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//SPDVPR JOB (00000,M00510000002000000000,12,036154,VRISK0,
// 90001),A,TIME=60,PRTY=10
// EXEC ASMFC,PARM.ASM='NOLOAD,NODECK'
XX PROC REGASM=56K,UNIWRK=PACK,A=A 00000100
XXASM EXEC PGM=IEUASM,PARM='NOLOAD,DECK',REGION=&REGASM,RD=R 00000200
IEF653I SUBSTITUTION JCL - PGM=IEUASM,PARM='NOLOAD,DECK',REGION=56K,RD=R
XXSYSLIB DD DSN=CSPDBALS,DISP=SHR 00000300
XX DD DSN=SYS1.MACLIB,DISP=SHR 00000400
XXSYSUT1 DD UNIT=&UNIWRK,SPACE=(3520,(200,200)),DSN=&SYSUT1 00000500
IEF653I SUBSTITUTION JCL - UNIT=PACK,SPACE=(3520,(200,200)),DSN=&SYSUT1
XXSYSUT2 DD UNIT=(&UNIWRK.,SEP=SYSUT1),SPACE=(3520,(200,200)), 00000600
IEF653I SUBSTITUTION JCL - UNIT=(PACK,SEP=SYSUT1),SPACE=(3520,(200,200)),
XX DSN=&SYSUT2 00000700
IEF653I SUBSTITUTION JCL - DSN=&SYSUT2
XXSYSUT3 DD UNIT=(&UNIWRK.,SEP=(SYSUT1,SYSUT2)),SPACE=(3520,(200,200)), 00000800
IEF653I SUBSTITUTION JCL - UNIT=(PACK,SEP=(SYSUT1,SYSUT2)),SPACE=(3520,(200,200)),
XX DSN=&SYSUT3 00000900
IEF653I SUBSTITUTION JCL - DSN=&SYSUT3
//ASM.SYSPRINT DD SPACE=(3509,(225,25),RLSE,CONTIG)
X/SYSPRINT DD SYSOUT=&A,SPACE=(3509,(40,20),RLSE,CONTIG), 00001000
IEF653I SUBSTITUTION JCL - SYSOUT=A,SPACE=(3509,(40,20),RLSE,CONTIG),
XX DCB=(RECFM=FBM,LRECL=121,BLKSIZE=3509,BUFNO=2) 00001100
XXSYSPUNCH DD SYSOUT=B,DCB=(RECFM=FB,LRECL=80,BLKSIZE=3520), 00001200
XX SPACE=(3520,(400),RLSE) 00001300
//ASM.SYSIN DD DSN=CSPDVPRS,UNIT=TAPE7,LABEL=(,NL),DISP=OLD,
// DCB=(RECFM=FB,LRECL=80,BLKSIZE=1600,TRTCH=C,DEN=2),
// VOL=SER=T04616
IEF236I ALLOC. FOR SPDVPR ASM
IEF237I 230 ALLOCATED TO SYSLIB
IEF237I 230 ALLOCATED TO
IEF237I 345 ALLOCATED TO SYSUT1
IEF237I 341 ALLOCATED TO SYSUT2
IEF237I 232 ALLOCATED TO SYSUT3
IEF237I 105 ALLOCATED TO SYSPRINT
IEF237I 105 ALLOCATED TO SYSPUNCH
IEF237I 495 ALLOCATED TO SYSIN

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~~Let~~ Latest version received.

EXTERNAL SYMBOL DICTIONARY

SYMBOL TYPE ID ADDR LENGTH LD ID

SIM1401 SD 01 000000 004224
BEGIN LD 002142 01

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LOC  OBJECT CODE  ADDR1 ADDR2  STMT  SOURCE STATEMENT  F15OCT70  10/28/71
000000
1 SIM1401  START 0 00000100
2 *****
3 *
4 *          1401 SIMULATOR AS MODIFIED BY TOM BROWN WRD AS OF 71182 *
5 *
6 ***** 00000200
7 * * 00000300
8 * * 00000400
9 *          1 4 0 1  S I M U L A T O R   F O R   S Y S T E M / 3 6 0 * 00000500
10 * * 00000600
11 * * 00000700
12 * * 00000800
13 *          THIS PROGRAM WILL SIMULATE A 1401 ON A SYSTEM/360. THE * 00000900
14 * SYSTEM/360 MUST HAVE AT LEAST 65K, STANDARD INSTURCTION SET, ONE * 00001000
15 * 1052, ONE 2540, AND ONE PRINTER. THE 1401 FEATURES SUPPORTED ARE * 00001100
16 * ADVACED PROGRAMMING, SENSE SWITCHES, TAPES, MULTIPLY, DIVIDE, * 00001200
17 * 16K CORE, AND ALL STANDARD INSTRUCTIONS EXCEPT SELECT STACKER. * 00001300
18 * OPERATOR CONTROL IS THROUGH THE 1052, USING THE FOLLOWING ENTRIES * 00001400
19 * * 00001500
20 * * 00001600
21 *          SRS - START RESET * 00001700
22 *          STT - START * 00001800
23 *          LDC - LOAD FROM CARDS * 00001900
24 *          LDT - LOAD FROM TAPE * 00002000
25 *          SSS - SET SENSE SWITCHES * 00002100
26 *          TAS - TAPE ASSIGNMENT * 00002200
27 *          CLR - CLEAR ALL 1401 CORE * 00002300
28 *          DIS - DISPLAY 1401 CORE ON THE PRINTER * 00002400
29 *          ALT - ALTER 1401 CORE * 00002500
30 *          WTM - WRITE TAPE MARK * 00002600
31 *          RWD - REWIND TAPE * 00002700
32 *          TRM - TERMINATE THE SIMULATOR * 00002800
33 * * 00002900
34 * * 00003000
35 * * 00003100
36 * 16K BYTES ARE SET ASIDE FOR SIMULATED CORE, WITH EACH BYTE HAVING * 00003200
37 * THE FOLOWING FORMAT. * 00003300
38 *          360 BIT          1401 BIT * 00003400
39 *          0          UNUSED * 00003500
40 *          1          WORD MARK * 00003600
41 *          2          B * 00003700
42 *          3          A * 00003800
43 *          4          8 * 00003900
44 *          5          4 * 00004000
45 *          6          2 * 00004100
46 *          7          1 * 00004200
47 * * 00004300
48 * * 00004400
49 ***** 00004500

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LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
002148				51	USING SETBS1,15		00004700
003148				52	USING SETBS1+4096,14		00004800
000000				53	USING SIMCOR,7		00004900

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000000				55	USING A,13		00005100
000000	4990 EE64		03FAC	56 A	CH 9,=H'7'	DETERMINE INSTRUCTION LENGTH	00005200
000004	4780 D028		00028	57	BE AL7	*	00005300
000008	4990 EF66		03FAE	58	CH 9,=H'1'	*	00005400
00000C	4780 D03C		0003C	59	BE AL1	*	00005500
000010	4990 EE68		03FB0	60	CH 9,=H'4'	*	00005600
000014	4770 F9EE		02B36	61	BNE ILEGLN	*	00005700
000018	416A 0001		00001	62	LA 6,1(10)	4 CHARACTERS, SET A AND B EQUAL	00005800
00001C	4580 FAEO		02C28	63	BAL 8,CVAD43	*	00005900
000020	18B5			64	LR 11,5	*	00006000
000022	18CB			65	LR 12,11	*	00006100
000024	47F0 D03C		0003C	66	B AL1	*	00006200
000028	416A 0001		00001	67 AL7	LA 6,1(10)	CONVERT ADDRESSES	00006300
00002C	4580 FAEO		02C28	68	BAL 8,CVAD43	*	00006400
000030	18B5			69	LR 11,5	*	00006500
000032	416A 0004		00004	70	LA 6,4(10)	*	00006600
000036	4580 FAEO		02C28	71	BAL 8,CVAD43	*	00006700
00003A	18C5			72	LR 12,5	*	00006800
00003C	9201 E1B5	032FD		73 AL1	MVI POS1,1	SET 1-POSITION INDICATOR	00006900
000040	9200 E1B6	032FE		74	MVI AEND,0	CLEAR A-FIELD ENDED INDICATOR	00007000
000044	4100 0001		00001	75	LA 0,1	SET REGISTER FOR FAST SUBTRACTION	00007100
000048	434A 0000		00000	76	IC 4,0(10)	GET OP CODE	00007200
00004C	8C40 0001		00001	77	SRDL 4,1	SAVE LOW ORDER BIT	00007300
000050	434B 0000		00000	78	IC 4,0(11)	GET A-FIELD SIGN	00007400
000054	8840 0004		00004	79	SRL 4,4	*	00007500
000058	8C40 0002		00002	80	SRDL 4,2	*	00007600
00005C	434C 0000		00000	81	IC 4,0(12)	GET B-FIELD SIGN	00007700
000060	8840 0004		00004	82	SRL 4,4	*	00007800
000064	8D40 0003		00003	83	SLDL 4,3	TEST TABLE	00007900
000068	5440 EDD8		03F20	84	N 4,=F'31'	*	00008000
00006C	5A40 EDDC		03F24	85	A 4,=A(TBTRCP)	*	00008100
000070	9101 4000	00000		86	TM 0(4),X'1'	*	00008200
000074	4710 D160		00160	87	BO AL1H	COMPLEMENT ADD	00008300
				88 *			00008400
				89 *	PERFORM TRUE ADD		00008500
				90 *			00008600
000078	9270 D0E1	000E1		91	MVI AL1C+1,X'70'	SET TO KEEP SIGN	00008700
00007C	4110 0000		00000	92	LA 1,0	CLEAR CARRY	00008800
000080	433C 0000		00000	93 AL1A	IC 3,0(12)	GET B-FIELD CHARACTER	00008900
000084	1863			94	LR 6,3	SAVE B-FIELD ZONE	00009000
000086	5430 EDE0		03F28	95	N 3,=F'15'	ISOLATE DIGIT	00009100
00008A	5930 EDE4		03F2C	96	C 3,=F'11'	Q/ IS DIGIT NUMERIC	00009200
00008E	4740 D096		00096	97	BL *+8	YES	00009300
000092	5B30 EDE8		03F30	98	S 3,=F'8'	NO, ELIMINATE 8 BIT	00009400
000096	4930 EE6A		03FB2	99	CH 3,=H'10'	Q/ ZERO	00009500
00009A	4770 D0A0		000A0	100	BNE *+6	NO	00009600
00009E	1B33			101	SR 3,3	YES, CLEAR IT	00009700
0000A0	9501 E1B6	032FE		102	CLI AEND,1	Q/ IS THERE STILL AN A-FIELD	00009800
0000A4	4780 DCCA		000CA	103	BE AL1B	NO	00009900
0000A8	434B 0000		00000	104	IC 4,0(11)	YES, GET DIGIT	00010000
0000AC	1854			105	LR 5,4	*	00010100
0000AE	5440 EDE0		03F28	106	N 4,=F'15'	*	00010200
0000B2	5940 EDE4		03F2C	107	C 4,=F'11'	Q/ IS DIGIT NUMERIC	00010300
0000B6	4740 D0BE		000BE	108	BL *+8	YES	00010400
0000BA	5B40 EDE8		03F30	109	S 4,=F'8'	NO, ELIMINATE 8 BIT	00010500

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0000BE	4940 EE6A		03FB2	110	CH 4,=H'10'	Q/ ZERO	00010600
0000C2	4770 D0C8		000C8	111	BNE *+6	NO	00010700
0000C6	1B44			112	SR 4,4	YES, CLEAR IT	00010800
0000C8	1A34			113	AR 3,4	ADD A TO B	00010900
0000CA	1A31			114	AL1B AR 3,1	ADD CARRY	00011000
0000CC	4110 0000		00000	115	LA 1,0	CLEAR CARRY	00011100
0000D0	4930 EE6C		03FB4	116	CH 3,=H'9'	Q/ IS RESULT GREATER THAN 9	00011200
0000D4	47D0 D0E0		000E0	117	BNH AL1C	NO, OK	00011300
0000D8	4B30 EE6A		03FB2	118	SH 3,=H'10'	YES, SUBTRACT 10	00011400
0000DC	4110 0001		00001	119	LA 1,1	SET CARRY	00011500
0000E0	9400 C000	00000		120	AL1C NI 0(12),X'00'	STORE RESULT DIGIT	00011600
0000E4	4230 D0F5		000F5	121	STC 3,AL1D+1	*	00011700
0000E8	910F D0F5	000F5		122	TM AL1D+1,X'0F'	Q/ IS RESULT ZERO	00011800
0000EC	4750 D0F4		000F4	123	BC 5,AL1D	NO	00011900
0000F0	960A D0F5	000F5		124	OI AL1D+1,X'0A'	YES, SET 8-2 BITS	00012000
0000F4	9600 C000	00000		125	AL1D OI 0(12),0	*	00012100
0000F8	9240 D0E1	000E1		126	MVI AL1C+1,X'40'	SET TO ELIMINATE ZONES	00012200
0000FC	9501 E1B6	032FE		127	CLI AEND,1	Q/ HAS A-FIELD ALREADY ENDED	00012300
000100	4780 D112		00112	128	BE AL1E	YES	00012400
000104	1B80			129	SR 11,0	DECREMENT A-FIELD ADDRESS	00012500
000106	9140 B001	00001		130	TM 1(11),X'40'	Q/ END OF A-FIELD	00012600
00010A	4780 D112		00112	131	BZ AL1E	NO	00012700
00010E	9201 E1B6	032FE		132	MVI AEND,1	YES, SET A-FIELD ENDED INDICATOR	00012800
000112	1BC0			133	AL1E SR 12,0	DECREMENT B-FIELD ADDRESS	00012900
000114	9140 C001	00001		134	TM 1(12),X'40'	Q/ END OF B-FIELD	00013000
000118	4710 D12E		0012E	135	BO AL1F	YES	00013100
00011C	9200 E1B5	032FD		136	MVI POS1,0	NO, TURN OFF 1-POSITION INDICATOR	00013200
000120	9501 E1B6	032FE		137	CLI AEND,1	Q/ A-FIELD ENDED	00013300
000124	4770 D080		00080	138	BNE AL1A	NO	00013400
000128	1B55			139	SR 5,5	YES, CLEAR A-FIELD CHARACTER	00013500
00012A	47F0 D080		00080	140	B AL1A	ADD NEXT POSITION	00013600
00012E	9501 E1B5	032FD		141	AL1F CLI POS1,1	Q/ WAS THIS A 1-POSITION FIELD	00013700
000132	4780 D152		00152	142	BE AL1G1	YES, DONE	00013800
000136	5450 EDEC		03F34	143	N 5,=F'48'	NO, ADD HIGH ORDER ZONES	00013900
00013A	5460 EDEC		03F34	144	N 6,=F'48'	*	00014000
00013E	1A56			145	AR 5,6	*	00014100
000140	8910 0004		00004	146	SLL 1,4	ADD CARRY	00014200
000144	1A51			147	AR 5,1	*	00014300
000146	4250 D14F		0014F	148	STC 5,AL1G+1	STORE NEW ZONE	00014400
00014A	9430 D14F	0014F		149	NI AL1G+1,X'30'	*	00014500
00014E	9600 C001	00001		150	AL1G OI 1(12),0	*	00014600
000152	1211			151	AL1G1 LTR 1,1	Q/ WAS THERE A CARRY	00014700
000154	4780 E076		0318E	152	BC 8,NXTOP	NO	00014800
000158	9201 E1AB	032F3		153	MVI OVRFLO,1	YES, SET OVERFLOW INDICATOR	00014900
00015C	47F0 E076		0318E	154	B NXTOP		00015000
				155	*		00015100
				156	*	PERFORM COMPLEMENT ADDITION	00015200
				157	*		00015300
000160	4110 0001		00001	158	AL1H LA 1,1	SET CARRY	00015400
000164	50C0 E1B8		03300	159	ST 12,SAVB	SAVE B-FIELD UNITS ADDRESS	00015500
000168	9270 D1E7	001E7		160	MVI AL1L+1,X'70'	SET TO KEEP B-FIELD SIGN	00015600
00016C	433C 0000		00000	161	IC 3,0(12)	GET B-FIELD SIGN	00015700
000170	5430 EDEC		03F34	162	N 3,=F'48'	*	00015800
000174	4930 EE6E		03FB6	163	CH 3,=H'32'	Q/ IS IT MINUS	00015900
000178	4780 D180		00180	164	BE AL1I	YES	00016000

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
00017C	9630 C000	00000		165	OI 0(12),X'30'	NO, PUT PLUS SIGN IN STANDARD FORM	00016100
000180	432C 0000		00000	166	AL1I IC 2,0(12)	GET B-FIELD DIGIT	00016200
000184	5420 EDE0		03F28	167	N 2,=F'15'	*	00016300
000188	5920 EDE4		03F2C	168	C 2,=F'11'	Q/ IS DIGIT NUMERIC	00016400
00018C	4740 D194		00194	169	BL *+8	YES	00016500
000190	5820 EDE8		03F30	170	S 2,=F'8'	NO, ELIMINATE 8 BIT	00016600
000194	4920 EE6A		03FB2	171	CH 2,=H'10'	Q/ ZERO	00016700
000198	4770 D19E		0019E	172	BNE *+6	NO	00016800
00019C	1B22			173	SR 2,2	YES, CLEAR IT	00016900
00019E	4130 0009		00009	174	LA 3,9	SET COMPLEMENT	00017000
0001A2	9501 E1B6	032FE		175	CLI AEND,1	Q/ HAS A-FIELD PREVIOUSLY ENDED	00017100
0001A6	4780 D1CA		001CA	176	BE AL1J	YES	00017200
0001AA	434B 0000		00000	177	IC 4,0(11)	NO, GET A-FIELD DIGIT	00017300
0001AE	5440 EDE0		03F28	178	N 4,=F'15'	*	00017400
0001B2	5940 EDE4		03F2C	179	C 4,=F'11'	Q/ IS DIGIT NUMERIC	00017500
0001B6	4740 D1BE		001BE	180	BL *+8	YES	00017600
0001BA	5B40 EDE8		03F30	181	S 4,=F'8'	NO, ELIMINATE 8 BIT	00017700
0001BE	4940 EE6A		03FB2	182	CH 4,=H'10'	Q/ ZERO	00017800
0001C2	4770 D1C8		001C8	183	BNE *+6	NO	00017900
0001C6	1B44			184	SR 4,4	YES, CLEAR IT	00018000
0001C8	1B34			185	SR 3,4	COMPLEMENT A-FIELD DIGIT	00018100
0001CA	1A23			186	AL1J AR 2,3	ADD COMPLEMENT TO B-FIELD DIGIT	00018200
0001CC	1A21			187	AR 2,1	ADD CARRY	00018300
0001CE	4110 0000		00000	188	LA 1,0	CLEAR CARRY	00018400
0001D2	4920 EE6C		03FB4	189	CH 2,=H'9'	Q/ RESULT GREATER THAN 9	00018500
0001D6	47D0 D1E2		001E2	190	BNH AL1K	NO, OK	00018600
0001DA	4B20 EE6A		03FB2	191	SH 2,=H'10'	YES, SUBTRACT 10	00018700
0001DE	4110 0001		00001	192	LA 1,1	SET CARRY	00018800
0001E2	4220 D1F7		001F7	193	AL1K STC 2,AL1M+1	STORE RESULT DIGIT	00018900
0001E6	9400 C000	00000		194	AL1L NI 0(12),0	*	00019000
0001EA	910F D1F7		001F7	195	TM AL1M+1,X'0F'	Q/ IS RESULT ZERO	00019100
0001EE	4750 D1F6		001F6	196	BC 5,AL1M	NO	00019200
0001F2	960A D1F7		001F7	197	OI AL1M+1,X'0A'	YES, SET 8-2 BITS	00019300
0001F6	9600 C000	00000		198	AL1M OI 0(12),0	*	00019400
0001FA	9240 D1E7		001E7	199	MVI AL1L+1,X'40'	SET TO ELIMINATE B-FIELD ZONES	00019500
0001FE	9501 E1B6		032FE	200	CLI AEND,1	Q/ HAS A-FIELD ALREADY ENDED	00019600
000202	4780 D214		00214	201	BE AL1N	YES	00019700
000206	1B80			202	SR 11,0	NO, DECREMENT A-FIELD ADDRESS	00019800
000208	9140 B001		00001	203	TM 1(11),X'40'	Q/ IS THIS THE END OF THE A-FIELD	00019900
00020C	4780 D214		00214	204	BZ AL1N	NO	00020000
000210	9201 E1B6		032FE	205	MVI AEND,1	YES, SET A-FIELD ENDED INDICATOR	00020100
000214	1BC0			206	AL1N SR 12,0	DECREMENT B-FIELD ADDRESS	00020200
000216	9140 C001		00001	207	TM 1(12),X'40'	Q/ IS THIS THE END OF THE B-FIELD	00020300
00021A	4710 D226		00226	208	BO AL10	YES	00020400
00021E	9200 E1B5		032FD	209	MVI POS1,0	NO, CLEAR 1-POSITION INDICATOR	00020500
000222	47F0 D180		00180	210	B AL1I		00020600
000226	1211			211	AL10 LTR 1,1	Q/ CARRY	00020700
000228	4760 E076		031BE	212	BC 6,NXTOP	YES, DONE	00020800
				213	*		00020900
				214	*	PERFORM RECOMPLEMENT CYCLE	00021000
				215	*		00021100
00022C	4110 0001		00001	216	LA 1,1	SET CARRY	00021200
000230	58C0 E1B8		03300	217	L 12,SAVB	RESTORE B-FIELD UNITS ADDRESS	00021300
000234	432C 0000		00000	218	IC 2,0(12)	GET B-FIELD SIGN	00021400
000238	5420 EDEC		03F34	219	N 2,=F'48'	*	00021500

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
00023C	94CF C000	00000		220	NI 0(12),X'CF'	SET SIGN TO MINUS	00021600
000240	9620 C000	00000		221	OI 0(12),X'20'	*	00021700
000244	4920 EE6E		03FB6	222	CH 2,=H'32'	Q/ WAS THE B-FIELD SIGN MINUS	00021800
000248	4770 D250		00250	223	BNE AL1P	NO, LEAVE IT MINUS	00021900
00024C	9630 C000	00000		224	OI 0(12),X'30'	YES, SET IT PLUS	00022000
000250	433C 0000		00000	225	AL1P IC 3,0(12)	GET B-FIELD DIGIT	00022100
000254	5430 EDE0		03FB8	226	N 3,=F'15'	*	00022200
000258	4930 EE6A		03FB2	227	CH 3,=H'10'	Q/ ZERO	00022300
00025C	4770 D262		00262	228	BNE *+6	NO	00022400
000260	1B33			229	SR 3,3	YES, CLEAR IT	00022500
000262	4140 0009		00009	230	LA 4,9	SET COMPLEMENT	00022600
000266	1B43			231	SR 4,3	COMPLEMENT THE DIGIT	00022700
000268	1A41			232	AR 4,1	ADD CARRY	00022800
00026A	4110 0000		00000	233	LA 1,0	CLEAR CARRY	00022900
00026E	4940 EE6C		03FB4	234	CH 4,=H'9'	Q/ IS THE RESULT GREATER THAN 9	00023000
000272	47D0 D27E		0027E	235	BNH AL1Q	NO, OK	00023100
000276	4B40 EE6A		03FB2	236	SH 4,=H'10'	YES, SUBTRACT 10	00023200
00027A	4110 0001		00001	237	LA 1,1	SET CARRY	00023300
00027E	4240 D293		00293	238	AL1Q STC 4,AL1R+1	STORE RESULT	00023400
000282	9470 C000	00000		239	NI 0(12),X'70'	*	00023500
000286	910F D293	00293		240	TM AL1R+1,X'0F'	Q/ IS RESULT ZERO	00023600
00028A	4750 D292		00292	241	BC 5,AL1R	NO	00023700
00028E	960A D293	00293		242	OI AL1R+1,X'0A'	YES, SET 8-2 BITS	00023800
000292	9600 C000	00000		243	AL1R OI 0(12),0	*	00023900
000296	1BC0			244	SR 12,0	DECREMENT B-FIELD ADDRESS	00024000
000298	9140 C001	00001		245	TM 1(12),X'40'	Q/ IS THIS THE END OF THE B-FIELD	00024100
00029C	4780 D250		00250	246	BZ AL1P	NO	00024200
0002A0	47F0 E076		031BE	247	B NXTOP	YES	00024300
0002A4	0100010000010100			248	TBTRCP DC X'01000100000101000100010000010100'		00024400
0002B4	0001000101000001			249	DC X'00010001010000010100010000010100'		00024500

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0002C4				251	USING ZA,13		00024700
0002C4	4990 EE66		03FAE	252	ZA CH 9,=H'1'		00024800
0002C8	4780 D036		002FA	253	BE ZAL1		00024900
0002CC	4990 EE64		03FAC	254	CH 9,=H'7'		00025000
0002D0	4780 D018		002DC	255	BE ZAL7		00025100
0002D4	4990 EE68		03FB0	256	CH 9,=H'4'		00025200
0002D8	4770 F9EE		02B36	257	BNE ILEGLN		00025300
0002DC	416A 0001		00001	258	ZAL7 LA 6,1(10)		00025400
0002E0	4580 FAEO		02C28	259	BAL 8,CVAD43		00025500
0002E4	18B5			260	LR 11,5		00025600
0002E6	18C5			261	LR 12,5		00025700
0002E8	4990 EE68		03FB0	262	CH 9,=H'4'		00025800
0002EC	4780 D036		002FA	263	BE ZAL1		00025900
0002F0	416A 0004		00004	264	LA 6,4(10)		00026000
0002F4	4580 FAEO		02C28	265	BAL 8,CVAD43		00026100
0002F8	18C5			266	LR 12,5		00026200
0002FA	186C			267	ZAL1 LR 6,12		00026300
0002FC	185B			268	LR 5,11		00026400
0002FE	4100 0001		00001	269	LA 0,1		00026500
000302	433B 0000		00000	270	IC 3,0(11)	SAVE LOW CHARACTER OF A-FIELD	00026600
000306	4230 FB68		02CB0	271	STC 3,TEMP1	*	00026700
00030A	D100 6000	5000	00000	272	ZAL1A MVN 0(1,6),0(5)	MOVE NUMERIC	00026800
000310	944F 6000		00000	273	NI 0(6),X'4F'	ELIMINATE ZONE	00026900
000314	1B50			274	SR 5,0		00027000
000316	1B60			275	SR 6,0		00027100
000318	9140 5001		00001	276	TM 1(5),X'40'	Q/ END OF A-FIELD	00027200
00031C	4710 D080		00344	277	BO ZAL1E	YES	00027300
000320	9140 6001		00001	278	TM 1(6),X'40'	NO, END OF B-FIELD	00027400
000324	4780 D046		0030A	279	BZ ZAL1A	NO, MOVE NEXT DIGIT	00027500
000328	9620 C000		00000	280	ZAL1C OI 0(12),X'20'	SET B-FIELD SIGN MINUS	00027600
00032C	9430 FB68		02CB0	281	NI TEMP1,X'30'	Q/ IS A-FIELD MINUS	00027700
000330	9520 FB68		02CB0	282	CLI TEMP1,X'20'	*	00027800
000334	4780 D078		0033C	283	BE ZAL1D	YES	00027900
000338	9630 C000		00000	284	OI 0(12),X'30'	NO, SET B-FIELD SIGN PLUS	00028000
00033C	18B5			285	ZAL1D LR 11,5	SET A-ADDRESS	00028100
00033E	18C6			286	LR 12,6	SET B-ADDRESS	00028200
000340	47F0 E076		031BE	287	B NXTOP		00028300
000344	9140 6001		00001	288	ZAL1E TM 1(6),X'40'	ZERO B-FIELD BEYOND RANGE OF A-FIELD	00028400
000348	4710 D064		00328	289	BO ZAL1C	*	00028500
00034C	9440 6000		00000	290	NI 0(6),X'40'	*	00028600
000350	960A 6000		00000	291	OI 0(6),X'0A'		00028700
000354	1B60			292	SR 6,0		00028800
000356	47F0 D080		00344	293	B ZAL1E	*	00028900

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
00035A				295	USING ZS,13		00029100
00035A	4990 EE64		03FAC	296 ZS	CH 9,=H'7'		00029200
00035E	4780 D018		00372	297	BE ZS1		00029300
000362	4990 EE66		03FAE	298	CH 9,=H'1'		00029400
000366	4780 D036		00390	299	BE ZSL4		00029500
00036A	4990 EE68		03FB0	300	CH 9,=H'4'		00029600
00036E	4770 F9EE		02B36	301	BNE ILEGLN		00029700
000372	416A 0001		00001	302 ZS1	LA 6,1(10)		00029800
000376	4580 FAEO		02C28	303	BAL 8,CVAD43		00029900
00037A	18B5			304	LR 11,5		00030000
00037C	18CB			305	LR 12,11		00030100
00037E	4990 EE68		03FB0	306	CH 9,=H'4'		00030200
000382	4780 D036		00390	307	BE ZSL4		00030300
000386	416A 0004		00004	308	LA 6,4(10)		00030400
00038A	4580 FAEO		02C28	309	BAL 8,CVAD43		00030500
00038E	18C5			310	LR 12,5		00030600
000390	185B			311 ZSL4	LR 5,11		00030700
000392	186C			312	LR 6,12		00030800
000394	4100 0001		00001	313	LA 0,1	SET ONE IN REG 0 FOR SUBTRACTING	00030900
000398	433B 0000		00000	314	IC 3,0(11)	SAVE LOW CHARACTER OF A-FIELD	00031000
00039C	4230 FB68		02CB0	315	STC 3,TEMP1	*	00031100
0003A0	D100 6000	5000	00000	316 ZSL4A	MVN 0(1,6),0(5)	MOVE NUMERIC	00031200
0003A6	944F 6000		00000	317	NI 0(6),X'4F'	ELIMINATE ZONE	00031300
0003AA	1B50			318	SR 5,0	DECREMENT A-ADDRESS	00031400
0003AC	9140 5001		00001	319	TM 1(5),X'40'		00031500
0003B0	4710 D088		003E2	320	BO ZSL4F		00031600
0003B4	1B60			321	SR 6,0	DECREMENT B-ADDRESS	00031700
0003B6	9140 6001		00001	322	TM 1(6),X'40'		00031800
0003BA	4780 D046		003A0	323	BZ ZSL4A		00031900
0003BE	9620 C000		00000	324 ZSL4C	OI 0(12),X'20'	SET B-FIELD SIGN MINUS	00032000
0003C2	9430 FB68		02CB0	325	NI TEMP1,X'30'	Q/ WAS A-FIELD MINUS	00032100
0003C6	9520 FB68		02CB0	326	CLI TEMP1,X'20'	*	00032200
0003CA	4770 D078		003D2	327	BNE ZSL4D	LEAVE IT MINUS IF IT WAS PLUS	00032300
0003CE	9630 C000		00000	328	OI 0(12),X'30'	MAKE B-FIELD PLUS	00032400
0003D2	18B5			329 ZSL4D	LR 11,5		00032500
0003D4	18C6			330	LR 12,6		00032600
0003D6	47F0 E076		031BE	331	B NXTOP		00032700
0003DA	9440 6000		00000	332 ZSL4E	NI 0(6),X'40'		00032800
0003DE	960A 6000		00000	333	OI 0(6),X'0A'		00032900
0003E2	1B60			334 ZSL4F	SR 6,0		00033000
0003E4	9140 6001		00001	335	TM 1(6),X'40'		00033100
0003E8	4710 D064		003BE	336	BO ZSL4C		00033200
0003EC	47F0 D080		003DA	337	B ZSL4E		00033300

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0003F0				339	USING B,13		00033500
0003F0	4990 EE66		03FAE	340 B	CH 9,=H'1'	CHAINED BCE?	
0003F4	4780 D12C		0051C	341	BE BCE1A	YES, GO CHECK IT	
0003F8	4990 EF68		03FB0	342	CH 9,=H'4'	UNCOND 4-POS BRANCH?	
0003FC	4780 D10A		004FA	343	BE BL5BCH	YES, DO IT	
000400	4740 F9EE		02B36	344	BL ILEGLN	ILLEGAL LENGTH OF 2 OR 3	
000404	9500 A004	00004		345	CLI 4(10),0	IS POS 5 BLANK?	
000408	4780 D10A		004FA	346	BE BL5BCH	YES, UNCOND BRANCH	
00040C	4990 EE64		03FAC	347	CH 9,=H'7'	CHAINED 7-POS BRANCH?	
000410	4780 D118		00508	348	BE BCE7	YES, GO CHECK IT	
000414	4990 EE70		03FB8	349	CH 9,=H'8'	8-POS BCE?	
000418	4780 D112		00502	350	BE BCE8	YES, DO IT	
00041C	4720 F9EE		02B36	351	BH ILEGLN	>8, NO GOOD	
000420	4990 EE72		03FBA	352	CH 9,=H'5'	5-POS COND BRANCH?	
000424	4770 F9EE		02B36	353	BNE ILEGLN	NO, ILLEGAL 6-POS INST	
000428	433A 0004		00004	354	IC 3,4(10)	GET D CHARACTER	00034500
00042C	5430 EDF0		03F38	355	N 3,=F'63'	*	00034600
000430	8930 0002		00002	356	SLL 3,2	MULTIPLY BY 4	00034700
000434	5843 D15C		0054C	357	L 4,DCHARTBL(3)	GET ADDRESS OF CONDITIONAL BRANCH RTN	00034800
000438	07F4			358	BR 4	GO TO ROUTINE OF NXTOP	00034900
00043A	9101 E1A0	032E8		359 BL5A	TM SENSEA,1	Q/ IS SENSE SWITCH A ON	00035000
00043E	4780 E076		031BE	360	BZ NXTOP	NO, CANNOT BRANCH	00035100
000442	9101 E1B4	032FC		361	TM CRDEOF,1	YES, IS READER EMPTY	00035200
000446	4710 D10A		004FA	362	BD BL5BCH	YES, BRANCH	00035300
00044A	47F0 E076		031BE	363	B NXTOP	NO	00035400
00044E	9501 E1A1	032E9		364 BL5B	CLI SENSEB,1		00035500
000452	47F0 D106		004F6	365	B BL5CKB		00035600
000456	9501 E1A2	032EA		366 BL5C	CLI SENSEC,1		00035700
00045A	47F0 D106		004F6	367	B BL5CKB		00035800
00045E	9501 E1A3	032EB		368 BL5D	CLI SENSED,1		00035900
000462	47F0 D106		004F6	369	B BL5CKB		00036000
000466	9501 E1A4	032EC		370 BL5E	CLI SENSEE,1		00036100
00046A	47F0 D106		004F6	371	B BL5CKB		00036200
00046E	9501 E1A5	032ED		372 BL5F	CLI SENSEF,1		00036300
000472	47F0 D106		004F6	373	B BL5CKB		00036400
000476	9501 E1A6	032EE		374 BL5G	CLI SENSEG,1		00036500
00047A	47F0 D106		004F6	375	B BL5CKB		00036600
00047E	9501 E1AA	032F2		376 BL5K	CLI TPEOF,1		00036700
000482	9200 E1AA	032F2		377	MVI TPEOF,0		00036800
000486	47F0 D106		004F6	378	B BL5CKB		00036900
00048A	9501 E1A9	032F1		379 BL5L	CLI TPERR,1		00037000
00048E	47F0 D106		004F6	380	B BL5CKB		00037100
000492	9500 E1AC	032F4		381 BL5S	CLI CPR,0		00037200
000496	47F0 D106		004F6	382	B BL5CKB		00037300
00049A	9501 E1AC	032F4		383 BL5T	CLI CPR,1		00037400
00049E	47F0 D106		004F6	384	B BL5CKB		00037500
0004A2	9502 E1AC	032F4		385 BL5U	CLI CPR,2		00037600
0004A6	47F0 D106		004F6	386	B BL5CKB		00037700
0004AA	9500 E1AC	032F4		387 BL51	CLI CPR,0		00037800
0004AE	4780 E076		031BE	388	BE NXTOP		00037900
0004B2	47F0 D10A		004FA	389	R BL5BCH		00038000
0004B6	9501 E1AB	032F3		390 BL5Z	CLI OVRFLO,1		00038100
0004BA	9200 E1AB	032F3		391	MVI OVRFLO,0		00038200
0004BE	47F0 D106		004F6	392	B BL5CKB		00038300
0004C2	9501 E1A7	032EF		393 BL59	CLI PRTP9,1		00038400

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0004C6	47F0 D106		004F6	394	B BL5CKB		00038500
0004CA	9501 E1A8	032F0		395	BL52 CLI PRTPI2,1		00038600
0004CE	47F0 D106		004F6	396	B BL5CKB		00038700
0004D2	9501 E1C8	03310		397	BL5RER CLI RDRERR,1		00038800
0004D6	9200 E1C8	03310		398	MVI RDRERR,0		00038900
0004DA	47F0 D106		004F6	399	B BL5CKB		00039000
0004DE	9501 E1C7	0330F		400	BL5PER CLI PCHERR,1		00039100
0004E2	9200 E1C7	0330F		401	MVI PCHERR,0		00039200
0004E6	47F0 E076		031BE	402	BL5P B NXTOP		00039300
0004EA	9501 E1C9	03311		403	BL53 CLI PRTRERR,1	Q/ PRINT ERROR	00039400
0004EE	9200 E1C9	03311		404	MVI PRTRERR,0	CLEAR ERROR INDICATOR	00039500
0004F2	47F0 D106		004F6	405	B BL5CKB	CHECK CONDITION CODE	00039600
0004F6	4770 E076		031BE	406	BL5CKB BNE NXTOP		00039700
0004FA	416A 0001		00001	407	BL5BCH LA 6,1(10)		00039800
0004FE	47F0 F97E		02AC6	408	B SETBCH	SET CONDITIONS FOR BRANCH	00039900
000502	D200 E1AD	A007 032F5	00007	409	BCE8 MVC DCHAR,7(10)		00040800
000508	416A 0004		00004	410	BCE7 LA 6,4(10)	NO, TREAT AS BCE	00040200
00050C	4580 FAEO		02C28	411	BAL 8,CVAD43		00040300
000510	18C5			412	LR 12,5		00040400
000512	416A 0001		00001	413	LA 6,1(10)		00040500
000516	4580 FAEO		02C28	414	BAL 8,CVAD43		00040600
00051A	18B5			415	LR 11,5		00040700
00051C	D200 FB68	C000 02CB0	00000	416	BCE1A MVC TEMP1(1),0(12)		00040900
000522	94BF FB68		02CB0	417	NI TEMP1,X'BF'		00041000
000526	D500 FB68	E1AD 02CB0	032F5	418	CLC TEMP1,DCHAR	COMPARE D CHARACTER TO CORE LOCATION	00041100
00052C	4770 D152		00542	419	BNE BCE1B		00041200
000530	18CA			420	LR 12,10		00041300
000532	1AC9			421	AR 12,9		00041400
000534	50A0 E1B0		032F8	422	ST 10,LSTBCH	STORE LOCATION COUNTER BEFORE BRANCH	00041500
000538	18AB			423	LR 10,11		00041600
00053A	4190 0000		00000	424	LA 9,0		00041700
00053E	47F0 E076		031BE	425	B NXTOP		00041800
000542	4BC0 EE66		03FAE	426	BCE1B SH 12,=H'1'		00041900
000546	47F0 E076		031BE	427	B NXTOP		00042000
00054A	0000						
00054C	00004FA000031BE			428	DCHAR TBL DC A(BL5BCH),8A(NXTOP),A(BL59),2A(NXTOP),A(BL52)		00042100
000580	000031BE000031BE			429	DC 4A(NXTOP),A(BL51,BL55)		00042200
000598	0000049A000004A2			430	DC A(BL5T,BL5U),4A(NXTOP),A(BL5Z,BL53),7A(NXTOP)		00042300
0005D4	0000047E0000048A			431	DC A(BL5K,BL5L),3A(NXTOP),A(BL5P,NXTOP,BL5P,BL5PER)		00042400
0005F8	000031BE000031BE			432	DC 6A(NXTOP),A(BL5A,BL5B,BL5C,BL5D,BL5E,BL5F,BL5G)		00042500
00062C	000031BE000031BE			433	DC 2A(NXTOP),A(BL5RER),5A(NXTOP)		00042600

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
00064C				435	USING BWZ,13		00042800
00064C	4990 EF66		03FAE	436	BWZ CH 9,=H'1'		00042900
000650	4780 D02A		00676	437	BE BWZL1		00043000
000654	4990 EE70		03FB8	438	CH 9,=H'8'		00043100
000658	4770 F9EE		02B36	439	BNE ILEGLN		00043200
00065C	416A 0001		00001	440	LA 6,1(10)		00043300
000660	4580 FAE0		02C28	441	BAL 8,CVAD43		00043400
000664	18B5			442	LR 11,5		00043500
000666	416A 0004		00004	443	LA 6,4(10)		00043600
00066A	4580 FAE0		02C28	444	BAL 8,CVAD43		00043700
00066E	18C5			445	LR 12,5		00043800
000670	D200 E1AD	A007	032F5	00007	446 MVC DCHAR(1),7(10)		00043900
000676	48C0 EE66		03FAE	447	BWZL1 SH 12,=H'1'		00044000
00067A	9501 E1AD		032F5	448	CLI DCHAR,X'01'		00044100
00067E	4780 D07A		006C6	449	BE BWZW		00044200
000682	9502 E1AD		032F5	450	CLI DCHAR,X'02'		00044300
000686	4780 D086		006D2	451	BE BWZO		00044400
00068A	9532 E1AD		032F5	452	CLI DCHAR,X'32'		00044500
00068E	4780 D092		006DE	453	BE BWZBA		00044600
000692	9522 E1AD		032F5	454	CLI DCHAR,X'22'		00044700
000696	4780 D09E		006EA	455	BE BWZB		00044800
00069A	9512 E1AD		032F5	456	CLI DCHAR,X'12'		00044900
00069E	4780 D0B2		006FE	457	BE BWZA		00045000
0006A2	9503 E1AD		032F5	458	CLI DCHAR,X'03'		00045100
0006A6	4780 D0C6		00712	459	BE BWZWO		00045200
0006AA	9533 E1AD		032F5	460	CLI DCHAR,X'33'		00045300
0006AE	4780 D0D2		0071E	461	BE BWZWBA		00045400
0006B2	9523 E1AD		032F5	462	CLI DCHAR,X'23'		00045500
0006B6	4780 D0DE		0072A	463	BE BWZWB		00045600
0006BA	9513 E1AD		032F5	464	CLI DCHAR,X'13'		00045700
0006BE	4780 D0EA		00736	465	BE BWZWA		00045800
0006C2	47F0 F9C0		02B08	466	B ILEGOP		00045900
0006C6	9140 C001		00001	467	BWZW TM 1(12),X'40'		00046000
0006CA	4710 D0F6		00742	468	BO BWZBCH		00046100
0006CE	47F0 E076		031BE	469	B NXTOP		00046200
0006D2	9130 C001		00001	470	BWZO TM 1(12),X'30'		00046300
0006D6	4780 D0F6		00742	471	BZ BWZBCH		00046400
0006DA	47F0 E076		031BE	472	B NXTOP		00046500
0006DE	9130 C001		00001	473	BWZBA TM 1(12),X'30'		00046600
0006E2	4710 D0F6		00742	474	RO BWZBCH		00046700
0006E6	47F0 E076		031BE	475	B NXTOP		00046800
0006EA	9120 C001		00001	476	BWZB TM 1(12),X'20'		00046900
0006EE	4780 E076		031BE	477	BZ NXTOP		00047000
0006F2	9110 C001		00001	478	TM 1(12),X'10'		00047100
0006F6	4710 E076		031BE	479	RO NXTOP		00047200
0006FA	47F0 D0F6		00742	480	B BWZBCH		00047300
0006FE	9120 C001		00001	481	BWZA TM 1(12),X'20'		00047400
000702	4710 E076		031BE	482	RO NXTOP		00047500
000706	9110 C001		00001	483	TM 1(12),X'10'		00047600
00070A	4710 D0F6		00742	484	BO BWZBCH		00047700
00070E	47F0 E076		031BE	485	B NXTOP		00047800
000712	9140 C001		00001	486	BWZWO TM 1(12),X'40'		00047900
000716	4710 D0F6		00742	487	BO BWZBCH		00048000
00071A	47F0 D086		006D2	488	B BWZO		00048100
00071E	9140 C001		00001	489	BWZWBA TM 1(12),X'40'		00048200

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000722	4710 D0F6		00742	490	BO BWZBCH		00048300
000726	47F0 D092		006DE	491	B BWZBA		00048400
00072A	9140 C001	00001		492	BWZWB TM 1(12),X'40'		00048500
00072E	4710 D0F6		00742	493	BO BWZBCH		00048600
000732	47F0 D09E		006EA	494	B BWZB		00048700
000736	9140 C001	00001		495	BWZWA TM 1(12),X'40'		00048800
00073A	4710 D0F6		00742	496	BO BWZBCH		00048900
00073E	47F0 DCB2		006FE	497	B BWZA		00049000
000742	50A0 E1B0		032F8	498	BWZBCH ST 10,LSTBCH	STORE LOCATION COUNTER BEFORE BRANCH	00049100
000746	18CA			499	LR 12,10	SET B-REG	00049200
000748	1AC9			500	AR 12,9	*	00049300
00074A	18AB			501	LR 10,11	SET LOCATION COUNTER FOR BRANCH	00049400
00074C	4190 0000		00000	502	LA 9,0	*	00049500
000750	47F0 E076		031BE	503	B NXTOP		00049600

