
3740	0E9C	TOSO5	(EQU)	3945	0F69	TOSRC2		4068	0FE4	TOSRSV	(EQU)
3740	0E9C	TOSO4	(EQU)	3946	0F6A	TOSRC3		4072	0FE8	TOSSLN	(EQU)
3740	0E9C	TOSO3	(EQU)	3947	0F6B	TOSRC4		4076	0FEC	TOSFCCW	(EQU)
3740	0E9C	TOSO2	(EQU)	3948	0F6C	TOSRC5		4080	0FF0	TOSSDT	(EQU)
3740	0E9C	TOSO1	(EQU)	3949	0F6D	TOSRC6		4084	0FF4	TOSRV3	(EQU)
3740	0E9C	TOSW7	(EQU)	3950	0F6E	TOSRC7					

Alphabetical list of fields in CHATOS

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
TOSAA	3739	0E9B	TOSO1	3740	0E9C (EQU)	TOSRSE	3848	0F08
TOSAR	3520	0DC0 (EQU)	TOSO2	3740	0E9C (EQU)	TOSRSF	3832	0EF8
TOSAT	3738	0E9A	TOSO3	3740	0E9C (EQU)	TOSRSN	3968	0F80
TOSA1	3738	0E9A (EQU)	TOSO4	3740	0E9C (EQU)	TOSRSV	4068	0FE4
TOSA2	3738	0E9A (EQU)	TOSO5	3740	0E9C (EQU)	TOSRS0	3842	0F02
TOSA3	3738	0E9A (EQU)	TOSO6	3740	0E9C (EQU)	TOSRS1	3756	0EAC
TOSA4	3738	0E9A (EQU)	TOSO7	3740	0E9C (EQU)	TOSRS2	3820	0EEC
TOSA5	3738	0E9A (EQU)	TOSO8	3740	0E9C (EQU)	TOSRS3	3824	0EF0
TOSBFL	4062	0FDE	TOSO9	3740	0E9C (EQU)	TOSRS4	3828	0EF4
TOSCCW	1920	0780	TOSPCW	4061	0FDD	TOSRS6	3834	0EFA
TOSCO	3520	0DC0 (EQU)	TOSPP3	4058	0FDA	TOSRS7	3836	0EFC
TOSCI	3737	0E99 (EQU)	TOSPP4	4059	0FDB	TOSRS8	3838	0EFE
TOSC2	3737	0E99 (EQU)	TOSPS	3520	0DC0 (EQU)	TOSRS9	3840	0F00
TOSDC	3737	0E99	TOSPS1	3880	0F28	TOSRV2	4066	0FE2
TOSDD	3736	0E98	TOSPS2	4040	0FC8	TOSRV3	4084	0FF4
TOSDI	3520	0DC0 (EQU)	TOSPS4	4044	0FCC	TOSRWE	3974	0F86
TOSDL	3520	0DC0 (EQU)	TOSPS5	4046	0FCE	TOSR0	3740	0E9C (EQU)
TOSDO	3520	0DC0 (EQU)	TOSPS6	4048	0FD0	TOSR1	3732	0E94
TOSDT	3736	0E98	TOSPS7	4052	0FD4	TOSR3	3740	0E9C (EQU)
TOSD1	3736	0E98	TOSP30	4058	0FDA (EQU)	TOSR4	3740	0E9C (EQU)
TOSD2	3738	0E9A	TOSP31	4058	0FDA (EQU)	TOSR5	3740	0E9C (EQU)
TOSEB	3720	0E88	TOSP32	4058	0FDA (EQU)	TOSSA	3741	0E9D (EQU)
TOSEC	3520	0DC0 (EQU)	TOSP33	4058	0FDA (EQU)	TOSSBZ	3748	0EA4
TOSEMCD	4064	0FE0	TOSP34	4058	0FDA (EQU)	TOSSDT	4080	0FF0
TOSEOL	3744	0EA0	TOSP35	4058	0FDA (EQU)	TOSSF1	3832	0EF8
TOSER1	3520	0DC0 (EQU)	TOSP36	4058	0FDA (EQU)	TOSSL	3741	0E9D (EQU)
TOSER2	3520	0DC0 (EQU)	TOSP37	4058	0FDA (EQU)	TOSSLN	4072	0FE8
TOSER3	3520	0DC0 (EQU)	TOSP41	4059	0FDB (EQU)	TOSSQC	3742	0E9E
TOSE00	3978	0F8A	TOSP42	4059	0FDB (EQU)	TOSS3C	3987	0F93
TOSE01	3980	0F8C	TOSP43	4059	0FDB (EQU)	TOSTEM1	3743	0E9F
TOSE02	3981	0F8D	TOSP44	4059	0FDB (EQU)	TOSTEM2	4065	0FE1
TOSE03	3982	0F8E	TOSP45	4060	0FDC	TOSTEM3	3988	0F94
TOSE04	3983	0F8F	TOSP50	3750	0EA6	TOSTN	3724	0E8C
TOSE05	3984	0F90	TOSP55	3751	0EA7	TOSTO	3954	0F72 (EQU)
TOSE06	3985	0F91	TOSP60	4056	0FD8	TOSTOF	3954	0F72
TOSE07	3986	0F92	TOSRCA	3953	0F71	TOST1	3736	0E98 (EQU)
TOSE08	3976	0F88	TOSRCD	3944	0F68	TOST2	3736	0E98 (EQU)
TOSE10	3979	0F8B	TOSRCH	3972	0F84	TOST3	3736	0E98 (EQU)
TOSFA	3741	0E9D	TOSRCS	3960	0F78	TOST4	3736	0E98 (EQU)
TOSFCCW	4076	0FEC	TOSRC1	3944	0F68	TOSUT	3738	0E9A (EQU)
TOSFS2	3833	0EF9	TOSRC2	3945	0F69	TOSU1	3738	0E9A (EQU)
TOSF10	3832	0EF8 (EQU)	TOSRC3	3946	0F6A	TOSU2	3738	0E9A (EQU)
TOSF11	3832	0EF8 (EQU)	TOSRC4	3947	0F6B	TOSU3	3738	0E9A (EQU)
TOSF12	3832	0EF8 (EQU)	TOSRC5	3948	0F6C	TOSU4	3738	0E9A (EQU)
TOSF13	3832	0EF8 (EQU)	TOSRC6	3949	0F6D	TOSWA	3520	0DC0 (EQU)
TOSF16	3832	0EF8 (EQU)	TOSRC7	3950	0F6E	TOSWL	3728	0E90
TOSF17	3832	0EF8 (EQU)	TOSRC8	3951	0F6F	TOSWO	3520	0DC0 (EQU)
TOSF18	3832	0EF8 (EQU)	TOSRC9	3952	0F70	TOSWP	3520	0DC0 (EQU)
TOSF19	3832	0EF8 (EQU)	TOSRDT	3971	0F83	TOSW1	3740	0E9C (EQU)
TOSF20	3832	0EF8 (EQU)	TOSRE	3520	0DC0 (EQU)	TOSW2	3740	0E9C (EQU)
TOSF21	3832	0EF8 (EQU)	TOSRI	3740	0E9C (EQU)	TOSW3	3740	0E9C (EQU)
TOSIOR	0000	0000	TOSRLF	3973	0F85	TOSW4	3740	0E9C (EQU)
TOSLF	3520	0DC0	TOSRSA	3844	0F04	TOSW5	3740	0E9C (EQU)
TOSOA	3740	0E9C (EQU)	TOSRSB	3846	0F06	TOSW6	3740	0E9C (EQU)
TOSOB	3740	0E9C	TOSRSC	3752	0EA8	TOSW7	3740	0E9C (EQU)
TOSOT	3740	0E9C	TOSRSD	3969	0F81			



Assembler listing of CHATOS

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	AD 00000	CHATOS	DSECT		
AD 00000			DS	0D	ALIGN ON DBL WORD BOUNDARY
AD 00000		TOSIOR	DS	240D	AREA USED TO CREATE CHAIOR
AD 00780		TOSCCW	DS	200D	CCW BUILD AREA
AD 00DC0		TOSLF	DS	XL200	LOGICAL FUNCTION BYTES
	AD 00DC0	TOSDL	EQU	TOSLF	LOGICAL FUNCTION CODE DIAL
	00000002	TOSDLM	EQU	X'02'	LOGICAL FUNCTION CODE DIAL
		*			MA
	AD 00DC0	TOSSEC	EQU	TOSLF	LOGICAL FUNCTION CODE END
		*			CON
	00000004	TOSECM	EQU	X'04'	LOGICAL FUNCTION CODE END
		*			CON
	AD 00DC0	TOSDO	EQU	TOSLF	LOGICAL FUNCTION CODE DATA
		*			OU
	00000006	TOSDOM	EQU	X'06'	LOGICAL FUNCTION CODE DATA
		*			OU
	AD 00DC0	TOSDI	EQU	TOSLF	LOGICAL FUNCTION CODE DATA
		*			IN
	00000008	TOSDIM	EQU	X'08'	LOGICAL FUNCTION CODE DATA
		*			IN
	AD 00DC0	TOSWO	EQU	TOSLF	LOGICAL FUNCTION CODE
		*			WRITE E
	0000000A	TOSWOM	EQU	X'0A'	LOGICAL FUNCTION CODE
		*			WRITE E
	AD 00DC0	TOSRE	EQU	TOSLF	LOGICAL FUNCTION CODE READ
		*			ER
	0000000C	TOSREM	EQU	X'0C'	LOGICAL FUNCTION CODE READ
		*			ER
	AD 00DC0	TOSWA	EQU	TOSLF	LOGICAL FUNCTION CODE
		*			WRITE A
	0000000E	TOSWAM	EQU	X'0E'	LOGICAL FUNCTION CODE
		*			WRITE A
	AD 00DC0	TOSWP	EQU	TOSLF	LOGICAL FUNCTION CODE
		*			WRITE P
	00000010	TOSWPM	EQU	X'10'	LOGICAL FUNCTION CODE
		*			WRITE P
	AD 00DC0	TOSAR	EQU	TOSLF	LOGICAL FUNCTION CODE
		*			ADDRESS
	00000012	TOSASM	EQU	X'12'	LOGICAL FUNCTION CODE
		*			ADDRESS
	AD 00DC0	TOSPS	EQU	TOSLF	LOGICAL FUNCTION CODE
		*			POLLING
	00000014	TOSPSM	EQU	X'14'	LOGICAL FUNCTION CODE
		*			POLLING
	AD 00DC0	TOSCO	EQU	TOSLF	LOGICAL FUNCTION CODE
		*			CONTROL
	0000001C	TOSCOM	EQU	X'1C'	LOGICAL FUNCTION CODE
		*			CONTROL
	AD 00DC0	TOSER1	EQU	TOSLF	LOG. FUNCT CODE WRITE ERR
		*			MESAG
	00000016	TOSER1M	EQU	X'16'	LOG. FUNCT CODE WRITE ERR
		*			MESAG
	AD 00DC0	TOSER2	EQU	TOSLF	LOG. FUNCT CODE ERROR TIC
	00000018	TOSER2M	EQU	X'18'	LOG. FUNCT CODE ERROR TIC
	AD 00DC0	TOSER3	EQU	TOSLF	LOG. FUNCT CODE NEG
		*			RESPONSE
	0000001A	TOSER3M	EQU	X'1A'	LOG. FUNCT CODE NEG
		*			RESPONSE
AD 00E88		TOSER	DS	F	ADDRESS OF DECB
AD 00E8C		TOSTN	DS	F	ADDRESS OF TRANSLATE TABLE
AD 00E90		TOSWL	DS	F	REMAINING DATA OUT COUNT
AD 00E94		TOSR1	DS	CL1	NOT USED AT PRESENT
AD 00E95			DS	CL3	NOT USED AT PRESENT
AD 00E98		TOSDD	DS	F	DEVICE TYPE DATA
	AD 00E98		ORG	TOSDD	
AD 00E98			DS	0H	
AD 00E98		TOSD1	DS	XL2	MODEL CODE AND DEVICE CLASS
AD 00E9A		TOSD2	DS	H	UNIT TYPE AND UNIT ADDRESS

(Listing of CHATOS continued on page 458)

(Listing of CHATOS continued from page 457)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	AD 00E98		<u>ORG</u>	TOSD1	
AD 00E98		TOSDT	DS	XL1	DEVICE TYPE CODE
	AD 00E98	TOST1	EQU	TOSDT	1050 TERMINAL
	00000001	TOS1T	EQU	X'01'	1050 TERMINAL CODE
	AD 00E98	TOST2	EQU	TOSDT	2741 TERMINAL
	00000002	TOS2M	EQU	X'02'	2741 TERMINAL CODE
	AD 00E98	TOST3	EQU	TOSDT	MOD 35 TTY
	00000003	TOS3M	EQU	X'03'	MOD 35 TTY MASK
	AD 00E98	TOST4	EQU	TOSDT	1052 TERMINAL
	00000004	TOS4M	EQU	X'04'	1052 TERMINAL CODE
	00000002	TOSTS2	EQU	X'02'	COUNT FOR SHIFTING TERM
		*			TYPE
AD 00E99		TOSDC	DS	XL1	DEVICE CLASS
	AD 00E99	TOSC1	EQU	TOSDC	DIAL LINE
	00000001	TOSM1	EQU	X'01'	DIAL LINE CODE
	AD 00E99	TOSC2	EQU	TOSDC	DEDICATED LINE
	00000002	TOSM2	EQU	X'02'	DEDICATED LINE CODE
AD 00E9A		TOSAT	DS	XL1	UNIT ADAPTOR TYPE
	AD 00E9A	TOSA1	EQU	TOSAT	IBM TERMINAL ADAPTOR/TYPE 1
	00000010	TOS1A	EQU	X'10'	IBM TERMINAL ADAPTOR/TYPE 1
		*			CO
	AD 00E9A	TOSA2	EQU	TOSAT	IBM TERMINAL ADAPTOR/TYPE 2
	00000020	TOS2A	EQU	X'20'	IBM TERMINAL ADAPTOR/TYPE 2
		*			CO
	AD 00E9A	TOSA3	EQU	TOSAT	IBM TELEGRAPH ADAPTOR TYPE
		*			1
	00000030	TOS3A	EQU	X'30'	IBM TELEGRAPH ADAPTOR TYPE
		*			1 C
	AD 00E9A	TOSA4	EQU	TOSAT	IBM TELEGRAPH ADAPTOR TYPE
		*			2
	00000040	TOS4A	EQU	X'40'	IBM TELEGRAPH ADAPTOR TYPE
		*			2 C
	AD 00E9A	TOSA5	EQU	TOSAT	IBM TERMINAL ADAPTOR TYPE 3
	00000080	TOS5A	EQU	X'80'	IBM TERMINAL ADAPTOR TYPE 3
		*			CO
	AD 00E9A	TOSUT	EQU	TOSAT	DEVICE CONTROL UNIT OR
		*			CHANNEL
	AD 00E9A	TOSU1	EQU	TOSUT	2702 CONTROL UNIT
	00000001	TOS1U	EQU	X'01'	2702 CONTROL UNIT CODE
	AD 00E9A	TOSU2	EQU	TOSUT	2701 CONTROL UNIT
	00000002	TOS2U	EQU	X'02'	2701 CONTROL UNIT CODE
	AD 00E9A	TOSU3	EQU	TOSUT	MULTIPLEXOR CHANNEL
	00000003	TOS3U	EQU	X'03'	MULTIPLEXOR CHANNEL CODE
	AD 00E9A	TOSU4	EQU	TOSUT	SELECTOR CHANNEL
	00000004	TOS4U	EQU	X'04'	SELECTOR CHANNEL CODE
	0000000F	TOSCU	EQU	X'0F'	CONTROL UNIT MASK
	00000002	TOSCS2	EQU	X'02'	COUNT FOR SHIFT UNIT ADAP
		*			TYPE
AD 00E9B		TOSAA	DS	CL1	ADAPTOR ADDRESS
AD 00E9C			DS	0H	
AD 00E9C		TOSOT	<u>DS</u>	XL2	OPTION TYPE
AD 00E9C	AD 00E9C		<u>ORG</u>	TOSOT	
		TOSOB	DS	XL1	OPTION BYTE
	AD 00E9C	TOSW1	EQU	TOSOB	WRITE INITIAL /DIAL
	00000008	TOS1W	EQU	X'08'	WRITE INITIAL /DIAL MASK
	AD 00E9C	TOSRI	EQU	TOSOB	READ INITIAL/DIAL
	00000002	TOSIR	EQU	X'02'	READ INITIAL/DIAL MASK
	AD 00E9C	TOSR0	EQU	TOSOB	READ INITIAL
	00000004	TOS2R	EQU	X'04'	READ INITIAL MASK
	AD 00E9C	TOSW2	EQU	TOSOB	WRITE INITIAL
	0000000A	TOS2W	EQU	X'0A'	WRITE INITIAL MASK
	AD 00E9C	TOSW3	EQU	TOSOB	WRITE CONTINUE
	0000000C	TOS3W	EQU	X'0C'	WRITE CONTINUE MASK
	AD 00E9C	TOSR3	EQU	TOSOB	READ CONTINUE
	00000006	TOS3R	EQU	X'06'	READ CONTINUE MASK
	AD 00E9C	TOSW4	EQU	TOSOB	WRITE INITIAL/DIAL/REPEAT
	00000009	TOS4W	EQU	X'09'	WRITE INITIAL/DIAL/REPEAT
		*			MASK

