

ABNRET							
ABRTN	2626/GEN	2627/GEN	3553-SLS				
AF	2387-EQU	2689/DATA					
	312/LI	312/LI	313/MSP	322/DB	323/GEN	325/DB	326/GEN
	328/DB	331/LCI	333/GEN	336.14/SET	336.20/TEXT	336.26/GEN	336.26/GEN
	336.27/ERROR						
AM:BRG							
	218.10/REF	835.1/LW	837.1/STW	933.1/LW	935.1/STW	1068.1/LW	1070.1/STW
	1083.1/LW	1085.1/STW					
AM:STDBP							
	218.11/REF	655.1/BR	1037.1/STS	1148.1/STS	1152.1/AND	1152.2/STW	1236.3/AI
AMBUF							
	59/DEF	243-EQU	3474/LI				
ARS							
	245-EQU	454/LW	665/STS	3557/LW			
ASSEMBLF							
	2815-LI	2848.24/CMND					
ASSIGN							
	160/REF	643/BAL	645/BAL	799/BAL	835/BAL	897/BAL	933/BAL
	1025/BAL	1050/BAL	1068/BAL	1083/BAL			
AT0Z							
	2317/CLM	2327-DATA					
A1							
	784-EQU	844/BG					
B							
	336.26/GEN	336.27/ERROR	2848.11/CMND	2848.12/CMND	2848.13/CMND	2848.14/DCMND	2848.16/CMND
	2848.17/CMND	2848.18/CMND	2848.19/CMND	2848.20/CMND	2848.21/CMND	2848.22/CMND	2848.23/CMND
	2848.24/CMND	2848.25/CMND	2848.26/CMND	2848.27/CMND	2848.29/CMND	2848.30/DCMND	
	2848.31/DCMND	2848.32/CMND	2848.34/CMND	2848.37/CMND	2848.38/CMND	2848.39/CMND	2848.40/CMND
	2848.41/CMND	2848.42/CMND	2848.43/CMND	2848.44/CMND	2848.45/CMND	2848.46/CMND	2848.47/CMND
	2848.53/CMND	2848.54/CMND	2848.55/CMND	2848.57/CMND	2848.58/CMND	2848.59/DCMND	2848.60/CMND
	2848.61/CMND	2848.63/CMND	2848.64/DCMND	2848.65/CMND	2848.66/CMND	2848.67/CMND	2848.68/CMND
	2848.69/CMND	2848.70/CMND	2848.71/CMND	2848.72/CMND	2848.73/CMND	2848.74/CMND	2848.75/CMND
	2848.76/CMND	2848.77/DCMND	2848.78/CMND	2848.79/DCMND	2848.80/CMND		

BA

BACKUP	2800/EQU	2800/EQU	2809/EQU	2809/EQU	3410/EQU	3410/EQU	
BASIC	2330-EQU	2848.73/CMND					
BATCH	2597-TEXTC						
BATCH2	2490/LD	2592-TEXTC					
BINA	2489-EQU	2848.57/CMND					
BINDCB	3621-LI	3626/BGEZ					
BINDECB	3617-RES	3962/BAL	3971/BAL	3984/BAL	3989/BAL	4000/BAL	4093/BAL
	4106/BAL	4112/BAL					
BINDECB	59.1/DEF	1744/BAL	1841/BAL	2163/BAL	2166/BAL	2169/BAL	2208/BAL
	2473/BAL	3455/BAL	3618-EQU				
BITS	4.1-SFT						
BKMSG	2608-TEXT	3092/LI					
BKOPT	3098-LI						
BKOPT0	535/BEZ	569/BEZ	1368/LI	1514/BNE	3093-EQU		
	2384/CAL1	2733-GEN					
BKUPKEY	2718/DATA	2726/DATA	2728-TFXTC				
BLANKBUF	1472/BAL	3744-EQU					
BLOMTEL	204/REF	389/BAL					
BREAKER	397/BANZ	2845-RES					
BRKBIT	115/DEF	343-EQU	396/CI	659/LI			

BUFCOM						
3874=SLD	3895/B					
BUFINT						
404=RES	2842/B					
BUILD						
1111=EGU	2848.34/CMND					
BUILDA						
1113/LD	2848.56=CMND					
BUMP						
310=CNAME						
CANCEL						
2848.58/CMND	3800=EGU	3830/B				
CANCL						
3811/CAL1	3852=EGU					
CARRETRN						
2172/LW	2186/LW	2194/LW	2218/LW	2255/LI	2556=DATA	
CCBUFBIT						
127/DEF	355=EGU	405/LI	712/LI			
CCBUFTEL						
402/BAL	3892=LI					
CDPB						
201/REF	4086/LW					
CHARGES						
4093=BAL	4220/B					
CHAR0K						
3366/BE	3371=CI					
CHAR0K5						
3372/BE	3374/BNE	3377=CI				
CHGV						
4302=TEXT						
CHKBUF1						
378.1/BAL	3906.1/BAL	3913.14=EGU				
CHKULM						
777/BE	791/B	819/BNEZ	852/BE	876/BE	930/BNEZ	1005/BE
1043/BG	1100=EGU	3375/LI	3389/LI	3421/B	3422/B	3423/B
3425/B	3426/B	3427/B	3429/B	3430/B	3431/B	
CHNGERR						

1930/BCS	1933=BUMP					
CHNGTYPE						
1917/BNE	1929=CAL1					
CIC						
192/REF						
CLEANSTACK						
60/DEF	2345/LI	3486-RFS	3555/BE	3564/B	3779/LI	
CMND						
336.10=CNAME						
CMNDSFT						
1115/B	1123/B	1124-EQU				
CMNERR1						
61/DEF	873/B	1176.10/B	1339/B	1375.25/B	1375.35/B	1544/B
2312.10/B	2357/B	2402/B	2487.59/B	2537-EQU	3082/B	3091/B
3111/B	3221/B	3889/B				
CNCLMSG						
3844-LI	3856/B					
CNCL10						
3813/B	3817-CI					
CNCL20						
3832-EQU	3861/DATA					
CNCL30						
3837/BNE	3847-EQU					
CNCL9						
3814-EQU	3812/BL					
CBCLN						
208/REF	1932/LW	1954/CB	2130/CB			
CBCMESS						
198.1/REF	451.5/LI					
CBCML00P						
1982-SLS	1992/BNEZ					
CBCOFF						
1993/LI	2041-TEXT					
CBC0N						
1990/LI	2040-TEXT					
CBCPRT						
1979/BAL	1989/BAL	2000-EQU				



CBCSTAT	1883/BE	1894/BE	1898/BF	1938=LW	
CBCSTATC	41R/CAL1	1950/CAL1	2011-GEN	2312.6/CAL1	
CBCSTATO	1952.2/BAZ	1955/BE	1968-LI		
CBCSTAT1	1967/B	1969=LW			
CBCSTAT2	1950.2/BLE	1950.4/BANZ	1973.1-LB		
COMFLG	124/DEF	352-EQU	1019/LI	1063/LI	1163/LI
COMMA	1795/BE	1800/BE	1808-EQU		
COMMENT	1163-LI	2848.59/DCMND			
COMPILE	2818-LI	2848.60/CMND			
CONCAT	3147-EQU				
CONCATA	3150-AI	3155/BIR			
CONCATB	3153/BF	3152=STB			
CONCATE	3162/BE	3166=STB			
CONCATN	3160-LB	3165/BIR			
CONTINU	3675/BCR	3677/BCR	3680-SLS		
CONTINUE	1335-LI	2848.47/CMND	2848.54/CMND	2848.61/CMND	
CONTINX	743/B	1337/BEZ	1341-RFS		
CONV	429F-TEXT				
CONVBIN					

CBUPLE	2203/B	2207-RES		
CBUPLF1	2096-EGU	2848.77/DCMND		
CBUPLF2	2099/BE	2106-CI		
CBUPLE3	2107/BG	2114-LI		
CBUPLE5	2122/BGE	2122-EGU		
CPCLMN	2135/BCS	2140-LI		
CPLMSG	2103.2/B	2109.2-AI		
CP0	1969/LW	2052-DATA		
CPU	199/REF	4075/LW	4077/LW	
CPUV	4288-DATA			
CPXBRFAK	4291-TEXT			
CPXEND	190.3/REF	2847.1/BAL		
CPXREAD	61.1/DEF	451.29-EGU		
CPXUSR	190.2/REF	451.22/BANZ		
CRATE	84.1/DEF	236.3-EGU	451.26/LW	489.2/LW
CTFPT	4020/CAL1	4214/CAL1	4251-RES	
CUP0	2258.26/CAL1	2758.13-GEN		
C1C6	200/REF	4083/LW		
	2581-DATA	3676/CLM		

DBITS1	2848.86=DATA	2848*101/CW					
DBITS2	2848.87=DATA	2848*102/CW					
DBIT1	336.8=SET	336.31=SET	336.31/SET	2848.86/DATA			
DBIT2	336.9=SET	336.35=SET	336.35/SET	2848.87/DATA			
DBL10	566/BANZ	570=EQU					
DEBUG	52=SET	391/D8	685/D8	1344/D81	3475/D81		
DCACCESS	209/REF	4055/AND					
DCBTAB2	100/DEF	266=EQU	266.1/EQU				
DCMND	336.11=CNAME						
DCMPRS	587.14/EXU	2848*101=CW					
DFBUG	1140=EQU	2848.79/DCMND					
DEBUG1	1145/BNEZ	1151=EQU					
DFBUG2	1148.2/B	1152.3=BAL					
DFCBIN	62/DEF	1711/BAL	1784/BAL	1803/BAL	1818/BAL	1924/BAL	3638=PUSH
DFCBIN1	3642=LB	3650/BDR					
DFCBIN10	4164/BAL	4174/BAL	4269=RFS				
DFCBIN11	4272=RES	4279/BDR					
DFCBIN21	4276/BCS	4283=RES					
DECUPLE							

DFLTA	2089-EQU	2848.76/CMND				
DELTABIT	669/CD	681/LD	710/CW	1372/LD	1373/LD	2590*TEXTC
DELTAOK	121/DEF	349-EQU	499/LI	678/LI	1279/LI	
DELTASET	1366/BAZ	1371-EQU				
DFLTA1	1356-RES	2848.70/CMND				
DISPFPT	1276/CD	2589-TEXT				
DISPLAY	2161/CAL1	2226-RES				
DISPSW	2159-RES	2848.43/CMND	2848.63/CMND			
DNTSEND	2487.14/BLE	2487.71-EQU				
DBBLT	2258.19/BANZ	2258.22-EQU				
DALL	1021/BNEZ	1046-EQU				
DBL0	776/CW	858/CW	1004/CW	1292/CW	2542-TEXT	
DBL01	856/BANZ	989-EQU				
DAME	991/BNE	1004-CW				
DAME1	779/BE	825-LI				
DAME2	829-LCI	839/B				
DONE	827/BEZ	833-LW				
DONE	1810/BNE	1823-EQU	3917/CLOSE			
DONE	3918/OPEN	4140/B	4146-RES			

DENT	1171.1-EQU	2848.21/CMND				
DENTBIT	126/DEF	354-EQU	587.4/LI	652/LI	1143/LI	1175/LI
	2090/LI	2097/LI	2258.17/LI			1227/LI
DENTBK	587.15/BANZ	587.17-PULL				
DENN	781/BE	841-LI	1219/BF			
DENVER	783/BE	843-CI	1221/BF			
DENVER1	842/B	846-EQU				
DOUBLE1	519.9/BG	519.15/BGZ	564-EQU			
DPACCESS	210/REF	4052/AND				
DSWLOOP	2487.76-SLS	2487.82/BIR				
ECHO	190.4/REF	2848.31/DCMND				
EDIT	1114/LD	1122/LD	2591-TFXTC	2848.10/CMND	2848.56/CMND	
EDITA	1121/LD	2582-TEXT				
EDITO	1119-EQU	2848.37/CMND				
EHMSG	2457/LI	2557-DATA	3457/LM			
ENTPRG	753-EQU	814/BLE	864/BANZ	1106/B		
ERASE	2069.9-EQU	2848.72/CMND				
ERASFPT	2069.12/CAL1	2746.4-GEN				
ERBIN	3672/B	3687-LI				

ER8							
ERRABN1	145/RF	3509/STS	3515/LW	3518.3/STS	3522.5/STS		
ETMFQT	393/BEZ	3500/BAZ	3512-EQU				
EXLYBIT	2183/LM	2230-RES					
EXPNDSZ	85/DEF	1365/CW	2550-EQU				
EXTDGB	98/DEF	262-EQU	263/EQU				
EXTEND	849/BE	962-RES					
EXTNDBIT	2073-EQU	2848.74/CMND					
FDP	134/DEF	362-EQU	2084/LW				
FDPBIT	667/CD	1350/LD	1351/LD	2585-TEXTC			
FDPSET	122/DEF	350-EQU	671/LI	1285/LI			
FDP1	1349-RES	2848.17/CMND					
FEXTIMG	675/LD	1282/CD	2587-TEXT				
FID	85.1/DEF	260.1-EQU	260.2/EQU	899.2/AND	899.3/STW	1028.2/AND	1028.3/STW
FIDER	1052.2/AND	1052.3/STW					
FIDB	63/DEF	537/BAL	1247/BAL	2332/BAL	2825/BAL	3709-LI	
FID2	2825-BAL	3424/B					
FID3	3720-CI	3730/B					
FID3	3724-PULL	3732/B					
FID3	3713/BE	3712/BE	3727-LCI				

FID4							
FILENT	3721/BE	3731=PUSH					
FIPR8C	163/REF	801/BAL	899/BAL	1027/BAL	1052/BAL		
FLAGS	129/DEF	357=EQU	877/LI	1006/LI	2829/LI		
FLBP	493/AND	255R=DATA					
FLBPBITS	64/DEF	891/BAL	1016/BAL	2334/BAL	3251=PUSH		
FLBPBUF	2568=DATA	3254/LW					
FMTCLCL	86/DEF	265=EQU	266/EQU	2377/LM	3260/STM	3262/STW	3263/STW
F0RSEC	3269/STM	3272/STM	3276/STM	3278/CAL1			
F0RTRAN	206/REF	1464/BAL	1517/BAL	1561/BAL	1625.1/BAL	2333/BAL	2383/BAL
FOUNDP	3810/BAL						
FPFPT	274=EQU	3944/D01	3947/D01	3955/D0	3962/D0	4160/D0	4210/GEN
FPMC	2595=TEXTC	2819/LD					
FRBFXT	1890/BE	1896=RES					
FREEBUF1	87/DEF	2752=GEN	3476/CAL1	3564.51/CAL1	3564.53/CAL1	3913/CAL1	
F0F9	192/REF	3913.16/LI					
GASP	3911/BE	3913.2=B					
GC0MNP0	65/DEF	696/BAL	722/BAL	3902=EQU			
	88/DEF	2580=DATA	3674/CLM				
	1684/LI	1688=TEXT					

	1521/CAL1	2702-GEN					
GFT							
	203/REF	2848.11/CMND	2848.53/CMND				
GFTACPAS							
	785/BAL	1869-RES					
GFTFIELD							
	66/DEF	507/BAL	767/BAL	850/BAL	1242/BAL	1394/BAL	1421/BAL
	1783/BAL	1865-LD	2331/BAL	2487.16/BAL	2487.33/BAL		
GFTID							
	1375.32/CAL1	2758.9-GEN					
GETPG							
	2342/CAL1	2706-GEN					
GFTSB1							
	378.2/B	378.7-EQU					
GFTSW							
	2487.33-BAL	2487.52/BDR					
GFTSWX							
	2487.37/B	2487.51/BNE	2487.61-EQU				
GIVEBIRD							
	587.16/B	654/BNE	1176.9-LI	2092/BNE			
GIVEMFH							
	1558/BAZ	1560/BLE	2103/BG	2131/BE	2456-EQU	3849/BNE	
G8TUSR8							
	3185/BE	3206-EQU					
GPFPT							
	89/DEF	378.9/CAL1	2751-GEN				
GR8UP2							
	614-LW	1352/B	1375/B	1375.51/B	1532/B	2492/B	2817/B
	2820/B	2839/B					
GR8UP2A							
	586/B	615-LW					
GR8UP2B							
	546/B	619-EQU	1257/BLE				
GR8UP2C							
	628-EQU	711/BE	755/B				
GRPEXT							
	637/BEZ	642-LD					



GRPEXT1						
	641/B	644-LD				
GRPEXT2						
	647/BNE	651-BAL	808/BNEZ			
HEX2BIN						
	2120/BAL	2440/BAL	3668-EQU	3808/BAL		
HEX2EBC						
	67/DEF	427/BAL	1939/BAL	1957/BAL	3582-EQU	
HEX2EBC1						
	3587-LI	3600/BIR				
HEX2EBC2						
	3592/BE	3600-BIR				
HEX2ESKP						
	3584/LI	3590-EQU				
HXX						
	4131/B	4134-LB				
HXXB						
	4133/BE	4141-RES				
HXXC						
	4135-STB	4144/BNE				
HXXL						
	4132-CI	4138/BDR				
HXXU						
	4137-AI	4145/B				
I						
	336.6/OPEN	336.7-SET	336.29-SET	336.29/SET	336.30/SET	336.31/SET
	336.38/CLBSE					
INBREAK						
	625/BEZ	709-EQU	3542/B			
INBREAK1						
	68/DEF	718-EQU	736/BAZ	739/BANZ		
INTV						
	4299-TEXT					
IGUIT						
	131/DEF	359.1-EQU	465.1/CW	467.1/SW	480.1/LW	489.1/LW
	564.2/CW	1512.1/CW	3093.1/LW			530.1/CW
ITSOK						

ITS0K10	411/B	492=LW					
J	482/B	492/BAZ	501-EQU				
	336.6/OPEN	336.7=SET	336.33=SET	336.33/SET	336.34/SET	336.35/SET	
	336.32/CLOSE						
J:ABC	144/REF	392/LB	720/STB	3511/STB	3517/LB	3518.1/STB	3522.3/STB
J:ABUF	157/REF	634/LW	798/LW	833/LW	884/LW	931/LW	1022/LW
	1047/LW	1066/LW	1081/LW	1142.2/LW	1236.2/LW	3472/LW	3478/STW
	3951/LW	4021/LW					
J:ACCN	169/REF	881/LM	956/LM	1010/LM	1295/LM	1305/LM	1323/LM
	1871/LM	2362/XW	2363/XW	2366/STW	2367/STW	2398/STW	2399/STW
	2406/STW	2407/STW	3151/LB	3172/LM	3173/STM	3177/STM	3728/LM
J:AMR	151/REF	392/LW	3531/LW				
J:ASSIGN	194/REF	3503/LS					
J:CALCNT	185/REF	4046/LW					
J:CCBUF	181/REF	3872/LI	3894/LI				
J:CPP0	197/REF	2835/AND	2836/STW	4080/LW			
J:EXLY	187/REF	1364/LW					
J:EXTENT	162/REF	716/CW	735/CW	737/LB	742/STB		
J:INTER	184/REF	4042/AND	4117/AND				
J:JIT	173/REF	451.27/CW	489.3/CW	1301/LS	1877/LC	2198/LW	2199/AW
	2487.67/STS	2487.72/LW	3509/STS	3515/LW	3518.3/STS	3522.5/STS	3700/LW
	4053/AND	4055/AND	4058/AND	4075/LW	4077/LW	4083/LW	4086/LW
J:LMN							

J:OPT	186/REF	1319/LM					
J:PTIME	152/REF	657/STW	1224/LI				
J:RNST	183/REF	4031/AW	4032/AW	4037/AW	4103/AW	4104/AW	
J:START	146/REF	400/LB	3498/LB	3518.2/STB	3522.4/STB		
J:TELFLGS	189/REF						
	143/REF	395/LW	403/STS	406/LS	451.3/CW	465/LW	469/STW
	492/LW	494/STW	500/STS	534/LS	544/STS	568/LS	585/STS
	587.5/CW	624/LS	636/LS	639/AND	640/STW	649/STS	653/AND
	660/AND	661/STW	672/AND	679/AND	713/STS	729/LS	787/LS
	807/LS	810/LS	818/LS	826/LS	847/STS	855/CW	857/STS
	862/LW	872/CW	886/LS	889/LS	929/LS	965/STS	1007/LW
	1014/LS	1020/LS	1035/STS	1040/LS	1064/LS	1102/LW	1137/STS
	1144/LS	1164/STS	1176/STS	1191/STS	1209/LS	1216/STS	1225/LS
	1222/LS	1255/STS	1280/STS	1286/STS	1312/STS	1336/LS	1375.38/STS
	1511/LS	2081/AND	2085/STS	2091/AND	2098/AND	2258.18/CW	2487.11/CW
	2827/LS	2830/STS	2847/STW	3095/STS	3480/LS	3483/AND	3484/STW
	3495/LW	3497/STW	3539/CW	3541/AWM			
J:UNAME	170/REF	3160/LB					
J:UTIME	182/REF	4029/LW	4030/AW	4036/LW	4101/LW	4102/AW	
JB:CCARS	146.1/REF	409/LB	480/LB	491/STB	1127/LB	1469/LB	2263/LB
	2280/LB	2313/LB	3784/AWM	3875/LB			
JB:FRS	161/REF	693/LI					
JB:LPP	174/REF	1821/LI	1855/LI				
JB:PCW	176/REF	1806/LI	1839/LI				
JB:PMTS	4065/REF	4070/LI					

JB:PRIV							
207/REF	1586/LB	1588/STB	1591.1/STB	1685.1/STB			
JB:TMTS							
4065/REF	4067/LI						
JCMPLT							
2447/BE	2461-EQU						
JDNTEXT							
2453/BE	2467-EQU						
JH:PC							
175/REF	1787/LI						
JOB							
2429-EQU	2487/B	2848.12/CMND					
JOBBCAL							
2445/CAL1	2745-GEN						
JOBMSG							
2463/B	2466/B	2469-LI	2482/B				
JOB2							
2442/BGE	2445-CAL1						
JRUNNG							
2449/BE	2464-EQU						
JSBUF1VP							
191/REF	3913.15/LI						
JSTEP							
114/DEF	342-EQU	402/LI	533/LI	567/LI	623/LI	659/LI	
728/LI	1202/LI	1223/LI	1335/LI	1510/LI	2080/LI	2487.10/LI	
3532/LI							
JWAIT2BT							
2455/BE	2480-EQU						
JWAIT2RN							
2451/BE	2471-EQU						
JX:CMAP							
193/REF	3913.17/COMPARE						
K							
336.6/OPEN	336.30-SET	336.31-SET	336.31/SET	336.34-SET	336.35-SET	336.35/SET	
336.38/CLOSE							
KILLMTEL							
205/REF	3906/BAL						

LAS							
LD6	1052.1-LI	1095/B					
	336.26/GEN	336.27/ERROR	2848.9/CMND	2848.10/CMND	2848.15/CMND	2848.28/CMND	2848.33/CMND
	2848.35/CMND	2848.36/CMND	2848.56/CMND	2848.62/CMND			
LF							
LINK	312-LI	323-GEN	326-GEN	329-LCI	331-LCI	336.20-TEXT	336.26-GEN
LIST	2593-TEXTC	2832/LD					
LISTCOM	1190-LI	2848.14/DCMND					
LIST1	1159/B	1166/B	1197-CI				
LIST2	1198/BF	1223-LI					
LIST3	1227-LI	1232/B					
LIST4	1229/BNEZ	1233-LW					
LIST5	1226/BNEZ	1236.1-BAL					
LLINES	1231.1/B	1235.1-BAL					
LMNCMD	1857/LM	2610-TEXT					
LMNCMD10	513/BG	516/BNE	530-EQU				
LMSG	532/BANZ	536-EQU					
L6BLT	1943/LM	2561-TEXT					
L6FINS	1002/BANZ	1012-LI					
L6FLG	906/B	967/B	1037-EQU	1059/B			
	125/DEF	352-EQU	1039/LI	1215/LI			

LOGOFF	691/CD	1375.50/LD	2596-TEXTC	2848.15/CMND	2848.28/CMND	3533/LD	
LOGSIZE	273-EQU 2646/GEN 3220/BUMP	1432/STM 2646/GEN	1440/CAL1 2646/GEN	1468/BUMP 2646/GEN	1523/LI 3142/BUMP	1529/BUMP 3209/STM	1542/BUMP 3210/CAL1
L0MF	996/BE	999/BE	1001/BE	1003/BE	1063-LI		
L0MF3	1065/BNEZ	1081-LW					
L0MG8	1015/BEZ	1019-LI					
LOOP	3337-BDR 3385/BGEZ	3352/BEZ 3382/BE	3355/B	3363/BE	3370/B	3381/B	3383/B
LOOP1	3337/BDR	3341-EQU					
LOOP5	3338-PULL	3374/B	3390/B				
LOSETUP	1022-EQU	1080/B					
LP	875/CW	1000/CW	2545-TEXT				
LSTAT	1893/CW	2848.64-CMND					
M:TEL	101/DEF 2652/GEN	266.1-EQU 2657/GEN	269/EQU 2686/GEN	1645/GEN 2713/GEN	1653/GEN 2722/GEN	2369/LW 2745/GEN	2642/GEN 3859/GEN
M:TELSIZ	102/DEF	262-EQU	269/EQU				
M:UC	139/REF 451.21/STW 1938/LW	245/EQU 457.2/STW 1954/CB	445/LM 457.6/STS 2130/CB	450/LS 457.8/STM 2617/GEN	451/STW 687/LS 2624/GEN	451.13/STS 688/STW 2678/GEN	451.20/LS 1727/LI 4257/GEN
M:XX	140/REF	4226/GEN	4241/GEN	4252/GEN			
MAPFAIL							

3564.17/BCS	3564.20/BCS	3564.36-EQU				
MAPIT						
2758.19-GEN	3564.16/CAL1	3564.19/CAL1				
MAPPER						
451.6/BAL	3564.14-EQU					
MAXMSG						
246-EQU	3825/BUMP					
MCPLD						
1961/LM	2056-TEXT					
MCTCPL						
420.11/CAL1	2109.3/CAL1	2758.3-GEN				
MDCPL						
2093/CAL1	2757-GEN					
ME						
778/CW	860/CW	998/CW	1074/CW	1089/CW	2544-TEXT	
MEANQT						
2191/LM	2232-RES					
MESSAGE						
2277-EQU	2848.72/CMND					
MESSAGE0						
2260-EQU	2848.32/CMND					
MESSAGE1						
2275/B	2283-CI					
MESSAGE2						
2284/BLE	2287-LCI					
MESSAGE3						
2300/BNE	2306-B					
MESSAGE4						
2261/BAL	2272/BAL	2312-EQU				
MESSAGES						
2316-LB	2322/BDR					
METASYM						
2594-TEXTC	2816/LD					
MGSI						
801-BAL	832/B					
MMO						
2030/GEN	2042-TEXT					

MM1	2031/GEN	2043=TEXT		
MM2	2032/GEN	2044=TEXT		
MM3	2033/GEN	2045=TEXT		
MM4	2034/GEN	2046=TEXT		
MM5	2035/GEN	2047=TEXT		
MM6	2036/GEN	2048=TEXT		
MM7	2037/GEN	2049=TEXT		
MM8	2038/GEN	2050=TEXT		
M0DE	165/REF	803/STW		
M0DFCW	1980/LW	1981/LI	2029=DATA	
MSACP	2052/DATA	2055=TEXT		
MSGEBIT	130/DEF	359=EGU	817/LI	1034/LI
MSGMESS	2288/LM	2310=DATA		
MSRCP	2052/DATA	2052/DATA	2054=TEXT	
MSTRM0DE	89.1/DEF	378.4/CAL1	2758.24=GEN	3564.37/CAL1
MUCRSET	236.2=EGU	449/LI	451.19/LI	686/LI
MULIDS	3827=PULL	3844/LI		
MULJOB	2439/BE	2469/LI	2478/LI	2483=EGU
M1RATER				



M16	4214-CAL1	4243/DATA	4244/DATA				
M4	922.1/AND						
NAME	2487.45/AND						
NAMES	168/REF	323/GEN	326/GEN	333/GEN	336.31/SET	336.35/SET	3274/LW
NAMEVLP	951/BAL	3697=RES					
NBIT30	2575-DATA						
NEXTTIME	2551.1-EQU	2846/AND	3496/AND				
NFND	506=RES	1176.8/BG					
NFND1	69/DEF	540/BAL	571/BAL	1250/BAL	3273/BAL	3288=PUSH	
NFND2	3292-LB	3297/B					
NLSAVE	3294/BE	3298=STB					
NO	260-EQU	260.1/EQU	478/LW	3097/STW			
NOCBCM	1002/CW	2546=TEXT					
NODEL	1983/BEV	1996=SLS					
NODONT	668/BE	670/BE	680/BFZ	682=RES			
NOEGG	587.6/BAZ	587.18=PULL					
NOFDP	451.4/BAZ	451.22=EQU					
NOLINE	673/BEZ	678=LI					
	2136/LI	2140/LI	2144=TEXT				

NBMSG	451.8/BEZ	451.17=EGU					
NONE	1630/LI	1731/LI	2611-TEXT				
NBPTAB	1186=DATA	1233/LW					
NTJBST	72/DEF	1210/BEZ	2082/BEZ	2487.12/BAZ	3081-LI		
NUM	322/D0						
BN	90/DEF	780/CW	1218/CW	2547=TEXT			
BNBIT	119/DEF	347=EGU	809/LI	841/LI	885/LI	1013/LI	2826/LI
BNERR	70/DEF	892/BE	976=EGU	1018/BE			
BPADS	336.6/BPEN	336.13=SET	336.26/GEN	336.38/CLOSE			
BPENBIT	91/DEF	2551=EGU					
BPENBKUP	2365/CAL1	2405/CAL1	2686=GEN				
BPENME	92/DEF	830/LM	938/LM	1073/LM	1088/LM	2635=GEN	
BPEN1	2390/BE	2404=LI					
BPERR	1475=B	2644/GEN	2659/DATA	2660/DATA			
BPRSE	814/LI	850=BAL					
BPTAB	1184=DATA	1230/LH					
BPUSR	2657=GEN	3175/CAL1	3252/LW				
BRATE	4018/CAL1	4225=RES					
BUTCARR							