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000754				505	USING C,13		00049800
000754	4990 EE66		03FAE	506 C	CH 9,=H'1'		00049900
000758	4780 D038		0078C	507	BE CL1		00050000
00075C	4990 EE68		03F80	508	CH 9,=H'4'		00050100
000760	4780 D022		00776	509	BE CL4		00050200
000764	4990 EE64		03FAC	510	CH 9,=H'7'		00050300
000768	4770 F9EE		02B36	511	BNE ILEGLN		00050400
00076C	416A 0004		00004	512	LA 6,4(10)		00050500
000770	4580 FAEO		02C28	513	BAL 8,CVAD43		00050600
000774	18C5			514	LR 12,5		00050700
000776	416A 0001		00001	515 CL4	LA 6,1(10)	CONVERT A-ADDR TO 360 FORMAT	00050800
00077A	4580 FAEO		02C28	516	BAL 8,CVAD43	*	00050900
00077E	18B5			517	LR 11,5	*	00051000
000780	4990 EE68		03F80	518	CH 9,=H'4'	Q/ IS INSTRUCTION 4 CHARACTERS	00051100
000784	4770 D038		0078C	519	BNE CL1	NO	00051200
000788	18CB			520	LR 12,11	YES, FORS	00051300
00078A	18CB			521	LR 12,11	YES, FORCE B/ADDR = A/ADDR	00051400
00078C	9200 DOBE	00812		522 CL1	MVI TCPR,0	INITIALIZE COMPARE RESULT TO EQUAL	00051500
000790	4140 0000		00000	523	LA 4,0		00051600
000794	4100 0001		00001	524	LA 0,1		00051700
000798	1BB0			525 C1	SR 11,0		00051800
00079A	18C0			526	SR 12,0		00051900
00079C	9140 C001	00001		527	TM 1(12),X'40'		00052000
0007A0	4710 D060		007B4	528	BO C2		00052100
0007A4	9140 B001	00001		529	TM 1(11),X'40'		00052200
0007A8	4710 DOAE		00802	530	BO C5	LONG B-FIELD	00052300
0007AC	4144 0001		00001	531	LA 4,1(4)		00052400
0007B0	47F0 D044		00798	532	B C1		00052500
0007B4	185B			533 C2	LR 5,11		00052600
0007B6	186C			534	LR 6,12		00052700
0007B8	4144 0001		00001	535	LA 4,1(4)		00052800
0007BC	D200 DOBF	6001 00813	00001	536 C3	MVC TCR(1),1(6)		00052900
0007C2	D200 D0C0	5001 00814	00001	537	MVC TCR+1(1),1(5)		00053000
0007C8	DC01 DOBF	DOC1 00813	00815	538	TR TCR(2),CPRTBL	CONVERT DIGITS TO SORT SEQUENCE	00053100
0007CE	D500 DOBF	DOC0 00813	00814	539	CLC TCR(1),TCR+1		00053200
0007D4	4720 DOAE		00802	540	BH C5		00053300
0007D8	4740 DOB6		0080A	541	BL C6		00053400
0007DC	4155 0001		00001	542	LA 5,1(5)		00053500
0007E0	4166 0001		00001	543	LA 6,1(6)		00053600
0007E4	4640 D068		007BC	544	BCT 4,C3		00053700
0007E8	4990 EE66		03FAE	545 C4	CH 9,=H'1'		00053800
0007EC	4770 DOA4		007F8	546	BNE C4A		00053900
0007F0	9500 DOBE	00812		547	CLI TCPR,0		00054000
0007F4	4780 E076		031BE	548	BE NXTOP		00054100
0007F8	D200 E1AC	DOBE 032F4	00812	549 C4A	MVC CPR,TCPR		00054200
0007FE	47F0 E076		031BE	550	B NXTOP		00054300
000802	9202 DOBE	00812		551 C5	MVI TCPR,2	SET HIGH	00054400
000806	47F0 D094		007E8	552	B C4		00054500
00080A	9201 DOBE	00812		553 C6	MVI TCPR,1	SET LOW	00054600
00080E	47F0 D094		007E8	554	B C4		00054700
000812	00			555 TCPR	DC X'00'		00054800
000813				556 TCR	DS CL2		00054900
000815	003738393A3B3C3D			557 CPRTBL	DC HL1'0,55,56,57,58,59,60,61,62,63,54,20,21,22,23,24'		00055000
000825	130D2E2F30313233			558	DC HL1'19,13,46,47,48,49,50,51,52,53,45,14,15,16,17,18'		00055100
000835	0C2425262728292A			559	DC HL1'12,36,37,38,39,40,41,42,43,44,35,7,8,9,10,11'		00055200

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000845	061A1B1C1D1E1F20			560	DC HL1'6,26,27,28,29,30,31,32,33,34,25,1,2,3,4,5'		00055300
000855	003738393A383C3D			561	DC HL1'0,55,56,57,58,59,60,61,62,63,54,20,21,22,23,24'		00055400
000865	130D2E2F30313233			562	DC HL1'19,13,46,47,48,49,50,51,52,53,45,14,15,16,17,18'		00055500
000875	0C2425262728292A			563	DC HL1'12,36,37,38,39,40,41,42,43,44,35,7,8,9,10,11'		00055600
000885	061A1B1C1D1E1F20			564	DC HL1'6,26,27,28,29,30,31,32,33,34,25,1,2,3,4,5'		00055700

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000896				566	USING H,13		00055900
000895	00						
000896	4990 EE66		03FAE	567 H	CH 9,=H'1'		00056000
00089A	4780 D020		008B6	568	BE H1		00056100
00089E	4990 EE74		03FBC	569	CH 9,=H'2'	IS IT A 2-POS HALT?	TAB 00056110
0008A2	4780 D020		008B6	570	BE H1	YES, GO PROCESS	TAB 00056120
0008A6	4990 EE68		03FB0	571	CH 9,=H'4'		00056200
0008AA	4780 D020		008B6	572	BE H1		00056300
0008AE	4990 EE64		03FAC	573	CH 9,=H'7'		00056400
0008B2	4770 F9EE		02B36	574	BNE ILEGLN		00056500
0008B6	185A			575 H1	LR 5,10	CONVERT I ADDRESS	00056600
0008B8	1A59			576	AR 5,9	ADD LENGTH TO I - LOC	TAB 00056610
0008BA	4580 D0D0		00966	577	BAL 8,H5	*	00056700
0008BE	D205 D102 D0F6 00998 0098C			578	MVC HLTUAR,HLTADARA	IAR TO SAVE AREA	TAB 00056710
0008C4	D205 FBF3 D0F6 02D3B 0098C			579	MVC HLTWTO+15(6),HLTADARA	MOVE I ADDRESS TO OUTPUT	00056800
0008CA	9211 FBE9		02D31	580	MVI HLTWTO+5,17	MOVE LENGTH TO WTO	00056900
0008CE	4990 EE74		03FBC	581	CH 9,=H'2'	2-POS HALT?	TAB 00057005
0008D2	4740 D08C		00922	582	BL H2	NO, 1-POS IAR ONLY	TAB 00057010
0008D6	4720 D05C		008F2	583	BH H1A	> 2 POS - PRINT AAR & BAR	TAB 00057015
0008DA	92C4 FBF3		02D43	584	MVI HLTWTO+23,C'D'	2-POS HALT - PRINT D-MOD	TAB 00057020
0008DE	D200 FBF3 A001 02D45 00001			585	MVC HLTWTO+25(1),1(10)	D-MOD TO WTO	TAB 00057025
0008E4	DC00 FBF3 EA14 02D45 03B5C			586	TR HLTWTO+25(1),TRIE	TRANS D-MOD TO EBCDIC	TAB 00057030
0008EA	9216 FBE9		02D31	587	MVI HLTWTO+5,22	SET WTO LENGTH	TAB 00057035
0008EE	47F0 D08C		00922	588	B H2	GO PRINT THE MESSAGE	TAB 00057040
0008F2	92C1 FBF3		02D43	589 H1A	MVI HLTWTO+23,C'A'	REPLACE THE A FOR 7-POS HLT	TAB 00057045
0008F6	4740 D08C		00922	590	BL H2	NO	00057100
0008FA	416A 0001		00001	591	LA 6,1(10)	CONVERT 1401 ADDRESS	00057200
0008FE	4580 FAE0		02C28	592	BAL 8,CVAD43	*	00057300
000902	4580 D0D0		00966	593	BAL 8,H5	*	00057400
000906	D205 FBFC D0F6 02D44 0098C			594	MVC HLTWTO+24(6),HLTADARA	MOVE A ADDRESS TO OUTPUT	00057500
00090C	416A 0004		00004	595	LA 6,4(10)	CONVERT 1401 B ADDRESS	00057600
000910	4580 FAE0		02C28	596	BAL 8,CVAD43	*	00057700
000914	4580 D0D0		00966	597	BAL 8,H5	*	00057800
000918	D205 FC05 D0F6 02D4D 0098C			598	MVC HLTWTO+33(6),HLTADARA	MOVE B ADDRESS TO OUTPUT	00057900
00091E	9223 FBE9		02D31	599	MVI HLTWTO+5,35	MOVE LENGTH TO WTO	00058000
000922	4580 FBD6		02D1E	600 H2	BAL 8,HALTWTO	PRINT HALT ON TYPEWRITER	00058100
000926	4990 EE68		03FB0	601	CH 9,=H'4'		00058200
00092A	4770 D0A4		0093A	602	BNE H3		00058300
00092E	416A 0001		00001	603	LA 6,1(10)		00058400
000932	4580 FAE0		02C28	604	BAL 8,CVAD43		00058500
000936	5050 FB60		02CA8	605	ST 5,ADR360		00058600
00093A	D505 D102 D0FC 00998 00992			606 H3	CLC HLTUAR,EOJIAR	IS THIS EOJ?	TAB 00058700
000940	4780 F810		02958	607	BE TERMINAT	YES, GO END SIM1401	TAB 00058710
000944	D203 E530 EDF4 03678 03F3C			608	MVC RETURN,=A(H4)		00058720
00094A	47F0 F08C		021D4	609	B WTORTN		00058800
00094E	4990 EE68		03FB0	610 H4	CH 9,=H'4'	O/ BRANCH	00058900
000952	4770 E076		031BE	611	BNE NXTOP		00059000
000956	18CA			612	LR 12,10		00059100
000958	1AC9			613	AR 12,9		00059200
00095A	58A0 FB60		02CA8	614	L 10,ADR360		00059300
00095E	4190 0000		00000	615	LA 9,0		00059400
000962	47F0 E076		031BE	616	B NXTOP		00059500
000966	1B57			617 H5	SR 5,7	GET 1401 ADDRESS	00059600
000968	4E50 E3C8		03510	618	CVD 5,PAKT	CONVERT TO DECIMAL	00059700
00096C	F352 D0F6 E3CD 0098C 03515			619	UNPK HLTADARA(6),PAKT+5(3)	UNPACK 1401 ADDRESS	00059800

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT		F15OCT70	10/28/71
000972	96F0 D0FB	00991		620	DI HLTADARA+5,X'F0'	MAKE SIGN NUMERIC		00059900
000976	4110 D0F6		0098C	621	LA 1,HLTADARA	BLANK LEADING ZEROS		00060000
00097A	95F0 1000	00000		622	H6 CLI 0(1),C'0'	*		00060100
00097E	0768			623	BCR 6,8	*		00060200
000980	9240 1000	00000		624	MVI 0(1),X'40'	*		00060300
000984	4111 0001		00001	625	LA 1,1(1)	*		00060400
000988	47F0 D0E4		0097A	626	B H6	*		00060500
00098C	404040404040			627	HLTADARA DC CL6' '			00060600
000992	404040404040			628	EOJIAR DC CL6' '	EOJ IAR FROM PARM FIELD	TAB	00060610
000998	404040404040			629	HLTIAR DC CL6' '	HALT IAR	TAB	00060620

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000A0E				663	USING SW,13		00064000
000A0D	00						
000A0E	4990 EE76		03FBE	664	SW CH 9,=H'6'		00064100
000A12	4780 D034		00A42	665	BNL SWL7		00064200
000A16	4990 EE68		03FB0	666	CH 9,=H'4'		00064300
000A1A	4780 D01C		00A2A	667	BE SWL4		00064400
000A1E	4990 EE66		03FAE	668	CH 9,=H'1'		00064500
000A22	4780 D048		00A56	669	BE SWL1		00064600
000A26	47F0 F9EE		02B36	670	B ILEGLN		00064700
000A2A	416A 0001		00001	671	SWL4 LA 6,1(10)		00064800
000A2E	4580 FAEO		02C28	672	BAL 8,CVAD43		00064900
000A32	18B5			673	LR 11,5		00065000
000A34	9640 B000	00000		674	OI 0(11),X'40'		00065100
000A38	48B0 EE66		03FAE	675	SH 11,=H'1'		00065200
000A3C	18CB			676	LR 12,11		00065300
000A3E	47F0 E076		031BE	677	B NXTOP		00065400
000A42	416A 0001		00001	678	SWL7 LA 6,1(10)		00065500
000A46	4580 FAEO		02C28	679	BAL 8,CVAD43		00065600
000A4A	18B5			680	LR 11,5		00065700
000A4C	416A 0004		00004	681	LA 6,4(10)		00065800
000A50	4580 FAEO		02C28	682	BAL 8,CVAD43		00065900
000A54	18C5			683	LR 12,5		00066000
000A56	9640 B000	00000		684	SWL1 OI 0(11),X'40'		00066100
000A5A	9640 C000	00000		685	OI 0(12),X'40'		00066200
000A5E	48B0 EE66		03FAE	686	SH 11,=H'1'		00066300
000A62	48C0 EE66		03FAE	687	SH 12,=H'1'		00066400
000A66	4990 EE64		03FAC	688	CH 9,=H'7'		00066500
000A6A	47D0 E076		031BE	689	BNH NXTOP		00066600
000A6E	4190 0007		00007	690	LA 9,7		00066700
000A72	47F0 E076		031BE	691	B NXTOP		00066800

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000A76				693	USING CW,13		00067000
000A76	4990 EE76		03FBE	694 CW	CH 9,=H'6'		00067100
000A7A	47B0 D034		00AAA	695	BNL CWL7		00067200
000A7E	4990 EE68		03FB0	696	CH 9,=H'4'		00067300
000A82	4780 D01C		00A92	697	BE CWL4		00067400
000A86	4990 EE66		03FAE	698	CH 9,=H'1'		00067500
000A8A	4780 D048		00ABE	699	BE CWL1		00067600
000A8E	47F0 F9EE		02B36	700	B ILEGLN		00067700
000A92	416A 0001		00001	701 CWL4	LA 6,1(10)		00067800
000A96	4580 FAEO		02C28	702	BAL 8,CVAD43		00067900
000A9A	18B5			703	LR 11,5		00068000
000A9C	94BF B000	00000		704	NI 0(11),X'BF'		00068100
000AA0	4BB0 EE66		03FAE	705	SH 11,=H'1'		00068200
000AA4	18CB			706	LR 12,11		00068300
000AA6	47F0 E076		031BE	707	B NXTOP		00068400
000AAA	416A 0001		00001	708 CWL7	LA 6,1(10)		00068500
000AAE	4580 FAEO		02C28	709	BAL 8,CVAD43		00068600
000AB2	18B5			710	LR 11,5		00068700
000AB4	416A 0004		00004	711	LA 6,4(10)		00068800
000AB8	4580 FAEO		02C28	712	BAL 8,CVAD43		00068900
000ABC	18C5			713	LR 12,5		00069000
000ABE	94BF B000	00000		714 CWL1	NI 0(11),X'BF'		00069100
000AC2	94BF C000	00000		715	NI 0(12),X'BF'		00069200
000AC6	4BB0 EE66		03FAE	716	SH 11,=H'1'		00069300
000ACA	4BC0 EE66		03FAE	717	SH 12,=H'1'		00069400
000ACE	47F0 E076		031BE	718	B NXTOP		00069500

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000AD2				720	USING MCW,13		00069700
000AD2	4990 EE64		03FAC	721 MCW	CH 9,=H'7'		00069800
000AD6	4780 D024		00AF6	722	BE MCWL7		00069900
000ADA	4990 EE68		03FB0	723	CH 9,=H'4'		00070000
000ADE	4780 D02E		00B00	724	BE MCWL4		00070100
000AE2	4990 EE66		03FAE	725	CH 9,=H'1'		00070200
000AE6	4780 D038		00B0A	726	BE MCWL1		00070300
000AEA	4990 EE70		03FB8	727	CH 9,=H'8'		00070400
000AEE	4780 D066		00B38	728	BE MCW8		00070500
000AF2	47F0 F9EE		02B36	729	B ILEGLN		00070600
000AF6	416A 0004		00004	730 MCWL7	LA 6,4(10)		00070700
000AFA	4580 FAEO		02C28	731	BAL 8,CVAD43		00070800
000AFE	18C5			732	LR 12,5		00070900
000B00	416A 0001		00001	733 MCWL4	LA 6,1(10)		00071000
000B04	4580 FAEO		02C28	734	BAL 8,CVAD43		00071100
000B08	18B5			735	LR 11,5		00071200
000B0A	4100 0001		00001	736 MCWL1	LA 0,1		00071300
000B0E	D200 D04B B000	00B1D	00000	737 MCWL1B	MVC MCWL1A+1(1),0(11)		00071400
000B14	943F D04B	00B1D		738	NI MCWL1A+1,X'3F'		00071500
000B18	9440 C000	00000		739	NI 0(12),X'40'		00071600
000B1C	9600 C000	00000		740 MCWL1A	OI 0(12),0		00071700
000B20	18B0			741	SR 11,0		00071800
000B22	18C0			742	SR 12,0		00071900
000B24	9140 B001		00001	743	TM 1(11),X'40'		00072000
000B28	4710 E076		031BE	744	BO NXTOP		00072100
000B2C	9140 C001		00001	745	TM 1(12),X'40'		00072200
000B30	4780 D03C		00B0E	746	BZ MCWL1B		00072300
000B34	47F0 E076		031BE	747	B NXTOP		00072400
000B38	D200 E1AD A007	032F5	00007	748 MCW8	MVC DCHAR(1),7(10)		00072500
000B3E	9529 E1AD	032F5		749	CLI DCHAR,X'29'		00072600
000B42	4780 D090		00B62	750	BE RT		00072700
000B46	9516 E1AD		032F5	751	CLI DCHAR,X'16'		00072800
000B4A	4780 D176		00C48	752	BE WT		00072900
000B4E	9531 E1AD		032F5	753	CLI DCHAR,X'31'		00073000
000B52	4780 D23A		00D0C	754	BE MBD		00073100
000B56	9532 E1AD		032F5	755	CLI DCHAR,X'32'		00073200
000B5A	4780 D23A		00D0C	756	BE MBD		00073300
000B5E	47F0 F9C0		02B08	757	B ILEGOP		00073400
				758 *			00073500
				759 *	READ TAPE WITHOUT WORD MARKS		00073600
				760 *			00073700
000B62	416A 0004		00004	761 RT	LA 6,4(10)	CONVERT CORE LOCATION FOR TAPE READ	00073800
000B66	4580 FAEO		02C28	762	BAL 8,CVAD43	*	00073900
000B6A	18C5			763	LR 12,5	*	00074000
000B6C	4580 FFD0		03118	764	BAL 8,FNDRIV	GET DEVICE ADDRESS	00074100
000B70	4580 FF3C		03084	765	BAL 8,TSTOPEN		00074200
000B74	4580 FF3A		03082	766	BAL 8,LOADMD		00074300
000B78	9201 E1C6		0330E	767	MVI BCDTAP,1	*	00074400
000B7C	9114 A002		00002	768	TM 2(10),X'14'	*	00074500
000B80	4710 D08A		00B8C	769	BO RT1	*	00074600
000B84	4580 FF3A		03082	770	BAL 8,BINMOD		00074700
000B88	9200 E1C6		0330E	771	MVI BCDTAP,0	SET BINARY	00074800
000B8C	5030 F924		02A6C	772 RT1	ST 3,TMDCB		00074900
000B90	D203 F920 EE00	02A68	03F48	773	MVC TPCCW,=A(RTCCW)		00075000
000B96	90DF E4A0		035E8	774	STM 13,15,MACREGSV	SAVE MACRO REGS	00075100

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000B9A	4160 E4A0		035E8	775	LA 6,MACREGSV		00075200
000B9E	41D0 E458		035A0	776	LA 13,SAVEAREA		00075300
				777	EXCP TMIOB		00075400
000BA2	4110 F910		02A58	778+	LA 1,TMIOB LOAD PARAMETER REG 1		
000BA6	0A00			779+	SVC 0 ISSUE SVC FOR EXCP		
000BA8	98EF 6004		00004	780	LM 14,15,4(6)		00075500
				781	WAIT 1,ECB=TMECB		00075600
000BAC	4110 F930		02A78	782+	LA 1,TMECB LOAD PARAMETER REG 1		
000BB0	4100 0001		00001	783+	LA 0,1(0,0) LOAD PARAMETER REG 0		
000BB4	0A01			784+	SVC 1 LINK TO WAIT ROUTINE		
000BB6	98DF 6000		00000	785	LM 13,15,0(6)		00075700
000BBA	4580 E010		03158	786	BAL 8,TPTST		00075800
000BBE	4580 FFB6		030FE	787	BAL 8,FNDLNG		00075900
000BC2	1836			788	LR 3,6		00076000
000BC4	5810 E1C0		03308	789	L 1,TAPEAREA		00076100
000BC8	4850 E4EE		03636	790	LH 5,SAVCSW+6		00076200
000BCC	4840 EE78		03FC0	791	LH 4,=H'18000'		00076300
000BD0	1B45			792	SR 4,5		00076400
000BD2	1934			793	CR 3,4		00076500
000BD4	47D0 D108		00BDA	794	BNH RT3		00076600
000BD8	1834			795	LR 3,4		00076700
000BDA	4930 EE7A		03FC2	796	CH 3,=H'256'		00076800
000BDE	47D0 D13A		00C0C	797	BNH RT4		00076900
000BE2	D4FF C000	E2C3	00000	798	NC 0(256,12),WM256		00077000
000BE8	9501 E1C6		0330F	799	CLI BCDTAP,1		00077100
000BEC	4770 D124		00BF6	800	BNE RT3A		00077200
000BF0	DCFF 1000	E914	00000	801	TR 0(256,1),TREI		00077300
000BF6	D6FF C000	1000	00000	802	DC 0(256,12),0(1)		00077400
000BFC	4111 0100		00100	803	LA 1,256(1)		00077500
000C00	41CC 0100		00100	804	LA 12,256(12)		00077600
000C04	4B30 EE7A		03FC2	805	SH 3,=H'256'		00077700
000C08	47F0 D108		00BDA	806	B RT3		00077800
000C0C	4B30 EE66		03FAE	807	SH 3,=H'1'		00077900
000C10	4230 D148		00C1D	808	STC 3,RT5+1		00078000
000C14	4230 D159		00C2B	809	STC 3,RT6+1		00078100
000C18	4230 D15F		00C31	810	STC 3,RT7+1		00078200
000C1C	D400 C000	E2C3	00000	811	NC 0(0,12),WM256		00078300
000C22	9501 E1C6		0330E	812	CLI BCDTAP,1		00078400
000C26	4770 D15E		00C30	813	BNE RT7		00078500
000C2A	DC00 1000	E914	00000	814	TR 0(0,1),TREI		00078600
000C30	D600 C000	1000	00000	815	DC 0(0,12),0(1)		00078700
000C36	1AC3			816	AR 12,3		00078800
000C38	9440 C001		00001	817	NI 1(12),X'40'		00078900
000C3C	963F C001		00001	818	OI 1(12),X'3F'		00079000
000C40	41CC 0002		00002	819	LA 12,2(12)		00079100
000C44	47F0 E076		031BE	820	B NXTOP		00079200
				821	*		00079300
				822	*	WRITE TAPE WITHOUT WORD MARKS	00079400
				823	*		00079500
000C48	416A 0004		00004	824	LA 6,4(10)		00079600
000C4C	4580 FAEO		02C28	825	BAL 8,CVAD43		00079700
000C50	18C5			826	LR 12,5		00079800
000C52	4580 FFB6		030FE	827	BAL 8,FNDLNG		00079900
000C56	4060 E4FE		03646	828	STH 6,WTCCW2+6		00080000
000C5A	184C			829	LR 4,12		00080100

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000C5C	1AC6			830	AR 12,6	SET B-ADDRESS	
000C5E	41CC 0001		00001	831	LA 12,1(12)	*	00080200
000C62	5830 E1C0		03308	832	L 3,TAPEAREA		00080300
000C66	9201 E1C6	0330E		833	MVI BCDTAP,1	*	00080400
000C6A	9514 A002	00002		834	CLI 2(10),X'14'	Q/ IS INSTRUCTION BCD	00080500
000C6E	4780 D1A4		00C76	835	BE WT1	YES	00080600
000C72	9200 E1C6	0330E		836	MVI BCDTAP,0	*	00080700
000C76	4960 EE7A		03FC2	837	WT1 CH 6,=H'256'		00080800
000C7A	47D0 D1D0		00CA2	838	BNH WT2		00080900
000C7E	D2FF 3000 4000	00000	00000	839	MVC 0(256,3),0(4)		00081000
000C84	9501 E1C6	0330E		840	CLI BCDTAP,1	Q/ BCD	00081100
000C88	4770 D1C0		00C92	841	BNE WT1A	NO	00081200
000C8C	DCFF 3000 EA14	00000	03B5C	842	TR 0(256,3),TRIE	YES, CHANGE X'00' TO X'10' FOR TAPE	00081300
000C92	4133 0100		00100	843	WT1A LA 3,256(3)	UP REG 3 BY 256	00081400
000C96	4144 0100		00100	844	LA 4,256(4)		00081500
000C9A	4B60 EE7A		03FC2	845	SH 6,=H'256'		00081600
000C9E	47F0 D1A4		00C76	846	B WT1		00081700
000CA2	4260 D1D9		00CAB	847	WT2 STC 6,WT3+1		00081800
000CA6	4260 D1E7		00CB9	848	STC 6,WT4+1		00081900
000CAA	D200 3000 4000	00000	00000	849	WT3 MVC 0(0,3),0(4)		00082000
000CB0	9501 E1C6	0330E		850	CLI BCDTAP,1	Q/ BCD	00082100
000CB4	4770 D1EC		00CBE	851	BNE WT4A	NO	00082200
000CB8	DC00 3000 EA14	00000	03B5C	852	WT4 TR 0(0,3),TRIE	YES, CHANGE X'00' TO X'10' FOR TAPE	00082300
000CBE	4580 FF00		03118	853	WT4A BAL 8,FNDRIV	GET DEVICE ADDRESS	00082400
000CC2	4580 FF3C		03084	854	BAL 8,TSTOPEN		00082500
000CC6	4580 FF3A		03082	855	BAL 8,LOADMD		00082600
000CCA	9514 A002	00002		856	CLI 2(10),X'14'		00082700
000CCE	4780 D204		00CD6	857	BE WT1B		00082800
000CD2	4580 FF3A		03082	858	BAL 8,BINMOD		00082900
000CD6				859	WT1B EQU *		00083000
000CD6	5030 F924		02A6C	860	ST 3,TMDCB		00083100
000CDA	D203 F920 EE04	02A68	03F4C	861	MVC TPCCW,=A(WTCCW1)		00083200
000CE0	90DF E4A0		035E8	862	STM 13,15,MACREGSV	SAVE MACRO REGS	00083300
000CE4	4160 E4A0		035E8	863	LA 6,MACREGSV	SAVE ADDRESS TO XR	00083400
000CE8	41D0 E458		035A0	864	LA 13,SAVEAREA	GIVE OS OUR SAVE AREA	00083500
				865	EXCP TMIOB		00083600
000CEC	4110 F910		02A58	866+	LA 1,TMIOB LOAD PARAMETER REG 1		00083700
000CF0	0A00			867+	SVC 0 ISSUE SVC FOR EXCP		
000CF2	98EF 6004		00004	868	LM 14,15,4(6)	RESTORE REG 14 AND 15	00083800
				869	WAIT 1,ECB=TMECB	WAIT FOR I/O	00083900
000CF6	4110 F930		02A78	870+	LA 1,TMECB LOAD PARAMETER REG 1		
000CFA	4100 0001		00001	871+	LA 0,1(0,0) LOAD PARAMETER REG 0		
000CFE	0A01			872+	SVC 1 LINK TO WAIT ROUTINE		
000D00	98DF 6000		00000	873	LM 13,15,0(6)	RESTORE MACRO REGISTERS	00084000
000D04	4580 E010		03158	874	BAL 8,TPTEST		00084100
000D08	47F0 E076		031BE	875	B 8,NXTOP		00084200
000D0C	416A 0001		00001	876	MBO LA 6,1(10)		00084300
000D10	4580 FAE0		02C28	877	BAL 8,CVAD43		00084400
000D14	18B5			878	LR 11,5		00084500
000D16	416A 0004		00004	879	LA 6,4(10)		00084600
000D1A	4580 FAE0		02C28	880	BAL 8,CVAD43		00084700
000D1E	18C5			881	LR 12,5		00084800
000D20	4100 0001		00001	882	LA 0,1		00084900
000D24	186C			883	LR 6,12		00085000
000D26	4B60 EE7C		03FC4	884	SH 6,=H'100'		00085100

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000D2A	9532 E1AD	032F5		885	CLI DCHAR,X'32'		00085200
000D2E	4780 D2A2		00D74	886	BE MBC		00085300
000D32	186B			887	LR 6,11		00085400
000D34	4860 FE7C		03FC4	888	SH 6,=H'100'		00085500
000D38	4338 0000		00000	889	MBD1 IC 3,0(11)		00085600
000D3C	4230 D277		00D49	890	STC 3,MBD2+1		00085700
000D40	94BF D277	00D49		891	NI MBD2+1,X'BF'		00085800
000D44	9440 C000	00000		892	NI 0(12),X'40'		00085900
000D48	9600 C000	00000		893	MBD2 OI 0(12),0		00086000
000D4C	1BC0			894	SR 12,0		00086100
000D4E	4336 0000		00000	895	IC 3,0(6)		00086200
000D52	4230 D28D		00D5F	896	STC 3,MBD3+1		00086300
000D56	94BF D28D	00D5F		897	NI MBD3+1,X'BF'		00086400
000D5A	9440 C000	00000		898	NI 0(12),X'40'		00086500
000D5E	9600 C000	00000		899	MBD3 OI 0(12),0		00086600
000D62	1BC0			900	SR 12,0		00086700
000D64	18B0			901	SR 11,0		00086800
000D66	1B60			902	SR 6,0		00086900
000D68	9140 6001	00001		903	TM 1(6),X'40'		00087000
000D6C	4780 D266		00D38	904	BC 8,MBD1		00087100
000D70	47F0 E076		031BE	905	B NXTOP		00087200
000D74	4338 0000		00000	906	MBC IC 3,0(11)		00087300
000D78	4230 D2B3		00D85	907	STC 3,MBC1+1		00087400
000D7C	94BF D2B3	00D85		908	NI MBC1+1,X'BF'		00087500
000D80	9440 C000	00000		909	NI 0(12),X'40'		00087600
000D84	9600 C000	00000		910	MBC1 OI 0(12),0		00087700
000D88	18B0			911	SR 11,0		00087800
000D8A	4338 0000		00000	912	IC 3,0(11)		00087900
000D8E	4230 D2C9		00D9B	913	STC 3,MBC2+1		00088000
000D92	94BF D2C9	00D9B		914	NI MBC2+1,X'BF'		00088100
000D96	9440 6000	00000		915	NI 0(6),X'40'		00088200
000D9A	9600 6000	00000		916	MBC2 OI 0(6),0		00088300
000D9E	1BC0			917	SR 12,0		00088400
000DA0	18B0			918	SR 11,0		00088500
000DA2	1B60			919	SR 6,0		00088600
000DA4	9140 6001	00001		920	TM 1(6),X'40'		00088700
000DA8	4710 E076		031BE	921	BO NXTOP		00088800
000DAC	9140 C001	00001		922	TM 1(12),X'40'		00088900
000DB0	4780 D2A2		00D74	923	BZ MBC		00089000
000DB4	47F0 E076		031BE	924	B NXTOP		00089100

LQC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000DB8				926	USING MCS,13		00089300
000DB8	4990 EE66		03FAE	927 MCS	CH 9,=H'1'		00089400
000DBC	4780 D03C		00DF4	928	BE MCSL1		00089500
000DC0	4990 EE64		03FAC	929	CH 9,=H'7'		00089600
000DC4	4780 D028		00DE0	930	BE MCSL7		00089700
000DC8	4990 EE68		03FB0	931	CH 9,=H'4'		00089800
000DCC	4770 F9EE		02B36	932	BNE ILEGLN		00089900
000DD0	416A 0001		00001	933	LA 6,1(10)		00090000
000DD4	4580 FAE0		02C28	934	BAL 8,CVAD43		00090100
000DD8	18B5			935	LR 11,5		00090200
000DDA	18C5			936	LR 12,5		00090300
000DDC	47F0 D03C		00DF4	937	B MCSL1		00090400
000DE0	416A 0001		00001	938 MCSL7	LA 6,1(10)		00090500
000DE4	4580 FAE0		02C28	939	BAL 8,CVAD43		00090600
000DE8	18B5			940	LR 11,5		00090700
000DEA	416A 0004		00004	941	LA 6,4(10)		00090800
000DEF	4580 FAE0		02C28	942	BAL 8,CVAD43		00090900
000DF2	18C5			943	LR 12,5		00091000
000DF4	4100 0001		00001	944 MCSL1	LA 0,1		00091100
000DF8	9201 E1C4	0330C		945	MVI SUPRES,1		00091200
000DFC	433B 0000		00000	946	IC 3,0(11)	MOVE ONLY DIGIT OF FIRST CHARACTER	00091300
000E00	423C 0000		00000	947	STC 3,0(12)	*	00091400
000E04	940F C000	00000		948	NI 0(12),X'0F'	*	00091500
000E08	4230 FB68		02CB0	949	STC 3,TEMP1	SAVE A-CHARACTER	00091600
000E0C	9640 C000	00000		950	OI 0(12),X'40'	SET WORD MARK TO STOP REVERSE SCAN	00091700
000E10	47F0 D06C		00E24	951	B MCSL1B		00091800
000E14	433B 0000		00000	952 MCSL1A	IC 3,0(11)	MOVE CHARACTER	00091900
000E18	423C 0000		00000	953	STC 3,0(12)	*	00092000
000E1C	4230 FB68		02CB0	954	STC 3,TEMP1	SAVE A-CHARACTER	00092100
000E20	943F C000	00000		955	NI 0(12),X'3F'	*	00092200
000E24	18B0			956 MCSL1B	SR 11,0		00092300
000E26	18C0			957	SR 12,0		00092400
000E28	9140 FB68	02CB0		958	TM TEMP1,X'40'	Q/ END OF A-FIELD	00092500
000E2C	4780 D05C		00E14	959	BZ MCSL1A	NO	00092600
000E30	41CC 0001		00001	960	LA 12,1(12)	YES	00092700
000E34	D200 FB68	C000	02CB0	961 MCSL1C	MVC TEMP1(1),0(12)		00092800
000E3A	943F FB68		02CB0	962	NI TEMP1,X'3F'		00092900
000E3E	9501 E1C4	0330C		963	CLI SUPRES,1	Q/ IS ZERO SUPPRESSION ON	00093000
000E42	4780 D0C6		00E7E	964	BE MCSL1G	YES	00093100
000E46	950A FB68	02CB0		965	CLI TEMP1,X'0A'	NO, IS IT SIGNIFICANT DIGIT,BLANK 0	00093200
000E4A	47D0 D0AA		00E62	966	BNH MCSL1E	YES	00093300
000E4E	951B FB68	02CB0		967	CLI TEMP1,X'1B'	Q/ COMMA	00093400
000E52	4780 D0AA		00E62	968	BE MCSL1E	YES	00093500
000E56	9520 FB68	02CB0		969	CLI TEMP1,X'20'	Q/ HYPHEN	00093600
000E5A	4780 D0AA		00E62	970	BE MCSL1E	YES	00093700
000E5E	9201 E1C4	0330C		971	MVI SUPRES,1	TURN ON ZERO SUPPRESSION	00093800
000E62	9140 C000	00000		972 MCSL1E	TM 0(12),X'40'	Q/ LAST DIGIT	00093900
000E66	4710 D0BA		00E72	973	BO MCSL1F	YES	00094000
000E6A	41CC 0001		00001	974	LA 12,1(12)	NO, PROCESS NEXT DIGIT	00094100
000E6E	47F0 D07C		00E34	975	B MCSL1C	*	00094200
000E72	94BF C000	00000		976 MCSL1F	NI 0(12),X'BF'	CLEAR WORD MARK	00094300
000E76	41CC 0001		00001	977	LA 12,1(12)	SET B-ADDRESS	00094400
000E7A	47F0 E076		031BE	978	B NXTOP	GET NEXT INSTRUCTION	00094500
000E7E	9509 C000	00000		979 MCSL1G	CLI 0(12),X'09'	Q/ SIGNIFICANT DIGIT	00094600
000E82	4720 D0DE		00E96	980	BH MCSL1H	*	00094700

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000EB6				994	USING MN,13		00096100
000EB6	4990 EE66		03FAE	995 MN	CH 9,=H'1'		00096200
000EBA	4780 D036		00EEC	996	BE MNL1		00096300
000EBE	4990 EE68		03FB0	997	CH 9,=H'4'		00096400
000EC2	4780 D022		00ED8	998	BE MNL4		00096500
000EC6	4990 EE64		03FAC	999	CH 9,=H'7'		00096600
000ECA	4770 F9EE		02B36	1000	BNE ILEGLN		00096700
000ECE	416A 0004		00004	1001	LA 6,4(10)		00096800
000ED2	4580 FAE0		02C28	1002	BAL 8,CVAD43		00096900
000ED6	18C5			1003	LR 12,5		00097000
000ED8	416A 0001		00001	1004 MNL4	LA 6,1(10)		00097100
000EDC	4580 FAE0		02C28	1005	BAL 8,CVAD43		00097200
000EE0	18B5			1006	LR 11,5		00097300
000EE2	4990 EE68		03FB0	1007	CH 9,=H'4'		00097400
000EE6	4770 D036		00EEC	1008	BNE MNL1		00097500
000EEA	18CB			1009	LR 12,11		00097600
000EEC	D100 C000	5000 00000	00000	1010 MNL1	MVN 0(1,12),0(11)	4 CHARACTERS, SET B ADR = A ADR MOVE NUMERIC	00097700
000EF2	4BR0 EE66		03FAE	1011	SH 11,=H'1'		00097800
000EF6	4BC0 EE66		03FAE	1012	SH 12,=H'1'		00097900
000EFA	47F0 E076		031BE	1013	B NXTOP		00098000

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000EFE				1015	USING MZ,13		00098200
000EFE	4990 EF66		03FAE	1016 MZ	CH 9,=H'1'		00098300
000F02	4780 D024		00F22	1017	BE MZLI		00098400
000F06	4990 EE64		03FAC	1018	CH 9,=H'7'		00098500
000F0A	4770 F9EE		02B36	1019	BNE ILEGLN		00098600
000F0E	416A 0001		00001	1020	LA 6,1(10)		00098700
000F12	4580 FAEO		02C28	1021	BAL 8, CVAD43		00098800
000F16	18B5			1022	LR 11,5		00098900
000F18	416A 0004		00004	1023	LA 6,4(10)		00099000
000F1C	4580 FAEO		02C28	1024	BAL 8, CVAD43		00099100
000F20	18C5			1025	LR 12,5		00099200
000F22	433B 0000		00000	1026 MZLI	IC 3,0(11)		00099300
000F26	4230 D035		00F33	1027	STC 3, MZLI+1		00099400
000F2A	94CF C000	00000		1028	NI 0(12), X'CF'		00099500
000F2E	9430 D035	00F33		1029	NI MZLI+1, X'30'		00099600
000F32	9600 C000	00000		1030 MZLI	OI 0(12), 0		00099700
000F36	4BB0 EE66		03FAE	1031	SH 11,=H'1'		00099800
000F3A	4BC0 EE66		03FAE	1032	SH 12,=H'1'		00099900
000F3E	47F0 E076		031BE	1033	B NXTOP		00100000

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F150CT70	10/28/71
000F42				1035	USING LCA,13		00100200
000F42	4990 EE64		03FAC	1036	LCA CH 9,=H'7'		00100300
000F46	4780 D024		00F66	1037	BE LCAL7		00100400
000F4A	4990 EE68		03FB0	1038	CH 9,=H'4'		00100500
000F4E	4780 D02E		00F70	1039	BE LCAL4		00100600
000F52	4990 EE66		03FAE	1040	CH 9,=H'1'		00100700
000F56	4780 D038		00F7A	1041	BE LCAL1		00100800
000F5A	4990 EE70		03FB8	1042	CH 9,=H'8'		00100900
000F5E	4780 D054		00F96	1043	BE LCA8		00101000
000F62	47F0 F9EE		02B36	1044	B ILEGLN		00101100
000F66	416A 0004		00004	1045	LCAL7 LA 6,4(10)		00101200
000F6A	4580 FAE0		02C28	1046	BAL 8,CVAD43		00101300
000F6E	18C5			1047	LR 12,5		00101400
000F70	416A 0001		00001	1048	LCAL4 LA 6,1(10)		00101500
000F74	4580 FAE0		02C28	1049	BAL 8,CVAD43		00101600
000F78	18B5			1050	LR 11,5		00101700
000F7A	4100 0001		00001	1051	LCAL1 LA 0,1		00101800
000F7E	433B 0000		00000	1052	LCAL1A IC 3,0(11)		00101900
000F82	423C 0000		00000	1053	STC 3,0(12)		00102000
000F86	1B80			1054	SR 11,0		00102100
000F88	1BC0			1055	SR 12,0		00102200
000F8A	9140 B001	00001		1056	TM 1(11),X'40'		00102300
000F8E	4780 D03C		00F7E	1057	BZ LCAL1A		00102400
000F92	47F0 E076		031BE	1058	B NXTOP		00102500
000F96	9529 A007	00007		1059	LCA8 CLI 7(10),X'29'		00102600
000F9A	4780 D068		00FAA	1060	BE RTW		00102700
000F9E	9516 A007	00007		1061	CLI 7(10),X'16'		00102800
000FA2	4780 D11C		0105E	1062	BE WTW		00102900
000FA6	47F0 F9C0		02B08	1063	B ILEGOP		00103000
				1064	*		00103100
				1065	*	READ TAPE WITH WORD MARKS	00103200
				1066	*		00103300
000FAA	416A 0004		00004	1067	RTW LA 6,4(10)		00103400
000FAE	4580 FAE0		02C28	1068	BAL 8,CVAD43		00103500
000FB2	18C5			1069	LR 12,5		00103600
000FB4	4580 FF00		03118	1070	BAL 8,FNDRIV		00103700
000FB8	4580 FF3C		03084	1071	BAL 8,TSTOPEN		00103800
000FBC	4180 FF3A		03082	1072	LA 8,LOADMD		00103900
000FC0	0588			1073	BALR 8,8		00104000
000FC2	5030 F924		02A6C	1074	ST 3,TMDCB		00104100
000FC6	D203 F920	EE00 02A68	03F48	1075	MVC TPCCW,=A(RTCCW)		00104200
000FCC	90DF E4A0		035E8	1076	STM 13,15,MACREGSV SAVE MACRO REGS		00104300
000FD0	4160 E4A0		035E8	1077	LA 6,MACREGSV SAVE ADDRESS TO XR		00104400
000FD4	4100 E458		035A0	1078	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00104500
				1079	EXCP TMIOB		00104600
000FD8	4110 F910		02A58	1080+	LA 1,TMIOB LOAD PARAMETER REG 1		
000FDC	0A00			1081+	SVC 0 ISSUE SVC FOR EXCP		
000FDE	98EF 6004		00004	1082	LM 14,15,4(6) RESTORE REG 14 AND 15		00104700
				1083	WAIT 1,ECB=TMIOB WAIT FOR I/O		00104800
000FE2	4110 F930		02A78	1084+	LA 1,TMIOB LOAD PARAMETER REG 1		
000FE6	4100 0001		00001	1085+	LA 0,1(0,0) LOAD PARAMETER REG 0		
000FEA	0A01			1086+	SVC 1 LINK TO WAIT ROUTINE		
000FEC	98DF 6000		00000	1087	LM 13,15,0(6) RESTORE MACRO REGISTERS		00104900
000FF0	4580 E010		03158	1088	BAL 8,TPTST		00105000
000FF4	4830 E4EE		03636	1089	LH 3,SAVCSW+6 FIND NUMBER OF BYTES READ		00105100