(Listing of CHATOS continued on page 459)

(Listing of CHATOS continued from page 458)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	AD 00E9C	TOSR4	EQU	TOSOB	READ INITIAL/DIAL/REPEAT
	00000003	TOS4R	EQU	X'03'	READ INITIAL/DIAL/REPEAT MASK
	AD 00E9C	TOSW5	EQU	TOSOB	WRITE INITIAL/REPEAT
	0000000B	TOS5W	EQU	X'0B'	WRITE INITIAL/REPEAT MASK
	AD 00E9C	TOSR5	EQU	TOSOB	READ INITIAL/REPEAT
	00000005	TOS5R	EQU	X'05'	READ INITIAL/REPEAT MASK
	AD 00E9C	TOSW6	EQU	TOSOB	WRITE WITH RESPONSE
	0000000E	TOS6W	EQU	X'0E'	WRITE WITH RESPONSE MASK
	AD 00E9C	TOSW7	EQU	TOSOB	WRITE WITH RESPONSE/REPEAT
	0000000F	TOS7W	EQU	X'0F'	WRITE WITH RESPONSE/REPEAT MASK
	AD 00E9C	TOSO1	EQU	TOSOB	DISABLE
	00000065	TOS10	EQU	X'65'	DISABLE MASK
	AD 00E9C	TOSO2	EQU	TOSOB	ENABLE
	00000066	TOS24	EQU	X'66'	ENABLE MASK
	AD 00E9C	TOSO3	EQU	TOSOB	PREPARE
	00000068	TOS30	EQU	X'68'	PREPARE MASK
	AD 00E9C	TOSO4	EQU	TOSOB	SADZERO
	0000006C	TOS40	EQU	X'6C'	SADZERO MASK
	AD 00E9C	TOSO5	EQU	TOSOB	SADONE
	00000069	TOS50	EQU	X'69'	SADONE MASK
	AD 00E9C	TOSO6	EQU	TOSOB	SADTWO
	0000006A	TOS60	EQU	X'6A'	SADTWO MASK
	AD 00E9C	TOSO7	EQU	TOSOB	SADTHREE
	0000006B	TOS70	EQU	X'6B'	SADTHREE MASK
	AD 00E9C	TOSO8	EQU	TOSOB	AUTOWRAP
	00000064	TOS80	EQU	X'64'	AUTOWRAP MASK
	AD 00E9C	TOSO9	EQU	TOSOB	INHIBIT
	00000067	TOS90	EQU	X'67'	INHIBIT MASK
	AD 00E9C	TOSOA	EQU	TOSOB	BREAK
	0000006D	TOSAO	EQU	X'6D'	BREAK MASK
AD 00E9D		TOSFA	DS	XL1	USER BUFFER FLAGS
	AD 00E9D	TOSSL	EQU	TOSFA	USER BUFFER LENGTH FLAG
	00000080	TOSLS	EQU	X'80'	USER BUFFER LENGTH FLAG MASK
	00000020	TOSLC	EQU	X'20'	CONVERSATIONAL MODE FLAG
	AD 00E9D	TOSSA	EQU	TOSFA	USER BUFFER AREA FLAG
	00000040	TOSAS	EQU	X'40'	USER BUFFER AREA FLAG MASK
AD 00E9E		TOSSQC	DS	XL1	NO.OF CHARS.IN END OF LINE SEQ.
AD 00E9F		TOSTEM1	DS	CL1	UNUSED
AD 00EA0		TOSEOL	DS	F	EOL SEQUENCE CHARACTERS
AD 00EA4		TOSSBZ	DS	H	STANDARD INPUT BUFFER SIZE
AD 00EA6		TOSP50	DS	CL1	COPY OF IORCL
AD 00EA7		TOSP55	DS	CL1	COPY OF IORLN
AD 00EA8		TOSRSC	DS	F	SDAT ADDRESS
AD 00EAC		TOSRS1	DS	16F	READ/WRITE REGISTER SAVE AREA
AD 00EEC		TOSRS2	DS	F	TERMINAL CHANNEL PROGRAM GENER
AD 00EF0		TOSRS3	DS	F	ADDRESS OF TRANSLATE AND TEST
AD 00EF4		TOSRS4	DS	F	ADDRESS OF CALLING PROGRAM REG
AD 00EF8		TOSRSF	DS	H	READ/WRITE FLAG AREA
AD 00EF8	AD 00EF8	TOSSSF1	DS	XL1	READ/WRITE FLAG BYTE 1
	AD 00EF8	TOSF10	EQU	TOSSSF1	POSTING ENTRY FLAG
	00000080	TOSM10	EQU	X'80'	POSTING ENTRY MASK
	0000007F	TOSM15	EQU	X'7F'	POSTING ENTRY MASK OFF
	AD 00EF8	TOSF11	EQU	TOSSSF1	WRITE HALT INDICATOR END OF MSG
	00000040	TOSM11	EQU	X'40'	WRITE HALT MASK
	AD 00EF8	TOSF12	EQU	TOSSSF1	READ HALT INDICATOR MAX CCW LI
	00000020	TOSM12	EQU	X'20'	READ HALT MASK
	AD 00EF8	TOSF13	EQU	TOSSSF1	BYPASS CHARACTER DETECTED

(Listing of CHATOS continued on page 460)

(Listing of CHATOS continued from page 459)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	00000010	TOSM13	EQU	X'10'	IN O
	000000EF	TOSM14	EQU	X'EF'	BYPASS MASK
	AD 00EF8	TOSF16	EQU	TOSSF1	BYPASS MASK
	00000001	TOSM16	EQU	X'01'	IORCB COMPLETE FLAG
	AD 00EF8	TOSF17	EQU	TOSSF1	IORCB COMPLETE MASK
	000000BF	TOSM17	EQU	X'BF'	WRITE HALT FLAG
	AD 00EF8	TOSF18	EQU	TOSSF1	WRITE HALT MASK OFF
	000000FE	TOSM18	EQU	X'FE'	IORCB COMPLETE INDICATOR
	AD 00EF8	TOSF19	EQU	TOSSF1	IORCB MASK OFF
	00000002	TOSM19	EQU	X'02'	SUPPRESS LINEATION FLAG
	AD 00EF8	TOSF21	EQU	TOSSF1	SUPPRESS LINEATION MASK
	00000004	TOSM21	EQU	X'04'	NEW LINE INDICATOR FLAG
	000000FB	TOSM22	EQU	X'FB'	NEW LINE INDICATOR MASK
	AD 00EF8	TOSF20	EQU	TOSSF1	MASK FOR NEW LINE FLAG OFF
	000000FD	TOSM20	EQU	X'FD'	LINEATION FLAG OFF
AD 00EF9		TOSFS2	DS	XL1	LINEATION FLAG OFF MASK
AD 00EFA		TOSRS6	DS	H	READ/WRITE FLAG BYTE 2
AD 00EFC		TOSRS7	DS	H	CONTINUATION DISPLACEMENT
		*			CHANNEL PROGRAM GENERATOR
					DISP
AD 00EFE		TOSRS8	DS	H	CONTINUATION WORK AREA
AD 00F00		TOSRS9	DS	H	CPG DISPLACEMENT STORE AREA
AD 00F02		TOSRS0	DS	H	REMAINING PRINT LINE COUNT
AD 00F04		TOSRSA	DS	H	DIAL DIGIT COUNT
AD 00F06		TOSRSB	DS	H	RESERVED
AD 00F08		TOSRSE	DS	15H	UNUSED
AD 00F28		TOSPS1	DS	16F	POSTING REGISTER SAVE AREA
AD 00F68		TOSRCD	DS	9D	INTERNAL ERROR RECORDING
		*			AREA
	AD 00F68		<u>ORG</u>	TOSRCD	
AD 00F68		TOSRC1	DS	XL1	EQUIPMENT CHECK COUNT
	00000003	TOSC1M	EQU	X'03'	MAX COUNT EQUIPMENT CHECK
AD 00F69		TOSRC2	DS	XL1	BUS OUT CHECK COUNT
	00000003	TOSC2M	EQU	X'03'	MAX COUNT BUS OUT
AD 00F6A		TOSRC3	DS	XL1	COMMAND REJECT COUNT
	00000003	TOSC3M	EQU	X'03'	MAX COUNT COMMAND REJECT
AD 00F6B		TOSRC4	DS	XL1	OVERRUN COUNT
	00000003	TOSC4M	EQU	X'03'	MAX COUNT OVERRUN
AD 00F6C		TOSRC5	DS	XL1	INTERVENTION REQUIRED
	00000003	TOSC5M	EQU	X'03'	MAX COUNT INTERVENTION
		*			REQUIRE
AD 00F6D		TOSRC6	DS	XL1	TIME OUT COUNT
	00000003	TOSC6M	EQU	X'03'	MAX COUNT TIMEOUT
AD 00F6E		TOSRC7	DS	XL1	DATA CHECK COUNT
	00000003	TOSC7M	EQU	X'03'	MAX COUNT DATA CHECK
AD 00F6F		TOSRC8	DS	XL1	RECEIVING CHECK
	00000003	TOSC8M	EQU	X'03'	MAX COUNT RECEIVING COUNT
AD 00F70		TOSRC9	DS	XL1	MASTER ERROR COUNT
		*			CONSECUTIVE
	0000000A	TOSC9M	EQU	X'0A'	MAX CONSECUTIVE ERROR COUNT
AD 00F71		TOSRCA	DS	XL1	ILLEGAL UNIT EXCEPTION
		*			COUNT
	00000003	TOSCAM	EQU	X'03'	MAX COUNT ILL UNIT
		*			EXCEPTION
AD 00F72		TOSTOF	DS	XL1	TAM OPEN COMMUNICATION BYTE
	AD 00F72	TOSTO	EQU	TOSTOF	2741/1050 TIME OUT TEST
	00000080	TOSTOM	EQU	X'80'	TIME OUT TEST IN PROGRESS
		*			MASK
AD 00F78			DS	0D	
AD 00F78		TOSRCS	DS	XL8	RECORD CSW
AD 00F80		TOSRSN	DS	XL1	RECORD SENSE BYTE
AD 00F81		TOSRSD	DS	CL2	RECORD SYMBOLIC DEVICE
		*			ADDRES
AD 00F83		TOSRDT	DS	XL1	RECORD DEVICE TYPE
AD 00F84		TOSRCH	DS	XL1	RECORD CHANL OR DCU TYPE
AD 00F85		TOSRLP	DS	XL1	RECORD LOGICAL FUNCTION
AD 00F86		TOSRWE	DS	XL2	RECORD COMPLETE WITHOUT
		*			ERROR

(Listing of CHATOS continued on page 461)

(Listing of CHATOS continued from page 460)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
AD 00F88		TOSE08	DS	XL2	REL. ADDRESS OF INTERRUPTED CSW
		*			
AD 00F8A		TOSE00	DS	XL1	ZERO RETRY COUNT BYTE 2
AD 00F8B		TOSE10	DS	XL1	ZERO RETRY COUNT BYTE 1
AD 00F8C		TOSE01	DS	XL1	INCORRECT LENGTH RETRY COUNT
		*			
AD 00F8D		TOSE02	DS	XL1	PROGRAM CHECK RETRY COUNT
AD 00F8E		TOSE03	DS	XL1	PROTECTION CHECK RETRY COUNT
		*			
AD 00F8F		TOSE04	DS	XL1	CHANNEL DATA CHECK RETRY COUNT
		*			
AD 00F90		TOSE05	DS	XL1	CHANNEL CONTROL CHK RETRY COUNT
		*			
AD 00F91		TOSE06	DS	XL1	INTERFACE CNTRL CHK RETRY COUNT
		*			
AD 00F92		TOSE07	DS	XL1	CHAINING CHECK RETRY COUNT
	00000003	TOSE09	EQU	X'03'	MAX INBOARD ERROR COUNT
AD 00F93		TOSS3C	DS	XL1	
	00000003	TOSS3M	EQU	X'03'	STATUS THREE RETRY COUNTER MASK
		*			
AD 00F94			DS	0F	
AD 00F94		TOSTEM3	DS	XL52	DATA EXTENT BLOCK
AD 00FC8		TOSPS2	DS	F	ADDRESS OF CALLING PROGRAM REG
		*			
AD 00FCC		TOSPS4	DS	XL2	ACCUM. DATA-IN COUNT
AD 00FCE		TOSPS5	DS	XL2	INCR. DATA-IN CHAR COUNT
AD 00FD0		TOSPS6	DS	F	ADDRESS OF USER INPUT BUFFER
		*			
AD 00FD4		TOSPS7	DS	F	NEXT FREE LOCATION IN USER INP
		*			
AD 00FD8		TOSP60	DS	H	ADDR PORTION OF LAST ERROR TIC
		*			
AD 00FDA		TOSPP3	DS	XL1	INTERNAL POSTING FLAGS BYTE 1
		*			
	AD 00FDA	TOSP30	EQU	TOSPP3	UNUSED
	AD 00FDA	TOSP31	EQU	TOSPP3	UNIT EXCEPTION INTERRUPT
	00000040	TOS31M	EQU	X'40'	UNIT EXCEPTION INTERRUPT MASK
		*			
	AD 00FDA	TOSP32	EQU	TOSPP3	MASTER EXCEPTION INTERRUPT
	00000020	TOS32M	EQU	X'20'	MASTER EXCEPTION INTERRUPT FLA
		*			
	00000057	TOS32R	EQU	X'57'	RESET MASTER EXCEPTION MASK
	AD 00FDA	TOSP33	EQU	TOSPP3	INPUT MESSAGE COMPLETE
	00000010	TOS33M	EQU	X'10'	
	AD 00FDA	TOSP34	EQU	TOSPP3	ABORT
	00000008	TOS34M	EQU	X'08'	ABORT MASK
	AD 00FDA	TOSP35	EQU	TOSPP3	ATTENTION ON READ
	00000004	TOS35M	EQU	X'04'	ATTENTION ON READ MASK
	AD 00FDA	TOSP36	EQU	TOSPP3	ATTENTION ON WRITE
	00000002	TOS36M	EQU	X'02'	ATTENTION ON WRITE MASK
	AD 00FDA	TOSP37	EQU	TOSPP3	USER BUFFER SET
	00000001	TOS37M	EQU	X'01'	USER BUFFER SET MASK
AD 00FDB		TOSPP4	DS	XL1	INTERNAL POSTING FLAGS BYTE 2
		*			
	AD 00FDB	TOSP41	EQU	TOSPP4	STATUS 1 FLAG
	00000080	TOS41M	EQU	X'80'	STATUS 1 MASK
	AD 00FDB	TOSP42	EQU	TOSPP4	STATUS 2 FLAG
	00000040	TOS42M	EQU	X'40'	STATUS 2 MASK
	AD 00FDB	TOSP43	EQU	TOSPP4	RECOVERY IN PROGRESS

(Listing of CHATOS continued on page 462)

(Listing of CHATOS continued from page 461)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000020	TOS43M	EQU	X'20'	RECOVERY IN PROGRESS MASK
	AD 00FDB	TOSP44	EQU	TOSPP4	STATUS THREE FLAG
	00000010	TOS44M	EQU	X'10'	STATUS THREE MASK
AD 00FDC		TOSP45	DS	XL1	ERROR MESSAGE CODE
AD 00FDD		TOSPCW	DS	XL1	PROCESSED CCW COUNT
AD 00FDE		TOSBFL	DS	H	DCB BUFFER LENGTH SAVE
AD 00FE0		TOSEMCD	DS	XL1	ERROR MESSAGE CODE FOR OPERATOR
		*			
AD 00FE1		TOSTEM2	DS	CL1	ERROR SAVE AREA
AD 00FE2		TOSRV2	DS	1H	UNUSED
AD 00FE4		TOSRSV	DS	1F	SAVE AREA FOR REG 14
AD 00FE8		TOSSLN	DS	1H	SAVE USER BUFFER LENGTH
AD 00FEC		TOSFCCW	DS	1F	V.M. ADDRESS OF FAILING CCW
AD 00FF0		TOSSDT	DS	1F	ADDRESS OF SDT ENTRY
AD 00FF4		TOSRV3	DS	11C	UNUSED

Text Editor Transaction Table (CHATRN)

The Text Editor Transaction Table (CHATRN) is set by the Text Editor in response to user commands. The table is also used by language processors to detect changes to the source data set. CHATRN resides in virtual storage, aligned on word boundaries.