OUTPUT	2160/BAL	2223/BAL	2245/BAL	2247/BAL	2254=RES		
OVER	1158=LI	2848.64/DCMND					
OVERBIT	93/DEF	782/CW	1220/CW	2548=TEXT			
OX	120/DEF	348=EQU	809/LI	845/LI	928/LI	2826/LI	
PACC	190.1/REF	2848.42/CMND					
PAGE	167/REF	3270/LW					
PARENC	1778=EQU	2848.41/CMND					
PAREN8	3349/BE	3384=AI					
PARMSG	3347/BE	3382=AI					
PARSE	2607=TEXT	3561/LI					
PARSER	627/BNE	750=PUSH					
PASSCLUP	545/LI	573/LI	763=EQU	2815/LI	2818/LI		
PASSWORD	1406/B	1417/B	1430/B	1463=EQU			
PATCH	1390=EQU	2848.69/CMND					
PCL	71/DEF	2613=RES					
PCLCALL	2583=TEXTC	2822/LD	2848.9/CMND	2848.33/CMND	2848.35/CMND	2848.36/CMND	2848.62/CMND
PGDR8P	2822=LD	2848.25/CMND					
PHSFLG	2382/CAL1	2400/CAL1	2709=GFN				
	116/DEF	344=EQU	854/LI	964/LI	1163/LI	1190/LI	

PIDGFLG						
364.1-EQU	451.2/LW					
PIDGMSG						
451.1-EQU						
PLATEN						
1791-EQU	2848.6R/CMND					
PLATEN1						
1793/BE	1830-EQU					
PLATEN2						
1840-LB	1859/BDR					
PLATEN3						
1844-LB	1842/BIR					
PLATEN4						
1846/BNE	1850-AI					
PLIST						
164/REF	802/STW					
PPAS						
166/REF	3264/LW					
PRDCRM						
195/REF	2192/LW					
PRDPRM						
196/REF	2199/AW					
PRINT						
2064-EQU	2848.71/CMND					
PRMPT20						
474/BE	477-EQU					
PRMPT50						
467/BAZ	471/BNE	476/BNE	484-EQU			
PROMPT						
73/DEF	407/BEZ	417-EQU	509/BE	1045/B	1138/B	1156/B
1236/B	1472/LI	1629/BNE	1633/B	1724/B	1734/B	1770/B
1789/B	1826/B	1862/B	1878/BCS	1932/B	1999/B	2068/B
2069.13/B	2086/B	2094/B	2111/B	2134/BCR	2139/B	2143/B
2224/B	2242/B	2258.27/B	2306/B	2385/B	2460/B	2486/BLE
2487.70/B	2487.83/B	3490/B	3829/BLE			
PROMPTA						
453-CAL1	457/BE					

PROMPTF						
PROMPTO	73.1/DEF	457.1=EGU				
PULL	420/BCR	427.4=EGU				
PUSH	320=CNAME					
QUIT	319=CNAME					
R:UERR	717/BANZ	72R=LI	2848.18/CMND	2848.26/CMND	2848.27/CMND	2848.39/CMND
RADPLUS	1452/B	319R/B	3202/B	3220=BUMP		
RADSGT	2200/BGEZ	2204=RES				
RATEERR	2212/LM	2234=RES				
RD:USERS	4215=RES	422R/DATA	4229/DATA			
RDERT	1392/BAL	1514/BAL	3139=EGU			
READ	2408=LI	268R/DATA	2715/DATA			
READAM	453/CAL1	2624=GEN				
READBKUP	158/REF	63R/BAL	764/BAL	1142.1/BAL	1217/BAL	1236.1/BAL
RESET	2368/CAL1	2713=GEN				
RETN	178/REF	2848.44/CMND	2848.55/CMND			
RFE	93.1/DEF	451.9/LI	451.30/LI	1985/LI	2567=DATA	
R0M\$BLT	3255/LI	3256/LI	3282=B			
R0M\$BLT1	875=CW	914/BNE	927/BNE			

R0MDEV	879/BANZ	884=LW	959/B			
R0MDEV1	861/BNE	914=EGU				
R0MG0	921/BE	925/BE	928=LI			
R0MG01	887/BEZ	890/BNEZ	894=EGU			
RRATE	899.1=LI	943/B				
RUN	4019/CAL1	4240=RES				
RWUSR	2833=EGU	2848.13/CMND	2848.16/CMND			
RWUSRSZ	2642=GEN	2642/EGU	3208/LM			
S	1462/BUMP	1529/BUMP	1542/BUMP	2648=EGU	3142/BUMP	3220/BUMP
S:CBUP	336.6/0PEN	336.14=SET	336.15/D0	336.21/D0	336.28/D0	336.38/CLOSE
S:NUMC	211.1/REF	1556/LW	1950.1/MTW			
SAVE	336.14/SET					
SBUF1VPA	202/REF	2848.20/CMND				
SBUF2VPA	141/REF	256/EGU	270/EGU	378.8/LI		
SCAN	142/REF	243/EGU				
SCAN#	74/DEF	1214/BAL	1260/BAL	1273/BAL	1572/BAL	1581/BAL
SCANCVT	1792/BAL	1812/BAL	1868/B	1881/BAL	1921/BAL	2116/BAL
	3328=LI	3716/BAL	3734/BAL	3804/BAL		1705/BAL
						2434/BAL
	75/DEF	3330=LI				
	511/BNE	519.1=EGU				

SCAN2	3329/B	3331-LI				
SCN	3671-LB	3684/BL				
SCNPTRSV	264-EQU	265/EQU	766/STW	789/LW		
SCNVBSIZ	519.10/LW	2848.92=DATA				
SCNVERB	519.11/EXU	2848.95=CW				
SCOR	336.26/GEN	336.27/ERROR				
SCRAM	218/SREF	1495/LI	1497/BAL			
SCRAMBLE	1407/BAL	1432/BAL	1488-EQU			
SCRAMBLX	1494/B	1496/BEZ	1499-PULL			
SFCAC	2669-TEXT	3171/LM				
SEND	2258.16-EQU	2848.30/DCMND				
SENDCMN	2258.21/B	2258.24-EQU				
SENDCNCL	3824/CAL1	3864-EQU				
SENDMES	2297/LM	2739-GEN				
SET	177/REF	2848.23/CMND				
SFTBUF	94/DEF	256-EQU	258/EQU	1390.1/STW	1390.2/STW	1393.1/LW
SFTBUFE	95/DEF	258-EQU	259/EQU			1393.2/LW
SFTBUFSZ	96/DEF	257-EQU	258/EQU			
SETFLE						

SFTNUMB	179/REF	3432/B			
SFTSTP	180/REF	3442/B			
SFTUP	77/DEF	3435=N8P			
SH;LNM	402=LI				
SHFTBUF	172/REF	920/CH	995/CH		
SHFT05	1112/BAL	1120/BAL	3757=EGU		
SHFT10	3777/BLE	3782=EGU			
SHFT20	3785=EGU	3791/BDR			
SHFT30	3788/BDR	3790=BDR			
SHOW	3790/BDR	3791=BDR			
SHOWXX	1509=EGU	2848.19/CMND			
SINBRFL	1522/BCS	1542=BUMP			
SISSET	117/DEF	345=EGU	635/LI	638/LI	3482/LI
SIZER	118/DEF	346=EGU	786/LI	825/LI	3479/LI
SIZETAB1	2374/BG	2412=EGU			
SIZETAB2	1888/LI	2790=EGU			
SIZETAB3	2800=EGU				
SIZETERM	2809=EGU				
	3328/LI	3330/LI	3410=EGU		



SIZVERB1				
2848.48-EQU	2848.92/DATA			
SIZVERB2				
2848.81-EQU	2848.93/DATA			
SPCASP				
572-EQU	2823/B			
SRHTAB1				
1889-CW	1892/BGEZ			
SS				
201.1/REF	2487.67/STS	2487.72/LW		
STACK0				
269-EQU	270/EQU	385/LI	3487/LI	
START				
1240-CI	2848.40/CMND	2848.65/CMND		
STARTERR				
1309/BLE	1321/BE	3090-LI		
START1A				
1248-PUSH	1292/B			
START2				
1253-LI	1282/B	1288/B	1291/B	1306/B
START3				
1277/BNE	1283-CD			
START4				
1241/BLE	1289-RES			
START5				
1246/BNE	1294-LCI			
START6				
1293/BE	1299-LI			
START7				
1271-RES	1314/B			
START70				
1262/BNE	1262-EQU			
START75				
1267/BE	1272-EQU			
START8				
1244/BE	1307-RES			
START9				

	1290/BAL	1310/BAL	1317-RFS				
STATUS							
	2244-RFS	2848.44/CMND	2848.66/CMND				
STATUSL							
	2246/BAL	3932-RES					
STKINIT							
	386/LW	2541-GEN	3488/LW				
STL00P							
	2375-EQU	2409/B					
STOPS							
	768/BAL	852/BAL	3419-RFS				
STRTBIT							
	128/DEF	356-EQU	1254/LI	1311/LI			
SUA60							
	2549-DATA						
SV:LSIZ							
	171/REF	919/LI	994/LI				
SWGKEY							
	2487.15-EQU	2487.69/BGE					
SWITCH							
	2487.9-EQU	2848.75/CMND					
SWONE							
	2487.77/BCS	2487.80-LI					
SWRSET							
	2487.23/BE	2487.29-LI					
SWSET							
	2487.26-EQU						
SYNTAX							
	78/DEF	1104/BAZ	1135/BG	1142/BG	1222/B	1264/BG	1270/BNE
	1275/BG	1284/BNE	1574/BNE	1576/BG	1678/BLE	1583/BG	1585/BLE
	1694/BNE	1707/BE	1709/BG	1715/BG	1719/BG	1780/BE	1782/BNE
	1786/BNEZ	1802/BG	1805/BG	1815/BE	1817/BG	1820/BG	1825/BG
	1887/BG	1923/BNE	2066/BG	2069.11/BG	2118/BG	2124/B	2431/BLE
	2436/BG	2444/B	2487.18/BNE	2487.20/BG	2487.25/BNE	2487.39/BNE	2487.42/BL
	2487.44/BG	2487.65/BGE	3436/B	3437/B	3439/B	3440/B	3441/B
	3443/B	3444/B	3445/B	3453-EQU	3644/BLZ	3646/BGE	3807/BG
	3809/BLZ						

SYN1	79/DEF	730/BNEZ	983/LI	2538/LI	3101/B	3468.1-EQU	
SYN3	3473/BEZ	3481/BEZ	3485-EQU				
SYS	615/LW	2543-TEXT	3535/LW				
SYSACT	2360/LW	2361/LW	2700-TEXT				
SYSERR	80/DEF	399/BNEZ	401/BNEZ	3494-EQU			
SZCELL	97/DEF	260.2-EQU	262/EQU				
S69PR0C	4-SET						
T\$ERR	190/REF 2539/B	1369/B 3522/BAL	1375.47/BAL 3780/B	1474/B 3845/B	2346/B	2420/BAL	2470/B
T\$ERRTXT	216/REF	420.13/BAL	980/BAL	2476/BAL	3821/BAL		
T\$WRTErr	217/REF	427.3/BAL	984/B	2479/B			
TABPL	1699/LM	267R-GEN					
TABS	1690-EQU	2848.22/CMND					
TABSA	1703-LI	1717/BE					
TABS1	1692/BE	1726-EQU					
TABS2	1730/BNEZ	1736-EQU					
TABS3	1743/BEZ	1763-EQU					
TABS4	1742-LB	1762/BIR					
TABS5	1746-LB	1750/B					

TABS6	1748/BNE	1751*STB	1757/B				
TABS7	1755/BE	1760*STB					
TFL	81/DEF	236.1=CSECT	1345/B	2848.88/USECT	4305/END		
TFLBUF	98.1/DEF	263*EQU	264/EQU	472/LB	479/STW	487/LB	1126/STM
	1471/LI	2271/LB	2272/STB	2289/STM	2293/STB	2295/STB	2302/STM
	2303/STB	2304/LI	2316/LB	2320/STB	2628/DATA	2741/DATA	3096/LW
	3342/LB	3556/LI	3711/LB	3786/LB	3787/STB	3872/LI	3893/LI
TFLCCBUF	652/BAL	714/BAL	1128/BAL	3871*RES			
TFLSTACK	99/DEF	259*EQU	260/EQU	313/MSP	323/GEN	326/GEN	333/GEN
	387/STD	446/PSM	1562/LW	1579/LW*	1695/LW	1737/LW	1832/LW
	1899/LW	1940/LW	1958/LW	2052/DATA	2172/LW	2209/LW	3140/LW
	3361/LW*	3460/LW	3489/STD	3912/LI	3933/PSW	3936/LW	3945/PSW
	3948/PLW	3963/PSW	3982/PSW	4016/LW	4050/PLW	4125/LW	4150/PLW
	4167/PSW	4175/PLW	4217/PLW	4218/LW			
TENTHBU	2551.2*EQU	4091/DW					
TERMERR	1895/B	1934/B	3110-LI				
TERMINAL	1876*EQU	2848.45/CMND	2848.67/CMND				
TERMS	3362/CB	3392*DATA	3410/EQU				
TERMTAB1	1889/CW	2777*TEXT	2790/EQU				
TERMTAB2	1908/LB	2795*DATA	2800/EQU				
TERMTAB3	1911/LB	2804*DATA	2809/EQU				
TERMTST	3351/BNE	3356*EQU					
TERMTST1							

3358/BE	3360-EQU			
TERMTYPE				
1903/LW	2005-DATA			
TESTE0M				
770/BE	806-LI	1041/BEZ		
TESTSI				
786-LI	282R/BEZ			
TESTSI1				
789-LW	82R/B			
TESTSI2				
788/BEZ	796-PUSH			
TEXTJUNK				
3939/LM	4287-RES			
TIMER				
3946/CAL1	4210-GEN			
TIMEVERT				
3949/BAL	4159-RES			
TM:00				
1049/LD	1082/LD	2603-TEXTC		
TM:08				
644/LD	896/LD	932/LD	2601-TEXTC	
TM:10				
1024/LD	1067/LD	2602-TEXTC		
TM:SI				
104/DEF	642/LD	797/LD	834/LD	2600-TEXTC
T0PPARSE				
765-EQU	812/LI			
TP				
1375.16-EQU	2848.29/CMND			
TPACCESS				
211/REF	4053/AND			
TPFLG				
364.2-EQU	1375.37/LW			
TSTAKSZ				
270-EQU	2541/GEN			
TTP				
218.1/SREF	1375.22/LI			

TTYPTAB						
TTYPO	1978/LW	2013=GEN				
TTYP1	2013/GEN	2021=TEXT				
TTYP2	2014/GEN	2022=TEXT				
TTYP3	2015/GEN	2023=TEXT				
TTYP4	2016/GEN	2024=TEXT				
TTYP5	2017/GEN	2025=TEXT				
TTYP6	2018/GEN	2026=TEXT				
TTYP7	2019/GEN	2027=TEXT				
TXALL	2020/GEN	2028=TEXT				
TXC	2487.34/CW	2548.3=TEXT				
TX1	2487.78/LI	2548.1=TEXT				
TYPE	2487.80/LI	2548.2=TEXT				
TYPE	3917/CLOSE					
UDEL	3918/OPEN	4139/CAL1	4257=GEN			
UDEL	1133=EGU	2848.32/CMND				
UDEL	132/DEF	361=EGU	497/CW	1136/LW		
UN	1243/CD	1269/CD	2588=TEXT			
UN	133/DEF	362=EGU	543/LW	584/LW	863/CW	1103/CW
UNMAPPER						

451.12/BAL	3564.49-EQU					
USERSQT						
2175/LM	2222-RES					
UTSPR8C						
3-SFT						
VECT						
519.12/BF	587.1-PULL					
VECTAB1						
519.10-LW	519.19/B					
VECTAB2						
519.11-EXU	519.13/BDR					
VECTB10						
606-EQU	1129/B					
VECTORS						
587.19/EXU	2848.92-EXU					
VECTOR1						
336.22/USECT	2848.2-CSECT	2848.48/EQU	2848.98/EXU			
VECTOR2						
336.24/USECT	2848.4-CSECT	2848.81/EQU	2848.99/EXU			
VERB1						
104.1/DEF	336.14/USECT	614/LW	616/LW	953/LW	954/LW	1212/LW
1704/LW	1796/LW	1812/LW	1879/LW	1918/LW	2848.6-CSECT	2848.95/CW
3291/LW	3534/LW	3601/CW				
VERB2						
104.2/DEF	336.12/USECT	519.17/8R	519.18/8R	1259/LD	1272/LD	1466/LM
1490/CD	1865/LD	1866/LW	1892.1/8R	2848.50-CSECT	2848.96/CD	3290/LD
3535.1/LW	3535.2/LD	3585/LD	3715/LD	3739/LD		
VERSCCELL						
106/DEF	244-EQU					
WHERE						
1552-EQU	2848.80/CMND					
WHERE1						
1586-LB						
WHERE2						
1591-CAL1						
WHERE3						
1599-CAL1	1601/BNE	1604/BNE	1609/B	1614/B	1625/B	

WHERE4						
1625.1-BAL	1672/BE	1673.1/BL	1679/B	1686.1/B		
WHERR						
1647/DATA	1647/DATA	1670-LB				
WHERR1						
1655/DATA	1655/DATA	1684-LI				
WHM						
1675/LI	1680-TEXT					
WHOPEN						
1591/CAL1	1652-GEN					
WHREAD						
1599/CAL1	1645-GEN					
WHSC						
1582-CI	3371/CI					
WIDTH						
1836/LM	2609-TEXT					
WR:USERS						
1434-STW						
WRITE						
107/DEF	451.11/CAL1	451.16/CAL1	451.32/CAL1	1621/CAL1	1632/CAL1	1677/CAL1
1686/CAL1	1732/CAL1	1768/CAL1	1854/CAL1	1949/CAL1	1970/CAL1	1987/CAL1
1995/CAL1	2002/CAL1	2138/CAL1	2142/CAL1	2181/CAL1	2189/CAL1	2197/CAL1
2222/CAL1	2257/CAL1	2459/CAL1	2487.81/CAL1	2617-GEN	3100/CAL1	3464/CAL1
3560/CAL1	3563/CAL1					
WRITEAM						
159/REF	651/BAL	1044/BAL	1152.3/BAL	1235.1/BAL		
WRITERC						
2381/CAL1	2722-GEN					
WRITOUT						
2381-CAL1	2421/B					
WUSR						
1437/LM	2652-GEN					
XA						
218.5/REF	3622/DW					
XABORT						
721-RES	3532/BNEZ					
XEXIT						



	676/B	684=RES	1346/B		
XFFFD					
	218.6/REF	2551.1/EGU			
XSHOW					
	1531/LD	259A=TEXTC			
XPO					
	2258.25/BR				
YBLK					
	3345/BE	3352=CI	3359/B		
YFSFDP					
	674=EGU				
YEXIT					
	692/BE	695=EGU			
Y0001					
	2551.2/EGU				
Y0004					
	359.1/EGU				
Y0008					
	361/EGU	3253/BR			
Y001					
	362/EGU				
Y002					
	363/EGU	2258.23/LW	2551/EGU		
Y008					
	364.1/EGU	2109.1/LW			
Y04					
	2550/EGU				
Y08					
	236.3/EGU				
Y1					
	364.2/EGU				
Y2					
	2312.7/CW				
Y8					
	587.11/LW				
ZEROBK					
	3975/BAL	4094/BAL	4109/BAL	4119/BAL	4196=LI

ZFR0BK1					
Z4	4197-LB	4204/BIR			
1DAY	4064-EQU	4067/LI	4070/LI		
\$RBM	3956-EQU	3958-EQU	3960/AT		
\$ROMFLG	650/B	859/BE	949-EQU		
!LOGSZ	123/DEF	351-EQU	648/LI	806/LI	888/LI
	188/REF	273/EQU			

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3 00000000  
4 00000001  
1\* 00000001  
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```

*M*      TEL      TERMINAL EXECUTIVE LANGUAGE
*S*      SYSTEM   SIG7FDP
          UTSPR0C  SET      0
          S69PR0C  SET      1
          BITS     SET      1          ENABLE DEFAULT LITERALS
          SYSTEM   UTS
    
```

\*\*\*\*\*

```

*P*      NAME:    TEL
    
```

```

*P*
    
```

```

*P*      PURPOSE:  TEL IS THE DEFAULT COMMAND PROCESSOR FOR TIME-
    
```

```

*P*      SHARING AND THUS SERVES AS THE TERMINAL USER'S
    
```

```

*P*      INTERFACE TO CP-V'S SERVICES. IT IS FUNCTIONALLY
    
```

```

*P*      EQUIVALENT TO 'CCI' IN BATCH MODE. SOME OF THE
    
```

```

*P*      MAJOR FUNCTIONS PERFORMED BY TEL ARE:
    
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```

*P*      1. CALL USER PROGRAMS AND SYSTEM PROCESSORS
    
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```

*P*      2. ASSOCIATE DELTA, OR OTHER DEBUGGERS
    
```

```

*P*      3. MANIPULATE THE ASSIGN/MERGE RECORD (VIA THE
    
```

```

*P*      SET COMMAND) TO ESTABLISH DEVICE & FILE
    
```

```

*P*      ASSIGNMENTS
    
```

```

*P*      4. PERFORM PARTIAL CHECKPOINT/RESTORE (SAVE/GET)
    
```

```

*P*      5. CHANGE TERMINAL DEFAULTS, SUCH AS TIMING
    
```

```

*P*      ALGORITHMS AND PAGINATION
    
```

```

*P*      6. 'SUPERCLOSE' SYMBIONT FILES (PRINT COMMAND)
    
```

```

*P*      7. DISPLAY SYSTEM PARAMETERS & BATCH JOB STATUS
    
```

```

*P*      8. SEND MESSAGES TO THE CP-V OPERATOR'S CONSOLE
    
```

```

*P*
    
```

```

*P*      DESCRIPTION:
    
```

```

*P*      TEL LIVES IN THE SPECIAL SHARED PROCESSOR
    
```

```

*P*      AREA (ABOVE X'1C000') AND MAY REMAIN
    
```

```

*P*      ASSOCIATED WITH THE USER ALONG WITH HIS PROBLEM
    
```

```

*P*      PROGRAM. TEL IS INVOKED INITIALLY BY AN
    
```

```

*P*      INTERPRETIVE EXIT FROM THE LOGON PROCESSOR.
    
```

```

*P*      THEREAFTER, TEL REGAINS CONTROL WHEN A PROBLEM
    
```

```

*P*      PROGRAM OR SYSTEM PROCESSOR ABORTS OR EXITS, AND
    
```

```

*P*      WHEN THE TERMINAL USER TYPES 'CONTROL-Y' OR
    
```

```

*P*      'ESC=ESC'. ALL EXITS ARE INTERPRETIVE EXCEPT ABORT
    
```

```

*P*      CASES, WHICH CAUSE THE USER AREA TO BE CLEANED
    
```

H01 18:36 SEP 08, '75

TEL-TERMINAL EXECUTIVE LANGUAGE

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```

*P*          UP BY STEP, FOLLOWED BY RE-ASSOCIATION OF TEL.
*P*          FINAL EXIT FROM TEL IS MADE TO LOGON, WHERE THE
*P*          ACCOUNTING RECORD IS WRITTEN AND THE USER IS LOGGED
*P*          OFF.
*P*          TEL IS LOADED WITH MONSTK AND COPIES OF THE
*P*          PASS2-GENERATED DEVICE AND OPLABEL TABLES (USED BY
*P*          SET COMMAND). IT MUST ALSO HAVE SPECIAL JIT
*P*          ACCESS AND THE MAXIMUM MEMORY FLAGS SET.
*P*          REFERENCE:
*P*          TEL IS DESCRIBED IN THE CP-V TIME-SHARING
*P*          REFERENCE MANUAL, 900907.

```

\*\*\*\*\*

SPACE 3

51  
52  
54

00000000

```

*****
DEBUG      SET      0          NORMAL MODE
*****

```

TEL-TERMINAL EXECUTIVE LANGUAGE

```

55 PAGE
56 * *****
57 * DEFS *
58 * *****
59 DEF AMBUF SBUF2 USED TO READ A/M RECORD
1* DEF BINDECBCD CONVERTS BINARY TO DEC. EBCDIC
60 DEF CLEANSTACK RESETS TELSTACK & PROMPTS
61 DEF CMNERR1 PROCESS TEL ERRORS
1* DEF CPXEND ENTRY AT TERMINAL READ
62 DEF DECBIN EBCDIC TO BINARY CONV.
63 DEF FID GET N.A.P OF FILES
64 DEF FLOP OPENS M:TEL TO A FILE
65 DEF FREEBUF1 RELEASES TEL'S CONTEXT PAGE
66 DEF GETFIELD SCAN INTO D1
67 DEF HEX2EBC CONVERTS BINARY TO HEX EBCDIC
68 DEF INBREAK1 ABORTS TEL
69 DEF NFND CONVERTS LMN NAME TO TEXTC
70 DEF BNERR PRINTS ERROR MSG
71 DEF PATCH PATCH AREA
72 DEF NTJBST ISSUE ERROR 030100
73 DEF PROMPT TYPES BANG & READS UC
1* DEF PROMPTF ENTRY FOR COMMAND FILES
74 DEF SCAN SCANS COMMAND LINE FOR FIELDS
75 DEF SCAN# ENTRY TO SCAN WITH # AS DELIMITER
77 DEF SETSTP EXU LIST
78 DEF SYNTAX TYPES IEH I
79 DEF SYN1 CLEANUP AFTER INTERNAL ERROR MSG
80 DEF SYSERR CLEANUP AFTER SYSTEM ERROR
81 DEF TEL MAIN ENTRY POINT
82 *
83 *DATA DEFS
84 *
1* DEF CPXUSR BIT IN JIT, WORD 0, MEANS
2* ** EXECUTING FROM COMMAND FILE.
85 DEF EXLYBIT EXECUTE ONLY BIT IN JIASSIGN
1* DEF FEXTIMG TEMP FILE EXT BITS IN SBUF1
86 DEF FLOPBUF OPEN FPT IN CONTEXT PAGE

```

87	DEF	FPFPT	FREE PAGE FPT
88	DEF	FOF9	
89	DEF	GPFPT	GET PAGE FPT
1*	DEF	MSTRMODE	FPT FOR MIMASTER BEFORE SUA
90	DEF	ON	TEXT
91	DEF	OPENBIT	FCD BIT IN DCB WORD 0
92	DEF	OPENME	OPEN PRIME PLIST FOR UC
93	DEF	OVER	TEXT
1*	DEF	RETN	TEXT CARRIAGE RETURN
94	DEF	SETBUF	PLIST BUILD AREA IN SBUF1
95	DEF	SETBUFE	END OF SETBUF
96	DEF	SETBUFSZ	SIZE OF SETBUF
97	DEF	SZCELL	TEMP IN SBUF1
98	DEF	EXPNSZ	TEMP IN SBUF1
1*	DEF	TELBUF	COMMAND BUFFER IN CONTEXT PAGE
99	DEF	TELSTACK	SPD IN SBUF1
100	DEF	DCBTAB2	2ND DCBTAB IN SBUF1
101	DEF	M:TEL	TELIS SPECIAL DCB IN SBUF1
102	DEF	M:TELSIZ	LENGTH OF M:TEL
104	DEF	TM:SI	TEXT M:SI
1*	DEF	VERB1	LIST OF 4 BYTE COMMANDS
2*	DEF	VERB2	DBLWD OF BLANKS, DBLWD CMD LIST
106	DEF	VERSCCELL	MONITOR ROOT CELL (ABS)
107	DEF	WRITE	FPT TO WRITE UC
111			
112	*	* J:TELBUF BIT DEFS	
113	*		
114	DEF	JSTEP	
115	DEF	BRKBIT	
116	DEF	PHSFLG	
117	DEF	SINOREL	
118	DEF	SISSET	
119	DEF	ONBIT	
120	DEF	OVERBIT	
121	DEF	DELTABIT	
122	DEF	FDPBIT	
123	DEF	\$ROMFLG	

H01 18136 SEP 08, 1975

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TEL-TERMINAL EXECUTIVE LANGUAGE

DEF COMFLG  
DEF LOFLG  
DEF DONTBIT  
DEF CCBUFFBIT  
DEF STRTBIT  
DEF FIPROC  
DEF MSGEBIT  
DEF IQUIT  
DEF UDELTFLG  
DEF UNKLMN  
DEF EXTNOBIT

135		PAGE	
136	*	*****	
137	*	* REFS *	
138	*	*****	
139		REF M:UC	JIT DCB
140		REF M:XX	JIT DCB
141		REF SBUF1VPA	SPECIAL BUFFER 1
142		REF SBUF2VPA	SPECIAL BUFFER 2
143		REF J:TELFLGS	JIT FLAGS UNIQUE TO TEL
144		REF J:ABC	ABORT CODE
145		REF ER0	JIT DISPLACEMENT OF ERROR SUBCODE
146		REF J:RNST	JOB STATUS BITS
1*		REF JBICCAR	SAVED ARG FROM MIUC COMMAND READ
151		REF J:AMR	DISC ADDRESS OF A/M RECORD
152		REF J:OPT	USER ACCESSIBLE ASSIGNMENTS
157		REF J:ABUF	VIRTUAL CORE ADDRESS OF A/M RECORD
158		REF READAM	READS A/M RECORD
159		REF WRITEAM	WRITES A/M RECORD
160		REF ASSIGN	EDITS A/M RECORD
161		REF,1 JB:FRS	FINAL RUN STATUS
162		REF J:EXTENT	EXIT CONTROL ADDRESS & FLAGS
163		REF FILENT	BUILDS SIMPLE FILE PLIST
164		REF PLIST	SKELETON PLIST FOR A/M ENTRIES
165		REF MODE	WORD 3 IN SKELETON PLIST
166		REF PPAS	PASSWORD VLP IN PLIST
167		REF PACC	ACCOUNT VLP IN PLIST
168		REF NAME	FILE NAME VLP IN PLIST
169		REF J:ACCN	ACCOUNT FIELD IN JIT
170		REF J:UNAME	USER LOGON NAME IN JIT
171		REF SV:LSIZ	SIZE OF LOGICAL NAME TABLE (SYSGEN)
172		REF SH:LNLM	LOGICAL NAME TABLE (SYSGEN)
173		REF J:JIT	START OF JIT
174		REF,1 JB:ILPP	LINES PER PAGE
175		REF,2 JH:PC	TERMINAL PAGE COUNT
176		REF,1 JB:PCW	TERMINAL PAGE WIDTH
177		REF SET	HANDLES SET COMMAND
178		REF RESET	HANDLES RESET COMMAND