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
000FF8	4840 EE78		03FC0	1090	LH 4,=H'18000'	*	00105200
000FFC	1B43			1091	SR 4,3		00105300
000FFE	5810 E1C0		03308	1092	L 1,TAPEAREA	SET SENDING ADDRESS	00105400
001002	957F C000	00000		1093	RTW1 CLI 0(12),X'7F'	Q/ GP MK - WD MK IN CORE	00105500
001006	4780 D114		01056	1094	BE RTW3	YES	00105600
00100A	956D 1000	00000		1095	CLI 0(1),X'6D'	Q/ WORD SEPARATOR	00105700
00100E	4770 D0EE		01030	1096	BNE RTW2	NO	00105800
001012	4111 0001		00001	1097	LA 1,1(1)	YES	00105900
001016	4331 0000		00000	1098	IC 3,0(1)		00106000
00101A	423C 0000		00000	1099	STC 3,0(12)		00106100
00101E	DC00 C000	E914 00000	03A5C	1100	TR 0(1,12),TREI		00106200
001024	9640 C000	00000		1101	OI 0(12),X'40'		00106300
001028	4B40 EE66		03FAE	1102	SH 4,=H'1'		00106400
00102C	47F0 D0FC		0103E	1103	B RTW2A		00106500
001030	4331 0000		00000	1104	RTW2 IC 3,0(1)		00106600
001034	423C 0000		00000	1105	STC 3,0(12)		00106700
001038	DC00 C000	E914 00000	03A5C	1106	TR 0(1,12),TREI		00106800
00103E	4111 0001		00001	1107	RTW2A LA 1,1(1)		00106900
001042	41CC 0001		00001	1108	LA 12,1(12)		00107000
001046	4640 D0C0		01002	1109	BCT 4,RTW1		00107100
00104A	957F C000	00000		1110	CLI 0(12),X'7F'	RECORD MOVED, IS GROUP MARK NEXT CHAR	00107200
00104E	4780 D114		01056	1111	BE RTW3	YES, LEAVE IT ALONE	00107300
001052	923F C000	00000		1112	MVI 0(12),X'3F'	NO, MOVE IN A GROUP MARK	00107400
001056	41CC 0001		00001	1113	RTW3 LA 12,1(12)	SET B-ADDRESS	00107500
00105A	47F0 E076		031BE	1114	B NXTOP		00107600
				1115	*		00107700
				1116	*	WRITE TAPE WITH WORD MARKS	00107800
				1117	*		00107900
00105E	416A 0004		00004	1118	WTW LA 6,4(10)		00108000
001062	4580 FAEO		02C28	1119	BAL 8,CVAD43		00108100
001066	18C5			1120	LR 12,5		00108200
001068	5810 E1C0		03308	1121	L 1,TAPEAREA		00108300
00106C	182C			1122	LR 2,12		00108400
00106E	917F 2000	00000		1123	WTW1 TM 0(2),X'7F'	Q/ GROUP MARK WORD MARK	00108500
001072	4710 D15C		0109E	1124	BD WTW3	YES, FIELD DONE	00108600
001076	9140 2000	00000		1125	TM 0(2),X'40'	Q/ WORD MARK	00108700
00107A	4780 D144		01086	1126	BZ WTW2	NO	00108800
00107E	926D 1000	00000		1127	MVI 0(1),X'6D'	YES, INSERT WORD SEPARATOR	00108900
001082	4111 0001		00001	1128	LA 1,1(1)	*	00109000
001086	D200 1000	2000 00000	00000	1129	WTW2 MVC 0(1,1),0(2)		00109100
00108C	DC00 1000	EA14 00000	03B5C	1130	TR 0(1,1),TRIE		00109200
001092	4111 0001		00001	1131	LA 1,1(1)		00109300
001096	4122 0001		00001	1132	LA 2,1(2)		00109400
00109A	47F0 D12C		0106E	1133	B WTW1		00109500
00109E	5B10 E1C0		03308	1134	WTW3 S 1,TAPEAREA		00109600
0010A2	4010 E4FE		03646	1135	STH 1,WTCCW2+6		00109700
0010A6	4580 FF00		03118	1136	BAL 8,FNDRIV		00109800
0010AA	4580 FF3C		03084	1137	BAL 8,TSTOPEN		00109900
0010AE	4580 FF3A		03082	1138	BAL 8,LOADMD		00110000
0010B2	5030 F924		02A6C	1139	ST 3,TMDCB		00110100
0010B6	D203 F920	EE04 02A68	03F4C	1140	MVC TPCCW,=A(WTCCW1)		00110200
0010BC	90DF E4A0		035E8	1141	STM 13,15,MACREGSV	SAVE MACRO REGS	00110300
0010C0	4160 E4A0		035E8	1142	LA 6,MACREGSV	SAVE ADDRESS TO XR	00110400
0010C4	41D0 E458		035A0	1143	LA 13,SAVEAREA	GIVE US OUR SAVE AREA	00110500
				1144	EXCP TMIOB		00110600

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0010C8	4110 F910		02A58	1145+	LA 1,TMIOB LOAD PARAMETER REG 1		
0010CC	0A00			1146+	SVC 0 ISSUE SVC FOR EXCP		
0010CE	98EF 6004		00004	1147	LM 14,15,4(6) RESTORE REG 14 AND 15		00110700
				1148	WAIT 1,ECB=IMECB WAIT FOR I/O		00110800
0010D2	4110 F930		02A78	1149+	LA 1,TMECB LOAD PARAMETER REG 1		
0010D6	4100 0001		00001	1150+	LA 0,1(0,0) LOAD PARAMETER REG 0		
0010DA	0A01			1151+	SVC 1 LINK TO WAIT ROUTINE		
0010DC	98DF 6000		00000	1152	LM 13,15,0(6) RESTORE MACRO REGISTERS		00110900
0010E0	4580 E010		03158	1153	BAL 8,TPTEST		00111000
0010E4	41C2 0001		00001	1154	LA 12,1(2)		00111100
0010E8	47F0 E076		031BE	1155	B NXTOP		00111200

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F150CT70	10/28/71
0010EC				1157	USING MCE,13		00111400
0010EC	4990 EE64		03FAC	1158	MCE CH 9,=H'7'	Q/ IS LENGTH CORRECT	00111500
0010FO	4770 F9EE		02B36	1159	BNE ILEGLN	NO	00111600
0010F4	416A 0001		00001	1160	LA 6,1(10)	YES, CONVERT ADDRESSES	00111700
0010F8	4580 FAEO		02C28	1161	BAL 8,CVAD43	*	00111800
0010FC	18B5			1162	LR 11,5	*	00111900
0010FE	416A 0004		00004	1163	LA 6,4(10)	*	00112000
001102	4580 FAEO		02C28	1164	BAL 8,CVAD43	*	00112100
001106	18C5			1165	LR 12,5	*	00112200
001108	4100 0001		00001	1166	LA 0,1		00112300
00110C	9200 E1B6	032FE		1167	MVI AEND,0	CLEAR A-FIELD END INDICATOR	00112400
001110	9200 D330	0141C		1168	MVI BODY,0	CLEAR BODY TRIGGER	00112500
001114	9200 E1C4	0330C		1169	MVI SUPRES,0	CLEAR ZERO SUPPRESSION INDICATOR	00112600
001118	9200 D32D	01419		1170	MVI FLOAT,0	CLEAR FLOATING DOLLAR SIGN INDICATOR	00112700
00111C	9200 D332	0141E		1171	MVI SIGDIG,0	CLEAR SIGNIFICANT DIGIT IND	00112800
001120	9200 D331	0141D		1172	MVI ASTER,0	CLEAR ASTERISK PROTECTION IND	00112900
001124	9200 D32F	0141B		1173	MVI AMINUS,0	CLEAR A-FIELD MINUS INDICATOR	00113000
001128	9200 D32C	01418		1174	MVI DECIMAL,0	DECIMAL POINT INDICATOR	00113100
00112C	9200 D333	0141F		1175	MVI FIRSTDOL,0	CLEAR \$ INFIRST CHAR INDICATOR	00113200
001130	9200 D33C	01428		1176	MVI SIGNDOL,0	CLEAR DOLLAR SIGN INDICATOR	00113300
001134	432B 0000		00000	1177	IC 2,0(11)	Q/ A-FIELD MINUS	00113400
001138	5420 EDEC		03F34	1178	N 2,=F'48'		00113500
00113C	4920 EE6E		03FB6	1179	CH 2,=H'32'		00113600
001140	4770 D05C		01148	1180	BNE MCE1	NO	00113700
001144	9201 D32F	0141B		1181	MVI AMINUS,1	YES,SET A-FIELD MINUS INDICATOR	00113800
001148	431C 0000		00000	1182	MCE1 IC 1,0(12)	SAVE B-FIELD CHARACTER	00113900
00114C	4210 FB68		02CB0	1183	STC 1,TEMP1	*	00114000
001150	943F C000		00000	1184	NI 0(12),X'3F'	CLEAR WORD MARK	00114100
001154	953B C000		00000	1185	CLI 0(12),X'3B'	Q/ DECIMAL POINT	00114200
001158	4770 D078		01164	1186	BNE MCE1A	NO	00114300
00115C	9201 D32C	01418		1187	MVI DECIMAL,1	YES,SET DECIMAL INDICATOR	00114400
001160	50C0 D328		01414	1188	ST 12,DECADD	STORE ADDRESS OF DECIMAL POINT	00114500
001164	9500 C000		00000	1189	MCE1A CLI 0(12),X'00'	Q/ BLANK	00114600
001168	4780 D12A		01216	1190	BE MCE6	YES	00114700
00116C	950A C000		00000	1191	CLI 0(12),X'0A'	Q/ ZERO	00114800
001170	4780 D12A		01216	1192	BE MCE6	YES	00114900
001174	9530 C000		00000	1193	CLI 0(12),X'30'	Q/ AMPERSAND	00115000
001178	4780 D0C0		011AC	1194	BE MCE3	YES	00115100
00117C	9501 D330	0141C		1195	CLI BODY,1	Q/ BODY TRIGGER ON	00115200
001180	4780 D0CA		011B6	1196	BE MCE3A	YES	00115300
001184	951B C000		00000	1197	CLI 0(12),X'1B'	Q/ COMMA	00115400
001188	4780 D0C0		011AC	1198	BE MCE3	YES	00115500
00118C	9533 C000		00000	1199	CLI 0(12),X'33'	Q/ C	00115600
001190	4780 D0B8		011A4	1200	BE MCE2	YES	00115700
001194	9529 C000		00000	1201	CLI 0(12),X'29'	Q/ R	00115800
001198	4780 D0B8		011A4	1202	BE MCE2	YES	00115900
00119C	9520 C000		00000	1203	CLI 0(12),X'20'	Q/ -	00116000
0011A0	4770 D0CA		011B6	1204	BNE MCE3A	NO	00116100
0011A4	9501 D32F	0141B		1205	MCE2 CLI AMINUS,1	Q/ A-FIELD MINUS	00116200
0011A8	4780 D0CA		011B6	1206	BE MCE3A	YES	00116300
0011AC	9200 C000		00000	1207	MCE3 MVI 0(12),X'00'	MOVE BLANK TO B-FIELD	00116400
0011B0	1BC0			1208	SR 12,0	DECREMENT B-FIELD	00116500
0011B2	47F0 D100		011EC	1209	B MCE5		00116600
0011B6	952C C000		00000	1210	MCE3A CLI 0(12),X'2C'	Q/ *	00116700
0011BA	4770 D0E2		011CE	1211	BNE MCE3B	NO	00116800

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
00118E	9501 D330	0141C		1212	CLI BODY,1	Q/ BODY TRIGGER ON	00116900
0011C2	4770 D0E2		011CE	1213	BNE MCE3B	NO	00117000
0011C6	9201 D331	0141D		1214	MVI ASTER,1	SET ASTERISK PRORECTION INDICATOR	00117100
0011CA	47F0 D12A		01216	1215	B MCE6		00117200
0011CE	952B C000	00000		1216	MCE3B CLI 0(12),X'2B'	Q/ DOLLAR SIGN	00117300
0011D2	4780 D10C		011F8	1217	BE MCE5C	YES	00117400
0011D6	1BC0			1218	SR 12,0	DECREMENT B-FIELD	00117500
0011D8	47F0 D100		011EC	1219	B MCE5		00117600
0011DC	1B80			1220	MCE4A SR 11,0		00117700
0011DE	1BC0			1221	MCE5A SR 12,0		00117800
0011E0	9140 B001	00001		1222	TM 1(11),X'40'	Q/ END OF A-FIELD	00117900
0011E4	4780 D100		011EC	1223	BZ MCE5	NO	00118000
0011E8	9201 E1B6	032FE		1224	MVI AEND,1	YES, SET A-FIELD ENDED INDICATOR	00118100
0011EC	9140 FB68	02CB0		1225	MCE5 TM TEMP1,X'40'	Q/ END OF B-FIELD	00118200
0011F0	4780 D05C		01148	1226	BZ MCE1	NO	00118300
0011F4	47F0 D188		01274	1227	B MCE8	YES	00118400
0011F8	9201 D33C	01428		1228	MCE5C MVI SIGNDOL,1	SET DOLLAR SIGN INDICATOR	00118500
0011FC	50C0 D334		01420	1229	ST 12,DOLSIGN	STORE ADDRESS OF DOLLAR SIGN	00118600
001200	9140 C001	00001		1230	TM 1(12),X'40'	Q/ FLOATING DOLLAR SIGN	00118700
001204	4780 D0F2		011DE	1231	BZ MCE5A		00118800
001208	9201 D32D	01419		1232	MVI FLOAT,1		00118900
00120C	D200 C000	B000 00000	00000	1233	MVC 0(1,12),0(11)		00119000
001212	47F0 D0F0		011DC	1234	B MCE4A		00119100
001216	9501 E1B6	032FE		1235	MCE6 CLI AEND,1	Q/ HAS A-FIELD ALREADY ENDED	00119200
00121A	4780 D0C0		011AC	1236	BE MCE3	YES	00119300
00121E	D200 C000	B000 00000	00000	1237	MVC 0(1,12),0(11)	MOVE CHARACTER	00119400
001224	943F C000	00000		1238	NI 0(12),X'3F'	*	00119500
001228	9500 C000	00000		1239	CLI 0(12),X'00'	BLANK	00119600
00122C	4780 D150		0123C	1240	BE MCE6A	YES	00119700
001230	9509 C000	00000		1241	CLI 0(12),X'09'	DIGIT	00119800
001234	4720 D150		0123C	1242	BH MCE6A	NO	00119900
001238	9201 D332	0141E		1243	MVI SIGDIG,1	YES SET SIG DIGIT INDICATOR	00120000
00123C	9501 D330	0141C		1244	MCE6A CLI BODY,1	Q/ BODY TRIGGER ON	00120100
001240	9501 D330	0141C		1245	CLI BODY,1	Q/ IS BODY TRIGGER ON	00120200
001244	4780 D168		01254	1246	BE MCE7	YES	00120300
001248	9201 D330	0141C		1247	MVI BODY,1	NO	00120400
00124C	50C0 D338		01424	1248	ST 12,LASTDIG	STORE ADDRESS OF LOW ORDER DIGIT	00120500
001250	940F C000	00000		1249	NI 0(12),X'0F'	REMOVE ZONE	00120600
001254	910A FB68	02CB0		1250	MCE7 TM TEMP1,X'0A'	Q/ IS DIGIT ZERO	00120700
001258	47C0 D0F0		011DC	1251	BC 12,MCE4A	NO	00120800
00125C	9135 FB68	02CB0		1252	TM TEMP1,X'35'		00120900
001260	4750 D0F0		011DC	1253	BC 5,MCE4A	NO	00121000
001264	9640 C000	00000		1254	OI 0(12),X'40'	YES, SET ZERO SUPPRESSION WORD MARK	00121100
001268	50C0 D324		01410	1255	ST 12,ZEROSUP	STORE ZERO SUPPRESSION ADDRESS	00121200
00126C	9201 E1C4	0330C		1256	MVI SUPRES,1	SET ZERO SUPPRESSION INDICATOR	00121300
001270	47F0 D0F0		011DC	1257	B MCE4A	INDICATOR	00121400
001274	9501 E1C4	0330C		1258	MCE8 CLI SUPRES,1	Q/ WAS THERE ZERO SUPPRESSION	00121500
001278	4770 E076		031BE	1259	BNE NXTOP	NO, GET NEXT INSTRUCTION	00121600
00127C	9201 D32E	0141A		1260	MVI FIRST,1	SET FIRST CHARACTER OF SCAN INDICATOR	00121700
001280	41CC 0001		00001	1261	LA 12,1(12)		00121800
001284	952B C000	00000		1262	CLI 0(12),X'2B'	DOLLAR SIGN	00121900
001288	4770 D1A4		01290	1263	BNE MCE8A		00122000
00128C	9201 D333	0141F		1264	MVI FIRSTDOL,1	YES	00122100
001290	D200 FB68	C000 02CB0	00000	1265	MCE8A MVC TEMP1(1),0(12)	SAVE CHARACTER	00122200
001296	943F C000	00000		1266	NI 0(12),X'3F'	CLEAR WORD MARK	00122300

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
00129A	9500 C000	00000		1267	CLI 0(12),X'00'	Q/ BLANK	00122400
00129E	4780 D1D2		012BE	1268	BE MCE9	YES	00122500
0012A2	950A C000	00000		1269	CLI 0(12),X'0A'	Q/ ZERO	00122600
0012A6	4780 D228		01314	1270	BE MCE11	YES	00122700
0012AA	9509 C000	00000		1271	CLI 0(12),X'09'	Q/ SIGNIFICANT DIGIT	00122800
0012AE	4720 D1D2		012BE	1272	BH MCE9	NO	00122900
0012B2	9200 E1C4	0330C		1273	MVI SUPRES,0	TURN OFF ZERO SUPPRESSION	00123000
0012B6	9201 D332	0141E		1274	MVI SIGDIG,1	SET SIGNIFICANT DIGIT INDICATOR	00123100
0012BA	47F0 D1F8		012E4	1275	B MCE10		00123200
0012BE	951B C000	00000		1276	MCE9 CLI 0(12),X'1B'	Q/ COMMA	00123300
0012C2	4780 D228		01314	1277	BE MCE11	YES	00123400
0012C6	9520 C000	00000		1278	CLI 0(12),X'20'	Q/ -	00123500
0012CA	4780 D20C		012F8	1279	BE MCE10C	YES	00123600
0012CE	D50B 0000	EE7E 00000	03FC6	1280	CLC 0(12),=X'3329'	Q/ CR SYMBOL	00123700
0012D4	4780 D25C		01348	1281	BE MCE13	YES	00123800
0012D8	953B C000	00000		1282	CLI 0(12),X'3B'		00123900
0012DC	4780 D228		01314	1283	BE MCE11		00124000
0012E0	9201 E1C4	0330C		1284	MVI SUPRES,1	TURN ON ZERO SUPPRESSION	00124100
0012E4	41CC 0001		00001	1285	MCE10 LA 12,1(12)		00124200
0012E8	9200 D32E	0141A		1286	MVI FIRST,0	TURN OFF FIRST TIME INDICATOR	00124300
0012EC	9140 FB68	02C80		1287	MCE10B TM TEMP1,X'40'	Q/ W/RD MARK	00124400
0012F0	4710 D290		0137C	1288	BO FLDOL	YES,TEST FOR FLOATING DOLLAR SIGN	00124500
0012F4	47F0 D1A4		01290	1289	B MCE8A	NO, PROCESS NEXT DIGIT	00124600
0012F8	9501 D32F	0141A		1290	MCE10C CLI FIRST,1	Q/ FIRST CHARACTER IN STRING	00124700
0012FC	4780 D218		01304	1291	BE MCE10D	YES	00124800
001300	47F0 D1F8		012E4	1292	B MCE10		00124900
001304	9501 D32F	0141B		1293	MCE10D CLI AMINUS,1	Q/ A-FIELD MINUS	00125000
001308	4780 D1F8		012E4	1294	BE MCE10		00125100
00130C	9200 C000	00000		1295	MVI 0(12),X'00'	NO,BLANK MINUS SIGN	00125200
001310	47F0 D1F8		012E4	1296	B MCE10		00125300
001314	9501 E1C4	0330C		1297	MCE11 CLI SUPRES,1	Q/ ZERO SUPPRESSION ON	00125400
001318	4770 D1F8		012E4	1298	BNE MCE10	NO	00125500
00131C	9200 C000	00000		1299	MVI 0(12),X'00'	YES, BLANK CHARACTER	00125600
001320	9501 D32E	0141A		1300	CLI FIRST,1	Q/ FIRST CHARACTER IN STRING	00125700
001324	4780 D24C		01338	1301	BE MCE12	YES	00125800
001328	9501 D331	0141D		1302	CLI ASTER,1	Q/ ASTERISK PROTECTION ON	00125900
00132C	4770 D1F8		012E4	1303	BNE MCE10	NO	00126000
001330	922C C000	00000		1304	MVI 0(12),X'2C'	YES, INSERT ASTERISK	00126100
001334	47F0 D1F8		012E4	1305	B MCE10		00126200
001338	9501 D32F	0141B		1306	MCE12 CLI AMINUS,1	Q/ A-FIELD MINUS	00126300
00133C	4780 D1F8		012E4	1307	BE MCE10	YES	00126400
001340	9200 C000	00000		1308	MVI 0(12),X'00'	NO,BLANK CHARACTER	00126500
001344	47F0 D1F8		012E4	1309	B MCE10		00126600
001348	9501 E1C4	0330C		1310	MCE13 CLI SUPRES,1	Q/ ZERO SUPPRESSION ON	00126700
00134C	4770 D1F8		012E4	1311	BNE MCE10	NO	00126800
001350	9501 D32E	0141A		1312	CLI FIRST,1	Q/ 1ST CHARACTER IN STRING	00126900
001354	4780 D276		01362	1313	BE MCE14	YES	00127000
001358	D201 C000	EE80 00000	03FC8	1314	MVC 0(2,12),=C'	NO,BLANK CR	00127100
00135E	47F0 D1F8		012E4	1315	B MCE10		00127200
001362	9501 D32F	0141B		1316	MCE14 CLI AMINUS,1	Q/ A-FIELD MINUS	00127300
001366	4780 D288		01374	1317	BE MCE10A	YES	00127400
00136A	D201 C000	EE80 00000	03FC8	1318	MVC 0(2,12),=C'	NO,BLANK CR	00127500
001370	47F0 D1F8		012E4	1319	B MCE10		00127600
001374	41CC 0001		00001	1320	MCE10A LA 12,1(12)		00127700
001378	47F0 D1F8		012E4	1321	B MCE10		00127800

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
00137C	9501 D32D	01419		1322	FLDOL CLI FLOAT,1	Q/ FLOATING DOLLAR SIGN	00127900
001380	4770 D2AE		0139A	1323	BNE DECON	NO, GO TO DECIMAL CONTR	00128000
001384	9500 C000	00000		1324	DOLLAR CLI 0(12),X'00'	Q/ BLANK	00128100
001388	4770 D2A8		01394	1325	BNE MOVDOL	NO,GO TO NEXT POSITION IN B-FIELD	00128200
00138C	922B C000	00000		1326	MVI 0(12),X'2B'	MOVE DOLLAR SIGN INTO B-FIELD	00128300
001390	47F0 D2AE		0139A	1327	B DECON		00128400
001394	1BC0			1328	MOVDOL SR 12,0	DECREMENT B-FIELD	00128500
001396	47F0 D298		01384	1329	B DOLLAR		00128600
00139A	9501 D32C	01418		1330	DECON CLI DECIMAL,1	IS DECIMAL CONTROL NEEDED	00128700
00139E	4770 E076		031BE	1331	BNE NXTOP	NO	00128800
0013A2	9501 D332	0141E		1332	CLI SIGDIG,1	Q/ SIGNIFICANT DIGIT	00128900
0013A6	4770 D2D6		013C2	1333	BNE MCE16	NO	00129000
0013AA	5830 D328		01414	1334	L 3,DECADD	TEST TENS POSITION	00129100
0013AE	9500 3001	00001		1335	MCE16C CLI 1(3),X'00'	FOR BLANK	00129200
0013B2	4770 E076		031BE	1336	BNE NXTOP	NOT BLANK	00129300
0013B6	920A 3001	00001		1337	MVI 1(3),X'0A'	YES INSERT ZERO	00129400
0013BA	4133 0001		00001	1338	LA 3,1(3)	LOOP	00129500
0013BE	47F0 D2C2		013AE	1339	B MCE16C		00129600
0013C2	5850 D338		01424	1340	MCE16 L 5,LASTDIG		00129700
0013C6	D503 D328	D324 01414	01410	1341	CLC DECADD,ZEROSUP		00129800
0013CC	4720 D2EC		013D8	1342	BH MCE16A		00129900
0013D0	5840 D328		01414	1343	L 4,DECADD		00130000
0013D4	47F0 D2F0		013DC	1344	B MCE16B		00130100
0013D8	5840 D324		01410	1345	MCE16A L 4,ZEROSUP		00130200
0013DC	1B54			1346	MCE16B SR 5,4		00130300
0013DE	4A50 EE66		03FAE	1347	AH 5,=H'1'		00130400
0013E2	D200 4000	EE9A 00000	03FE2	1348	MCE16D MVC 0(1,4),=X'00'		00130500
0013E8	1A40			1349	AR 4,0		00130600
0013EA	4650 D2F6		013E2	1350	BCT 5,MCE16D		00130700
0013EE	9140 C001	00001		1351	TM 1(12),X'40'	Q/ FLOATING DOLLAR SIGN	00130800
0013F2	9501 D33C	01428		1352	CLI SIGNDOL,1	Q/ DOLLAR SIGN	00130900
0013F6	4770 E076		031BE	1353	BNE NXTOP	NO	00131000
0013FA	9501 D333	0141F		1354	CLI FIRSTDOL,1	Q/ DOLLAR SIGN OK	00131100
0013FE	4780 E076		031BE	1355	BE NXTOP		00131200
001402	5830 D334		01420	1356	L 3,DOLSIGN	NO	00131300
001406	9200 3000	00000		1357	MVI 0(3),X'00'	BLANK DOLLAR SIGN	00131400
00140A	47F0 E076		031BE	1358	B NXTOP		00131500
001410				1359	ZEROSUP DS F	ZERO SUPPRESSION ADDRESS	00131600
001414				1360	DECADD DS F	DECIMAL POINT ADDRESS	00131700
001418	00			1361	DECIMAL DC X'00'	DECIMAL INDICATOR	00131800
001419	00			1362	FLOAT DC X'00'	FLOATING DOLLAR SIGN INDICATOR	00131900
00141A	00			1363	FIRST DC X'00'	FIRST CHARACTER OF SCAN INDICATOR	00132000
00141B	00			1364	AMINUS DC X'00'	A-FIELD MINUS INDICATOR	00132100
00141C	00			1365	BODY DC X'00'	BODY TRIGGER	00132200
00141D	00			1366	ASTER DC X'00'	ASTERISK PROTECTION INDICATOR	00132300
00141E	00			1367	SIGDIG DC X'00'	SIGNIFICANT DIGIT INDICATOR	00132400
00141F	00			1368	FIRSTDOL DC X'00'		00132500
001420				1369	DOLSIGN DS F		00132600
001424				1370	LASTDIG DS F	ADDRESS OF LOW ORDER DIGIT	00132700
001428	00			1371	SIGNDOL DC X'00'		00132800

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
00142A				1373	USING R,13		
001429	00						00133000
00142A	4990 EE66		03FAE	1374 R	CH 9,=H'1'		00133100
00142E	4780 D014		0143E	1375	BE RL1		00133200
001432	4990 EE68		03FB0	1376	CH 9,=H'4'		00133300
001436	4780 D01C		01446	1377	BE RL4		00133400
00143A	47F0 F9EE		02B36	1378	B ILEGLN		00133500
00143E	4580 FC14		02D5C	1379 RL1	BAL 8,READ		00133600
001442	47F0 E076		031BE	1380	B NXTOP		00133700
001446	D202 FB64 A001	02CAC	00001	1381 RL4	MVC ADR140(3),1(10)		00133800
00144C	4580 FC14		02D5C	1382	BAL 8,READ		00133900
001450	4160 FB64		02CAC	1383	LA 6,ADR140	GET BRANCH ADDRESS	00134000
001454	47F0 F97E		02AC6	1384	B SETBCH	SET CONDITIONS FOR BRANCH	00134100

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F150CT70	10/28/71
00147C				1397	USING RP,13		00135400
00147C	4990 EE66		03FAE	1398 RP	CH 9,='H'1'		00135500
001480	4780 D026		014A2	1399	BE RPL1		00135600
001484	4990 EE68		03FB0	1400	CH 9,='H'4'		00135700
001488	4770 F9EE		02B36	1401	BNE ILEGLN		00135800
00148C	D202 FB64	A001	02CAC	00001	1402 MVC ADR140(3),1(10) SAVE BRANCH ADDRESS		00135900
001492	4580 FC14		02D5C	1403	BAL 8,READ		00136000
001496	4580 FEF0		03038	1404	BAL 8,PUNCH		00136100
00149A	4160 FB64		02CAC	1405	LA 6,ADR140 REFERENCE BRANCH ADDRESS		00136200
00149E	47F0 F97E		02AC6	1406	B SETBCH SET CONDITIONS FOR BRANCH		00136300
0014A2	4580 FC14		02D5C	1407 RPL1	BAL 8,READ		00136400
0014A6	4580 FEF0		03038	1408	BAL 8,PUNCH		00136500
0014AA	47F0 E076		031BE	1409	B NXTOP		00136600

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0014AE				1411	USING W,13		00136800
0014AE	4990 EE66		03FAE	1412 W	CH 9,=H'1'		00136900
0014B2	4780 D02C		014DA	1413	BE WL1		00137000
0014R6	4990 EE74		03FBC	1414	CH 9,=H'2'		00137100
0014BA	4780 D034		014E2	1415	BE WM		00137200
0014BE	4990 EE72		03FBA	1416	CH 9,=H'5'		00137300
0014C2	4780 D034		014E2	1417	BE WM		00137400
0014C6	4990 EE68		03FB0	1418	CH 9,=H'4'		00137500
0014CA	4770 F9EE		02B36	1419	BNE ILEGLN		00137600
0014CE	4580 FC9C		02DE4	1420 WL4	BAL 8,WRITE		00137700
0014D2	416A 0001		00001	1421	LA 6,1(10) REFERENCE BRANCH ADDRESS		00137800
0014D6	47F0 F97E		02AC6	1422	B SETBCH SET CONDITIONS FOR BRANCH		00137900
0014DA	4580 FC9C		02DE4	1423 WL1	BAL 8,WRITE		00138000
0014DE	47F0 E076		031BE	1424	B NXTOP		00138100
0014E2	D200 E1AD A001	032F5	00001	1425 WM	MVC DCHAR(1),1(10)		00138200
0014E8	4990 EE74		03FBC	1426	CH 9,=H'2'		00138300
0014EC	4780 D048		014F6	1427	BE WML2		00138400
0014F0	D200 E1AD A004	032F5	00004	1428	MVC DCHAR(1),4(10)		00138500
0014F6	90DF E4A0		035E8	1429 WML2	STM 13,15,MACREGSV SAVE MACRO REGS		00138600
				1430 *	MVI PRTP12,0 CLEAR CHANNEL 12 INDICATOR		00138700
0014FA	953C E1AD	032F5		1431	CLI DCHAR,X'3C'		00138800
0014FE	4780 D068		01516	1432	BE WML20A		00138900
001502	9512 E1AD	032F5		1433	CLI DCHAR,X'12'		00139000
001506	4770 F9C0		02B08	1434	BNE ILEGOP		00139100
00150A	4990 EE72		03FBA	1435	CH 9,=H'5'		00139200
00150E	4780 D020		014CE	1436	BE WL4		00139300
001512	47F0 D02C		014DA	1437	B WL1		00139400
001516	D283 E3D1 70C9	03519	000C9	1438 WML20A	MVC PRNTBUFF+1(132),SIMCOR+201 MOVE WORD MARKS TO PRINT		00139500
00151C	DC83 E3D1 EC54	03519	03D9C	1439	TR PRNTBUFF+1(132),TRWDMK *		00139600
001522	4130 E5B0		036F8	1440	LA 3,PRNTDCB GET ADDR OF PRINT DCB TAB		00139610
001526	4550 FF7A		030C2	1441	BAL 5,UROPEN GO OPEN PRINTER TAB		00139620
00152A	90DF E4A0		035E8	1442	STM 13,15,MACREGSV SAVE MACRO REGS		00139700
00152E	4160 E4A0		035E8	1443	LA 6,MACREGSV SAVE ADDRESS TO XR		00139800
001532	41D0 E458		035A0	1444	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00139900
001536	9209 E3D0	03518		1445	MVI PRNTBUFF,X'09' SET CARRIAGE CONTROL		00140000
				1446	PUT PRNTDCB,PRNTBUFF WRITE WORD MARKS		00140100
00153A	4110 E5B0		036F8	1447+	LA 1,PRNTDCB LOAD PARAMETER REG 1		
00153E	4100 E3D0		03518	1448+	LA 0,PRNTBUFF LOAD PARAMETER REG 0		
001542	58F0 1030		00030	1449+	L 15,48(0,1) LOAD PUT ROUTINE ADDR.		
001546	05EF			1450+	BALR 14,15 LINK TO PUT ROUTINE		
001548	98DF 6000		00000	1451	LM 13,15,0(6) RESTORE MACRO REGISTERS		00140200
00154C	0704			1452 DUMPSW	NOPR 4 RETURN TO DUMP ROUTINE		00140210
00154E	4580 FCCE		02E16	1453	BAL 8,COUNTER		00140300
001552	41C0 714D		0014D	1454	LA 12,SIMCOR+333		00140400
001556	4990 EE74		03FBC	1455	CH 9,=H'2'		00140500
00155A	4780 E076		031BE	1456	BE NXTOP		00140600
00155E	416A 0001		00001	1457	LA 6,1(10)		00140700
001562	47F0 F97E		02AC6	1458	B SETBCH SET CONDITIONS FOR BRANCH		00140800

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
001566				1460	USING WR,13		00141000
001566	4990 EE66		03FAE	1461 WR	CH 9,='H'1'		00141100
00156A	4780 D026		0158C	1462	BE WRL1		00141200
00156E	4990 EE68		03FB0	1463	CH 9,='H'4'		00141300
001572	4770 F9EE		02B36	1464	BNE ILEGLN		00141400
001576	D202 FB64	A001 02CAC	00001	1465	MVC ADR140(3),1(10) SAVE BRANCH ADDRESS		00141500
00157C	4580 FC9C		02DE4	1466	BAL 8,WRITE		00141600
001580	4580 FC14		02D5C	1467	BAL 8,READ		00141700
001584	4160 FB64		02CAC	1468	LA 6,ADR140 REFERENCE BRANCH ADDRESS		00141800
001588	47F0 F97E		02AC6	1469	B SETBCH SET CONDITIONS FOR BRANCH		00141900
00158C	4580 FC9C		02DE4	1470 WRL1	BAL 8,WRITE		00142000
001590	4580 FC14		02D5C	1471	BAL 8,READ		00142100
001594	47F0 E076		031BE	1472	B NXTOP		00142200

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
001598				1474	USING WP,13		00142400
001598	4990 EE66	03FAE		1475 WP	CH 9,=H'1'		00142500
00159C	4780 D020	015B8		1476	BE WPL1		00142600
0015A0	4990 EE68	03FB0		1477	CH 9,=H'4'		00142700
0015A4	4770 F9EE	02B36		1478	BNE ILEGLN		00142800
0015A8	4580 FC9C	02DE4		1479	BAL 8,WRITE		00142900
0015AC	4580 FEF0	03038		1480	BAL 8,PUNCH		00143000
0015B0	416A 0001	00001		1481	LA 6,1(10)	REFERENCE BRANCH ADDRESS	00143100
0015B4	47F0 F97E	02AC6		1482	B SETBCH	SET CONDITIONS FOR BRANCH	00143200
0015B8	4580 FC9C	02DE4		1483 WPL1	BAL 8,WRITE		00143300
0015BC	4580 FEF0	03038		1484	BAL 8,PUNCH		00143400
0015C0	47F0 E076	031BE		1485	B NXTOP		00143500

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0015C4				1487	USING WRP,13		00143700
0015C4	4990 EE66		03FAE	1488	WRP CH 9,='H'1'		00143800
0015C8	4780 D02A		015EE	1489	BE WRPL1		00143900
0015CC	4990 EE68		03FB0	1490	CH 9,='H'4'		00144000
0015D0	4770 F9EE		02B36	1491	BNE ILEGLN		00144100
0015D4	D202 FB64	A001	02CAC	00001	1492 MVC ADR140(3),1(10) SAVE BRANCH ADDRESS		00144200
0015DA	4580 FC9C		02DE4	1493	BAL 8,WRITE		00144300
0015DE	4580 FC14		02D5C	1494	BAL 8,READ		00144400
0015E2	4580 FEF0		03038	1495	BAL 8,PUNCH		00144500
0015E6	4160 FB64		02CAC	1496	LA 6,ADR140 REFERENCE BRANCH ADDRESS		00144600
0015EA	47F0 F97E		02AC6	1497	B SETBCH SET CONDITIONS FOR BRANCH		00144700
0015EE	4580 FC9C		02DE4	1498	WRPL1 BAL 8,WRITE		00144800
0015F2	4580 FC14		02D5C	1499	BAL 8,READ		00144900
0015F6	4580 FEF0		03038	1500	BAL 8,PUNCH		00145000
0015FA	47F0 E076		031BE	1501	B NXTOP		00145100

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0015FE				1503	USING SS,13		00145300
0015FE	4990 EE74		03FBC	1504 SS	CH 9,=H'2'		00145400
001602	4780 D028		01626	1505	BE SSDG2		00145500
001606	4990 EE72		03FBA	1506	CH 9,=H'5'		00145600
00160A	4770 F9EE		02B36	1507	BNE ILEGLN		00145700
00160E	9504 A004	00004		1508 SSDG4	CLI 4(10),X'04'		00145800
001612	4780 D04C		0164A	1509	BE SSDG5		00145900
001616	9508 A004	00004		1510	CLI 4(10),X'08'		00146000
00161A	4780 D054		01652	1511	BE SSDG6		00146100
00161E				1512 SSDG7	EQU *		00146200
00161E	416A 0001		00001	1513	LA 6,1(10)		00146300
001622	47F0 F97E		02AC6	1514	B SETBCH		00146400
001626	9504 A001	00001		1515 SSDG2	CLI 1(10),X'04'	4 POCKET	00146500
00162A	4780 D03C		0163A	1516	BE SSDG1	YES	00146600
00162E	9508 A001	00001		1517	CLI 1(10),X'08'	8 POCKET	00146700
001632	4780 D044		01642	1518	BE SSDG3	YES	00146800
001636	47F0 E076		031BE	1519	B NXTOP		00146900
00163A	9241 E21A	03362		1520 SSDG1	MVI PCHARAA,X'41'	SELECT POCKET 4	00147000
00163E	47F0 E076		031BE	1521	B NXTOP		00147100
001642	9281 E21A	03362		1522 SSDG3	MVI PCHARAA,X'81'	SELECT POCKET 8	00147200
001646	47F0 E076		031BE	1523	B NXTOP		00147300
00164A	9241 E21A	03362		1524 SSDG5	MVI PCHARAA,X'41'	SELECT POCKET 4	00147400
00164E	47F0 D020		0161E	1525	B SSDG7		00147500
001652	9281 E21A	03362		1526 SSDG6	MVI PCHARAA,X'81'	SELECT POCKET 8	00147600
001656	47F0 D020		0161E	1527	B SSDG7		00147700

LDC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
00165A				1529	USING CC,13		00147900
00165A	D200 E1AD	A001 032F5	00001	1530	CC MVC DCHAR(1),1(10)		00148000
001660	4990 EE74		03FBC	1531	CH 9,=H'2'		00148100
001664	4780 D01C		01676	1532	RE CCL2		00148200
001668	4990 EE72		03FBA	1533	CH 9,=H'5'		00148300
00166C	4770 F9EE		02B36	1534	BNE ILEGLN		00148400
001670	D200 E1AD	A004 032F5	00004	1535	MVC DCHAR(1),4(10)		00148500
001676	9130 E1AD		032F5	1536	CCL2 TM DCHAR,X'30'		00148600
00167A	4780 D084		016DE	1537	BZ CCIMSK		00148700
00167E	4710 D060		016BA	1538	BO CCAFSK		00148800
001682	9120 E1AD		032F5	1539	TM DCHAR,X'20'		00148900
001686	4710 D048		016A2	1540	BO CCIMSP		00149000
00168A	4330 E1AD		032F5	1541	IC 3,DCHAR		00149100
00168E	5430 EE08		03F50	1542	N 3,=F'3'		00149200
001692	8930 0003		00003	1543	SLL 3,3		00149300
001696	5630 EF0C		03F54	1544	O 3,=F'1'		00149400
00169A	4230 E3D0		03518	1545	STC 3,PRNTBUFF		00149500
00169E	47F0 D0DA		01734	1546	B CCDONE		00149600
0016A2	4330 E1AD		032F5	1547	CCIMSP IC 3,DCHAR		00149700
0016A6	5430 EE08		03F50	1548	N 3,=F'3'		00149800
0016AA	8930 0003		00003	1549	SLL 3,3		00149900
0016AE	4230 E3D0		03518	1550	STC 3,PRNTBUFF		00150000
0016B2	9603 E3D0		03518	1551	OI PRNTBUFF,X'03'		00150100
0016B6	47F0 D0AC		01706	1552	B CCNOW		00150200
0016BA	4330 E1AD		032F5	1553	CCAFSK IC 3,DCHAR		00150300
0016BE	5430 EDE0		03F28	1554	N 3,=F'15'		00150400
0016C2	910F E1AD		032F5	1555	TM DCHAR,X'0F'		00150500
0016C6	4740 D074		016CE	1556	BM CC1		00150600
0016CA	4130 000A		0000A	1557	LA 3,10		00150700
0016CE	8930 0003		00003	1558	CC1 SLL 3,3		00150800
0016D2	4230 E3D0		03518	1559	STC 3,PRNTBUFF		00150900
0016D6	9681 E3D0		03518	1560	OI PRNTBUFF,X'81'		00151000
0016DA	47F0 D0DA		01734	1561	B CCDONE		00151100
0016DE	4330 E1AD		032F5	1562	CCIMSK IC 3,DCHAR		00151200
0016E2	9500 E1AD		032F5	1563	CLI DCHAR,X'00'		00151300
0016E6	4780 E076		031BE	1564	BE NXTOP		00151400
0016EA	910F E1AD		032F5	1565	TM DCHAR,X'0F'		00151500
0016EE	4740 D09C		016F6	1566	BM CC2		00151600
0016F2	4130 000A		0000A	1567	LA 3,10		00151700
0016F6	5430 EDE0		03F28	1568	CC2 N 3,=F'15'		00151800
0016FA	8930 0003		00003	1569	SLL 3,3		00151900
0016FE	5630 FE10		03F58	1570	O 3,=F'131'		00152000
001702	4230 E3D0		03518	1571	STC 3,PRNTBUFF		00152100
001706				1572	CCNOW EQU *	NEXT 2 LINES ADDED	TAB 00152200
001706	4130 E5B0		036F8	1573	LA 3,PRNTDCB	GET ADDR OF PRINT DCB	TAB 00152210
00170A	4550 FF7A		030C2	1574	BAL 5,UOPEN	GO OPEN THE PRINTER	TAB 00152220
00170E	90DF E4A0		035E8	1575	STM 13,15,MACREGSV	SAVE MACRO REGS	TAB 00152230
001712	4160 E4A0		035E8	1576	LA 6,MACREGSV	SAVE ADDRESS TO XR	00152300
001716	41D0 E458		035A0	1577	LA 13,SAVEAREA	GIVE OS OUR SAVE AREA	00152400
				1578	PUT PRNTDCB,PRNTBUFF		00152500
00171A	4110 E5B0		036F8	1579+	LA 1,PRNTDCB	LOAD PARAMETER REG 1	
00171E	4100 E3D0		03518	1580+	LA 0,PRNTBUFF	LOAD PARAMETER REG 0	
001722	58F0 1030		00030	1581+	L 15,48(0,1)	LOAD PUT ROUTINE ADDR.	
001726	05EF			1582+	BALR 14,15	LINK TO PUT ROUTINE	
001728	98DF 6000		00000	1583	LM 13,15,0(6)	RESTORE MACRO REGISTERS	00152600

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F150CT70	10/28/71
001744				1592	USING CU,13		00153500
001744	4990 EE72		03FBA	1593 CU	CH 9,=H'5'		00153600
001748	4770 F9EE		02B36	1594	BNE ILEGLN		00153700
00174C	9529 A004	00004		1595	CLI 4(10),X'29'		00153800
001750	4780 D034		01778	1596	BE RWD		00153900
001754	9524 A004	00004		1597	CLI 4(10),X'24'		00154000
001758	4780 D03C		01780	1598	BE WTM		00154100
00175C	9514 A004	00004		1599	CLI 4(10),X'14'		00154200
001760	4780 D08C		017D0	1600	BE RWU		00154300
001764	9532 A004	00004		1601	CLI 4(10),X'32'		00154400
001768	4780 D044		01788	1602	BE BSP		00154500
00176C	9535 A004	00004		1603	CLI 4(10),X'35'		00154600
001770	4780 D04C		01790	1604	BE SKP		00154700
001774	47F0 F9C0		02B08	1605	B ILEGOP		00154800
001778	9207 D0AC	017F0		1606 RWD	MVI CUCCW,X'07'		00154900
00177C	47F0 D050		01794	1607	B CUI		00155000
001780	921F D0AC	017F0		1608 WTM	MVI CUCCW,X'1F'		00155100
001784	47F0 D050		01794	1609	B CUI		00155200
001788	9227 D0AC	017F0		1610 BSP	MVI CUCCW,X'27'		00155300
00178C	47F0 D050		01794	1611	B CUI		00155400
001790	9217 D0AC	017F0		1612 SKP	MVI CUCCW,X'17'		00155500
001794	4580 FFD0		03118	1613 CUI	BAL 8,FNDRIV		00155600
001798	5030 E54C		03694	1614	ST 3,CUDCB		00155700
00179C	9200 E558	036A0		1615	MVI CUECB,0		00155800
0017A0	9242 E538	03680		1616	MVI CUIOB,X'42'	SET COMMAND CHAIN + UNRELATED BITS	00155900
0017A4	4580 FF3C		03084	1617	BAL 8,TSTOPEN		00156000
0017A8	90DF E4A0		035E8	1618	STM 13,15,MACREGSV	SAVE MACRO REGS	00156100
0017AC	4160 E4A0		035E8	1619	LA 6,MACREGSV	SAVE ADDRESS TO XR	00156200
0017B0	41D0 E458		035A0	1620	LA 13,SAVEAREA	GIVE OS OUR SAVE AREA	00156300
				1621	EXCP CUIOB		00156400
0017B4	4110 E538		03680	1622+	LA 1,CUIOB	LOAD PARAMETER REG 1	
0017B8	0A00			1623+	SVC 0	ISSUE SVC FOR EXCP	
0017BA	98EF 6004		00004	1624	LM 14,15,4(6)	RESTORE REG 14 AND 15	00156500
				1625	WAIT 1,ECB=CUECB		00156600
0017BE	4110 E558		036A0	1626+	LA 1,CUECB	LOAD PARAMETER REG 1	
0017C2	4100 0001		00001	1627+	LA 0,1(0,0)	LOAD PARAMETER REG 0	
0017C6	0A01			1628+	SVC 1	LINK TO WAIT ROUTINE	
0017C8	98DF 6000		00000	1629	LM 13,15,0(6)	RESTORE MACRO REGISTERS	00156700
0017CC	47F0 E076		031BE	1630	B NXTOP		00156800
0017D0	432A 0003		00003	1631 RWU	IC 2,3(10)	GET 1401 DRIVE NUMBER	00156900
0017D4	5420 EE14		03F5C	1632	N 2,=F'7'	*	00157000
0017D8	950A A003	00003		1633	CLI 3(10),X'0A'		00157100
0017DC	4770 D09E		017E2	1634	BNE RWUA		00157200
0017E0	1B22			1635	SR 2,2		00157300
0017E2				1636 RWUA	EQU *		00157400
0017E2	8920 0003		00003	1637	SLL 2,3		00157500
0017E6	5842 E560		036A8	1638	L 4,TAPADR+4(2)		00157600
0017EA	47F0 E04E		03196	1639	B RWUCLOSE	GO CLOSE	00157700
0017EE	0000						
0017F0	0000000060000001			1640 CUCCW	CCW 0,0,X'60',1	CONTROL UNIT OP	TAB 00157800
0017F8	0300000020000001			1641	CCW X'03',0,X'20',1	CHAINED TO A NOP	TAB 00157900