CHATRN Storage map

DEC	HEX		
0	0	TRNDCB	TRNNAM
8	8	TRNNAM (CONT)	TRNRGL   TRNPRO   TRNLKL
16	10	TRNREG	
256	100	TRNLKY	
504	1F8		TRNN2M
512	200	TRNN2M (CONT)	TRNINC
520	208	TRNINC (CONT)	TRNDINC
528	210	TRNDINC (CONT)   RESERVED	TRNSCAN
536	218	TRNSCAN (CONT)	TRNADD
544	220	TRNDDL	TRNNLK
552	228	TRNNXT	TRNLIL

Fields in CHATRN -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TRNDCB	0510	01FE	TRNN2M	0552	0228	TRNNXT
0004	0004	TRNNAM	0517	0205	TRNINC	0552	0228	TRNLST (EQU)
0012	000C	TRNRGL	0524	020C	TRNDINC	0556	022C	TRNLIL
0014	000E	TRNPRO	0532	0214	TRNSCAN	0560	0230	TRNLIN (EQU)
0015	000F	TRNLKL	0540	021C	TRNADD	0560	0230	TRNKEY (EQU)
0016	0010	TRNREG	0544	0220	TRNDDL			
0263	0107	TRNLKY	0548	0224	TRNNLK			

Alphabetical list of fields in CHATRN

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TRNADD	0540	021C	TRNLIN	0560	0230 (EQU)	TRNN2M	0510	01FE
TRNDCB	0000	0000	TRNLKL	0015	000F	TRNPRO	0014	000E
TRNDDL	0544	0220	TRNLKY	0263	0107	TRNREG	0016	0010
TRNDINC	0524	020C	TRNLST	0552	0228 (EQU)	TRNRGL	0012	000C
TRNINC	0517	0205	TRNNAM	0004	0004	TRNSCAN	0532	0214
TRNKEY	0560	0230 (EQU)	TRNNLK	0548	0224			
TRNLIL	0556	022C	TRNNXT	0552	0228			

Assembler listing of CHATRN

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	AE 00000	CHATRN	DSECT		
					* LINE EDITOR TRANSACTION TABLE - CHATRN
					* THIS TABLE IS SET BY THE LINE EDITOR IN RESPONSE
					* TO USER COMMANDS
					* AND IS USED BY LANGUAGE PROCESSORS TO DETECT
					* CHANGES TO THE
					*
AE 00000	TRNDCB	DS	A		SOURCE DATA SET.
					ADDRESS OF DCB FOR DATA SET,
					BEING EDITED
AE 00004	TRNNAM	DS	CL8		PROCESSOR NAME
AE 0000C		DS	0H		
AE 0000C	TRNRGL	DS	XL2		REGION NAME LENGTH BYTES
AE 0000E	TRNPRO	DS	XL1		TRANSACTIONS PROCESSED
					*
					SWITCH
AE 0000F	TRNLKL	DS	XL1		LAST KEY LENGTH
AE 00010	TRNREG	DS	CL247		CURRENT KEY
AE 00107	TRNLKY	DS	CL247		LAST KEY IN DATA SET
AE 001FE	TRNN2M	DS	CL7		CURRENT MAXIMUM FOR N2
AE 00205	TRNINC	DS	CL7		CURRENT INCREMENT
AE 0020C	TRNDINC	DS	CL7		DEFAULT INCREMENT
					*
					N365
AE 00214	TRNSCAN	DS	2A		LPC SCAN ROUTINE
					*
					N365
AE 0021C	TRNADD	DS	A		POINTER TO HEAD OF ADDITION
					LIST
					*
AE 00220	TRNDDL	DS	A		POINTER TO HEAD OF DELETION
					LIST
					*
AE 00224	TRNNLK	DS	A		NEXT AVAILABLE ENTRY SPACE
					* ADDITION AND DELETION LIST FORMATS-THESE ARE
					* LINKED LISTS OF VARIABLE
					*
					LENGTH ENTRIES
	AE 00228	TRNLST	EQU	*	
AE 00228		TRNNXT	DS	A	POINTER TO NEXT ENTRY OR
					END FLAG (ZERO)
					*
AE 0022C	TRNLIL	DS	A		LENGTH OF RECORD IN BYTES
	AE 00230	TRNKEY	EQU	*	KEY STARTS HERE
	AE 00230	TRNLIN	EQU	*	LINE IMAGE STARTS AFTER KEY



Task Symbolic Device List (CHATSD)

The Task Symbolic Device list (TSD) contains information required by resident routines to identify and control devices assigned to a task.

An entry is posted to the task's TSD when a device is allocated to the task by device management. If an entry for the device already exists, then a counter in the existing entry is increased by one. This process is reversed at device release time and when the counter reads zero the entry is removed from the TSD.

All I/O requests are checked against the TSD; if the addressed device has no TSD entry for the task, the I/O request will be rejected by the Supervisor.

The TSD maintains queue discipline whenever dequeuing procedures are activated. The correct TSD entry is used as a focal point around which a series of Supervisor processors can interlock their various operations. This interlock guarantees an orderly return of all of the task stacked I/O requests to a device, when the initial request in the stack for that task cannot be executed successfully.

The TSD consists of one or more 64-byte blocks with each block chained to the subsequent block in the table. The first block is located by the task's TSI, and the chain address in the last block is all zeros.

CHATSD Storage map

DEC	HEX		
0	0	TSDFL	TSDE2
8	8	TSDE3	TSDE4
16	10	TSDE5	TSDE6
24	18	TSDE7	TSDE8
32	20	TSDE9	TSDE10
40	28	TSDE11	TSDE12
48	30	TSDE13	TSDE14
56	38	TSDE15	TSDCA

Fields in CHATSD -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TSDAC (EQU)	0002	0002	TSDDA	0032	0020	TSDE9
0000	0000	TS DPR (EQU)	0004	0004	TSDE2	0036	0024	TSDE10
0000	0000	TS DRI (EQU)	0008	0008	TSDE3	0040	0028	TSDE11
0000	0000	TS DIU (EQU)	0012	000C	TSDE4	0044	002C	TSDE12
0000	0000	TSDFL	0016	0010	TSDE5	0048	0030	TSDE13
0000	0000	TSDE1	0020	0014	TSDE6	0052	0034	TSDE14
0000	0000	TSDBEG	0024	0018	TSDE7	0056	0038	TSDE15
0001	0001	TS DZZ1	0028	001C	TSDE8	0060	003C	TSDCA

Alphabetical list of fields in CHATSD

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TSDAC	0000	0000 (EQU)	TSDE13	0048	0030	TSDE7	0024	0018
TSDBEG	0000	0000	TSDE14	0052	0034	TSDE8	0028	001C
TSDCA	0060	003C	TSDE15	0056	0038	TSDE9	0032	0020
TSDDA	0002	0002	TSDE2	0004	0004	TSDFL	0000	0000
TSDE1	0000	0000	TSDE3	0008	0008	TS DIU	0000	0000 (EQU)
TSDE10	0036	0024	TSDE4	0012	000C	TS DPR	0000	0000 (EQU)
TSDE11	0040	0028	TSDE5	0016	0010	TS DRI	0000	0000 (EQU)
TSDE12	0044	002C	TSDE6	0020	0014	TS DZZ1	0001	0001

Assembler listing of CHATSD

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	AF 00000	CHATSD	DSECT		TASK SYMBOLIC DEVICE LIST (TSDL)
		*			
AF 00000		TSDBEG	DS	OF	ALIGN ON FULL WORD BOUNDARY
AF 00000		TSDE1	DS	OF	TSDL ENTRY 1
AF 00000		TSDFL	DS	CL1	FLAGS
	AF 00000	TSDIU	EQU	TSDFL	ENTRY IS IN USE
	00000080	TSDIUM	EQU	X'80'	
	AF 00000	TSDR1	EQU	TSDFL	REJECT I/O REQUESTS
	00000040	TSDRIM	EQU	X'40'	
	AF 00000	TS DPR	EQU	TSDFL	
		*			
	00000020	TS DPRM	EQU	X'20'	IO ACTIVE FLAG N405.2
		*			
	AF 00000	TS DAC	EQU	TSDFL	IO ACTIVE MASK N405.2
	0000000F	TS DACM	EQU	X'0F'	DEVICE ALLOCATION COUNT
		*			DEVICE ALLOCATION COUNT MASK
AF 00001		TS DZZZ1	DS	XL1	UNUSED
AF 00002		TS DDA	DS	H	SYSTEM SYMBOLIC DEVICE ADDRESS
		*			
AF 00004		TS DE2	DS	F	TSDL ENTRY 2
AF 00008		TS DE3	DS	F	TSDL ENTRY 3
AF 0000C		TS DE4	DS	F	TSDL ENTRY 4
AF 00010		TS DE5	DS	F	TSDL ENTRY 5
AF 00014		TS DE6	DS	F	TSDL ENTRY 6
AF 00018		TS DE7	DS	F	TSDL ENTRY 7
AF 0001C		TS DE8	DS	F	TSDL ENTRY 8
AF 00020		TS DE9	DS	F	TSDL ENTRY 9
AF 00024		TS DE10	DS	F	TSDL ENTRY 10
AF 00028		TS DE11	DS	F	TSDL ENTRY 11
AF 0002C		TS DE12	DS	F	TSDL ENTRY 12
AF 00030		TS DE13	DS	F	TSDL ENTRY 13
AF 00034		TS DE14	DS	F	TSDL ENTRY 14
AF 00038		TS DE15	DS	F	TSDL ENTRY 15
AF 0003C		TS DCA	DS	F	TSDL CHAIN ADDRESS

Task Status Index (CHATSI) and Extended Task Status Index (CHAXTS)

The Task Status Index (TSI) contains the data required by the Resident Supervisor for the execution of a task.

The chain of TSIs, which is unlimited in extent, is located by a pointer in the System Table (CHASYS).

An extended Task Status Index (XTSI) is referenced by each TSI. The XTSI contains limited information describing the state of the task. The fixed-length area of the XTSI provides the save area for register contents during a task interrupt, as well as save areas for the PSW, interrupt code, etc. This fixed area of the XTSI also contains control data affecting both the task and the Resident Supervisor handling of the task.

The TSI occupies 128 bytes of core storage, aligned on word boundaries. The fixed area of the XTSI occupies 340 bytes of core storage and must begin on a page boundary since XTSI pages are subject to paging.

CHATSI Storage map

DEC	HEX								
0	0	TSIFPT				TSINX		TSIPMF	
8	8	TSIXXL				TSILOC			
16	10	TSIUID							
24	18	TSISIN		TSISOT		TSITDP			
32	20	TSIRPOST				TSITSN			
40	28	TSITIC	TSIIPC	TSIISC	TSIIXC	TSIIAC	TSIITC	TSIIIC	TSIIVC
48	30	TSITIP							
56	38	TSILOCG				TSIMTSCB			
64	40	TSIBLK		TSISWPCT		TSISPT			
72	48	TSISST				TSIVTP			
80	50	TSISTE		TSISDA		TSIF1	TSIVSS	TSIRSF	TSIMGR
88	58	TSIADP		TSIARF		TSIAAF		TSICP	
96	60	TSILOCK	TSIFLG	TSIF2	TSIF3	TSIF4	TSIBSN	TSICPR	
104	68	TSIMGSCN				TSIDCT		TSITSC	TSIQCT
112	70	TSIGQP				TSITID		TSIXPR	
120	78	TSIPTS		TSISIB	RESERVED	TSIRVP			

ORG TSITIP

48	30	TSIFPQ				TSILPQ			
----	----	--------	--	--	--	--------	--	--	--

Fields in CHATSI -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	TSIFPT	0006	0006	TSIPMF	0024	0018	TSISIN
0004	0004	TSINX	0007	0007	TSIKI (EQU)	0026	001A	TSISOT
0006	0006	TSIJI (EQU)	0007	0007	TSIKT (EQU)	0028	001C	TSITDP
0006	0006	TSIJT (EQU)	0007	0007	TSIKA (EQU)	0032	0020	TSIRPOST
0006	0006	TSIJA (EQU)	0007	0007	TSIKX (EQU)	0036	0024	TSITSN
0006	0006	TSIJX (EQU)	0007	0007	TSIIAP (EQU)	0040	0028	TSITIC
0006	0006	TSIJS (EQU)	0008	0008	TSIXXL	0041	0029	TSIIPC
0006	0006	TSIJP (EQU)	0012	000C	TSILOC	0042	002A	TSIISC
0006	0006	TSIJV (EQU)	0016	0010	TSIUID	0043	002B	TSIIXC