H01 18136 SEP 08, 1975

TEL-TERMINAL EXECUTIVE LANGUAGE

45

179	REF	SETFLE	BUILDS SHORT FILE PLIST
180	REF	SETNUMB	BUILDS DEVICE VOLUME PLIST
181	REF	J:CCBUF	CONTROL COMMAND BUFFER
182	REF	J:UTIME	USER ACCOUNTING CELLS
183	REF	J:PTIME	PROCESSOR ACCOUNTING CELLS
184	REF	J:INTER	TERM. INTERACT. ACCTING CELL
185	REF	J:CALCNT	COUNT OF CALS
186	REF	J:LMN	*TEMP* RUNNING PRGM NAME
187	REF	J:EXLY	EXECUTE ONLY FLAG WORD (J:ASSIGN)
188	REF	:LOGSZ	SIZE OF :USER RECORD
189	REF	J:START	*TEMP* RUNNING PRGM START ADDR
190	REF	T:ERR	PRINTS TEL'S ERROR MSGS
1*	REF	OX	COMMAND FILE HANDLER
2*	REF	CPXREAD	READS COMMANDS FROM A FILE
3*	REF	CPXBREAK	CPX CLEANUP FOR CONTROL-Y
4*	REF	ECHO	TOGGLES ECHO BIT IN J:OPT
191	REF	JSBUF1VP	PAGE NUMBER OF SBUF1
192	REF	FPMC	FREE PAGE MAP CONSTANT
193	REF	JX:CMAP	PHYSICAL PAGE MAP
194	REF	J:ASSIGN	LIMIT EXCEEDED BITS
195	REF	PRDCRM	PERM RAD SPACE REMAINING
196	REF	PRDPRM	PERM DISK SPACE REMAINING
197	REF	J:ICPPB	FILE EXTENSION BITS
198	REF	CIC	COUNT OF CARDS READ
1*	REF	COCMESS	ADMINISTRATIVE MSG IN MONITOR
199	REF	CPB	COUNT OF CARDS PUNCHED
200	REF	CUPB	COUNT OF USER PAGES OUT
201	REF	CDPB	COUNT OF DIAGNOSTIC PAGES OUT
1*	REF	SS	JIT DISPL. TO PSEUDO SENSE SWITCHES
202	REF	SAVE	SAVE COMMAND ROUTINE
203	REF	GET	GET COMMAND ROUTINE
204	REF	BLOMTEL	CREATES MITEL IN SBUF1
205	REF	KILLMTEL	RELEASES MITEL IN SBUF1
206	REF	FMTELCL	FORCES MITEL CLOSED
207	REF, 1	JB:PRIV	USER'S PRIVILEGE
208	REF	COCLN	LINE NUMBER IN MIUC DCB
209	REF	DCACCESS	# OF DC I/O OPERATIONS

001 18:36 SEP 08, '75

TEL-TERMINAL EXECUTIVE LANGUAGE

210	REF	DPACCESS	# OF DP I/O OPERATIONS
211	REF	TPACCESS	# OF TAPE OPERATIONS
1*	REF	S:COUP	COUPLING FEATURE CONTROL CELL.
216	REF	T\$ERRTXT	READS ERRMSG INTO TELSTACK
217	REF	T\$WRTERR	WRITES ERRMSG & CLEARS TELSTACK
218	SREF	SCRAM	PASSWORD SCRAMBLER
1*	SREF	TTP	IF DEFINED, TP IS GENIED
2*			
3*			
4*			
5*	REF	XA	LITERAL CONSTANT
6*	REF	XFFFD	LITERAL CONSTANT
7*			
8*			
9*			
10*	REF	AM10RG	POINTER TO AVAILABLE A/M SPACE
11*	REF	AM1STD0P	INTER-JOB-STEP IMAGE OF J:0PT

```

*****
* REFS FROM LITERALS *
*****
*****
* REFS FROM AMRDEF *
*****

```

TEL-TERMINAL EXECUTIVE LANGUAGE

Line	Hex	Symbol	Page
219		PAGE	
220	00000000	R0 EQU	0
221	00000001	R1 EQU	1
222	00000002	R2 EQU	2
223	00000003	R3 EQU	3
224	00000004	R4 EQU	4
225	00000005	R5 EQU	5
226	00000006	R6 EQU	6
227	00000007	R7 EQU	7
228	00000008	SR1 EQU	8
229	00000009	SR2 EQU	9
230	0000000A	SR3 EQU	10
231	0000000B	SR4 EQU	11
232	0000000C	D1 EQU	12
233	0000000D	D2 EQU	13
234	0000000E	D3 EQU	14
235	0000000F	D4 EQU	15
236		SPACE	3

1*	02 00000	TEL	CSECT	1	
2*	FFF07ECP	MUCRSET	EQU	'X128131'	'X1FFFD7ECF1', MASK TO RSET M;UC
3*	0000001C	CPXUSR	EQU	Y08	COMMAND FILE USER
243	EXT	AMBUF	EQU	SBUF2VPA	WINDOW PAGE TO READ A/M RECORD
244	0000002B	VERSCCELL	EQU	X'2B'	MONITOR TYPE CELL
245	00000004	ARS	EQU	M;UC+4	
246	0000008L	MAXMSG	EQU	140	MAXIMUM ERRMSG RECORD LENGTH
247		* NOTE	ABOVE SYMBOL MUST MATCH DEFINITION IN OTHER TEL MODULES		
248		*	OR TERRIFIC MAYHEM WILL RESULT ( BUT IT SHOULD NEVER NEED		
249		*	TO BE CHANGED ANYWAY).		

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260  
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2\*  
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264  
265  
266  
1\*  
268  
269  
270  
271  
272

EXT  
00000FF  
00000FF S  
00000100 S  
00000102 S  
00000103 S  
00000104 S  
00000105 S  
00000106 S  
0000011A S  
0000011B S  
00000120 S  
00000133 S  
0000028 S  
0000015B S  
00000CA4

S  
S  
S  
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S  
S  
S  
S  
S  
S

PAGE  
\*\*\*\*\*  
\*  
\* THE FOLLOWING DEFINES THE LAYOUT OF TEL'S DATA PAGE  
\* AND SHOULD BE CHANGED WITH CARE  
\*  
SETBUF EQU SBUF1VPA WINDOW PAGE, SP. BUFFER 1  
SETBUFSZ EQU 255  
SETBUFE EQU SETBUF+SETBUFSZ  
TELSTACK EQU SETBUFE+1 SPD MUST BE ON DWD BOUNDARY  
NLSAVE EQU TELSTACK+2 TEMP FOR 1ST WORD IN TELBUF  
FEXTIMG EQU NLSAVE+1 IMAGE OF FILE EXT BITS AT A/M READ  
SZCELL EQU FEXTIMG+1  
EXPNDSZ EQU SZCELL+1  
TELBUF EQU EXPNDSZ+1  
SCNPTRSV EQU TELBUF+20  
FL0PBUF EQU SCNPTRSV+1 PLIST BUILD AREA  
DCBTAB2 EQU FL0PBUF+1A  
M:TEL EQU DCBTAB2+6  
MITELSIZ EQU 40 MINIMUM DCB SIZE  
STACKO EQU M:TEL+MITELSIZ TELSTACK STARTS HERE  
TSTAKSZ EQU SBUF1VPA+511+STACKO SIZE OF TELSTACK  
\*\*\*\*\*  
SPACE 3

273 EXT  
274 0000000

LOGSIZE EQU ;LOGSZ  
FORSEC EQU 0 SET TO 0 FOR ELAP TIME IN MIN

305  
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336

00000000

LIST  
LIST

```

*
* PRBC TO CHANGE STACK POINTER THE AMOUNT SPECIFIED BY THE 1ST ARGUMENT
* USING THE REGISTER SPECIFIED BY THE 2ND ARGUMENT.
*
BUMP      CNAME
          PRBC
LF        LI,AF(2) AF(1)
          MSP,AF(2) TELSTACK
          PEND

*
* PUSH OR PULL N WORDS SPECIFIED BY 1ST ARGUMENT INTO REGS STARTING
* AT 2ND ARGUMENT.
*
PUSH      CNAME      X'9',X'B'
PULL      CNAME      X'8',X'A'
          PRBC
          DB          NUM(AF)=1
LF        GEN,1,7,4,3,17 0,NAME(1),AF(1),0,TELSTACK
          FLSE
          DB          AF(1)=1
LF        GEN,1,7,4,3,17 0,NAME(1),AF(2),0,TELSTACK
          ELSE
          DB          AF(1)=16
LF        LCI          0
          FLSE
LF        LCI          AF(1)
          FIN
          GEN,1,7,4,3,17 0,NAME(2),AF(2),0,TELSTACK
          FIN
          FIN
          PEND
    
```

```

1*
2*
3* * THESE PROCS ARE USED TO GENERATE THE VARIOUS TABLES USED TO
4* * IDENTIFY AND EXECUTE VALID TEL COMMANDS
5* *
6*
7* 00000000 I,J OPEN I,J,K,S,BPCDS
8* 00000000 DBIT1 SET 0
9* 00000000 DBIT2 SET 0
10* 00000000 CMND CNAME 0
11* 00000001 DCMND CNAME 1
12* PROC
13* BPCDS SET X'6801',X'126'
14* S SET S:NUMC(AF(1))
15* DB S<=4
16* USECT VERB1
17* ELSE
18* USECT VERB2
19* FIN
20* LF(1) TEXT AF(1)
21* DB S<=4
22* USECT VECTOR1
23* ELSE
24* USECT VECTOR2
25* FIN
26* LF(2) GEN,12,20 BPCDS(SCBR(AF(2),B,LD6)),AF(3)
27* ERROR,7,SCBR(AF(2),B,LD6)=0 'UNKNOWN BPCD IN AF 2'
28* DB S<=4
29* I SET I+1
30* K SET 1+(I**=5)
31* DBIT1(K) SET DBIT1(K) INAME**((I&X'1F')=1)
32* ELSE
33* J SET J+1
34* K SET 1+(J**=5)
35* DBIT2(K) SET DBIT2(K) INAME**((J&X'1F')=1)
36* FIN
37* PEND

```

H01 18:36 SEP 08, '75  
38\*  
337

TEL=TERMINAL EXECUTIVE LANGUAGE  
CLOSE I,J,K,S,OPCDS  
TITLE 'TEL=TERMINAL EXECUTIVE LANGUAGE'

338		*			*****	
339		*			* BIT USAGE OF JITELFLGS *	
340		*			*****	
341		*				
342	00000001		JSTEP	EGU	1	AT JOB STEP
343	00000002		BRKBIT	EGU	2	BREAK RECIEVED
344	00000004		PHSFLG	EGU	4	0=BUILD 00 DCB, 1=BUILD L0 DCB
345	00000008		SIN0REL	EGU	8	DO NOT RELEASE SI ENTRIES FROM A/M
346	00000010		SISSET	EGU	X'10'	SI HAS BEEN ASSIGNED
347	00000020		0NBIT	EGU	X'20'	'0N' HAS BEEN SPECIFIED
348	00000040		0VERBIT	EGU	X'40'	'0VER' HAS BEEN SPECIFIED
349	00000080		DELTA BIT	EGU	X'80'	'UNDER DELTA' HAS BEEN SPECIFIED
350	00000100		FDPBIT	EGU	X'100'	'UNDER FDP' HAS BEEN SPECIFIED
351	00000200		*ROMFLG	EGU	X'200'	DEFAULT FOR * ROM IN PROGRESS
352	00000400		C0MFLG	EGU	X'400'	UNIQUE 'COMMENT' CMD INDICATOR
353	00000800		L0FLG	EGU	X'800'	UNIQUE 'LIST' CMD INDICATOR
354	00001000		D0NTBIT	EGU	X'1000'	'D0NT' IN EFFECT
355	00002000		CCBUFBIT	EGU	X'2000'	REPROCESS CURRENT BUFFER IMAGE
356	00004000		STRTBIT	EGU	X'4000'	LMN WAS DETECTED IN START PROCESS
357	00008000		FIPROC	EGU	X'8000'	N.A.P HAS BEEN PROC DURING PARSE
358	00010000			EGU	X'10000'	UNUSED
359	00020000		MSGEBIT	EGU	X'20000'	END OF VALID MSG FLAG
1*	00000013	S	IQUIT	EGU	Y0004	IMPLIED QUIT FLAG
361	00000014	S	UDELTFLG	EGU	Y0008	UNDER DELTA IMPLIED FOR NEXT COMMAND
362	00000015	S	UNKLMN	EGU	Y001	UNRECOGNIZED LOAD MODULE
363	00000016	S	EXTNDBIT	EGU	Y002	USER REQUESTED EXTENDED MEMORY MODE
364	00400000			EGU	X'400000'	PROCESSING SINGLE USR ABRT (INITRLVR
1*	00000018	S	PIDGFLG	EGU	Y008	DEFERRED MSG PENDING
2*	00000019	S	TPFLG	EGU	Y1	REQUEST LOGOFF TO TP





TEL-TERMINAL EXECUTIVE LANGUAGE

```

40*      *      | | | | | >COMFLG=PROCESSING 'COMMENT' COMMAND
41*      *      | | | | | >LOFLG=PROCESSING 'LIST' COMMAND
42*      *      | | | >DONTBIT=USER SAID DONT SOMETHING
43*      *      | | >CCBUFBIT=REPROCESS CURRENT CMD IN CCBUF
44*      *      | >STRTBIT=LMN WAS DETECTED ON START COMMAND
45*      *      >FIPRBC=N.A.P HAS BEEN PROCESSED DURING PARSE

```

```

*****
* BIT USAGE OF J:OPT *
*****

```

```

50*      *
51*      *
52*      * J:OPT | | | | | | | | | | | | | | | |
53*      * (1ST HW) | 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 |
54*      *      |-----|-----|-----|-----|
55*      *      |                                     >DEBUG (FORTRAN COMPILE)
56*      *      >ECHO COMMAND FILE
57*      *

```

```

58*      *
59*      * J:OPT | 1 1 1 1 1 2 2 2 2 2 2 2 2 3 3 |
60*      * (2ND HW) | 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 |
61*      *      |-----|-----|-----|-----|

```

```

62*      *      | | | | | | | | | | | | | | | | >LIST = M:LO ASSIGNMENT
63*      *      | | | | | | | | | | | | | | | | >
64*      *      | | | | | | | | | | | | | | | | >
65*      *      | | | | | | | | | | | | | | | | >
66*      *      | | | | | | | | | | | | | | | | > M:SI ASSIGNMENT
67*      *      | | | | | | | | | | | | | | | | >
68*      *      | | | | | | | | | | | | | | | | >
69*      *      | | | | | >OUTPUT = M:GO ASSIGNMENT
70*      *      | | | | >COMMENT = M:DO ASSIGNMENT
71*      *      | | | >
72*      *      | | >
73*      *      | >

```

```

365
367
1*
369
1*
372
1*
2*
376
377
378
1* 02 00000 6A400A37
2* 02 00001 68000005
3*
4* 02 00002 045007F8
5* 02 00003 0F000000 X
   02 00004 00600100 A
6*
7*      02 00005
8* 02 00005 22900000 N
9* 02 00006 048007EC
385 02 00007 22C0015B N
386 02 00008 32D00710
387 02 00009 15C00100 N
388
389 02 0000A 6A000000 X
390
391      00000001
392 02 0000B 32D00000 X
393 02 0000C 68300924
394
395 02 0000D 32D00000 X
396 02 0000E 21D00002 A
397 02 0000F 69400823
398 02 00010 72700000 X
399 02 00011 69300913
400 02 00012 72700000 X
    
```

PAGE

```

*****
*S* SCREECH CODE: 60=00
*S* REPORTED BY: TEL
*S* MESSAGE: TEL ISSUED SINGLE USER ABORT ON YOU
*S* TYPE: SINGLE USER ABORT
*S* REGISTERS: R15 HAS SUBCODE.
*S* REMARKS: USER ALREADY HAS SBUF1 AT ENTRY TO TEL.
*S* THIS SCREECH INDICATES A PROBLEM IN MEMORY MGMT OF
*S* PHYSICAL P00L PAGES.
*****
BAL,R4 CHKBUF1 DB WE HAVE SBUF1 ALREADY
B GETSB1 NB, EVERYTHING'S O.K.
* WE'VE GOT SBUF1. BOY, ARE WE IN TROUBLE...
CAL1,B MSTRMODE GET MSTRMODE
SUA X'60',0

***
GETSB1 EQU $
LI,SR2 SBUF1VPA TEL'S CONTEXT PAGE
CAL1,B GPFFT GET IT (& ASSUME WE GOT IT)
LI,D1 STACK0 START OF STACK
LW,D2 STKINIT INITIAL STACK SIZE
STD,D1 TELSTACK INIT. STACK PTR DBLWD
*
BAL,R0 BLDMYEL INITIALIZE MITEL 'DCB'
*
DB DBUG=0 ***NORMAL MODE***
LW,D2 JIAMR CHK IF A/M RECORD EXISTS
BEZ ERRABN1 IF NOT, LOG USER OFF
FIN
LW,D2 J,TELFLGS
CI,D2 BRKBIT
BANZ BREAKER BREAK SET
LB,R7 JIABC TEST STATUS OF LAST MAJOR COMMAND
BNEZ SYSERR
LB,R7 J,IRNST TEST FOR RUN STATUS FLAGS SET
    
```

H01 18:36 SEP 08, 1975

TEL-TERMINAL EXECUTIVE LANGUAGE

401 02 00013 69300913  
 402 02 00014 22700001 A  
 403 02 00015 47700000 X  
 404 02 00016  
 405 02 00016 22702000 A  
 406 02 00017 4A700000 X  
 407 02 00018 6830001D  
 408 02 00019 6A000A2C  
 409 02 0001A 72100000 X  
 410 02 0001B 22F00000 A  
 411 02 0001C 68000071

SETUP  
 BUFINT

BNEZ SYSERR  
 LI,R7 JSTEP  
 STS,R7 J:TELFLGS  
 RES 0  
 LI,R7 CCBUFBIT  
 LS,R7 J:TELFLGS  
 BEZ PROMPT  
 BAL,R0 CCBUFTEL  
 LB,R1 JB:CCARS  
 LI,D4 0  
 B ITSBK

SET JOB STEP FLAG  
 CHECK FOR VALID INFO  
 IS CURRENT BUFFER VALID  
 NO  
 GET SAVED ARS  
 CLEAR IMPLIED DELTA & BUIT FLAGS

PAGE

```

412
413
414
415
417      02 0001D      04800517
418      02 0001E      7020000A A
419      02 0001F      6840002A
1*
2*
3*
4*
5*
6*
7*
8*
9*      02 00020      75A00005 A
10*     02 00021      22400040 A
11*     02 00022      048007EF
12*     02 00023      22C30E00 A
13*     02 00024      6AB00000 X
14*     02 00025      72900005 A
427     02 00026      6AB00961
1*      02 00027      22300005 A
2*      02 00028      B5D60001 A
3*      02 00029      6A000000 X
4*      02 0002A      02200070 A
444     02 0002B      2A800000 X
446     02 0002C      04800100 N
449     02 0002D      229D7ECF A
450     02 0002E      4A900000 X
451     02 0002F      35900000 X
1*      02 00030      32700018 N
3*      02 00031      31700000 X
4*      02 00032      68400043

```

```

*
* TEL MUST ISSUE A PROMPT( ) BY GIVING CBC A SINGLE CHARACTER WRITE.
*

```

```

PROMPT  EQU      $
CAL1,8  CBCSTATC  HAVE WE REJECTED A COUPLE ATTEMPT
LC       SR3      WE HAVE, IF THE 40 BIT OF MODE4
BCR,4    PROMPTO  IS SET AND TIE NE OUR LINE #.

```

```

*****
*E*      ERROR:   GRP 3, OE=00
*E*      DESCRIPTION: SOMETIME SINCE WE LAST PROMPTED, SOMEONE
*E*      UNSUCCESSFULLY TRIED TO COUPLE TO THIS USER (BIT 1
*E*      OF MODE4 = 1). THE MODE4 BIT IS RESET AND WE LET THE
*E*      USER KNOW WHICH LINE NUMBER IT WAS SO HE CAN DECIDE
*E*      TO ALLOW COUPLING.
*****

```

```

*****
STB,SR3  R5      SAVE LINE NUMBER IN R5
LI,R4    X'40'    RESET MODE4, BIT 1
CAL1,8   MCTCPL  DO MICT TO RESET MODE4
LI,D1    X'030E00' ERRMSG KEY
BAL,SR4  T$ERRTXT READ MESSAGE TEXT
LB,SR2   R5      RETRIEVE LINE NUMBER
BAL,SR4  HEX2EBC MAKE THAT CHARACTERS
LI,R3    5       INSERT LINE NUMBER
STW,D2   *R1,R3  IN MESSAGE TEXT
BAL,R0   T$WRTERR AND WRITE MSG.
PROMPTO  EQU      $
LCI      7       SAVE M:UC DATA
LM,SR1   M:UC
PSM,SR1  TELSTACK PUSH 1ST 7 WORDS OF M:UC
LI,SR2   MUCRSET RSET MOD,DRC & VFC BITS
LS,SR2   M:UC    BEFORE READING RESPONSE
STW,SR2  M:UC
PIDGMSG  EQU      $
LW,R7    PIDGFLG IS THERE A
CW,R7    J:TELFLGS DEFERRED MSG
BAZ      N0EGG   NO, GO ON...

```

H01 18:36 SEP 08, '75

TEL-TERMINAL EXECUTIVE LANGUAGE

58

5*	02	00033	22A00000	N	LI,SR3	C0CMSS	YES, MAP 0NT0
6*	02	00034	6A80094F		BAL,SR1	MAPPER	MONITOR
7*	02	00035	F3000009	A	MTB,0	*SR2	CHECK COUNT OF DEFERRED MSG
8*	02	00036	6830003F		BEZ	N0MSG	THERE IS NO MSG * IT'S GONE...
9*	02	00037	22100723		LI,R1	RETN	TYPE CARRIAGE
10*	02	00038	22200001	A	LI,R2	1	RETURN BEFORE
11*	02	00039	04100790		CAL1,1	WRITE	MESSAGE.
12*	02	0003A	22100010	A	LI,R1	X'10'	TO SET
13*	02	0003B	47100000	X	STS,R1	M:UC	UBTD TO 1.
14*	02	0003C	32100009	A	LW,R1	SR2	BUFFER ADDRESS
15*	02	0003D	F2200009	A	LB,R2	*SR2	MSG BYTE COUNT
16*	02	0003E	04100790		CAL1,1	WRITE	WRITE THE DEFERRED MSG
17*	02	0003F			EQU	*	
18*	02	0003F	6AB0095C		BAL,SR4	UNMAPPER	FIX USER'S MAP
19*	02	00040	229D7ECF	A	LI,SR2	MUCRSET	CLEAN M:UC
20*	02	00041	4A900000	X	LS,SR2	M:UC	BEFORE WRITE
21*	02	00042	35900000	X	STW,SR2	M:UC	
22*	02	00043			EQU	*	
23*							
24*							
25*							
26*	02	00043	32B0001C	N	LW,SR4	CPXUSR	ARE WE IN
27*	02	00044	31B00000	X	CW,SR4	J:JIT	COMMAND FILE MODE
28*	02	00045	69400000	X	BANZ	CPXREAD	YES, GET NEXT COMMAND FROM FILE.
29*	02	00046			EQU	*	
30*	02	00046	22100723		LI,R1	RETN	
31*	02	00047	22200002	A	LI,R2	2	
32*	02	00048	04100790		CAL1,1	WRITE	WRITE PROMPT (BANG)
453	02	00049	04100794		CAL1,1	READ	READ RESPONSE INTO TELBUF
454	02	0004A	32100004	N	LW,R1	ARS	TEST TERMINATING CHARACTER FOR AN
455	02	0004B	2510006F	A	SLS,R1	=17	ESCAPE.
456	02	0004C	21100000	A	CI,R1	0	REISSUE READ IF ARS=0
457	02	0004D	68300049		BE	PROMPTA	
1*	02	0004E			EQU	*	
2*	02	0004E	02200070	A	PULL	7,SR1	RESTORE M:UC DATA
	02	0004F	0A800100	N			
3*	02	00050	35800000	X	STW,SR1	M:UC	RESTORE WORD ZERO

N0MSG

N0EGG

CPXEND

PROMPTA

PROMPTF

\* IF THE USER IS IN CPX MODE, GO READ FROM THE COMMAND FILE

H01 18136 SEP 08, '75

TEL-TERMINAL EXECUTIVE LANGUAGE

4*	02	00051	32800009	A	LW,SR1	SR2	RESTORE WORD ONE,
5*	02	00052	229FFF00	A	LI,SR2	=X'100'	EXCEPT FOR BYTE 3
6*	02	00053	47800001	N	STS,SR1	M:UC*1	
7*	02	00054	02200050	A	LCI	8	
8*	02	00055	25A00003	N	STM,SR3	M:UC*3	REST OF SAVED M:UC DATA
464							
465	02	00056	32F00000	X	*		
1*	02	00057	31F00013	N	LW,D4	J:TELFLGS	CHECK IF IMPLIED QUIT
467	02	00058	68400067		CW,D4	IGUIT	OCCURRED ON PREVIOUS COMMAND
1*	02	00059	38F00013	N	BAZ	PRMPT50	B IF NO
469	02	0005A	35F00000	X	SW,D4	IGUIT	RESET IMPLIED QUIT FLAG
470	02	0005B	21100001	A	STW,D4	J:TELFLGS	AND IN CURRENT FLAGS
471	02	0005C	69300067		CI,R1	1	1 CHAR RESPONSE TO QUIT
472	02	0005D	72C00106	N	BNE	PRMPT50	B IF NO
473	02	0005E	21C0000D	A	LB,D1	TELBUF	GET FIRST CHARACTER
474	02	0005F	68300062		CI,D1	X'0D'	WAS IT A CARRIAGE RETURN
475	02	00060	21C00015	A	BE	PRMPT20	B TO DO IMPLIED QUIT
476	02	00061	69300067		CI,D1	X'15'	WAS IT LINE FEED
477	02	00062			BNE	PRMPT50	B TO NORMAL PROCESSING
478	02	00062	32200102	N	PRMPT20	EGU	*
479	02	00063	35200106	N	LW,R2	NLSAVE	GET 1ST WORD OF PREVIOUS COMMAND
480	02	00064	72100000	X	STW,R2	TELBUF	RESTORE 1ST WORD
1*	02	00065	32F00013	N	LB,R1	JB:CCARS	GET PREVIOUS ARS
482	02	00066	68000078		LW,D4	IGUIT	SET IMPLIED QUIT
483					B	ITS0K10	
484	02	00067			*		
485	02	00067	32200001	A	PRMPT50	FGU	*
486	02	00068	202FFFFFF	A	LW,R2	R1	
487	02	00069	72C40106	N	AI,R2	=1	
488	02	0006A	21C00015	A	LB,D1	TELBUF,R2	GET LINE TERMINATOR
489	02	0006B	6930006D		CI,D1	X'15'	IST IT LINE FEED
1*	02	0006C	32F00013	N	BNE	*+2	B IF NO
2*	02	0006D	32C0001C	N	LW,D4	IGUIT	SET IMPLIED QUIT FLAG.
3*	02	0006E	31C00000	X	LW,D1	CPXUSR	JB:CCARS ALREADY
4*	02	0006F	69400071		CW,D1	J:JIT	SET IF IN
491	02	00070	75100000	X	BANZ	*+2	CPX MODE.
492	02	00071	32C00000	X	ITS0K	STB,R1	SAVE ORIGINAL ARS=1
					LW,D1	J:TELFLGS	RESET TEL WORKING FLAGS

H01 18:36 SEP 08, 1975

TEL-TERMINAL EXECUTIVE LANGUAGE

60

493 02 00072 4BC0071F  
 494 02 00073 35C00000 X  
 497 02 00074 31F00014 N  
 498 02 00075 68400078  
 499 02 00076 22700080 A  
 500 02 00077 47700000 X

AND,D1 FLAGS  
 STW,D1 J:TELFLGS  
 CW,D4 UDELFLG  
 BAZ ITSOK10  
 LI,R7 DELTABIT  
 STS,R7 J:TELFLGS

CHECK IF PREVIOUS COMMAND WAS  
 UNDER DELTA , B IF NO  
 YES, SET UNDER DELTA FLAG  
 FOR THE CURRENT COMMAND

501 02 00078

ITSOK10 EGU \$

502  
503

\*  
 \* PICK-UP FIRST FIELD OF INPUT STATEMENT AND DECODE COMMAND VERB.  
 \*

504  
505 02 00078 22200000 A

NEXTTIME LI,R2 0  
 RES 0

INITIALIZE BUFFER POSITION

506 02 00079

BAL,SR3 GETFIELD

RL2  
RL2

507 02 00079 6AA0048A

CI,R7 0

INSURE DATA IS PRESENT  
 GO AGAIN IF NO COMMAND GIVEN  
 DID A PERIOD TERMINATE THE FIELD--

508 02 0007A 21700000 A

BE PROMPT

509 02 0007B 6830001D

CI,R6 1,1

510 02 0007C 2160004B A

BNE SCANCVT

511 02 0007D 69300083

CI,R7 1

512 02 0007E 21700001 A

BG LMNCMD

513 02 0007F 69200095

LB,SR4 D1

514 02 00080 72B0000C A

CI,SR4 1L1

515 02 00081 21B000D3 A

BNE LMNCMD

516 02 00082 69300095

\*  
 \* SCAN COMMAND VERB TABLE(S)  
 \*

517  
518  
519

1\* 02 00083

SCANCVT EGU \$

2\* 02 00083 02200020 A

PUSH 2,D1

SAVE COMMAND AS USER TYPED IT

02 00084 0BC00100 N

3\* 02 00085 228FFFFFF A

LI,SR1 =1

FLAG UPPER CASE

4\* 02 00086 22400000 A

LI,R4 0

INITIALIZE FLAG TO WORD SEARCH

5\* 02 00087 21700004 A

CI,R7 4

VERIFY WORD SEARCH

6\* 02 00088 6820008A

BLE 3+2

O.K.