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
001800				1643	USING M,13		00158100
001800	4990 EE64		03FAC	1644 M	CH 9,=H'7'		00158200
001804	4770 F9EE		02B36	1645	BNE ILEGLN		00158300
001808	416A 0001		00001	1646	LA 6,1(10)		00158400
00180C	4580 FAE0		02C28	1647	BAL 8,CVAD43		00158500
001810	18B5			1648	LR 11,5		00158600
001812	416A 0004		00004	1649	LA 6,4(10)		00158700
001816	4580 FAE0		02C28	1650	BAL 8,CVAD43		00158800
00181A	18C5			1651	LR 12,5		00158900
00181C	50C0 D168		01968	1652	ST 12,MPYSAV	SAVE UNITS ADDRESS OF PRODUCT	00159000
001820	185B			1653	LR 5,11	INITIALIZE PRODUCT AREA	00159100
001822	186C			1654	LR 6,12	*	00159200
001824	920A 6000	00000		1655 M1	MVI 0(6),X'0A'	*	00159300
001828	9140 5000	00000		1656	TM 0(5),X'40'	*	00159400
00182C	4710 D03C		0183C	1657	BO M2	*	00159500
001830	4B50 EE66		03FAE	1658	SH 5,=H'1'	*	00159600
001834	4B60 EE66		03FAE	1659	SH 6,=H'1'	*	00159700
001838	47F0 D024		01824	1660	B M1	*	00159800
00183C	4B60 EE74		03FBC	1661 M2	SH 6,=H'2'	*	00159900
001840	920A 6001	00001		1662	MVI 1(6),X'0A'	*	00160000
001844	4110 0000		00000	1663	LA 1,0	COMPARE SIGNS	00160100
001848	4120 0000		00000	1664	LA 2,0	*	00160200
00184C	9120 6000	00000		1665	TM 0(6),X'20'	*	00160300
001850	4780 D060		01860	1666	BZ M3	*	00160400
001854	9110 6000	00000		1667	TM 0(6),X'10'	*	00160500
001858	4710 D060		01860	1668	BO M3	*	00160600
00185C	4110 0001		00001	1669	LA 1,1	*	00160700
001860	9120 B000	00000		1670 M3	TM 0(11),X'20'	*	00160800
001864	4780 D074		01874	1671	BZ M4	*	00160900
001868	9110 B000	00000		1672	TM 0(11),X'10'	*	00161000
00186C	4710 D074		01874	1673	BO M4	*	00161100
001870	4120 0001		00001	1674	LA 2,1	*	00161200
001874	9200 D164	01964		1675 M4	MVI MINPRD,0		00161300
001878	1912			1676	CR 1,2		00161400
00187A	4780 D082		01882	1677	BE M5	SIGNS EQUAL	00161500
00187E	9201 D164	01964		1678	MVI MINPRD,1	SIGNS UNEQUAL	00161600
001882	4316 0000		00000	1679 M5	IC 1,0(6)		00161700
001886	5410 EDE0		03F28	1680	N 1,=F'15'		00161800
00188A	4910 EE6A		03FB2	1681	CH 1,=H'10'	Q/ ZERO	00161900
00188E	4770 D094		01894	1682	BNE *+6	NO	00162000
001892	1B11			1683	SR 1,1	YES, CLEAR	00162100
001894	4100 0000		00000	1684 M6	LA 0,0		00162200
001898	1211			1685	LTR 1,1	Q/ IS MULTIPLICAND DIGIT ZERO	00162300
00189A	4780 D12C		0192C	1686	BZ M9		00162400
00189E	185C			1687	LR 5,12	SET REGISTERS FOR ADD	00162500
0018A0	184B			1688	LR 4,11		00162600
0018A2	188C			1689	LR 8,12	LOAD PRODUCT POINTER	00162700
0018A4	4324 0000		00000	1690 M7	IC 2,0(4)		00162800
0018A8	5420 EDE0		03F28	1691	N 2,=F'15'		00162900
0018AC	4920 EE6A		03FB2	1692	CH 2,=H'10'	Q/ ZERO	00163000
0018B0	4770 D0B6		018B6	1693	BNE *+6	NO	00163100
0018B4	1B22			1694	SR 2,2	YES, CLEAR	00163200
0018B6	4335 0000		00000	1695	IC 3,0(5)		00163300
0018BA	5430 EDE0		03F28	1696	N 3,=F'15'		00163400
0018BE	4930 EE6A		03FB2	1697	CH 3,=H'10'	Q/ ZERO	00163500

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0018C2	4770 D0C8		018C8	1698	BNE *+6	NO	00163600
0018C6	1B33			1699	SR 3,3	YES, CLEAR IT	00163700
0018C8	1A32			1700	AR 3,2		00163800
0018CA	1A30			1701	AR 3,0		00163900
0018CC	4100 0000		00000	1702	LA 0,0		00164000
0018D0	4930 EE6C		03FB4	1703	CH 3,=H'9'		00164100
0018D4	47D0 D0E0		018E0	1704	BNH M8		00164200
0018D8	4B30 EE6A		03FB2	1705	SH 3,=H'10'		00164300
0018DC	4100 0001		00001	1706	LA 0,1		00164400
0018E0	4238 0000		00000	1707	M8 STC 3,0(8)	STORE RESULT	00164500
0018E4	9500 8000	00000		1708	CLI 0(8),X'00'	Q/ RESULT ZERO	00164600
0018E8	4770 D0F0		018F0	1709	BNE *+8	NO	00164700
0018EC	920A 8000	00000		1710	MVI 0(8),X'0A'	YES, SET 8-2 BITS	00164800
0018F0	4B40 EE66		03FAE	1711	SH 4,=H'1'		00164900
0018F4	4B50 EE66		03FAE	1712	SH 5,=H'1'		00165000
0018F8	4B80 EE66		03FAE	1713	SH 8,=H'1'		00165100
0018FC	9140 4001	00001		1714	TM 1(4),X'40'		00165200
001900	4780 D0A4		018A4	1715	BZ M7		00165300
001904	4335 0000		00000	1716	IC 3,0(5)	ADD CARRY TO NEXT PRODUCT DIGIT	00165400
001908	4930 EE6A		03FB2	1717	CH 3,=H'10'	Q/ ZERO	00165500
00190C	4770 D112		01912	1718	BNE *+6	NO	00165600
001910	1B33			1719	SR 3,3	YES, CLEAR	00165700
001912	1A30			1720	AR 3,0		00165800
001914	4238 0000		00000	1721	STC 3,0(8)	*	00165900
001918	9500 8000	00000		1722	CLI 0(8),X'00'	Q/ RESULT ZERO	00166000
00191C	4770 D124		01924	1723	BNE *+8	NO	00166100
001920	920A 8000	00000		1724	MVI 0(8),X'0A'	YES, SET 8-2 BITS	00166200
001924	4B10 EE66		03FAE	1725	SH 1,=H'1'		00166300
001928	4760 D094		01894	1726	BC 6,M6	COUNT NOT ZERO, ADD NEXT DIGIT	00166400
00192C	4B60 EE66		03FAE	1727	M9 SH 6,=H'1'		00166500
001930	9440 6001	00001		1728	NI 1(6),X'40'	CLEAR LAST USED MULTIPLICAND DIGIT	00166600
001934	960A 6001	00001		1729	OI 1(6),X'0A'	*	00166700
001938	9140 6001	00001		1730	TM 1(6),X'40'		00166800
00193C	4710 D148		01948	1731	BO M10		00166900
001940	4BC0 EE66		03FAE	1732	SH 12,=H'1'		00167000
001944	47F0 D082		01882	1733	B M5		00167100
001948	18B4			1734	M10 LR 11,4		00167200
00194A	58C0 D168		01968	1735	L 12,MPYSAV	RELOAD UNITS ADDRESS OF PRODUCT	00167300
00194E	9620 C000	00000		1736	OI 0(12),X'20'		00167400
001952	9501 D164	01964		1737	CLI MINPRD,1		00167500
001956	4780 D15E		0195E	1738	BE M11		00167600
00195A	9630 C000	00000		1739	OI 0(12),X'30'		00167700
00195E	18C6			1740	M11 LR 12,6		00167800
001960	47F0 E076		031BE	1741	B NXTOP		00167900
001964				1742	MINPRD DS C		00168000
001968				1743	MPYSAV DS F		00168100

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
00196C				1745	USING D,13		00168300
00196C	4990 EE64		03FAC	1746 D	CH 9,=H'7'	Q/ IS LENGTH (BYTES	00168400
001970	4770 F9EE		02B36	1747	BNE ILEGLN	NO	00168500
001974	416A 0001		00001	1748	LA 6,1(10)	YES, CONVERT ADDRESSES	00168600
001978	4580 FAE0		02C28	1749	BAL 8,CVAD43	*	00168700
00197C	18B5			1750	LR 11,5	*	00168800
00197E	416A 0004		00004	1751	LA 6,4(10)	*	00168900
001982	4580 FAE0		02C28	1752	BAL 8,CVAD43	*	00169000
001986	18C5			1753	LR 12,5	*	00169100
001988	4100 0001		00001	1754	LA 0,1	SET REG TO 1 FOR + OR - 1	00169200
00198C	181B			1755	LR 1,11	SCAN DIVISOR FOR LENGTH AND IS IT ZERO	00169300
00198E	9200 FB68	02C80		1756	MVI TEMP1,0	*	00169400
001992	9200 FB69	02CB1		1757	MVI TEMP2,0	*	00169500
001996	D100 FB69 1000	02CB1 00000		1758 D1	MVN TEMP2,0(1)	*	00169600
00199C	950A FB69	02CB1		1759	CLI TEMP2,X'0A'	*	00169700
0019A0	4780 D044		019B0	1760	BE D1A	*	00169800
0019A4	9500 FB69	02CB1		1761	CLI TEMP2,X'00'	*	00169900
0019A8	4780 D044		019B0	1762	BE D1A	*	00170000
0019AC	9201 FB68	02C80		1763	MVI TEMP1,1	*	00170100
0019B0	1B10			1764 D1A	SR 1,0	*	00170200
0019B2	9140 1001	00001		1765	TM 1(1),X'40'	*	00170300
0019B6	4780 D02A		01996	1766	BZ D1	*	00170400
0019BA	9500 FB68	02C80		1767	CLI TEMP1,0	Q/ IS DIVISOR ZERO	00170500
0019BE	4770 D05E		019CA	1768	BNE D2	NO, OK	00170600
0019C2	9201 E1AB	032F3		1769	MVI OVRFLO,1	YES, SET OVERFLOW INDICATOR	00170700
0019C6	47F0 E076		031BE	1770	B NXTOP		00170800
0019CA	186C			1771 D2	LR 6,12	FIND HIGH ORDER QUOTIENT LOCATION	00170900
0019CC	1A61			1772	AR 6,1	*	00171000
0019CE	1B6B			1773	SR 6,11	*	00171100
0019D0	1B60			1774	SR 6,0	*	00171200
0019D2	9200 FB68	02C80		1775 D3	MVI TEMP1,0	PREPARE TO COMPARE DIVISOR + DVDND	00171300
0019D6	181B			1776	LR 1,11		00171400
0019D8	182C			1777	LR 2,12		00171500
0019DA	4331 0000		00000	1778 D4	IC 3,0(1)	GET DIGITS	00171600
0019DE	4342 0000		00000	1779	IC 4,0(2)	*	00171700
0019E2	5430 EDE0		03F28	1780	N 3,=F'15'	*	00171800
0019E6	5440 EDE0		03F28	1781	N 4,=F'15'	*	00171900
0019EA	4930 EE6A		03FB2	1782	CH 3,=H'10'	Q/ ZERO	00172000
0019EE	4770 D088		019F4	1783	BNE *+6	NO	00172100
0019F2	1B33			1784	SR 3,3	YES, CLEAR IT	00172200
0019F4	4940 EE6A		03FB2	1785	CH 4,=H'10'	Q/ ZERO	00172300
0019F8	4770 D092		019FE	1786	BNE *+6	NO	00172400
0019FC	1B44			1787	SR 4,4	YES, CLEAR	00172500
0019FE	1934			1788	CR 3,4	COMPARE	00172600
001A00	4780 D0A8		01A14	1789	BE D5	EQUAL, DO NOT CHANGE INDICATOR	00172700
001A04	4720 D0A4		01A10	1790	BH D4A	A-DIGIT GREATER	00172800
001A08	9200 FB68	02C80		1791	MVI TEMP1,0	A-DIGIT LESS	00172900
001A0C	47F0 D0A8		01A14	1792	B D5	*	00173000
001A10	9201 FB68	02C80		1793 D4A	MVI TEMP1,1	SET A GREATER THAN B	00173100
001A14	1B10			1794 D5	SR 1,0	DECREMENT FIELD POINTERS	00173200
001A16	1B20			1795	SR 2,0	*	00173300
001A18	9140 1001	00001		1796	TM 1(1),X'40'	Q/ END OF A-FIELD	00173400
001A1C	4780 D06E		019DA	1797	BZ D4	NO	00173500
001A20	910A 2000	00000		1798	TM 0(2),X'0A'	TEST 1 MORE DIVIDEND DIGIT	00173600
001A24	4710 D0C8		01A34	1799	BO D6	ZERO	00173700

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
001A28	910F 2000	00000		1800	TM 0(2),X'0F'	Q/ BLANK	00173800
001A2C	4780 D0C8		01A34	1801	BZ D6	YES, TREAT SAME AS ZERO	00173900
001A30	9200 FB68	02C80		1802	MVI TEMP1,0	1, DIVIDEND GREATER THAN DIVISOR	00174000
001A34	9501 FB68	02C80		1803	D6 CLI TEMP1,1	Q/ IS DIVISOR TOO LARGE	00174100
001A38	4780 D194		01B00	1804	BE D10	YES	00174200
001A3C	181B			1805	LR 1,11	SET REGISTERS FOR COMPLEMENT ADD	00174300
001A3E	182C			1806	LR 2,12	*	00174400
001A40	4180 0001		00001	1807	LA 8,1	SET CARRY	00174500
001A44	4352 0000		00000	1808	D7 IC 5,0(2)	GET B-FIELD DIGIT	00174600
001A48	5450 EDE0		03F28	1809	N 5,=F'15'	*	00174700
001A4C	4950 EE6A		03FB2	1810	CH 5,=H'10'	Q/ ZERO	00174800
001A50	4770 D0EA		01A56	1811	BNE *+6	NO	00174900
001A54	1B55			1812	SR 5,5	YES, CLEAR	00175000
001A56	4140 0009		00009	1813	LA 4,9	GET COMPLEMENT OF A-FIELD DIGIT	00175100
001A5A	4331 0000		00000	1814	IC 3,0(1)	*	00175200
001A5E	5430 EDE0		03F28	1815	N 3,=F'15'	*	00175300
001A62	4930 EE6A		03FB2	1816	CH 3,=H'10'	Q/ ZERO	00175400
001A66	4770 D100		01A6C	1817	BNE *+6	NO	00175500
001A6A	1B33			1818	SR 3,3	YES, CLEAR IT	00175600
001A6C	1B43			1819	SR 4,3	*	00175700
001A6E	1A54			1820	AR 5,4	ADD TO B-FIELD DIGIT	00175800
001A70	1A58			1821	AR 5,8	ADD CARRY	00175900
001A72	4180 0000		00000	1822	LA 8,0	CLEAR CARRY	00176000
001A76	4950 EE6C		03FB4	1823	CH 5,=H'9'	Q/ RESULT GREATER THAN 9	00176100
001A7A	47D0 D11A		01A86	1824	BNH D8	NO	00176200
001A7E	4B50 EE6A		03FB2	1825	SH 5,=H'10'	YES, SUBTRACT 10 FROM RESULT	00176300
001A82	4180 0001		00001	1826	LA 8,1	SET CARRY	00176400
001A86	4250 D12F		01A9B	1827	D8 STC 5,D9+1	STORE RESULT	00176500
001A8A	94F0 2000	00000		1828	NI 0(2),X'F0'	*	00176600
001A8E	9500 D12F		01A9B	1829	CLI D9+1,X'00'	Q/ RESULT ZERO	00176700
001A92	4770 D12E		01A9A	1830	BNE D9	NO	00176800
001A96	960A D12F		01A9B	1831	OI D9+1,X'0A'	YES, SET 8-2 BITS	00176900
001A9A	9600 2000	00000		1832	D9 OI 0(2),0	*	00177000
001A9E	1B20			1833	SR 2,0	DECREMENT A- AND B-ADDRESSES	00177100
001AA0	1B10			1834	SR 1,0	*	00177200
001AA2	9140 1001		00001	1835	TM 1(1),X'40'	Q/ END OF A-FIELD	00177300
001AA6	4780 D0D8		01A44	1836	BZ D7	NO, PROCESS NEXT DIGIT	00177400
001AAA	4332 0000		00000	1837	IC 3,0(2)	YES, ADD 1 MORE DIVIDEND DIGIT	00177500
001AAE	5430 EDE0		03F28	1838	N 3,=F'15'	*	00177600
001AB2	4930 EE6A		03FB2	1839	CH 3,=H'10'	Q/ ZERO	00177700
001AB6	4770 D150		01ABC	1840	BNE *+6	NO	00177800
001ABA	1B33			1841	SR 3,3	YES, CLEAR IT	00177900
001ABC	4133 0009		00009	1842	LA 3,9(3)	*	00178000
001AC0	1A38			1843	AR 3,8	*	00178100
001AC2	4930 EE6C		03FB4	1844	CH 3,=H'9'	Q/ RESULT GREATER THAN 9	00178200
001AC6	47D0 D162		01ACE	1845	BNH D9A	NO	00178300
001ACA	4B30 EE6A		03FB2	1846	SH 3,=H'10'	YES, SUBTRACT 10	00178400
001ACE	4232 0000		00000	1847	D9A STC 3,0(2)	STORE RESULT	00178500
001AD2	9500 2000	00000		1848	CLI 0(2),X'00'	Q/ RESULT ZERO	00178600
001AD6	4770 D172		01ADE	1849	BNE *+8	NO	00178700
001ADA	920A 2000	00000		1850	MVI 0(2),X'0A'	YES, SET 8-2 BITS	00178800
001ADE	4336 0000		00000	1851	IC 3,0(6)	ADD 1 TO QUOTIENT DIGIT	00178900
001AE2	5430 EDE0		03F28	1852	N 3,=F'15'	*	00179000
001AE6	4930 EE6A		03FB2	1853	CH 3,=H'10'	Q/ ZERO	00179100
001AEA	4770 D184		01AF0	1854	BNE *+6	NO	00179200

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
001AEE	1833			1855	SR 3,3	YES, CLEAR IT	00179300
001AF0	1A30			1856	AR 3,0	*	00179400
001AF2	4230 FB68		02CB0	1857	STC 3,TEMP1	STORE RESULT	00179500
001AF6	D100 6000 FB68	00000	02CB0	1858	MVN 0(1,6),TEMP1	*	00179600
001AFC	47F0 D066		019D2	1859	B D3		00179700
001B00	9130 C000	00000		1860	D10 TM 0(12),X'30'	Q/ ZONE BITS	00179800
001B04	4750 D1A4		01B10	1861	BC 5,D11	YES, DIVIDE DONE	00179900
001B08	1A60			1862	AR 6,0	NO, UP REFERENCE TO NEXT DIGIT	00180000
001B0A	1AC0			1863	AR 12,0	*	00180100
001B0C	47F0 D066		019D2	1864	B D3		00180200
001B10	432B 0000		00000	1865	D11 IC 2,0(11)	COMPARE DIVISOR AND DIVIDEND SIGNS	00180300
001B14	433C 0000		00000	1866	IC 3,0(12)	*	00180400
001B18	5420 EDEC		03F34	1867	N 2,=F'48'	*	00180500
001B1C	5430 EDEC		03F34	1868	N 3,=F'48'	*	00180600
001B20	8C20 0004		00004	1869	SRDL 2,4	*	00180700
001B24	4140 D1DC		01B48	1870	LA 4,SINTBL	*	00180800
001B28	4324 2000		00000	1871	IC 2,0(4,2)	*	00180900
001B2C	4334 3000		00000	1872	IC 3,0(4,3)	*	00181000
001B30	9630 6000	00000		1873	OI 0(6),X'30'	SET QUOTIENT PLUS	00181100
001B34	1923			1874	CR 2,3	Q/ ARE SIGNS EQUAL	00181200
001B36	4780 D1D2		01B3E	1875	BE D12	YES, LEAVE QUOTIENT PLUS	00181300
001B3A	94EF 6000	00000		1876	NI 0(6),X'EF'	UNEQUAL, SET QUOTIENT MINUS	00181400
001B3E	18B1			1877	D12 LR 11,1	SET A- AND B-ADDRESSES	00181500
001B40	18B0			1878	SR 11,0	*	00181600
001B42	18C6			1879	LR 12,6	*	00181700
001B44	47F0 E076		031BE	1880	B NXTOP		00181800
001B48	00000100			1881	SINTBL DC X'00000100'		00181900

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
001B4C				1883	USING MA,13		00182100
001B4C	4990 EE64		03FAC	1884	MA CH 9,=H'7'		00182200
001B50	4780 D018		01B64	1885	BE MA1		00182300
001B54	4990 EE66		03FAE	1886	CH 9,=H'1'		00182400
001B58	4780 D036		01B82	1887	BE MAL4		00182500
001B5C	4990 EE68		03FB0	1888	CH 9,=H'4'		00182600
001B60	4770 F9EE		02B36	1889	BNE ILEGLN		00182700
001B64	416A 0001		00001	1890	MA1 LA 6,1(10)		00182800
001B68	4580 FAEO		02C28	1891	BAL 8,CVAD43		00182900
001B6C	18B5			1892	LR 11,5		00183000
001B6E	18CB			1893	LR 12,11		00183100
001B70	4990 EE68		03FB0	1894	CH 9,=H'4'		00183200
001B74	4780 D036		01B82	1895	BE MAL4		00183300
001B78	416A 0004		00004	1896	LA 6,4(10)		00183400
001B7C	4580 FAEO		02C28	1897	BAL 8,CVAD43		00183500
001B80	18C5			1898	LR 12,5		00183600
001B82	48B0 EE82		03FCA	1899	MAL4 SH 11,=H'3'		00183700
001B86	4BC0 EE82		03FCA	1900	SH 12,=H'3'		00183800
001B8A	4100 000F		0000F	1901	LA 0,15	UNITS	00183900
001B8E	4110 0000		00000	1902	LA 1,0	*	00184000
001B92	432B 0003		00003	1903	IC 2,3(11)	*	00184100
001B96	433C 0003		00003	1904	IC 3,3(12)	*	00184200
001B9A	1420			1905	NR 2,0	*	00184300
001B9C	1430			1906	NR 3,0	*	00184400
001B9E	4920 EE6A		03FB2	1907	CH 2,=H'10'		00184500
001BA2	4770 D05C		01BA8	1908	BNE *+6		00184600
001BA6	1B22			1909	SR 2,2		00184700
001BA8	4930 EE6A		03FB2	1910	CH 3,=H'10'		00184800
001BAC	4770 D066		01BB2	1911	BNE *+6		00184900
001BB0	1B33			1912	SR 3,3		00185000
001BB2	1A32			1913	AR 3,2	*	00185100
001BB4	4930 EE6C		03FB4	1914	CH 3,=H'9'	*	00185200
001BB8	47D0 D078		01BC4	1915	BNH MAL4A	*	00185300
001BBC	4B30 EE6A		03FB2	1916	SH 3,=H'10'	*	00185400
001BC0	4110 0001		00001	1917	LA 1,1	*	00185500
001BC4	4230 D08D		01BD9	1918	MAL4A STC 3,MAL4B+1	*	00185600
001BC8	9470 C003	00003		1919	NI 3(12),X'70'	*	00185700
001BCC	910F D08D	01BD9		1920	TM MAL4B+1,X'0F'		00185800
001BD0	4750 D08C		01BD8	1921	BC 5,MAL4B		00185900
001BD4	960A D08D	01BD9		1922	OI MAL4B+1,X'0A'		00186000
001BD8	9600 C003	00003		1923	MAL4B OI 3(12),0	*	00186100
001BDC	432B 0002		00002	1924	IC 2,2(11)	TENS	00186200
001BE0	433C 0002		00002	1925	IC 3,2(12)	*	00186300
001BE4	1420			1926	NR 2,0	*	00186400
001BE6	1430			1927	NR 3,0	\$	00186500
001BE8	4920 EE6A		03FB2	1928	CH 2,=H'10'		00186600
001BEC	4770 D0A6		01BF2	1929	BNE *+6		00186700
001BF0	1B22			1930	SR 2,2		00186800
001BF2	4930 EE6A		03FB2	1931	CH 3,=H'10'		00186900
001BF6	4770 D0B0		01BFC	1932	BNE *+6		00187000
001BFA	1B33			1933	SR 3,3		00187100
001BFC	1A32			1934	AR 3,2	*	00187200
001BFE	1A31			1935	AR 3,1	*	00187300
001C00	4110 0000		00000	1936	LA 1,0	*	00187400
001C04	4930 EE6C		03FB4	1937	CH 3,=H'9'	*	00187500

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71			
001C08	47D0	DOC8		01C14	1938	BNH	MAL4C	*	00187600	
001C0C	4830	EE6A		03FB2	1939	SH	3,=H'10'	*	00187700	
001C10	4110	0001		00001	1940	LA	1,1	*	00187800	
001C14	4230	D0DD		01C29	1941	MAL4C	STC	3,MAL4D+1	*	00187900
001C18	9470	C002	00002		1942	NI	2(12),X'70'	SAVE B FLD INDEX AND WORD MARK BITS	00188000	
001C1C	910F	D0DD	01C29		1943	TM	MAL4D+1,X'0F'		00188100	
001C20	4750	D0DC		01C28	1944	BC	5,MAL4D		00188200	
001C24	960A	D0DD	01C29		1945	OI	MAL4D+1,X'0A'		00188300	
001C28	9600	C002	00002		1946	MAL4D	OI	2(12),0	*	00188400
001C2C	432B	0001		00001	1947	IC	2,1(11)	HUNDREDS	00188500	
001C30	433C	0001		00001	1948	IC	3,1(12)	*	00188600	
001C34	1420				1949	NR	2,0	*	00188700	
001C36	1430				1950	NR	3,0	*	00188800	
001C38	4920	EE6A		03FB2	1951	CH	2,=H'10'		00188900	
001C3C	4770	D0F6		01C42	1952	BNE	*+6		00189000	
001C40	1B22				1953	SR	2,2		00189100	
001C42	4930	EE6A		03FB2	1954	CH	3,=H'10'		00189200	
001C46	4770	D100		01C4C	1955	BNE	*+6		00189300	
001C4A	1B33				1956	SR	3,3		00189400	
001C4C	1A32				1957	AR	3,2	*	00189500	
001C4E	1A31				1958	AR	3,1	*	00189600	
001C50	4110	0000		00000	1959	LA	1,0	*	00189700	
001C54	4930	EE6C		03FB4	1960	CH	3,=H'9'	*	00189800	
001C58	47D0	D118		01C64	1961	BNH	MAL4E	*	00189900	
001C5C	4830	EE6A		03FB2	1962	SH	3,=H'10'	*	00190000	
001C60	4110	0010		00010	1963	LA	1,16	*	00190100	
001C64	4230	D12D		01C79	1964	MAL4E	STC	3,MAL4F+1	*	00190200
001C68	9470	C001	00001		1965	NI	1(12),X'70'	*	00190300	
001C6C	910F	D12D	01C79		1966	TM	MAL4F+1,X'0F'		00190400	
001C70	4750	D12C		01C78	1967	BC	5,MAL4F		00190500	
001C74	960A	D12D	01C79		1968	OI	MAL4F+1,X'0A'		00190600	
001C78	9600	C001	00001		1969	MAL4F	OI	1(12),0	*	00190700
001C7C	4100	0030		00030	1970	LA	0,48	THOUSANDS	00190800	
001C80	432B	0001		00001	1971	IC	2,1(11)	*	00190900	
001C84	433C	0001		00001	1972	IC	3,1(12)	*	00191000	
001C88	1420				1973	NR	2,0	*	00191100	
001C8A	1430				1974	NR	3,0	*	00191200	
001C8C	1A32				1975	AR	3,2	*	00191300	
001C8E	1A31				1976	AR	3,1	*	00191400	
001C90	4110	0000		00000	1977	LA	1,0	*	00191500	
001C94	4930	EE84		03FCC	1978	CH	3,=H'48'	*	00191600	
001C98	47D0	D158		01CA4	1979	BNH	MAL4G	*	00191700	
001C9C	4830	EE86		03FCE	1980	SH	3,=H'64'	*	00191800	
001CA0	4110	0010		00010	1981	LA	1,16	*	00191900	
001CA4	4230	D161		01CAD	1982	MAL4G	STC	3,MAL4H+1	*	00192000
001CA8	944F	C001	00001		1983	NI	1(12),X'4F'	*	00192100	
001CAC	9600	C001	00001		1984	MAL4H	OI	1(12),0	*	00192200
001CB0	432B	0003		00003	1985	IC	2,3(11)	FOUR THOUSANDS	00192300	
001CB4	433C	0003		00003	1986	IC	3,3(12)	*	00192400	
001CB8	1420				1987	NR	2,0	*	00192500	
001CBA	1430				1988	NR	3,0	*	00192600	
001CBC	1A32				1989	AR	3,2	*	00192700	
001CBE	1A31				1990	AR	3,1	*	00192800	
001CC0	4930	EE84		03FCC	1991	CH	3,=H'48'	*	00192900	
001CC4	47D0	D180		01CCC	1992	BNH	MAL4I	*	00193000	

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT		F15OCT70	10/28/71
001CC8	4B30 EF86		03FCE	1993	SH	3,=H'64'	*	00193100
001CCC	4230 D189		01CD5	1994	MAL4I STC	3,MAL4J+1	*	00193200
001CD0	944F C003	00003		1995	NI	3(12),X'4F'	*	00193300
001CD4	9600 C003	00003		1996	MAL4J OI	3(12),0	*	00193400
001CD8	47F0 E076		031BE	1997	B	NXTOP		00193500

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
001CDC				1999	USING SAR,13		00193700
001CDC	4990 EE68		03FB0	2000 SAR	CH 9,=H'4'		00193800
001CE0	4770 F9EE		02B36	2001	BNE ILEGLN		00193900
001CE4	18CB			2002	LR 12,11		00194000
001CE6	416A 0001		00001	2003	LA 6,1(10)		00194100
001CEA	4580 FAF0		02C28	2004	BAL 8,CVAD43		00194200
001CEE	18B5			2005	LR 11,5		00194300
001CF0	50C0 FB60		02CA8	2006	ST 12,ADR360		00194400
001CF4	4580 FB6A		02CB2	2007	BAL 8,CVAD34		00194500
001CF8	48B0 EE82		03FCA	2008	SH 11,=H'3'		00194600
001CFC	D402 B001 EE9B 00001	03FE3		2009	NC 1(3,11),=X'404040'		00194700
001D02	D602 B001 FB64 00001	02CAC		2010	OC 1(3,11),ADR140		00194800
001D08	47F0 E076		031BE	2011	B NXTOP		00194900

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
001D0C				2013	USING SBR,13		00195100
001D0C	4990 EE68		03FB0	2014	SBR CH 9,=H'4'		00195200
001D10	4780 D022		01D2E	2015	BE SBRL4		00195300
001D14	4990 EE66		03FAE	2016	CH 9,=H'1'		00195400
001D18	4780 D034		01D40	2017	BE SBRL1		00195500
001D1C	4990 EE64		03FAC	2018	CH 9,=H'7'		00195600
001D20	4770 F9EE		02B36	2019	BNE ILEGLN		00195700
001D24	416A 0004		00004	2020	LA 6,4(10)		00195800
001D28	4580 FAE0		02C28	2021	BAL 8,CVAD43		00195900
001D2C	18C5			2022	LR 12,5		00196000
001D2E	416A 0001		00001	2023	SBRL4 LA 6,1(10)		00196100
001D32	4580 FAE0		02C28	2024	BAL 8,CVAD43		00196200
001D36	18B5			2025	LR 11,5		00196300
001D38	50C0 FB60		02CA8	2026	ST 12,ADR360		00196400
001D3C	4580 FB6A		02CB2	2027	BAL 8,CVAD34		00196500
001D40	48B0 EE82		03FCA	2028	SBRL1 SH 11,=H'3'		00196600
001D44	D402 B001 EE9B 00001	03FE3		2029	NC 1(3,11),=X'404040'		00196700
001D4A	D602 B001 FB64 00001	02CAC		2030	OC 1(3,11),ADR140		00196800
001D50	47F0 E076		031BE	2031	B NXTOP		00196900

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
001D54				2033	USING MCM,13		00197100
001D54	4990 EE66		03FAE	2034 MCM	CH 9,=H'1'		00197200
001D58	4780 D024		01D78	2035	BE MCML1		00197300
001D5C	4990 EE64		03FAC	2036	CH 9,=H'7'		00197400
001D60	4770 F9EE		02B36	2037	BNE ILEGLN		00197500
001D64	416A 0001		00001	2038	LA 6,1(10)		00197600
001D68	4580 FAE0		02C28	2039	BAL 8,CVAD43		00197700
001D6C	18B5			2040	LR 11,5		00197800
001D6E	416A 0004		00004	2041	LA 6,4(10)		00197900
001D72	4580 FAE0		02C28	2042	BAL 8,CVAD43		00198000
001D76	18C5			2043	LR 12,5		00198100
001D78	940F D06F	01DC3		2044 MCM	MCML1 NI MCMSW+1,X'0F'		00198200
001D7C	186B			2045	LR 6,11	A-FIELD PTR	00198300
001D7E	D0FF 6000 DIA2 00000	01EF6		2046 MCM	SCAN TRT 0(256,6),TRTGMWRM	SCAN FOR GMWM - RM - RMWM	00198400
001D84	4770 D03C		01D90	2047	BNZ MCMHIT		00198500
001D88	4166 0100		00100	2048	LA 6,256(6)		00198600
001D8C	47F0 D02A		01D7E	2049	B MCMSCAN		00198700
001D90	1B1B			2050 MCM	HIT SR 1,11	COMPUTE RECORD LENGTH	00198800
001D92	4111 0001		00001	2051	LA 1,1(1)	BUMP FOR TERM CHAR	00198900
001D96	4910 EE7A		03FC2	2052	CH 1,=H'256'	TOTAL LENGTH GT 256	00199000
001D9A	47D0 D054		01DA8	2053	BNH MCMDECR	NO	00199100
001D9E	96F0 D06F	01DC3		2054	OI MCMSW+1,X'F0'	YES - SET SW FOR MULTIPLE MOVES	00199200
001DA2	1831			2055	LR 3,1		00199300
001DA4	4110 0100		00100	2056 MCM	256 LA 1,256		00199400
001DA8	0610			2057 MCM	DECR BCTR 1,0	DECREMENT FOR EX INSTRUCTIONS	00199500
001DAA	4410 D090		01DE4	2058	EX 1,MCMCHMOV	MOVE RECORD TO WORK AREA	00199600
001DAE	4410 D08A		01DDE	2059	EX 1,MCMCHCLR	CLEAR RECEIVING AREA EXCEPT WM	00199700
001DB2	4410 D096		01DEA	2060	EX 1,MCMWMCLR	ELIMINATE WORD MARKS IN WORK AREA	00199800
001DB6	4410 D09C		01DF0	2061	EX 1,MCMCHORC	OR DATA BITS (BA8421) INTO REC AREA	00199900
001DBA	4111 0001		00001	2062	LA 1,1(1)		00200000
001DBE	1AB1			2063	AR 11,1		00200100
001DC0	1AC1			2064	AR 12,1		00200200
001DC2	4700 D076		01DCA	2065 MCM	SW NOP MCMBUMP	SET IF RECORD GT 256 BYTES	00200300
001DC6	47F0 E076		031BE	2066	B NXTOP	TO NEXT 1401 INSTRUCTION	00200400
001DCA	1B31			2067 MCM	BUMP SR 3,1	COMPUTE BYTES REMAINING	00200500
001DCC	4930 EE7A		03FC2	2068	CH 3,=H'256'	Q / BYTES REMAINING GT 256	00200600
001DD0	4720 D050		01DA4	2069	BH MCM256	YES	00200700
001DD4	1813			2070	LR 1,3		00200800
001DD6	940F D06F	01DC3		2071	NI MCMSW+1,X'0F'	TURN OFF SWITCH	00200900
001DDA	47F0 D054		01DA8	2072	B MCMDECR	MOVE REMAINING BYTES	00201000
				2073 *			00201100
001DDE	D400 C000 E2C3 00000	0340B		2074 MCM	CHCLR NC 0(0,12),WM256		00201200
001DE4	D200 D0A2 B000 01DF6	00000		2075 MCM	CHMOV MVC WORK256(0),0(11)		00201300
001DEA	D400 D0A2 D2A2 01DF6	01FF6		2076 MCM	WMCLR NC WORK256(0),STRIPWM		00201400
001DF0	D600 C000 D0A2 00000	01DF6		2077 MCM	CHORC OC 0(0,12),WORK256		00201500
				2078 *			00201600
001DF6	4040404040404040			2079	WORK256 DC CL256' '		00201700
001EF6	0000000000000000			2080	TRTGMWRM DC 26X'00'	MCM SCAN TABLE	00201800
001F10	1A			2081	DC X'1A'	RECORD MARK - A8 2	00201900
001F11	0000000000000000			2082	DC 63X'00'		00202000
001F50	5A			2083	DC X'5A'	RECORD MARK WORD MARK - M A8 2	00202100
001F51	0000000000000000			2084	DC 36X'00'	W	00202200
001F75	7F			2085	DC X'7F'	GROUP MARK WORD MARK - MBA8421	00202300
001F76	0000000000000000			2086	DC 128X'00'		00202400
001FF6	3F3F3F3F3F3F3F3F			2087	STRIPWM DC 256X'3F'		00202500

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0020F6				2089	USING BBE,13		00202700
0020F6	4990 EE66		03FAE	2090 BBE	CH 9,=H'1'		00202800
0020FA	4780 D02E		02124	2091	BE BBEL1		00202900
0020FE	4990 EE70		03FB8	2092	CH 9,=H'8'		00203000
002102	4770 F9EE		02B36	2093	BNE ILEGLN		00203100
002106	416A 0001		00001	2094	LA 6,1(10)		00203200
00210A	4580 FAE0		02C28	2095	BAL 8,CVAD43		00203300
00210E	18B5			2096	LR 11,5		00203400
002110	416A 0004		00004	2097	LA 6,4(10)		00203500
002114	4580 FAE0		02C28	2098	BAL 8,CVAD43		00203600
002118	18C5			2099	LR 12,5		00203700
00211A	D200 E1AD A007	032F5	00007	2100	MVC DCHAR(1),7(10)		00203800
002120	948F E1AD		032F5	2101	NI DCHAR,X'BF'		00203900
002124	48C0 EE66		03FAE	2102 BBEL1	SH 12,=H'1'		00204000
002128	D200 FB68 E1AD	02CB0	032F5	2103	MVC TEMP1,DCHAR		00204100
00212E	D400 FB68 C001	02CB0	00001	2104	NC TEMP1(1),1(12)		00204200
002134	4780 E076		031BE	2105	BZ NXTOP		00204300
002138	18AB			2106	LR 10,11		00204400
00213A	4190 0000		00000	2107	LA 9,0		00204500
00213E	47F0 E076		031BE	2108	B NXTOP		00204600

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
				2110	BEGIN SAVE (14,12) SAVE CONTROL PROGRAMS REGISTERS		00204800
002142				2111+	BEGIN DS OH		
002142	90EC D00C		0000C	2112+	STM 14,12,12(13) SAVE REGISTERS		
				2113	ENTRY BEGIN ENTRY POINT	TAB	00204810
002146	05F0			2114	BALR 15,0 LOAD BASE REGISTERS		00204900
002148	58E0 F088		021D0	2115	SETBS1 L 14,BASE2 *		00205000
00214C	50D0 E45C		035A4	2116	ST 13,SAVEAREA+4 SAVE CONTROL PROGRAMS REGISTER 13		00205100
002150	90EF E4A0		035E8	2117	STM 14,15,MACREGSV		00205200
002154	41D0 E458		035A0	2118	LA 13,SAVEAREA		00205300
002158	4160 E4A0		035E8	2119	LA 6,MACREGSV		00205400
00215C	5811 0000		00000	2120	L 1,0(1) GET PARM FIELD POINTER	TAB	00205410
002160	4821 0000		00000	2121	LH 2,0(1) GET PARM FIELD LENGTH	TAB	00205420
002164	1222			2122	LTR 2,2 IS PARM FIELD LENGTH ZERO?	TAB	00205430
002166	4780 F038		02180	2123	BZ GETCORE YES, NO PARM FIELD PRESENT	TAB	00205440
00216A	0620			2124	BCTR 2,0 PARM LENGTH LESS ONE	TAB	00205450
00216C	5830 EE18		03F60	2125	L 3,=A(EQJIAR+5) LOW ORDER OF EQJIAR	TAB	00205455
002170	1B32			2126	SR 3,2 NO, EQJIAR - PARM LENGTH - 1	TAB	00205460
002172	4420 F032		0217A	2127	EX 2,MOVEPARM MOVE PARM TO EQJIAR	TAB	00205470
002176	47F0 F038		02180	2128	B GETCORE TO CONTINUE INIT	TAB	00205475
00217A	D200 3000 1002 00000		00002	2129	MOVEPARM MVC 0(0,3),2(1) MOVE PARM TO EQJIAR	TAB	00205480
002180				2130	GETCORE EQU * CONTINUE WITH INIT	TAB	00205485
				2131	GETMAIN R,LV=16020 GET CORE FOR 1401 SIMULATED CORE		00205500
002180				2132+	CNOP 0,4		
002180	4510 F040		02188	2133+	BAL 1,*+8 BRANCH AROUND LENGTH		
002184	00003E94			2134+	DC A(16020) LENGTH		
002188	5801 0000		00000	2135+	L 0,0(1,0) LOAD LENGTH		
00218C	0A0A			2136+	SVC 10 ISSUE GETMAIN SVC		
00218E	98EF 6000		00000	2137	LM 14,15,0(6)		00205600
002192	1871			2138	LR 7,1 *		00205700
002194	5A10 EDFC		03F44	2139	A 1,=F'15999' STORE UPPER LIMIT OF 1401 CORE		00205800
002198	5010 E1BC		03304	2140	ST 1,SIMLIMIT *		00205900
				2141	GETMAIN R,LV=18000 GET CORE FOR TAPE I/O BUFFER		00206000
00219C				2142+	CNOP 0,4		
00219C	4510 F05C		021A4	2143+	BAL 1,*+8 BRANCH AROUND LENGTH		
0021A0	00004650			2144+	DC A(18000) LENGTH		
0021A4	5801 0000		00000	2145+	L 0,0(1,0) LOAD LENGTH		
0021A8	0A0A			2146+	SVC 10 ISSUE GETMAIN SVC		
0021AA	98EF 6000		00000	2147	LM 14,15,0(6)		00206100
0021AE	5010 E1C0		03308	2148	ST 1,TAPEAREA *		00206200
0021B2	D202 E4F9 E1C1 03641 03309			2149	MVC WTCCW2+1(3),TAPEAREA+1		00206300
0021B8	D202 E519 E1C1 03661 03309			2150	MVC RTCCW1+1(3),TAPEAREA+1		00206400
0021BE	D202 E509 E1C1 03651 03309			2151	MVC LDTCCW1+1(3),TAPEAREA+1		00206500
0021C4	D700 70C9 7000 000C9 00000			2152	XC SIMCOR+201,SIMCOR		00206600
0021CA	47F0 F1D8		02320	2153	B BGN1		00206700
0021CE	0000						
0021D0	00003148			2154	BASE2 DC A(SETBS1+4096)		00206800
				2155	*		00206900
0021D4	D731 F314 F314 0245C 0245C			2156	WTORTN XC RQSTIN,RQSTIN		00207000
0021DA	D207 FORF E2BR 02207 03403			2157	MVC OKWTOR+27(8),JOBNAME MOVE JOBNAME TO WTOR		00207100
0021E0	90DF E4A0		035E8	2158	STM 13,15,MACREGSV SAVE MACRO REGS		00207200
0021E4	4160 F4A0		035E8	2159	LA 6,MACREGSV SAVE ADDRESS TO XR		00207300
0021E8	41D0 E458		035A0	2160	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00207400
0021EC	91FF F1D0		02318	2161	OKWTOR TM MOD,X'FF'		00207500
0021F0	4710 F0FA		02242	2162	BO CHGRDCD		00207600
				2163	WTOR 'OK ',RQSTIN,50,WTECB		00207700