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DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0044	002C	TSIIAC	0086	0056	TSIHLCK (EQU)	0099	0063	TSIUT (EQU)
0045	002D	TSIITC	0086	0056	TSIRSF (EQU)	0099	0063	TSITSE (EQU)
0046	002E	TSIIC	0087	0057	TSISCNF (EQU)	0099	0063	TSIET (EQU)
0047	002F	TSIIVC	0087	0057	TSIMGRF (EQU)	0099	0063	TSIITI (EQU)
0048	0030	TSIFPQ	0087	0057	TSIMTT (EQU)	0099	0063	TSICMP (EQU)
0048	0030	TSITIP	0087	0057	TSIMG (EQU)	0099	0063	TSICQ (EQU)
0052	0034	TSILPQ	0087	0057	TSIDS (EQU)	0099	0063	TSIF3
0056	0038	TSILOCG	0087	0057	TSIMGR	0100	0064	TSIMB (EQU)
0060	003C	TSIMTSCB	0088	0058	TSIADP	0100	0064	TSIP2 (EQU)
0064	0040	TSIBLK	0090	005A	TSIARF	0100	0064	TSIUP (EQU)
0066	0042	TSISWPCT	0092	005C	TSIAAF	0100	0064	TSISP (EQU)
0068	0044	TSISPT	0094	005E	TSICP	0100	0064	TSIPP (EQU)
0072	0048	TSISST	0096	0060	TSILOCK	0100	0064	TSIOP (EQU)
0076	004C	TSIVTP	0097	0061	TSIPW (EQU)	0100	0064	TSIF4
0080	0050	TSISTE	0097	0061	TSIEX (EQU)	0101	0065	TSIDPSS (EQU)
0082	0052	TSISDA	0097	0061	TSIEX (EQU)	0101	0065	TSIBSN
0084	0054	TSINTSE (EQU)	0097	0061	TSIRD (EQU)	0102	0066	TSICPR
0084	0054	TSIMPRE (EQU)	0097	0061	TSIDL (EQU)	0104	0068	TSIMGSCN
0084	0054	TSIAW (EQU)	0097	0061	TSIINPR (EQU)	0108	006C	TSIDCT
0084	0054	TSIF1	0097	0061	TSIFLG	0110	006E	TSITSC
0085	0055	TSIAST (EQU)	0098	0062	TSIEB (EQU)	0111	006F	TSIQCT
0085	0055	TSIAWML (EQU)	0098	0062	TSIXT (EQU)	0112	0070	TSIGQP
0085	0055	TSIVU (EQU)	0098	0062	TSICV (EQU)	0116	0074	TSITID
0085	0055	TSIVT (EQU)	0098	0062	TSIAT (EQU)	0118	0076	TSIXPR
0085	0055	TSIVS (EQU)	0098	0062	TSIATTN (EQU)	0120	0078	TSIPTS
0085	0055	TSIVSS	0098	0062	TSINW (EQU)	0122	007A	TSISIB
0086	0056	TSITSVC (EQU)	0098	0062	TSIF2	0124	007C	TSIRVP
0086	0056	TSILCF (EQU)	0099	0063	TSIRT (EQU)			
0086	0056	TSIWLCK (EQU)						

Alphabetical list of fields in CHATSI

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
TSIAAF	0092	005C	TSIITC	0045	002D	TSIQCT	0111	006F
TSIADP	0088	0058	TSIITI	0099	0063 (EQU)	TSIRD	0097	0061 (EQU)
TSIARF	0090	005A	TSIIVC	0047	002F	TSIRPOST	0032	0020
TSIAST	0085	0055 (EQU)	TSIIXC	0043	002B	TSIRSF	0086	0056
TSIAT	0098	0062 (EQU)	TSIJA	0006	0006 (EQU)	TSIRT	0099	0063 (EQU)
TSIATTN	0098	0062 (EQU)	TSIJI	0006	0006 (EQU)	TSIRVP	0124	007C
TSIAW	0084	0054 (EQU)	TSIJP	0006	0006 (EQU)	TSISCNF	0087	0057 (EQU)
TSIAWML	0085	0055 (EQU)	TSIJS	0006	0006 (EQU)	TSISDA	0082	0052
TSIBLK	0064	0040	TSIJT	0006	0006 (EQU)	TSISIB	0122	007A
TSIBSN	0101	0065	TSIJV	0006	0006 (EQU)	TSISIN	0024	0018
TSICMP	0099	0063 (EQU)	TSIJX	0006	0006 (EQU)	TSISOT	0026	001A
TSICP	0094	005E	TSIKA	0007	0007 (EQU)	TSISP	0100	0064 (EQU)
TSICPR	0102	0066	TSIKI	0007	0007 (EQU)	TSISPT	0068	0044
TSICQ	0099	0063 (EQU)	TSIKT	0007	0007 (EQU)	TSISST	0072	0048
TSICV	0098	0062 (EQU)	TSIKX	0007	0007 (EQU)	TSISTE	0080	0050
TSIDCT	0108	006C	TSILCF	0086	0056 (EQU)	TSISWPCT	0066	0042
TSIDL	0097	0061 (EQU)	TSILOCG	0012	000C	TSITDP	0028	001C
TSIDPSS	0101	0065 (EQU)	TSILOCG	0056	0038	TSITIC	0040	0028
TSIDS	0087	0057 (EQU)	TSILOCK	0096	0060	TSITID	0116	0074
TSIEB	0098	0062 (EQU)	TSILPQ	0052	0034	TSITIP	0048	0030
TSIET	0099	0063 (EQU)	TSIMB	0100	0064 (EQU)	TSITS	0097	0061 (EQU)
TSIEX	0097	0061 (EQU)	TSIMG	0087	0057 (EQU)	TSITSC	0110	006E
TSIFLG	0097	0061	TSIMGR	0087	0057	TSITSE	0099	0063 (EQU)
TSIFPQ	0048	0030	TSIMGRF	0087	0057 (EQU)	TSITSN	0036	0024
TSIFPT	0000	0000	TSIMGSCN	0104	0068	TSITSVC	0086	0056 (EQU)
TSIF1	0084	0054	TSIMPRE	0084	0054 (EQU)	TSIUID	0016	0010
TSIF2	0098	0062	TSIMTSCB	0060	003C	TSIUP	0100	0064 (EQU)
TSIF3	0099	0063	TSIMTT	0087	0057 (EQU)	TSIUT	0099	0063 (EQU)
TSIF4	0100	0064	TSINTSE	0084	0054 (EQU)	TSIVS	0085	0055 (EQU)
TSIGQP	0112	0070	TSINW	0098	0062 (EQU)	TSIVSS	0085	0055
TSIHLCK	0086	0056 (EQU)	TSINX	0004	0004	TSIVT	0085	0055 (EQU)
TSIIAC	0044	002C	TSIOP	0100	0064 (EQU)	TSIV	0076	004C
TSIIAP	0007	0007 (EQU)	TSIPMF	0006	0006	TSIVU	0085	0055 (EQU)
TSIIC	0046	002E	TSIPP	0100	0064 (EQU)	TSIWLCK	0086	0056 (EQU)
TSIINPR	0097	0061 (EQU)	TSIPP	0100	0064 (EQU)	TSIXPR	0118	0076
TSIIPC	0041	0029	TSIPTS	0120	0078	TSIXT	0098	0062 (EQU)
TSIISC	0042	002A	TSIPW	0097	0061 (EQU)	TSIXXL	0008	0008
			TSIP2	0100	0064 (EQU)			

Assembler listing of CHATSI

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
B0 00000		CHATSI	DSECT		TASK STATUS INDEX
		*			THIS DSECT IS RESTRICTED TO
		*			A FIXED LENGTH OF 128 BYTES
B0 00000			DS	0F	
B0 00000		TSIFPT	DS	F	FORWARD POINTER TO NEXT TSI
B0 00004		TSINX	DS	H	NUMBER OF XTSI PAGES
B0 00006			DS	0H	
B0 00006		TSIPMF	DS	XL2	PENDING AND MASK FLAGS
B0 00006	B0 00006	TSIJV	EQU	TSIPMF	VSS INTERRUPT PENDING FLAG
	00000040	TSIJVM	EQU	X'40'	VSS INTERRUPT PENDING MASK
	B0 00006	TSIJP	EQU	TSIPMF	TASK PROGRAM INTERRUPT
		*			PENDING FLAG
	00000020	TSIJPM	EQU	X'20'	TASK PROGRAM INTERRUPT
		*			PENDING MASK
	B0 00006	TSIJS	EQU	TSIPMF	TASK SVC INTERRUPT PENDING
		*			FLAG
	00000010	TSIJSM	EQU	X'10'	TASK SVC INTERRUPT PENDING
		*			MASK
	B0 00006	TSIJX	EQU	TSIPMF	TASK EXTERNAL INTERRUPT
		*			PENDING FLAG
	00000008	TSIJXM	EQU	X'08'	TASK EXTERNAL INTERRUPT
		*			PENDING MASK
	B0 00006	TSIJA	EQU	TSIPMF	TASK ASYNCHRONOUS INTERRUPT
		*			PENDING FLAG
	00000004	TSIJAM	EQU	X'04'	TASK ASYNCHRONOUS INTERRUPT
		*			PENDING MASK
	B0 00006	TSIJT	EQU	TSIPMF	TASK TIMER INTERRUPT
		*			PENDING FLAG
	00000002	TSIJTM	EQU	X'02'	TASK TIMER INTERRUPT
		*			PENDING MASK
	B0 00006	TSIJI	EQU	TSIPMF	TASK SYNCHRONOUS I/O
		*			INTERRUPT PENDING FLAG
	00000001	TSIJIM	EQU	X'01'	TASK SYNCHRONOUS I/O
		*			INTERRUPT PENDING MASK
	B0 00007	TSIIAP	EQU	TSIPMF+1	ASYN PROG INTRPT FLAG
		*			I3472
	00000010	TSIIAPM	EQU	X'10'	PROG INTRPT ENABLED
		*			I3472
	B0 00007	TSIKX	EQU	TSIPMF+1	TASK EXTERNAL INTERRUPT
		*			MASK FLAG
	00000008	TSIKXM	EQU	X'08'	TASK EXTERNAL INTERRUPT
		*			MASK MASK
	B0 00007	TSIKA	EQU	TSIPMF+1	TASK ASYNCHRONOUS INTERRUPT
		*			MASK FLAG
	00000004	TSIKAM	EQU	X'04'	TASK ASYNCHRONOUS INTERRUPT
		*			MASK MASK
	B0 00007	TSIKT	EQU	TSIPMF+1	TASK TIMER INTERRUPT MASK
		*			FLAG
	00000002	TSIKTM	EQU	X'02'	TASK TIMER INTERRUPT MASK
		*			MASK
	B0 00007	TSIKI	EQU	TSIPMF+1	TASK SYNCHRONOUS I/O
		*			INTERRUPT MASK FLAG
	00000001	TSIKIM	EQU	X'01'	TASK SYNCHRONOUS I/O
		*			INTERRUPT MASK MASK
B0 00008			DS	0F	
B0 00008		TSIXXL	DS	F	EXTERNAL LOCATION OF FIRST
		*			XTSI PAGE
B0 0000C		TSILOC	DS	F	INTERNAL LOCATION OF FIRST
		*			XTSI PAGE
B0 00010			DS	0D	
B0 00010		TSIUID	DS	CL8	USER IDENTIFICATION
B0 00018		TSISIN	DS	H	SYSIN
B0 0001A		TSISOT	DS	H	SYSOUT
B0 0001C		TSITDP	DS	F	TASK DEVICE LIST POINTER
B0 00020		TSIRPOST	DS	F	POINTER TO PAGE REPOSTING
		*			GQE
B0 00024		TSITSN	DS	F	TIME SLICE END GQE POINTER
		*			FOR SECOND SCAN

(Listing of CHATSI continued on page 470)

(Listing of CHATSI continued from page 469)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
B0 00028		TSITIC	DS	XL1	TASK INTERRUPT COUNTS
B0 00029		TSIIPC	DS	XL1	COUNT OF TASK PROGRAM INTERRUPTS
B0 0002A		TSIISC	DS	XL1	COUNT OF TASK SVC INTERRUPTS
B0 0002B		TSIIXC	DS	XL1	COUNT OF TASK EXTERNAL INTERRUPTS
B0 0002C		TSIIAC	DS	XL1	COUNT OF TASK ASYNCHRONOUS INTERRUPTS
B0 0002D		TSIITC	DS	XL1	COUNT OF TASK TIMER INTERRUPTS
B0 0002E		TSIIC	DS	XL1	COUNT OF TASK INPUT/OUTPUT INTERRUPTS
B0 0002F		TSIIVC	DS	XL1	COUNT OF VSS ACTIVE INTERRUPTS
B0 00030		TSITIP	DS	D	POINTERS TO TASK INTERRUPT QUEUE ENTRIES
	B0 00030		<u>ORG</u>	TSITIP	
B0 00030		TSIFPQ	DS	F	FIRST INTERRUPT QUEUE ENTRY
B0 00034		TSILPQ	DS	F	LAST INTERRUPT QUEUE ENTRY
B0 00038		TSILOCG	DS	F	ROUTINE TO LAST ACCESS
B0 0003C		TSIMTSCB	DS	F	ADDRESS OF MTSCB FOR SPECIAL TASK (MT/T)
B0 00040		TSIBLK	DS	H	BLOCK PAGING COUNT
B0 00042		TSISWPCT	DS	HL2	STEAL WRITES PENDING COUNT (MT/T)
B0 00044		TSISPT	DS	F	SPT PAGE AND DISP FOR LOCK WAIT LOCKS*
B0 00048		TSISST	DS	F	SCHEDULED START TIME
B0 0004C		TSIVTP	DS	F	VSS ALTERNATE TSI POINTER
B0 00050		TSISTE	DS	H	CURRENT SCHED TABLE INDEX
B0 00052		TSISDA	DS	H	SYMBOLIC DEVICE ADDRESS OF TSP TERMINAL
B0 00054		TSIF1	DS	XL1	FLAG BYTE
	B0 00054	TSIAW	EQU	TSIF1	AWAIT FLAG
	00000001	TSIAWM	EQU	X'01'	AWAIT MASK
		*			AWAIT MASK ALSO USED WHEN WISH RESCHEDULER TO TRANSFER A TASK TO INACTIVE LIST(SECONDARY USAGE) CALLER TO RESCHED MUST TURN AWAIT FLAG
	B0 00054	TSIMPRE	EQU	TSIF1	OFF WHEN RETURNING MAX PAGE READS EXCEEDED FLAG
	00000080	TSIMPREM	EQU	X'80'	MAX PAGE READS EXCEEDED MASK
	B0 00054	TSINTSE	EQU	TSIF1	NORMAL TSE FLAG
	00000040	TSINTSEM	EQU	X'40'	NORMAL TSE MASK
B0 00055		TSIVSS	DS	XL1	VIRTUAL MEMORY SUPERVISOR SUPPORT FLAG
	B0 00055	TSIVS	EQU	TSIVSS	VSS ACTIVE FLAG
	00000080	TSIVSM	EQU	X'80'	VSS ACTIVE MASK
	B0 00055	TSIVT	EQU	TSIVSS	TSP CONNECTED FLAG
	00000040	TSIVTM	EQU	X'40'	TSP CONNECTED MASK
	B0 00055	TSIVU	EQU	TSIVSS	SEPARATE TSP TERMINAL FLAG
	00000020	TSIVUM	EQU	X'20'	SEPARATE TSP TERMINAL MASK
	B0 00055	TSIAWM1	EQU	TSIVSS	AUXILIARY WARNING MESSAGE FLAG
	00000010	TSIAWMM	EQU	X'10'	AUXILIARY WARNING MESSAGE MASK
	B0 00055	TSIAST	EQU	TSIVSS	AUX SPACE TERMINATION FLAG
	00000008	TSIASTM	EQU	X'08'	AUX SPACE TERMINATION MASK
B0 00056		TSIRSF	DS	XL1	RESCHEDULING FLAGS
	B0 00056	TSIHLCK	EQU	TSIRSF	HOLDING INTERLOCK FLAG
	00000080	TSIHLCKM	EQU	X'80'	HOLDING INTERLOCK MASK
	B0 00056	TSIWLCK	EQU	TSIRSF	WAITING ON INTERLOCK FLAG
	00000040	TSIWLCKM	EQU	X'40'	WAITING ON INTERLOCK FLAG MASK

(Listing of CHATSI continued on page 471)