7\* 02 00089 20400001 A

AI,R4 1

DO DOUBLEWORD SEARCH

8\* 02 0008A 21700008 A

CI,R7 8

MORE THAN 8 CHARS MEANS

9\* 02 0008B 692000A8

BG DOUBLE1

NOT A TEL COMMAND

10\* 02 0008C 32580827

VECTAB1 LW,R5 SCNVBSIZ,R4

GET LIST SIZE

11\* 02 0008D 67080829

VECTAB2 EXU SCNVERB,R4

EXECUTE PROPER COMPARE INST



H01 18136 SEP 08, 1975

TEL-TERMINAL EXECUTIVE LANGUAGE

61

12\* 02 0008E 683000B4  
 13\* 02 0008F 645000B0  
 14\* 02 00090 20800001 A  
 15\* 02 00091 692000A8  
 16\*  
 17\* 02 00092 49C00000 06  
 18\* 02 00093 49D00000 06  
 19\* 02 00094 680000B8

BE VECT A MATCH  
 BDR,R5 VECTAB2 SCAN ENTIRE LIST  
 AI,SR1 1 INCR FLAG FOR LOWER CASE SEARCH  
 BGZ DOUBLE1 LOWER CASE SRCH DONE, UNKNOWN CMD  
 \* NOW SEE IF THE COMMAND IS RECOGNIZABLE WHEN CONVERTED TO UPPER CASE  
 BR,D1 VERB2 CONVERT LOWER CASE  
 BR,D2 VERB2 TO UPPER CASE.  
 B VECTAB1 GO SCAN THE LIST AGAIN

527  
 528  
 529  
 530 C2 00095

\*  
 \* PROCESS A COMPLEX LMN AS COMMAND.  
 \*

1\* 02 00095 31F00013 N  
 532 02 00096 6940009A  
 533 02 00097 22500001 A  
 534 02 00098 4A500000 X  
 535 02 00099 68300833  
 536 02 0009A  
 537 02 0009A 6AB009AD  
 538 02 0009B 02200020 A  
 02 0009C 0B900100 N  
 539 02 0009D 02200020 A  
 02 0009E 0B700100 N  
 540 02 0009F 6AA00891  
 541 02 000A0 02200020 A  
 02 000A1 0AA00100 N  
 542 02 000A2 02200020 A  
 02 000A3 0AD00100 N  
 543 02 000A4 32500015 N  
 544 02 000A5 47500000 X  
 545 02 000A6 22C0012D  
 546 02 000A7 680000CD

LMNCMD FGU \$  
 CW,D4 IQUIT CHECK FOR IMPLIED QUIT  
 BANZ LMNCMD10 B IF YES  
 LI,R5 JSTEP  
 LS,R5 J:TELFLGS ARE WE AT JOB STEP  
 BEZ BKOPTO NO - ASK IF QUIT  
 LMNCMD10 FGU \$  
 BAL,SR4 FID BREAK COMPLEX FID  
 PUSH 2,SR2 SAVE ACCOUNT  
 PUSH 2,R7 SAVE PASSWORD  
 BAL,SR3 NFND THIS WILL LEAVE LMN IN R6,R7,SR1  
 PULL 2,SR3 RESTORE PASSWORD  
 PULL 2,D2 AND ACCOUNT  
 LW,R5 UNKLMN SET FLAG TO INDICATE UNKNOWN LMN  
 STS,R5 J:TELFLGS  
 LI,D1 PARSER SET TO SCAN REMAINING MSG  
 B GROUP2B

547  
 564 02 000A8  
 1\* 02 000A8 02200020 A  
 02 000A9 0AC00100 N  
 2\* 02 000AA 31F00013 N

\*  
 DOUBLE1 FGU \$  
 PULL 2,D1 RESTORE USER'S TYPED COMMAND  
 CW,D4 IQUIT CHECK FOR IMPLIED QUIT

H01

18:36 SEP 08, '75

## TEL-TERMINAL EXECUTIVE LANGUAGE

62

566	02	000AB	694000AF		BANZ	DBL10	B IF YES	
567	02	000AC	22500001	A	LI,R5	JSTEP		
568	02	000AD	4A500000	X	LS,R5	J:TELFLGS	ARE WE AT JOB STEP	
569	02	000AE	68300833		BEZ	BKOPT0	NO - ASK IF QUIT	
570		02	000AF		DBL10	EQU	*	
571	02	000AF	6AA00891		BAL,SR3	NFND	NO FIND-PROCESS AS UNKNOWN LMN	
572		02	000BU		SPCASP	EQU	*	
573	02	000B0	22C0012D		LI,D1	PARSER	SET TO SCAN REMAINING INPUT WITH UNKNOWN LMN. IF NO SCAN IS DESIRED, CHANGE TO LI,D1 0.	
574					*			
575					*			
584	02	000B1	32500015	N	LW,R5	UNKLMN	SET FLAG TO INDICATE UNKNOWN LMN	
585	02	000B2	47500000	X	STS,R5	J:TELFLGS		
586	02	000B3	680000C9		B	GROUP2A		
587					*			
1*	02	000B4	02200020	A	VECT	PULL	2,D1	RESTORE USER'S TYPED COMMAND
	02	000B5	0AC00100	N				
2*					*			* BEFORE EXECUTING THE COMMAND, SEE IF USER SAID DONT ILLEGALLY
3*	02	000B6	09100100	N	PUSH	R1		
4*	02	000B7	22101000	A	LI,R1	DONTBIT	WAS COMMAND PRECEDED	
5*	02	000B8	31100000	X	CW,R1	J:TELFLGS	BY DONT	
6*	02	000B9	684000C5		BAZ	NODONT	NO, DONT BOTHER CHECKING LEGALITY	
7*	02	000BA	09500100	N	PUSH	R5	YES, CHECK PROPER DONT BIT LIST	
8*	02	000BB	2210001F	A	LI,R1	X'1F'	MASK FOR BIT POSITION	
9*	02	000BC	48100005	A	AND,R1	R5	INDEX FOR SHIFT INST.	
10*	02	000BD	22800000	A	LI,SR1	0		
11*	02	000BE	32900020	N	LW,SR2	Y8	BIT TO SHIFT	
12*	02	000BF	25820100	A	SLD,SR1	0,R1	SHIFT FOR COMPARE	
13*	02	000C0	2550007B	A	SLS,R5	=5	WORD INDEX FOR DONT BIT LIST	
14*	02	000C1	6708082D		EXU	DCMPRS,R4	EXECUTE PROPER COMPARE	
15*	02	000C2	694000C4		BANZ	DONTOK	DONT IS LEGAL (BIT SET)	
16*	02	000C3	68000262		B	GIVEBIRD	DONT IS ILLEGAL	
17*	02	000C4	08500100	N	DONTOK	PULL	R5	
18*	02	000C5	08100100	N	NODONT	PULL	R1	
19*	02	000C6	6708082B		EXU	VECTORS,R4	EXECUTE PROPER VECTOR	
606		02	000C7		VECTB10	EQU	*	
607	02	000C7	22C00000	A	LI,D1	0	LMN NAME LOADED IN R6,R7 AND NO FURTHER SCAN NECESSARY	
608					*			

609				*			
610				*	THE GROUP2 COMMANDS ARE THOSE REQUIREING THE LOAD OF AN ASSOCIATED		
611				*	PROGRAM. THE LOAD IS EXECUTED IMMEDIATLY IF NO FURTHER SCAN IS		
612				*	REQUIRED BUT DEFERRED TO THE END IF SCANNING IS DONE.		
613				*			
614	02	000C8	32800000 05	GROUP2	LW,SR1	VERB1	
615	02	000C9	32D00712	GROUP2A	LW,D2	SYS	SET SYSTEM ACCOUNT AND JIT FOR
616	02	000CA	32E00000 05		LW,D3	VERB1	THE PROGRAM LOADER.
617	02	000CB	22A00000 A		LI,SR3	0	CLEAR PASSWORD
618	02	000CC	22B00000 A		LI,SR4	0	
619		02 000CD		GROUP2B	FGU	*	
620				*			
621				*	TEST FOR WITHIN JOB STEP. ABORT PREVIOUS MAJOR OPERATION IF NOT.		
622				*			
623	02	000CD	22500001 A		LI,R5	JSTEP	ARE WE AT
624	02	000CE	4A500000 X		LS,R5	JITELFLGS	JOB STEP
625	02	000CF	6830010D		BEZ	INBREAK	JUMP IF GROUP2 COMMAND AND BREAK
626	02	000D0	21C00000 A		CI,D1	0	IS FURTHER SCAN IMPLIED
627	02	000D1	69300126		BNE	PARSE	YES
628		02 000D2		GROUP2C	FGU	*	
629				*			
630				*	TEST FOR SI RELEASE AND ASSIGN/MERGE WRITE LOGIC		
631				*			
632	02	000D2	02200000 A		PUSH	16,R1	SAVE REGS
	02	000D3	0B100100 N				
633	02	000D4	6AB00000 X		BAL,SR4	READAM	NO-READ IT IN
634	02	000D5	32400000 X		LW,R4	J:ABUF	NOW PICKUP ADDRESS
635	02	000D6	22100008 A		LI,R1	SINREL	CAN SI BE RELEASED
636	02	000D7	4A100000 X		LS,R1	J:TELFLGS	IF SET DO NOT RELEASE SI FROM A/M
637	02	000D8	683000DD		BEZ	GRPEXT	AS THIS IS A NEW ENTRY
638	02	000D9	221FFFF7 A		LI,R1	=(SINREL+1)	MASK TO
639	02	000DA	4B100000 X		AND,R1	J:TELFLGS	RESET SI RELEASE FLAG
640	02	000DB	39100000 X		STW,R1	J:TELFLGS	
641	02	000DC	680000DF		B	GRPEXT1	
642	02	000DD	12600748	GRPEXT	LD,R6	TM:SI	RELEASE SI ENTRIES
643	02	000DE	6AB00002 N		BAL,SR4	ASSIGN+2	
644	02	000DF	1260074A	GRPEXT1	LD,R6	TM:G0	IS THERE A G0 IN A/M

TEL-TERMINAL EXECUTIVE LANGUAGE

645	02	000E0	6AB00001	N	BAL,SR4	ASSIGN+1	
646	02	000E1	21500000	A	CI,R5	0	
647	02	000E2	693000E6		BNE	GRPEXT2	YES
648	02	000E3	22100200	A	LI,R1	SR0MFLG	NO = CREATE \$ DEFAULT
649	02	000E4	47100000	X	STS,R1	JITELFLGS	SET RETURN FLAG
650	02	000E5	6800018B		B	SR0M	THIS WILL RETURN \$+1
651	02	000E6	6AB00000	X	GRPEXT2	BAL,SR4	WRITE ASSGN/MERGE
652	02	000E7	22501000	A	LI,R5	DBNTBIT	IS THE IDONT! FLAG SET
653	02	000E8	48500000	X	AND,R5	JITELFLGS	
654	02	000E9	69300262		BNE	GIVEBIRD	IF SO, GIVE 'EM THE BIRD.
655	02	000EA	22500010	A	LI,R5	X'10'	ALWAYS PROVIDE SI OPTION
1*	02	000EB	49580000	X	BR,R5	AM:STDOP,R4	AND ASSIGNED OPTIONS FOR THIS STEP
657	02	000EC	35500000	X	STW,R5	J:OPT	
658	02	000ED	6A000A21		BAL,R0	TELCCBUF	PLACE COMMAND IN JICCBUF FOR USER
659	02	000EE	221FFFFC	A	LI,R1	=(BRKBIT+JSTEP+1)	RESET BREAK & JSTEP FLAGS
660	02	000EF	48100000	X	AND,R1	JITELFLGS	
661	02	000F0	35100000	X	STW,R1	JITELFLGS	
662	02	000F1	25400011	A	SLS,R4	17	RESET ARS TO ITS ORIGINAL VALUE
663	02	000F2	225E0000	A	LI,R5	=X'120000'	X'FFFFFF0000'
665	02	000F3	47400004	N	STS,R4	ARS	(MIUC)
666	02	000F4	02200000	A	PULL	16,R1	RESTORE REGS
	02	000F5	0A100100	N			
667	02	000F6	1100072E		CD,R0	FDP	IF THE COMMAND WAS EITHER
668	02	000F7	68300103		BE	NODEL	FDP OR DELTA, SKIP THE
669	02	000F8	11000736		CD,R0	DELTA	SMALL SECTION OF CODE
670	02	000F9	68300103		BE	NODEL	
671	02	000FA	22000100	A	LI,R0	FDPBIT	FDP FLAG BIT
672	02	000FB	48000000	X	AND,R0	JITELFLGS	
673	02	000FC	683000FF		BEZ	N8FDP	BR, IF FDP BIT NOT SET
674		02	000FD		YESFDP	EQU	\$
675	02	000FD	12000730		LD,R0	FDP1	SET UP DEBUGGER ASSOCIATION
676	02	000FE	68000103		B	XEXIT	DEBUGGER ASSO.
677							SKIP DELTA ASSOCIATION
678	02	000FF	22000080	A	* N8FDP	LI,R0	
679	02	00100	48000000	X	AND,R0	JITELFLGS	
680	02	00101	68300103		BEZ	NODEL	BR, IF DELTA BIT NOT SET
681	02	00102	12000736		LD,0	DELTA	YES

682 02 00103  
 683  
 684 02 00103  
 685 00000001  
 686 02 00103 223D7FCF A  
 687 02 00104 4A300000 X  
 688 02 00105 35300000 X  
 689  
 690 02 00106 22300000 A  
 691 02 00107 11600742  
 692 02 00108 6830010B  
 693 02 00109 22400000 N  
 694 02 0010A 75380000 A  
 695 02 0010B  
 696 02 0010B 6AF00A2F  
 697  
 699 02 0010C 04900001 A

NODEL RES 0  
 \*  
 XEXIT RES 0  
 DB DEBUG#0  
 LI,R3 MUCRSET  
 LS,R3 M:UC  
 STW,R3 M:UC  
 FIN  
 LI,R3 0  
 CD,R6 LOGOFF  
 BE YEXIT  
 LI,R4 JB:FRS  
 STB,R3 0,R4  
 YEXIT EGU \$  
 BAL,D4 FREEBUF1  
 \*  
 CAL1,9 1

\* RELEASE DATA  
 \*\*\*NORMAL MODE\*\*\*  
 RSET M0D,DRC & VFC BITS  
 BEFORE EXITING  
 RESET RUN STATUS FOR ALL EXITS  
 EXCEPT LOGOFF  
 RELEASE OUR BUFFER  
 INTERPRETIVE EXIT == NAME IN R6

RL2

```

703
704
705
706
707
708
709      02 0010U
710 02 0010D 31600736
711 02 0010E 683000D2
712 02 0010F 22502000 A
713 02 00110 47500000 X
714 02 00111 6A000A21
715 02 00112 2251FFFF A
716 02 00113 31500000 X
717 02 00114 69400119
718      02 00115
719 02 00115 22500000 A
720 02 00116 75500000 X
721 02 00117
722 02 00117 6AF00A2F
723 02 00118 04900003 A
    
```

```

PAGE
* THE FOLLOWING IS EXECUTED WHEN A MAJOR COMMAND(ONE REQUIRING THE
* LOAD AND EXECUTION OF AN OUTSIDE PROCESSOR) IS RECEIVED OUTSIDE OF A
* JOB STEP, THIS IMPLIES THE ABORTION OF THE PREVIOUS JOB STEP AND
* REPLACING IT WITH THE CURRENT ONE.
*
INBREAK  EQU      *
          CW,R6    DELTA      IS THIS A REQUEST FOR DELTA
          BE       GROUP2C
          LI,R5    CCBUFFBIT  SET IMAGE BUFFER CONTROL TO RETAIN
          STS,R5   J:TELFLGS  CURRENT MESSAGE AND RE-PROCESS
          BAL,0    TELCCBUF
          LI,R5    X:1FFFF!
          CW,R5    J:EXTENT    EX CON SPECIFIED
          BANZ     QUIT        YES, FORCE EXIT
INBREAK1 EQU      *
          LI,5     0
          STB,R5  J:ABC       ABORTED PREVIOUS PROCESS
XABORT   RES      0
          BAL,D4  FREEBUF1   RELEASE OUR BUFFER
          CAL,9   3          ABORT
    
```

724  
725  
726  
727  
728 02 00119 22500001 A  
729 02 0011A 4A500000 X  
730 02 0011B 69300903  
731  
732  
733  
734 02 0011C 2251FFFF A  
735 02 0011D 31500000 X  
736 02 0011E 68400115  
737 02 0011F 72500000 X  
738 02 00120 21500020 A  
739 02 00121 69400115  
740 02 00122 22700002 A  
741 02 00123 49500007 A  
742 02 00124 75500000 X  
743 02 00125 680002EB  
744

```

*
* QUIT COMMAND COMES HERE.
*
QUIT      LI,R5      JSTEP      WE MUST BE IN A BREAK CONDITION
          LS,R5      J:TELFLGS
          BNEZ       SYN1
* INTERPRET AS A 'GO' COMMAND IF EXIT CONTROL HAS
* BEEN ESTABLISHED AND NOT IN PROGRESS
*
          LI,R5      X'1FFFF'
          CW,R5      J:EXTENT
          BAZ        INBREAK1
          LB,R5      J:EXTENT
          CI,R5      X'20'
          BANZ       INBREAK1      IF IN PROGRESS, NO FAKE
          LI,R7      2              FAKE IT, SET BIT 6
          BR,R5      R7
          STB,R5     J:EXTENT
          B          CONTINX
          TITLE     'PARSE COMPILE AND ASSEMBLE COMMANDS'
    
```

745  
 746  
 747  
 748  
 749  
 750 02 00126 022000F0 A  
 02 00127 0B100100 N  
 751 02 00128 21100000 A  
 752 02 00129 E930000C A  
 753 02 0012A  
 754 02 0012A 022000F0 A  
 02 0012B 0A100100 N  
 755 02 0012C 680000D2  
 756  
 757  
 758  
 759  
 760  
 761  
 762  
 763 02 0012U  
 764 02 0012D 6AB00000 X  
 765 02 0012E  
 766 02 0012E 3520011A N  
 767 02 0012F 6AA0048A  
 768 02 00130 6A0A08DF  
 769 02 00131 21700000 A  
 770 02 00132 6830014A  
 771  
 772  
 773  
 774  
 775  
 776 02 00133 31C00711  
 777 02 00134 68300231  
 778 02 00135 31C00713  
 779 02 00136 68300159

\*  
 \* THE FOLLOWING LOGIC PRESERVES THE INTEGRITY OF THE REGISTERS THAT WILL  
 \* BE USED WHEN WE FINALLY EXIT AND LOAD THE DESIRED LMN. IT ALSO  
 \* PROVIDES A COMMON EXIT FROM THE PARSING LOGIC.  
 \*

PARSE PUSH 15,R1 SAVE LOAD PARAMETERS  
 CI,R1 0 IS THERE MORE MESSAGE TO SCAN  
 BNE \*D1 YES-ENTER CORRECT PROCESS  
 ENTPRG EQU \$ NO-PROVIDE COMMON EXIT  
 PULL 15,R1

B GROUP2C

\* THIS SECTION OF CODE IS DEDICATED TO THE BREAKDOWN OF THE INPUT STREAM  
 \* AS IT PERTAINS TO THE COMPILE AND ASSEMBLE COMMAND VERBS. THERE IS A  
 \* GREAT VARIETY OF FORM ASSOCIATED WITH THIS INPUT STREAM AND,  
 \* CONSEQUENTLY, A GOOD DEAL OF LOGIC IS PROVIDED, NOT ALL OF WHICH NEED  
 \* BE EXECUTED FOR A PARTICULAR BUFFER IMAGE. ENTRY TO THIS CODE MAY BE  
 \* MADE ONLY IF AT LEAST ONE FIELD FOLLOWS THE COMMAND VERB.  
 \*

PARSER EQU \$  
 BAL,SR4 READAM GET ASSIGN/MERGE TABLE  
 TOPPARSE EQU \$  
 STW,R2 SCNPTRSV SAVE INP PTR FOR SYNTAX CHECKING  
 BAL,SR2 GETFIELD  
 BAL,D STOPS,5  
 CI,R7 0 DIS WE GET SOME DATA  
 BE TESTE0M NO

\*  
 \* AT THIS POINT, A DETERMINATION MUST BE MADE TO DETECT CERTAIN,  
 \* RECOGNIZABLE ELEMENTS SUCH AS \$, ME, OVER, OR ON, IF NONE OF THESE,  
 \* THE FIELD IS ASSUMED TO BE A SIMPLE FID.  
 \*

CW,D1 D0LL A \$ IS EXPLICITLY ILLEGAL AS A FID  
 BE CHKULM SYNTAX ERROR  
 CW,D1 ME  
 BE D0ME



H01 18136 SEP 08, 1975

PARSE COMPILE AND ASSEMBLE COMMANDS

780 02 00137 31C00716  
 781 02 00138 68300168  
 782 02 00139 31C00717  
 783 02 0013A 6830016A  
 784 02 0013B 0013B  
 785 02 0013B 6A50048E  
 786 02 0013C 22500010 A  
 787 02 0013D 4A500000 X  
 788 02 0013E 68300142  
 789 02 0013F 3220011A N  
 790 02 00140 202FFFFF A  
 791 02 00141 68000231  
 792  
 793  
 794  
 795  
 796 02 00142 09700100 N  
 797 02 00143 12600748  
 798 02 00144 32400000 X  
 799 02 00145 6A800000 X  
 800 02 00146 08700100 N  
 801 02 00147 6A800000 X  
 802 02 00148 22300001 A  
 803 02 00149 353A0000 F  
 806 02 0014A 22500200 A  
 807 02 0014B 4A500000 X  
 808 02 0014C 693000E6  
 809 02 0014D 22500060 A  
 810 02 0014E 4A500000 X  
 811 02 0014F 69300152  
 812 02 00150 2250012E  
 813 02 00151 68000153  
 814 02 00152 22500170  
 815 02 00153 21100000 A  
 816 02 00154 6820012A  
 817 02 00155 22320000 A  
 818 02 00156 4A300000 X

A1  
 TESTSI  
 TESTSI1  
 \*  
 \* THIS FID MUST NOW BE SET IN THE ASSIGN/MERGE TABLES REPLACING ALL  
 \* PREVIOUS M:SI ASSIGNMENTS.  
 \*  
 TESTSI2  
 M:SI  
 TESTEOM

CW,D1 0N  
 BE 000N  
 CW,D1 0VER  
 BE 000VER  
 EQU \*  
 BAL,R5 GETACPAS  
 LI,R5 S:SET  
 LS,R5 J:TELFLGS  
 BEZ TESTSI2  
 LW,R2 SCNPTRSV  
 AI,R2 \*1  
 B CHKULM  
 PUSH R7  
 LD,R6 TM:SI  
 LW,R4 J:ABUF  
 BAL,SR4 ASSIGN  
 PULL R7  
 BAL,SR4 FILENT  
 LI,R3 1  
 STW,R3 MODE=PLIST+3,R5  
 LI,R5 \$R0MFLG  
 LS,R5 J:TELFLGS  
 BNEZ GRPEXT2  
 LI,R5 0NBIT+0VERBIT  
 LS,R5 J:TELFLGS  
 BNEZ \$+3  
 LI,R5 TOPPARSE  
 B \$+2  
 LI,R5 0PRSE  
 CI,R1 0  
 BLE ENTPRG  
 LI,R3 MSGEBIT  
 LS,R3 J:TELFLGS

IS THIS THE FIRST SI ENTRY  
 YES  
 MULT SI NOT ALLOWED, SYNTAX ERROR  
 CLEAR ASSIGN/MERGE AND FIND A  
 PLACE FOR THIS ENTRY (RETURNED IN R5)  
 ENTER SI PLIST  
 BUT MAKE IT AN IN MODE FILE  
 ARE WE PROCESSING FOR DEFAULT GO  
 YES  
 HOW ABOUT AN 0VER/0N CONDITION  
 ANY MORE MESSAGE  
 NO  
 TEST FOR TRAILING GARBAGE

H01 18:36 SEP 08, '75

PARSE COMPILE AND ASSEMBLE COMMANDS

70

819 02 00157 69300231 A  
 820 02 00158 E8000005 A  
 821  
 822  
 823  
 824  
 825 02 00159 22500010 A  
 826 02 0015A 4A500000 X  
 827 02 0015B 68300161  
 828 02 0015C 6800013F  
 829 02 0015D 02200040 A  
 830 02 0015E 2AC0079A  
 831 02 0015F 28CA0003 A  
 832 02 00160 6800014A  
 833 02 00161 32400000 X  
 834 02 00162 12600748  
 835 02 00163 6AB00000 X  
 1\* 02 00164 32C80000 X  
 837 02 00165 2UC00007 A  
 1\* 02 00166 35C80000 X  
 839 02 00167 6800015D  
 840

BNEZ CHKULM SYNTAX ERROR  
 B \*R5  
 \*  
 \*  
 \* PROCESS INVOKED WHEN 'ME' IS ENCOUNTERED AS A FID  
 \*  
 DBME LI,R5 SISET HAS THERE BEEN AN SI YET  
 LS,R5 J:TEFLGS  
 BEZ DBME2 NO GO CREATE ONE  
 B TESTSI1 YES, MULTIPLE SI NOT ALLOWED  
 DBME1 LCI 4 CREATE ME OP LABL PLIST  
 LM,D1 OPENME  
 STM,D1 3,R5  
 B MGS1+3  
 DBME2 LW,R4 J:ABUF  
 LD,R6 TMISI  
 BAL,SR4 ASSIGN  
 LW,D1 AM:ORG,R4 OLD AVAIL HEAD  
 AI,D1 7 SIZE THIS ENTRY  
 STW,D1 AM:ORG,R4 UPDATE HEAD  
 B DBME1  
 TITLE IPARSE OVER/ON PORTION OF COMMAND VERB1



H01 18:36 SEP 08, '75

PARSE OVER/ON PORTION OF COMMAND VERB

72

878 02 00184 31F00000 X  
 879 02 00185 6940018A  
 880 02 00186 02200020 A  
 881 02 00187 2A900000 X  
 882 02 00188 22700000 A  
 883 02 00189 22800000 A  
 884 02 0018A 32400000 X  
 885 02 0018B 22500020 A  
 886 02 0018C 4A500000 X  
 887 02 0018D 68300194  
 888 02 0018E 22500200 A  
 889 02 0018F 4A500000 X  
 890 02 00190 69300194  
 891 02 00191 6AB0086F  
 892 02 00192 21000000 A  
 893 02 00193 683001C9  
 894 02 00194  
 895 02 00194 09700100 N  
 896 02 00195 1260074A  
 897 02 00196 6AB00000 X  
 898 02 00197 08700100 N  
 899 02 00198 6AB00000 X  
 1\* 02 00199 225FFFFE A  
 2\* 02 0019A 4B500103 N  
 3\* 02 0019B 35500103 N  
 905 02 0019C 22500080 A  
 906 02 0019D 680001FD

R0M\$BLT1

R0MGB

R0MGB1

CW,D4 J:TELFLGS  
 BANZ R0M\$BLT1  
 LCI 2  
 LM,SR2 J:ACCN  
 LI,R7 0  
 LI,SR1 0  
 LW,R4 J:ABUF  
 LI,R5 0NBIT  
 LS,R5 J:TELFLGS  
 BEZ R0MGB  
 LI,R5 \$R0MFLG  
 LS,R5 J:TELFLGS  
 BNEZ R0MGB  
 BAL,SR4 FL0P  
 CI,R0 0  
 BE 0NERR  
 EQU \$  
 PUSH R7  
 LD,R6 TMIG0  
 BAL,SR4 ASSIGN  
 PULL R7  
 BAL,SR4 FILENT  
 LI,R5 =2  
 AND,R5 FEXTMG  
 STW,R5 FEXTMG  
 LI,R5 X'80'  
 B L0FINS

...PROCESSED  
 YES  
 CREATE COMPLETE FID FROM INPUT DATA  
 PUT LOG-ON ACCOUNT IN SR2,SR3  
 NO PASSWORD IS ASSUMED IN R7, SR1  
  
 WAS 'ON' SPECIFIED  
  
 NO  
 IS BUILD \* DEFAULT  
 SPECIFIED  
 YES  
 CHECK IF FILE ALREADY EXISTS  
  
 FILE EXISTS, ON ILLEGAL  
  
 RELEASE ANY PREVIOUS GB ENTRIES AS  
 THIS IS A NEW SPECIFICATION.  
  
 FILL FILE DATA INTO ASSIGN ENTRY  
 RESET FILE  
 EXTENSION FOR  
 M:GB.

```

907
908
909
910
911
912
913
914      02 0019E
915 02 0019E 21700002 A
916 02 0019F 69300181
917 02 001A0 3250000C A
918 02 001A1 25500470 A
919 02 001A2 22700000 N
920 02 001A3 515E0000 X
921 02 001A4 683001AB
922 02 001A5 647001A3
  1* 02 001A6 48500010 N
924 02 001A7 2150C3D7 A
925 02 001A8 683001AB
926 02 001A9 215005D6 A
927 02 001AA 69300181
928 02 001AB 22500040 A
929 02 001AC 4A500000 X
930 02 001AD 69300231
931 02 001AE 32400000 X
932 02 001AF 1260074A
933 02 001B0 6A800000 X
  1* 02 001B1 32780000 X
935 02 001B2 20700007 A
  1* 02 001B3 35780000 X
937 02 001B4 02200040 A
938 02 001B5 2A70079A
939 02 001B6 35C0000A A
940 02 001B7 25A00070 A
941 02 001B8 02200040 A
942 02 001B9 257A0003 A
943 02 001BA 68000199
  
```

```

*
* CHKS FOR LDEV,CP OR NO. IF FOUND BUILDS
* DEVICE PLIST FOR M;GO. OTHERWISE RETURNS TO
* ROM$BLT AND PROCESSES FOR FID.
*
*
ROMDEV  FGU          $
        CI,R7        2          CHK SIZE OF FIELD
        BNE          ROM$BLT    DOESN'T QUALIFY
        LW,R5        D1
        SAS,R5       =16
        LI,R7        SVILSIZ
        CH,R5        SHILNM,R7  IS IT STRM ID
        BE           ROMDEV1
        BDR,R7       $=2
        AND,R5       M16
        CI,R5        ICP'      CARD PUNCH
        BE           ROMDEV1
        CI,R5        INO'
        BNE          ROM$BLT    GO PROCESS FOR FID
ROMDEV1 LI,R5        OVERBIT   CHECK OVER FLAG &
        LS,R5        JITELFLGS DON'T ALLOW
        BNEZ        CHKULM    FOR DEVICES.
        LW,R4        JIABUF    GET ADR OF A/M REC
        LD,R6        TMIG0
        BAL,SR4     ASSIGN     REL PREV ENTRIES
        LW,R7        AM;ORG,R4 OLD FREE HEAD
        AI,R7        7         SIZE THIS ENTRY
        STW,R7      AMIORG,R4 NEW FREE HEAD
        LCI         4
        LM,R7       0PENME    DEV PLIST
        STW,D1      SR3       STORE DEV IN PLIST
        SLS,SR3     =16
        LCI         4
        STM,R7      3,R5     PLACE PLIST IN A/M REC.
        B           ROMG01
  
```

944  
 945  
 946  
 947  
 948  
 949 02 001B5  
 950 02 001BB 22500007 A  
 951 02 001BC 6AB009A8  
 952 02 001BD 3550000C A  
 953 02 001BE 32D00000 05  
 954 02 001BF 32E00000 05  
 955 02 001C0 02200020 A  
 956 02 001C1 2A900000 X  
 957 02 001C2 22700000 A  
 958 02 001C3 22800000 A  
 959 02 001C4 6800018A  
 960  
 961  
 962  
 963 02 001C5  
 964 02 001C5 22500004 A  
 965 02 001C6 47500000 X  
 966 02 001C7 22500080 A  
 967 02 001C8 680001FD  
 968  
 969  
 970  
 971  
 972  
 973  
 974  
 975  
 976 02 001C9  
 977 02 001C9 02200030 A  
 978 02 001CA 28C00005 A  
 979 02 001CB 22C30112 A  
 980 02 001CC 6AB00000 X

\*  
 \* CREATE A \$ROM FILE ENTRY IN THE ASSIGN/MERGE AND RELEASE ANY PREVIOUS  
 \* ENTRIES FOR THE GO DCB. ANY PREVIOUS \$ROM FILES WILL ALSO BE RELEASED.