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0021F4				2164+	CNOP 0,4		
0021F4	4510 F0C8		02210	2165+	BAL 1,IHB0028A BRANCH AROUND LIST		
0021F8	32			2166+	DC AL1(50) REPLY LENGTH		
0021F9	00245C			2167+	DC AL3(RQSTIN) REPLY ADDRESS		
0021FC	0000231C			2168+	DC A(WTECB) ECB ADDRESS		
002200	000F			2169+	DC AL2(IHB0029-*) MESSAGE LENGTH		
002202	0000			2170+	DC B'0000000000000000' MCSFLAGS FIELD		
002204	D6D2404040404040			2171+	DC C'OK ' MESSAGE		
00220F				2172+IHB0029	EQU *		
002210				2173+IHB0028A	DS OH		
002210	0A23			2174+	SVC 35 ISSUE WTOR SVC		
002212	98DF 6000		00000	2175 CHGA	LM 13,15,0(6) RESTORE MACRO REGISTERS		00207800
002216	90DF E4A0		035E8	2176 TESTA	STM 13,15,MACREGSV SAVE MACRO REG		00207900
00221A	91FF F1D0	02318		2177	TM MOD,X'FF'		00208000
00221E	4710 F25A		023A2	2178	RO TRANS		00208100
002222	4160 E4A0		035E8	2179	LA 6,MACREGSV SAVE ADDRESS TO XR		00208200
002226	41D0 E458		035A0	2180	LA 13,SAVEAREA		00208300
				2181 TESTAA	WAIT 1,ECB=WTECB WAIT FOR RESPONSE		00208400
00222A	4110 F1D4		0231C	2182+TESTAA	LA 1,WTECB LOAD PARAMETER REG 1		
00222E	4100 0001		00001	2183+	LA 0,1(0,0) LOAD PARAMETER REG 0		
002232	0A01			2184+	SVC 1 LINK TO WAIT ROUTINE		
002234	98DF 6000		00000	2185	LM 13,15,0(6) RESTORE MACRO REG		00208500
002238	D703 F1D4 F1D4	0231C	0231C	2186	XC WTECB,WTECB CLEAR ECB		00208600
00223E	47F0 F25A		023A2	2187	B TRANS		00208700
002242	D503 E1CA EE1C	03312	03F64	2188 CHGRDCD	CLC TMPARA(4),=C'CCTL'		00208800
002248	4770 F1B4		022FC	2189	BNE DGCC7		00208900
00224C	957D E1D3	0331B		2190	CLI TMPARA+9,X'7D'		00209000
002250	4770 F17E		022C6	2191	BNE DGCC2		00209100
002254	D741 FE10 FE10	02F58	02F58	2192	XC CARTAB(66),CARTAB		00209200
00225A	5830 EE20		03F68	2193	L 3,=A(CARTAB)		00209300
00225E	5810 EE24		03F6C	2194 DGCC10	L 1,=A(TMPARA+10)		00209400
002262	4120 0046		00046	2195	LA 2,70		00209500
002266	957D 1000	00000		2196 DGCC5	CLI 0(1),X'7D'		00209600
00226A	4780 F144		0228C	2197	BE DGCC3		00209700
00226E	9540 1000	00000		2198	CLI 0(1),C' '		00209800
002272	4780 F134		0227C	2199	BE DGCC4		00209900
002276	D200 3000 1000	00000	00000	2200	MVC 0(1,3),0(1)		00210000
00227C	4111 0001		00001	2201 DGCC4	LA 1,1(1)		00210100
002280	4133 0001		00001	2202	LA 3,1(3)		00210200
002284	4620 F11E		02266	2203	BCT 2,DGCC5		00210300
002288	47F0 F17E		022C6	2204	B DGCC2		00210400
00228C	90DF E4A0		035E8	2205 DGCC3	STM 13,15,MACREGSV		00210500
002290	5030 FE08		02F50	2206	ST 3,DGEND		00210600
002294	D203 FE0C EE20	02F54	03F68	2207	MVC DGCCUR,=A(CARTAB)		00210700
00229A	4160 E4A0		035E8	2208	LA 6,MACREGSV		00210800
00229E	41D0 E458		035A0	2209	LA 13,SAVEAREA		00210900
				2210	GET CARD,TMPARA		00211000
0022A2	4110 E694		037DC	2211+	LA 1,CARD LOAD PARAMETER REG 1		
0022A6	4100 E1CA		03312	2212+	LA 0,TMPARA LOAD PARAMETER REG 0		
0022AA	58F0 1030		00030	2213+	L 15,48(0,1) LOAD GET ROUTINE ADDR.		
0022AE	05EF			2214+	BALR 14,15 LINK TO GET ROUTINE		
0022B0	98DF 6000		00000	2215	LM 13,15,0(6)		00211100
0022B4	D504 E1CA EE9E	03312	03FE6	2216	CLC TMPARA(5),=C'CCTL2'		00211200
0022BA	4770 F1B4		022FC	2217	BNE DGCC7		00211300
0022BE	5830 FE08		02F50	2218	L 3,DGEND		00211400

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0022C2	47F0 F116		0225E	2219	B DGCC10		00211500
0022C6	90DF E4A0		035E8	2220	DGCC2 STM 13,15,MACREGSV		00211600
0022CA	4160 E4A0		035E8	2221	LA 6,MACREGSV		00211700
0022CE	41D0 E458		035A0	2222	LA 13,SAVEAREA		00211800
				2223	WTO 'INVALID CCTL CARD,RESUBMIT'		00211900
0022D2	0700			2224+	CNOP 0,4		
0022D4	4510 F1AE		022F6	2225+	BAL 1,IHB0034A BRANCH AROUND MESSAGE		
0022D8	001E			2226+	DC AL2(IHB0034-*) MESSAGE LENGTH		
0022DA	0000			2227+	DC B'0000000000000000' MCSFLAGS FIELD		
0022DC	C9D5E5C1D3C9C440			2228+	DC C'INVALID CCTL CARD,RESUBMIT' MESSAGE		
0022F6				2229+IHB0034	EQU *		
0022F6				2230+IHB0034A	DS 0H		
0022F6	0A23			2231+	SVC 35 ISSUE SVC		
0022F8	98DF 6000		00000	2232	LM 13,15,0(6)		00212000
0022FC				2233	DGCC7 EQU *		00212100
0022FC	D231 F314 E1CA 0245C 03312			2234	MVC RQSTIN,TMPARA		00212200
				2235	GET CARD,TMPARA		00212300
002302	4110 E694		037DC	2236+	LA 1,CARD LOAD PARAMETER REG 1		
002306	4100 E1CA		03312	2237+	LA 0,TMPARA LOAD PARAMETER REG 0		
00230A	58F0 1030		00030	2238+	L 15,48(0,1) LOAD GET ROUTINE ADDR.		
00230E	05EF			2239+	BALR 14,15 LINK TO GET ROUTINE		
002310	98DF 6000		00000	2240	LM 13,15,0(6)		00212400
002314	47F0 FOCA		02212	2241	B CHGA		00212500
002318	FF			2242	MOD DC X'FF'		00212600
002319	000000						
00231C	00000000			2243	WTECB DC F'0'		00212700
002320	90DF E4A0		035E8	2244	BGN1 STM 13,15,MACREGSV SAVE MACRO REGS		00212800
002324	4160 E4A0		035E8	2245	LA 6,MACREGSV SAVE ADDRESS TO XR		00212900
002328	41D0 E458		035A0	2246	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00213000
				2247	OPEN (CARD) OPEN CARD INPUT DCB ONLY TAB		00213100
00232C				2248+	CNOP 0,4		
00232C	4510 F1EC		02334	2249+	BAL 1,*+8 LOAD REG1 W/LIST ADDR.		
002330	80			2250+	DC AL1(128) OPTION BYTE		
002331	0037DC			2251+	DC AL3(CARD) DCB ADDRESS		
002334	0A13			2252+	SVC 19 ISSUE OPEN SVC		
002336	98DF 6000		00000	2253	LM 13,15,0(6) RESTORE MACRO REGISTERS		00213200
00233A	928B E3D0		03518	2254	MVI PRNTBUFF,X'8B' RESTORE PRINT FORM IMMEDIATELY		00213300
00233E	4580 FC9C		02DE4	2255	BAL 8,WRITE *		00213400
002342	4180 F232		0237A	2256	LA 8,BGN2		00213500
002346	90DF E4A0		035E8	2257	STM 13,15,MACREGSV SAVE MACRO REGS		00213600
00234A	4160 E4A0		035E8	2258	LA 6,MACREGSV SAVE ADDRESS TO XR		00213700
00234E	41D0 E458		035A0	2259	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00213800
				2260	GET CARD,TMPARA READ CARD		00213900
002352	4110 E694		037DC	2261+	LA 1,CARD LOAD PARAMETER REG 1		
002356	4100 E1CA		03312	2262+	LA 0,TMPARA LOAD PARAMETER REG 0		
00235A	58F0 1030		00030	2263+	L 15,48(0,1) LOAD GET ROUTINE ADDR.		
00235E	05EF			2264+	BALR 14,15 LINK TO GET ROUTINE		
002360	98DF 6000		00000	2265	LM 13,15,0(6) RESTORE MACRO REGISTERS		00214000
002364	4110 004C		0004C	2266	LA 1,76 CLEAR		00214100
002368	5820 E1C0		03308	2267	L 2,TAPEAREA TAPE		00214200
00236C	D763 2000 2000 00000 00000		00000	2268	CLEAR XC 0(100,2),0(2) AREA		00214300
002372	4122 0064		00064	2269	LA 2,100(2)		00214400
002376	4610 F224		0236C	2270	BCT 1,CLEAR		00214500
00237A	5810 EE28		03F70	2271	BGN2 L 1,=F'16010'		00214600
00237E	1A17			2272	AR 1,7		00214700

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
002380	927F 1000	00000		2273	MVI 0(1),X'7F'		00214800
002384	4180 0010		00010	2274	LA 8,16	ADDR OF CVT PTR IN 8	TAB 00214900
002388	5888 0000		00000	2275	L 8,0(8)	ADDR OF CVT IN 8	TAB 00214910
00238C	5888 0000		00000	2276	L 8,0(8)	ADDR OF TCB WORDS IN 8	TAB 00215000
002390	5888 0004		00004	2277	L 8,4(8)	ADDR OF TCB IN 8	TAB 00215100
002394	5888 000C		0000C	2278	L 8,12(8)	ADDR OF TIOT IN 8	00215200
002398	D207 E2BB 8000 03403	00000		2279	MVC JOBNAME,0(8)		00215300
00239E	47F0 F08C		021D4	2280	B WTORTN		00215400
0023A2	DC31 F314 ECD4 0245C 03E1C			2281	TRANS TR RQSTIN,TYPTBL		00215500
0023A8	D502 F314 EEA3 0245C 03FEB			2282	CLC RQSTIN(3),=C'SSS'		00215600
0023AE	4780 F4E4		0262C	2283	BE SSIN		00215700
0023B2	D502 F314 EEA6 0245C 03FEE			2284	CLC RQSTIN(3),=C'LDC'		00215800
0023B8	4780 F346		0248E	2285	BE CDLOAD		00215900
0023BC	D502 F314 EEA9 0245C 03FF1			2286	CLC RQSTIN(3),=C'LDT'		00216000
0023C2	4780 F434		0257C	2287	BE TPLOAD		00216100
0023C6	D502 F314 EEAC 0245C 03FF4			2288	CLC RQSTIN(3),=C'SRS'		00216200
0023CC	4780 F416		0255E	2289	BE STRST		00216300
0023D0	D502 F314 EEAF 0245C 03FF7			2290	CLC RQSTIN(3),=C'STT'		00216400
0023D6	4780 F368		024B0	2291	BE START		00216500
0023DA	D502 F314 EEB2 0245C 03FFA			2292	CLC RQSTIN(3),=C'CLR'		00216600
0023E0	4780 F56E		026B6	2293	BE CLR		00216700
0023E4	D502 F314 EEB5 0245C 03FFD			2294	CLC RQSTIN(3),=C'DIS'		00216800
0023EA	4780 F58C		026D4	2295	BE DIS		00216900
0023EE	D502 F314 EEB8 0245C 04000			2296	CLC RQSTIN(3),=C'ALT'		00217000
0023F4	4780 F74A		02892	2297	BE ALT		00217100
0023F8	D502 F314 EEBB 0245C 04003			2298	CLC RQSTIN(3),=C'WTM'		00217200
0023FE	4780 F7CA		02912	2299	BE WTMCMD		00217300
002402	D502 F314 EEBE 0245C 04006			2300	CLC RQSTIN(3),=C'RWD'		00217400
002408	4780 F934		02A7C	2301	BE RWDCMD		00217500
00240C	D502 F314 EEC1 0245C 04009			2302	CLC RQSTIN(3),=C'TRM'		00217600
002412	4780 F810		02958	2303	BE TERMINAT		00217700
002416	D502 F314 EEC4 0245C 0400C			2304	CLC RQSTIN(3),=C'DMP'		00217710
00241C	4780 F84E		02996	2305	BE DUMPCORE		00217720
002420	D731 F314 F314 0245C 0245C			2306	SNDILG XC RQSTIN,RQSTIN ZERO OUT REPLY AREA		00217800
002426	90DF E4A0		035E8	2307	STM 13,15,MACREGSV SAVE MACRO REG		00217900
00242A	4160 E4A0		035E8	2308	LA 6,MACREGSV SAVE ADDRESS TO XR		00218000
00242E	41D0 E458		035A0	2309	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00218100
				2310	WTOR 'ILLEGAL ENTRY',RQSTIN,50,WTECB		00218200
002432	0700			2311+	CNOP 0,4		
002434	4510 F30A		02452	2312+	BAL 1,IHB0040A BRANCH AROUND LIST		
002438	32			2313+	DC AL1(50) REPLY LENGTH		
002439	00245C			2314+	DC AL3(RQSTIN) REPLY ADDRESS		
00243C	0000231C			2315+	DC A(WTECB) ECB ADDRESS		
002440	0011			2316+	DC AL2(IHB0041-*) MESSAGE LENGTH		
002442	0000			2317+	DC B'0000000000000000' MCSFLAGS FIELD		
002444	C9D3D3C5C7C1D340			2318+	DC C'ILLEGAL ENTRY' MESSAGE		
002451				2319+IHB0041	EQU *		
002452				2320+IHB0040A	DS OH		
002452	0A23			2321+	SVC 35 ISSUE WTOR SVC		
002454	98DF 6000		00000	2322	LM 13,15,0(6) RESTORE MACRO REGISTERS		00218300
002458	47F0 F0E2		0222A	2323	B TESTAA		00218400
00245C				2324	RQSTIN DS CL50		00218500
				2325	*		00218600
				2326	*	THIS SECTION WILL SIMULATE THE 1402 CARD LOAD PUSHBUTTON.	00218700
				2327	*		00218800

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71	
00248E	D74F 7001	7001	00001	00001	2328 CDLOAD XC	SIMCOR+1(80),SIMCOR+1		
002494	9200 F1D0		02318	2329	MVI	MOD,X'00'	00218900	
002498	4580 FC14			02D5C	2330	BAL	8,READ	00219000
00249C	9640 7001		00001	2331	OI	SIMCOR+1,X'40'	00219100	
0024A0	41A0 7001			00001	2332	LA	10,SIMCOR+1	00219200
0024A4	4190 0000			00000	2333	LA	9,0	00219300
0024A8	9201 F414		0255C	2334	MVI	OKSTT,1	00219400	
0024AC	47F0 E076			031BE	2335	B	NXTOP	00219500
				2336	*		00219600	
				2337	*		00219700	
				2338	*	THIS SECTION WILL SIMULATE THE START PUSHBUTTON. IF THE	00219800	
				2339	*	OPERATOR COMMAND STT IS FOLLOWED BY AN ADDRESS, THE 1401 PROGRAM	00219900	
				2340	*	WILL RESUME FROM THAT ADDRESS. HOWEVER, IF STT IS NOT FOLLOWED	00220000	
				2341	*	BY ANYTHING, THE 1401 PROGRAM WILL RESUME FROM WHERE IT STOPPED.	00220100	
0024B0	9501 F414		0255C	2342	START CLI	OKSTT,1	00220200	
0024B4	4770 F3CE			02516	2343	BNE	START4	00220300
0024B8	4150 F317			0245F	2344	LA	5,RQSTIN+3	00220400
0024BC	9500 5000		00000	2345	CLI	0(5),0	Q/ IS THERE A START ADDRESS	00220500
0024C0	4770 F382			024CA	2346	BNE	START1	* YES, START FROM THERE
0024C4	5880 E530			03678	2347	L	8,RETURN	00220600
0024C8	07F8				2348	BR	8	00220700
0024CA	9500 5000		00000	2349	START1 CLI	0(5),0	Q/ END OF MESSAGE	00220800
0024CE	4780 F39A			024E2	2350	BE	START2	YES
0024D2	95F0 5000		00000	2351	CLI	0(5),C'0'	NO, IS IT NUMERIC	00221000
0024D6	4740 F2D8			02420	2352	BL	SNDILG	NO, ERROR
0024DA	4155 0001			00001	2353	LA	5,1(5)	YES, TRY NEXT BYTE
0024DE	47F0 F382			024CA	2354	B	START1	*
0024E2	5B50 EE2C			03F74	2355	START2 S	5,=A(RQSTIN+4)	GET LENGTH - 1
0024E6	4950 EE68			03FB0	2356	CH	5,=H'4'	Q/ LENGTH GT 5 DIGITS
0024EA	4720 F2D8			02420	2357	BH	SNDILG	YES, ERROR
0024EE	4250 FB68			02CB0	2358	STC	5,TEMP1	CONVERT TO BINARY
0024F2	D100 F381	FB68	024F9	02CB0	2359	MVN	START3+1(1),TEMP1	*
0024F8	F270 E3C8	F317	03510	0245F	2360	START3 PACK	PAKT,RQSTIN+3(0)	*
0024FE	4F40 E3C8			03510	2361	CVB	4,PAKT	*
002502	4940 EE88			03FD0	2362	CH	4,=H'15999'	Q/ ADDRESS GT 15999
002506	4720 F2D8			02420	2363	BH	SNDILG	YES, ERROR
00250A	1A47				2364	AR	4,7	NO, GO THERE
00250C	18A4				2365	LR	10,4	*
00250E	4190 0000		00000	2366	LA	9,0	*	00222600
002512	47F0 E076			031BE	2367	B	NXTOP	*
002516	D731 F314	F314	0245C	0245C	2368	START4 XC	RQSTIN,RQSTIN	ZERO OUT REPLY AREA
00251C	90DF E4A0			035E8	2369	STM	13,15,MACREGSV	SAVE MACRO REG
002520	4160 E4A0			035E8	2370	LA	6,MACREGSV	SAVE ADDRESS TO XR
002524	41D0 E458			035A0	2371	LA	13,SAVEAREA	GIVE OS OUR SAVE AREA
					2372	WTOR	'CANNOT START,NO PGM LOADED',RQSTIN,50,WTECB	
002528					2373+	CNOP	0,4	00223300
002528	4510 F40A		02552	2374+	BAL	1,IHB0042A	BRANCH AROUND LIST	
00252C	32			2375+	DC	AL1(50)	REPLY LENGTH	
00252D	00245C			2376+	DC	AL3(RQSTIN)	REPLY ADDRESS	
002530	0000231C			2377+	DC	A(WTECB)	ECB ADDRESS	
002534	001E			2378+	DC	AL2(IHB0043-*)	MESSAGE LENGTH	
002536	0000			2379+	DC	B'0000000000000000'	MCSFLAGS FIELD	
002538	C3C1D5D5D6E340E2			2380+	DC	C'CANOT START,NO PGM LOADED'	MESSAGE	
002552				2381+	IHB0043 EQU	*		
002552				2382+	IHB0042A DS	OH		

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
002552	0A23			2383+	SVC 35 ISSUE WTOR SVC		
002554	98DF 6000		00000	2384	LM 13,15,0(6) RESTORE MACRO REGISTERS		00223400
002558	47F0 F0E2		0222A	2385	B TESTAA		00223500
00255C	00			2386	OKSTT DC X'00'		00223600
				2387	*		00223700
				2388	*	THIS SECTION WILL SIMULATE THE START-RESET PUSHBUTTON.	00223800
				2389	*		00223900
00255D	00						
00255E	186A			2390	STRST LR 6,10		00224000
002560	1A69			2391	AR 6,9		00224100
002562	5060 FB60		02CA8	2392	ST 6,ADR360		00224200
002566	9200 E1A9	032F1		2393	MVI TPERR,0		00224300
00256A	9200 E1AA	032F2		2394	MVI TPEOF,0		00224400
00256E	9200 E1AB	032F3		2395	MVI OVRFLO,0		00224500
002572	9200 E1AC	032F4		2396	MVI CPR,0		00224600
002576	5880 E530		03678	2397	L 8,RETURN LOAD ADDRESS FOR START	TAB	00224700
00257A	07F8			2398	BR 8 GO DO START	TAB	00224710
				2399	*		00224800
				2400	*	THIS SECTION SIMULATES THE LOAD TAPE PUSHBUTTON.	00224900
				2401	*		00225000
00257C	41A0 EE30		03F78	2402	TPLOAD LA 10,=X'00000001'		00225100
002580	9200 F1D0	02318		2403	MVI MOD,X'00'		00225200
002584	4580 FFD0		03118	2404	BAL 8,FNDRIV		00225300
002588	5030 F924		02A6C	2405	ST 3,TMDCB		00225400
00258C	4580 FF3C		03084	2406	BAL 8,TSTOPEN		00225500
002590	4580 FF3A		03082	2407	BAL 8,LOADMD		00225600
002594	D203 F920	EE34	02A68	2408	MVC TPCCW,=A(LDTCCW)		00225700
00259A	9244 F910		02A58	2409	MVI TMIOB,X'44'		00225800
00259E	90DF E4A0		035E8	2410	STM 13,15,MACREGSV SAVE MACRO REGS		00225900
0025A2	4160 E4A0		035E8	2411	LA 6,MACREGSV SAVE ADDRESS TO XR		00226000
0025A6	41D0 E458		035A0	2412	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00226100
				2413	EXCP TMIOB		00226200
0025AA	4110 F910		02A58	2414+	LA 1,TMIOB LOAD PARAMETER REG 1		
0025AE	0A00			2415+	SVC 0 ISSUE SVC FOR EXCP		
0025B0	98EF 6004		00004	2416	LM 14,15,4(6) RESTORE REG 14 AND 15		00226300
				2417	WAIT 1,ECB=TM ECB WAIT FOR I/O		00226400
0025B4	4110 F930		02A78	2418+	LA 1,TMECB LOAD PARAMETER REG 1		
0025B8	4100 0001		00001	2419+	LA 0,1(0,0) LOAD PARAMETER REG 0		
0025BC	0A01			2420+	SVC 1 LINK TO WAIT ROUTINE		
0025BE	98DF 6000		00000	2421	LM 13,15,0(6) RESTORE MACRO REGISTERS		00226500
0025C2	4810 F91E		02A66	2422	LH 1,TMIOB+14 LOAD BYTE COUNT FROM CSW		00226600
0025C6	4820 EE78		03FC0	2423	LH 2,=H'18000'		00226700
0025CA	1B21			2424	SR 2,1		00226800
0025CC	4130 7001		00001	2425	LA 3,SIMCOR+1		00226900
0025D0	5810 E1C0		03308	2426	L 1,TAPEAREA		00227000
0025D4	9560 1000		00000	2427	TPLD1 CLI 0(1),X'6D'		00227100
0025D8	4770 F480		025F8	2428	BNE TPLD2		00227200
0025DC	4111 0001		00001	2429	LA 1,1(1)		00227300
0025E0	D200 3000	1000	00000	2430	MVC 0(1,3),0(1)		00227400
0025E6	DC00 3000	E914	00000	2431	TR 0(1,3),TREI		00227500
0025EC	9640 3000		00000	2432	OI 0(3),X'40'		00227600
0025F0	4820 EE66		03FAE	2433	SH 2,=H'1'		00227700
0025F4	47F0 F4BC		02604	2434	B TPLD3		00227800
0025F8	D200 3000	1000	00000	2435	TPLD2 MVC 0(1,3),0(1)		00227900
0025FE	DC00 3000	E914	00000	2436	TR 0(1,3),TREI		00228000

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
002604	4111 0001		00001	2437	TPLD3 LA 1,1(1)		00228100
002608	4133 0001		00001	2438	LA 3,1(3)		00228200
00260C	4620 F48C		025D4	2439	BCT 2,TPLD1		00228300
002610	9440 3000	00000		2440	NI 0(3),X'40'		00228400
002614	963F 3000	00000		2441	OI 0(3),X'3F'		00228500
002618	41C3 0001		00001	2442	LA 12,1(3)		00228600
00261C	41A0 7001		00001	2443	LA 10,SIMCOR+1		00228700
002620	4190 0000		00000	2444	LA 9,0		00228800
002624	9201 F414	0255C		2445	MVI 0KSTT,1		00228900
002628	47F0 E076		031BE	2446	B NXTOP		00229000
				2447 *			00229100
				2448 *	THIS SECTION SIMULATES THE SETTING OF SENSE SWITCHES BY SETTING		00229200
				2449 *	INDICATORS IN CORE BASED UPON THE SSS INPUT COMMAND. THE		00229300
				2450 *	ROUTINES THAT SIMULATE THE BSS INSTRUCTIONS WILL TEST THESE		00229400
				2451 *	INDICATORS.		00229500
				2452 *			00229600
00262C	4160 F317		0245F	2453	SSIN LA 6,RQSTIN+3 REFERENCE FIRST SENSE SWITCH		00229700
002630	D706 F532 F532	0267A	0267A	2454	XC TSSA(7),TSSA CLEAR TEMPORARY SENSE SWITCHES		00229800
002636	4150 0008		00008	2455	LA 5,8 SET TO SCAN 8 SETTINGS MAX		00229900
00263A	9500 6000	00000		2456	SSINI CLI 0(6),0 Q/ DONE		00230000
00263E	4780 F528		02670	2457	BE SSEND YES, MOVE THEM		00230100
002642	95C1 6000	00000		2458	CLI 0(6),C'A' Q/ IS THIS SENSE SWITCH LEGAL		00230200
002646	4740 F2D8		02420	2459	BL SNDILG NO		00230300
00264A	95C7 6000	00000		2460	CLI 0(6),C'G'		00230400
00264E	4720 F2D8		02420	2461	BH SNDILG NO		00230500
002652	4346 0000		00000	2462	IC 4,0(6) YES		00230600
002656	5440 EE14		03F5C	2463	N 4,=F'7' SET TEMPORARY SENSE SWITCH		00230700
00265A	4120 F531		02679	2464	LA 2,TSSA-1 *		00230800
00265E	1A24			2465	AR 2,4 *		00230900
002660	9201 2000	00000		2466	MVI 0(2),1 *		00231000
002664	4166 0001		00001	2467	LA 6,1(6) REFERENCE NEXT INPUT CHARACTER		00231100
002668	4650 F4F2		0263A	2468	BCT 5,SSINI Q/ ARE THERE TOO MANY INPUT CHARACTERS		00231200
00266C	47F0 F2D8		02420	2469	B SNDILG YES		00231300
002670	D206 E1A0 F532	032E8	0267A	2470	SSEND MVC SENSEA(7),TSSA		00231400
002676	47F0 F08C		021D4	2471	B WTORTN		00231500
00267A				2472	TSSA DS 7C TEMPORARY SENSE SWITCHES		00231600
				2473 *			00231700
				2474 *	THIS SECTION WILL SET THE TAPE TABLE WITH THE 1401-360 EQUIVALANT		00231800
				2475 *	TAPE DRIVE NUMBERS BASED UPON THE TAS OPERATOR COMMAND. THE		00231900
				2476 *	TAPE INSTRUCTION ROUTINES WILL SEARCH THIS TABLE TO DETERMINE		00232000
				2477 *	WHICH DRIVE TO USE.		00232100
002684				2478	DS OF		00232200
002684	E3D7F00A			2479	TPTBL DC XL4'E3D7F00A'		00232300
002688	E3D7F101			2480	DC XL4'E3D7F101'		00232400
00268C	E3D7F202			2481	DC XL4'E3D7F202'		00232500
002690	E3D7F303			2482	DC XL4'E3D7F303'		00232600
002694	E3D7F404			2483	DC XL4'E3D7F404'		00232700
002698	E3D7F505			2484	DC XL4'E3D7F505'		00232800
00269C	E3D7F606			2485	DC XL4'E3D7F606'		00232900
0026A0	E3D7F707			2486	DC XL4'E3D7F707'		00233000
0026A4	E3D7F808			2487	DC XL4'E3D7F808'		00233100
0026A8	E3D7F909			2488	DC XL4'E3D7F909'		00233200
0026AC	00000000			2489	SAVE5 DC F'0'		00233300
0026B0	00000000			2490	SAVEDD DC F'0'		00233400
0026B4	0000			2491	DDLEN DC H'0'		00233500

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
				2492 *	THIS SECTION WILL CLEAR ALL 1401 CORE UPON ENTRY OF THE OPERATOR		00233600
				2493 *	COMMAND CLR.		00233700
				2494 *			00233800
002686	4120 7000		00000	2495 CLR	LA 2,SIMCOR		00233900
00268A	4130 0040		00040	2496	LA 3,64		00234000
00268E	D7F9 2000 2000 00000	00000	00000	2497 CLR1	XC 0(250,2),0(2)		00234100
0026C4	4122 00FA		000FA	2498	LA 2,250(2)		00234200
0026C8	4630 F576		026BE	2499	BCT 3,CLR1		00234300
0026CC	9200 F414	0255C		2500	MVI 0KSTT,0		00234400
0026D0	47F0 F08C		021D4	2501	B WTORTN		00234500
				2502 *			00234600
				2503 *	THIS SECTION WILL DISPLAY ON THE PRINTER THE HUNDREDS GROUP		00234700
				2504 *	OF 1401 CORE REFERENCED IN THE OPERATOR COMMAND DIS .		00234800
				2505 *			00234900
0026D4	4150 F317		0245F	2506 DIS	LA 5,RQSTIN+3		00235000
0026D8	9500 5000	00000		2507 DIS1	CLI 0(5),X'00'		00235100
0026DC	4780 F5A8		026F0	2508	BE DIS2		00235200
0026E0	95F0 5000	00000		2509	CLI 0(5),C'0'		00235300
0026E4	4740 F2D8		02420	2510	BL SNDILG		00235400
0026E8	4155 0001		00001	2511	LA 5,1(5)		00235500
0026EC	47F0 F590		026D8	2512	B DIS1		00235600
0026F0	1825			2513 DIS2	LR 2,5		00235700
0026F2	4820 EE74		03FBC	2514	SH 2,=H'2'		00235800
0026F6	D501 2000 EE8A 00000	03FD2		2515	CLC 0(2,2),=C'00'		00235900
0026FC	4770 F2D8		02420	2516	BNE SNDILG		00236000
002700	5850 EE2C		03F74	2517	S 5,=A(RQSTIN+4)		00236100
002704	4950 EE68		03FR0	2518	CH 5,=H'4'		00236200
002708	4720 F2D8		02420	2519	BH SNDILG		00236300
00270C	4250 F5CF		02717	2520	STC 5,DIS3+1		00236400
002710	D213 F6C5 E2C3 0280D	0340B		2521	MVC DSMRKR+1(20),WM256		00236500
002716	D200 F6CD F317 02815	0245F		2522 DIS3	MVC DSMRKR+9(0),RQSTIN+3 MOVE ADDR FOR PRINTING		00236600
00271C	4250 FB68		02CB0	2523	STC 5,TEMP1		00236700
002720	D100 F5DF FB68 02727	02CB0		2524	MVN DIS4+1(1),TEMP1		00236800
002726	F270 E3C8 F317 03510	0245F		2525 DIS4	PACK PAKT,RQSTIN+3(0)		00236900
00272C	4F40 E3C8		03510	2526	CVB 4,PAKT		00237000
002730	4940 EE8C		03FD4	2527	CH 4,=H'15900'		00237100
002734	4720 F2D8		02420	2528	BH SNDILG		00237200
002738	1A47			2529	AR 4,7 ADD IN ADDRESS OF 1401 SIMCORE		00237300
00273A	9209 E3D0	03518		2530	MVI PRNTBUFF,X'09' SET CARRIAGE CONTROL		00237400
00273E	D213 E3D1 E2C3 03519	0340B		2531	MVC PRNTBUFF+1(20),WM256		00237500
002744	D263 E3E5 4000 0352D	00000		2532	MVC PRNTBUFF+21(100),0(4)		00237600
00274A	DC63 E3E5 EA14 0352D	03B5C		2533	TR PRNTBUFF+21(100),TRIE CHANGE PRINT AREA TO EBCDIC		00237700
002750	D20A E449 E2C3 03591	0340B		2534	MVC PRNTBUFF+121(11),WM256 *		00237800
002756	90DF E4A0		035E8	2535	STM 13,15,MACREGSV SAVE BASE REGISTERS		00237900
00275A	4160 E4A0		035E8	2536	LA 6,MACREGSV *		00238000
00275E	4100 E458		035A0	2537	LA 13,SAVEAREA LOAD SAVE AREA		00238100
002762	D263 F660 F6D9 027A8	02821		2538	MVC DISPMMSG+4(100),DSMRKR+21		00238200
002768	4110 F65C		027A4	2539	LA 1,DISPMMSG		00238300
00276C	0A23			2540	SVC 35		00238400
00276E	98EF 6004		00004	2541	LM 14,15,4(6)		00238500
002772	D263 F660 E3E5 027A8	0352D		2542	MVC DISPMMSG+4(100),PRNTBUFF+21		00238600
002778	4110 F65C		027A4	2543	LA 1,DISPMMSG		00238700
00277C	0A23			2544	SVC 35		00238800
00277E	98EF 6004		00004	2545	LM 14,15,4(6)		00238900
002782	D263 E3E5 4000 0352D	00000		2546	MVC PRNTBUFF+21(100),0(4) CHANGE WORD MARKS TO EBCDIC IS		00239000

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71	
002788	DC63 E3E5 EC54	0352D	03D9C	2547	TR PRNTBUFF+21(100),TRWDMK *		00239100	
00278E	D263 F660 E3E5	027A8	0352D	2548	MVC DISPMMSG+4(100),PRNTBUFF+21		00239200	
002794	4110 F65C		027A4	2549	LA 1,DISPMMSG		00239300	
002798	0A23			2550	SVC 35		00239400	
00279A	98DF 6000		00000	2551	LM 13,15,0(6) RESTORE MACRO REGISTERS		00239500	
00279E	47F0 F08C		021D4	2552	B WTORTN		00239600	
0027A2	0700			2553	CNOP 0,4		00239700	
0027A4	0068			2554	DISPMMSG DC AL2(ENDISP-*) MESSAGE LENGTH		00239800	
0027A6	0000			2555	DC X'0000'		00239900	
0027A8	4040404040404040			2556	DC 100X'40'		00240000	
00280C				2557	ENDISP EQU *		00240100	
00280C	0940404040404040			2558	DSMRKR DC X'09',20X'40'		00240200	
002821	F04B4B4B4B4B4B4B			2559	DC C'0.....09.....19.....29.....39.....49.'		00240300	
002854	4B4B4B4B4B4B4BF5			2560	DC C'.....59.....69.....79.....89.....99.'		00240400	
002885	4040404040404040			2561	DC C' ' ,		00240500	
				2562 *			00240600	
				2563 *	THIS SECTION WILL MODIFY THE 1401 CORE LOCATION REFERENCED IN		00240700	
				2564 *	THE OPERATOR COMMAND ALT .		00240800	
				2565 *			00240900	
002891	00							
002892	4160 F317		0245F	2566	ALT LA 6,RQSTIN+3		00241000	
002896	956B 6000	00000		2567	ALT1 CLI 0(6),C','		00241100	
00289A	4780 F766		028AE	2568	BE ALT2		00241200	
00289E	95F0 6000	00000		2569	CLI 0(6),C'0'		00241300	
0028A2	4740 F2D8		02420	2570	BL SNDILG		00241400	
0028A6	4166 0001		00001	2571	LA 6,1(6)		00241500	
0028AA	47F0 F74E		02896	2572	B ALT1		00241600	
0028AE	1856			2573	ALT2 LR 5,6		00241700	
0028B0	5B50 EE2C		03F74	2574	S 5,=A(RQSTIN+4)		00241800	
0028B4	4950 EE68		03FB0	2575	CH 5,=H'4'		00241900	
0028B8	4720 F2D8		02420	2576	BH SNDILG		00242000	
0028BC	4250 FB68		02CB0	2577	STC 5,TEMP1		00242100	
0028C0	D100 F77F	FB68	028C7	02CB0	2578	MVN ALT3+1(1),TEMP1	00242200	
0028C6	F270 E3C8	F317	03510	0245F	2579	ALT3 PACK PAKT,RQSTIN+3(0)	00242300	
0028CC	4F40 E3C8		03510	2580	CVB 4,PAKT		00242400	
0028D0	4940 EE88		03FD0	2581	CH 4,=H'15999'		00242500	
0028D4	4720 F2D8		02420	2582	BH SNDILG		00242600	
0028D8	1A47			2583	AR 4,7		00242700	
0028DA	4166 0001		00001	2584	LA 6,1(6)	BUMP TO DATA	TAB 00242710	
0028DE	9500 6000	00000		2585	ALT4 CLI 0(6),0	END OF DATA?	TAB 00242800	
0028E2	4780 F08C		021D4	2586	BE WTORTN	YES, GO GET NEXT COMMAND	TAB 00242900	
0028E6	9200 4000	00000		2587	MVI 0(4),0	CLEAR 1401 CHAR	TAB 00242910	
0028EA	956D 6000	00000		2588	CLI 0(6),C'_'	NO, CHECK FOR WORD MARK	TAB 00243000	
0028EE	4770 F7B2		028FA	2589	BNE ALT4A	NO WM, GO MOVE CHAR	TAB 00243100	
0028F2	9240 4000	00000		2590	MVI 0(4),X'40'	WM REQ, SET WM IN 1401 CORE	TAB 00243200	
0028F6	4166 0001		00001	2591	LA 6,1(6)	BUMP TO CHAR TO BE MOVED	TAB 00243300	
0028FA	DC00 6000	E914	00000	03A5C	2592	ALT4A TR 0(1,6),TREI	TRANS CHAR TO 1401 CODE	TAB 00243310
002900	D600 4000	6000	00000	00000	2593	OC 0(1,4),0(6)	INSERT CHAR IN 1401 CORE	TAB 00243320
002906	4166 0001		00001	2594	LA 6,1(6)	BUMP TO NEXT CHAR IN REQ	TAB 00243330	
00290A	4144 0001		00001	2595	LA 4,1(4)	BUMP TO NEXT CHAR IN 1401	TAB 00243340	
00290E	47F0 F796		028DE	2596	B ALT4	LOOP TO CHECK NEXT CHAR	TAB 00243350	
				2597 *			00243400	
				2598 *	THIS SECTION WILL WRITE A TAPE MARK ON THE TAPE DRIVE		00243500	
				2599 *	SELECTED BY THE WTM COMMAND.		00243600	
				2600 *			00243700	

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
002912	940F F317	0245F		2601	WTMCMD NI RQSTIN+3,X'0F'	GET DEVICE ADDRESS	00243800
002916	41A0 F314		0245C	2602	LA 10,RQSTIN	*	00243900
00291A	4580 FF00		03118	2603	BAL 8,FNDRIV	*	00244000
00291E	5030 F924		02A6C	2604	ST 3,TMDCB		00244100
002922	4580 FF3C		03084	2605	BAL 8,TSTOPEN		00244200
002926	4580 FF3A		03082	2606	BAL 8,LOADMD		00244300
00292A	D203 F920	EE38 02A68	03F80	2607	MVC TPCCW,=A(WTMCCW)		00244400
002930	90DF E4A0		035E8	2608	STM 13,15,MACREGSV	SAVE MACRO REGS	00244500
002934	4160 E4A0		035E8	2609	LA 6,MACREGSV	SAVE ADDRESS TO XR	00244600
002938	41D0 E458		035A0	2610	LA 13,SAVEAREA	GIVE OS OUR SAVE AREA	00244700
				2611	EXCP TMIOB		00244800
00293C	4110 F910		02A58	2612+	LA 1,TMIOB	LOAD PARAMETER REG 1	
002940	0A00			2613+	SVC 0	ISSUE SVC FOR EXCP	
002942	98EF 6004		00004	2614	LM 14,15,4(6)	RESTORE REG 14 AND 15	00244900
				2615	WAIT 1,ECB=TM ECB	WAIT FOR I/O	00245000
002946	4110 F930		02A78	2616+	LA 1,TM ECB	LOAD PARAMETER REG 1	
00294A	4100 0001		00001	2617+	LA 0,1(0,0)	LOAD PARAMETER REG 0	
00294E	0A01			2618+	SVC 1	LINK TO WAIT ROUTINE	
002950	98DF 6000		00000	2619	LM 13,15,0(6)	RESTORE MACRO REGISTERS	00245100
002954	47F0 F08C		021D4	2620	B WORTN		00245200
				2621 *			00245300
				2622 *	THIS ROUTINE WILL TERMINATE THE SIMULATOR UPON THE OPERATOR		00245400
				2623 *	ENTRY 'TRM'.		00245500
				2624 *			00245600
002958	90DF E4A0		035E8	2625	TERMINAT STM 13,15,MACREGSV		00245700
00295C	41D0 E458		035A0	2626	LA 13,SAVEAREA		00245800
002960	4160 E4A0		035E8	2627	LA 6,MACREGSV		00245900
				2628	CLOSE PRNTDCB		00246000
002964				2629+	CNOP 0,4		
002964	4510 F824		0296C	2630+	BAL 1,*+8	BRANCH AROUND LIST	
002968	80			2631+	DC AL1(128)	OPTION BYTE	
002969	0036F8			2632+	DC AL3(PRNTDCB)	DCB ADDRESS	
00296C	0A14			2633+	SVC 20	ISSUE CLOSE SVC	
00296E	98EF 6004		00004	2634	LM 14,15,4(6)		00246100
002972	9110 E664		037AC	2635	TM PUNCHR+48,X'10'	IS PUNCH OPEN?	TAB 00246110
002976	4780 F840		02988	2636	BZ EXIT	NO, GO EXIT	TAB 00246120
				2637	PUT PUNCHR,PCHARAA		00246200
00297A	4110 E634		0377C	2638+	LA 1,PUNCHR	LOAD PARAMETER REG 1	
00297E	4100 E21A		03362	2639+	LA 0,PCHARAA	LOAD PARAMETER REG 0	
002982	58F0 1030		00030	2640+	L 15,48(0,1)	LOAD PUT ROUTINE ADDR.	
002986	05EF			2641+	BALR 14,15	LINK TO PUT ROUTINE	
002988	58DD 0004		00004	2642	EXIT L 13,4(13)	POINT TO SAVE AREA	TAB 00246300
				2643	RETURN (14,12),RC=0	RETURN WITH RC=0	TAB 00246400
00298C	98EC D00C		0000C	2644+	LM 14,12,12(13)	RESTORE THE REGISTERS	
002990	41F0 0000		00000	2645+	LA 15,0(0,0)	LOAD RETURN CODE	
002994	07FE			2646+	BR 14	RETURN	
002996	58D0 EE3C		03F84	2647	DUMPCORE L 13,=A(W)		
0014AE				2648	USING W,13		
00299A	96F0 D09F		0154D	2649	OI DUMPSW+1,X'F0'	SET DUMP SWITCH	
00299E	4520 F8DE		02A26	2650	BAL 2,DUMP	DUMP 201 - 332	
0029A2	D263 70C9	7000 000C9	00000	2651	MVC 201(100,7),0(7)		
0029A8	D205 7136	EE8E 00136	03FD6	2652	MVC SIMCOR+310(6),=X'0A0020000909'	0 - 99	
0029AE	4520 F8DE		02A26	2653	BAL 2,DUMP	DUMP 000 - 099	
0029B2	D264 70C9	7064 000C9	00064	2654	MVC 201(101,7),100(7)		
0029B8	D208 7136	EEC7 00136	0400F	2655	MVC SIMCOR+310(9),=X'010A0A002000020A01'	100 - 201	