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<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	B0 00056	TSILCF	EQU	TSIRSF	LO CORE FTSE FLAG
	00000020	TSILCFM	EQU	X'20'	LO CORE FTSE FLAG MASK
	B0 00056	TSITSVC	EQU	TSIRSF	TSEND SVC FLAG
	00000010	TSITSVCM	EQU	X'10'	TSEND SVC FLAG MASK
B0 00057		TSIMGR	DS	XL1	MIGRATION FLAGS
	B0 00057	TSIDS	EQU	TSIMGR	TWAIT FLAG
	00000080	TSIDSM	EQU	X'80'	TWAIT MASK
	B0 00057	TSIMG	EQU	TSIMGR	ANY TASK IN MIGRATION
	00000020	TSIMGM	EQU	X'20'	IN MIGRATION IF ON
	B0 00057	TSIMTT	EQU	TSIMGR	SPECIAL TASK FLAG
		*			(MT/T)
	00000010	TSIMTTM	EQU	X'10'	SPECIAL TASK MASK
		*			(MT/T)
	B0 00057	TSIMGRF	EQU	TSIMGR	MIGRATION REQUESTED FLAG
		*			(MT/T)
	00000008	TSIMGRFM	EQU	X'08'	MIGRATION REQUESTED MASK
		*			(MT/T)
	B0 00057	TSISCNF	EQU	TSIMGR	SCAN FLAG
		*			(MT/T)
	00000004	TSISCNFM	EQU	X'04'	SCAN MASK
		*			(MT/T)
B0 00058		TSIADP	DS	H	AUXILIARY DISK PAGE COUNT
B0 0005A		TSIARF	DS	H	AUXILIARY REQUIREMNET FIELD
B0 0005C		TSIAAF	DS	H	ASSIGNED AUXILIARY COUNT
		*			FIELD
B0 0005E		TSICP	DS	HL2	PAGING REQUESTS PENDING
		*			COUNT
B0 00060		TSILOCK	DS	XL1	LOCK BYTE
B0 00061		TSIFLG	DS	XL1	
	B0 00061	TSIINPR	EQU	TSIFLG	
	00000020	TSIINPRM	EQU	X'20'	IN PROCESS FLAG
	000000DF	TSIINPRC	EQU	X'DF'	IN PROCESS FLAG COMPLEMENT
	B0 00061	TSIDL	EQU	TSIFLG	DELAY FLAG
	00000010	TSIDLM	EQU	X'10'	DELAY MASK
	B0 00061	TSIRD	EQU	TSIFLG	READY FLAG
	00000008	TSIRDM	EQU	X'08'	READY MASK
	B0 00061	TSITS	EQU	TSIFLG	TIME SLICE END FLAG
	00000004	TSITSM	EQU	X'04'	TIME SLICE END MASK
	B0 00061	TSIEX	EQU	TSIFLG	IN EXECUTION FLAG
	00000002	TSIEXM	EQU	X'02'	IN EXECUTION MASK
	B0 00061	TSIPW	EQU	TSIFLG	PAGE WAIT FLAG
	00000001	TSIPWM	EQU	X'01'	PAGE WAIT MASK
B0 00062		TSIF2	DS	XL1	FLAG BYTE
	B0 00062	TSINW	EQU	TSIF2	IN THE WALL FLAG
	00000080	TSINWM	EQU	X'80'	IN THE WALL MASK
	0000007F	TSINWC	EQU	X'7F'	IN THE WALL COMPLEMENT
	B0 00062	TSIATTN	EQU	TSIF2	EXPRESS DISPATCH FLAG
		*			I6950
	00000040	TSIATTNM	EQU	X'40'	EXPRESS DISPATCH MASK
		*			I6950
	B0 00062	TSIAT	EQU	TSIF2	INACTIVE TASK FLAG
	00000008	TSIATM	EQU	X'08'	INACTIVE TASK MASK
	B0 00062	TSICV	EQU	TSIF2	CONVERSATIONAL TASK FLAG
	00000004	TSICVM	EQU	X'04'	CONVERSATIONAL TASK MASK
	B0 00062	TSIXT	EQU	TSIF2	XTSI OUT FLAG
	00000002	TSIXTM	EQU	X'02'	XTSI OUT MASK
	B0 00062	TSIEB	EQU	TSIF2	EXECUTE BOUND FLAG
		*			N487
	00000001	TSIEBM	EQU	X'01'	EXECUTE BOUND MASK
		*			N487
B0 00063		TSIF3	DS	XL1	FLAG BYTE
	B0 00063	TSICQ	EQU	TSIF3	COMP. QUANTUM FLAG
	00000080	TSICQM	EQU	X'80'	COMP. QUANTUM MASK
	B0 00063	TSICMP	EQU	TSIF3	COMP. PRI FLAG
	00000040	TSICMX	EQU	X'40'	COMP. PRI MASK
	B0 00063	TSIITI	EQU	TSIF3	RESERVED
	00000010	TSIITIM	EQU	X'10'	RESERVED
	B0 00063	TSIET	EQU	TSIF3	END OF TIME SLICE FLAG

(Listing of CHATSI continued on page 472)

(Listing of CHATSI continued from page 471)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	00000008	TSIETM	EQU	X'08'	END OF TIME SLICE MASK
	B0 00063	TSITSE	EQU	TSIF3	REAL TIME SLICE END FLAG
	00000004	TSITSEM	EQU	X'04'	REAL TIME SLICE END MASK
	B0 00063	TSIUT	EQU	TSIF3	USER TIME REQUIRED FLAG
	00000002	TSIUTM	EQU	X'02'	USER TIME REQUIRED MASK
	B0 00063	TSIRT	EQU	TSIF3	REAL TIME INTRPT PENDING
		*			FLAG I6292
	00000001	TSIRTM	EQU	X'01'	REAL TIME INTRPT PENDING
		*			MASK I6292
		* TSIF4	IS REFERENCED BY		THE XTRCT AND SETUP MACROS
B0 00064		TSIF4	DS	XL1	PRIORITY FLAGS
	B0 00064	TSIOP	EQU	TSIF4	SYSTEM OPERATOR PRIORITY
		*			FLAG
	00000000	TSIOPM	EQU	X'00'	SYSTEM OPERATOR PRIORITY
		*			MASK
	B0 00064	TSIPP	EQU	TSIF4	SYSTEM PROGRAMMER PRIORITY
		*			FLAG
	00000080	TSIPPM	EQU	X'80'	SYSTEM PROGRAMMER PRIORITY
		*			MASK
	B0 00064	TSISP	EQU	TSIF4	SERVICE ROUTINE PRIORITY
		*			FLAG
	000000C0	TSISPM	EQU	X'C0'	SERVICE ROUTINE PRIORITY
		*			MASK
	B0 00064	TSIUP	EQU	TSIF4	USER PRIORITY
		*			FLAG
	000000E0	TSIUPM	EQU	X'E0'	USER PRIORITY
		*			MASK
	B0 00064	TSIP2	EQU	TSIF4	PRIVILEGED PRIORITY
		*			FLAG
	00000020	TSIP2M	EQU	X'20'	PRIVILEGED PRIORITY
		*			MASK
	B0 00064	TSIMB	EQU	TSIF4	INTER-TASK MESSAGE
		*			ACCEPTANCE FLAG
	00000002	TSIMBM	EQU	X'02'	INTER-TASK MESSAGE
		*			ACCEPTANCE MASK
B0 00065		TSIBSN	DS	XL1	FLAG BYTE
	B0 00065	TSIDPSS	EQU	TSIBSN	DELETE PAGE SECOND SCAN
		*			TABLE
	00000020	TSIDPSSM	EQU	X'20'	DELETE PAGE SECOND SCAN
		*			MASK
B0 00066		TSICPR	DS	H	DISK OPERATIONS COUNTER
B0 00068			DS	0F	
B0 00068		TSIMGSCN	DS	A	POINTER TO MIGRATION GQES
		*			N470
B0 0006C		TSIDCT	DS	H	COUNT OF TASK'S PAGES ON
		*			DRUM
B0 0006E		TSITSC	DS	XL1	CONSECUTIVE TSE COUNTER
B0 0006F		TSIQCT	DS	XL1	QUANTUM COUNTER
B0 00070			DS	0F	
B0 00070		TSIGQP	DS	F	MASTER GQE POINTER PAGEOUT
B0 00074		TSITID	DS	H	TASK IDENTIFICATION
B0 00076		TSIXPR	DS	H	TASK EXTERNAL PRIORITY
B0 00078		TSIPTS	DS	H	PAGES USED LAST TIME SLICE
B0 0007A		TSISIB	DS	C	*** PROGRAMMING SUPPORT ***
B0 0007C			DS	0F	
B0 0007C		TSIRVP	DS	F	REVERSE POINTER



CHAXTS Storage map

DEC	HEX	
0	0	UNNAMED   XTSUPM   UNNAMED   XTSUIC
8	8	UNNAMED
16	10	XTSCRS
80	50	XTSGRS
144	90	XTSFRS
176	B0	XTSCTI   XTSUTI
184	B8	XTSLTS   XTSATI
192	C0	XTSETI   XTSTSI
200	C8	XTSNPG   XTSBYA   XTSPCT   XTSIC
208	D0	XTSDMY   XTSF1   XTSTSECT   XTSDLCT   XTSPTF
216	D8	XTSPTL   XTSSTX0
224	E0	XTSSTX1   XTSSTX2
232	E8	XTSSTX3   XTSASI0
240	F0	XTSASX0   XTSASI1
248	F8	XTSASX1   XTSASI2
256	100	XTSASX2   XTSASI3
264	108	XTSASX3   XTSASI4
272	110	XTSASX4   XTSASI5
280	118	XTSASX5   XTSASI6
288	120	XTSASX6   XTSASI7
296	128	XTSASX7   XTSSTP   XTSASP   XTSSTR   XTSASR
304	130	XTSF2   XTSSTQ   UNNAMED   XTSPRQ   RESERVED
312	138	XTSATS   XTSPOA

(CHAXTS continued on page 474)

(CHAXTS continued from page 473)

DEC	HEX		
320	140	XTSPOE	XTSPIA
328	148	XTSPIE	XTSMAS XTSTWC
336	150	XTSAWC	XTSID

Fields in CHAXTS -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	XTSUPS	0128	0080	XTSGCS (EQU)	0248	00F8	XTSASX1
0002	0002	XTSUPM	0132	0084	XTSGDS (EQU)	0252	00FC	XTSASI2
0004	0004	XTSUIC	0136	0088	XTSGES (EQU)	0256	0100	XTSASX2
0016	0010	XTSC0S (EQU)	0140	008C	XTSGFS (EQU)	0260	0104	XTSASI3
0016	0010	XTSCRS	0144	0090	XTSF0S (EQU)	0264	0108	XTSASX3
0020	0014	XTSC1S (EQU)	0144	0090	XTSFRS	0268	010C	XTSASI4
0024	0018	XTSC2S (EQU)	0152	0098	XTSF2S (EQU)	0272	0110	XTSASX4
0028	001C	XTSC3S (EQU)	0160	00A0	XTSF4S (EQU)	0276	0114	XTSASI5
0032	0020	XTSC4S (EQU)	0168	00A8	XTSF6S (EQU)	0280	0118	XTSASX5
0036	0024	XTSC5S (EQU)	0176	00B0	XTSCTI	0284	011C	XTSASI6
0040	0028	XTSC6S (EQU)	0180	00B4	XTSUTI	0288	0120	XTSASX6
0044	002C	XTSC7S (EQU)	0184	00B8	XTSLFS	0292	0124	XTSASI7
0048	0030	XTSC8S (EQU)	0188	00BC	XTSATI	0296	0128	XTSASX7
0052	0034	XTSC9S (EQU)	0192	00C0	XTSETI	0300	012C	XTSSTP
0056	0038	XTSCAS (EQU)	0196	00C4	XTSTSI	0301	012D	XTSASP
0060	003C	XTSCBS (EQU)	0200	00C8	XTSNPG	0302	012E	XTSSTR
0064	0040	XTSCCS (EQU)	0202	00CA	XTSBYA	0303	012F	XTSASR
0068	0044	XTSCDS (EQU)	0204	00CC	XTSPCT	0304	0130	XTSTA0 (EQU)
0072	0048	XTSCES (EQU)	0206	00CE	XTSIC	0304	0130	XTSTA1 (EQU)
0076	004C	XTSCFS (EQU)	0208	00D0	XTSDMY	0304	0130	XTSTA2 (EQU)
0080	0050	XTSG0S (EQU)	0209	00D1	XTSTX (EQU)	0304	0130	XTSTA (EQU)
0080	0050	XTSGRS	0209	00D1	XTSF1	0304	0130	XTSF2
0084	0054	XTSG1S (EQU)	0210	00D2	XTSTSECT	0305	0131	XTSSTQ
0088	0058	XTSG2S (EQU)	0211	00D3	XTSDLCT	0308	0134	XTSPRQ
0092	005C	XTSG3S (EQU)	0212	00D4	XTSPTF	0312	0138	XTSATS
0096	0060	XTSG4S (EQU)	0216	00D8	XTSPTL	0316	013C	XTSPOA
0100	0064	XTSG5S (EQU)	0220	00DC	XTSSTX0	0320	0140	XTSPOE
0104	0068	XTSG6S (EQU)	0224	00E0	XTSSTX1	0324	0144	XTSPIA
0108	006C	XTSG7S (EQU)	0228	00E4	XTSSTX2	0328	0148	XTSPIE
0112	0070	XTSG8S (EQU)	0232	00E8	XTSSTX3	0332	014C	XTSMAS
0116	0074	XTSG9S (EQU)	0236	00EC	XTSASIO	0334	014E	XTSTWC
0120	0078	XTSGAS (EQU)	0240	00F0	XTSASX0	0336	0150	XTSAWC
0124	007C	XTSGBS (EQU)	0244	00F4	XTSASII	0340	0154	XTSID

Alphabetical list of fields in CHAXTS

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
XTSASIO	0236	00EC	XTSCBS	0060	003C (EQU)	XTSF2	0304	0130
XTSASII	0244	00F4	XTSCCS	0064	0040 (EQU)	XTSF2S	0152	0098 (EQU)
XTSASI2	0252	00FC	XTSCDS	0068	0044 (EQU)	XTSF4S	0160	00A0 (EQU)
XTSASI3	0260	0104	XTSCES	0072	0048 (EQU)	XTSF6S	0168	00A8 (EQU)
XTSASI4	0268	010C	XTSCFS	0076	004C (EQU)	XTSGAS	0120	0078 (EQU)
XTSASI5	0276	0114	XTSCRS	0016	0010	XTSGBS	0124	007C (EQU)
XTSASI6	0284	011C	XTSCTI	0176	00B0	XTSGCS	0128	0080 (EQU)
XTSASI7	0292	0124	XTSC0S	0016	0010 (EQU)	XTSGDS	0132	0084 (EQU)
XTSASP	0301	012D	XTSC1S	0020	0014 (EQU)	XTSGES	0136	0088 (EQU)
XTSASR	0303	012F	XTSC2S	0024	0018 (EQU)	XTSGFS	0140	008C (EQU)
XTSASX0	0240	00F0	XTSC3S	0028	001C (EQU)	XTSGRS	0080	0050
XTSASX1	0248	00F8	XTSC4S	0032	0020 (EQU)	XTSG0S	0080	0050 (EQU)
XTSASX2	0256	0100	XTSC5S	0036	0024 (EQU)	XTSG1S	0084	0054 (EQU)
XTSASX3	0264	0108	XTSC6S	0040	0028 (EQU)	XTSG2S	0088	0058 (EQU)
XTSASX4	0272	0110	XTSC7S	0044	002C (EQU)	XTSG3S	0092	005C (EQU)
XTSASX5	0280	0118	XTSC8S	0048	0030 (EQU)	XTSG4S	0096	0060 (EQU)
XTSASX6	0288	0120	XTSC9S	0052	0034 (EQU)	XTSG5S	0100	0064 (EQU)
XTSASX7	0296	0128	XTSDLCT	0211	00D3	XTSG6S	0104	0068 (EQU)
XTSATI	0188	00BC	XTSDMY	0208	00D0	XTSG7S	0108	006C (EQU)
XTSATS	0312	0138	XTSETI	0192	00C0	XTSG8S	0112	0070 (EQU)
XTSAWC	0336	0150	XTSFRS	0144	0090	XTSG9S	0116	0074 (EQU)
XTSBYA	0202	00CA	XTSF0S	0144	0090 (EQU)	XTSIC	0206	00CE
XTSCAS	0056	0038 (EQU)	XTSF1	0209	00D1	XTSID	0340	0154