\*  
 \$ROM EQU \$  
 LI,5 CIG1  
 BAL,SR4 NAME\$  
 STW,5 D1  
 LW,D2 VERB1  
 LW,D3 VERB1  
 LCI 2  
 LM,SR2 J:ACCN  
 LI,7 0  
 LI,SR1 0  
 B ROM\$BLT1

\*  
 \* PERFORM NECESSARY FUNCTIONS WHEN A FIELD HAS BEEN IMPLIED.

\*  
 EXTDCB RES 0  
 LI,R5 PHSFLG INSURE PHASE FLAG IS SET  
 STS,R5 J:TELFLGS  
 LI,R5 X'80'  
 B LOFINS

\*\*\*\*\*  
 \*E\* ERROR!  
 \*E\* GROUP 03, CODE=01, SUBCODE=12  
 \*E\* DESCRIPTION!  
 \*E\* USER SAID 'ON' A FILE WHICH ALREADY EXISTS.  
 \*E\* FILE NAME IS INSERTED BEFORE TYPING THE ERROR  
 \*E\* MESSAGE.  
 \*\*\*\*\*

\*  
 \$NERR EQU \$  
 LCI 3 SAVE FILE  
 STM,D1 R5 NAME IN R5=R7  
 LI,D1 X'030112' ERROR CODE & SUBCODE  
 BAL,SR4 T\$ERRTXT GET MSG

H01 18136 SEP 08, '75

LCI	3	STORE FILE NAME
STM,R5	2,R1	IN MESSAGE
LI,R0	SYN1	SIMULATE BAL
B	T\$WRTRR	WRITE MSG & RETURN BUFFER

75

981 02 001CD 02200030 A  
 982 02 001CE 25520002 A  
 983 02 001CF 22000903  
 984 02 001DO 68000000 X

\*  
 \*  
 \* PROCESS FOR LIST SPECIFICATION.  
 \*

989 02 001D1  
 990 02 001D1 21700002 A  
 991 02 001D2 693001DF  
 992 02 001D3 3250000C A  
 993 02 001D4 25500470 A  
 994 02 001D5 22700000 N  
 995 02 001D6 515E0000 X  
 996 02 001D7 68300210  
 997 02 001D8 647001D6  
 998 02 001D9 31C00713  
 999 02 001DA 68300210  
 1000 02 001DB 31C00714  
 1001 02 001DC 68300210  
 1002 02 001DD 31C00715  
 1003 02 001DE 68300210  
 1004 02 001DF 31C00711  
 1005 02 001EO 68300231  
 1006 02 001E1 22F08000 A  
 1007 02 001E2 31F00000 X  
 1008 02 001E3 694001E8  
 1009 02 001E4 02200020 A  
 1010 02 001E5 2A900000 X  
 1011 02 001E6 22700000 A  
 1012 02 001E7 22800000 A  
 1013 02 001E8 22500020 A  
 1014 02 001E9 4A500000 X  
 1015 02 001EA 683001EE  
 1016 02 001EB 6AB0086F  
 1017 02 001EC 21000000 A

DBL0	FGU	\$	
	CI,R7	2	POSSIBLE STRM OR DEV
	BNE	DBL01	NO
	LW,R5	D1	
	SAS,R5	=16	
	LI,R7	SV;LSIZ	
	CH,R5	SH;LNM,R7	
	BE	L0ME	FOUND DEV STREAM
	BDR,R7	\$=2	
	CW,D1	ME	TEST FOR VARIATIONS
	BE	L0ME	
	CW,D1	LP	
	BE	L0ME	
	CW,D1	N0	
	BE	L0ME	
DBL01	CW,D1	DBLL	A \$ IS ILLEGAL IN THIS POSITION
	BE	CHKULM	SYNTAX ERROR
	LI,D4	FIPROC	WAS A COMPLEX FID..
	CW,D4	J:TELFLGS	...ALREADY PROCESSED
	BANZ	L0BLT	YES
	LCI	2	CREATE A COMPLETE FID
	LM,SR2	J:ACCN	USING LOG-ON ACCOUNT
	LI,R7	0	NO PASSWORD IS THE ASSUMPTION
	LI,SR1	0	
L0BLT	LI,R5	0NBIT	WAS 'ON' SPECIFIED
	LS,R5	J:TELFLGS	
	BEZ	L0M00	NO
	BAL,SR4	FL0P	CHECK FOR UNIQUE FILE
	CI,R0	0	

HO1 18:36 SEP 08, '75

PARSE OVER/ON PORTION OF COMMAND VERB

1018 02 001ED 683001C9  
 1019 02 001EE 22500400 A  
 1020 02 001EF 4A500000 X  
 1021 02 001FO 69300205  
 1022 02 001F1 32400000 X  
 1023 02 001F2 09700100 N  
 1024 02 001F3 1260074C  
 1025 02 001F4 6AB00000 X  
 1026 02 001F5 08700100 N  
 1027 02 001F6 6AB00000 X  
 1028 02 001F7  
 1\* 02 001F7 225FFFFB A  
 2\* 02 001F8 4B500103 N  
 3\* 02 001F9 35500103 N  
 1034 02 001FA 22520000 A  
 1035 02 001FB 47500000 X  
 1036 02 001FC 22500001 A  
 1037 02 001FD  
 1\* 02 001FD 47580000 X  
 1039 02 001FE 22500800 A  
 1040 02 001FF 4A500000 X  
 1041 02 00200 6830014A  
 1042 02 00201 21100000 A  
 1043 02 00202 69200231  
 1044 02 00203 6AB00000 X  
 1045 02 00204 6800001D  
 1046 02 00205  
 1047 02 00205 32400000 X  
 1048 02 00206 09700100 N  
 1049 02 00207 1260074E  
 1050 02 00208 6AB00000 X  
 1051 02 00209 08700100 N  
 1052 02 0020A 6AB00000 X  
 1\* 02 0020B 225FFFEF A  
 2\* 02 0020C 4B500103 N  
 3\* 02 0020D 35500103 N  
 1058 02 0020E 22500100 A

LBMGB

LBSETUP

LBFIN5

DBBLT

LAS

BE BNERR  
 LI,R5 COMFLG  
 LS,R5 J:TELFLGS  
 BNEZ DBBLT  
 LW,R4 J:ABUF  
 PUSH R7  
 LD,R6 TM;LB  
 BAL,SR4 ASSIGN  
 PULL R7  
 BAL,SR4 FILENT  
 FGU \$  
 LI,R5 =5  
 AND,R5 FEXTIMG  
 STW,R5 FEXTIMG  
 LI,R5 MSGEBIT  
 STS,R5 J:TELFLGS  
 LI,R5 1  
 FGU \$  
 STS,R5 AM;STDBP,R4  
 LI,R5 LBFLG  
 LS,R5 J:TELFLGS  
 BEZ TESTEOM  
 CI,R1 0  
 BG CHKULM  
 BAL,SR4 WRITEAM  
 B PRBMPY  
 FGU \$  
 LW,R4 J:ABUF  
 PUSH R7  
 LD,R6 TM;DB  
 BAL,SR4 ASSIGN  
 PULL R7  
 BAL,SR4 FILENT  
 LI,R5 X'FFFFFF'  
 AND,R5 FEXTIMG  
 STW,R5 FEXTIMG  
 LI,R5 X:100'

FILE EXISTS, ON ILLEGAL  
TEST FOR COMMENT COMMAND

ANY PREVIOUS ENTRIES ARE RELEASED AS  
THIS IS A NEW SPECIFICATION.

ENTER THE FILE DATA

RESET FILE  
EXTENSION FOR  
M:LB.

SET END OF MSG FLAG

SET LB SPEC IN OPTIONS

HAVE WE BEEN PROCESSING A LIST CMD

NO  
INSURE NO TRAILING JAZZ

WRITE A/M  
YES=GB FOR NEXT MESSAGE

MAKE ENTRY FOR DB DCB

RESET FILE  
EXTENSION FOR  
M:DB.  
SET DB IN OPTIONS



1059 02 0020F 680001FD  
1060  
1061  
1062  
1063 02 00210 22500400 A  
1064 02 00211 4A500000 X  
1065 02 00212 69300222  
1066 02 00213 32400000 X  
1067 02 00214 1260074C  
1068 02 00215 6A800000 X  
1\* 02 00216 32780000 X  
1070 02 00217 20700007 A  
1\* 02 00218 35780000 X  
1072 02 00219 02200040 A  
1073 02 0021A 2A70079A  
1074 02 0021B 31C00713  
1075 02 0021C 6830021F  
1076 02 0021D 35C0000A A  
1077 02 0021E 25A00070 A  
1078 02 0021F 02200040 A  
1079 02 00220 287A0003 A  
1080 02 00221 680001F7  
1081 02 00222 32400000 X  
1082 02 00223 1260074E  
1083 02 00224 6A800000 X  
1\* 02 00225 32780000 X  
1085 02 00226 20700007 A  
1\* 02 00227 35780000 X  
1087 02 00228 02200040 A  
1088 02 00229 2A70079A  
1089 02 0022A 31C00713  
1090 02 0022B 6830022E  
1091 02 0022C 35C0000A A  
1092 02 0022D 25A00070 A  
1093 02 0022E 02200040 A  
1094 02 0022F 287A0003 A  
1095 02 00230 6800020B

\*  
\* CREATE ME OR LP 0PLABEL AND MERGE INTO DCB.  
\*  
L0ME LI,R5 COMFLG DETERMINE IF L0 OR D0  
LS,R5 J:TELFLGS  
BNEZ L0ME3  
LW,R4 J:ABUF CREATE NEW L0 ASSIGN ENTRY  
LD,R6 TM:L0  
BAL,SR4 ASSIGN ADDRESS RETURNED IN R5  
LW,R7 AM:0RG,R4 OLD FREE HEAD  
AI,R7 7 SIZE THIS ENTRY  
STW,R7 AM:0RG,R4 NEW HEAD  
LCI 4  
LM,R7 0PENME  
CW,D1 ME  
BE 8+3  
STW,D1 SR3  
SLS,SR3 =16  
LCI 4  
STM,R7 3,R5  
B L0SETUP GO SET BITS FOR L0  
LW,R4 J:ABUF  
LD,R6 TM:D0 CREATE NEW D0 ASSIGN ENTRY AS WAS  
BAL,SR4 ASSIGN DONE FOR L0  
LW,R7 AM:0RG,R4 OLD FREE HEAD  
AI,R7 7 SIZE THIS ENTRY  
STW,R7 AM:0RG,R4 NEW FREE HEAD  
LCI 4  
LM,R7 0PENME  
CW,D1 ME  
BE 8+3  
STW,D1 SR3  
SLS,SR3 =16  
LCI 4  
STM,R7 3,R5  
B LAS COMPLETE THE PROCESS

H01 18:36 SEP 08, 1975

PARSE OVER/ON PORTION OF COMMAND VERB

78

1096  
 1097  
 1098  
 1099  
 1100 02 00231  
 1101 02 00231 09100100 N  
 1102 02 00232 32100000 X  
 1103 02 00233 31100015 N  
 1104 02 00234 684008F7  
 1105 02 00235 08100100 N  
 1106 02 00236 6800012A

\*  
 \* DETERMINES IF UNRECOGNIZED LOAD MODULE (NOT FORTRAN OR META). IF SET,  
 \* TERMINATE SCAN, IGNORE ERROR AND EXECUTE LOAD MODULE.  
 \*

CHKULM	EGU	\$	
	PUSH	R1	
	LW,R1	J,TELFLGS	IS THIS AN UNRECNIZED LMN
	CW,R1	UNKLMN	
	BAZ	SYNTAX	NO, PUT OUT SYNTAX ERROR MSGE.
	PULL	R1	YES, EXIT AND EXECUTE LMN
	B	ENTPRG	

1107  
1108  
1109  
1110  
1111  
1112  
1113  
1114  
1115  
1116  
1117  
1118  
1119  
1120  
1121  
1122  
1123  
1124  
1125  
1126  
1127  
1128  
1129  
1130  
1131  
1132  
1133  
1134  
1135  
1136  
1137  
1138  
1139

02 00237  
02 00237 6AB009D7  
02 00238 12C00008 06  
02 00239 12600738  
02 0023A 6800023F  
  
02 0023B  
02 0023B 6AB009D7  
02 0023C 12C0072A  
02 0023D 12600738  
02 0023E 6800023F  
  
02 0023F  
02 0023F 02200020 A  
02 00240 2BC00106 N  
02 00241 72C00000 X  
02 00242 6A000A21  
02 00243 680000C7  
  
02 00244  
02 00244 21100001 A  
02 00245 692008F7  
02 00246 32D00014 N  
02 00247 47D00000 X  
02 00248 6800001D

```

*
* BUILD SHORT FORM REQUEST
*
BUILD      FGU      $
            BAL,R4  SHFTBUF      SHIFT REQUEST
            LD,D1   BUILDA
            LD,R6   EDIT
            B       CMNDSET

*
* EDIT SHORT FORM COMMAND VERB
*
EDITO      FGU      $
            BAL,R4  SHFTBUF      SHIFT COMMAND
            LD,D1   EDITA        MAKE IT LOOK LIKE
            LD,R6   EDIT        LONG FORM
            B       CMNDSET

CMNDSET    FGU      $
            LCI     2           STORE COMMAND IN BUF
            STM,D1  TELBUF
            LB,D1   JB;CCARS    NUMBER CHARS IN CMND
            BAL,R0  TELCCBUF    MOVE MESSAGE TO CCBUF
            B       VECTB10

*
* UNDER DELTA SHORT (&ONLY) FORM COMMAND VERB
*
UDELT      FGU      $
            CI,R1   1           IF U IS SPECIFIED, UNDER DELTA
            BG     SYNTAX      IS IMPLIED FOR THE NEXT COMMAND.
            LW,D2   UDELTFLG
            STS,D2  J;TELFLGS  SET UNDER DELTA FOR NEXT COMMAND
            B       PROMPT     FLAG
            TITLE   'DEBUG COMMAND VERB'
    
```

H01 18136 SEP 08, '75

```

1140      02 00249      21700005 A
1141      02 00249      21700005 A
1142      02 0024A      692008F7
      1* 02 0024B      6AB00000 X
      2* 02 0024C      32400000 X
1143      02 0024D      22301000 A
1144      02 0024E      4A300000 X
1145      02 0024F      69300253
1148      02 00250      22D10000 A
      1* 02 00251      47D80000 X
      2* 02 00252      68000256
1151      02 00253      223EFFFF A
1152      02 00253      223EFFFF A
      1* 02 00254      4B380000 X
      2* 02 00255      35380000 X
      3* 02 00256      6AB00000 X
1156      02 00257      6800001D
1157

```

DEBUG

DEBUG1

DEBUG2

```

FQU      $
CI,R7    B
BG        SYNTAX
BAL,SR4  READAM
LW,R4    JIABUF
LI,R3    DONTBIT
LS,R3    JI TELFLGS
BNEZ     DEBUG1
LI,D2    X'10000'
STS,D2   AMISTD8P,R4
B        DEBUG2
FQU      $
LI,R3    XIEFFFF'
AND,R3   AMISTD8P,R4
STW,R3   AMISTD8P,R4
BAL,SR4  WRITEAM
B        PROMPT
TITLE    !OUTPUT COMMAND VERB!

```

DEBUG COMMAND VERB

```

FIELD AFTER DEBUG
YES = SYNTAX ERROR

(NOP IF A/M IN CORE)

DONT PREFIX
YES = BR.

SET DEBUG MODE ON

RESET DEBUG MODE OFF

```

MO1 18:36 SEP 08, '75

1158	02	00258	22400000	A	OUTPUT	LI,R4	0	OUTPUT COMMAND VERB	SET COMMAND INDEX
1159	02	00259	6800026C			B		LISTCOM	
1160					*				
1161					*				
1162					*			COMMENT COMMAND VERB	
1163	02	0025A	22300404	A	COMMENT	LI,R3	COMFLG+PHSFLG	FLIP PHASE TO L0 & SET CMD UNIQUE	
1164	02	0025B	47300000	X		STS,R3	J:TELFLGS		
1165	02	0025C	22400002	A		LI,R4	2	SET COMMAND INDEX FOR COMMENT	
1166	02	0025D	6800026C			B		LISTCOM	
1167					*				
1168					* THIS LOGIC HANDLES THE ADVERB DBNT BY SETTING A SPECIAL FLAG AND				
1169					* CONTINUING THE COMMAND INTERPRETATION. THE FLAG IS CHECKED ONLY IN				
1170					* THE COMMAND PROCESS WHERE IT HAS MEANING.				
1171					*				
1*		02	0025E		DBNT	FQU	*		
1175	02	0025E	22301000	A		LI,R3	DBNTBIT		
1176	02	0025F	47300000	X		STS,R3	J:TELFLGS	SET DBNT FLAG IN TELFLGS	
1*					*****				
2*					*E* ERROR: GROUP 3, CODE = 01-16				
3*					*E* DESCRIPTION: THE USER SAID 'DBNT' WITHOUT SPECIFYING				
4*					*E* THE VERB OR WITH AN ILLEGAL COMMAND, SO WE GIVE				
5*					*E* 'EM THE BIRD (SIC).				
6*					*****				
7*	02	00260	21100000	A		CI,R1	0	ANY UN-SCANNED CHARACTERS	
8*	02	00261	69200079			BG	NEXTTIME		
9*	02	00262	22C30116	A	GIVEBIRD	LI,D1	X'030116'	ERROR CODE & SUBCODE	
10*	02	00263	6800070E			B	CMNERR1	TELL USER...	
11*					*				
1184	02	00264	0080	A	OPTAB	DATA,2	X'80',X'01'		
	02	00264	2 0001	A					
1185	02	00265	0100	A		DATA,2	X'100',X'01'		
	02	00265	2 0000	A					
1186	02	00266	FFFFFFFF7F	A	NOPTAB	DATA	X'FFFFFFFF7F'		
1187	02	00267	FFFFFFFFFE	A		DATA	X'FFFFFFFFFE'		
1188	02	00268	FFFFFFFFFF	A		DATA	X'FFFFFFFFFF'		
1189						TITLE	'LIST COMMAND VERB'		

H01 18:36 SEP 08, '75

1190 02 00269 22300004 A  
 1191 02 0026A 47300000 X  
 1192 02 0026B 22400001 A  
 1193  
 1194  
 1195  
 1196  
 1197 02 0026C 21100000 A  
 1198 02 0026D 6830027C  
 1199  
 1200  
 1201  
 1202  
 1203  
 1204  
 1205  
 1206  
 1207  
 1208 02 0026E 22300001 A  
 1209 02 0026F 4A300000 X  
 1210 02 00270 6830082F  
 1211  
 1212 02 00271 32C00000 05  
 1213 02 00272 2230000C A  
 1214 02 00273 6AA008A0  
 1215 02 00274 22300800 A  
 1216 02 00275 47300000 X  
 1217 02 00276 6AB00000 X  
 1218 02 00277 31C00716  
 1219 02 00278 68300168  
 1220 02 00279 31C00717  
 1221 02 0027A 6830016A  
 1222 02 0027B 680008F7  
 1223 02 0027C 22300001 A  
 1224 02 0027D 22500000 N  
 1225 02 0027E 4A300000 X  
 1226 02 0027F 6930028B

LIST COMMAND VERB

LIST LI,R3 PHSFLG FLIP THE PHASE TO L0  
 STS,R3 J:TELFLGS  
 LI,R4 1 SET COMMAND INDEX FOR LIST

\*  
 \* THE FOLLOWING IS COMMON CODE USED BY THE LIST, OUTPUT AND COMMENT  
 \* COMMAND VERBS. R4 MUST CONTAIN AN INDEX UNIQUE TO THE COMMAND.  
 \*

LISTCOM CI,R1 0 TEST FOR FOLLOWING MODIFIER  
 BE LIST1 NO DATA=IMPLIES FUNCTION CHANGE

\*\*\*\*\*  
 \*E\* ERROR!  
 \*E\* GROUP 03, CODE=01, SUBCODE=00  
 \*E\* DESCRIPTION:  
 \*E\* USER ISSUED LIST, COMMENT OR OUTPUT COMMAND  
 \*E\* WITH IMPLIED ASSIGNMENT CHANGE, E.G. LIST ON  
 \*E\* DC/ABC, WHEN NOT AT JOB STEP. THIS IS ILLEGAL AND  
 \*E\* WE TYPE A MESSAGE AND PROMPT.  
 \*\*\*\*\*

LI,R3 JSTEP PRE-ASSIGN CAN ONLY BE DONE  
 LS,R3 J:TELFLGS AT JOB STEP  
 BEZ NTJBST COMMAND ILLEGAL UNLESS JOB STEP TIME

\*  
 LW,D1 VERB1  
 LI,R3 D1  
 BAL,SR3 SCAN OBTAIN MODIFIER  
 LI,R3 L0FLG SET LIST CMD FLAG  
 STS,R3 J:TELFLGS  
 BAL,SR4 READAM NO-READ IT IN  
 CW,D1 0N IS MODIFIER 0N  
 BE D00N YES-ENTER COMMON CODE  
 CW,D1 0VER HOW ABOUT 0VER  
 BE D00VER  
 B SYNTAX  
 LIST1 LI,R3 JSTEP NEITHER ONE IS AN ERROR  
 LI,R5 J:0PT ARE WE AT JOB STEP OR BREAK  
 LS,R3 J:TELFLGS  
 BNEZ LIST4 JOB STEP

H01 18136 SEP 08, 175

				LIST COMMAND	VERB
1227	02	00280	22301000 A	LIST2	LI,R3 DONTBIT
1228	02	00281	4A300000 X		LS,R3 J:TELFLGS TEST FOR DONT ADVERB
1229	02	00282	69300286		BNEZ LIST3 IT HAS BEEN GIVEN
1230	02	00283	52380264		LH,R3 OPTAB,R4
1231	02	00284	C7300005 A		STS,R3 *R5
1*	02	00285	68000289		B LIST5
1233	02	00286	32380266	LIST3	LW,R3 NOPTAB,R4 TURN OFF OPTION
1234	02	00287	C8300005 A		AND,R3 *R5
1235	02	00288	B5300005 A		STW,R3 *R5
1*	02	00289	6AB00000 X	LIST5	BAL,SR4 WRITEAM
1236	02	0028A	6800001D		B PRMPT
1*	02	0028B	6AB00000 X	LIST4	BAL,SR4 READAM NOP IF ALREADY IN
2*	02	0028C	32500000 X		LW,R5 J:ABUF
3*	02	0028D	20500000 N		AI,R5 AM:STDOP
1238	02	0028E	68000280		B LIST2
1239					TITLE ISTART COMMAND

H01 18:36 SEP 08, '75

START COMMAND

1240	02	0028F	21100001	A	START	CI,R1	1	IS THERE MORE MSG
1241	02	00290	682002C4			BLE	START4	
1242	02	00291	6AA0048A			BAL,SR3	GETFIELD	GET NEXT FIELD
1243	02	00292	11C00732			CD,D1	UNDER	CHK IF FORM OF 'START UNDER LMN'
1244	02	00293	683002D5			BE	START8	
1245	02	00294	2160004B	A		CI,R6	1,1	CHECK COMPLEX FID
1246	02	00295	693002C6			BNE	START5=2	
1247	02	00296	6AB009AD			BAL,SR4	FID	BRAEK FID
1248	02	00297	02200020	A	START1A	PUSH	2,SR2	
	02	00298	0B900100	N				
1249	02	00299	02200020	A		PUSH	2,R7	
	02	0029A	0B700100	N				
1250	02	0029B	6AA00891			BAL,SR3	NFND	MAKE NAME TEXTC
1251	02	0029C	02200020	A		PULL	2,SR3	
	02	0029D	0AA00100	N				
1252	02	0029E	02200020	A		PULL	2,D2	
	02	0029F	0AD00100	N				
1253	02	002A0	22C00000	A	START2	LI,D1	0	
1254	02	002A1	22504000	A		LI,R5	STRTRBIT	SET BIT FOR SYSERR IN CASE FETCH
1255	02	002A2	47500000	X		STS,R5	JITELFLGS	DOESN'T FIND IT.
1256	02	002A3	21100001	A		CI,R1	1	TEST FURTHER MESSAGE
1257	02	002A4	682000CD			BLE	GROUP2B	NO MORE
1258	02	002A5	02200090	A		PUSH	9,R6	SAVE LOAD DATA
	02	002A6	0B600100	N				
1259	02	002A7	12C00000	06		LD,D1	VERB2	
1260	02	002A8	6AA008A0			BAL,SR3	SCAN	NEXT FILD CAN ONLY BE 'UNDER'
1261	02	002A9	21700001	A		CI,R7	1	CHECK FOR SINGLE CHAR UNDER DELTA
1262	02	002AA	693002B0			BNE	START70	REQUEST. B IF NO
1263	02	002AB	21100001	A		CI,R1	1	NO MORE ALLOWED
1264	02	002AC	692008F7			BG	SYNTAX	
1265	02	002AD	22A000E4	A		LI,SR3	'U'	WAS IT 'U' FOR UNDER DELTA
1266	02	002AE	71A0000C	A		CB,SR3	D1	
1267	02	002AF	683002B8			BE	START75	B IF YES
1268	02	002BU			START70	EGU	*	
1269	02	002B0	11C00732			CD,D1	UNDER	
1270	02	002B1	693008F7			BNE	SYNTAX	
1271	02	002B2			START7	RES	0	



H01 18136 SEP 08, '75

START COMMAND

85

1272	02	002B2	12C0n000	06	LD,D1	VERB2	
1273	02	002B3	6AA0n8A0		BAL,SR3	SCAN	
1274	02	002B4	2110n001	A	CI,R1	1	
1275	02	002B5	6920n8F7		BG	SYNTAX	
1276	02	002B6	11C0n734		CD,D1	DELTA1	IS IT DELTA OR FDP
1277	02	002B7	6930n2BD		BNE	START3	
1278	02	002B8			EQU	*	
1279	02	002B8	2230n080	A	LI,R3	DELTABIT	SET DELTA FLAG
1280	02	002B9	4730n000	X	STS,R3	J:TELFLGS	
1281	02	002BA	0220n090	A	PULL	9,R6	
	02	002BB	0A60n100	N			
1282	02	002BC	6800n2A0		B	START2	
1283	02	002BD	11C0n730		CD,D1	FDP1	
1284	02	002BE	6930n8F7		BNE	SYNTAX	
1285	02	002BF	2230n100	A	LI,R3	FDPBIT	
1286	02	002C0	4730n000	X	STS,R3	J:TELFLGS	
1287	02	002C1	0220n090	A	PULL	9,R6	
	02	002C2	0A60n100	N			
1288	02	002C3	6800n2A0		B	START2	
1289	02	002C4			RES	0	
1290	02	002C4	6A00n2DD		BAL,R0	START9	
1291	02	002C5	6800n2A0		B	START2	
1292	02	002C6	31C0n711		CW,D1	D0LL	CHECK FOR * FILE
1293	02	002C7	6830n2CD		BE	START6	
1294	02	002C8	0220n020	A	LCI	2	
1295	02	002C9	2A90n000	X	LM,SR2	J:ACCN	
1296	02	002CA	2270n000	A	LI,R7	0	
1297	02	002CB	2280n000	A	LI,SR1	0	
1298	02	002CC	6800n297		B	START1A	
1299	02	002CD	2263n000	A	LI,R6	X:30000!	BYTE COUNT FOR IDL
1300	02	002CE	2270FFFF	A	LI,R7	X:FFFF!	MASK TO GET SYSID
1301	02	002CF	4A60n000	X	LS,R6	J:JIT	GET SYSID
1302	02	002D0	2560n008	A	SLS,R6	8	POSITION
1303	02	002D1	2060n0D3	A	AI,R6	1L1	R6 = TEXTC IDL
1304	02	002D2	0220n020	A	LCI	2	
1305	02	002D3	2AD0n000	X	LM,D2	J:ACCN	
1306	02	002D4	6800n2A0		B	START2	

NO1 18136 SEP 08, '75

1307 02 002D5  
 1308 02 002D5 21100001 A  
 1309 02 002D6 68200831  
 1310 02 002D7 6A0002DD  
 1311 02 002D8 22504000 A  
 1312 02 002D9 47500000 X  
 1313 02 002DA 02200090 A  
 02 002DB 0B600100 N  
 1314 02 002DC 680002B2  
 1315  
 1316  
 1317 02 002DD  
 1318 02 002DD 02200030 A  
 1319 02 002DE 2A600000 X  
 1320 02 002DF 21600000 A  
 1321 02 002E0 68300831  
 1322 02 002E1 02200020 A  
 1323 02 002E2 2AD00000 X  
 1324 02 002E3 22A00000 A  
 1325 02 002E4 22B00000 A  
 1326 02 002E5 E8000000 A  
 1327

START8 RES START COMMAND

RES 0  
 CI,R1 1 MORE INFO MUST FOLLOW  
 BLE STARTERR  
 BAL,R0 START9  
 LI,R5 STRTBIT  
 STS,R5 J:TELFLGS  
 PUSH 9,R6  
 B START7

\*  
\*

START9

RES 0  
 LCI 3  
 LM,R6 J:LMN INSURE A LMN EXISTS  
 CI,R6 0  
 BE STARTERR  
 LCI 2  
 LM,D2 J:ACCN  
 LI,SR3 0 PASS. FOR LINK LM ALWAYS=0  
 LI,SR4 0  
 B \*R0  
 TITLE !CONTINUE COMMAND VERB!

```

1328 *****
1329 *E* ERROR!
1330 *E*          GROUP 03, CODE=01, SUBCODE=14
1331 *E* DESCRIPTION:
1332 *E*          USER SAID CONTINUE (GO) WHILE AT JOB STEP.
1333 *E*          THERE IS NO PROGRAM TO GO BACK TO.
1334 *****
1335 02 002E6 22300001 A CONTINUE LI,R3 JSTEP          ARE WE AT A JOB STEP
1336 02 002E7 4A300000 X          LS,R3 J;TELFLGS
1337 02 002E8 683002EB          BEZ CONTINX          NOT AT STEP, O.K.....
1338 02 002E9 22C30114 A          LI,D1 X'030114'  ERROR CODE & SUBCODE
1339 02 002EA 6800070E          B CMNERR1 TELL USER
1340
1341 02 002EB          *
1342 02 002EB 22600000 A          CONTINX RES 0
1343 02 002EC 22700000 A          LI,R6 0 SET UP RETURN EXIT
1344 02 002ED          LI,R7 0
1345 02 002ED          DB1 DBUG=1 DEBUG MODE
1346 02 002ED 68000103 *S* B TEL TEMP *****
1347          B XEXIT
          TITLE 'IFDP VERB SETUP'