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
00298E	4520 F8DE		02A26	2656	BAL 2,DUMP	DUMP 100 - 201	
0029C2	D201 F902	EE94 02A4A	03FDC	2657	MVC DUMPADR,=H'300'	SET UP LOCATION COUNTER	
0029C8	4810 F902		02A4A	2658	DUMPLLOOP LH 1,DUMPADR	GET DUMP ADDRESS	
0029CC	4910 EE96		03FDE	2659	CH 1,=H'16000'	ARE WE AT END OF 1401 CORE?	
0029D0	47B0 F8BA		02A02	2660	BNL DUMPDONE	YES, EXIT	
0029D4	1A17			2661	AR 1,7	ADD 1401 BASE ADDRESS	
0029D6	D263 70C9	1000 000C9	00000	2662	MVC 201(100,7),0(1)	MOVE 100 POS TO PRINT AREA	
0029DC	1B17			2663	SR 1,7	SUBTRACT 1401 BASE ADDRESS	
0029DE	4E10 F908		02A50	2664	CVD 1,DUMPSAV2	ADDR TO DECIMAL	
0029E2	F347 7136	F908 00136	02A50	2665	UNPK SIMCOR+310(5),DUMPSAV2		
0029E8	96F0 713A		0013A	2666	OI SIMCOR+314,X'F0'	REMOVE SIGN	
0029EC	DC04 7136	E914 00136	03A5C	2667	TR SIMCOR+310(5),TREI	TRANS TO 1401 CODE	
0029F2	4111 0064		00064	2668	LA 1,100(1)	BUMP TO NEXT BAND	
0029F6	4010 F902		02A4A	2669	STH 1,DUMPADR	STORE ADDR OF NEXT BAND	
0029FA	4520 F8DE		02A26	2670	BAL 2,DUMP		
0029FE	47F0 F880		029C8	2671	B DUMPLLOOP		
002A02	940F D09F		0154D	2672	DUMPDONE NI DUMPSW+1,X'0F'	TURN OFF DUMP SWITCH	
002A06	90DF E4A0		035E8	2673	STM 13,15,MACREGSV	SAVE REGS	
002A0A	4160 E4A0		035E8	2674	LA 6,MACREGSV	SAVE ADDR OF SAVE AREA	
002A0E	41D0 E458		035A0	2675	LA 13,SAVEAREA	GET ADDRESS OF SAVE AREA	
				2676	TRUNC PRNTDCB	FORCE WRITE FOR LAST BLOCK	
002A12	4110 E5B0		036F8	2677+	LA 1,PRNTDCB	LOAD PARAMETER REG 1	
002A16	58F0 1030		00030	2678+	L 15,48(0,1)	LOAD REG 15 FROM DCB	
002A1A	45E0 F008		00008	2679+	BAL 14,8(0,15)	LINK TO TRUNC ROUTINE	
002A1E	98DF 6000		00000	2680	LM 13,15,0(6)	RESTORE REGS	
002A22	47F0 F08C		021D4	2681	B WTORTN	EXIT	
002A26	4190 0001		00001	2682	DUMP LA 9,1	LENGTH OF 1401 INST	
002A2A	41A0 F8FE		02A46	2683	LA 10,DUMPOP	ADDR OF 1401 OP CODE	
002A2E	4140 F8F2		02A3A	2684	LA 4,DUMPCLR	LOAD RETURN ADDRESS	
002A32	5020 F908		02A50	2685	ST 2,DUMPSAV2	SAVE LINK REG 2	
002A36	47F0 D000		014AE	2686	B W	BRANCH TO WRITE ROUTINE	
002A3A	D783 70C9	70C9 000C9	000C9	2687	DUMPCLR XC 201(132,7),201(7)	CLEAR 1401 PRINT AREA	
002A40	5820 F908		02A50	2688	L 2,DUMPSAV2	LOAD RETURN REG 2	
002A44	07F2			2689	BR 2		
002A46	42423C7B			2690	DUMPOP DC X'42423C7B'	_2_2<_ 1401 INSTS FOR DUMP	
002A4A	0000			2691	DUMPADR DC H'0'		
002A50				2692	DUMPSAV2 DS D		
				2693	DROP 13		
002A58				2694	TMIOB DS 0D		00247500
002A58	42			2695	DC X'42'		00247600
002A59	00000000			2696	DC 4X'00'		00247700
002A5D	002A78			2697	DC AL3(TMECB)		00247800
002A60	00			2698	DC X'00'		00247900
002A61	0000000000000000			2699	TPCSW DC 7X'00'		00248000
002A68	00000000			2700	TPCCW DC XL4'00'	ADDRESS OF CCW FOR TAPE OPERATION	00248100
002A6C	00000000			2701	TMDCB DC XL4'00'	DCB ADDRESS FOR TAPE DRIVE SELECTED	00248200
002A70	00000000			2702	DC 4X'00'		00248300
002A74	0000			2703	DC 2X'00'		00248400
002A76	0000			2704	DC 2X'00'		00248500
002A78				2705	TMECB DS 0F		00248600
002A78	00000000			2706	DC 4X'00'		00248700
				2707	*		00248800
				2708	*	THIS SECTION WILL REWIND THE TAPE SELECTED BY THE RWD COMMAND	00248900
				2709	*		00249000
002A7C	940F F317		0245F	2710	RWDCMD NI RQSTIN+3,X'0F'	GET DEVICE ADDRESS	00249100

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
002A80	41A0 F314		0245C	2711	LA 10,RQSTIN *		
002A84	4580 FFDO		03118	2712	BAL 8,FNDRIV *		00249200
002A88	5030 F924		02A6C	2713	ST 3,TMDCB		00249300
002A8C	4580 FF3C		03084	2714	BAL 8,TSTOPEN		00249400
002A90	4580 FF3A		03082	2715	BAL 8,LOADMD		00249500
002A94	D203 F920	EE40	02A68	03F88	2716 MVC TPCCW,=A(RWDCCW)		00249600
002A9A	9204 F910		02A58	2717	MVI TMIOB,X'04'		00249700
002A9E	90DF E4A0		035E8	2718	STM 13,15,MACREGSV SAVE MACRO REGS		00249800
002AA2	4160 E4A0		035E8	2719	LA 6,MACREGSV SAVE ADDRESS TO XR		00249900
002AA6	41D0 E458		035A0	2720	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00250000
				2721	EXCP TMIOB		00250100
002AAA	4110 F910		02A58	2722+	LA 1,TMIOB LOAD PARAMETER REG 1		00250200
002AAE	0A00			2723+	SVC 0 ISSUE SVC FOR EXCP		
002AB0	98EF 6004		00004	2724	LM 14,15,4(6) RESTORE REG 14 AND 15		00250300
				2725	WAIT 1,ECB=TMECB WAIT FOR I/O		00250400
002AB4	4110 F930		02A78	2726+	LA 1,TMECB LOAD PARAMETER REG 1		
002AB8	4100 0001		00001	2727+	LA 0,1(0,0) LOAD PARAMETER REG 0		
002ABC	0A01			2728+	SVC 1 LINK TO WAIT ROUTINE		
002ABE	98DF 6000		00000	2729	LM 13,15,0(6) RESTORE MACRO REGISTERS		00250500
002AC2	47F0 F08C		021D4	2730	B WTORTN		00250600
				2731 *	BEFORE BRANCHING, SET THE B ADDRESS REGISTER TO THE ADDRESS OF		00250700
				2732 *	THE INSTRUCTION AFTER THE BRANCH, THEN SET THE INSTRUCTION		00250800
				2733 *	COUNTER TO THE BRANCH ADDRESS, AND BRANCH.		00250900
				2734 *			00251000
002AC6	4580 FAEO		02C28	2735	SETBCH BAL 8,CVAD43 CONVERT BRANCH ADDRESS		00251100
002ACA	18CA			2736	LR 12,10 LOAD B ADDRESS		00251200
002ACC	1AC9			2737	AR 12,9 *		00251300
002ACE	50A0 E1B0		032F8	2738	ST 10,LSTBCH SAVE LAST BRANCHED FROM LOCATION		00251400
002AD2	18A5			2739	LR 10,5 LOAD BRANCH ADDRESS		00251500
002AD4	4190 0000		00000	2740	LA 9,0 *		00251600
002AD8	47F0 E076		031BE	2741	B NXTOP GO TO BRANCH ADDRESS FOR NXT INSTR.		00251700
002ADC	90DF E4A0		035E8	2742	ILEGTAPE STM 13,15,MACREGSV SAVE REGISTERS		00251800
002AE0	4160 E4A0		035E8	2743	LA 6,MACREGSV *		00251900
002AE4	41D0 E458		035A0	2744	LA 13,SAVEAREA *		00252000
				2745	WTO 'UNDEFINED TAPE'		00252100
002AE8				2746+	CNOP 0,4		
002AE8	4510 F9B6		02AFE	2747+	BAL 1,IHB0062A BRANCH AROUND MESSAGE		
002AEC	0012			2748+	DC AL2(IHB0062-*) MESSAGE LENGTH		
002AEE	0000			2749+	DC B'0000000000000000' MCSFLAGS FIELD		
002AF0	E4D5C4C5C6C9D5C5			2750+	DC C'UNDEFINED TAPE' MESSAGE		
002AFE				2751+IHB0062	EQU *		
002AFE				2752+IHB0062A	DS OH		
002AFE	0A23			2753+	SVC 35 ISSUE SVC		
002B00	98DF 6000		00000	2754	LM 13,15,0(6)		00252200
002B04	47F0 FA18		02B60	2755	B PANEL		00252300
002B08	90DF E4A0		035E8	2756	ILEGOP STM 13,15,MACREGSV SAVE MACRO REGS		00252400
002B0C	4160 E4A0		035E8	2757	LA 6,MACREGSV SAVE ADDRESS TO XR		00252500
002B10	41D0 E458		035A0	2758	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00252600
				2759	WTO 'ILLEGAL OP CODE'		00252700
002B14				2760+	CNOP 0,4		
002B14	4510 F9E4		02B2C	2761+	BAL 1,IHB0063A BRANCH AROUND MESSAGE		
002B18	0013			2762+	DC AL2(IHB0063-*) MESSAGE LENGTH		
002B1A	0000			2763+	DC B'0000000000000000' MCSFLAGS FIELD		
002B1C	C9D3D3C5C7C1D340			2764+	DC C'ILLEGAL OP CODE' MESSAGE		
002B2B				2765+IHB0063	EQU *		

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
002B2C				2766+	IHB0063A DS OH		
002B2C	0A23			2767+	SVC 35 ISSUE SVC		
002B2E	98DF 6000		00000	2768	LM 13,15,0(6) RESTORE MACRO REGISTERS		00252800
002B32	47F0 FA18		02B60	2769	B PANEL		00252900
002B36	90DF E4A0		035E8	2770	ILEGLN STM 13,15,MACREGSV SAVE MACRO REGS		00253000
002B3A	4160 E4A0		035E8	2771	LA 6,MACREGSV SAVE ADDRESS TO XR		00253100
002B3E	41D0 E458		035A0	2772	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00253200
				2773	WTO 'ILLEGAL LENGTH'		00253300
				2774+	CNOP 0,4		
002B42	0700			2774+	CNOP 0,4		
002B44	4510 FA12		02B5A	2775+	BAL 1,IHB0064A BRANCH AROUND MESSAGE		
002B48	0012			2776+	DC AL2(IHB0064-*) MESSAGE LENGTH		
002B4A	0000			2777+	DC B'0000000000000000' MCSFLAGS FIELD		
002B4C	C9D3D3C5C7C1D340			2778+	DC C'ILLEGAL LENGTH' MESSAGE		
002B5A				2779+	IHB0064 EQU *		
002B5A				2780+	IHB0064A DS OH		
002B5A	0A23			2781+	SVC 35 ISSUE SVC		
002B5C	98DF 6000		00000	2782	LM 13,15,0(6) RESTORE MACRO REGISTERS		00253400
002B60	181A			2783	PANEL LR 1,10		00253500
002B62	1B17			2784	SR 1,7		00253600
002B64	4E10 F3C8		03510	2785	CVD 1,PAKT		00253700
002B68	F352 FA9F E3CD 02BE7 03515			2786	UNPK PNLWTOR+19(6),PAKT+5(3)		00253800
002B6E	D300 FAA4 EED0 02BEC 04018			2787	MVZ PNLWTOR+24(1),=C'0'		00253900
002B74	D200 FAAE A000 02BF6 00000			2788	MVC PNLWTOR+34(1),0(10)		00254000
002B7A	94BF FAAE 02BF6			2789	NI PNLWTOR+34,X'BF'		00254100
002B7E	DC00 FAAE EA14 02BF6 03B5C			2790	TR PNLWTOR+34(1),TRIE		00254200
002B84	4E90 E3C8 03510			2791	CVD 9,PAKT		00254300
002B88	F352 FABC E3CD 02C04 03515			2792	UNPK PNLWTOR+48(6),PAKT+5(3)		00254400
002B8E	D300 FAC1 EED0 02C09 04018			2793	MVZ PNLWTOR+53(1),=C'0'		00254500
002B94	9280 FACD 02C15			2794	MVI PNLWTOR+65,X'80'		00254600
002B98	D200 FACE FACD 02C16 02C15			2795	MVC PNLWTOR+66(1),PNLWTOR+65		00254700
002B9E	4990 EE70 03FB8			2796	CH 9,=H'8'		00254800
002BA2	4720 FA78 02BC0			2797	BH WTORPNL		00254900
002BA6	1239 2798				LTR 3,9		00255000
002BA8	4780 FA78 02BC0			2799	BZ WTORPNL		00255100
002BAC	4B30 EE66 03FAE			2800	SH 3,=H'1'		00255200
002BB0	4230 FA6D 02BB5			2801	STC 3,PANEL1+1		00255300
002BB4	D200 FACD A000 02C15 00000			2802	PANEL1 MVC PNLWTOR+65(0),0(10)		00255400
002BBA	DC07 FACD EA14 02C15 03B5C			2803	TR PNLWTOR+65(8),TRIE		00255500
002BC0	D731 F314 F314 0245C 0245C			2804	WTORPNL XC RQSTIN,RQSTIN ZERO OUT REPLY AREA		00255600
002BC6	90DF E4A0 035E8			2805	STM 13,15,MACREGSV SAVE MACRO REG		00255700
002BCA	4160 E4A0 035E8			2806	LA 6,MACREGSV SAVE ADDRESS TO XR		00255800
002BCE	41D0 E458 035A0			2807	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00255900
				2808	PNLWTOR WTOR ' I OP LENGTH INST X00256000		00256100
					' ,RQSTIN,50,WTECB		
002BD2	0700			2809+	CNOP 0,4		
002BD4	4510 FAD6 02C1E			2810+	PNLWTOR BAL 1,IHB0065A BRANCH AROUND LIST		
002BD8	32			2811+	DC AL1(50) REPLY LENGTH		
002BD9	00245C			2812+	DC AL3(RQSTIN) REPLY ADDRESS		
002BDC	0000231C			2813+	DC A(WTECB) ECB ADDRESS		
002BE0	003D			2814+	DC AL2(IHB0066-*) MESSAGE LENGTH		
002BE2	0000			2815+	DC B'0000000000000000' MCSFLAGS FIELD		
				2816+	DC C' I OP LENGTH INST X		
				+	' MESSAGE		
002BE4	40C9404040404040			2817+	IHB0066 EQU *		
002C1D				2818+	IHB0065A DS OH		

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
002C1E	0A23			2819+	SVC 35 ISSUE WTOR SVC		
002C20	98DF 6000	00000		2820	LM 13,15,0(6) RESTORE MACRO REGISTERS	00256200	
002C24	47F0 F0E2	0222A		2821	B TESTAA	00256300	

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
002CD6	1854			2878	LR 5,4	100'S NUMERIC	00262000
002CD8	4140 0000		00000	2879	LA 4,0	*	00262100
002CDC	5D40 EDF8		03F40	2880	D 4,=F'100'	*	00262200
002CE0	1652			2881	OR 5,2	*	00262300
002CE2	4250 FB64		02CAC	2882	STC 5,ADR140	*	00262400
002CE6	1854			2883	LR 5,4	10'S NUMERIC	00262500
002CE8	4140 0000		00000	2884	LA 4,0	*	00262600
002CEC	5D40 EE4C		03F94	2885	D 4,=F'10'	*	00262700
002CF0	4250 FB65		02CAD	2886	STC 5,ADR140+1	*	00262800
002CF4	1641			2887	OR 4,1	*	00262900
002CF6	4240 FB66		02CAE	2888	STC 4,ADR140+2	*	00263000
002CFA	910F FB64	02CAC		2889	TM ADR140,X'0F'	Q/ IS HUNDREDS ZERO	00263100
002CFE	4750 FB8E		02D06	2890	BC 5,CVAD3A	NO	00263200
002D02	960A FB64	02CAC		2891	OI ADR140,X'0A'	YES, ADD 8-2 BITS	00263300
002D06	910F FB65	02CAD		2892	CVAD3A TM ADR140+1,X'0F'	Q/ IS TENS ZERO	00263400
002D0A	4750 FB8A		02D12	2893	BC 5,CVAD3B	NO	00263500
002D0E	960A FB65	02CAD		2894	OI ADR140+1,X'0A'	YES, ADD 8-2 BITS	00263600
002D12	910F FB66	02CAE		2895	CVAD3B TM ADR140+2,X'0F'	Q/ IS UNITS ZERO	00263700
002D16	0758			2896	BCR 5,8	NO, RETURN	00263800
002D18	960A FB66	02CAE		2897	OI ADR140+2,X'0A'	YES, ADD 8-2 BITS	00263900
002D1C	07F8			2898	BR 8	RETURN	00264000

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
002D1E	90DF E4A0		035E8	2900 HALTWT0	STM 13,15,MACREGSV SAVE BASE REGISTERS		00264200
002D22	4160 E4A0		035E8	2901	LA 6,MACREGSV SAVE ADDRESS TO XR		00264300
002D26	41D0 E458		035A0	2902	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00264400
				2903 HLTWT0	WTO 'HALT I , A , B '		00264500
002D2A	0700			2904+	CNOP 0,4		
002D2C	4510 FC0C		02D54	2905+HLTWT0	BAL 1,IH0067A BRANCH AROUND MESSAGE		
002D30	0023			2906+	DC AL2(IH0067-*) MESSAGE LENGTH		
002D32	0000			2907+	DC B'0000000000000000' MCSFLAGS FIELD		
002D34	C8C1D3E34040C940			2908+	DC C'HALT I , A , B ' MESSAGE		
002D53				2909+IH0067	EQU *		
002D54				2910+IH0067A	DS OH		
002D54	0A23			2911+	SVC 35 ISSUE SVC		
002D56	98DF 6000		00000	2912	LM 13,15,0(6) RESTORE MACRO REGISTERS		00264600
002D5A	07F8			2913	BR 8 RETURN TO HALT ROUTINE		00264700
002D5C	9501 E1B4	032FC		2914 READ	CLI CRDEOF,X'01' HAVE WE READ LAST CARD		00264800
002D60	4770 FC54		02D9C	2915	BNE READ2 BRANCH IF NO		00264900
002D64	90DF E4A0		035E8	2916	STM 13,15,MACREGSV SAVE MACRO REGS		00265000
002D68	4160 E4A0		035E8	2917	LA 6,MACREGSV SAVE ADDRESS TO XR		00265100
002D6C	41D0 E458		035A0	2918	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00265200
				2919	WTO 'READ TRIED AFTER LAST CARD'		00265300
002D70				2920+	CNOP 0,4		
002D70	4510 FC4A		02D92	2921+	BAL 1,IH0068A BRANCH AROUND MESSAGE		
002D74	001E			2922+	DC AL2(IH0068-*) MESSAGE LENGTH		
002D76	0000			2923+	DC B'0000000000000000' MCSFLAGS FIELD		
002D78	D9C5C1C440E3D9C9			2924+	DC C'READ TRIED AFTER LAST CARD' MESSAGE		
002D92				2925+IH0068	EQU *		
002D92				2926+IH0068A	DS OH		
002D92	0A23			2927+	SVC 35 ISSUE SVC		
002D94	98DF 6000		00000	2928	LM 13,15,0(6) RESTORE MACRO REGISTERS		00265400
002D98	47F0 FA18		02B60	2929	B PANEL TAB 71110		00265500
002D9C	DC4F E1CA	E914 03312	03A5C	2930 READ2	TR TMPARA(80),TREI CHANGE EBCDIC TO INTERNAL 1401 CODE		00265600
002DA2	D44F 7001	E2C3 00001	0340B	2931	NC SIMCOR+1(80),WM256 REMOVE CARD AREA INFO, KEEP WD MKS		00265700
002DA8	D64F 7001	E1CA 00001	03312	2932	DC SIMCOR+1(80),TMPARA		00265800
002DAE	41C0 7051		00051	2933	LA 12,SIMCOR+81		00265900
002DB2	90DF E4A0		035E8	2934	STM 13,15,MACREGSV SAVE MACRO REGS		00266000
002DB6	4160 E4A0		035E8	2935	LA 6,MACREGSV SAVE ADDRESS TO XR		00266100
002DBA	41D0 E458		035A0	2936	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00266200
				2937	GET CARD,TMPARA READ CARD		00266300
002DBE	4110 E694		037DC	2938+	LA 1,CARD LOAD PARAMETER REG 1		
002DC2	4100 E1CA		03312	2939+	LA 0,TMPARA LOAD PARAMETER REG 0		
002DC6	58F0 1030		00030	2940+	L 15,48(0,1) LOAD GET ROUTINE ADDR.		
002DCA	05EF			2941+	BALR 14,15 LINK TO GET ROUTINE		
002DCC	98DF 6000		00000	2942	LM 13,15,0(6) RESTORE MACRO REGISTERS		00266400
002DD0	9440 7000	00000		2943	NI SIMCOR,X'40' SET BA BITS IN LOC 0 AFTER READ		00266500
002DD4	9630 7000	00000		2944	OI SIMCOR,X'30' *		00266600
002DD8	07F8			2945	BR 8		00266700
002DDA	98DF 6000		00000	2946 EOC	LM 13,15,0(6) RESTORE SIMULATOR REGISTERS		00266800
002DDE	9201 E1B4	032FC		2947	MVI CRDEOF,X'01' SET CARD EOF INDICATOR		00266900
002DE2	07F8			2948	BR 8		00267000
002DE4	4130 E5B0		036F8	2949 WRITE	LA 3,PRNTDCB GET ADDR OF PRINT DCB TAB		00267100
002DE8	4550 FF7A		030C2	2950	BAL 5,UROPEN GO CHECK FOR OPEN TAB		00267110
002DEC	D283 E3D1	70C9 03519	000C9	2951	MVC PRNTBUFF+1(132),SIMCOR+201 TAB		00267120
002DF2	DC83 E3D1	EA14 03519	03B5C	2952	TR PRNTBUFF+1(132),TRIE		00267200
002DF8	90DF E4A0		035E8	2953	STM 13,15,MACREGSV SAVE MACRO REG		00267300
002DFC	4160 E4A0		035E8	2954	LA 6,MACREGSV SAVE ADDRESS TO XR		00267400

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
002E00	4100 E458		035A0	2955	LA 13,SAVEAREA	GIVE OS OUR SAVE AREA	00267500
				2956	PUT PRNTDCB,PRNTBUFF		00267600
002E04	4110 E580		036F8	2957+	LA 1,PRNTDCB	LOAD PARAMETER REG 1	
002E08	4100 E3D0		03518	2958+	LA 0,PRNTDCB	LOAD PARAMETER REG 0	
002E0C	58F0 1030		00030	2959+	L 15,48(0,1)	LOAD PUT ROUTINE ADDR.	
002E10	05EF			2960+	BALR 14,15	LINK TO PUT ROUTINE	
002E12	98DF 6000		00000	2961	LM 13,15,0(6)	RESTORE MACRO REGISTERS	00267700
002E16	9078 FE9C		02FE4	2962	COUNTER STM 7,8,DGSAVE		00267800
002E1A	9180 E3D0	03518		2963	TM PRNTDCB,X'80'	IS IT SKIP TO CHAN	00267900
002E1E	4710 FD40		02E88	2964	BO DG1	YES	00268000
002E22	9501 E3D0	03518		2965	CLI PRNTDCB,X'01'	IS IT NO AUTO SPACE	00268100
002E26	4780 FDF4		02F3C	2966	BE DGEXIT		00268200
002E2A	1777			2967	XR 7,7		00268300
002E2C	4370 E3D0		03518	2968	IC 7,PRNTDCB		00268400
002E30	8870 0003		00003	2969	SRL 7,3		00268500
002E34	5880 FE0C		02F54	2970	L 8,DGCR		00268600
002E38	0670			2971	DG11 BCTR 7,0	SUBT ON FROM NO. OF SPACES	00268700
002E3A	1277			2972	LTR 7,7	IS NO. OF SPACES LESS THAN ZERO	00268800
002E3C	4740 FDF0		02F38	2973	BM DG4	YES-CLEAN UP AND EXIT	00268900
002E40	4188 0001		00001	2974	LA 8,1(8)		00269000
002E44	5980 FE08		02F50	2975	C 8,DGEND	IS NO. OF SPACES LESS THAN ZERO	00269100
002E48	4720 FD28		02E70	2976	BH DG10	YES-CLEAN UP AND EXIT	00269200
002E4C	9500 8000	00000		2977	DG14 CLI 0(8),X'00'	NO PUNCH IN CARRIAGE TAPE	00269300
002E50	4780 FCF0		02E38	2978	BE DG11	BLANK-KEEP TRYING	00269400
002E54	9200 E1A7	032EF		2979	MVI PRTP9,X'00'	NOW BLANK	00269500
002E58	9200 E1A8	032F0		2980	MVI PRTP12,X'00'		00269600
002E5C	95F9 8000	00000		2981	CLI 0(8),X'F9'	IS IT NINE PUNCH	00269700
002E60	4780 FD30		02E78	2982	BE DG12	YES	00269800
002E64	9550 8000	00000		2983	CLI 0(8),X'50'	IS IT 12 PUNCH	00269900
002E68	4780 FD38		02E80	2984	BE DG13	YES	00270000
002E6C	47F0 FCF0		02E38	2985	B DG11	NO-LOOK FOR NEXT PUNCH	00270100
002E70	5880 EE20		03F68	2986	DG10 L 8,=A(CARTAB)	POINT TO FRONT OF TABLE	00270200
002E74	47F0 FD04		02E4C	2987	B DG14		00270300
002E78	9201 E1A7	032EF		2988	DG12 MVI PRTP9,X'01'	SET CHAN 9 SWITCH	00270400
002E7C	47F0 FCF0		02E38	2989	B DG11		00270500
002E80	9201 E1A8	032F0		2990	DG13 MVI PRTP12,X'01'	SET CHAN 12 SWITCH	00270600
002E84	47F0 FCF0		02E38	2991	B DG11		00270700
002E88	95C9 E3D0	03518		2992	DG1 CLI PRNTDCB,X'C9'	CHAN 9 AFTER	00270800
002E8C	4780 FDA2		02EEA	2993	BE DG2		00270900
002E90	95CB E3D0	03518		2994	CLI PRNTDCB,X'CB'	CHAN 9 IMMED	00271000
002E94	4780 FDA2		02EEA	2995	BE DG2		00271100
002E98	95E1 E3D0	03518		2996	CLI PRNTDCB,X'E1'	CHAN 12 AFTER	00271200
002E9C	4780 FDE0		02F28	2997	BE DG3		00271300
002EA0	95E3 E3D0	03518		2998	CLI PRNTDCB,X'E3'	CHAN 12 IMMED	00271400
002EA4	4780 FDE0		02F28	2999	BE DG3		00271500
002EA8	9200 E1A8	032F0		3000	MVI PRTP12,X'00'	CLEAR 12	00271600
002EAC	9200 E1A7	032EF		3001	MVI PRTP9,X'00'	CLEAR 9	00271700
002EB0	1777			3002	XR 7,7		00271800
002EB2	4370 E3D0		03518	3003	IC 7,PRNTDCB		00271900
002EB6	8870 0003		00003	3004	SRL 7,3		00272000
002EBA	5470 EDE0		03F28	3005	N 7,=F'15'		00272100
002EBE	5670 EE50		03F98	3006	O 7,=F'240'		00272200
002EC2	5970 EE54		03F9C	3007	C 7,=F'249'		00272300
002EC6	4720 FD8A		02ED2	3008	BH DG8		00272400
002ECA	4270 FDB5		02EFD	3009	STC 7,DG6+1		00272500

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE	STATEMENT	F15OCT70	10/28/71
002ECE	47F0	FDAE		02EF6	3010	B DG7		00272600
002ED2	5970	EE58		03FA0	3011	DG8 C 7,=F'250'		00272700
002ED6	4780	FD9A		02EE2	3012	BE DG9		00272800
002EDA	9260	FDB5	02EFD		3013	MVI DG6+1,X'60'		00272900
002EDE	47F0	FDAE		02EF6	3014	B DG7		00273000
002EE2	92F0	FDB5	02EFD		3015	DG9 MVI DG6+1,X'F0'		00273100
002EE6	47F0	FDAE		02EF6	3016	B DG7		00273200
002EEA	9201	E1A7	032EF		3017	DG2 MVI PRTP9,X'01'	CHAN 9 SIGNAL	00273300
002EEE	9200	E1A8	032F0		3018	MVI PRTP12,X'00'		00273400
002EF2	92F9	FDB5	02EFD		3019	MVI DG6+1,X'F9'		00273500
002EF6	1777				3020	DG7 XR 7,7		00273600
002EF8	5880	FE0C		02F54	3021	L 8,DG CUR		00273700
002EFC	95FF	8000	00000		3022	DG6 CLI 0(8),X'FF'	LOOK FOR CHAN	00273800
002F00	4780	FDFO		02F38	3023	BE DG4		00273900
002F04	4177	0001		00001	3024	LA 7,1(7)		00274000
002F08	5970	EE5C		03FA4	3025	C 7,=F'138'		00274100
002F0C	4720	FEA4		02FEC	3026	BH DGERROR		00274200
002F10	4188	0001		00001	3027	LA 8,1(8)		00274300
002F14	5980	FE08		02F50	3028	C 8,DG END		00274400
002F18	4720	FDB8		02F20	3029	BH DG5		00274500
002F1C	47F0	FDB4		02EFC	3030	B DG6		00274600
002F20	5880	EE20		03F68	3031	DG5 L 8,=A(CARTAB)		00274700
002F24	47F0	FDB4		02EFC	3032	B DG6		00274800
002F28	9201	E1A8	032F0		3033	DG3 MVI PRTP12,X'01'		00274900
002F2C	9200	E1A7	032EF		3034	MVI PRTP9,X'00'		00275000
002F30	9250	FDB5	02EFD		3035	MVI DG6+1,X'50'		00275100
002F34	47F0	FDAE		02EF6	3036	B DG7		00275200
002F38	5080	FE0C		02F54	3037	DG4 ST 8,DG CUR		00275300
002F3C	9878	FE9C		02FE4	3038	DGEXIT LM 7,8,DGSAVE		00275400
002F40	9209	E3D0	03518		3039	MVI PRNTBUFF,X'09'	RESTORE SINGLE SPACE AFTER PRINT	00275500
002F44	D700	E3D1	E3D1 03519	03519	3040	XC PRNTBUFF+1,PRNTBUFF+1		00275600
002F4A	41C0	714D		0014D	3041	LA 12,SIMCOR+333	SET B ADDRESS REGISTER	00275700
002F4E	07F8				3042	BR 8		00275800
002F50	00002F99				3043	DGEND DC A(CARTAB+65)		00275900
002F54	00002F58				3044	DG CUR DC A(CARTAB)		00276000
002F58	0000000000F1				3045	CARTAB DC XL6'0000000000F1'		00276100
002F5E	0000000000000000				3046	DC 53X'00'		00276200
002F93	50				3047	DC X'50'		00276300
002F94	0000000000000000				3048	DC 78X'00'		00276400
002FE2					3049	ENDCRTP EQU *		00276500
002FE2	0000							
002FE4	0000000000000000				3050	DGSAVE DC 2F'0'		00276600
002FEC	90DF	E4A0		035E8	3051	DGERROR STM 13,15,MACREGSV		00276700
002FF0	4160	E4A0		035E8	3052	LA 6,MACREGSV		00276800
002FF4	41D0	E458		035A0	3053	LA 13,SAVEAREA		00276900
002FF8	D200	FEE5	FDB5 0302D	02EFD	3054	MVC DG20+45(1),DG6+1		00277000
					3055	DG20 WTO 'UNABLE TO FIND CARRIAGE CONTROL CHAR'		00277100
002FFE	0700				3056+	CNOP 0,4		
003000	4510	FEE6		0302E	3057+	DG20 BAL 1,IHB0073A BRANCH AROUND MESSAGE		
003004	002A				3058+	DC AL2(IHB0073-*) MESSAGE LENGTH		
003006	0000				3059+	DC B'0000000000000000' MCSFLAGS FIELD		
003008	E4D5C1C2D3C540E3				3060+	DC C'UNABLE TO FIND CARRIAGE CONTROL CHAR' MESSAGE		
00302E					3061+	IHB0073 EQU *		
00302E					3062+	IHB0073A DS 0H		
00302E	0A23				3063+	SVC 35 ISSUE SVC		

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
003030	98DF 6000		00000	3064	LM 13,15,0(6)		00277200
003034	47F0 F810		02958	3065	B TERMINAT		00277300
003038	4130 E634		0377C	3066	PUNCH LA 3,PUNCHR GET ADDR OF PUNCH DCB TAB		00277400
00303C	4550 FF7A		030C2	3067	BAL 5,UROPEN GO CHECK FOR OPEN TAB		00277410
003040	D24F E26B 7065 033B3	00065		3068	MVC PCHARA,SIMCOR+101 CONVRT 1401 PCH AREA FOR OUTPUT TAB		00277420
003046	DC4F E26B EA14 033B3	03B5C		3069	TR PCHARA,TRIE *		00277500
00304C	90DF E4A0		035E8	3070	STM 13,15,MACREGSV SAVE MACRO REGS		00277600
003050	4160 E4A0		035E8	3071	LA 6,MACREGSV SAVE ADDRESS TO XR		00277700
003054	41D0 E458		035A0	3072	LA 13,SAVEAREA GIVE OS OUR SAVE AREA		00277800
				3073	PUT PUNCHR,PCHARAA		00277900
003058	4110 E634		0377C	3074+	LA 1,PUNCHR LOAD PARAMETER REG 1		
00305C	4100 E21A		03362	3075+	LA 0,PCHARAA LOAD PARAMETER REG 0		
003060	58F0 1030		00030	3076+	L 15,48(0,1) LOAD PUT ROUTINE ADDR.		
003064	05EF			3077+	BALR 14,15 LINK TO PUT ROUTINE		
003066	98DF 6000		00000	3078	LM 13,15,0(6) RESTORE MACRO REGISTERS		00278000
00306A	41C0 70B5		000B5	3079	LA 12,SIMCOR+181		00278100
00306E	D24F E21B E26B 03363	033B3		3080	MVC PCHAR1,PCHARA		00278200
003074	9201 E21A		03362	3081	MVI PCHARAA,X'01'		00278300
003078	9440 7064		00064	3082	NI SIMCOR+100,X'40' SET 82 BITS IN LOC 100 AFTER PUNCH		00278400
00307C	960A 7064		00064	3083	OI SIMCOR+100,X'0A' *		00278500
003080	07F8			3084	BR 8		00278600
003082				3085	BINMOD EQU *		00278700
003082	07F8			3086	LOADMD BR 8		00278800
003084				3087	TSTOPEN EQU *		00278900
003084	9110 3030		00030	3088	TM 48(3),X'10'		00279000
003088	4718 0000		00000	3089	BO 0(8)		00279100
00308C	90DF E4A0		035E8	3090	STM 13,15,MACREGSV		00279200
003090	4160 E4A0		035E8	3091	LA 6,MACREGSV		00279300
003094	41D0 E458		035A0	3092	LA 13,SAVEAREA		00279400
				3093	OPEN ((3),INPUT)		00279500
003098				3094+	CNOP 0,4		
003098	4510 FF58		030A0	3095+	BAL 1,*+8 LOAD REG1 W/LIST ADDR.		
00309C	00000000			3096+	DC A(0) OPT BYTE AND DCB ADDR.		
0030A0	5031 0000		00000	3097+	ST 3,0(1,0) STORE INTO LIST		
0030A4	9280 1000		00000	3098+	MVI 0(1),128 MOVE IN OPTION BYTE		
0030A8	0A13			3099+	SVC 19 ISSUE OPEN SVC		
0030AA	98DF 6000		00000	3100	LM 13,15,0(6)		00279600
0030AE	9110 3030		00030	3101	TM 48(3),X'10' IS DCB OPEN NOW? TAB		00279700
0030B2	0718			3102	BCR 1,8 YES, RETURN TO CALLER TAB		00279705
				3103	ABEND 1000,DUMP NO, DCB DID NOT OPEN, ABEND TAB		00279710
0030B4				3104+	DS 0H		
0030B4				3105+	CNOP 0,4		
0030B4	47F0 FF74		030BC	3106+	B *+8 BRANCH AROUND CONSTANT		
0030B8	80			3107+	DC AL1(128) DUMP/STEP CODE		
0030B9	0003E8			3108+	DC AL3(1000) COMPLETION CODE		
0030BC	5810 FF70		030B8	3109+	L 1,*-4 LOAD CODES INTO REG 1		
0030C0	0A0D			3110+	SVC 13 LINK TO ABEND ROUTINE		
				3111	*		00279715
0030C2	9110 3030		00030	3112	UROPEN TM 48(3),X'10' IS THE DCB OPEN? TAB		00279720
0030C6	0715			3113	BCR 1,5 YES, EXIT TAB		00279725
0030C8	90DF E4A0		035E8	3114	STM 13,15,MACREGSV SAVE REGS FOR MACRO TAB		00279730
0030CC	4160 E4A0		035E8	3115	LA 6,MACREGSV SAVE ADDR OF SAVE AREA TAB		00279735
0030D0	41D0 E458		035A0	3116	LA 13,SAVEAREA GET ADDR OF NEW SAVE AREA TAB		00279740
				3117	OPEN ((3),OUTPUT) OPEN U/R OUTPUT TAB		00279745
0030D4				3118+	CNOP 0,4		

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT		
						F15OCT70	10/28/71
0030D4	4510 FF94		030DC	3119+	BAL 1,*+8 LOAD REG1 W/LIST ADDR.		
0030D8	00000000			3120+	DC A(0) OPT BYTE AND DCB ADDR.		
0030DC	5031 0000		00000	3121+	ST 3,0(1,0) STORE INTO LIST		
0030E0	928F 1000	00000		3122+	MVI 0(1),143 MOVE IN OPTION BYTE		
0030E4	0A13			3123+	SVC 19 ISSUE OPEN SVC		
0030E6	98DF 6000		00000	3124	LM 13,15,0(6)	RELOAD BASE REGS	TAB 00279750
0030EA	9110 3030	00030		3125	TM 48(3),X'10'	DID THE DCB OPEN OK?	TAB 00279755
0030EE	0715			3126	BCR 1,5	YES, EXIT	TAB 00279760
				3127	ABEND 1001,DUMP	NO, DCB NOT OPEN, ABEND	TAB 00279765
0030F0				3128+	DS 0H		
0030F0				3129+	CNOP 0,4		
0030F0	47F0 FF80		030F8	3130+	B *+8 BRANCH AROUND CONSTANT		
0030F4	80			3131+	DC AL1(128) DUMP/STEP CODE		
0030F5	0003E9			3132+	DC AL3(1001) COMPLETION CODE		
0030F8	5810 FFAC		030F4	3133+	L 1,*-4 LOAD CODES INTO REG 1		
0030FC	0A0D			3134+	SVC 13 LINK TO ABEND ROUTINE		

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F150C170	10/28/71
0030FE	186C			3136	FNDLNG LR 6,12		00279900
003100	DDFF 6000	EB54	00000	03C9C	3137 FNDLGA TRT 0(256,6),TRGPWM	SCAN FOR GP MK - WD MK	00280000
003106	4760 FFCA			03112	3138 BC 6,FNDLGB	FOUND	00280100
00310A	4166 0100			00100	3139 LA 6,256(6)		00280200
00310E	47F0 FFB8			03100	3140 B FNDLGA		00280300
003112	1861				3141 FNDLGB LR 6,1	CALCULATE LENGTH	00280400
003114	1B6C				3142 SR 6,12	*	00280500
003116	07F8				3143 BR 8		00280600
003118	4130 000A		0000A	3144	FNDRIV LA 3,10		00280700
00311C	4140 F53C		02684	3145	LA 4,TPTBL		00280800
003120	D500 A003	4003	00003	00003	3146 FNDRV1 CLC 3(1,10),3(4)		00280900
003126	4780 FFEF			03136	3147 BE FNDRV2		00281000
00312A	4144 0004			00004	3148 LA 4,4(4)		00281100
00312E	4630 FFD8			03120	3149 BCT 3,FNDRV1		00281200
003132	47F0 F994		02ADC	3150	B ILEGTAPE	TAPE NOT DEFINED, SEND ERROR MESSAGE	00281300
003136	4160 000A		0000A	3151	FNDRV2 LA 6,10		00281400
00313A	1B63				3152 SR 6,3		00281500
00313C	1836				3153 LR 3,6		00281600
00313E	8930 0003		00003	3154	SLL 3,3	MULTIPLY LOGICAL DRIVE NUMBER BY 8	00281700
003142	5A30 EE60		03FAB	3155	A 3,=A(TAPADR)	ADD BASE OF TAPE ADDRESS TABLE	00281800
003146	5833 0004		00004	3156	L 3,4(3)	GET ACTUAL TAPE ADDRESS FROM TABLE	00281900
00314A	9200 F930		02A78	3157	MVI TMECB,0	CLEAR ECB BEFORE EXCP	00282000
00314E	943F 3000		00000	3158	NI 0(3),X'3F'	CLEAR DCB EXCEPTION BITS	00282100
003152	9242 F910		02A58	3159	MVI TMIOB,X'42'	SET IOB CMD CHAIN + UNRELATED BITS	00282200
003156	07F8				3160 BR 8		00282300
003158	D206 E4E9	F919	03631	02A61	3161 TPTEST MVC SAVCSW+1(7),TPCSW	SAVE CSW AFTER TAPE OPERATION	00282400
00315E	957F F930		02A78		3162 CLI TMECB,X'7F'		00282500
003162	4780 E022		0316A		3163 BE TPTIO3		00282600
003166	9201 E1A9		032F1		3164 MVI TPERR,1		00282700
00316A					3165 TPTIO3 EQU *		00282800
00316A	9101 E4EC		03634		3166 TM SAVCSW+4,1	Q/ EOF	00282900
00316E	4780 E03E		03186		3167 BZ TPTIO1		00283000
003172	4840 EE98		03FE0		3168 LH 4,=H'17999'		00283100
003176	4040 E4EE		03636		3169 STH 4,SAVCSW+6		00283200
00317A	5840 E1C0		03308		3170 L 4,TAPEAREA	PUT TAPE MARK CHARACTER IN TAPE AREA	00283300
00317E	920F 4000		00000		3171 MVI 0(4),X'0F'	*	00283400
003182	9201 E1AA		032F2		3172 MVI TPEOF,1		00283500
003186	9200 E1A9		032F1		3173 TPTIO1 MVI TPERR,0		00283600
00318A	9102 E4EC		03634		3174 TM SAVCSW+4,2	Q/ TAPE ERROR	00283700
00318E	0788				3175 BCR 8,8		00283800
003190	9201 E1A9		032F1		3176 TPTIO2 MVI TPERR,1		00283900
003194	07F8				3177 BR 8		00284000
003196	90EF E4A0		035E8		3178 RWUCLOSE STM 14,15,MACREGSV	SAVE BASE REGISTERS	00284100
00319A	4160 E4A0		035E8		3179 LA 6,MACREGSV	*	00284200
00319E	41D0 E458		035A0		3180 LA 13,SAVEAREA	*	00284300
					3181 CLOSE ((4))	CLOSE THE DCB	00284400
0031A2	0700				3182+ CNOP 0,4		
0031A4	4510 E064		031AC		3183+ BAL 1,*+8 BRANCH AROUND LIST		
0031A8	00000000				3184+ DC A(0) OPTION AND DCB ADDRESS		
0031AC	5041 0000		00000		3185+ ST 4,0(1,0) STORE DCB ADDRESS		
0031B0	9280 1000		00000		3186+ MVI 0(1),128 MOVE IN OPTION BYTE		
0031B4	0A14				3187+ SVC 20 ISSUE CLOSE SVC		
0031B6	98FF 6000		00000		3188 LM 14,15,0(6)		00284500
0031BA	47F0 E076		031BE		3189 B NXTOP		00284600

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
				3191 *			00284800
				3192 *	THIS SECTION EXAMINES THE NEXT OPERATION CODE AND, BASED UPON IT,		00284900
				3193 *	BRANCHES TO THE PROPER ROUTINE TO PROCESS THE INSTRUCTION.		00285000
				3194 *			00285100
0031BE	IAA9			3195	NXTOP AR 10,9 GET NEW OP CODE LOCATION		00285200
0031C0	9140 A000	00000		3196	TM 0(10),X'40' Q/ IS THERE A WORD MARK		00285300
0031C4	4780 F9C0		02B08	3197	BZ ILEGOP NO		00285400
0031C8	411A 00FA		000FA	3198	LA 1,250(10)		00285500
0031CC	DDF9 A001	E814	00001 0395C	3199	TRT 1(250,10),TRTB		00285600
0031D2	1891			3200	LR 9,1		00285700
0031D4	189A			3201	SR 9,10		00285800
0031D6	432A 0000		00000	3202	IC 2,0(10) GET OP CODE		00285900
0031DA	5420 EDF0		03F38	3203	N 2,=F'63' ELIMINATE WORD MARK		00286000
0031DE	8920 0002		00002	3204	SLL 2,2 MULTIPLY BY 4		00286100
0031E2	58D2 E0A0		031E8	3205	L 13,BCHTBL(2) LOAD BASE OF PROCESSING ROUTINE		00286200
0031E6	07FD			3206	BR 13 BRANCH TO OPCODE PROCESSING ROUTINE		00286300
0031E8	00002B08			3207	BCHTBL DC A(ILEGOP) 0		00286400
0031EC	0000142A			3208	DC A(R) 1 1		00286500
0031F0	000014AE			3209	DC A(W) 2 2		00286600
0031F4	00001566			3210	DC A(WR) 3 3		00286700
0031F8	00001458			3211	DC A(P) 4 4		00286800
0031FC	0000147C			3212	DC A(RP) 5 5		00286900
003200	00001598			3213	DC A(WP) 6 6		00287000
003204	000015C4			3214	DC A(WRP) 7 7		00287100
003208	000031BE			3215	DC A(NXTOP) 10 8		00287200
00320C	000031BE			3216	DC A(NXTOP) 11 9		00287300
003210	00002B08			3217	DC A(ILEGOP) 12 0		00287400
003214	00001B4C			3218	DC A(MA) 13 =		00287500
003218	00001800			3219	DC A(M) 14 @		00287600
00321C	00002B08			3220	DC A(ILEGOP) 15		00287700
003220	00002B08			3221	DC A(ILEGOP) 16		00287800
003224	00002B08			3222	DC A(ILEGOP) 17 TP MK		00287900
003228	00002B08			3223	DC A(ILEGOP) 20 A BIT		00288000
00322C	0000099E			3224	DC A(CS) 21 /		00288100
003230	00000000			3225	DC A(A) 22 S		00288200
003234	00002B08			3226	DC A(ILEGOP) 23 T		00288300
003238	00001744			3227	DC A(CU) 24 U		00288400
00323C	0000064C			3228	DC A(BWZ) 25 V		00288500
003240	000020F6			3229	DC A(BBE) 26 W		00288600
003244	000031BE			3230	DC A(NXTOP) 27 X		00288700
003248	00000EFE			3231	DC A(MZ) 30 Y		00288800
00324C	00000DB8			3232	DC A(MCS) 31 Z		00288900
003250	00002B08			3233	DC A(ILEGOP) 32		00289000
003254	00000A0E			3234	DC A(SW) 33 ,		00289100
003258	0000196C			3235	DC A(D) 34 %		00289200
00325C	00002B08			3236	DC A(ILEGOP) 35 WD SEP		00289300
003260	00002B08			3237	DC A(ILEGOP) 36		00289400
003264	00002B08			3238	DC A(ILEGOP) 37		00289500
003268	00002B08			3239	DC A(ILEGOP) 40 -		00289600
00326C	00002B08			3240	DC A(ILEGOP) 41 J		00289700
003270	000015FE			3241	DC A(SS) 42 K		00289800
003274	00000F42			3242	DC A(LCA) 43 L		00289900
003278	00000AD2			3243	DC A(MCW) 44 M		00290000
00327C	000031BE			3244	DC A(NXTOP) 45 N		00290100
003280	00002B08			3245	DC A(ILEGOP) 46 0		00290200