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FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
XTSLTS	0184	00B8	XTSPTL	0216	00D8	XTSTA1	0304	0130 (EQU)
XTSMAS	0332	014C	XTSSTP	0300	012C	XTSTA2	0304	0130 (EQU)
XTSNPG	0200	00C8	XTSSTQ	0305	0131	XTSTSECT	0210	00D2
XTSPCT	0204	00CC	XTSSTR	0302	012E	XTSTSI	0196	00C4
XTSPIA	0324	0144	XTSSTX0	0220	00DC	XTSTWC	0334	014E
XTSPIE	0328	0148	XTSSTX1	0224	00E0	XTSTX	0209	00D1 (EQU)
XTSPOA	0316	013C	XTSSTX2	0228	00E4	XTSUIC	0004	0004
XTSPOE	0320	0140	XTSSTX3	0232	00E8	XTSUPM	0002	0002
XTSPRQ	0308	0134	XTSTA	0304	0130 (EQU)	XTSUPS	0000	0000
XTSPTF	0212	00D4	XTSTA0	0304	0130 (EQU)	XTSUTI	0180	00B4

Assembler listing of CHAXTS

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
	BC 00000	CHAXTS	DSECT		FORMAT OF EXTENDED TSI (XTSI)
		*			
BC 00000		XTSUPS	DS	0D	
BC 00000			DS	H	
BC 00002		XTSUPM	DS	XL1	USER PROGRAM MASK
BC 00003			DS	C	
BC 00004		XTSUIC	DS	F	INSTRUCTION COUNTER
BC 00008			DS	D	UNUSED
BC 00010		XTSCRS	DS	16F	CONTROL REGISTER SAVE AREA
	BC 00010	XTSC0S	EQU	XTSCRS+0	
	BC 00014	XTSC1S	EQU	XTSCRS+4	FLAG FOR ADD PAGES
	BC 00018	XTSC2S	EQU	XTSCRS+8	
	BC 0001C	XTSC3S	EQU	XTSCRS+12	
	BC 00020	XTSC4S	EQU	XTSCRS+16	
	BC 00024	XTSC5S	EQU	XTSCRS+20	
	BC 00028	XTSC6S	EQU	XTSCRS+24	
	BC 0002C	XTSC7S	EQU	XTSCRS+28	
	BC 00030	XTSC8S	EQU	XTSCRS+32	
	BC 00034	XTSC9S	EQU	XTSCRS+36	
	BC 00038	XTSCAS	EQU	XTSCRS+40	
	BC 0003C	XTSCBS	EQU	XTSCRS+44	
	BC 00040	XTSCCS	EQU	XTSCRS+48	
	BC 00044	XTSCDS	EQU	XTSCRS+52	
	BC 00048	XTSCES	EQU	XTSCRS+56	
	BC 0004C	XTSCFS	EQU	XTSCRS+60	
BC 00050		XTSGRS	DS	16F	GENERAL PURPOSE REGISTER SAVE AREA
		*			
	BC 00050	XTSG0S	EQU	XTSGRS+0	
	BC 00054	XTSG1S	EQU	XTSGRS+4	
	BC 00058	XTSG2S	EQU	XTSGRS+8	
	BC 0005C	XTSG3S	EQU	XTSGRS+12	
	BC 00060	XTSG4S	EQU	XTSGRS+16	
	BC 00064	XTSG5S	EQU	XTSGRS+20	
	BC 00068	XTSG6S	EQU	XTSGRS+24	
	BC 0006C	XTSG7S	EQU	XTSGRS+28	
	BC 00070	XTSG8S	EQU	XTSGRS+32	
	BC 00074	XTSG9S	EQU	XTSGRS+36	
	BC 00078	XTSGAS	EQU	XTSGRS+40	
	BC 0007C	XTSGBS	EQU	XTSGRS+44	
	BC 00080	XTSGCS	EQU	XTSGRS+48	
	BC 00084	XTSGDS	EQU	XTSGRS+52	
	BC 00088	XTSGES	EQU	XTSGRS+56	
	BC 0008C	XTSGFS	EQU	XTSGRS+60	
BC 00090			DS	0D	
BC 00090		XTSFRS	DS	4D	FLOATING POINT REGISTER SAVE AREA
		*			
	BC 00090	XTSF0S	EQU	XTSFRS+0	
	BC 00098	XTSF2S	EQU	XTSFRS+8	
	BC 000A0	XTSF4S	EQU	XTSFRS+16	
	BC 000A8	XTSF6S	EQU	XTSFRS+24	
BC 000B0		XTSCTI	DS	F	CURRENT TIMER VALUE
BC 000B4		XTSUTI	DS	F	USER TIMER VALUE
BC 000B8		XTSLTS	DS	F	LAST TIME-SLICE VALUE
BC 000BC		XTSATI	DS	F	ACCUMULATED TIME

(Listing of CHAXTS continued on page 476)

(Listing of CHAXTS continued from page 475)

LOCATION	INSTRUCTION	SOURCE	INST	OPER	COMMENT
BC 000C0		XTSETI	DS	F	ESTIMATED TIME
BC 000C4		XTSTSI	DS	F	POINTER TO TSI
BC 000C8		XTSNPG	DS	H	NUMBER OF PAGES THIS TIME-SLICE
BC 000CA		XTSBYA	DS	H	BYTES AVAILABLE IN FIRST XTSI PAGE
BC 000CC		XTSPCT	DS	H	PAGE COUNT IN XTSTI
BC 000CE		XTSIC	DS	H	TASK INTERRUPT CODE
BC 000D0		XTSDMY	DS	XL1	NUMBER DUMMY PAGE TABLE ENTRIES EXISTING
BC 000D1		XTSF1	DS	XL1	FLAGS
	BC 000D1	XTSTX	EQU	XTSF1	XTSI HAS AUX. STORAGE FLAG
	00000080	XTSTXM	EQU	X'80'	XTSI HAS AUX. STORAGE MASK
BC 000D2			DS	0H	
BC 000D2		XTSTSECT	DS	XL1	TSE COUNT
BC 000D3		XTSDLCT	DS	XL1	DELAY COUNT
BC 000D4		XTSPTF	DS	F	FIRST PTP IN CHAIN
BC 000D8		XTSPTL	DS	F	LAST PTP IN CHAIN
BC 000DC		XTSSTX0	DS	F	EXT LOC OF ST PAGE 0(1ST PHYSICAL ST PG)
BC 000E0		XTSSTX1	DS	F	EXT LOC OF ST PAGE 1
BC 000E4		XTSSTX2	DS	F	EXT LOC OF ST PAGE 2
BC 000E8		XTSSTX3	DS	F	EXT LOC OF ST PAGE 3
BC 000EC		XTSASIO	DS	F	INTERNAL LOC OF AST PAGE 0
BC 000F0		XTSASX0	DS	F	EXTERNAL LOC OF AST PAGE 0
BC 000F4		XTSASII	DS	F	INTERNAL LOC OF AST PAGE 1
BC 000F8		XTSASX1	DS	F	EXTERNAL LOC OF AST PAGE 1
BC 000FC		XTSASII2	DS	F	INTERNAL LOC OF AST PAGE 2
BC 00100		XTSASX2	DS	F	EXTERNAL LOC OF AST PAGE 2
BC 00104		XTSASII3	DS	F	INTERNAL LOC OF AST PAGE 3
BC 00108		XTSASX3	DS	F	EXTERNAL LOC OF AST PAGE 3
BC 0010C		XTSASII4	DS	F	INTERNAL LOC OF AST PAGE 4
BC 00110		XTSASX4	DS	F	EXTERNAL LOC OF AST PAGE 4
BC 00114		XTSASII5	DS	F	INTERNAL LOC OF AST PAGE 5
BC 00118		XTSASX5	DS	F	EXTERNAL LOC OF AST PAGE 5
BC 0011C		XTSASII6	DS	F	INTERNAL LOC OF AST PAGE 6
BC 00120		XTSASX6	DS	F	EXTERNAL LOC OF AST PAGE 6
BC 00124		XTSASII7	DS	F	INTERNAL LOC OF AST PAGE 7
BC 00128		XTSASX7	DS	F	EXTERNAL LOC OF AST PAGE 7
BC 0012C		XTSSTP	DS	XL1	ST PAGE COUNT
BC 0012D		XTSASP	DS	XL1	AST PAGE COUNT
BC 0012E		XTSSTR	DS	XL1	ST PAGE READS DONE
BC 0012F		XTSASR	DS	XL1	AST PAGE READS DONE
BC 00130		XTSP2	DS	XL1	FLAG BYTE
	BC 00130	XTSTA	EQU	XTSF2	XTSI STATE FLAG
	00000003	XTSTAM	EQU	X'03'	XTSI STATE MASK
	BC 00130	XTSTA2	EQU	XTSF2	XTSI STATE 2 FLAG-ST AND AST OUT
	00000002	XTSTA2M	EQU	X'02'	XTSI STATE 2 MASK OF 1ST XTSI PAGE
	BC 00130	XTSTA1	EQU	XTSF2	XTSI STATE 1 FLAG-AST ONLY OUT
	00000001	XTSTA1M	EQU	X'01'	XTSI STATE 1 MASK OF 1ST XTSI PAGE
	BC 00130	XTSTA0	EQU	XTSF2	XTSI STATE 0 FLAG-ST AND AST IN
	00000000	XTSTA0M	EQU	X'00'	XTSI STATE 0 MASK 1ST XTSI PAGE
BC 00131		XTSSTQ	DS	XL1	PAGE STEALING COUNT M4734
BC 00132			DS	H	UNUSED
BC 00134		XTSPRQ	DS	HL2	PAGE RELOCATION INTERRUPTS/Q COUNTER
BC 00138			DS	0D	
BC 00138		XTSATS	DS	F	ACCOUNTING NUMBER OF TIME-SLICES
BC 0013C		XTSPOA	DS	F	ACCOUNTING AUXILIARY PAGE-OUTS
BC 00140		XTSPOE	DS	F	ACCOUNTING EXTERNAL PAGE-OUTS

(Listing of CHAXTS continued on page 477)

(Listing of CHAXTS continued from page 476)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
BC 00144		XTSPIA	DS	F	ACCOUNTING AUXILIARY
		*			PAGE-INS
BC 00148		XTSPIE	DS	F	ACCOUNTING EXTERNAL
		*			PAGE-INS
BC 0014C		XTSMAS	DS	H	MAXIMUM AUXILIARY OCCUPIED
BC 0014E		XTSTWC	DS	H	TWAIT COUNT
BC 00150		XTSAWC	DS	F	AWAIT COUNT
BC 00154		XTSID	DS	X	TIME SLICE END IDENTIFIER
		*			N470
	00000155	XTSFLEN	EQU	*-XTSUPS	FIXED LENGTH OF XTSI
	00000180	XTSSORG	EQU	64*((XTSFLEN+63)/64)	TO COMPUTE
		*			ORIGIN OF SEGMENT TABLE

User Catalog Table (CHAUCT)

CHAUCT references the system dataset SYSSCVT which contains the user catalog (USERCAT) addresses for each USERID. SYSSCVT is a VISAM dataset -- the USERID is the key and each record is 16 bytes long (8 bytes for the USERID, 4 bytes for the DSCB address, a 1 byte flag, and 3 reserved bytes).

CHAUCT Storage map

DEC	HEX	
0	0	UCTUID
8	8	UCTDSCB   UCTSYNC   UCTSPR

Fields in CHAUCT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	UCTUID	0008	0008	UCTDSCB	0012	000C	UCTSYNC
						0013	000D	UCTSPR

Alphabetical list of fields in CHAUCT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
UCTDSCB	0008	0008	UCTSPR	0013	000D	UCTSYNC	0012	000C
						UCTUID	0000	0000

Assembler listing of CHAUCT

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LOCATION INSTRUCTION SOURCE INST OPER COMMENT
B1 00000 CHAUCT DSECT NSRB 423
*****
* THIS DSECT IS USED TO REFERENCE THE SYSTEM DATASET 'SYSSCVT' WHICH *
* CONTAINS THE USER CATALOG ADDRESSES FOR EACH USERID. THIS IS A *
* VISAM DATASET - THE USERID IS THE KEY AND EACH RECORD IS 16 BYTES *
* LONG CONTAINING AN 8 BYTE USERID, A 4 BYTE DSCB ADDRESS, A 1 BYTE *
* FLAG AND 3 RESERVED BYTES. *
*****
B1 00000 UCTUID DS CL8 USERID
B1 00008 UCTDSCB DS A DSCB ADDR OF USERCAT
B1 0000C UCTSYNC DS XL1 SYNC INDICATOR
          00000001 UCTSYNCM EQU X'01' SYNC MASK
          * 1 = SYNC DONE
          * 0 = SYNC NOT DONE
          00000002 UCTRCRM EQU X'02' RCR RATION FLAG
          * 1 = EXCEEDED
          * 0 = OK
B1 0000D UCTSPR DS XL3 RESERVED

```

Option 4 UFLOW Macro Table (CHAUFN)

CHAUFN defines entries returned by the UFLOW macro, option 4. The user-provided buffer, which may not cross a page boundary, receives the program name and unique number of each MTT task, with its count of users, the MTT administrator's limit, and the limit imposed by the FLOW command. The list in the buffer is stopped by eight bytes of X'FF'.

CHAUFN Storage map

DEC	HEX	
0	0	UFNAME
8	8	UFNRAN      UFNUSE      UFNLMT      UFNMAX

Fields in CHAUFN -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	UFNAME	0010	000A	UFNUSE	0014	000E	UFNMAX
0008	0008	UFNRAN	0012	000C	UFNLMT			

Alphabetical list of fields in CHAUFN

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
UFNAME	0000	0000	UFNMAX	0014	000E	UFNUSE	0010	000A
UFNLMT	0012	000C	UFNRAN	0008	0008			

Assembler listing of CHAUFN