```

H01 18:36 SEP 08, 1975

FDP VERB SETUP

88

1348  
1349 02 002EE  
1350 02 002EE 1260072E  
1351 02 002EF 1200072E  
1352 02 002FO 22C00000 A  
1353 02 002F1 680000C8  
1354

\*  
FDPSET RES 0  
LD,R6 FDP  
LD,R0 FDP  
LI,D1 0  
B GROUP2  
TITLE DELTA VERB SETUP1

```

1355
1356 02 002F2
1357
1358
1359
1360
1361
1362
1363
1364 02 002F2 32600000 X
1365 02 002F3 3160001B N
1366 02 002F4 684002F8
1367 02 002F5 22C30600 A
1368 02 002F6 22000833
1369 02 002F7 68000000 X
1370
1371      02 002F8
1372 02 002F8 12600736
1373 02 002F9 12000736
1374 02 002FA 22C00000 A
1375 02 002FB 680000C8
    
```

1\*

```

*
DELTASET RES      0
*****
*E*      ERROR!
*E*      GROUP 03, CODE#06, SUBCODE#00
*E*      DESCRIPTION!
*E*      THE USER HAS TRIED TO ASSOCIATE DELTA WITH
*E*      AN EXECUTE ONLY PROGRAM.
*****
          LW,R6      J:EXLY
          CW,R6      EXLYBIT      IS IT EXEC ONLY
          BAZ        DELTABK      NO, BK TO ASSOCIATE
          LI,D1      X'030600'    ERROR CODE & SUBCODE
          LI,R0      BKOPT0      RETURN FOR T$ERR
          B          T$ERR

*
DELTABK  EQU      $
          LD,R6    DELTA
          LD,R0    DELTA
          LI,D1    0
          B        GRBUP2
          TITLE   ITP COMMAND VERB!
    
```

2\*  
3\*  
4\*  
5\*  
6\*  
7\*  
8\*  
9\*  
10\*  
11\*  
12\*  
13\*  
14\*  
15\*  
16\* 02 002FL  
17\*  
18\*  
19\*  
20\*  
21\*  
22\* 02 002FC 22C00000 N  
23\* 02 002FD 69300300  
24\* 02 002FE 22C30C01 A  
25\* 02 002FF 6800070E  
26\*  
27\*  
28\*  
29\*  
30\*  
31\*  
32\* 02 00300 047007F2  
33\* 02 00301 68800304  
34\* 02 00302 22C30C02 A  
35\* 02 00303 6800070E  
36\*  
37\* 02 00304 32F0001D N  
38\* 02 00305 47F00000 X

\*\*\*\*\*  
\*F\* NAME: TP  
\*F\* PURPOSE: THE TP COMMAND IS A SPECIAL FORM OF LOGOFF  
\*F\* WHICH TELLS THE SYSTEM TO LOG THIS USER OFF  
\*F\* TIMESHARING AND MAKE THE LINE AVAILABLE AS A TP  
\*F\* LINE.  
\*F\* DESCRIPTION: THE FOLLOWING TESTS ARE MADE BEFORE PROCESSING  
\*F\* THE COMMAND:  
\*F\* 1. THE SYSTEM MUST BE SYSGENED FOR TP  
\*F\* 2. TPG (THE TP GHOST) MUST BE ACTIVE  
\*F\* IF THESE CONDITIONS ARE SATISFIED, WE WILL PERFORM  
\*F\* THE SPECIAL LOGOFF. OTHERWISE, AN ERROR MESSAGE  
\*F\* IS GENERATED AND THE USER REMAINS IN TEL  
\*\*\*\*\*  
TP FGU \*  
\*\*\*\*\*  
\*E\* FRROR: GRP 03, OC=01  
\*E\* DESCRIPTION: THE USER ISSUED THE TP COMMAND AND THE  
\*E\* SYSTEM IS NOT SYSGENED FOR TP,  
\*\*\*\*\*  
LI,D1 TTP SREF, WILL BE ZERO  
BNEZ \$+3 IF OPTION NOT DENIED,  
LI,D1 X1030C01 ERROR CODE  
B CMNERR1  
\*  
\*\*\*\*\*  
\*E\* FRROR: GRP 03, OC=02  
\*E\* DESCRIPTION: M:GETID RETURNED CC1 SET, INDICATING TPG  
\*E\* IS NOT ACTIVE.  
\*\*\*\*\*  
CAL,7 GETID TPG IS ACTIVE IF  
BCR,8 \$+3 CC1 IS NOT SET,  
LI,D1 X1030C02 ERROR CODE  
B CMNERR1  
\*  
LW,D4 TPFLG SET TP FLAG FOR  
STS,D4 J:TELFLGS STEP.

H01 18:36 SEP 08, '75

TP COMMAND VERB

91

```

39* *****
40* *E*      ERROR:   GRP 03, OC=03
41* *E*      DESCRIPTION:  THIS IS AN INFORMATION-ONLY MESSAGE TO
42* *E*      LET THE USER KNOW HE HAS PASSED THE TESTS FOR TP
43* *E*      IT WILL BE FOLLOWED BY THE STANDARD ACCOUNTING
44* *E*      LINE NORMALLY SEEN AT LOGOFF.
45* *****

```

```

46* 02 00306 22C30C03 A
47* 02 00307 6A000000 X
48*
49* 02 00308 22C00000 A
50* 02 00309 12600742
51* 02 0030A 680000C8

```

```

LI,D1 X1030C03' ERRMSG KEY
BAL,R0 T$ERR PRINT MESSAGE
*
LI,D1 0 TO STOP SCAN,
LD,R6 LOGOFF SET UP FOR EXIT
B GR0UP2 TO LOGOFF.
TITLE 'PASSWORD COMMAND VERB'

```

1376

PASSWORD COMMAND VERB

1377  
 1378  
 1379  
 1380  
 1381  
 1382  
 1383  
 1384  
 1385  
 1386  
 1387  
 1388  
 1389  
 1390           02 0030B  
 1\* 02 0030B 35100000 X  
 2\* 02 0030C 35200001 N  
 1391 02 0030D 22200004 A  
 1392 02 0030E 6A00083D  
 1393 02 0030F 09300100 N  
 1\* 02 00310 32100000 X  
 2\* 02 00311 32200001 N  
 1394 02 00312 6AA0048A  
 1395  
 1396  
 1397  
 1398  
 1399  
 1400  
 1401  
 1402 02 00313 2160006B A  
 1403 02 00314 68300318  
 1404 02 00315 22C30507 A  
 1405 02 00316 08300100 N  
 1406 02 00317 68000335  
 1407 02 00318 6AB00342  
 1408 02 00319 08300100 N  
 1409

\*\*\*\*\*  
 \*F\* NAME: PASSWORD  
 \*F\* PURPOSE: THE PASSWORD COMMAND IS USED BY THE TERMINAL  
 \*F\* USER TO CHANGE HIS LOGIN PASSWORD. SECURITY IS  
 \*F\* ADDITIONALLY ENFORCED BY REQUIRING THE OLD PASSWORD  
 \*F\* TO BE SUPPLIED BEFORE THE NEW ONE IS ENTERED.  
 \*F\* DESCRIPTION: THE USERS RECORD IS READ IN AND THE FIRST  
 \*F\* FIELD SUPPLIED BY THE USER IS COMPARED WITH THE  
 \*F\* CURRENT PASSWORD. IF IT MATCHES, THE SECOND FIELD  
 \*F\* IS STORED AND THE USERS RECORD IS WRITTEN OUT. IF  
 \*F\* THE PASSWORD SCRAMBLER IS INCLUDED IN THE SYSTEM IT  
 \*F\* IS INVOKED.  
 \*\*\*\*\*  
 PASSWORD EQU \*  
 STW,R1 SETBUF SAVE REGS FOR SCAN  
 STW,R2 SETBUF+1  
 LI,R2 4 FOR OPEN INPUT  
 BAL,R0 RD;USERS READ USER RECORD INTO TELSTACK  
 PUSH R3 SAVE BUFFER ADDRESS  
 LW,R1 SETBUF RESTORE SCAN'S REGS  
 LW,R2 SETBUF+1  
 BAL,SR3 GETFIELD SCAN FOR OLD PASSWORD  
 \*\*\*\*\*  
 \*E\* ERROR: GROUP 03, CODE=05, SUBCODE=07  
 \*E\* DESCRIPTION: THE FIRST FIELD OF THE PASSWORD COMMAND DIDN'T  
 \*E\* END WITH A COMMA. THIS PROBABLY MEANS THAT THE USER  
 \*E\* IS NOT AWARE OF THE NEW (WITH DOO) FORMAT OF THE  
 \*E\* PASSWORD COMMAND. HE MUST SUPPLY OLD,NEW PASSWORD  
 \*\*\*\*\*  
 CI,R6 1,1 WILL NEW PASSWORD FOLLOW  
 BE 8+4 YES...  
 LI,D1 X1030507! NO, ERROR CODE & SUBCODE  
 PULL R3 RESTORE BUFFER POINTER  
 B PASSCLUP GO TELL USER & CLEANUP  
 BAL,SR4 SCRAMBLE NO, SCRAMBLE OLD FOR COMPARE  
 PULL R3 RESTORE BUFFER ADDRESS  
 \*\*\*\*\*



1410  
 1411  
 1412  
 1413  
 1\* 02 0031A 31C60006 A  
 2\* 02 0031B 6930031E  
 3\* 02 0031C 31D60007 A  
 1415 02 0031D 68300320  
 1416 02 0031E 22C30505 A  
 1417 02 0031F 68000335  
 1418  
 1419  
 1420 02 00320 09300100 N  
 1421 02 00321 6AA0048A  
 1422  
 1423  
 1424  
 1425  
 1426 02 00322 21700008 A  
 1427 02 00323 68200327  
 1428 02 00324 08300100 N  
 1429 02 00325 22C30506 A  
 1430 02 00326 68000335  
 1431  
 1432 02 00327 6AB00342  
 1433 02 00328 08300100 N  
 1434 02 00329 35C60006 A  
 1435 02 0032A 35D60007 A  
 1436 02 0032B 02200020 A  
 1437 02 0032C 2A1007A4  
 1438 02 0032D 24160000 X  
 1439 02 0032E 22A00000 A  
 1440 02 0032F 04160000 X  
 1441  
 1442  
 1443  
 1444

```

*E*          ERROR:  GROUP 03, CODE=05, SUBCODE=05
*E*          DESCRIPTION:  THE 'OLD' PASSWORD SUPPLIED BY THE
*E*          USER DOESN'T MATCH THE CURRENT :USERS RECORD.
*****
          CW,D1      6,R3      DOES FIRST WORD MATCH
          BNE        9+3      NO,ERROR
          CW,D2      7,R3      HOW ABOUT SECOND WORD
          BE         9+3      MATCHES O.K.
          LI,D1     X'030505'  ERROR CODE & SUBCODE
          B          PASSCLUP  NO MATCHEE, NO CHANGE
*
* NOW SCAN FOR NEW PASSWORD
          PUSH      R3          SAVE BUFFER PTR
          BAL,SR3   GETFIELD    SCAN FOR NEW PASSWORD
*****
*E*          ERROR:  GROUP 03, CODE=05, SUBCODE=06
*E*          DESCRIPTION:  THE PASSWORD IS GREATER THAN 8 CHARACTERS
*****
          CI,R7      8          LEGAL SIZE
          BLE       9+4      YES
          PULL      R3        TO EVEN UP STACK
          LI,D1     X'030506'  NO, ERROR CODE & SUBCODE
          B          PASSCLUP  CLEAN UP & TELL USER
*
          BAL,SR4   SCRAMBLE    SCRAMBLE NEW PASSWORD
          PULL      R3
WR:USERS STW,D1   6,R3        STORE NEW PASSWORD
          STW,D2   7,R3
          LCI      2          REPLACE WORDS 0 & 1
          LM,R1    WUSR        OF READ FPT FOR WRITE
          STM,R1   LOGSIZE,R3  WITH DEFAULT KEY.
          LI,SR3   0          CLEAR SR3 BEFORE WRITE
          CAL,1    LOGSIZE,R3  WRITE :USERS RECORD BACK
*****
*E*          ERROR:
*E*          GROUP 03, CODE=05, SUBCODE=03
*E*          DESCRIPTION:
    
```

```

1445
1446
1447
1448
1449 02 00330 21A00000 A
1450 02 00331 68300334
1451 02 00332 22C30503 A
1452 02 00333 6800086C
1453
1454
1455
1456
1457
1458
1459
1460 02 00334 22C30504 A
1461
1462
1463 02 00335
1464 02 00335 6A400000 X
1465 02 00336 02200020 A
1466 02 00337 2AD00000 06
1467 02 00338 24D60006 A
1468 02 00339 225FFFFFFA N
02 0033A 13500100 N
1469 02 0033B 72200000 X
1470 02 0033C 202FFFFFFF A
1471 02 0033D 22100106 N
1472 02 0033E 6A4009D2
1473 02 0033F 2200001D
1474 02 00340 68000000 X
1475 02 00341 E8000008 A

```

```

**E** WRITE ERROR OF SOME SORT OCCURRED WHILE
**E** TRYING TO WRITE :USERS RECORD BACK, ABORT,
**E** PRESUMING CURRENT RECORD UNALTERED.
*****
CI,SR3 0
BE $+3 NO ERRORS ON WRITE
LI,D1 X'030503' ERROR CODE & SUBCODE
B R:UERR RSET STACK & GO TO CMNERR1
*
**E** ERROR: GROUP 03, CODE=05, SUBCODE=04
**E** DESCRIPTION: THIS IS NOT AN ERROR CONDITION, IT IS AN
**E** INFORMATION-ONLY MESSAGE TO INDICATE SUCCESSFUL
**E** COMPLETION OF PASSWORD CHANGE.
*****
LI,D1 X'030504' ERRMSG KEY
*
* THIS IS COMMON POINT TO CLEAN UP W/ ERROR MSG
PASSCLUP EQU $
BAL,R4 FMTELCL CLOSE MITEL
LCI 2 BLANK OUT PASSWORD WHEREVER IT
LM,D2 VERB2 APPEARS IN CORE
STM,D2 6,R3
BUMP =(LOGSIZE+RWUSRSZ),R5 CLEAN STACK
LB,R2 JBICCAR5 LENGTH OF CMND
AI,R2 =1
LI,R1 TELBUF
BAL,R4 BLANKBUF BLANK COMMAND BUFFER
LI,R0 PROMPT RETURN FOR T$ERR
B T$ERR
BPERR B *SR1 ERROR RETURN VECTOR

```

PAGE

1\*  
 1476  
 1477  
 1478  
 1479  
 1480  
 1481  
 1482  
 1483  
 1484  
 1485  
 1486  
 1487  
 1488  
 02 00342  
 1\* 02 00342 09B00100 N  
 1489 02 00343 09200100 N  
 1490 02 00344 11C00000 06  
 1491 02 00345 69300349  
 1492 02 00346 22C00000 A  
 1493 02 00347 22D00000 A  
 1494 02 00348 6800034D  
 1495 02 00349 22600000 N  
 1496 02 0034A 6830034D  
 1497 02 0034B 6AB00000 X  
 1498 02 0034C 12C00006 A  
 1499 02 0034D 08200100 N  
 1\* 02 0034E 08B00100 N  
 2\* 02 0034F E800000B A  
 1501

\*\*\*\*\*  
 \*D\* NAME: SCRAMBLE \*  
 \*D\* CALL: BAL,SR3 SCRAMBLE \*  
 \*D\* REGISTERS: R3,R4,R6,R7,SR4 ARE CLOBBERED \*  
 \*D\* INPUT: TEXT PASSWORD IN D1-D2 \*  
 \*D\* DATA: VERB2 = DWD OF BLANKS \*  
 \*D\* OUTPUT: ENCODED PASSWORD IN D1-D2 \*  
 \*D\* INTERFACE: SCRAM = SREFIED PASSWORD SCRAMBLER \*  
 \*D\* DESCRIPTION: IF INPUT IS NULL (BLANKS), RETURN \*  
 \*D\* ZER0ES, OTHERWISE, CHECK FOR SCRAM INCLUDED. IF \*  
 \*D\* PRESENT, SCRAMBLE PASSWORD, OTHERWISE, EXIT. \*  
 \*\*\*\*\*  
 SCRAMBLE EQU \*  
 PUSH SR4 SAVE LINK  
 PUSH R2  
 CD,D1 VERB2 IS INPUT NULL  
 BNE #+4 NO  
 LI,D1 0 YES,  
 LI,D2 0 RETURN  
 B SCRAMBLX ZER0ES  
 LI,R6 SCRAM IS SCRAM INCLUDED  
 BEZ SCRAMBLX NO, RETURN  
 BAL,SR4 SCRAM  
 LD,D1 R6 ENCODED PASSWORD TO D1-D2  
 SCRAMBLX PULL R2  
 PULL SR4  
 B \*SR4 RETURN  
 TITLE 'SHOW COMMAND'

SHOW COMMAND

\* THE SHOW COMMAND READS THE ;USERS ENTRY FOR THIS USER  
 \* AND MOVES IT TO A COMMON PAGE FOR THE SHOW PROCESSOR  
 \* AFTER MOVING THE RECORD TO THE COMMON PAGE IT CALLS  
 \* SHOW VIA AN INTERP EXIT. THE 'PASSWORD' CODE HAS BEEN  
 \* GREATLY UTILIZED FOR THE READING OF THE ;USERS FILE.  
 \*  
 \*

1502  
 1503  
 1504  
 1505  
 1506  
 1507  
 1508  
 1509 02 00350  
 1510 02 00350 22300001 A  
 1511 02 00351 4A300000 X  
 1512 02 00352 69300355  
 1\* 02 00353 31F00013 N  
 1514 02 00354 69300833  
 1515 02 00355 22200001 A  
 1516 02 00356 6A00083D  
 1517 02 00357 6A400000 X  
 1518 02 00358 22400000 A  
 1519 02 00359 35460006 A  
 1520 02 0035A 35460007 A  
 1521 02 0035B 048007D1  
 1522 02 0035C 6980036A  
 1523 02 0035D 22400001 N  
 1524 02 0035E 203FFFFFF A  
 1525 02 0035F 209FFFFFF A  
 1526 02 00360 B2280003 A  
 1527 02 00361 B5280009 A  
 1528 02 00362 64400360  
 1529 02 00363 225FFFFFFA N  
 02 00364 13500100 N  
 1530 02 00365 22C00000 A  
 1\* 02 00366 224001F4 A  
 2\* 02 00367 B5C80009 A  
 1531 02 00368 12600746  
 1532 02 00369 680000C8

SHOW	FQU	*	
	LI,R3	JSTEP	ARE WE GOING TO CLOBBER
	LS,R3	J:TELFLGS	THE USER'S PRGM W/ SHOW
	BNEZ	*+3	NO, OK TO CALL SHOW
	CW,D4	IQUIT	YES, DID WE ASK QUIT
	BNE	BKOPTO	NO, ASK IT...
	LI,R2	1	SET READ MODE TO 'IN'
	BAL,R0	RD;USERS	READ IN ;USERS RECORD
	BAL,R4	FMTELCL	CLOSE M:TEL
	LI,R4	0	
	STW,R4	6,R3	ZERO PASSWORD
	STW,R4	7,R3	FOR SECURITY
	CAL,8	GCOMMONPG	GET A COMMON PAGE
	BCS,8	SHOWXX	CANT GET PAGE
	LI,R4	LOGSIZE+1	SET UP COUNTER
	AI,R3	=1	
	AI,SR2	=1	
	LW,R2	*R3,R4	GET WORD FROM STACK
	STW,R2	*SR2,R4	& MOVE TO COMMON PAGE
	BDR,R4	*=2	
	BUMP	=(LOGSIZE+RWUSRSZ),R5	CLEAN STACK
	LI,D1	0	DONT SCAN CMMAND
	LI,R4	500	***TEMP***
	STW,D1	*SR2,R4	***TEMP***
	LD,R6	XSHOW	CMMAND TO R6&R7
	B	GROUP2	GO LOAD AND LINK

PAGE

\*\*\*\*\*

\*E\* ERROR: \*

\*E\* GROUP 03, CODE=03, SUBCODE=00 \*

\*E\* DESCRIPTION: \*

\*E\* WE COULDN'T GET A COMMON PAGE TO PASS THE ;USERS \*

\*E\* RECORD TO SHOW. NOTE - TELSTACK IS CLEANED BEFORE \*

\*E\* ERROR MESSAGE. \*

\*\*\*\*\*

SHOWXX BUMP =(LOGSIZE+RWUSRSZ),R5 CLEAN STACK

1533  
 1534  
 1535  
 1536  
 1537  
 1538  
 1539  
 1540  
 1541  
 1542 02 0036A 225FFFFA N  
 02 0036B 13500100 N  
 1543 02 0036C 22C30300 A  
 1544 02 0036D 6800070E  
 1545

LI,D1 X1030300! ERROR CODE & SUBCODE  
 B CMNERR1  
 TITLE !WHERE COMMAND VERB!

1546  
 1547  
 1548  
 1549  
 1550  
 1551  
 1552 02 0036E  
 1556 02 0036E 32C00000 X  
 1557 02 0036F 21C00002 A  
 1558 02 00370 684006B1  
 1559 02 00371 21100001 A  
 1560 02 00372 682006B1  
 1561 02 00373 6A400000 X  
 1562 02 00374 32300100 N  
 1563 02 00375 20300014 A  
 1564 02 00376 32C00B2C  
 1565 02 00377 35C60000 A  
 1566 02 00378 35C60001 A  
 1567 02 00379 35C60002 A  
 1568 02 0037A 35C60003 A  
 1569 02 0037B 35C60004 A  
 1570 02 0037C 22C00000 A  
 1571 02 0037D 09300100 N  
 1572 02 0037E 6AA008A0  
 1573 02 0037F 2160006B A  
 1574 02 00380 693008F7  
 1575 02 00381 21700008 A  
 1576 02 00382 692008F7  
 1577 02 00383 21700000 A  
 1578 02 00384 682008F7  
 1579 02 00385 B2300100 N  
 1580 02 00386 20300002 A  
 1581 02 00387 6AA008A0  
 1582 02 00388 2170000C A  
 1583 02 00389 692008F7  
 1584 02 0038A 21700000 A  
 1585 02 0038B 682008F7

\* THE WHERE COMMAND IS USED TO SEE IF A SPECIFIED USER  
 \* IS LOGGED ON TO THE SYSTEM. THIS IS DONE BY CHECKING  
 \* THE FILE :LOGD.:SYS BUILT BY LOGON, WHICH CONTAINS A RECORD  
 \* FOR EACH ONLINE USER. THIS FILE IS READ NONE, WRITE  
 \* NONE, SO WE MUST GO TO X'CO' PRIV. LEVEL TO READ IT.

WHERE

FGU	*	
LW,D1	S:CBUP	SEE IF FEATURE ENABLED
CI,D1	2	THE 2 BIT IN S:CBUP
BAZ	GIVEMEH	MUST BE SET.
CI,R1	1	WE MUST HAVE AN ARGUMENT
BLE	GIVEMEH	OR WE COMPLAIN.
BAL,R4	FMTELCL	MAKE SURE MITEL CLOSED.
LW,R3	TELSTACK	A WORK AREA
AI,R3	20	OVER HERE A WAYS...
LW,D1	#1 1	PRESET THIS BUFFER AREA
STW,D1	0,R3	TO BLANKS.
STW,D1	1,R3	WE ADDED 20 BECAUSE OTHER
STW,D1	2,R3	ROUTINES, SUCH AS SCAN,
STW,D1	3,R3	USE THE STACK TOO.
STW,D1	4,R3	
LI,D1	0	
PUSH	R3	REMEMBER THAT.
BAL,SR3	SCAN	
CI,R6	1,1	BETTER END ON A COMMA
BNE	SYNTAX	OR I WONT LIKE YOU.
CI,R7	8	
BG	SYNTAX	TOO LONG
CI,R7	0	
BLE	SYNTAX	TOO SHORT
LW,R3	*TELSTACK	TOP OF STACK
AI,R3	2	NOW DO 3 WORD NAME
BAL,SR3	SCAN	
CI,R7	12	
BG	SYNTAX	
CI,R7	0	
BLE	SYNTAX	GUESS IT LOOKS GOOD.

WHSC

				WHERE	COMMAND	VERB		
1586	02	0038C	72F00000	X	WHERE1	LB,15	JB:PRIV	THIS IS THE USERS PRIV LEVEL
1587	02	0038D	221000C0	A		LI,1	X:CO!	THIS IS WHAT I NEED
1588	02	0038E	75100000	X		STB,1	JB:PRIV	.....POKE.....
1589	02	0038F	08D00100	N		PULL	13	OUR ARG AREA
1590	02	00390	22E00000	A		LI,14	0	HIT COUNTER
1591	02	00391	041003C4		WHERE2	CAL1,1	WHOPEN	OPEN ME THIS FILE
1*	02	00392	75F00000	X		STB,D4	JB:PRIV	RESET USER PRIV LEVEL.
1592	02	00393	02200050	A		LCI	5	FAR OUT, ITS OPEN...
1593	02	00394	AA00000D	A		LM,0	*13	GET THE 5 WD NAME+ACCT
1594	02	00395	21D00001	A		CI,13	1	IS BUFFER ON DOUBLEWORD
1595	02	00396	69400398			BANZ	\$+2	I DONT WANT IT ON ONE.
1596	02	00397	2UDFFFFFF	A		AI,13	=1	IT IS NOW.....
1597	02	00398	2250005C	A		LI,5	!*!	LOGGED ON INDICATOR
1598	02	00399	22600003	A		LI,6	3	BYTE INDEX FOR COMPARE
1599	02	0039A	041003BE		WHERE3	CAL1,1	WHREAD	READ ME A RECORD.
1600	02	0039B	F15C000D	A		CB,5	*13,6	IS IT LOGGED ON
1601	02	0039C	6930039A			BNE	WHERE3	NOPE.
1602	02	0039D	2UD00001	A		AI,13	1	MOVE TO DOUBLEWORD.
1603	02	0039E	9100000D	A		CD,0	*13	CHECK FIRST 2 WORDS.
1604	02	0039F	69300397			BNE	WHERE3=3	WHY DIDNT SOMEBODY PUT IN
1605	02	003A0	2UD00002	A		AI,13	2	A COMPARE MULTIPLE WITH
1606	02	003A1	9120000D	A		CD,2	*13	ALL THE OTHER MULTIPLE WORD
1607	02	003A2	683003A5			BE	\$+3	INSTRUCTIONS.....
1608	02	003A3	2UDFFFFFFD	A		AI,13	=3	DIDNT HIT ON WDS 3+4
1609	02	003A4	6800039A			B	WHERE3	DEC PTR AND SPLIT.
1610	02	003A5	2UD00002	A		AI,13	2	
1611	02	003A6	B140000D	A		CW,4	*13	LAST WORD FOR A MATCH.
1612	02	003A7	683003AA			BE	\$+3	WE GOT ONE.
1613	02	003A8	2UDFFFFFFB	A		AI,13	=5	
1614	02	003A9	6800039A			B	WHERE3	
1615	02	003AA	02200030	A		PUSH	3,R1	SAVE THIS STUFF
	02	003AB	04100100	N				
1616	02	003AC	2UDFFFFFFA	A		AI,13	=6	I KNEW, I ONLY ADDED 5
1617	02	003AD	32300B2D			LW,3	=1 ON 1	BIT I'M GOING TO POKE THIS
1618	02	003AE	B530000D	A		STW,3	*13	IN BEFORE THE LINE NUMBER.
1619	02	003AF	3210000D	A		LW,1	13	BUFFER ADDRESS.
1620	02	003B0	22200006	A		LI,2	6	AND LENGTH

H01 18:36 SEP 08, '75

100

Time	Op	Code	Address	Mode	Label	Command	Verb	Message
1621	02	003B1	04100790			CAL1,1	WRITE	FOUND ONE FOR YOU.
1622	02	003B2	20D00001	A		AI,13	1	
1623	02	003B3	20E00001	A		AI,14	1	REMEMBER THAT WE FOUND ONE.
1624	02	003B4	02200030	A		PULL	3,R1	
	02	003B5	0A100100	N				
1625	02	003B6	6800039A			B	WHERE3	GO LOOK FOR MORE.
1*	02	003B7	6A400000	X	WHERE4	BAL,R4	FMTELCL	FORCE DCB CLOSED.
1628	02	003B8	21E00000	A		CI,14	0	FIND ANYBODY...
1629	02	003B9	6930001D			BNE	PROMPT	YUP. GOOD FOR YOU.
1630	02	003BA	2210075D			LI,R1	NONE	SORRY, NOBODY NAMED JOE
1631	02	003BB	22200004	A		LI,R2	4	AROUND NOW.....
1632	02	003BC	04100790			CAL1,1	WRITE	TRY AGAIN LATER.....
1633	02	003BD	6800001D			B	PROMPT	
1642					*			
1643					*		READ A RECORD	
1644					*			
1645	02	003BE	10000133	N	WHREAD	GEN,8,24	X'10',M:TEL	
1646	02	003BF	F0000010	A		DATA	X'F0000010'	P1=P4, WAIT.
1647	02	003C0	000003D5			DATA	WHERR,WHERR	ERR AND ABN
	02	003C1	000003D5					
1648	02	003C2	8000000D	A		DATA	X'8000000D'	BUF# *13
1649	02	003C3	0000002C	A		DATA	44	RECL=44 BYTES
1650					*			
1651					*		OPEN THE :LOGD FILE	
1652					*			
1653	02	003C4	14000133	N	WHOPEN	GEN,8,24	X'14',M:TEL	
1654	02	003C5	FF400009	A		DATA	X'FF400009'	
1655	02	003C6	000003E4			DATA	WHERR1,WHERR1	ERR AND ABN
	02	003C7	000003E4					
1656	02	003C8	8000000D	A		DATA	X'8000000D'	BUF# *13
1657	02	003C9	0000002C	A		DATA	44	RECL=44 BYTES
1658	02	003CA	0000000A	A		DATA	10	TRIES=10
1659	02	003CB	00000001	A		DATA	1	ORG=CONSEC (ITS REALLY KEYED)
1660	02	003CC	00000001	A		DATA	1	SEQUEN
1661	02	003CD	00000301	A		DATA	X'301'	MODE=IN, SHARE
1662	02	003CE	00000002	A		DATA	2	
1663	02	003CF	01000202	A		GEN,8,8,8,8	1,0,2,2	