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT		F15OCT70	10/28/71
003284	00001054			3246	DC A(MCM)	47 P		00290300
003288	000010DC			3247	DC A(SAR)	50 Q		00290400
00328C	00002B08			3248	DC A(ILEGOP)	51 R		00290500
003290	0000035A			3249	DC A(ZS)	52 -0		00290600
003294	00002B08			3250	DC A(ILEGOP)	53 \$		00290700
003298	00002B08			3251	DC A(ILEGOP)	54 *		00290800
00329C	00002B08			3252	DC A(ILEGOP)	55		00290900
0032A0	00002B08			3253	DC A(ILEGOP)	56		00291000
0032A4	00002B08			3254	DC A(ILEGOP)	57		00291100
0032A8	00002B08			3255	DC A(ILEGOP)	60 +		00291200
0032AC	00000000			3256	DC A(A)	61 A		00291300
0032B0	000003F0			3257	DC A(B)	62 B		00291400
0032B4	00000754			3258	DC A(C)	63 C		00291500
0032B8	00000EB6			3259	DC A(MN)	64 D		00291600
0032BC	000010EC			3260	DC A(MCE)	65 E		00291700
0032C0	0000165A			3261	DC A(CC)	66 F		00291800
0032C4	00002B08			3262	DC A(ILEGOP)	67 G		00291900
0032C8	000010DC			3263	DC A(SBR)	70 H		00292000
0032CC	00002B08			3264	DC A(ILEGOP)	71 I		00292100
0032D0	000002C4			3265	DC A(ZA)	72 +0		00292200
0032D4	00000896			3266	DC A(H)	73 .		00292300
0032D8	00000A76			3267	DC A(CW)	74		00292400
0032DC	00002B08			3268	DC A(ILEGOP)	75		00292500
0032E0	00002B08			3269	DC A(ILEGOP)	76		00292600
0032E4	00002B08			3270	DC A(ILEGOP)	77		00292700

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0032E8	00			3272	SENSEA DC X'0'		00292900
0032E9	00			3273	SENSEB DC X'0'		00293000
0032EA	00			3274	SENSEC DC X'0'		00293100
0032EB	00			3275	SENSED DC X'0'		00293200
0032EC	00			3276	SENSEE DC X'0'		00293300
0032ED	00			3277	SENSEF DC X'0'		00293400
0032EE	00			3278	SENSEG DC X'0'		00293500
0032EF	00			3279	PRTP9 DC X'0'		00293600
0032F0	00			3280	PRTP12 DC X'0'		00293700
0032F1	00			3281	TPERR DC X'0'		00293800
0032F2	00			3282	TPEOF DC X'0'	RESET WHEN TESTED	00293900
0032F3	00			3283	OVRFLO DC X'0'	RESET WHEN TESTED	00294000
0032F4	00			3284	CPR DC X'00'		00294100
0032F5				3285	DCHAR DS C		00294200
0032F8				3286	LSTBCH DS F	TO HOLD ADDRESS OF LAST BRANCH	00294300
0032FC	00			3287	CRDEOF DC X'00'	CARD END-OF-FILE INDICATOR	00294400
0032FD	00			3288	POS1 DC X'0'		00294500
0032FE	00			3289	AEND DC X'0'		00294600
003300				3290	SAVB DS F		00294700
003304	00000000			3291	SIMLIMIT DC F'0'	UPPER LIMIT OF SIMULATED CORE	00294800
003308	00000000			3292	TAPEAREA DC F'0'	ADDRESS OF TAPE I/O BUFFER	00294900
00330C	00			3293	SUPRES DC X'00'	ZERO SUPPRESSION INDICATOR	00295000
00330D	00			3294	RQSTND DC X'00'	INDICATOR FOR OPERATOR REQUESTS	00295100
00330E				3295	BCDTAP DS C	INDICATOR FOR BCD TAPE MODE	00295200
00330F	00			3296	PCHERR DC X'00'	PUNCH ERROR INDICATOR	00295300
003310	00			3297	RDRERR DC X'00'	CARD READ ERROR INDICATOR	00295400
003311	00			3298	PRTERR DC X'00'	PRINTER ERROR INDICATOR	00295500
003312				3299	TMPARA DS CL80		00295600
003362	01			3300	PCHARAA DC X'01'	NORMAL STACKER SELECT	00295700
003363	4040404040404040			3301	PCHAR1 DC CL80'		00295800
003383				3302	PCHARA DS CL80	PUNCH OUTPUT AREA	00295900
003403	4040404040404040			3303	JOBNAME DC CL8'		00296000
00340B	4040404040404040			3304	WM256 DC 256X'40'		00296100
003510				3305	PAKT DS D		00296200
003518				3306	DS OF		00296300
003518	09			3307	PRNTBUFF DC X'09'		00296400
003519	4040404040404040			3308	DC CL132'		00296500
0035A0				3309	SAVEAREA DS 18F		00296600
0035E8				3310	MACREGSV DS 18F		00296700
003630				3311	SAVCSW DS D		00296800

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
003638	0300000160000001			3313	WTCCW1 CCW X'03',1,X'60',1		00297000
003640	0100000020000000			3314	WTCCW2 CCW 1,0,X'20',0		00297100
003648	0300000060000001			3315	LDTCCW CCW X'03',0,X'60',1		00297200
003650	0200000020004650			3316	LDTCCW1 CCW 2,0,X'20',18000		00297300
003658	0300000060000001			3317	RTCCW CCW X'03',0,X'60',1	READ TAPE	00297400
003660	0200000020004650			3318	RTCCW1 CCW 2,0,X'20',18000		00297500
003668	1F00000020000001			3319	WTMCCW CCW X'1F',0,X'20',1	WRITE TAPE MARK	00297600
003670	0700000020000001			3320	RWDCCW CCW X'07',0,X'20',1	REWIND	00297700
003678				3321	RETURN DS F		00297800
003680				3322	CUIOB DS OD		00297900
003680	02			3323	DC X'02'		00298000
003681	00000000			3324	DC 4X'00'		00298100
003685	0036A0			3325	DC AL3(CUECB)		00298200
003688	0000000000000000			3326	DC 8X'00'		00298300
003690	000017F0			3327	DC AL4(CUCCW)	ADDR OF CCW CHAIN FOR CU OPS TAB	00298400
003694	00000000			3328	CUDCB DC F'0'		00298500
003698	0000000000000000			3329	DC 8X'00'		00298600
0036A0	00000000			3330	CUECB DC F'0'		00298700
				3331	*		00298800
				3332	*	THIS TABLE EQUATES A 360 TAPE DRIVE TO A 1401 TAPE DRIVE AS A	00298900
				3333	*	RESULT OF A TAS ENTRY.	00299000
				3334	*		00299100
0036A4	000000000000401C			3335	TAPADR DC A(0,TAPEDCB0)		00299200
0036AC	0000000000004050			3336	DC A(0,TAPEDCB1)		00299300
0036B4	0000000000004084			3337	DC A(0,TAPEDCB2)		00299400
0036BC	00000000000040B8			3338	DC A(0,TAPEDCB3)		00299500
0036C4	00000000000040EC			3339	DC A(0,TAPEDCB4)		00299600
0036CC	0000000000004120			3340	DC A(0,TAPEDCB5)		00299700
0036D4	0000000000004154			3341	DC A(0,TAPEDCB6)		00299800
0036DC	0000000000004188			3342	DC A(0,TAPEDCB7)		00299900
0036E4	00000000000041BC			3343	DC A(0,TAPEDCB8)		00300000
0036EC	00000000000041F0			3344	DC A(0,TAPEDCB9)		00300100
0036A5				3345	ORG TAPADR+1		00300200
0036A5	E3D7F0			3346	DC CL3'TP0'		00300300
0036AD				3347	ORG TAPADR+9		00300400
0036AD	E3D7F1			3348	DC CL3'TP1'		00300500
0036B5				3349	ORG TAPADR+17		00300600
0036B5	E3D7F2			3350	DC CL3'TP2'		00300700
0036BD				3351	ORG TAPADR+25		00300800
0036BD	E3D7F3			3352	DC CL3'TP3'		00300900
0036C5				3353	ORG TAPADR+33		00301000
0036C5	E3D7F4			3354	DC CL3'TP4'		00301100
0036CD				3355	ORG TAPADR+41		00301200
0036CD	E3D7F5			3356	DC CL3'TP5'		00301300
0036D5				3357	ORG TAPADR+49		00301400
0036D5	E3D7F6			3358	DC CL3'TP6'		00301500
0036DD				3359	ORG TAPADR+57		00301600
0036DD	E3D7F7			3360	DC CL3'TP7'		00301700
0036E5				3361	ORG TAPADR+65		00301800
0036E5	E3D7F8			3362	DC CL3'TP8'		00301900
0036ED				3363	ORG TAPADR+73		00302000
0036ED	E3D7F9			3364	DC CL3'TP9'		00302100
0036F6				3365	ORG TAPADR+82		00302200
				3366	PRNTDCB DCB MACRF=PM,DSORG=PS,DDNAME=WRITE,LRECL=133,RECFM=FBM,EXLST=MURLIST		C00302300 00302305

LCC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
				3368+*			
				3369+*	DATA CONTROL BLOCK		
0036F6	0000						
0036F8				3370+PRNTDCB	DC OF'0' ORIGIN ON WORD BOUNDARY		
				3372+*	DIRECT ACCESS DEVICE INTERFACE		
0036F8	0000000000000000			3374+	DC BL16'0' FDAD,DVTBL		
003708	00000000			3375+	DC A(0) KEYLE,DEVT,TRBAL		
				3377+*	COMMON ACCESS METHOD INTERFACE		
00370C	00			3379+	DC AL1(0) BUFNO		
00370D	000001			3380+	DC AL3(1) BUFCB		
003710	0000			3381+	DC AL2(0) BUFL		
003712	4000			3382+	DC BL2'0100000000000000' DSORG		
003714	00000001			3383+	DC A(1) IOBAD		
				3385+*	FOUNDATION EXTENSION		
003718	00			3387+	DC BL1'00000000' BFTEK,BFLN,HIARCHY		
003719	000001			3388+	DC AL3(1) EODAD		
00371C	92			3389+	DC BL1'10010010' RECFM		
00371D	003758			3390+	DC AL3(MURLIST) EXLST		
				3392+*	FOUNDATION BLOCK		
003720	E6D9C9E3C5404040			3394+	DC CL8'WRITE' DDNAME		
003728	02			3395+	DC BL1'00000010' OFLGS		
003729	00			3396+	DC BL1'00000000' IFLG		
00372A	0050			3397+	DC BL2'000000001010000' MACR		
				3399+*	BSAM-BPAM-QSAM INTERFACE		
00372C	00			3401+	DC BL1'00000000' RER1		
00372D	000001			3402+	DC AL3(1) CHECK, GERR, PERR		
003730	00000001			3403+	DC A(1) SYNAD		
003734	0000			3404+	DC H'0' CIND1, CIND2		
003736	0000			3405+	DC AL2(0) BLKSIZE		
003738	00000000			3406+	DC F'0' WCPD, WCPL, OFFSR, OFFSW		
00373C	00000001			3407+	DC A(1) IOBA		
003740	00			3408+	DC AL1(0) NCP		
003741	000001			3409+	DC AL3(1) EOBR, EOBAD		
				3411+*	QSAM INTERFACE		
003744	00000001			3413+	DC A(1) RECAD		
003748	0000			3414+	DC H'0' QSWS		
00374A	0085			3415+	DC AL2(133) LRECL		
00374C	00			3416+	DC BL1'00000000' EROPT		
00374D	000001			3417+	DC AL3(1) CNTRL		
003750	00000000			3418+	DC F'0' PRECL		
003754	00000001			3419+	DC A(1) EOB		
				3420 *	DCB EXIT ROUTINE ADDED BY T BROWN WRD 71061		00302310
003758	85			3421 MURLIST	DC X'85'	END OF LIST, DCB EXIT ENTRY	00302315

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE	STATEMENT	F15OCT70	10/28/71
003759	00375C			3422	DC	AL3(MUREXIT)	ADDR OF DCB EXIT ROUTINE	00302320
00375C				3423	USING	*,15	R 15 IS BASE FOR THIS ROUTINE	00302325
00375C	4831 003E	0003E		3424	MUREXIT LH	3,62(1)	GET DCB BLKSIZE	00302330
003760	4841 0052	00052		3425	LH	4,82(1)	GET DCB LRECL	00302335
003764	1233			3426	LTR	3,3	IS BLKSIZE ZERO?	00302340
003766	4780 F018	03774		3427	BZ	SETBLK	YES, GO SET BLKSIZE = LRECL	00302345
00376A	1B22			3428	SR	2,2	NO, ZERO R2 FOR REMAINDER	00302350
00376C	1D24			3429	DR	2,4	DIVIDE BLKSIZE BY LRECL	00302355
00376E	1222			3430	LTR	2,2	ZERO REMAINDER?	00302360
003770	078E			3431	BCR	8,14	YES,EXIT TO OPEN	00302365
003772	078E			3432	BCR	8,14	YES, EXIT TO OPEN	00302370
003774	4041 003E	0003E		3433	SETBLK	STH 4,62(1)	NO, SET BLKSIZE = LRECL	00302375
003778	07FE			3434	BR	14	EXIT TO OPEN	00302380
002148				3435	USING	SETBS1,15		00302385
				3436	PUNCHR	DCB MACRF=PM,DSORG=PS,RECFM=FBM,LRECL=81,DDNAME=CARDOUT, EXLST=MURLIST	TAB	X00302400 00302500
				3438+*			DATA CONTROL BLOCK	
				3439+*				
00377A	0000							
00377C				3440+	PUNCHR	DC	OF'0' ORIGIN ON WORD BOUNDARY	
				3442+*			DIRECT ACCESS DEVICE INTERFACE	
00377C	0000000000000000			3444+		DC	BL16'0' FDAD,DVTBL	
00378C	00000000			3445+		DC	A(0) KEYLE,DEVT,TRBAL	
				3447+*			COMMON ACCESS METHOD INTERFACE	
003790	00			3449+		DC	AL1(0) BUFNO	
003791	000001			3450+		DC	AL3(1) BUFCB	
003794	0000			3451+		DC	AL2(0) BUFL	
003796	4000			3452+		DC	BL2'0100000000000000' DSORG	
003798	00000001			3453+		DC	A(1) IOBAD	
				3455+*			FOUNDATION EXTENSION	
00379C	00			3457+		DC	BL1'00000000' BFTEK,BFLN,HIARCHY	
00379D	000001			3458+		DC	AL3(1) EODAD	
0037A0	92			3459+		DC	BL1'10010010' RECFM	
0037A1	003758			3460+		DC	AL3(MURLIST) EXLST	
				3462+*			FOUNDATION BLOCK	
0037A4	C3C1D9C4D6E4E340			3464+		DC	CL8'CARDOUT' DDNAME	
0037AC	02			3465+		DC	BL1'00000010' OFLGS	
0037AD	00			3466+		DC	BL1'00000000' IFLG	
0037AE	0050			3467+		DC	BL2'0000000001010000' MACR	
				3469+*			BSAM-BPAM-QSAM INTERFACE	
0037B0	00			3471+		DC	BL1'00000000' RER1	
0037B1	000001			3472+		DC	AL3(1) CHECK, GERR, PERR	
0037B4	00000001			3473+		DC	A(1) SYNAD	

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
0037B8	0000			3474+	DC H'0' CIND1, CIND2		
0037BA	0000			3475+	DC AL2(0) BLKSIZE		
0037BC	00000000			3476+	DC F'0' WCPD, WCPL, OFFSR, OFFSW		
0037C0	00000001			3477+	DC A(1) IOBA		
0037C4	00			3478+	DC AL1(0) NCP		
0037C5	000001			3479+	DC AL3(1) EOBR, EOBA		
				3481+*	QSAM INTERFACE		
0037C8	00000001			3483+	DC A(1) RECAD		
0037CC	0000			3484+	DC H'0' QSWS		
0037CE	0051			3485+	DC AL2(81) LRECL		
0037D0	00			3486+	DC BL1'00000000' EROPT		
0037D1	000001			3487+	DC AL3(1) CNTRL		
0037D4	00000000			3488+	DC F'0' PRECL		
0037D8	00000001			3489+	DC A(1) EOB		
				3490 CARD	DCB MACRF=GM,DSORG=PS,RECFM=FB,LRECL=80, DDNAME=CARDIN,EODAD=EOC	X00302600	00302700
				3492+*	DATA CONTROL BLOCK		
				3493+*			
0037DC				3494+CARD	DC OF'0' ORIGIN ON WORD BOUNDARY		
				3496+*	DIRECT ACCESS DEVICE INTERFACE		
0037DC	0000000000000000			3498+	DC BL16'0' FDAD,DVTBL		
0037EC	00000000			3499+	DC A(0) KEYLE,DEVT,TRBAL		
				3501+*	COMMON ACCESS METHOD INTERFACE		
0037F0	00			3503+	DC AL1(0) BUFND		
0037F1	000001			3504+	DC AL3(1) BUFCB		
0037F4	0000			3505+	DC AL2(0) BUFL		
0037F6	4000			3506+	DC BL2'0100000000000000' DSORG		
0037F8	00000001			3507+	DC A(1) IOBAD		
				3509+*	FOUNDATION EXTENSION		
0037FC	00			3511+	DC BL1'00000000' BFTEK,BFLN,HIARCHY		
0037FD	002DDA			3512+	DC AL3(EOC) EQDAD		
003800	90			3513+	DC BL1'10010000' RECFM		
003801	000000			3514+	DC AL3(0) EXLST		
				3516+*	FOUNDATION BLOCK		
003804	C3C1D9C4C9D54040			3518+	DC CL8'CARDIN' DDNAME		
00380C	02			3519+	DC BL1'00000010' OFLGS		
00380D	00			3520+	DC BL1'00000000' IFLG		
00380E	5000			3521+	DC BL2'0101000000000000' MACR		
				3523+*	BSAM-BPAM-QSAM INTERFACE		
003810	00			3525+	DC BL1'00000000' RER1		
003811	000001			3526+	DC AL3(1) CHECK, GERR, PERR		

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT
003814	00000001			3527+	DC A(1) SYNAD
003818	0000			3528+	DC H'0' CIND1, CIND2
00381A	0000			3529+	DC AL2(0) BLKSIZE
00381C	00000000			3530+	DC F'0' WCPO, WCPL, OFFSR, OFFSW
003820	00000001			3531+	DC A(1) IOBA
003824	00			3532+	DC AL1(0) NCP
003825	000001			3533+	DC AL3(1) EOBR, EOBAD
				3535+*	QSAM INTERFACE
003828	00000001			3537+	DC A(1) RECAD
00382C	0000			3538+	DC H'0' QSWS
00382E	0050			3539+	DC AL2(80) LRECL
003830	00			3540+	DC BL1'00000000' EROPT
003831	000001			3541+	DC AL3(1) CNTRL
003834	00000000			3542+	DC F'0' PRECL
003838	00000001			3543+	DC A(1) EOB

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
003E5B	000000			3600	DC XL3'00'		00308400
003F1C				3601	ORG TYPTBL+256		00308500

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
003F20				3603	LTORG		00308700
003F20	0000001F			3604	=F'31'		
003F24	000002A4			3605	=A(TRTRCP)		
003F28	0000000F			3606	=F'15'		
003F2C	0000000B			3607	=F'11'		
003F30	00000008			3608	=F'8'		
003F34	00000030			3609	=F'48'		
003F38	0000003F			3610	=F'63'		
003F3C	0000094E			3611	=A(H4)		
003F40	00000064			3612	=F'100'		
003F44	00003E7F			3613	=F'15999'		
003F48	00003658			3614	=A(RTCCW)		
003F4C	00003638			3615	=A(WTCCW1)		
003F50	00000003			3616	=F'3'		
003F54	00000001			3617	=F'1'		
003F58	00000083			3618	=F'131'		
003F5C	00000007			3619	=F'7'		
003F60	00000997			3620	=A(EQJIAR+5)		
003F64	C3C3E3D3			3621	=C'CCTL'		
003F68	00002F58			3622	=A(CARTAB)		
003F6C	0000331C			3623	=A(TMPARA+10)		
003F70	00003E8A			3624	=F'16010'		
003F74	00002460			3625	=A(RQSTIN+4)		
003F78	00000001			3626	=X'00000001'		
003F7C	00003648			3627	=A(LDTCCW)		
003F80	00003668			3628	=A(WTMCCW)		
003F84	000014AE			3629	=A(W)		
003F88	00003670			3630	=A(RWDCCW)		
003F8C	00000FA0			3631	=F'4000'		
003F90	000003E8			3632	=F'1000'		
003F94	0000000A			3633	=F'10'		
003F98	000000F0			3634	=F'240'		
003F9C	000000F9			3635	=F'249'		
003FA0	000000FA			3636	=F'250'		
003FA4	0000008A			3637	=F'138'		
003FA8	000036A4			3638	=A(TAPADR)		
003FAC	0007			3639	=H'7'		
003FAE	0001			3640	=H'1'		
003FB0	0004			3641	=H'4'		
003FB2	000A			3642	=H'10'		
003FB4	0009			3643	=H'9'		
003FB6	0020			3644	=H'32'		
003FB8	0008			3645	=H'8'		
003FBA	0005			3646	=H'5'		
003FBC	0002			3647	=H'2'		
003FBE	0006			3648	=H'6'		
003FC0	4650			3649	=H'18000'		
003FC2	0100			3650	=H'256'		
003FC4	0064			3651	=H'100'		
003FC6	3329			3652	=X'3329'		
003FC8	4040			3653	=C' '		
003FCA	0003			3654	=H'3'		
003FCC	0030			3655	=H'48'		
003FCE	0040			3656	=H'64'		
003FD0	3E7F			3657	=H'15999'		

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT
003FD2	F0F0			3658	=C'00'
003FD4	3E1C			3659	=H'15900'
003FD6	0A0020000909			3660	=X'0A0020000909'
003FDC	012C			3661	=H'300'
003FDE	3E80			3662	=H'16000'
003FE0	464F			3663	=H'17999'
003FE2	00			3664	=X'00'
003FE3	404040			3665	=X'404040'
003FE6	C3C3E3D3F2			3666	=C'CCTL2'
003FEB	E2E2E2			3667	=C'SSS'
003FEE	D3C4C3			3668	=C'LDC'
003FF1	D3C4E3			3669	=C'LDT'
003FF4	E2D9E2			3670	=C'SRS'
003FF7	E2E3E3			3671	=C'STT'
003FFA	C3D3D9			3672	=C'CLR'
003FFD	C4C9E2			3673	=C'DIS'
004000	C1D3E3			3674	=C'ALT'
004003	E6E3D4			3675	=C'WTM'
004006	D9E6C4			3676	=C'RWD'
004009	E3D9D4			3677	=C'TRM'
00400C	C4D4D7			3678	=C'DMP'
00400F	010A0A002000020A			3679	=X'010A0A002000020A01'
004018	F0			3680	=C'0'

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LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F15OCT70	10/28/71
				3682	TAPEDCB0 DCB MACRF=(E),DSORG=PS,DDNAME=TP0		00246500
				3684+*	DATA CONTROL BLOCK		
				3685+*			
004019	000000			3686+	TAPEDCB0 DC OF'0' ORIGIN ON WORD BOUNDARY		
00401C				3688+*	DIRECT ACCESS DEVICE INTERFACE		
00401C	0000000000000000			3690+	DC BL16'0' FDAD,DVTBL		
00402C	00000000			3691+	DC A(0) KEYLE,DEVT,TRBAL		
				3693+*	COMMON ACCESS METHOD INTERFACE		
004030	00			3695+	DC AL1(0) BUFNO		
004031	000001			3696+	DC AL3(1) BUFCB		
004034	0000			3697+	DC AL2(0) BUFL		
004036	4000			3698+	DC BL2'0100000000000000' DSORG		
004038	00000001			3699+	DC A(1) IOBAD		
				3701+*	FOUNDATION EXTENSION		
00403C	00			3703+	DC BL1'00000000' BFTEK,BFLN,HIARCHY		
00403D	000001			3704+	DC AL3(1) EGDAD		
004040	00			3705+	DC BL1'00000000' RECFM		
004041	000000			3706+	DC AL3(0) EXLST		
				3708+*	FOUNDATION BLOCK		
004044	E3D7F04040404040			3710+	DC CL8'TP0' DDNAME		
00404C	02			3711+	DC BL1'00000010' OFLGS		
00404D	00			3712+	DC BL1'00000000' IFLG		
00404E	D008			3713+	DC BL2'1101000000001000' MACR		
				3714	TAPEDCB1 DCB MACRF=(E),DSORG=PS,DDNAME=TP1		00246600
				3716+*	DATA CONTROL BLOCK		
				3717+*			
004050				3718+	TAPEDCB1 DC OF'0' ORIGIN ON WORD BOUNDARY		
				3720+*	DIRECT ACCESS DEVICE INTERFACE		
004050	0000000000000000			3722+	DC BL16'0' FDAD,DVTBL		
004060	00000000			3723+	DC A(0) KEYLE,DEVT,TRBAL		
				3725+*	COMMON ACCESS METHOD INTERFACE		
004064	00			3727+	DC AL1(0) BUFNO		
004065	000001			3728+	DC AL3(1) BUFCB		
004068	0000			3729+	DC AL2(0) BUFL		
00406A	4000			3730+	DC BL2'0100000000000000' DSORG		
00406C	00000001			3731+	DC A(1) IOBAD		
				3733+*	FOUNDATION EXTENSION		

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE	STATEMENT	F15OCT70	10/28/71
004070	00			3735+	DC	BL1'00000000' BFTEK,BFLN,HIARCHY		
004071	000001			3736+	DC	AL3(1) EDDAD		
004074	00			3737+	DC	BL1'00000000' RECFM		
004075	000000			3738+	DC	AL3(0) EXLST		
				3740+*		FOUNDATION BLOCK		
004078	E3D7F14040404040			3742+	DC	CL8'TP1' DDNAME		
004080	02			3743+	DC	BL1'00000010' DFLGS		
004081	00			3744+	DC	BL1'00000000' IFLG		
004082	D008			3745+	DC	BL2'1101000000001000' MACR		
				3746	TAPEDCB2 DCB	MACRF=(E),DSORG=PS,DDNAME=TP2		00246700
				3748+*		DATA CONTROL BLOCK		
				3749+*				
004084				3750+	TAPEDCB2 DC	OF'0' ORIGIN ON WORD BOUNDARY		
				3752+*		DIRECT ACCESS DEVICE INTERFACE		
004084	0000000000000000			3754+	DC	BL16'0' FDAD,DVTBL		
004094	00000000			3755+	DC	A(0) KEYLE,DEVT,TRBAL		
				3757+*		COMMON ACCESS METHOD INTERFACE		
004098	00			3759+	DC	AL1(0) BUFNO		
004099	000001			3760+	DC	AL3(1) BUFCB		
00409C	0000			3761+	DC	AL2(0) BUFL		
00409E	4000			3762+	DC	BL2'0100000000000000' DSORG		
0040A0	00000001			3763+	DC	A(1) IOBAD		
				3765+*		FOUNDATION EXTENSION		
0040A4	00			3767+	DC	BL1'00000000' BFTEK,BFLN,HIARCHY		
0040A5	000001			3768+	DC	AL3(1) EDDAD		
0040A8	00			3769+	DC	BL1'00000000' RECFM		
0040A9	000000			3770+	DC	AL3(0) EXLST		
				3772+*		FOUNDATION BLOCK		
0040AC	E3D7F24040404040			3774+	DC	CL8'TP2' DDNAME		
0040B4	02			3775+	DC	BL1'00000010' DFLGS		
0040B5	00			3776+	DC	BL1'00000000' IFLG		
0040B6	DC08			3777+	DC	BL2'1101000000001000' MACR		
				3778	TAPEDCB3 DCB	MACRF=(E),DSORG=PS,DDNAME=TP3		00246800
				3780+*		DATA CONTROL BLOCK		
				3781+*				
0040B8				3782+	TAPEDCB3 DC	OF'0' ORIGIN ON WORD BOUNDARY		
				3784+*		DIRECT ACCESS DEVICE INTERFACE		
0040B8	0000000000000000			3786+	DC	BL16'0' FDAD,DVTBL		
0040C8	00000000			3787+	DC	A(0) KEYLE,DEVT,TRBAL		

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE STATEMENT	F150CT70	10/28/71
				3789+*	COMMON ACCESS METHOD INTERFACE		
0040CC	00			3791+	DC AL1(0) BUFNO		
0040CD	000001			3792+	DC AL3(1) BUFCB		
0040D0	0000			3793+	DC AL2(0) BUFL		
0040D2	4000			3794+	DC BL2'0100000000000000' DSORG		
0040D4	00000001			3795+	DC A(1) IOBAD		
				3797+*	FOUNDATION EXTENSION		
0040D8	00			3799+	DC BL1'00000000' BFTEK,BFLN,HIARCHY		
0040D9	000001			3800+	DC AL3(1) EODAD		
0040DC	00			3801+	DC BL1'00000000' RECFM		
0040DD	000000			3802+	DC AL3(0) EXLST		
				3804+*	FOUNDATION BLOCK		
0040E0	E3D7F34040404040			3806+	DC CL8'TP3' DDNAME		
0040E8	02			3807+	DC BL1'00000010' OFLGS		
0040E9	00			3808+	DC BL1'00000000' IFLG		
0040EA	D008			3809+	DC BL2'1101000000001000' MACR		
				3810	TAPEDCB4 DCB MACRF=(E),DSORG=PS,DDNAME=TP4		00246900
				3812+*	DATA CONTROL BLOCK		
				3813+*			
0040EC				3814+	TAPEDCB4 DC OF'0' ORIGIN ON WORD BOUNDARY		
				3816+*	DIRECT ACCESS DEVICE INTERFACE		
0040EC	0000000000000000			3818+	DC BL16'0' FDAD,DVTBL		
0040FC	00000000			3819+	DC A(0) KEYLE,DEVT,TRBAL		
				3821+*	COMMON ACCESS METHOD INTERFACE		
004100	00			3823+	DC AL1(0) BUFNO		
004101	000001			3824+	DC AL3(1) BUFCB		
004104	0000			3825+	DC AL2(0) BUFL		
004106	4000			3826+	DC BL2'0100000000000000' DSORG		
004108	00000001			3827+	DC A(1) IOBAD		
				3829+*	FOUNDATION EXTENSION		
00410C	00			3831+	DC BL1'00000000' BFTEK,BFLN,HIARCHY		
00410D	000001			3832+	DC AL3(1) EODAD		
004110	00			3833+	DC BL1'00000000' RECFM		
004111	000000			3834+	DC AL3(0) EXLST		
				3836+*	FOUNDATION BLOCK		
004114	E3D7F44040404040			3838+	DC CL8'TP4' DDNAME		
00411C	02			3839+	DC BL1'00000010' OFLGS		
00411D	00			3840+	DC BL1'00000000' IFLG		
00411E	D008			3841+	DC BL2'1101000000001000' MACR		
				3842	TAPEDCB5 DCB MACRF=(E),DSORG=PS,DDNAME=TP5		00247000

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE	STATEMENT	F150CT70	10/28/71
				3844+*		DATA CONTROL BLOCK		
				3845+*				
004120				3846+TAPEDCB5	DC	OF'0' ORIGIN ON WORD BOUNDARY		
				3848+*		DIRECT ACCESS DEVICE INTERFACE		
004120	0000000000000000			3850+	DC	BL16'0' FDAD,DVTBL		
004130	00000000			3851+	DC	A(0) KEYLE,DEVT,TRBAL		
				3853+*		COMMON ACCESS METHOD INTERFACE		
004134	00			3855+	DC	AL1(0) BUFNO		
004135	000001			3856+	DC	AL3(1) BUFCB		
004138	0000			3857+	DC	AL2(0) BUFL		
00413A	4000			3858+	DC	BL2'0100000000000000' DSORG		
00413C	00000001			3859+	DC	A(1) IOBAD		
				3861+*		FOUNDATION EXTENSION		
004140	00			3863+	DC	BL1'00000000' BFTEK,BFLN,HIARCHY		
004141	000001			3864+	DC	AL3(1) EODAD		
004144	00			3865+	DC	BL1'00000000' RECFM		
004145	000000			3866+	DC	AL3(0) EXLST		
				3868+*		FOUNDATION BLOCK		
004148	F3D7F54040404040			3870+	DC	CL8'TP5' DDNAME		
004150	02			3871+	DC	BL1'00000010' OFLGS		
004151	00			3872+	DC	BL1'00000000' IFLG		
004152	D008			3873+	DC	BL2'1101000000001000' MACR		
				3874	TAPEDCB6 DCB	MACRF=(E),DSORG=PS,DDNAME=TP6		00247100
				3876+*		DATA CONTROL BLOCK		
				3877+*				
004154				3878+TAPEDCB6	DC	OF'0' ORIGIN ON WORD BOUNDARY		
				3880+*		DIRECT ACCESS DEVICE INTERFACE		
004154	0000000000000000			3882+	DC	BL16'0' FDAD,DVTBL		
004164	00000000			3883+	DC	A(0) KEYLE,DEVT,TRBAL		
				3885+*		COMMON ACCESS METHOD INTERFACE		
004168	00			3887+	DC	AL1(0) BUFNO		
004169	000001			3888+	DC	AL3(1) BUFCB		
00416C	0000			3889+	DC	AL2(0) BUFL		
00416E	4000			3890+	DC	BL2'0100000000000000' DSORG		
004170	00000001			3891+	DC	A(1) IOBAD		
				3893+*		FOUNDATION EXTENSION		
004174	00			3895+	DC	BL1'00000000' BFTEK,BFLN,HIARCHY		
004175	000001			3896+	DC	AL3(1) EODAD		
004178	00			3897+	DC	BL1'00000000' RECFM		

LCC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE	STATEMENT	F15OCT70	10/28/71
004179	000000			3898+	DC	AL3(0) EXLST		
				3900+*		FOUNDATION BLOCK		
00417C	E3D7F64040404040			3902+	DC	CL8'TP6' DDNAME		
004184	02			3903+	DC	BL1'00000010' DFLGS		
004185	00			3904+	DC	BL1'00000000' IFLG		
004186	D008			3905+	DC	BL2'1101000000001000' MACR		
				3906	TAPEDCB7 DCB	MACRF=(E),DSORG=PS,DDNAME=TP7		00247200
				3908+*		DATA CONTROL BLOCK		
				3909+*				
004188				3910+	TAPEDCB7 DC	OF'0' ORIGIN ON WORD BOUNDARY		
				3912+*		DIRECT ACCESS DEVICE INTERFACE		
004188	0000000000000000			3914+	DC	BL16'0' FDAD,DVTBL		
004198	00000000			3915+	DC	A(0) KEYLE,DEVT,TRBAL		
				3917+*		COMMON ACCESS METHOD INTERFACE		
00419C	00			3919+	DC	AL1(0) BUFNO		
00419D	000001			3920+	DC	AL3(1) BUFCB		
0041A0	0000			3921+	DC	AL2(0) BUFL		
0041A2	4000			3922+	DC	BL2'0100000000000000' DSORG		
0041A4	00000001			3923+	DC	A(1) IOBAD		
				3925+*		FOUNDATION EXTENSION		
0041A8	00			3927+	DC	BL1'00000000' BFTEK,BFLN,HIARCHY		
0041A9	000001			3928+	DC	AL3(1) EODAD		
0041AC	00			3929+	DC	BL1'00000000' RECFM		
0041AD	000000			3930+	DC	AL3(0) EXLST		
				3932+*		FOUNDATION BLOCK		
0041B0	E3D7F74040404040			3934+	DC	CL8'TP7' DDNAME		
0041B8	02			3935+	DC	BL1'00000010' DFLGS		
0041B9	00			3936+	DC	BL1'00000000' IFLG		
0041BA	D008			3937+	DC	BL2'1101000000001000' MACR		
				3938	TAPEDCB8 DCB	MACRF=(E),DSORG=PS,DDNAME=TP8		00247300
				3940+*		DATA CONTROL BLOCK		
				3941+*				
0041BC				3942+	TAPEDCB8 DC	OF'0' ORIGIN ON WORD BOUNDARY		
				3944+*		DIRECT ACCESS DEVICE INTERFACE		
0041BC	0000000000000000			3946+	DC	BL16'0' FDAD,DVTBL		
0041CC	00000000			3947+	DC	A(0) KEYLE,DEVT,TRBAL		
				3949+*		COMMON ACCESS METHOD INTERFACE		

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	SOURCE	STATEMENT	F15OCT70	10/28/71
0041D0	00			3951+	DC	AL1(0) BUFNO		
0041D1	000001			3952+	DC	AL3(1) BUFCB		
0041D4	0000			3953+	DC	AL2(0) BUFL		
0041D6	4000			3954+	DC	BL2'0100000000000000' DSORG		
0041D8	00000001			3955+	DC	A(1) IOBAD		
				3957+*		FOUNDATION EXTENSION		
0041DC	00			3959+	DC	BL1'00000000' BFTEK,BFLN,HIARCHY		
0041DD	000001			3960+	DC	AL3(1) EODAD		
0041E0	00			3961+	DC	BL1'00000000' RECFM		
0041E1	000000			3962+	DC	AL3(0) EXLST		
				3964+*		FOUNDATION BLOCK		
0041E4	E3D7F84040404040			3966+	DC	CL8'TP8' DDNAME		
0041EC	02			3967+	DC	BL1'00000010' OFLGS		
0041ED	00			3968+	DC	BL1'00000000' IFLG		
0041EE	D008			3969+	DC	BL2'1101000000001000' MACR		
				3970	TAPEDCB9 DCB	MACRF=(E),DSORG=PS,DDNAME=TP9		00247400
				3972+*		DATA CONTROL BLOCK		
				3973+*				
0041F0				3974+	TAPEDCB9 DC	OF'0' ORIGIN ON WORD BOUNDARY		
				3976+*		DIRECT ACCESS DEVICE INTERFACE		
0041F0	0000000000000000			3978+	DC	BL16'0' FDAD,DVTBL		
004200	00000000			3979+	DC	A(0) KEYLE,DEV,TRBAL		
				3981+*		COMMON ACCESS METHOD INTERFACE		
004204	00			3983+	DC	AL1(0) BUFNO		
004205	000001			3984+	DC	AL3(1) BUFCB		
004208	0000			3985+	DC	AL2(0) BUFL		
00420A	4000			3986+	DC	BL2'0100000000000000' DSORG		
00420C	00000001			3987+	DC	A(1) IOBAD		
				3989+*		FOUNDATION EXTENSION		
004210	00			3991+	DC	BL1'00000000' BFTEK,BFLN,HIARCHY		
004211	000001			3992+	DC	AL3(1) EODAD		
004214	00			3993+	DC	BL1'00000000' RECFM		
004215	000000			3994+	DC	AL3(0) EXLST		
				3996+*		FOUNDATION BLOCK		
004218	E3D7F94040404040			3998+	DC	CL8'TP9' DDNAME		
004220	02			3999+	DC	BL1'00000010' OFLGS		
004221	00			4000+	DC	BL1'00000000' IFLG		
004222	D008			4001+	DC	BL2'1101000000001000' MACR		
000000				4002	SIMCOR DSECT			00308800
000000				4003	DS	CL16020		00308900
002142				4004	END	BEGIN		00309000

POS.ID	REL.ID	FLAGS	ADDRESS
01	01	0C	00054C
01	01	0C	000550
01	01	0C	000554
01	01	0C	000558
01	01	0C	00055C
01	01	0C	000560
01	01	0C	000564
01	01	0C	000568
01	01	0C	00056C
01	01	0C	000570
01	01	0C	000574
01	01	0C	000578
01	01	0C	00057C
01	01	0C	000580
01	01	0C	000584
01	01	0C	000588
01	01	0C	00058C
01	01	0C	000590
01	01	0C	000594
01	01	0C	000598
01	01	0C	00059C
01	01	0C	0005A0
01	01	0C	0005A4
01	01	0C	0005A8
01	01	0C	0005AC
01	01	0C	0005B0
01	01	0C	0005B4
01	01	0C	0005B8
01	01	0C	0005BC
01	01	0C	0005C0
01	01	0C	0005C4
01	01	0C	0005C8
01	01	0C	0005CC
01	01	0C	0005D0
01	01	0C	0005D4
01	01	0C	0005D8
01	01	0C	0005DC
01	01	0C	0005E0
01	01	0C	0005E4
01	01	0C	0005E8
01	01	0C	0005EC
01	01	0C	0005F0
01	01	0C	0005F4
01	01	0C	0005F8
01	01	0C	0005FC
01	01	0C	000600
01	01	0C	000604
01	01	0C	000608
01	01	0C	00060C
01	01	0C	000610
01	01	0C	000614
01	01	0C	000618
01	01	0C	00061C
01	01	0C	000620
01	01	0C	000624

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POS.ID	REL.ID	FLAGS	ADDRESS
01	01	0C	000628
01	01	0C	00062C
01	01	0C	000630
01	01	0C	000634
01	01	0C	000638
01	01	0C	00063C
01	01	0C	000640
01	01	0C	000644
01	01	0C	000648
01	01	0C	0021D0
01	01	08	0021F9
01	01	0C	0021FC
01	01	08	002331
01	01	08	002439
01	01	0C	00243C
01	01	08	00252D
01	01	0C	002530
01	01	08	002969
01	01	08	002A5D
01	01	08	002BD9
01	01	0C	002BDC
01	01	0C	002F50
01	01	0C	002F54
01	01	0C	0031E8
01	01	0C	0031FC
01	01	0C	0031F0
01	01	0C	0031F4
01	01	0C	0031F8
01	01	0C	0031FC
01	01	0C	003200
01	01	0C	003204
01	01	0C	003208
01	01	0C	00320C
01	01	0C	003210
01	01	0C	003214
01	01	0C	003218
01	01	0C	00321C
01	01	0C	003220
01	01	0C	003224
01	01	0C	003228
01	01	0C	00322C
01	01	0C	003230
01	01	0C	003234
01	01	0C	003238
01	01	0C	00323C
01	01	0C	003240
01	01	0C	003244
01	01	0C	003248
01	01	0C	00324C
01	01	0C	003250
01	01	0C	003254
01	01	0C	003258
01	01	0C	00325C
01	01	0C	003260
01	01	0C	003264

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POS.ID	REL.ID	FLAGS	ADDRESS
01	01	0C	003268
01	01	0C	00326C
01	01	0C	003270
01	01	0C	003274
01	01	0C	003278
01	01	0C	00327C
01	01	0C	003280
01	01	0C	003284
01	01	0C	003288
01	01	0C	00328C
01	01	0C	003290
01	01	0C	003294
01	01	0C	003298
01	01	0C	00329C
01	01	0C	0032A0
01	01	0C	0032A4
01	01	0C	0032A8
01	01	0C	0032AC
01	01	0C	0032B0
01	01	0C	0032B4
01	01	0C	0032B8
01	01	0C	0032BC
01	01	0C	0032C0
01	01	0C	0032C4
01	01	0C	0032C8
01	01	0C	0032CC
01	01	0C	0032D0
01	01	0C	0032D4
01	01	0C	0032D8
01	01	0C	0032DC
01	01	0C	0032E0
01	01	0C	0032E4
01	01	08	003685
01	01	0C	003690
01	01	0C	0036A8
01	01	0C	0036B0
01	01	0C	0036B8
01	01	0C	0036C0
01	01	0C	0036C8
01	01	0C	0036D0
01	01	0C	0036D8
01	01	0C	0036E0
01	01	0C	0036E8
01	01	0C	0036F0
01	01	08	00371D
01	01	08	003759
01	01	08	0037A1
01	01	08	0037FD
01	01	0C	003F24
01	01	0C	003F3C
01	01	0C	003F48
01	01	0C	003F4C
01	01	0C	003F60
01	01	0C	003F68
01	01	0C	003F6C

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POS.ID	REL.ID	FLAGS	ADDRESS
01	01	0C	003F74
01	01	0C	003F7C
01	01	0C	003F80
01	01	0C	003F84
01	01	0C	003F88
01	01	0C	003FA8

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
A	00004	000000	00056	0055 3225 3256
ADR140	00003	002CAC	02860	1381 1383 1402 1405 1465 1468 1492 1496 2010 2030 2882 2886 2888 2889 2891
ADR360	00004	002CA8	02859	2892 2894 2895 2897
AEND	00001	0032FE	03289	0605 0614 2006 2026 2392 2867
ALT	00004	002892	02566	0074 0102 0127 0132 0137 0175 0200 0205 1167 1224 1235
ALTI	00004	002896	02567	2297
ALT2	00002	0028AE	02573	2572
ALT3	00006	0028C6	02579	2568
ALT4	00004	0028DE	02585	2578
ALT4A	00006	0028FA	02592	2596
ALI	00004	00003C	00073	2589
ALI1A	00004	000080	00093	0059 0066
ALI1B	00002	0000CA	00114	0138 0140
ALI1C	00004	0000E0	00120	0103
ALI1D	00004	0000F4	00125	0091 0117 0126
ALI1E	00002	000112	00133	0121 0122 0123 0124
ALI1F	00004	00012E	00141	0128 0131
ALI1G	00004	00014E	00150	0135
ALI1G1	00002	000152	00151	0148 0149
ALI1H	00004	000160	00158	0142
ALI1I	00004	000180	00166	0087
ALI1J	00002	0001CA	00186	0164 0210
ALI1K	00004	0001E2	00193	0176
ALI1L	00004	0001E6	00194	0190
ALI1M	00004	0001F6	00198	0160 0199
ALI1N	00002	000214	00206	0193 0195 0196 0197
ALI1O	00002	000226	00211	0201 0204
ALI1P	00004	000250	00225	0208
ALI1Q	00004	00027E	00238	0223 0246
ALI1R	00004	000292	00243	0235
AL7	00004	000028	00067	0238 0240 0241 0242
AMINUS	00001	00141B	01364	0057
ASTER	00001	00141D	01366	1173 1181 1205 1293 1306 1316
B	00004	0003F0	00340	1172 1214 1302
BASE2	00004	002100	02154	0339 3257
BBE	00004	0020F6	02090	2115
BBEL1	00004	002124	02102	2089 3229
BCDTAP	00001	00330E	03295	2091
BCE1A	00006	00051C	00416	0767 0771 0799 0812 0833 0836 0840 0850
BCE1B	00004	000542	00426	0341
BCE7	00004	000508	00410	0419
BCE8	00006	000502	00409	0348
BCHTBL	00004	0031E8	03207	0350
BEGIN	00002	002142	02111	3205
BGN1	00004	002320	02244	2113 4079
BGN2	00004	00237A	02271	2153
BINMOD	00001	003082	03085	2256
BL5A	00004	00043A	00359	0770 0858
BL5B	00004	00044E	00364	0432
BL5BCH	00004	0004FA	00407	0432
BL5C	00004	000456	00366	0343 0346 0362 0389 0428
BL5CKB	00004	0004F6	00406	0432
BL5D	00004	00045E	00368	0365 0367 0369 0371 0373 0375 0378 0380 0382 0384 0386 0392 0394 0396 0399