```

LOCATION INSTRUCTION SOURCE INST OPER COMMENT
      B2 00000 CHAUFN DSECT NSRB 386
*****
* CHAUFN COVERS THE ENTRIES RETURNED BY THE UFLOW MACRO, OPTION 4. *
* THE USER-PROVIDED BUFFER, WHICH MAY NOT CROSS A PAGE BOUNDARY, *
* RECEIVES THE PROGRAM NAME AND UNIQUE NUMBER OF EACH MTT TASK, *
* WITH ITS COUNT OF USERS, THE MTT ADMINISTRATOR'S LIMIT (MAX), *
* AND THE LIMIT IMPOSED BY THE FLOW COMMAND. *
* THE LIST IN THE BUFFER IS STOPPED BY 8 BYTES OF X'FF' *
*****
B2 00000 UFNAME DS CL8 APPLICATION NAME
B2 00008 UFNRRAN DS H RELATIVE APPLICATION NUMBER
B2 0000A UFNUSE DS H CURRENT NUMBER OF MTT USERS
B2 0000C UFNLMT DS H MTT USER LIMIT
B2 0000E UFNMAX DS H MAXIMUM NUMBER OF MTT USERS

```

User Limit Table Entry (CHAULT)

The User Limit Table, a VISAM member of TSS\*\*\*\*.SYSLIB, contains entries (CHAULT) for each user limits category. When a user is joined, his user limits type is used as a key to access the appropriate table entry. The 64-byte CHAULT resides in virtual storage, aligned on word boundaries.

CHAULT Storage map

DEC	HEX		
0	0	ULTCAT	ULTCPP
8	8	ULTCCT	ULTCTC
16	10	ULTMAV	ULTTP
24	18	ULTPP	ULTDEV1
32	20	ULTDEV2	ULTDEV3
40	28	ULTDEV4	
			ULTSPR

Fields in CHAULT -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ULTCAT	0016	0010	ULTMAV	0032	0020	ULTDEV2
0004	0004	ULTCPP	0020	0014	ULTTP	0036	0024	ULTDEV3
0008	0008	ULTCCT	0024	0018	ULTPP	0040	0028	ULTDEV4
0012	000C	ULTCTC	0028	001C	ULTDEV1	0044	002C	ULTSPR

Alphabetical list of fields in CHAULT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ULTCAT	0000	0000	ULTDEV1	0028	001C	ULTMAV	0016	0010
ULTCPP	0004	0004	ULTDEV2	0032	0020	ULTTP	0024	0018
ULTCCT	0008	0008	ULTDEV3	0036	0024	ULTSPR	0044	002C
ULTCTC	0012	000C	ULTDEV4	0040	0028	ULTTP	0020	0014



Assembler listing of CHAULT

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
B3 00000		CHAULT	DSECT		
*****					
*				* USER LIMITS TABLE *	*
*	THIS DSECT DESCRIBES THE LAYOUT OF AN ENTRY IN THE USER				*
*	LIMITS TABLE. EACH ENTRY IS A FIXED LENGTH OF 64 BYTS. THESE				*
*	ENTRIES WILL EXIST IN A VISAM DATA SET. AT LOGON TIME THE APPRO-				*
*	PRIATE LIMITS ENTRY IS MOVED INTO THE USER'S USER TABLE ENTRY.				*
B3 00000			DS	0D	
B3 00000	ULTCAT		DS	F	LIMITS CATEGORY -KEY-
B3 00004	ULTCCP		DS	F	MAX RATION OF CPU TIME
B3 00008	ULTCCT		DS	F	CONNECT TIME
B3 0000C	ULTCTC		DS	F	MAX TASK COUNT
B3 00010	ULTMAV		DS	F	MAX AUXILLARY STORAGE
B3 00014	ULTTP		DS	F	MAXIMUM TEMPORARY PAGES
B3 00018	ULTPP		DS	F	MAXIMUM PERMANENT PAGES
B3 0001C	ULTDEV1		DS	F	DEVICE TYPE 1 DIRECT ACCESS
	*				DEVICE
B3 00020	ULTDEV2		DS	F	DEVICE TYPE 2 MAGNETIC TAPE
	*				DRIVES
B3 00024	ULTDEV3		DS	F	DEVICE TYPE 3 HIGH SPEED
	*				PRINTERS
B3 00028	ULTDEV4		DS	F	DEVICE TYPE 4
	*				READER-PUNCHES
B3 0002C	ULTSPR		DS	5F	SPARE
	00000040				
	ULTLEN		EQU	*-CHAULT	LENGTH OF ENTRY
*****					

User Table (CHAUSE)

The User Table contains a list of all legal TSS/360 users with their credentials. The User Table, a VAM index sequential data set, contains one entry for each user joined to the system. The entries, tabulated in USERID sequence, are variable in length to a maximum of 256 bytes. Except for the system operator and the system manager, user entries are added by the JOIN command and removed by the QUIT command. The entries for the system operator and manager are created at system generation. The User Table resides on a system resident volume and, thus, is maintained without change between system SHUTDOWN and subsequent system START UP.

The User Table occupies a maximum of 25,600 bytes of virtual storage, aligned on doubleword boundaries.

CHAUSE Storage map

DEC	HEX	
0	0	USESIZ   USELID   USERJE   USELK
8	8	USERID
16	10	USEPAS
24	18	USEPRV   USESTI   USEATH   USEACT   USEQIT
32	20	USECNT   USETSK   USEP2
40	28	USECHG
48	30	USEPRO
56	38	USEINS
88	58	USETLC
96	60	USESP3   USESP4
104	68	USEP
112	70	USEP01   USEP02
120	78	USEP03   USEP04
128	80	USEP05   USEP06
136	88	USEBI   USEBO
144	90	USEA01   USEA02
152	98	USEA03   USEA04
160	A0	USEA05   USEA06
168	A8	USEA07   USEA08
176	B0	USEA09   USEA10
184	B8	USEA11
192	C0	USEULT   USER01

(CHAUSE continued on page 483)

## (CHAUSE continued from page 482)

DEC	HEX	
200	C8	USER02 USER03
208	D0	USER04 USER05
216	D8	USER06 USER07
224	E0	USER08 USER09
232	E8	USER10 USER11
240	F0	USEUN4

Fields in CHAUSE -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	USESIZ	0031	001F	USEBA (EQU)	0152	0098	USEA03
0004	0004	USELID	0031	001F	USEQB (EQU)	0156	009C	USEA04
0006	0006	USERJE	0031	001F	USEQIT	0160	00A0	USEA05
0007	0007	USELK	0032	0020	USECNT	0164	00A4	USEA06
0008	0008	USERID	0034	0022	USETSK	0168	00A8	USEA07
0016	0010	USEPAS	0036	0024	USEP2	0172	00AC	USEA08
0024	0018	USEPF (EQU)	0040	0028	USECHG	0176	00B0	USEA09
0024	0018	USEPE (EQU)	0048	0030	USEPRO	0180	00B4	USEA10
0024	0018	USEPD (EQU)	0056	0038	USEINS	0184	00B8	USEA11
0024	0018	USEPC (EQU)	0088	0058	USETLC	0192	00C0	USEULT
0024	0018	USEPB (EQU)	0096	0060	USESP3	0196	00C4	USER01
0024	0018	USEPA (EQU)	0100	0064	USESP4	0200	00C8	USER02
0024	0018	USEPROX (EQU)	0104	0068	USEP	0204	00CC	USER03
0024	0018	USEPRV	0112	0070	USEP01	0208	00D0	USER04
0025	0019	USEPR1 (EQU)	0116	0074	USEP02	0212	00D4	USER05
0026	001A	USEPR2 (EQU)	0120	0078	USEP03	0216	00D8	USER06
0026	001A	USEPT (EQU)	0124	007C	USEP04	0220	00DC	USER07
0027	001B	USEPR3 (EQU)	0128	0080	USEP05	0224	00E0	USER08
0028	001C	USEPRI (EQU)	0132	0084	USEP06	0228	00E4	USER09
0028	001C	USESTI	0136	0088	USEBI	0232	00E8	USER10
0029	001D	USEATH	0140	008C	USEBO	0236	00EC	USER11
0030	001E	USEACT	0144	0090	USEA01	0240	00F0	USEUN4
0031	001F	USEADC (EQU)	0148	0094	USEA02			

Alphabetical list of fields in CHAUSE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
USEACT	0030	001E	USEPA	0024	0018 (EQU)	USEQIT	0031	001F
USEADC	0031	001F (EQU)	USEPAS	0016	0010	USERID	0008	0008
USEATH	0029	001D	USEPB	0024	0018 (EQU)	USERJE	0006	0006
USEA01	0144	0090	USEPC	0024	0018 (EQU)	USER01	0196	00C4
USEA02	0148	0094	USEPD	0024	0018 (EQU)	USER02	0200	00C8
USEA03	0152	0098	USEPE	0024	0018 (EQU)	USER03	0204	00CC
USEA04	0156	009C	USEPF	0024	0018 (EQU)	USER04	0208	00D0
USEA05	0160	00A0	USEPRI	0028	001C (EQU)	USER05	0212	00D4
USEA06	0164	00A4	USEPRO	0048	0030	USER06	0216	00D8
USEA07	0168	00A8	USEPROX	0024	0018 (EQU)	USER07	0220	00DC
USEA08	0172	00AC	USEPRV	0024	0018	USER08	0224	00E0
USEA09	0176	00B0	USEPR1	0025	0019 (EQU)	USER09	0228	00E4
USEA10	0180	00B4	USEPR2	0026	001A (EQU)	USER10	0232	00E8
USEA11	0184	00B8	USEPR3	0027	001B (EQU)	USER11	0236	00EC
USEBA	0031	001F (EQU)	USEPT	0026	001A (EQU)	USESIZ	0000	0000
USEBI	0136	0088	USEP01	0112	0070	USESP3	0096	0060
USEBO	0140	008C	USEP02	0116	0074	USESP4	0100	0064
USECHG	0040	0028	USEP03	0120	0078	USESTI	0028	001C
USECNT	0032	0020	USEP04	0124	007C	USETLC	0088	0058
USEINS	0056	0038	USEP05	0128	0080	USETSK	0034	0022
USELID	0004	0004	USEP06	0132	0084	USEULT	0192	00C0
USELK	0007	0007	USEP2	0036	0024	USEUN4	0240	00F0
USEP	0104	0068	USEQB	0031	001F (EQU)			

Assembler listing of CHAUSE

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	B4 00000	CHAUSE	DSECT		USER TABLE DATA SET
B4 00000	00000001	USEPGS	EQU	1	NUMBER OF PAGES REQUIRED FOR TABLE ENTRY
B4 00000		USESIZ	DS	A(USELEN)	LENGTH OF USER ENTRY
B4 00004		USELID	DS	H	TID OF LOCK SETTER
B4 00006	000000E8	USERJEM	EQU	C'Y'	SPECIAL RJE PRIVILEGES IF Y, USER ALLOWED TO ISSUE PRINT
	00000032	USELKCNT	EQU	50	REQUESTS FOR ANY RJE STATION
B4 00007		USELK	DS	XL1	LOCK BYTE
B4 00008		USERID	DS	CL8	USERID - EBCDIC
B4 00010		USEPAS	DS	CL8	PASSWORD - EBCDIC
B4 00018		USEPRV	DS	XL4	PRIVILEGE CLASSIFICATION-BINARY
	B4 0001A	USEPT	EQU	USEPRV+2	CLASS T
	00000010	USEPTM	EQU	X'10'	CLASS T MASK
B4 00018		USEPROX	EQU	USEPRV	FIRST CLASS BYTE
B4 00018		USEPA	EQU	USEPROX	CLASS A FLAG
00000080		USEPAM	EQU	X'80'	CLASS A MASK
B4 00018		USEPB	EQU	USEPROX	CLASS B FLAG
00000040		USEPBM	EQU	X'40'	CLASS B MASK
B4 00018		USEPC	EQU	USEPROX	CLASS C FLAG
00000020		USEPCM	EQU	X'20'	CLASS C MASK
B4 00018		USEPD	EQU	USEPROX	CLASS D FLAG
00000010		USEPDM	EQU	X'10'	CLASS D MASK
B4 00018		USEPE	EQU	USEPROX	CLASS E FLAG
00000008		USEPEM	EQU	X'08'	CLASS E MASK
B4 00018		USEPF	EQU	USEPROX	CLASS F FLAG
00000004		USEPFM	EQU	X'04'	CLASS F MASK
B4 00019		USEPR1	EQU	USEPRV+1	SECOND CLASS BYTE
B4 0001A		USEPR2	EQU	USEPRV+2	THIRD CLASS BYTE
B4 0001B		USEPR3	EQU	USEPRV+3	FOURTH CLASS BYTE
B4 0001C		USESTI	DS	FL1	SCHEDULE TABLE INDEX
	B4 0001C	USEPRI	EQU	USESTI	COMPATIBILITY WITHOUT TDS
B4 0001D		USEATH	DS	CL1	AUTHORIZATION CODE - EBCDIC
B4 0001E		USEACT	DS	XL1	ACTIVITY FLAG -BINARY
	00000001	USEACTM	EQU	X'01'	TASK ACTIVE AND CONVERSATIONAL
B4 0001F		USEQIT	DS	XL1	QUIT FLAG - BINARY
	B4 0001F	USEQB	EQU	USEQIT	USER QUIT FLAG
00000001		USEQBM	EQU	X'01'	USER QUIT MASK
B4 0001F		USEBA	EQU	USEQIT	BATCH WORK ALLOWED FLAG
00000002		USEBAM	EQU	X'02'	BATCH WORK ALLOWED MASK
B4 0001F		USEADC	EQU	USEQIT	USER ACTIVE FLAG
	00000008	USEADCM	EQU	X'08'	N478 USER ACTIVE MASK
B4 00020		USECNT	DS	H	N478 NUMBER OF ACTIVE TASKS FOR THIS USER
B4 00022		USETSK	DS	H	TASKID FOR CONVERSATIONAL TASK
B4 00024		USEP2	DS	F	UNUSED
B4 00028		USECHG	DS	CL8	CHARGE NUMBER
B4 00030		USEPRO	DS	CL8	PROFILE NAME
B4 00038		USEINS	DS	CL32	INSTALLATION
B4 00058		USETLC	DS	2F	TIME LAST CHANGED-MICROSECONDS
B4 00060		USESP3	DS	F	SPARE
B4 00064		USESP4	DS	F	SPARE
B4 00068		USEP	DS	2F	PRODUCT RESERVED FIELDS
B4 00070		USEP01	DS	F	PRODUCT 1 TEMPORARY PAGES
B4 00074		USEP02	DS	F	PRODUCT 2 PERMANENT PAGES
B4 00078		USEP03	DS	F	PRODUCT 3 DIRECT ACCESS DRIVES
B4 0007C		USEP04	DS	F	PRODUCT 4 MAGNETIC TAPE DRIVES

(Listing of CHAUSE continued on page 485)

(Listing of CHAUSE continued from page 484)

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
B4 00080		USEP05	DS	F	PRODUCT 5 HIGH SPEED PRINTERS
		*			
B4 00084		USEP06	DS	F	PRODUCT 6 READER PUNCHES
	00000018	USEPND	EQU	*-USEP01	LENGTH OF PRODUCT FIELD
B4 00088		USEBI	DS	F	BULKIO RECORDS IN
B4 0008C		USEBO	DS	F	BULKIO RECORDS OUT
B4 00090		USEA01	DS	F	ALLOCATION 1 CPU TIME
		*			ACCUMULATIVE
B4 00094		USEA02	DS	F	ALLOCATION 2 CONNECT TIME
		*			ACCUMULATIVE
B4 00098		USEA03	DS	F	ALLOCATION 3 RESERVED
B4 0009C		USEA04	DS	F	ALLOCATION 4 RESERVED
B4 000A0		USEA05	DS	F	ALLOCATION 5 TEMPORARY
		*			PAGES
B4 000A4		USEA06	DS	F	ALLOCATION 6 PERMANENT
		*			PAGES
B4 000A8		USEA07	DS	F	ALLOCATION 7 DIRECT ACCESS
		*			DRIVES