1664 02 003D0 057AD3D6 A  
 02 003D1 C7C44040 A  
 1665 02 003D2 02010202 A  
 1666 02 003D3 7AE2F8E2 A  
 02 003D4 4U404040 A  
 1667  
 1668  
 1669  
 1670 02 003D5 7270000A A  
 1671 02 003D6 21700006 A  
 1672 02 003D7 683003B7  
 1673 02 003D8 21E00000 A  
 1\* 02 003D9 691003B7  
 1675 02 003DA 221003DF  
 1676 02 003DB 22200012 A  
 1677 02 003DC 04100790  
 1678 02 003DD 22E00001 A  
 1679 02 003DE 680003B7  
 1680 02 003DF C2E4F2E8 A  
 02 003E0 4UD60940 A  
 02 003E1 C6C903C5 A  
 02 003E2 4UC509D9 A  
 02 003E3 D6D94040 A  
 1681  
 1682  
 1683  
 1684 02 003E4 221003EA  
 1685 02 003E5 22200019 A  
 1\* 02 003E6 75F00000 X  
 2\* 02 003E7 22E00001 A  
 1686 02 003E8 04100790  
 1\* 02 003E9 680003B7  
 1688 02 003EA C3C1D5D5 A  
 02 003EB D6E340C1 A  
 02 003EC C3C3C5E2 A  
 02 003ED E2407AD3 A  
 02 003EE D6C7C440 A

WHERE COMMAND VERB  
 TEXTC ' ;LOGD' NAME# ;LOGD  
 GEN#8,8,8,8 2,1,2,2  
 TEXT ' ;SYS ' ACCT# ;SYS

\*  
 \* ERROR HANDLER FOR WHERE FILE OPERATIONS.  
 \*

WHERR LB,7 10 LOOK AT MAJOR CODE  
 CI,7 6 END OF FILE HIT  
 BE WHERE4 YES. GO CLEAN UP.  
 CI,14 0 HAVE WE BEEN HERE BEFORE  
 BL WHERE4 YUP, SCRAM...  
 LI,1 WHM  
 LI,2 18  
 CAL1,1 WRITE ERROR= COP OUT.  
 LI,14 1 NO, WE DIDNT...  
 B WHERE4  
 WHM TEXT 'BUSY OR FILE ERROR'

\*  
 \* AND FOR OPEN PROBLEMS  
 \*

WHERR1 LI,R1 GASP  
 LI,R2 25  
 STB,D4 JB;PRIV RESET PRIV LEVEL  
 LI,D3 1 SET FLAG SO WE DONT PRINT INONE!  
 CAL1,1 WRITE COMPLAIN  
 B WHERE4 AND CUT OUT...  
 GASP TEXT 'CANNOT ACCESS ;LOGD FILE'

H01 18136 SEP 08, '75  
02 003EF C9C9D3C5 A  
1689

WHERE COMMAND VERB

102

TITLE ITABS COMMAND VERB I

1690 02 003FU  
 1691 02 003F0 216000E2 A  
 1692 02 003F1 68300414  
 1693 02 003F2 21600040 A  
 1694 02 003F3 693008F7  
 1695 02 003F4 32400100 N  
 1696 02 003F5 20400001 A  
 1697 02 003F6 22500007 A  
 02 003F7 13500100 N  
 1698 02 003F8 02200070 A  
 1699 02 003F9 2A8007B8  
 1700 02 003FA 20880000 A  
 1701 02 003FB 20400002 A  
 1702 02 003FC 22000000 A  
 1703 02 003FD 2230000C A  
 1704 02 003FE 32C00000 05  
 1705 02 003FF 6AA008A0  
 1706 02 00400 21700000 A  
 1707 02 00401 683008F7  
 1708 02 00402 21700003 A  
 1709 02 00403 692008F7  
 1710 02 00404 20000001 A  
 1711 02 00405 6AB00982  
 1712 02 00406 35000003 A  
 1713 02 00407 F5760004 A  
 1714 02 00408 21000010 A  
 1715 02 00409 692008F7  
 1716 02 0040A 2160006B A  
 1717 02 0040B 683003FD  
 1718 02 0040C 21100001 A  
 1719 02 0040D 692008F7  
 1720 02 0040E F5000004 A  
 1721 02 0040F 204FFFFFFE A  
 1722 02 00410 84100004 A  
 1723 02 00411 225FFFFFF9 A  
 02 00412 13500100 N  
 1724 02 00413 6800001D

TABS

TABSA

FGU \*  
 CI,R6 X'E2'  
 BE TABS1  
 CI,R6 ' '  
 BNE SYNTAX  
 LW,R4 TELSTACK  
 AI,R4 1  
 BUMP 7,R5  
  
 LCI 7  
 LM,SR1 TABPL  
 STM,SR1 0,R4  
 AI,R4 2  
 LI,R0 0  
 LI,R3 D1  
 LW,D1 VERB1  
 BAL,SR3 SCAN  
 CI,R7 0  
 BE SYNTAX  
 CI,R7 3  
 BG SYNTAX  
 AI,R0 1  
 BAL,SR4 DECBIN  
 STW,R0 R3  
 STB,R7 \*R4,R3  
 CI,R0 16  
 BG SYNTAX  
 CI,R6 1,1  
 BE TABSA  
 CI,R1 1  
 BG SYNTAX  
 STB,R0 \*R4  
 AI,R4 =2  
 CAL1,1 \*R4  
 BUMP =7,R5  
  
 B PROMPT

TABS COMMAND VERB

TABS INQUEIRY  
 YES, BRANCH  
 CHECK FOR SPACK  
  
 CLEAR A COUNT FOR TAB VALUES  
  
 GET THE TAB VALUE  
 INSURE DATA  
  
 ALLOW UP TO 3 CHARACTERS  
  
 BUMP THE COUNT  
 CONVERT THE VALUE TO BINARY  
  
 STORE THE VALUE IN PLIST  
 TEST FOR LIMIT  
  
 ANY MORE  
 YUP  
 TEST FOR TRAILING GARBAGE  
  
 NOPE=STORE COUNT  
  
 ISSUE MIDEVICE CAL

Line	Op	Code	Address	Mode	Command	Verb	Output
1725							OUTPUT CURRENT TABS
1726		02	00414		TABS1	FGU	\$
1727	02	00414	22300013	N		LI,R3	M:UC+19
1728	02	00415	227FFFF0	A		LI,R7	=16
1729	02	00416	F2AEN003	A		LB,SR3	*R3,R7
1730	02	00417	6930041C			BNEZ	TABS2
1731	02	00418	2210075D			LI,R1	NONE
1732	02	00419	22200004	A		LI,R2	4
1733	02	0041A	04100790			CAL1,1	WRITE
1734	02	0041B	6800001D			B	PROMPT
1735							
1736		02	0041C		TABS2	FGU	\$
1737	02	0041C	32600100	N		LW,R6	TELSTACK
1738	02	0041D	20600001	A		AI,R6	1
1739	02	0041E	22500010	A		BUMP	16,R5
	02	0041F	13500100	N			SPACE FOR OUTPUT
1740	02	00420	2200006B	A		LI,R0	1,1
1741	02	00421	22200000	A		LI,R2	0
1742	02	00422	F2CE0003	A	TABS4	LB,D1	*R3,R7
1743	02	00423	68300435			BEZ	TABS3
1744	02	00424	6AB00979			BAL,SR4	BINDECBCD
1745	02	00425	22400000	A		LI,R4	0
1746	02	00426	7258000D	A	TABS5	LB,R5	D2,R4
1747	02	00427	215000F0	A		CI,R5	'0'
1748	02	00428	6930042B			BNE	TABS6
1749	02	00429	20400001	A		AI,R4	1
1750	02	0042A	68000426			B	TABS5
1751	02	0042B	F5540006	A	TABS6	STB,R5	*R6,R2
1752	02	0042C	20200001	A		AI,R2	1
1753	02	0042D	20400001	A		AI,R4	1
1754	02	0042E	21400004	A		CI,R4	4
1755	02	0042F	68300432			BE	TABS7
1756	02	00430	7258000D	A		LB,R5	D2,R4
1757	02	00431	6800042B			B	TABS6
1758							
1759							
1760	02	00432	F5040006	A	TABS7	STB,R0	*R6,R2

PT TO END OF TABS  
INDEX BACK  
ANY TAB ENTRIES  
YES  
NO  
BYTE COUNT  
OUTPUT NONE MSSG  
PROMPT  
DISPLAY TABS ROUTINE  
SPACE  
FOR OUTPUT  
COMMA BETWEEN ENTRIES  
INITIAL BYTE COUNT  
GET TAB ENTRY  
NO ENTRY, GIVEUP  
CONVERT TO DECIMAL  
IS DATA A ZERO

H01 18:36 SEP 08, '75  
 1761 02 00433 20200001 A  
 1762 02 00434 65700422  
 1763 02 00435  
 1764 02 00435 202FFFFF A  
 1765 02 00436 22000040 A  
 1766 02 00437 F5040006 A  
 1767 02 00438 32100006 A  
 1768 02 00439 04100790  
 1769 02 0043A 225FFFF0 A  
 02 0043B 13500100 N  
 1770 02 0043C 6800001D  
 1771

TABS3

TABS COMMAND VERB  
 AI,R2 1  
 BIR,R7 TABS4  
 EQU \$  
 AI,R2 =1  
 LI,R0 ' ' BLANK  
 STB,R0 \*R6,R2  
 LW,R1 R6 BUFFER ADDR TO R1  
 CAL1,1 WRITE OUTPUT TO TERMINAL  
 BUMP =16,R5 EVEN UP  
 B PROMPT PROMPT  
 TITLE !PAGE COMMAND VERB!

```

1772
1773
1774
1775
1776
1777
1778      02 0043D
1779 02 0043D 21100000 A
1780 02 0043E 683008F7
1781 02 0043F 21600040 A
1782 02 00440 693008F7
1783 02 00441 6AA0048A
1784 02 00442 6AB00982
1785 02 00443 52A00007 A
1786 02 00444 693008F7
1787 02 00445 22600000 N
1788 02 00446 557C0000 A
1789 02 00447 6800001D
1790
    
```

```

*
* PAGE ROUTINE
* THE PAGE FUNCTION ALLOWS THE ON-LINE USER TO RESET THE
* CURRENT PAGE NO. BUT IN THE HEADER BY THE C0C ROUTINE
*
*
PAGE      FGU      $
          CI,R1    0
          BE      SYNTAX      NO INPUT FOLLOWS
          CI,R6    ' '
          BNE     SYNTAX
          BAL,SR3  GETFIELD    GET NUMBER
          BAL,SR4  DECBIN     CONVERT TO BIN
          LH,SR3   R7          SEE IF # TO BIG
          BNEZ    SYNTAX      YES, TEL HIM
          LI,R6   JH:PC
          STH,R7  0,R6        PUT VALUE IN JIT
          B       PROMPT
          TITLE   'PLATEN COMMAND VERB'
    
```

18:36 SEP 08, 1975

				PLATEN	PLATEN COMMAND	VERB	
1791		02	00448		EGU	\$	
1792	02	00448	216000D5	A	CI,R6	INI	IS IT A PLATEN ONLY
1793	02	00449	68300469		BE	PLATEN1	
1794	02	0044A	2160006B	A	CI,R6	1,1	ONLY LENGTH PRESENT
1795	02	0044B	6830045A		BE	COMMA+2	IF YES GO PROCESS IT
1796	02	0044C	32C00000	05	LW,D1	VERB1	
1797	02	0044D	2230000C	A	LI,R3	D1	
1798	02	0044E	6AA008A0		BAL,SR3	SCAN	
1799	02	0044F	21700000	A	CI,R7	0	WAS DATA PRESENT
1800	02	00450	68300458		BE	COMMA	NO, GO CHECK FOR COMMA
1801	02	00451	21700003	A	CI,R7	3	
1802	02	00452	692008F7		BG	SYNTAX	HE GETS ONLY 3 CHARACTERS
1803	02	00453	6AB00982		BAL,SR4	DECBIN	
1804	02	00454	2170008C	A	CI,R7	140	
1805	02	00455	692008F7		BG	SYNTAX	WIDTH MAGNITUDE TEST
1806	02	00456	22500000	N	LI,R5	JB:PCW	
1807	02	00457	757A0000	A	STB,R7	0,R5	STORE WIDTH
1808		02	00458		EGU	\$	
1809	02	00458	2160006B	A	CI,R6	1,1	IS A LENGTH FIELD PRESENT
1810	02	00459	69300466		BNE	DONE	NO,
1811	02	0045A	2230000C	A	LI,R3	D1	YES, GET LENGTH
1812	02	0045B	32C00000	05	LW,D1	VERB1	
1813	02	0045C	6AA008A0		BAL,SR3	SCAN	
1814	02	0045D	21700000	A	CI,R7	0	INSURE DATA
1815	02	0045E	683008F7		BE	SYNTAX	
1816	02	0045F	21700003	A	CI,R7	3	ARE MORE THAN 3 CHARACTERS PRESENT
1817	02	00460	692008F7		BG	SYNTAX	
1818	02	00461	6AB00982		BAL,SR4	DECBIN	
1819	02	00462	217000FF	A	CI,R7	255	CHECK LENGTH MAGNITUDE
1820	02	00463	692008F7		BG	SYNTAX	
1821	02	00464	22600000	N	LI,R6	JB:LPP	
1822	02	00465	757C0000	A	STB,R7	0,R6	
1823		02	00466		EGU	\$	
1824	02	00466	21100001	A	CI,R1	1	TEST FOR TRAILING JAZZ
1825	02	00467	692008F7		BG	SYNTAX	
1826	02	00468	6800001D		B	PROMPT	
1827							

\*

PLATEN COMMAND VERB

1828  
 1829  
 1830 02 00469  
 1831 02 00469 2220000C A  
 1832 02 0046A 32700100 N  
 1833 02 0046B 20700001 A  
 1834 02 0046C 22100003 A  
 02 0046D 13100100 N  
 1835 02 0046E 02200030 A  
 1836 02 0046F 2A800757  
 1837 02 00470 A5800007 A  
 1838 02 00471 22400002 A  
 1839 02 00472 22500000 N  
 1840 02 00473 72CA0000 A  
 1841 02 00474 6AB00979  
 1842 02 00475 22000040 A  
 1843 02 00476 221FFFFC A  
 1844 02 00477 7252000E A  
 1845 02 00478 215000F0 A  
 1846 02 00479 6930047D  
 1847 02 0047A 7502000E A  
 1848 02 0047B 65100477  
 1849 02 0047C 20D00080 A  
 1850 02 0047D 20700002 A  
 1851 02 0047E B5D00007 A  
 1852 02 0047F 207FFFFFFE A  
 1853 02 00480 32100007 A  
 1854 02 00481 04100790  
 1855 02 00482 22500000 N  
 1856 02 00483 02200030 A  
 1857 02 00484 2A80075A  
 1858 02 00485 A5800007 A  
 1859 02 00486 64400473  
 1860 02 00487 221FFFFD A  
 02 00488 13100100 N  
 1861  
 1862 02 00489 6800001D

\* PLATEN1: INFORMS USER OF CURRENT PLATEN SETTINGS  
 \*  
 PLATEN1 FGU #  
 LI,R2 12 MESSAGE BYTE SIZE  
 LW,R7 TELSTACK MAKE A BUFFER  
 AI,R7 1 OPEN THE STACK  
 BUMP 3,R1  
  
 LCI 3  
 LM,SR1 WIDTH GET WIDTH MESSAGE  
 STM,SR1 \*R7 PUT IN BUFFER  
 LI,R4 2 SET UP LOOP  
 LI,R5 JB,PCW GET WIDTH  
 PLATEN2 LB,D1 0,R5 GET DATA BYTE  
 BAL,SR4 BINDECBCD CONVERT IT  
 LI,R0 1 1  
 LI,R1 =4 COUNT  
 PLATEN3 LB,R5 D3,R1 PICK UP THE CONVERTED BYTE  
 CI,R5 101  
 BNE PLATEN4  
 STB,R0 D3,R1 CHANGE LEADING ZERO TO BLANK  
 BIR,R1 PLATEN3 CHECK NEXT DIGIT  
 AI,D2 C101=C1 1 TO PRINT ZERO  
 PLATEN4 AI,R7 2 INC BUFF POINTER  
 STW,D2 \*R7 # TO BUFFER  
 AI,R7 =2 BACK TO BEGIN OF BUFF  
 LW,R1 R7 BUF ADDR TO R1  
 CAL1,1 WRITE OUTPUT MESSG  
 LI,R5 JB,LPP GET LINE/PAGE  
 LCI 3  
 LM,SR1 LLINES GET LINES MESSAGE  
 STM,SR1 \*R7  
 BDR,R4 PLATEN2  
 BUMP =3,R1  
  
 \*  
 B PROMPT PROMPT



H01 18136 SEP 08, '75

PLATEN COMMAND VERB

109

1863

1864

1865 02 0048A 12C00000 06

1866 02 0048B 32E00000 06

1867 02 0048C 2230000C A

1868 02 0048D 680008A0

1869 02 0048E

1870 02 0048E 02200020 A

1871 02 0048F 2A900000 X

1872 02 00490 22700000 A

1873 02 00491 22800000 A

1874 02 00492 680A0000 A

1875

\*

\*

GETFIELD LD,D1

LW,D3

LI,R3

B

GETACPAS RES

LCI

LM,SR2

LI,R7

LI,SR1

B

TITLE

VERB2

VERB2

D1

SCAN

0

2

J:ACCN

0

0

0,R5

TERMINAL COMMAND VERB:

EXIT 0N SR3

Line	Time	Code	Address	Char	Terminal	FQU	Terminal Command	Verb
1876	02	00493			TERMINAL	FQU	\$	
1877	02	00493	70200000	X		LC	J,JIT	IGNORE THIS COMMAND IF
1878	02	00494	6920001D			BCS,2	PROMPT	NON-CBC USER
1879	02	00495	32C00000	05		LW,D1	VERB1	BLANKS
1880	02	00496	2230000C	A		LI,R3	D1	
1881	02	00497	6AA008A0			BAL,SR2	SCAN	
1882	02	00498	21700000	A		CI,R7	0	WAS DATA PRESENT
1883	02	00499	683004D0			BE	CBCSTAT	GIVE IEM STATUS
1884	02	0049A	2160006B	A		CI,R6	1,1	, TERMINATED SCAN
1885	02	0049B	6830049E			BE	\$+3	YES, SKIP CHECKING
1886	02	0049C	21100001	A		CI,R1	1	
1887	02	0049D	692008F7			BG	SYNTAX	INSURE NO TRAILING DATA
1888	02	0049E	2270000C	A		LI,R7	SIZETAB1	
1889	02	0049F	31CE07F9		SRCHTAB1	CW,D1	TERMTAB1,R7	
1890	02	004A0	683004A7			BE	FBUNDP	
1891	02	004A1	207FFFFFF	A		AI,R7	-1	
1892	02	004A2	6810049F			BGEZ	SRCHTAB1	
1*	02	004A3	49C00000	06		BR,D1	VERB2	CONVERT POSS. LCASE STAT TO UPPER
1893	02	004A4	31C0001C	06		CW,D1	LSTAT	LOWER CASE ISTAT'US
1894	02	004A5	683004D0			BE	CBCSTAT	
1895	02	004A6	6800083B			B	TERMERR	
1896	02	004A7			FBUNDP	RES	0	
1897	02	004A7	21700004	A		CI,R7	4	
1898	02	004A8	683004D0			BE	CBCSTAT	BRANCH IF LINE STATUS WAS REQUESTED
1899	02	004A9	32900100	N		LW,SR2	TELSTACK	GET STACK POINTER
1900	02	004AA	20900001	A		AI,SR2	1	
1901	02	004AB	22500004	A		BUMP	4,R5	OPEN STACK UP
	02	004AC	13500100	N				
1902	02	004AD	22500000	A		LI,R5	0	
1903	02	004AE	32AA0513			LW,SR3	TERMTYPE,R5	MOVE FPT TO STACK
1904	02	004AF	85AA0009	A		STW,SR2	*SR2,R5	FOR CHNGE CAL
1905	02	004B0	20500001	A		AI,R5	1	
1906	02	004B1	21500004	A		CI,R5	4	
1907	02	004B2	691004AE			BL	\$=4	KEEP GOING
1908	02	004B3	725E0806			LB,R5	TERMTAB2,R7	CBCTERM BYTE
1909	02	004B4	22100003	A		LI,R1	3	INDX INTO FPT
1910	02	004B5	85520009	A		STW,R5	*SR2,R1	STORE CBCTERM

Line	Op	Code	Address	Mode	Command	Verb	Description
1911	02	004B6	725E080A		LB,R5	TERMTAB3,R7	ALGO BYTE
1912	02	004B7	201FFFFFF	A	AI,R1	=1	
1913	02	004B8	25500013	A	SLS,R5	19	SHIFT ALGO #/ POSITION IN BITS 10-12
1914	02	004B9	20500038	A	AI,R5	X1381	+038; SELECTION MASK
1915	02	004BA	B5520009	A	STW,R5	*SR2,R1	STORE ALGORITHM #
1916	02	004BB	2160006B	A	CI,R6	1,1	ALGOR OVERRIDE PRES
1917	02	004BC	6930004C		BNE	CHNGTYPE	NO, TAKE THE DEFAULT
1918	02	004BD	32C00000	05	LW,D1	VERB1	
1919	02	004BE	2230000C	A	LI,R3	D1	
1920	02	004BF	22100002	A	LI,R1	2	DISP INTO BUFFER
1921	02	004C0	6AA008A0		BAL,SR2	SCAN	SCAN FOR ALGO OVERRIDE
1922	02	004C1	21700001	A	CI,R7	1	
1923	02	004C2	693008F7		BNE	SYNTAX	
1924	02	004C3	6AB00982		BAL,SR4	DECBIN	CONVERT DEC #
1925	02	004C4	22500002	A	LI,R5	2	INDX INTO FPT
1926	02	004C5	25700013	A	SLS,R7	19	SHIFT ALGO #/ POSITION IN BITS 10-12
1927	02	004C6	20700038	A	AI,R7	X1381	+038; SELECTION MASK
1928	02	004C7	B57A0009	A	STW,R7	*SR2,R5	PUT IN FPT
1929	02	004C8	84800009	A	CHNGTYPE CAL1,8	*SR2	
1930	02	004C9	698004CD		BCS,8	CHNGERR	ERROR EXIT
1931	02	004CA	225FFFFFF	A	BUMP	=4,R5	RESTORE STACK
	02	004CB	13500100	N			
1932	02	004CC	6800001D		B	PROMPT	
1933	02	004CD	225FFFFFF	A	CHNGERR BUMP	=4,R5	MUST EVEN UP STACK
	02	004CE	13500100	N			
1934	02	004CF	6800083B		B	TERMERR	ERROR RETURN
1935					*		
1936					*		
1938	02	004D0	32900000	F	CBCSTAT LW,SR2	M:UC+CBCLN	GET THE CBC LINE NUMBER
1939	02	004D1	6AB00961		BAL,SR4	HEX2EBC	CONVERT TO HEX
1940	02	004D2	32100100	N	LW,1	TELSTACK	
1941	02	004D3	20100001	A	AI,1	1	A WORK AREA
1942	02	004D4	02200030	A	LCI	3	
1943	02	004D5	2A300720		LM,3	LMSG	
1944	02	004D6	22200001	A	LI,2	1	
1945	02	004D7	55D40004	A	STH,D2	4,2	
1946	02	004D8	02200030	A	LCI	3	

NO1 18:36 SEP 08, '75

TERMINAL COMMAND VERB

112

1947 02 004D9 25320000 A  
 1948 02 004DA 22200009 A  
 1949 02 004DB 04100790  
 1950 02 004DC 04800517  
 1\* 02 004DD 33000000 X  
 2\* 02 004DE 682004F6  
 3\* 02 004DF 21801000 A  
 4\* 02 004E0 694004F6  
 1951 02 004E1 7270000A A  
 1952 02 004E2 2570007A A  
 1\* 02 004E3 21700002 A  
 2\* 02 004E4 684004F3  
 1953 02 004E5 22100003 A  
 1954 02 004E6 71A20000 F  
 1955 02 004E7 683004F3  
 1956 02 004E8 3290000A A  
 1957 02 004E9 6AB00961  
 1958 02 004EA 32100100 N  
 1959 02 004EB 20100001 A  
 1960 02 004EC 02200050 A  
 1961 02 004ED 2A300574  
 1\* 02 004EE 55D00007 A  
 1964 02 004EF 02200050 A  
 1965 02 004F0 25320000 A  
 1966 02 004F1 22200012 A  
 1967 02 004F2 680004F5  
 1968 02 004F3 2220000E A  
 1969 02 004F4 321E0568  
 1970 02 004F5 04100790  
 1\* 02 004F6 72300008 A  
 1975 02 004F7 203FFFFC A  
 1976 02 004F8 691004FA  
 1977 02 004F9 2530007F A  
 1978 02 004FA 3216051C  
 1979 02 004FB 6A400510  
 1980 02 004FC 3290053B  
 1981 02 004FD 22A0053B

CBCSTAT0  
 CBCSTAT1  
 CBCSTAT2

STM,3 0,1  
 LI,R2 9  
 CAL1,1 WRITE  
 CAL1,8 CBCSTATC  
 MTW,0 S;CBUP  
 BLE CBCSTAT2  
 CI,SR1 X'1000'  
 BANZ CBCSTAT2  
 LB,R7 SR3  
 SLS,R7 =6  
 CI,R7 2  
 BAZ CBCSTAT0  
 LI,1 3  
 CB,SR3 M;UC+CBCLN,1  
 BE CBCSTAT0  
 LW,SR2 SR3  
 BAL,SR4 HEX2EBC  
 LW,1 TELSTACK  
 AI,1 1  
 LCI 5  
 LM,3 MCPLD  
 STH,D2 R7  
 LCI 5  
 STM,3 0,1  
 LI,2 18  
 B CBCSTAT1+1  
 LI,R2 14  
 LW,R1 CPLMSG,R7  
 CAL1,1 WRITE  
 LB,R3 SR1  
 AI,R3 =4  
 BLZ =+2  
 SLS,R3 =1  
 LW,R1 TTYPTAB+4,R3  
 BAL,R4 CBCPRT  
 LW,SR2 MODECW  
 LI,SR3 MODECW

PUT AWAY MSG WITH LINE #  
 AND HOW LONG IT IS  
 SO DO IT,  
 NOW GET STATUS OF LINE  
 IS THE FEATURE ENABLED  
 B/NOPE, DONT TALK ABOUT IT...  
 IS THIS A 2741 LINE  
 B/YUP, CAN'T DO COUPLING...  
 LOOK AT COUPLE STATUS  
 IN UPPER TWO BITS OF MODE4  
 IS THE COUPLED BIT SET  
 B/NOPE, DONT CHECK TIE BYTE.  
 ARE WE COUPLED TO SOMEBODY  
 IF EQUAL, NOPE...  
 IF SO, GET # OF LINE COUPLED  
 TO, GRUNCH TO CHARACTERS,  
 PLUNK IN LINE NUMBER  
 LENGTH OF MESSAGES  
 WHICH MESSAGE  
 PRINT IT BUT,,  
 LOOK AT COCTERM TO  
 PRINT TERMINAL TYPE

TERMINAL COMMAND VERB

1982	02	004FE	25900001	A	CBCML00P	SLS,SR2	1	
1983	02	004FF	6880080C			BEV	NBC0CM	BIT TO BE IGNORED
1984	02	00500	20A00001	A		AI,SR3	1	
1985	02	00501	22100723			LI,R1	RETN	NEW LINE
1986	02	00502	22200001	A		LI,R2	1	
1987	02	00503	04100790			CAL1,1	WRITE	
1988	02	00504	B210000A	A		LW,R1	*SR3	
1989	02	00505	6A400510			BAL,R4	CBCPRT	IDENTIFY MODE
1990	02	00506	22100545			LI,R1	CBC0N	GIVE
1991	02	00507	20800000	A		AI,SR1	0	ON/
1992	02	00508	6910050A			BLZ	*+2	OFF
1993	02	00509	22100546			LI,R1	CBC0FF	MSG
1994	02	0050A	22200004	A		LI,R2	4	
1995	02	0050B	04100790			CAL1,1	WRITE	
1996	02	0050C	25800001	A	NBC0CM	SLS,SR1	1	
1997	02	0050D	20900000	A		AI,SR2	0	
1998	02	0050E	693004FE			BNEZ	CBCML00P	GO IF MORE TO CHECK
1999	02	0050F	6800001D			B	PROMPT	
2000		02	00510		CBCPRT	EQU	*	
2001	02	00510	72200001	A		LB,R2	R1	
2002	02	00511	04100790			CAL1,1	WRITE	
2003	02	00512	68080000	A		B	0,R4	
2004					*			
2005	02	00513	06200000	A	TERMTYPE	DATA	X'06200000'	FPT FOR TRANS TBL
2006	02	00514	06000000	A		DATA	X'06000000'	& CBC IDLE ALGORITHM
2007	02	00515	00000000	A		DATA	0	IDLE FIELD
2008	02	00516	00000000	A		DATA	0	C0CTERM FIELD
2009					*			
2010					*			
2011	02	00517	06600000	A	CBCSTATC	GEN,8,24	20 6,6,0	GET EXTENDED LINE STATUS
2012					*			
2013	02	00518	07000520		TTYPTAB	GEN,8,24	7,TTYPO	
2014	02	00519	07000522			GEN,8,24	7,TTYPI	
2015	02	0051A	07000524			GEN,8,24	7,TTYPI2	
2016	02	0051B	09000526			GEN,8,24	9,TTYPI3	
2017	02	0051C	0E000529			GEN,8,24	14,TTYPI4	
2018	02	0051D	0E00052D			GEN,8,24	14,TTYPI5	

H01 18:36 SEP 08, '75

TERMINAL COMMAND VERB

114

2019	02	0051E	13000531		GEN,8,24	19,TTYP6
2020	02	0051F	13000536		GEN,8,24	19,TTYP7
2021	02	00520	15E3F3E8 A	TTYP0	TEXT	INTTY 33!
	02	00521	40F3F340 A			
2022	02	00522	15E3F3E8 A	TTYP1	TEXT	INTTY 35!
	02	00523	40F3F540 A			
2023	02	00524	15E3F3E8 A	TTYP2	TEXT	INTTY 37!
	02	00525	40F3F740 A			
2024	02	00526	15E7C4E2 A	TTYP3	TEXT	INXDS 7015!
	02	00527	40F7F0F1 A			
	02	00528	F5404040 A			
2025	02	00529	15F2F7F4 A	TTYP4	TEXT	IN2741 EBCD STD!
	02	0052A	F140C5C2 A			
	02	0052B	C3C440E2 A			
	02	0052C	E3C44040 A			
2026	02	0052D	15F2F7F4 A	TTYP5	TEXT	IN2741 EBCD APL!
	02	0052E	F140C5C2 A			
	02	0052F	C3C440C1 A			
	02	00530	D7D34040 A			
2027	02	00531	15F2F7F4 A	TTYP6	TEXT	IN2741 SELECTRIC STD!
	02	00532	F140F2C5 A			
	02	00533	D3C5C3E3 A			
	02	00534	D9C9C340 A			
	02	00535	E2E3C440 A			
2028	02	00536	15F2F7F4 A	TTYP7	TEXT	IN2741 SELECTRIC APL!
	02	00537	F140E2C5 A			
	02	00538	D3C5C3E3 A			
	02	00539	D9C9C340 A			
	02	0053A	C1D7D340 A			
2029	02	0053B	008C6CA0 A	M0DECW	DATA	X1008C6CA0!
2030	02	0053C	08000547		GEN,8,24	8,MM0
2031	02	0053D	05000549		GEN,8,24	14,MM1
2032	02	0053E	1300054D		GEN,8,24	19,MM2
2033	02	0053F	0A000552		GEN,8,24	10,MM3
2034	02	00540	0F000555		GEN,8,24	15,MM4
2035	02	00541	10000559		GEN,8,24	16,MM5
2036	02	00542	0C00055D		GEN,8,24	12,MM6

H01 18136 SEP 08, '75

TERMINAL COMMAND VERB

2037	02	00543	1000n560		GEN,8,24	16,MM7	
2038	02	00544	0E00n564		GEN,8,24	14,MM8	
2039				*			
2040	02	00545	40D6D540 A	C0C0N	TEXT	'ON'	
2041	02	00546	40D6C6C6 A	C0C0FF	TEXT	'OFF'	
2042	02	00547	C5C3C8D6 A	MM0	TEXT	'ECHOPLEX'	
	02	00548	D7D3C5E7 A				
2043	02	00549	E3C1C240 A	MM1	TEXT	'TAB SIMULATION'	
	02	0054A	E2C9D4E4 A				
	02	0054B	D3C1F3C9 A				
	02	0054C	D6D54040 A				
2044	02	0054D	E4D7D7C5 A	MM2	TEXT	'UPPER CASE RESTRICT'	
	02	0054E	D940C3C1 A				
	02	0054F	E2C540D9 A				
	02	00550	C5E2F3D9 A				
	02	00551	C9C3F340 A				
2045	02	00552	D7C1D7C5 A	MM3	TEXT	'PAPER TAPE'	
	02	00553	D940F3C1 A				
	02	00554	D7C54040 A				
2046	02	00555	E2D7C1C3 A	MM4	TEXT	'SPACE INSERTION'	
	02	00556	C540C9D5 A				
	02	00557	E2C5D9E3 A				
	02	00558	C9D6D540 A				
2047	02	00559	D3D6F6C5 A	MM5	TEXT	'LOWER CASE SHIFT'	
	02	0055A	D940C3C1 A				
	02	0055B	E2C540E2 A				
	02	0055C	C8C9C6E3 A				
2048	02	0055D	D7C1D9C9 A	MM6	TEXT	'PARITY CHECK'	
	02	0055E	E3E840C3 A				
	02	0055F	C8C5C3D2 A				
2049	02	00560	D9C5D3C1 A	MM7	TEXT	'RELATIVE TABBING'	
	02	00561	E3C9F5C5 A				
	02	00562	40E3C1C2 A				
	02	00563	C2C9D5C7 A				
2050	02	00564	C2C1C3D2 A	MM8	TEXT	'BACKSPACE EDIT'	
	02	00565	E2D7C1C3 A				
	02	00566	C540C5C4 A				

H01 18:36 SEP 08, '75

TERMINAL COMMAND VERB

116

2052	02 00567	C9E34040 A			
	02 00568	0000056C	CPLMSG	DATA	MSRCP,MSRCP,MSACP,TELSTACK COUPLE STATUS MESSAGES
	02 00569	0000056C			
	02 0056A	00000570			
	02 0056B	00000100 N			
2053			*		
2054	02 0056C	D9C5D1C5 A	MSRCP	TEXT	!REJECT COUPLES!
	02 0056D	C3E340C3 A			
	02 0056E	D6E4D7D3 A			
	02 0056F	C5E24040 A			
2055	02 00570	C1C3C3C5 A	MSACP	TEXT	!ACCEPT COUPLES!
	02 00571	D7E340C3 A			
	02 00572	D6E4D7D3 A			
	02 00573	C5E24040 A			
2056	02 00574	C3D6F4D7 A	MCPLD	TEXT	!COUPLED TO LINE !
	02 00575	D3C5C440 A			
	02 00576	E3D640D3 A			
	02 00577	C9D5C540 A			
2057	02 00578	40404040 A		TEXT	! ! FILLED BY LINE NUMBER
2059				TITLE	!PRINT COMMAND VERB!