SYMBOL	LEN	VALUE	DEFN	REFERENCES
BL5E	00004	000466	00370	0432
BL5F	00004	00046E	00372	0432
BL5G	00004	000476	00374	0432
BL5K	00004	00047E	00376	0431
BL5L	00004	00048A	00379	0431
BL5P	00004	0004E6	00402	0431 0431
BL5PER	00004	0004DE	00400	0431
BL5RER	00004	0004D2	00397	0433
BL5S	00004	000492	00381	0429
BL5T	00004	00049A	00383	0430
BL5U	00004	0004A2	00385	0430
BL5Z	00004	0004B6	00390	0430
BL5I	00004	0004AA	00387	0429
BL52	00004	0004CA	00395	0428
BL53	00004	0004EA	00403	0430
BL59	00004	0004C2	00393	0428
BODY	00001	00141C	01365	1168 1195 1212 1244 1245 1247
BSP	00004	001788	01610	1602
BWZ	00004	00064C	00436	0435 3228
BWZA	00004	0006FE	00481	0457 0497
BWZB	00004	0006EA	00476	0455 0494
BWZRA	00004	0006DE	00473	0453 0491
BWZBCH	00004	000742	00498	0468 0471 0474 0480 0484 0487 0490 0493 0496
BWZLI	00004	000676	00447	0437
BWZW	00004	0006C6	00467	0449
BWZWA	00004	000736	00495	0465
BWZWB	00004	00072A	00492	0463
BWZWBA	00004	00071E	00489	0461
BWZWO	00004	000712	00486	0459
BWZO	00004	0006D2	00470	0451 0488
C	00004	000754	00506	0505 3258
CARD	00004	0037DC	03494	2211 2236 2251 2261 2938
CARTAB	00006	002F58	03045	2192 2192 2193 2207 2986 3031 3043 3044 3641
CC	00006	00165A	01530	1529 3261
CCAFSK	00004	00168A	01553	1538
CCDONE	00004	001734	01587	1546 1561
CCIMSK	00004	0016DE	01562	1537
CCIMSP	00004	0016A2	01547	1540
CCL2	00004	001676	01536	1532
CCNOW	00001	001706	01572	1552
CC1	00004	0016CE	01558	1556
CC2	00004	0016F6	01568	1566
CDLOAD	00006	00248E	02328	2285
CHGA	00004	002212	02175	2241
CHGRDCD	00006	002242	02188	2162
CLEAR	00006	00236C	02268	2270
CLR	00004	002686	02495	2293
CLR1	00006	00268E	02497	2499
CLI	00004	00078C	00522	0507 0519
CL4	00004	000776	00515	0509
COUNTER	00004	002E16	02962	1453 1584
CPR	00001	0032F4	03284	0381 0383 0385 0387 0549 2396
CPRTBL	00001	000815	00557	0538
CRDEOF	00001	0032FC	03287	0361 2914 2947
CS	00004	00099E	00632	0631 3224

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
CSCOM	00004	0009C8	00642	0640
CSL1	00002	0009CE	00644	0633
CSL1A	00006	0009E0	00650	0649
CSL4	00004	0009C4	00641	0635
CS2	00004	0009F6	00656	0652
CS3	00004	0009FA	00657	0655
CU	00004	001744	01593	1592 3227
CUCCW	00008	0017F0	01640	1606 1608 1610 1612 3327
CUDCB	00004	003694	03328	1614
CUECB	00004	0036A0	03330	1615 1626 3325
CUI0B	00008	003680	03327	1616 1622
CUI1	00004	001794	01613	1607 1609 1611
CVAD3A	00004	002D06	02892	2890
CVAD3B	00004	002D12	02895	2893
CVAD34	00004	002CB2	02867	2007 2027
CVAD4A	00004	002C2E	02828	2850 2852 2854
CVAD4B	00004	002C8A	02851	2848
CVAD4C	00004	002C92	02853	2846
CVAD4D	00004	002C9A	02855	2841 2843
CVAD43	00004	002C28	02826	0063 0068 0071 0259 0265 0303 0309 0411 0414 0441 0444 0513 0516 0592 0596 0604 0642 0672 0679 0682 0702 0709 0712 0731 0734 0762 0825 0877 0880 0934 0939 0942 1002 1005 1021 1024 1046 1049 1068 1119 1161 1164 1647 1650 1749 1752 1891 1897 2004 2021 2024 2039 2042 2095 2098 2735
CW	00004	000A76	00694	0693 3267
CWL1	00004	000ABE	00714	0699
CWL4	00004	000A92	00701	0697
CWL7	00004	000AAA	00708	0695
C1	00002	000798	00525	0532
C2	00002	0007B4	00533	0528
C3	00006	00078C	00536	0544
C4	00004	0007E8	00545	0552 0554
C4A	00006	0007F8	00549	0546
C5	00004	000802	00551	0530 0540
C6	00004	00080A	00553	0541
D	00004	00196C	01746	1745 3235
DCHAR	00001	0032F5	03285	0409 0418 0446 0448 0450 0452 0454 0456 0458 0460 0462 0464 0748 0749 0751 0753 0755 0885 1425 1428 1431 1433 1530 1535 1536 1539 1541 1547 1553 1555 1562 1563 1565 2100 2101 2103
DCHARTBL	00004	00054C	00428	0357
DDLEN	00002	0026B4	02491	
DECADD	00004	001414	01360	1188 1334 1341 1343
DECIMAL	00001	001418	01361	1174 1187 1330
DECON	00004	00139A	01330	1323 1327
DGCC10	00004	00225E	02194	2219
DGCC2	00004	0022C6	02220	2191 2204
DGCC3	00004	00228C	02205	2197
DGCC4	00004	00227C	02201	2199
DGCC5	00004	002266	02196	2203
DGCC7	00001	0022FC	02233	2189 2217
DGCCR	00004	002F54	03044	2207 2970 3021 3037
DGEND	00004	002F50	03043	2206 2218 2975 3028
DGERRDR	00004	002FEC	03051	3026
DGEXIT	00004	002F3C	03038	2966
DGSAVE	00004	002FE4	03050	2962 3038
DGI	00004	002E88	02992	2964

SYMBOL	LEN	VALUE	DEFN	REFERENCES
DG10	00004	002E70	02986	2976
DG11	00002	002E38	02971	2978 2985 2989 2991
DG12	00004	002E78	02988	2982
DG13	00004	002E80	02990	2984
DG14	00004	002E4C	02977	2987
DG2	00004	002EEA	03017	2993 2995
DG20	00004	003000	03057	3054
DG3	00004	002F28	03033	2997 2999
DG4	00004	002F38	03037	2973 3023
DG5	00004	002F20	03031	3029
DG6	00004	002EFC	03022	3009 3013 3015 3019 3030 3032 3035 3054
DG7	00002	002EF6	03020	3010 3014 3016 3036
DG8	00004	002ED2	03011	3008
DG9	00004	002EE2	03015	3012
DIS	00004	0026D4	02506	2295
DISPMMSG	00002	0027A4	02554	2538 2539 2542 2543 2548 2549
DIS1	00004	0026D8	02507	2512
DIS2	00002	0026F0	02513	2508
DIS3	00006	002716	02522	2520
DIS4	00006	002726	02525	2524
DOLLAR	00004	001384	01324	1329
DOLSIGN	00004	001420	01369	1229 1356
DSMRKR	00001	00280C	02558	2521 2522 2538
DUMP	00004	002A26	02682	2650 2653 2656 2670
DUMPADR	00002	002A4A	02691	2657 2658 2669
DUMPCLR	00006	002A3A	02687	2684
DUMPCORE	00004	002996	02647	2305
DUMPDONE	00004	002A02	02672	2660
DUMPLDOP	00004	0029C8	02658	2671
DUMPOP	00004	002A46	02690	2683
DUMPSAV2	00008	002A50	02692	2664 2665 2685 2688
DUMPSW	00002	00154C	01452	2649 2672
D1	00006	001996	01758	1766
D1A	00002	001980	01764	1760 1762
D10	00004	001800	01860	1804
D11	00004	001810	01865	1861
D12	00002	00183E	01877	1875
D2	00002	0019CA	01771	1768
D3	00004	0019D2	01775	1859 1864
D4	00004	0019DA	01778	1797
D4A	00004	001A10	01793	1790
D5	00002	001A14	01794	1789 1792
D6	00004	001A34	01803	1799 1801
D7	00004	001A44	01808	1836
D8	00004	001A86	01827	1824
D9	00004	001A9A	01832	1827 1829 1830 1831
D9A	00004	001ACE	01847	1845
ENDCRTP	00001	002FE2	03049	
ENDISP	00001	00280C	02557	2554
EOC	00004	002DDA	02946	3512
EQJIAR	00006	000992	00628	0606 2125 3637
EXIT	00004	002988	02642	2636
FIRST	00001	00141A	01363	1260 1286 1290 1300 1312
FIRSTDGL	00001	00141F	01368	1175 1264 1354
FLDOL	00004	00137C	01322	1288

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SYMBOL	LEN	VALUE	DEFN	REFERENCES	10/28/71
FLOAT	00001	001419	01362	1170 1232 1322	
FNDLGA	00006	003100	03137	3140	
FNDLGB	00002	003112	03141	3138	
FNDLNG	00002	0030FE	03136	0787 0827	
FNDRIV	00004	003118	03144	0764 0853 1070 1136 1613 2404 2603 2712	
FNDRV1	00006	003120	03146	3149	
FNDRV2	00004	003136	03151	3147	
GETCORE	00001	002180	02130	2123 2128	
H	00004	000896	00567	0566 3266	
HALTWT0	00004	002D1E	02900	0600	
HLDBCH	00003	000A0A	00661	0638 0659	
HLTADARA	00006	00098C	00627	0578 0579 0594 0598 0619 0620 0621	
HLTIAR	00006	000998	00629	0578 0606	
HLTWT0	00004	002D2C	02905	0579 0580 0584 0585 0586 0587 0589 0594 0598 0599	
H1	00002	0008B6	00575	0568 0570 0572	
H1A	00004	0008F2	00589	0583	
H2	00004	000922	00600	0582 0588 0590	
H3	00006	00093A	00606	0602	
H4	00004	00094E	00610	0608 3619	
H5	00002	000966	00617	0577 0593 0597	
H6	00004	00097A	00622	0626	
IHB0028A	00002	002210	02173	2165	
IHB0029	00001	00220F	02172	2169	
IHB0034	00001	0022F6	02229	2226	
IHB0034A	00002	0022F6	02230	2225	
IHB0040A	00002	002452	02320	2312	
IHB0041	00001	002451	02319	2316	
IHB0042A	00002	002552	02382	2374	
IHB0043	00001	002552	02381	2378	
IHB0062	00001	002AFE	02751	2748	
IHB0062A	00002	002AFE	02752	2747	
IHB0063	00001	002B2B	02765	2762	
IHB0063A	00002	002B2C	02766	2761	
IHB0064	00001	002B5A	02779	2776	
IHB0064A	00002	002B5A	02780	2775	
IHB0065A	00002	002C1E	02818	2810	
IHB0066	00001	002C1D	02817	2814	
IHB0067	00001	002D53	02909	2906	
IHB0067A	00002	002D54	02910	2905	
IHB0068	00001	002D92	02925	2922	
IHB0068A	00002	002D92	02926	2921	
IHB0073	00001	00302E	03061	3058	
IHB0073A	00002	00302E	03062	3057	
ILEGLN	00004	002B36	02770	0061 0257 0301 0344 0351 0353 0439 0511 0574 0637 0670 0700 0729 0932 1000 1019 1044 1159 1378 1390 1401 1419 1464 1478 1491 1507 1534 1594 1645 1747 1889 2001 2019 2037 2093	
ILEGOP	00004	002B08	02756	0466 0757 1063 1434 1605 3197 3207 3217 3220 3221 3222 3223 3226 3233 3236 3237 3238 3239 3240 3245 3248 3250 3251 3252 3253 3254 3255 3262 3264 3268 3269 3270	
ILEGTAPE	00004	002ADC	02742	3150	
IXTMP	00001	002CAF	02861	2826 2842 2844	
JOBNAME	00008	003403	03303	2157 2279	
LASTDIG	00004	001424	01370	1248 1340	
LCA	00004	000F42	01036	1035 3242	
LCAL1	00004	000F7A	01051	1041	

SYMBOL	LEN	VALUE	DEFN	REFERENCES
LCAL1A	00004	000F75	01052	1057
LCAL4	00004	000F70	01048	1039
LCAL7	00004	000F66	01045	1037
LCAR	00004	000F96	01059	1043
LDTCCW	00008	003648	03315	2408 3651
LDTCCW1	00008	003650	03316	2151
LOADMD	00002	003082	03086	0766 0855 1072 1138 2407 2606 2715
LSTBCH	00004	0032F8	03286	0422 0498 2738
M	00004	001800	01644	1643 3219
MA	00004	001B4C	01884	1883 3218
MACREGSV	00004	0035E8	03310	0774 0775 0862 0863 1076 1077 1141 1142 1429 1442 1443 1575 1576 1618 1619 2117 2119 2158 2159 2176 2179 2205 2208 2220 2221 2244 2245 2257 2258 2307 2308 2369 2370 2410 2411 2535 2536 2608 2609 2625 2627 2673 2674 2718 2719 2742 2743 2756 2757 2770 2771 2805 2806 2900 2901 2916 2917 2934 2935 2953 2954 3051 3052 3070 3071 3090 3091 3114 3115 3178 3179
MAL4	00004	001B82	01899	1887 1895
MAL4A	00004	001BC4	01918	1915
MAL4B	00004	001BD8	01923	1918 1920 1921 1922
MAL4C	00004	001C14	01941	1938
MAL4D	00004	001C28	01946	1941 1943 1944 1945
MAL4E	00004	001C64	01964	1961
MAL4F	00004	001C78	01969	1964 1966 1967 1968
MAL4G	00004	001CA4	01982	1979
MAL4H	00004	001CAC	01984	1982
MAL4I	00004	001CCC	01994	1992
MAL4J	00004	001CD4	01996	1994
MA1	00004	001B64	01890	1885
MBC	00004	000D74	00906	0886 0923
MBC1	00004	000D84	00910	0907 0908
MBC2	00004	000D9A	00916	0913 0914
MBD	00004	000D0C	00876	0754 0756
MBD1	00004	000D38	00889	0904
MBD2	00004	000D48	00893	0890 0891
MBD3	00004	000D5E	00899	0896 0897
MCE	00004	0010EC	01158	1157 3260
MCE1	00004	001148	01182	1180 1226
MCE1A	00004	001164	01189	1186
MCE10	00004	0012E4	01285	1275 1292 1294 1296 1298 1303 1305 1307 1309 1311 1315 1319 1321
MCE10A	00004	001374	01320	1317
MCE10B	00004	0012EC	01287	
MCE10C	00004	0012F8	01290	1279
MCE10D	00004	001304	01293	1291
MCE11	00004	001314	01297	1270 1277 1283
MCE12	00004	001338	01306	1301
MCE13	00004	001348	01310	1281
MCE14	00004	001362	01316	1313
MCE16	00004	0013C2	01340	1333
MCE16A	00004	0013D8	01345	1342
MCE16B	00002	0013DC	01346	1344
MCE16C	00004	0013AE	01335	1339
MCE16D	00006	0013E2	01348	1350
MCE2	00004	0011A4	01205	1200 1202
MCE3	00004	0011AC	01207	1194 1198 1236
MCE3A	00004	0011B6	01210	1196 1204 1206
MCE3B	00004	0011CE	01216	1211 1213

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
MCE4A	00002	0011DC	01220	1234 1251 1253 1257
MCE5	00004	0011EC	01225	1209 1219 1223
MCE5A	00002	0011DE	01221	1231
MCE5C	00004	0011F8	01228	1217
MCE6	00004	001216	01235	1190 1192 1215
MCE6A	00004	00123C	01244	1240 1242
MCE7	00004	001254	01250	1246
MCE8	00004	001274	01258	1227
MCE8A	00006	001290	01265	1263 1289
MCE9	00004	0012BE	01276	1268 1272
MCM	00004	001D54	02034	2033 3246
MCMBUMP	00002	001DCA	02067	2065
MCMCHCLR	00006	001DDE	02074	2059
MCMCHMOV	00006	001DE4	02075	2058
MCMCHORC	00006	001DF0	02077	2061
MCMDECR	00002	001DA8	02057	2053 2072
MCMHIT	00002	001D90	02050	2047
MCML1	00004	001D78	02044	2035
MCMSCAN	00006	001D7E	02046	2049
MCM5W	00004	001DC2	02065	2044 2054 2071
MCMWMCLR	00006	001DEA	02076	2060
MCM256	00004	001DA4	02056	2069
MCS	00004	000DB8	00927	0926 3232
MCSL1	00004	000DF4	00944	0928 0937
MCSL1A	00004	000E14	00952	0959
MCSL1B	00002	000E24	00956	0951
MCSL1C	00006	000E34	00961	0975
MCSL1E	00004	000E62	00972	0966 0968 0970 0984 0990 0992
MCSL1F	00004	000E72	00976	0973
MCSL1G	00004	000E7E	00979	0964
MCSL1H	00004	000E96	00985	0980 0982
MCSL1I	00004	000EAE	00991	0986 0988
MCSL7	00004	000DE0	00938	0930
MCW	00004	000AD2	00721	0720 3243
MCWL1	00004	000B0A	00736	0726
MCWL1A	00004	000B1C	00740	0737 0738
MCWL1B	00006	000B0E	00737	0746
MCWL4	00004	000B00	00733	0724
MCWL7	00004	000AF6	00730	0722
MCW8	00006	000B38	00748	0728
MINPRD	00001	001964	01742	1675 1678 1737
MN	00004	000EB6	00995	0994 3259
MNL1	00006	000EEC	01010	0996 1008
MNL4	00004	000ED8	01004	0998
MOD	00001	002318	02242	2161 2177 2329 2403
MOVDOL	00002	001394	01328	1325
MOVEPARM	00006	00217A	02129	2127
MPYSAV	00004	001968	01743	1652 1735
MUREXIT	00004	00375C	03424	3422
MURLIST	00001	003758	03421	3390 3460
MZ	00004	000EFE	01016	1015 3231
MZL1	00004	000F22	01026	1017
MZL1A	00004	000F32	01030	1027 1029
M1	00004	001824	01655	1660
M10	00002	001948	01734	1731

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
M11	00002	00195E	01740	1738
M2	00004	00183C	01661	1657
M3	00004	001860	01670	1666 1668
M4	00004	001874	01675	1671 1673
M5	00004	001882	01679	1677 1733
M6	00004	001894	01684	1726
M7	00004	0018A4	01690	1715
M8	00004	0018E0	01707	1704
M9	00004	00192C	01727	1686
NXTOP	00002	00318E	03195	0152 0154 0212 0247 0287 0331 0360 0363 0388 0402 0406 0425 0427 0428 0428 0429 0430 0430 0431 0431 0432 0433 0433 0469 0472 0475 0477 0479 0482 0485 0503 0548 0550 0611 0616 0658 0677 0689 0691 0707 0718 0744 0747 0820 0875 0905 0921 0924 0978 1013 1033 1058 1114 1155 1259 1331 1336 1353 1355 1358 1380 1395 1409 1424 1456 1472 1485 1501 1519 1521 1523 1564 1588 1630 1741 1770 1880 1997 2011 2031 2066 2105 2108 2335 2367 2446 2741 3189 3215 3216 3230 3244
OKSTT	00001	00255C	02386	2334 2342 2445 2500
OKWTOR	00004	0021EC	02161	2157
OVRFLO	00001	0032F3	03283	0153 0390 0391 1769 2395
P	00004	001458	01387	1386 3211
PAKT	00008	003510	03305	0618 0619 2360 2361 2525 2526 2579 2580 2785 2786 2791 2792
PANEL	00002	002R60	02783	2755 2769 2929
PANEL1	00006	002BB4	02802	2801
PCHARA	00080	003383	03302	3068 3069 3080
PCHARAA	00001	003362	03300	1520 1522 1524 1526 2639 3075 3081
PCHAR1	00080	003363	03301	3080
PCHERR	00001	00330F	03296	0400 0401
PL1	00004	001474	01394	1388
PNLWTOR	00004	002BD4	02810	2786 2787 2788 2789 2790 2792 2793 2794 2795 2795 2802 2803
POSI	00001	0032FD	03288	0073 0136 0141 0209
PRNTBUFF	00001	003518	03307	1438 1439 1445 1448 1545 1550 1551 1559 1560 1571 1580 1585 2254 2530 2531 2532 2533 2534 2542 2546 2547 2548 2951 2952 2958 2963 2965 2968 2992 2994 2996 2998 3003 3039 3040 3040
PRNTDCB	00004	0036F8	03370	1440 1447 1573 1579 2632 2677 2949 2957
PRTERR	00001	003311	03298	0403 0404
PRTP12	00001	0032F0	03280	0395 2980 2990 3000 3018 3033
PRTP9	00001	0032EF	03279	0393 2979 2988 3001 3017 3034
PUNCH	00004	003038	03066	1391 1394 1404 1408 1480 1484 1495 1500
PUNCHR	00004	00377C	03440	2635 2638 3066 3074
R	00004	00142A	01374	1373 3208
RDRERR	00001	003310	03297	0397 0398
READ	00004	002D5C	02914	1379 1382 1403 1407 1467 1471 1494 1499 2330
READ2	00006	002D9C	02930	2915
RETURN	00004	003678	03321	0608 2347 2397
RL1	00004	00143E	01379	1375
RL4	00006	001446	01381	1377
RP	00004	00147C	01398	1397 3212
RPL1	00004	0014A2	01407	1399
RQSTIN	00050	00245C	02324	2156 2156 2167 2234 2281 2282 2284 2286 2288 2290 2292 2294 2296 2298 2300 2302 2304 2306 2306 2314 2344 2355 2360 2368 2368 2376 2453 2506 2517 2522 2525 2566 2574 2579 2601 2602 2710 2711 2804 2804 2812 3647
RQSTND	00001	00330D	03294	
RT	00004	000862	00761	0750
RTCCW	00008	003658	03317	0773 1075 3625
RTCCW1	00008	003660	03318	2150

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
RTW	00004	000FAA	01067	1060
RTW1	00004	001002	01093	1109
RTW2	00004	001030	01104	1096
RTW2A	00004	00103E	01107	1103
RTW3	00004	001056	01113	1094 1111
RT1	00004	000B8C	00772	0769
RT3	00004	000BDA	00796	0794 0806
RT3A	00006	000BF6	00802	0800
RT4	00004	000C0C	00807	0797
RT5	00006	000C1C	00811	0808
RT6	00006	000C2A	00814	0809
RT7	00006	000C30	00815	0810 0813
RWD	00004	001778	01606	1596
RWDCCW	00008	003670	03320	2716 3657
RWDCMD	00004	002A7C	02710	2301
RWU	00004	0017D0	01631	1600
RWUA	00001	0017E2	01636	1634
RWUCLOSE	00004	003196	03178	1639
SAR	00004	001CDC	02000	1999 3247
SAVR	00004	003300	03290	0159 0217
SAVCSW	00008	003630	03311	0790 1089 3161 3166 3169 3174
SAVEAREA	00004	0035A0	03309	0776 0864 1078 1143 1444 1577 1620 2116 2118 2160 2180 2209 2222 2246 2259 2309 2371 2412 2537 2610 2626 2675 2720 2744 2758 2772 2807 2902 2918 2936 2955 3053 3072 3092 3116 3180
SAVEDD	00004	002680	02490	
SAVE5	00004	0026AC	02489	
SBR	00004	001D0C	02014	2013 3263
SBRL1	00004	001D40	02028	2017
SBRL4	00004	001D2E	02023	2015
SENSEA	00001	0032E8	03272	0359 2470
SENSEB	00001	0032E9	03273	0364
SENSEC	00001	0032EA	03274	0366
SENSED	00001	0032EB	03275	0368
SENSEE	00001	0032EC	03276	0370
SENSEF	00001	0032ED	03277	0372
SENSEG	00001	0032EE	03278	0374
SETBCH	00004	002AC6	02735	0408 0660 1384 1393 1406 1422 1458 1469 1482 1497 1514 1590
SETBLK	00004	003774	03433	3427
SETBS1	00004	002148	02115	0051 0052 2154 3435
SIGDIG	00001	00141E	01367	1171 1243 1274 1332
SIGNDOL	00001	001428	01371	1176 1228 1352
SIMCOR	00001	000000	04077	0053 1438 1454 2152 2152 2328 2328 2331 2332 2425 2443 2495 2652 2655 2665 2666 2667 2849 2851 2853 2931 2932 2933 2943 2944 2951 3041 3068 3079 3082 3083
SIMLIMIT	00004	003304	03291	2140 2855
SIM1401	00001	000000	00001	
SINTBL	00004	001B48	01881	1870
SKP	00004	001790	01612	1604
SNDILG	00006	002420	02306	2352 2357 2363 2459 2461 2469 2510 2516 2519 2528 2570 2576 2582
SS	00004	0015FE	01504	1503 3241
SSDG1	00004	00163A	01520	1516
SSDG2	00004	001626	01515	1505
SSDG3	00004	001642	01522	1518
SSDG4	00004	00160E	01508	
SSDG5	00004	00164A	01524	1509

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
SSDG6	00004	001652	01526	1511
SSDG7	00001	00161E	01512	1525 1527
SSEND	00006	002670	02470	2457
SSIN	00004	00262C	02453	2283
SSIN1	00004	00263A	02456	2468
START	00004	002480	02342	2291
START1	00004	0024CA	02349	2346 2354
START2	00004	0024E2	02355	2350
START3	00006	0024F8	02360	2359
START4	00006	002516	02368	2343
STRIPWM	00001	001FF6	02087	2076
STRST	00002	00255E	02390	2289
SUPRES	00001	00330C	03293	0945 0963 0971 0983 1169 1256 1258 1273 1284 1297 1310
SW	00004	000A0E	00664	0663 3234
SWL1	00004	000A56	00684	0669
SWL4	00004	000A2A	00671	0667
SWL7	00004	000A42	00678	0665
TAPADR	00004	0036A4	03335	1638 3155 3345 3347 3349 3351 3353 3355 3357 3359 3361 3363 3365 3672
TAPEAREA	00004	003308	03292	0789 0832 1092 1121 1134 2148 2149 2150 2151 2267 2426 3170
TAPEDCB0	00004	00401C	03761	3335
TAPEDCB1	00004	004050	03793	3336
TAPEDCB2	00004	004084	03825	3337
TAPEDCB3	00004	0040B8	03857	3338
TAPEDCB4	00004	0040EC	03889	3339
TAPEDCB5	00004	004120	03921	3340
TAPEDCB6	00004	004154	03953	3341
TAPEDCB7	00004	004188	03985	3342
TAPEDCB8	00004	0041BC	04017	3343
TAPEDCB9	00004	0041F0	04049	3344
TBHNTH	00002	00383C	03545	2831
TBTENS	00002	00393C	03561	2839
TBTRCP	00016	0002A4	00248	0085 3607
TBT4UN	00002	00388C	03553	2835
TCPR	00001	000812	00555	0522 0547 0549 0551 0553
TCR	00002	000813	00556	0536 0537 0538 0539 0539
TEMP1	00001	002CB0	02862	0271 0281 0282 0315 0325 0326 0416 0417 0418 0949 0954 0958 0961 0962 0965 0967 0969 0985 0987 0989 1183 1225 1250 1252 1265 1287 1756 1763 1767 1775 1791 1793 1802 1803 1857 1858 2103 2104 2358 2359 2523 2524 2577 2578
TEMP2	00001	002CB1	02863	1757 1758 1759 1761
TERMINAT	00004	002958	02625	0607 2303 3065
TESTA	00004	002216	02176	
TESTAA	00004	00222A	02182	2323 2385 2821
TMDCB	00004	002A6C	02701	0772 0860 1074 1139 2405 2604 2713
TMECB	00004	002A78	02705	0782 0870 1084 1149 2418 2616 2697 2726 3157 3162
TMIOB	00008	002A58	02694	0778 0866 1080 1145 2409 2414 2422 2612 2717 2722 3159
TMPARA	00080	003312	03299	2188 2190 2194 2212 2216 2234 2237 2262 2930 2932 2939 3643
TPCCW	00004	002A68	02700	0773 0861 1075 1140 2408 2607 2716
TPCSW	00001	002A61	02699	3161
TPEOF	00001	0032F2	03282	0376 0377 2394 3172
TPERR	00001	0032F1	03281	0379 2393 3164 3173 3176
TPLD1	00004	0025D4	02427	2439
TPLD2	00006	0025F8	02435	2428
TPLD3	00004	002604	02437	2434
TPLOAD	00004	00257C	02402	2287
TPTBL	00004	002684	02479	3145

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
TPTEST	00006	003158	03161	0786 0874 1088 1153
TPTIO1	00004	003186	03173	3167
TPTIO2	00004	003190	03176	
TPTIO3	00001	00316A	03165	3163
TRANS	00006	0023A2	02281	2178 2187
TREI	00001	003A5C	03564	0801 0814 1100 1106 2431 2436 2592 2667 2930
TRGPWM	00001	003C9C	03589	3137
TRIE	00016	00385C	03574	0586 0842 0852 1130 2533 2790 2803 2952 3069
TRI4BC	00001	003C1C	03585	3586 3588
TRTB	00001	00395C	03563	3199
TRTGMWRM	00001	001EF6	02080	2046
TRWDMK	00001	003D9C	03590	1439 2547
TR4IBC	00001	003BDC	03582	3582 3584
TSSA	00001	00267A	02472	2454 2454 2464 2470
TSTOPEN	00001	003084	03087	0765 0854 1071 1137 1617 2406 2605 2714
TYPTBL	00001	003E1C	03592	2281 3592 3598 3599 3601
UROPEN	00004	0030C2	03112	1441 1574 2950 3067
W	00004	0014AE	01412	1411 2647 2648 2686 3209 3655
WL1	00004	0014DA	01423	1413 1437
WL4	00004	0014CE	01420	1436
WM	00006	0014E2	01425	1415 1417
WML2	00004	0014F6	01429	1427
WML20A	00006	001516	01438	1432
WM256	00001	00340B	03304	0798 0811 2074 2521 2531 2534 2931
WORK256	00256	001DF6	02079	2075 2076 2077
WP	00004	001598	01475	1474 3213
WPL1	00004	001588	01483	1476
WR	00004	001566	01461	1460 3210
WRITE	00004	002DE4	02949	1420 1423 1466 1470 1479 1483 1493 1498 2255
WRL1	00004	00158C	01470	1462
WRP	00004	0015C4	01488	1487 3214
WRPL1	00004	0015EE	01498	1489
WT	00004	000C48	00824	0752
WTCCW1	00008	003638	03313	0861 1140 3627
WTCCW2	00008	003640	03314	0828 1135 2149
WTECB	00004	00231C	02243	2168 2182 2186 2186 2315 2377 2813
WTM	00004	001780	01608	1598
WTMCCW	00008	003668	03319	2607 3653
WTMCMD	00004	002912	02601	2299
WTORPNL	00006	002BC0	02804	2797 2799
WTORTN	00006	0021D4	02156	0609 2280 2471 2501 2552 2586 2620 2681 2730
WTW	00004	00105E	01118	1062
WTW1	00004	00106E	01123	1133
WTW2	00006	001086	01129	1126
WTW3	00004	00109E	01134	1124
WT1	00004	000C76	00837	0835 0846
WT1A	00004	000C92	00843	0841
WT1B	00001	000CD6	00859	0857
WT2	00004	000CA2	00847	0838
WT3	00006	000CAA	00849	0847
WT4	00006	000CB8	00852	0848
WT4A	00004	000CBE	00853	0851
ZA	00004	0002C4	00252	0251 3265
ZAL1	00002	0002FA	00267	0253 0263
ZAL1A	00006	00030A	00272	0279

SYMBOL	LEN	VALUE	DEFN	REFERENCES
ZAL1C	00004	000328	00280	0289
ZAL1D	00002	00033C	00285	0283
ZAL1E	00004	000344	00288	0277 0293
ZAL7	00004	0002DC	00258	0255
ZEROSUP	00004	001410	01359	1255 1341 1345
ZS	00004	00035A	00296	0295 3249
ZSL4	00002	000390	00311	0299 0307
ZSL4A	00006	0003A0	00316	0323
ZSL4C	00004	0003BE	00324	0336
ZSL4D	00002	0003D2	00329	0327
ZSL4E	00004	0003DA	00332	0337
ZSL4F	00002	0003E2	00334	0320
ZS1	00004	000372	00302	0297

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NO STATEMENTS FLAGGED IN THIS ASSEMBLY

STATISTICS SOURCE RECORDS (SYSIN) = 3223 SOURCE RECORDS (SYSLIB) = 3497
OPTIONS IN EFFECT LIST, NODECK, NOLoad, NORENT, XREF, NOTEST, ALGN, OS, NOTERM, LINECNT = 55
4873 PRINTED LINES

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IEF285I  CSPDBALS                                KEPT
IEF285I  VOL SER NOS= CHQRES.
IEF285I  SYS1.MACLIB                              KEPT
IEF285I  VOL SER NOS= CHQRES.
IEF285I  SYS71301.T134413.RV000.SPDVPR.SYSUT1    DELETED
IEF285I  VOL SER NOS= SMFVOL.
IEF285I  SYS71301.T134413.RV000.SPDVPR.SYSUT2    DELETED
IEF285I  VOL SER NOS= SRTONE.
IEF285I  SYS71301.T134413.RV000.SPDVPR.SYSUT3    DELETED
IEF285I  VOL SER NOS= SPOOL2.
IEF285I  SYS71301.T134413.SV000.SPDVPR.R0000111  SYSOUT
IEF285I  VOL SER NOS= WORK01.
IEF285I  SYS71301.T134413.SV000.SPDVPR.R0000112  DELETED
IEF285I  VOL SER NOS= WORK01.
IEF285I  CSPDVPRS                                KEPT
IEF285I  VOL SER NOS= T04616.
IEF373I  STEP /ASM      / START 71301.1347
IEF374I  STEP /ASM      / STOP 71301.1353 CPU    1MIN 06.15SEC MAIN 56K LCS   OK
STEP COMPLETION CODE: 0000
   106/230    0/230   1148/345   1127/341   955/332   169/205    0/205   164/495
STEP EXCP COUNT:  DISK    3505    TAPE    164    UNIT    0    GRPH    0    COMM    0    TOTAL    3669
IEF375I  JOB /SPDVPR   / START 71301.1347
IEF376I  JOB /SPDVPR   / STOP 71301.1353 CPU    1MIN 06.15SEC
SYSTEM 55

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ZZZZZZZZZZ	EEEEEEEEEE	DDDDDDDD	IIIIIIIII	0000000	11
ZZZZZZZZZZ	EEEEEEEEEE	DDDDDDDD	IIIIIIIII	00000000	111
ZZ	EE	DD DD	II	00 00	1111
ZZ	EE	DD DD	II	00 00	11
ZZ	EE	DD DD	II	00 00	11
ZZ	EEEEEE	DD DD	II	00 00	11
ZZ	EEEEEE	DD DD	II	00 00	11
ZZ	EE	DD DD	II	00 00	11
ZZ	EE	DD DD	II	00 00	11
ZZ	EE	DD DD	II	00 00	11
ZZ	EE	DD DD	II	00 00	11
ZZZZZZZZZZ	EEEEEEEEEE	DDDDDDDD	IIIIIIIII	00000000	11111111
ZZZZZZZZZZ	EEEEEEEEEE	DDDDDDDD	IIIIIIIII	00000000	11111111

AAAAAAAAAA
 AAAAAAAAAA
 AA AA
 AA AA
 AA AA
 AAAAAAAAAA
 AAAAAAAAAA
 AA AA
 AA AA
 AA AA
 AA AA
 AA AA

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//ZEDI01 JOB (00000,2,22,595151,WEAVER,
// 25123),A,PRTY=4
// EXEC LINKEXEC,P1=SIM1401,PARM.GO='SSSA'
XX PROC LIB='SYS1.COBLIB',VLIB=CHQRES,P1=SPDDUMMY, 00000010
XX V1=SPDWK4,REGLKED=100K,REGGO=100K, 00000020
XX P2=SPDDUMMY,V2=SPDWK4,P3=SPDDUMMY,V3=SPDWK4,P4=SPDDUMMY, 00000030
XX V4=SPDWK4,P5=SPDDUMMY,V5=SPDWK4,P6=SPDDUMMY,V6=SPDWK4 00000040
XXLKED EXEC PGM=IEWL,PARM=LIST,REGION=&REGLKED 00000050
IEF653I SUBSTITUTION JCL - PGM=IEWL,PARM=LIST,REGION=100K
XXSYSRINT DD SYSOUT=A,SPACE=(3509,(40,20),RLSE,CONTIG), 00000060
XX DCB=(RECFM=FBM,LRECL=121,BLKSIZE=3509,BUFNO=1) 00000070
XXSYSUT1 DD UNIT=PACK,SPACE=(CYL,(10,5)) 00000080
XXSYSLIB DD DSN=&LIB,VOL=SER=&VLIB,UNIT=PACK,DISP=SHR 00000090
IEF653I SUBSTITUTION JCL - DSN=SYS1.COBLIB,VOL=SER=CHQRES,UNIT=PACK,DISP=SHR
XX DD DSN=SYS1.PL1LIB,DISP=SHR 00000100
XX DD DSN=SYS1.FORTLIB,DISP=SHR 00000110
XX DD DSN=SYS1.COBLIB,DISP=SHR 00000120
XX DD DSN=CSPDSSP1,DISP=SHR 00000130
XXSYSLMOD DD DSN=&&GO(T),DISP=(,PASS),UNIT=PACK,SPACE=(CYL,(5,1,10)) 00000140
XXSYSLIN DD DSN=CDEPTTST.&P1..COBJECTL,DISP=SHR,VOL=SER=&V1,UNIT=PACK 00000150
IEF653I SUBSTITUTION JCL - DSN=CDEPTTST.SIM1401.COBJECTL,DISP=SHR,VOL=SER=SPDWK4,UNIT=PACK
XX DD DSN=CDEPTTST.&P2..COBJECTL,DISP=SHR,VOL=SER=&V2,UNIT=PACK 00000160
IEF653I SUBSTITUTION JCL - DSN=CDEPTTST.SPDDUMMY.COBJECTL,DISP=SHR,VOL=SER=SPDWK4,UNIT=PACK
XX DD DSN=CDEPTTST.&P3..COBJECTL,DISP=SHR,VOL=SER=&V3,UNIT=PACK 00000170
IEF653I SUBSTITUTION JCL - DSN=CDEPTTST.SPDDUMMY.COBJECTL,DISP=SHR,VOL=SER=SPDWK4,UNIT=PACK
XX DD DSN=CDEPTTST.&P4..COBJECTL,DISP=SHR,VOL=SER=&V4,UNIT=PACK 00000180
IEF653I SUBSTITUTION JCL - DSN=CDEPTTST.SPDDUMMY.COBJECTL,DISP=SHR,VOL=SER=SPDWK4,UNIT=PACK
XX DD DSN=CDEPTTST.&P5..COBJECTL,DISP=SHR,VOL=SER=&V5,UNIT=PACK 00000190
IEF653I SUBSTITUTION JCL - DSN=CDEPTTST.SPDDUMMY.COBJECTL,DISP=SHR,VOL=SER=SPDWK4,UNIT=PACK
XX DD DSN=CDEPTTST.&P6..COBJECTL,DISP=SHR,VOL=SER=&V6,UNIT=PACK 00000200
IEF653I SUBSTITUTION JCL - DSN=CDEPTTST.SPDDUMMY.COBJECTL,DISP=SHR,VOL=SER=SPDWK4,UNIT=PACK
XX DD DDNAME=SYSIN 00000210
IEF236I ALLOC. FOR ZEDI01 LKED
IEF237I 236 ALLOCATED TO SYSRINT
IEF237I 231 ALLOCATED TO SYSUT1
IEF237I 233 ALLOCATED TO SYSLIB
IEF237I 233 ALLOCATED TO
IEF237I 233 ALLOCATED TO
IEF237I 233 ALLOCATED TO
IEF237I 134 ALLOCATED TO
IEF237I 132 ALLOCATED TO SYSLMOD
IEF237I 136 ALLOCATED TO SYSLIN
IEF237I 136 ALLOCATED TO
IEF237I 136 ALLOCATED TO
IEF237I 136 ALLOCATED TO
IEF237I 136 ALLOCATED TO
IEF237I 136 ALLOCATED TO
IEF237I 136 ALLOCATED TO

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F44-LEVEL LINKAGE EDITOR OPTIONS SPECIFIED LIST
VARIABLE OPTIONS USED - SIZE=(238976,16384)
****T DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET

DEFAULT OPTION(S) USED

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IEF285I SYS70168.T094835.SV000.ZEDI01.R0000010 SYSOUT
IEF285I VOL SER NOS= SPOOL1.
IEF285I SYS70168.T094835.RV000.ZEDI01.R0000011 DELETED
IEF285I VOL SER NOS= SPDWK1.
IEF285I SYS1.COBLIB KEPT
IEF285I VOL SER NOS= CHQRES.
IEF285I SYS1.PL1LIB KEPT
IEF285I VOL SER NOS= CHQRES.
IEF285I SYS1.FORTLIB KEPT
IEF285I VOL SER NOS= CHQRES.
IEF285I SYS1.COBLIB KEPT
IEF285I VOL SER NOS= CHQRES.
IEF285I CSPDSSP1 KEPT
IEF285I VOL SER NOS= JOBLIB.
IEF285I SYS70168.T094835.RV000.ZEDI01.GO PASSED
IEF285I VOL SER NOS= MIS004.
IEF285I CDEPTTST.SIM1401.COBJECTL KEPT
IEF285I VOL SER NOS= SPDWK4.
IEF285I CDEPTTST.SPDDUMMY.COBJECTL KEPT
IEF285I VOL SER NOS= SPDWK4.
IEF285I CDEPTTST.SPDDUMMY.COBJECTL KEPT
IEF285I VOL SER NOS= SPDWK4.
IEF285I CDEPTTST.SPDDUMMY.COBJECTL KEPT
IEF285I VOL SER NOS= SPDWK4.
IEF285I CDEPTTST.SPDDUMMY.COBJECTL KEPT
IEF285I VOL SER NOS= SPDWK4.
IEF285I CDEPTTST.SPDDUMMY.COBJECTL KEPT
IEF285I VOL SER NOS= SPDWK4.
IEF373I STEP /LKED / START 70168.0949
IEF374I STEP /LKED / STOP 70168.0950 CPU 00MIN 03.27SEC MAIN 100K LCS OK
XXGO EXEC PGM=*.LKED.SYSLMOD,COND=(5,LT,LKED),REGION=&REGGO 00000220
IEF653I SUBSTITUTION JCL - PGM=*.LKED.SYSLMOD,COND=(5,LT,LKED),REGION=100K
XXSYSRINT DD SYSOUT=A 00000230
//GO.WRITE DD SYSOUT=A,DCB=(RECFM=FM,BLKSIZE=133,LRECL=133)
//GO.CARDOUT DD DUMMY,DCB=(RECFM=F,BLKSIZE=80,LRECL=80)
//GO.CARDIN DD *,DCB=BLKSIZE=80
IEF236I ALLOC. FOR ZEDI01 GO
IEF237I 132 ALLOCATED TO PGM=*.DD
IEF237I 236 ALLOCATED TO SYSRINT
IEF237I 236 ALLOCATED TO WRITE
IEF237I 237 ALLOCATED TO CARDIN

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ABCDEFGHIJKLMNOPQRSTUVWXYZ123456789

IEF285I SYS70168.T094835.RV000.ZEDI01.GO PASSED
IEF285I VOL SER NOS= MIS004.
IEF285I SYS70168.T094835.SV000.ZEDI01.R0000012 DELETED
IEF285I VOL SER NOS= SPOOL1.
IEF285I SYS70168.T094835.SV000.ZEDI01.R0000013 SYSCUT
IEF285I VOL SER NOS= SPOOL1.
IEF285I SYS70168.T094835.RV000.ZEDI01.S0000014 SYSIN
IEF285I VOL SER NOS= SPOOL2.
IEF285I SYS70168.T094835.RV000.ZEDI01.S0000014 DELETED
IEF285I VOL SER NOS= SPOOL2.
IEF373I STEP /GO / START 70168.0950
IEF374I STEP /GO / STOP 70168.0951 CPU 00MIN 00.79SEC MAIN 62K LCS OK
IEF285I SYS70168.T094835.RV000.ZEDI01.GO DELETED
IEF285I VOL SER NOS= MIS004.
IEF375I JOB /ZEDI01 / START 70168.0949
IEF376I JOB /ZEDI01 / STOP 70168.0951 CPU 00MIN 04.06SEC
SYSTEM 51

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11/11/68
2:00 PM