B4 000AC		USEA08	DS	F	ALLOCATION 8 MAGNETIC TAPE
		*			DRIVES
B4 000B0		USEA09	DS	F	ALLOCATION 9 HIGH SPEED
		*			PRINTER
B4 000B4		USEA10	DS	F	ALLOCATION 10
		*			READER-PUNCHES
B4 000B8		USEA11	DS	2F	RESERVED
B4 000C0		USEULT	DS	F	USER LIMITS TABLE KEY
		*			CATAGORY
B4 000C4		USER01	DS	F	RATION 1 CPU TIME/BILLING
		*			PERIOD
B4 000C8		USER02	DS	F	RATION 2 CONNECT
		*			TIME/BILLING PERIOD
B4 000CC		USER03	DS	F	RATION 3 TASK COUNT
B4 000D0		USER04	DS	F	RATION 4 MAXIMUM AUXILIARY
		*			STORAGE
B4 000D4		USER05	DS	F	RATION 5 TEMPORARY PAGES
B4 000D8		USER06	DS	F	RATION 6 PERMANENT PAGES
B4 000DC		USER07	DS	F	RATION 7 DIRECT ACCESS
		*			DRIVES
B4 000E0		USER08	DS	F	RATION 8 MAGNETIC TAPE
		*			DRIVES
B4 000E4		USER09	DS	F	RATION 9 HIGH SPEED
		*			PRINTERS
B4 000E8		USER10	DS	F	RATION 10 READER/PUNCHES
B4 000EC		USER11	DS	F	RATION 11 RESERVED
B4 000F0		USEUN4	DS	4F	RESERVED
	00000100	USELEN	EQU	*-CHAUSE	LENGTH OF ENTRY

## Virtual Program Status Word (CHAVPS)

The Virtual Program Status Word (VPSW), as used by a task operating in virtual storage, is analogous to the Program Status Word (PSW) which the Supervisor operates upon. The VPSW describes the task status at the moment that the machine is stopped by an interrupt. The reason for machine stoppage is indicated by the VPSW and the interrupt code. The types of interrupts that a task can receive are listed, in their order of interrupt processing priority, as follows:

1. Program
2. Service Call
3. External
4. Asynchronous
5. Timer
6. Input/Output

The resident and task monitors operate on the VPSWs which, in turn, furnish data to the LVPSW SVC processor and Task Interrupt Control.

The VPSW occupies 8 bytes of virtual storage, aligned on double word boundaries, in segment zero, page zero of the Interrupt Storage Area (ISA). The old-VPSWs (bytes 2000 to 2047) are located in the non-protected portion of the page where they are accessible to the object program. The new VPSWs (bytes 2048 to 2095) reside in the protected portion of the page where they are write-protected against change by non-privileged routines. The current-VPSW (bytes 2104 to 2111) is also contained in the protected portion of the page. This is a duplicate of the latest new-VPSW saved by the Resident Supervisor.

The LVPSW macro is provided to privileged programs for starting a task under control of a particular VPSW.

### CHAVPS Storage map

DEC	HEX				
0	0	VPSPT	VPSCP	VPSIN	VPSIC

### Fields in CHAVPS -- by displacement

DEC	HEX	FIELD	(EQU)	DEC	HEX	FIELD	(EQU)	DEC	HEX	FIELD	(EQU)
0000	0000	VPSII	(EQU)	0000	0000	VPSPT	(EQU)	0001	0001	VPSCC	(EQU)
0000	0000	VPSTI	(EQU)	0000	0000	VPSOP	(EQU)	0001	0001	VPSLC	(EQU)
0000	0000	VPSAI	(EQU)	0001	0001	VPSSF	(EQU)	0001	0001	VPSCP	(EQU)
0000	0000	VPSXI	(EQU)	0001	0001	VPSEU	(EQU)	0002	0002	VPSIN	(EQU)
0000	0000	VPSPI	(EQU)	0001	0001	VPSDO	(EQU)	0004	0004	VPSIC	(EQU)
0000	0000	VPSRE	(EQU)	0001	0001	VPSFO	(EQU)				
0000	0000	VPSPS	(EQU)	0001	0001	VPSPM	(EQU)				

### Alphabetical list of fields in CHAVPS

FIELD	DEC	HEX	(EQU)	FIELD	DEC	HEX	(EQU)	FIELD	DEC	HEX	(EQU)
VPSAI	0000	0000	(EQU)	VPSII	0000	0000	(EQU)	VPSPT	0000	0000	(EQU)
VPSCC	0001	0001	(EQU)	VPSIN	0002	0002	(EQU)	VPSRE	0000	0000	(EQU)
VPSCP	0001	0001	(EQU)	VPSLC	0001	0001	(EQU)	VPSSF	0001	0001	(EQU)
VPSDO	0001	0001	(EQU)	VPSOP	0000	0000	(EQU)	VPSTI	0000	0000	(EQU)
VPSEU	0001	0001	(EQU)	VPSPI	0000	0000	(EQU)	VPSXI	0000	0000	(EQU)
VPSFO	0001	0001	(EQU)	VPSPM	0001	0001	(EQU)				
VPSIC	0004	0004	(EQU)	VPSPS	0000	0000	(EQU)				

Assembler listing of CHAVPS

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	B5 00000	CHAVPS	DSECT		VIRTUAL PROGRAM STATUS WORD (VPSW)
B5 00000		VPSOP	DS	0D	OLD-VPSW PROGRAM INTERRUPT
B5 00000		VPSPT	DS	XL1	PRIVILEGE STATUS AND TASK MASK
	B5 00000	VPSPS	EQU	VPSPT	PRIVILEGE STATUS
	00000080	VPSPSM	EQU	X'80'	
	B5 00000	VPSRE	EQU	VPSPT	RESERVED
	00000020	VPSREM	EQU	X'20'	RESERVED MASK
	B5 00000	VPSPI	EQU	VPSPT	ASYNCHRONOUS PROG. INT. BIT (PI)
	00000010	VPSPI	EQU	X'10'	ASYNCHRONOUS PROG. INT. MASK
	B5 00000	VPSXI	EQU	VPSPT	EXTERNAL INTERRUPT MASK
	00000008	VPSXIM	EQU	X'08'	
	B5 00000	VPSAI	EQU	VPSPT	ASYNCHRONOUS INTERRUPT MASK
	00000004	VPSAIM	EQU	X'04'	
	B5 00000	VPSTI	EQU	VPSPT	TIMER INTERRUPT MASK
	00000002	VPSTIM	EQU	X'02'	
	B5 00000	VPSII	EQU	VPSPT	I/O INTERRUPT MASK
	00000001	VPSIIM	EQU	X'01'	
B5 00001		VPSCP	DS	XL1	ILC, CC, AND PROGRAM MASK
	B5 00001	VPSLC	EQU	VPSCP	INSTRUCTION LENGTH CODE (ILC)
	000000C0	VPSLCM	EQU	X'C0'	
	B5 00001	VPSCC	EQU	VPSCP	CONDITION CODE (CC)
	00000030	VPSCCM	EQU	X'30'	
	B5 00001	VPSPM	EQU	VPSCP	PROGRAM MASK
	0000000F	VPSPM	EQU	X'0F'	
	B5 00001	VPSFO	EQU	VPSCP	FLOATING POINT OVERFLOW MASK
	00000008	VPSFOM	EQU	X'08'	
	B5 00001	VPSDO	EQU	VPSCP	DECIMAL OVERFLOW MASK
	00000004	VPSDOM	EQU	X'04'	
	B5 00001	VPSEU	EQU	VPSCP	EXPONENTIAL UNDERFLOW MASK
	00000002	VPSEUM	EQU	X'02'	
	B5 00001	VPSSF	EQU	VPSCP	SIGNIFICANCE MASK
	00000001	VPSSFM	EQU	X'01'	
B5 00002		VPSIN	DS	XL2	INTERRUPT CODE
B5 00004		VPSIC	DS	F	INSTRUCTION COUNTER

VAM Tape Control Record (CHAVTR)

CHAVTR is a control record which is inserted, by VAM Tape (CZAET), as the first record of each tape data set; it is used by VAM Tape and Recreate Catalog (CZAAX) to reconstruct a data set on direct access storage. CHAVTR occupies 315 bytes of storage.

CHAVTR Storage map

DEC	HEX	Field
0	0	UNNAMED
8	8	VTRDS1
40	28	VTRDS2
80	50	VTRDSV
88	58	UNNAMED
96	60	VTRBID   UNNAMED
104	68	VTRDEV   UNNAMED
128	80	VTRCDT   VTREDT   UNNAMED
256	100	VTRFID   UNNAMED
272	110	VTRLPB   UNNAMED
280	118	VTRSCD   VTRXPD
288	120	UNNAMED   VTRFTP
296	128	VTRRFM   UNNAMED   VTRRCL   VTRKYL   VTRKLC
304	130	VTRKLC   UNNAMED   VTRSAL   VTRNDP
312	138	VTRDOP   VTRNOP



Fields in CHAVTR -- by displacement

<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>
0000	0000	VTRJFC	0128	0080	VTRCDT	0298	012A	VTRRCL
0008	0008	VTRDS1	0131	0083	VTREDT	0302	012E	VTRKYL
0043	002B	VTRDS2	0256	0100	VTRFID	0303	012F	VTRKLC
0087	0057	VTRDVP (EQU)	0256	0100	VTRDSC	0306	0132	VTRSAL
0087	0057	VTRDVS (EQU)	0272	0110	VTRLPB	0310	0136	VTRNDP
0087	0057	VTRDVI (EQU)	0274	0112	VTRSCD	0312	0138	VTRDOP
0087	0057	VTRDSV	0287	011F	VTRXPD	0314	013A	VTRNOP
0096	0060	VTRBID	0294	0126	VTRFTP			
0104	0068	VTRDEV	0296	0128	VTRRFM			

Alphabetical list of fields in CHAVTR

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
VTRBID	0096	0060	VTRDVP	0087	0057 (EQU)	VTRNDP	0310	0136
VTRCDT	0128	0080	VTRDVS	0087	0057 (EQU)	VTRNOP	0314	013A
VTRDEV	0104	0068	VTREDT	0131	0083	VTRRCL	0298	012A
VTRDOP	0312	0138	VTRFID	0256	0100	VTRRFM	0296	0128
VTRDSC	0256	0100	VTRFTP	0294	0126	VTRSAL	0306	0132
VTRDSV	0087	0057	VTRJFC	0000	0000	VTRSCD	0274	0112
VTRDS1	0008	0008	VTRKLC	0303	012F	VTRXPD	0287	011F
VTRDS2	0043	002B	VTRKYL	0302	012E			
VTRDVI	0087	0057 (EQU)	VTRLPB	0272	0110			

Assembler listing of CHAVTR

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	B7 00000	CHAVTR	DSECT		VAM TAPE CONTROL RECORD (4096 BYTES)
		*			ORIGINAL JFCB DATA
B7 00000		VTRJFC	DS	0CL256	RESERVED
B7 00000			DS	CL8	DSNAME WITHOUT USERID
B7 00008		VTRDS1	DS	CL35	DSNAME WITH USERID
B7 0002B		VTRDS2	DS	CL44	DATA SET ORGANIZATION FLAG
B7 00057		VTRDSV	DS	XL1	VISAM FLAG
	B7 00057	VTRDVI	EQU	VTRDSV	VISAM MASK
	00000004	VTRDVIM	EQU	X'04'	VSAM FLAG
	B7 00057	VTRDVS	EQU	VTRDSV	VSAM MASK
	00000005	VTRDVSM	EQU	X'05'	VPAM FLAG
	B7 00057	VTRDVP	EQU	VTRDSV	VPAM MASK
	00000006	VTRDVPM	EQU	X'06'	RESERVED
B7 00058			DS	CL8	RECORD IDENTIFIER, %**%
B7 00060		VTRBID	DS	CL4	RESERVED
B7 00064			DS	CL4	RESERVED
B7 00068		VTRDEV	DS	F	ORIGINAL DEVICE RESIDENCE
B7 0006C			DS	CL20	RESERVED
B7 00080		VTRCDT	DS	XL3	LAST ORIGINAL REFERENCE DATE (YDD)
		*			Y=YEAR (0-99), DD=DAY (1-366)
		*			
		*			
B7 00083		VTR EDT	DS	XL3	LAST ORIGINAL CHANGE DATE (YDD)
		*			Y=YEAR (0-99), DD=DAY (1-366)
		*			
		*			
B7 00086			DS	CL122	RESERVED
B7 00100		VTRDSC	DS	0CL59	ORIGINAL DSCB DATA
B7 00100		VTRFID	DS	XL1	FORMAT IDENTIFIER, X'FA'
B7 00101			DS	CL15	RESERVED
B7 00110		VTRLPB	DS	XL2	NUMBER OF BYTES USED IN LAST PAGE (VS)
		*			SYSTEM CODE
B7 00112		VTRSCD	DS	XL13	PAD FACTOR (VI)
B7 0011F		VTRXPD	DS	XL1	RESERVED
B7 00120			DS	CL6	RESERVED
B7 00126		VTRFTP	DS	XL2	FILE TYPE
B7 00128		VTRRFM	DS	XL1	RECORD FORMAT
B7 00129			DS	XL1	RESERVED
B7 0012A		VTRRCL	DS	XL4	RECORD LENGTH
B7 0012E		VTRKYL	DS	XL1	KEY LENGTH
B7 0012F		VTRKLC	DS	XL2	KEY LOCATION
B7 00131			DS	XL1	RESERVED
B7 00132		VTRSAL	DS	XL4	SECONDARY ALLOCATION
B7 00136		VTRNDP	DS	XL2	NUMBER OF DATA PAGES
B7 00138		VTRDOP	DS	XL2	NUMBER OF DIRECTORY PAGES (VI,VP)
		*			
B7 0013A		VTRNOP	DS	XL1	NUMBER OF OVERFLOW PAGES (VI)
		*			

External Prompt Message Table (CHAXPR)

CHAXPR contains the message ID and inserts for a message from be sent from one task to another.

CHAXPR Storage map

DEC	HEX	
0	0	XPRMID
8	8	XPRCNT   XPRFL1   XPRUN1
16	10	XPRINL

Fields in CHAXPR -- by displacement

DEC	HEX	FIELD	DEC	HEX	FIELD	(EQU)	DEC	HEX	FIELD
0000	0000	XPRMID	0012	000C	XPRINV		0016	0010	XPRINL
0008	0008	XPRCNT	0012	000C	XPRFL1		0017	0011	XPRINS
0012	000C	XPRWAC	(EQU)	0013	000D				XPRUN1

Alphabetical list of fields in CHAXPR

<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>	<u>FIELD</u>	<u>DEC</u>	<u>HEX</u>
XPRCNT	0008	0008	XPRINS	0017	0011	XPRUN1	0013	000D
XPRFL1	0012	000C	XPRINV	0012	000C	(EQU) XPRWAC	0012	000C
XPRINL	0016	0010	XPRMID	0000	0000			

Assembler listing of CHAXPR

<u>LOCATION</u>	<u>INSTRUCTION</u>	<u>SOURCE</u>	<u>INST</u>	<u>OPER</u>	<u>COMMENT</u>
	B9 00000	CHAXPR	DSECT		EXTERNAL PROMPT MESSAGE DSECT
*****					
* CHAXPR WAS IMPLIMENTED FOR APAR I6663. *					
* WHEN A MODULE OUTSIDE A PARTICULAR TASK WISHES TO CAUSE A PRMPT TO *					
* OCCUR IN THAT TASK, AN MCB MAY BE VSEND'D TO THE TASK. CHAXPR IS *					
* USED TO COVER THE MCBTXT FOR THE PURPOSE OF SPECIFYING THE MESSAGE *					
* ID AND THE INSERTS FOR THE MESSAGE TO BE ISSUED IN THE TARGET TASK. *					
*****					
B9 00000		XPRMID	DS	CL8	MESSAGE ID
B9 00008		XPRCNT	DS	F	COUNT OF INSERTS
B9 0000C		XPRFL1	DS	X	FLAGS
	B9 0000C	XPRINV	EQU	XPRFL1	CALL INTERVENE AFTER PROMPT
	00000080	XPRINVM	EQU	X'80'	
	B9 0000C	XPRWAC	EQU	XPRFL1	IF ON, MSG SENT BY CZAWA,
	00000040	XPRWACM	EQU	X'40'	BULKIO ABEND RECOVERY
B9 0000D		XPRUN1	DS	XL3	RESERVED
B9 00010		XPRINL	DS	X	INSERT LENGTH
B9 00011		XPRINS	DS	0C	INSERT

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