H01 18:36 SEP 08, '75

2060  
2061  
2062  
2063  
2064 02 00579  
2065 02 00579 21100001 A  
2066 02 0057A 692008F7  
2067 02 0057B 04900006 A  
2068 02 0057C 6800001D  
2069  
1\*

PRINT COMMAND VERB

117

\* THE PRINT COMMAND CAUSES OUTPUT ACCUMULATED FOR THE LINE PRINTER TO BE  
\* PLACED ON THE PRINT QUEUE. OUTPUT DESTINED FOR THE LINE PRINTER FROM  
\* ALL ON-LINE COMPIATIONS, ASSEMBLIES, PCL OPERATIONS, DELTA DUMPS,  
\* ETC., ARE ACCUMULATED ON RAD UNTIL THE PRINT COMMAND IS GIVEN.

PRINT	EQU	*	
	CI,R1	1	REMOTE WORK STATION ID ON PRINT
	BG	SYNTAX	
	CAL1,9	6	
	B	PROMPT	
*	TITLE	TERASE COMMAND	

H01 18:36 SEP 08, '75

ERASE COMMAND

118

2\*  
3\*  
4\*  
5\*  
6\*  
7\*  
8\*  
9\*           02 00570  
10\* 02 0057D   21100001 A  
11\* 02 0057E   692008F7  
12\* 02 0057F   048007E9  
13\* 02 00580   6800001D  
14\*  
2070  
2071  
2072  
2073           02 00581  
2074  
2075  
2076  
2077  
2078  
2079  
2080 02 00581   22500001 A  
2081 02 00582   48500000 X  
2082 02 00583   6830082F  
2083  
2084 02 00584   32500016 N  
2085 02 00585   47500000 X  
2086 02 00586   6800001D  
2088

\*\*\*\*\*  
\*F\*       NAME:       ERASE  
\*F\*       PURPOSE:    THE ERASE COMMAND IS A SHORT WAY TO PERFORM THE  
\*F\*                   EQUIVALENT OF LDEV L1, (DELETE), ITS EFFECT IS TO  
\*F\*                   DELETE ANY PENDING OUTPUT FOR THE L1 STREAM, WHICH  
\*F\*                   IN MOST CASES WILL BE THE USER'S LINE PRINTER OUTPUT.\*  
\*\*\*\*\*  
ERASE    EGU        \*  
          CI,R1     1                                NO ARGUMENT  
          BG        SYNTAX                         IS PERMITTED.  
          CAL1,8   ERASFT                         DO LDEV  
          B         PROMPT  
\*  
\*         EXTEND COMMAND  
\*         EXTEND AVAILABLE CORE FOR NEXT PROCESSOR CALLED  
\*  
EXTEND   EGU        \*  
\*\*\*\*\*  
\*E\*       ERROR:  
\*E\*                 GROUP 03, CODE=01, SUBCODE=00  
\*E\*       DESCRIPTION:  
\*E\*                 EXTEND COMMAND ISSUED WHILE NOT AT JOB STEP  
\*\*\*\*\*  
          LI,R5     JSTEP  
          AND,R5    JITELFLGS                    AT JOB STEP  
          BEZ       NTJBST                        BR IF NOT  
\*  
          LW,R5     EXTNDBIT  
          STS,R5    JITELFLGS                    SET EXTEND BIT  
          B         PROMPT  
          TITLE     'DECOUPLE, COUPLE VERBS'

2089		02 00587		DECOUPLE	FGU	\$	DECOUPLE TERMINALS
2090	02	00587	22C01000 A		LI,D1	DONTBIT	IS THE DONT FLAG SET..
2091	02	00588	4BC00000 X		AND,D1	J:TELFLGS	IF SO, HE SAY 'DONT DECOUPLE'
2092	02	00589	69300262		BNE	GIVEBIRD	AND WE SAY 'DONT WHAT !.....'
2093	02	0058A	048007EE		CAL1,8	MDCPL	JUST ISSUE THE CAL
2094	02	0058B	6800001D		B	PROMPT	AND LEAVE
2095					SPACE	2	
2096		02 0058C		COUPLE	FGU	\$	
2097	02	0058C	22C01000 A		LI,D1	DONTBIT	SEE IF THE DONT FLAG
2098	02	0058D	4BC00000 X		AND,D1	J:TELFLGS	IS SET. IF IT IS, THIS
2099	02	0058E	68300593		BE	COUPLE1	IS A DONT COUPLE VERB
2100				*			
2101				*		DONT COUPLE ISSUED	
2102	02	0058F	21100000 A		CI,R1	0	DID THEY SAY 'DONT COUPLE XX'
2103	02	00590	692006B1		BG	GIVEMEH	YUP. GIVE 'EM EH.
1*	02	00591	22400000 A		LI,R4	0	TO RESET MODE4 BIT
2*	02	00592	68000596		B	CPLCMN	GO DO COMMON M:CT
2106	02	00593	21100001 A	COUPLE1	CI,R1	1	AN ARGUMENT MUST MEAN
2107	02	00594	69200599		BG	COUPLE2	COUPLE TO A TERMINAL
2108				*			
2109				*		'COUPLE' TYPED- ISSUE PERMIT COUPLE CAL.	
1*	02	00595	32400018 N		LW,R4	Y008	TO SET MODE4 BIT
2*	02	00596	20400080 A	CPLCMN	AI,R4	X'80'	COUPLE PERMISSION BIT
3*	02	00597	048007EF		CAL1,8	MCTCPL	SET/RSET MODE4, BIT 0
2111	02	00598	6800001D		B	PROMPT	
2112				*			
2113				*		COUPLE XX ISSUED. ATTEMPT COUPLE TO TERMINAL	
2114	02	00599	22C00000 A	COUPLE2	LI,D1	0	WHERE ARG WILL GO
2115	02	0059A	2230000C A		LI,R3	D1	
2116	02	0059B	6AA008A0		BAL,SR3	SCAN	GO GET IT
2117	02	0059C	21700002 A		CI,R7	2	MORE THAN 2 CHRS IS
2118	02	0059D	692008F7		BG	SYNTAX	AN ERROR.
2119	02	0059E	02200020 A		PUSH	2,R1	
	02	0059F	0B100100 N				
2120	02	005A0	6A100995		BAL,R1	HEX2BIN	CONVERT IT

H01 18:36 SEP 08, 1975

2121 02 005A1 21800000 A  
 2122 02 005A2 681005A6  
 2123 02 005A3 02200020 A  
       02 005A4 0A100100 N  
 2124 02 005A5 680008F7  
 2125  
 2126  
 2127  
 2128           02 005A6  
 2129 02 005A6 22300003 A  
 2130 02 005A7 71860000 F  
 2131 02 005A8 683006B1  
 2132 02 005A9 4980082E  
 2133 02 005AA 04800008 A  
 2134 02 005AB 6880001D  
 2135 02 005AC 694005B1  
 2136 02 005AD 221005B5  
 2137 02 005AE 2220000F A  
 2138 02 005AF 04100790  
 2139 02 005B0 6800001D  
 2140 02 005B1 221005B5  
 2141 02 005B2 2220001C A  
 2142 02 005B3 04100790  
 2143 02 005B4 6800001D  
 2144 02 005B5 C9D6F4D7 A  
       02 005B6 D3C540D9 A  
       02 005B7 C5C6F4E2 A  
       02 005B8 C5C44B40 A  
       02 005B9 D3C9D5C5 A  
       02 005BA 4UD5D6E3 A  
       02 005BB 4UD6D54B A

2146

DECOUPLE, COUPLE VERBS

CI, SR1 0           CONVERSION ERRORS  
 BGE       COUPLE3       TO COUPLE3 IF NOT  
 PULL      2, R1        IF SO,  
  
 B           SYNTAX           GROUSE.....  
 \*  
 \*           TRY TO COUPLE TO LINE NUMBER IN SR1.  
 \*  
 COUPLE3 EQU       \$  
 LI, R3       3           CHECK TO SEE IF TRYING  
 CB, SR1      M:UC+COCLN, R3   TO OURSELVES.....  
 BE           GIVEMEH        I WON'T DO IT.....  
 BR, SR1      'X11D000000'    OTHERWISE BR IN THE FPT  
 CAL1, 8      SR1           AND ISSUE THE CAL.  
 BCR, 8       PROMPT        COUPLE SUCCESSFULL..  
 BCS, 4       COUPLE5       LINE NOT ON. TELL IEM.  
 LI, R1       NOLINE        UNSUCCESSFULL, TELL IEM  
 LI, R2       15            THE BAD NEWS  
 CAL1, 1      WRITE           EXIT IN DISGUST.  
 B           PROMPT  
 COUPLE5 LI, R1    NOLINE  
 LI, R2       28            GIVE IEM THE BAD NEWS  
 CAL1, 1      WRITE  
 B           PROMPT  
 NOLINE      TEXT            1 COUPLE REFUSED. LINE NOT ON.1  
  
 TITLE       'DISPLAY COMMAND VERB'

```

2147 *
2148 *
2149 *
2150 *
2151 *
2152 *
2153 *
2154 *
2155 *
2156 *
2157 *
2158 *
2159 *
2160 *
2161 *
2162 *
2163 *
2164 *
2165 *
2166 *
2167 *
2168 *
2169 *
2170 *
2171 *
2172 *
2173 *
2174 *
2175 *
2176 *
2177 *
2178 *
2179 *
2180 *
2181 *
2182 *
2183 *

```

02 005BC	6AB00612	RES	0	OUTPUT LINE OF BALNKS
02 005BC	048005FA	BAL,SR4	OUTCARR	GO GET DISPLAY INFO FROM MONITOR
02 005BD	32C00007 A	CAL1,8	DISPFPT	NO. OF USERS
02 005BE	6AB00979	LW,D1	R7	GO CONVERT NO. IN D1 = ANS. IN D2
02 005BF	3270000D A	BAL,SR4	BINDECBCD	PUT CONVERTED NO INTO R7
02 005C0	32C00005 A	LW,R7	D2	ETMF
02 005C1	6AB00979	LW,D1	R5	GO CONVERT TO DEC. = ANS. IN D2
02 005C2	3250000D A	BAL,SR4	BINDECBCD	RESET ETMF BOX WITH DEC VALUE
02 005C3	32C00006 A	LW,R5	D2	MEDIAN VALUE OF TERM RESPONSE TIME
02 005C4	6AB00979	LW,D1	R6	GO CONVERT TO DEC FOR OUTPUT
02 005C5	3260000D A	BAL,SR4	BINDECBCD	RESET MEDIAN VALUE TO DEC.
02 005C6	32100100 N	LW,R6	D2	
02 005C7	20100001 A	LW,R1	TELSTACK	GET OUTPUT BUFFER
02 005C8	02200030 A	AI,R1	1	ADDRESS
02 005C9	2A8005FB	LCI	3	
02 005CA	25820000 A	LM,SR1	USERSQT	GET USERS MESS AND STORE INTO BUFF
02 005CB	35720002 A	STM,SR1	0,R1	FOR CONSOLE PRINT OUT.
02 005CC	3220071C	STW,R7	2,R1	PUT NO. OF USERS INTO MESSAGE
02 005CD	35220003 A	LW,R2	CARRETRN	INSERT CARRIAGE RETURN
02 005CE	2220000D A	STW,R2	3,R1	STORE INTO BUFFER AREA FOR OUTPUT
02 005CF	04100790	LI,R2	13	NO. OF CHARS TO OUTPUT
02 005D0	02200030 A	CAL1,1	WRITE	WRITE MESS. ON TYPEWRITER
02 005D1	2A8005FE	LCI	3	PICKUP ETMF QUOTE AND PUT INTO BUFF
02 005D2		LM,SR1	ETMFQT	PUT ETMF VALUE INTO BUFFER

2184	02	005D3	25820000	A	STM,SR1	0,R1	
2185	02	005D4	35520002	A	STW,R5	2,R1	
2186	02	005D5	3220071C		LW,R2	CARRETRN	INSERT CARRIAGE RETURN
2187	02	005D6	35220003	A	STW,R2	3,R1	STORE INTO BUFFER AREA FOR OUTPUT
2188	02	005D7	2220000D	A	LI,R2	13	
2189	02	005D8	04100790		CAL1,1	WRITE	OUTPUT ETMF MESS. ONTO TERMINAL
2190	02	005D9	02200070	A	LCI	7	PICKUP MEAN TERM TIME
2191	02	005DA	2A800601		LM,SR1	MEANQT	AND PUT INTO BUFFER TO BE PRINTED
2192	02	005DB	25820000	A	STM,SR1	0,R1	
2193	02	005DC	35620004	A	STW,R6	4,R1	PUT MEAN VAL INTO BUFF TO BE PRINTED
2194	02	005DD	3220071C		LW,R2	CARRETRN	INSERT CARRIAGE RETURN
2195	02	005DE	35220007	A	STW,R2	7,R1	STORE INTO BUFFER AREA FOR OUTPUT
2196	02	005DF	2220001D	A	LI,R2	29	SIZE OF MESS TO OUTPUT IN BYTES
2197	02	005E0	04100790		CAL1,1	WRITE	OUTPUT ONTO TERMINAL
2198	02	005E1	32300000	F	LW,R3	J;JIT+PRDCRM	PERM. DISC SPACE REMAINING
2199	02	005E2	30300000	F	AW,R3	J;JIT+PRDPRM	PERM. DISC PACK SPACE REMAINING
2200	02	005E3	681005E7		BGEZ	RADPLUS	
2201	02	005E4	22400060	A	LI,R4	X'60'	NEG VALUE GET MINUS SIGN
2202	02	005E5	3AC00003	A	LCW,D1	R3	AND VALUE
2203	02	005E6	680005E9		B	CONVBIN	
2204	02	005E7			RADPLUS	RES	0
2205	02	005E7	22400040	A	LI,R4	X'40'	BLANK FOR PLUS
2206	02	005E8	32C00003	A	LW,D1	R3	
2207	02	005E9			CONVBIN	RES	0
2208	02	005E9	6AB00979		BAL,SR4	BINDECBCD	CONV BIN RAD VALUE TO DEC
2209	02	005EA	32100100	N	LW,R1	TELSTACK	GET BUFFER ADDRESS
2210	02	005EB	20100001	A	AI,R1	1	
2211	02	005EC	02200070	A	LCI	7	
2212	02	005ED	2A500608		LM,R5	RADSQT	PICKUP IRADS = XXXXX GRANULES! WT
2213	02	005EE	35D00007	A	STW,D2	R7	PUT IN NO. OF GRANULES AVAILABLE
2214	02	005EF	22300002	A	LI,R3	2	PICKUP BYTE OFFSET
2215	02	005F0	75460006	A	STB,R4	R6,R3	STORE BYTE INTO OUTPUT BUFFER
2216	02	005F1	20300001	A	AI,R3	1	SET STORE FOR LEAD BYTE OF RAD SIZE
2217	02	005F2	75C60006	A	STB,D1	R6,R3	STORE LEAD BYTE OF RAD SIZE
2218	02	005F3	32B0071C		LW,SR4	CARRETRN	PUT IN SIZE BYTE
2219	02	005F4	02200070	A	LCI	7	
2220	02	005F5	25520000	A	STM,R5	0,R1	PUT IT ALL INTO OUTPUT BUFFER

H01 18136 SEP 08, '75

123

DISPLAY COMMAND VERB

2221 02 005F6 22200019 A  
 2222 02 005F7 04100790  
 2223 02 005F8 6AB00612  
 2224 02 005F9 6800001D  
 2225  
 2226 02 005FA  
 2227 02 005FA 13000000 A  
 2228 02 005FB  
 2229 02 005FB E4E2C5D9 A  
 02 005FC E2407E40 A  
 02 005FD 4U404040 A  
 2230 02 005FE  
 2231 02 005FE C5E3D4C6 A  
 02 005FF 4U407E40 A  
 02 00600 4U404040 A  
 2232 02 00601  
 2233 02 00601 D9C5F2D7 A  
 02 00602 D6D5F2C5 A  
 02 00603 4UF9F06C A  
 02 00604 4U404C40 A  
 02 00605 4U404040 A  
 02 00606 4UD4F2C5 A  
 02 00607 C3E24040 A  
 2234 02 00608  
 2235 02 00608 D9C1C4E2 A  
 02 00609 4U7E4040 A  
 02 0060A 4U404040 A  
 02 0060B 4U4040C7 A  
 02 0060C D9C1D5E4 A  
 02 0060D D3C5F240 A

LI,R2 25 BUFFER OUTPUT SIZE  
 CAL1,1 WRITE OUTPUT BUFFER ONTO TTY  
 BAL,SR4 BUTCARR OUTPUT LINE OF BALNKS  
 B PROMPT GO GET NXT CMD

\*  
 DISPFPT RES 0  
 DATA X'13000000'  
 USERSQT RES 0  
 TEXT 'USERS = '

ETMFQT RES 0  
 TEXT 'ETMF = '

MEANQT RES 0  
 TEXT 'RESPONSE 90% < MSECS '

RADSQT RES 0  
 TEXT 'RADS = GRANULES'

TITLE 'STATUS COMMAND VERB'

2236

2237  
 2238  
 2239  
 2240  
 2241  
 2242  
 2243  
 2244 02 0060E  
 2245 02 0060E 6AB00612  
 2246 02 0060F 6A200A3C  
 2247 02 00610 6AB00612  
 2248 02 00611 6800001D  
 2249

```

*
* THE STATUS VERB IS PROCESSED BELOW. THE WORK IS DONE
* IN THE ROUTINE STATUSL. NO REGISTERS ARE SET ON
* ENTRY TO THE ROUTINE STATUSL. THE LINE IS OUTPUT TO THE
* TERMINAL FROM THE ROUTINE STATUSL.
*
*
STATUS RES 0
      BAL,SR4  OUTCARR          OUTPUT LINE OF BLANKS
      BAL,R2   STATUSL          GO COMPUTE AND PRINT OUTPUT LINE
      BAL,SR4  OUTCARR          OUTPUT LINE OF BLANKS
      B        PROMPT
      SPACE    4
    
```

2250  
 2251  
 2252  
 2253  
 2254 02 00612  
 2255 02 00612 2210071C  
 2256 02 00613 22200001 A  
 2257 02 00614 04100790  
 2258 02 00615 E800000B A

```

*
* THE FOLLOWING ROUTINE OUTPUTS ONE LINE OF BLANKS
* SR4 IS THE LINK REGISTER
* R1 AND R2 ARE DESTROYED
OUTCARR RES 0
      LI,R1   CARRETRN        POINT TO CARRIAGE RETURN WORD
      LI,R2   1                THE NO. OF CHARACTERS TO OUTPUT
      CAL1,1  WRITE           OUTPUT TO TERMINAL
      B       *SR4            EXIT
      TITLE  'SEND COMMAND'
    
```

1\*



SEND COMMAND

2\*  
 3\*  
 4\*  
 5\*  
 6\*  
 7\*  
 8\*  
 9\*  
 10\*  
 11\*  
 12\*  
 13\*  
 14\*  
 15\*  
 16\*           02 00616  
 17\* 02 00616   22301000 A  
 18\* 02 00617   31300000 X  
 19\* 02 00618   6940061B  
 20\* 02 00619   22400000 A  
 21\* 02 0061A   6800061C  
 22\*           02 0061B  
 23\* 02 0061B   32400016 N  
 24\*           02 0061C  
 25\* 02 0061C   49400006 N  
 26\* 02 0061D   048007F3  
 27\* 02 0061E   6800001D  
 28\*

\*\*\*\*\*  
 \*F\*           NAME:        SEND  
 \*F\*           PURP8SF:     THE SEND COMMAND IS USED TO ENABLE/DISABLE  
                           RECEIPT OF MESSAGES SENT TO THE USER TERMINAL  
                           BY THE CP-V OPERATOR.  
 \*F\*           DESCRIPTION: THE DEFAULT SETTING FOR THE SEND FLAG IS  
                           TO ALLOW OPERATOR MESSAGES. WHEN THE USER SAYS  
                           DONT SEND, ALL OPERATOR MESSAGES ARE DISALLOWED.  
                           HOWEVER, ANY GLOBAL BROADCASTS WHICH ARE DEFERRED  
                           WHILE THE USER IS NOT IN TEL WILL BE PRINTED BY  
                           TEL THE NEXT TIME HE GETS CONTROL. DONT SEND ALSO  
                           DISALLOWS USE OF THE MESSGE COMMAND, SINCE THE USER  
                           WOULD NOT BE ABLE TO RECEIVE ANY OPERATOR REPLY.  
 \*\*\*\*\*  
 SEND        EQU        \$  
             LI,R3     DONTBIT  
             CW,R3     J:TELFLGS            CHECK FOR DONT  
             BANZ       DNTSEND            USER SAID DONT SEND  
             LI,R4     0                    TO RESET FLAG  
             B         SENDCMN  
 DNTSEND    EQU        \$  
             LW,R4     Y002                MODES DEFER BIT  
 SENDCMN    FQU        \$  
             BR,R4     X20                MERGE MASK  
             CAL1,8    CTFPT             SET/RSET DEFER MSG FLAG  
             B         PR8MPT  
 TITLE      !MESSAGE COMMAND VERB!

H01 18:36 SEP 08, 1975

MESSAGE COMMAND VERB

126

```

29* *****
30* *F* NAME: MESSAGE *
31* *F* PURPOSE: THE MESSAGE COMMAND IS USED TO SEND A MESSAGE *
32* *F* TO THE CP-V OPERATOR. *
33* *****
34* *D* NAME: MESSAGE *
35* *D* ENTRY: MESSAGEO *
36* *D* REGISTERS: NO REGISTERS ARE PRESERVED. *
37* *D* CALL: CALLED FROM TEL COMMAND SCAN *
38* *D* DATA: TELBUF = CONTAINS MESSAGE TEXT *
39* *D* AT0Z = LIMITS FOR ALPHA CHARS *
40* *D* INPUT: JB;CCARS = SIZE OF MESSAGE *
41* *D* BUTPUT: THE MESSAGE IS TRANSMITTED TO THE OC *
42* *D* DESCRIPTION: AN MITS IS ISSUED TO SEE IF THE USER HAS *
43* *D* DISABLED RECEIPT OF OPERATOR MESSAGES. IF THE MODE5 *
44* *D* 'DEFER' BIT IS SET, WE GIVE THE USER AN ERROR. HE *
45* *D* SHOULD THEN ISSUE A 'SEND' COMMAND TO ALLOW THE *
46* *D* OPERATOR TO REPLY TO HIS MESSAGE. *
47* *D* BEFORE TRANSMITTING THE MESSAGE TEXT, IT IS *
48* *D* SCANNED FOR LOWERCASE ALPHA CHARACTERS, WHICH ARE *
49* *D* CONVERTED TO UPPER, SO THE OPERATOR WON'T SEE GARBAGE. *
50* *D* IF THE MESSAGE WON'T FIT ON ONE LINE, IT IS BROKEN *
51* *D* INTO TWO LINES WHICH ARE SENT TO THE OC SEPARATELY. *
52* *****
    TITLE 'MESSAGE COMMAND VERB'

```

2259

H01 18136 SEP 08, 1975

2260 02 0061F  
 2261 02 0061F 6AF0064C  
 2262 02 00620 22F00000 A  
 2263 02 00621 72400000 X  
 2264 02 00622 204FFFFE A  
 2265 02 00623 21400049 A  
 2266 02 00624 68200626  
 2267 02 00625 22400049 A  
 2268 02 00626 32500004 A  
 2269 02 00627 20500006 A  
 2270 02 00628 32100005 A  
 2271 02 00629 72680106 N  
 2272 02 0062A 756A0106 N  
 2273 02 0062B 205FFFFFF A  
 2274 02 0062C 64400629  
 2275 02 0062D 68000632  
 2276  
 2277 02 0062E  
 2278 02 0062E 6AF0064C  
 2279 02 0062F 22F00000 A  
 2280 02 00630 72100000 X  
 2281 02 00631 201FFFFFFE A  
 2282  
 2283 02 00632 21100033 A  
 2284 02 00633 68200636  
 2285 02 00634 201FFFFD4 A  
 2286 02 00635 22F00001 A  
 2287 02 00636 02200020 A  
 2288 02 00637 2A20064A  
 2289 02 00638 24200106 N  
 2290 02 00639 21F00001 A  
 2291 02 0063A 6930063E  
 2292 02 0063B 22500033 A  
 2293 02 0063C 75500106 N  
 2294 02 0063D 6800063F  
 2295 02 0063E 75100106 N  
 2296 02 0063F 02200030 A

MESSAGE0 EQU  
 BAL,D4  
 LI,D4  
 LB,R4  
 AI,R4  
 CI,R4  
 BLE  
 LI,R4  
 LW,R5  
 AI,R5  
 LW,R1  
 LB,R6  
 STB,R6  
 AI,R5  
 BDR,R4  
 B

MESSAGE COMMAND VERB

\*  
 MESSAGE4  
 0  
 JB;CCARS  
 =2  
 73  
 \$+2  
 73  
 R4  
 6  
 R5  
 TELBUF,R4  
 TELBUF,R5  
 =1  
 \$=3  
 MESSAGE1

CHK FOR LOWER CASE CHARS  
 EXCEED FLG  
 GET RECORD SIZE  
 SET INDX&DROP C/R  
 CHK FOR MAX SIZE  
 SET TO MAX  
 SAVE THE PUF  
 ADD TABS &ASTERISK  
 GET THE BYTE  
 MOVE THE BYTE  
 DECRE  
 MOVE EM ALL

\*  
 MESSAGE EQU  
 BAL,D4  
 LI,D4  
 LB,R1  
 AI,R1

\*  
 MESSAGE4  
 0  
 JB;CCARS  
 =2

CHK FOR LOWER CASE CHARS  
 EXCEED FLG  
 GET RECORD SIZE  
 DROP C/R& SPACE

\*  
 MESSAGE1 CI,R1  
 BLE  
 AI,R1  
 LI,D4

51  
 MESSAGE2  
 =51+7  
 1

WILL MESSAGE FIT ON ONE LINE...  
 \*\*\*> YES,  
 NO, GET SIZE OF SECOND LINE  
 AND SET TWO-LINE FLAG.

MESSAGE2 LCI  
 LM,R2  
 STM,R2  
 CI,D4  
 BNE  
 LI,R5  
 STB,R5  
 B  
 STB,R1  
 LCI

2  
 MSGMESS  
 TELBUF  
 1  
 \$+4  
 51  
 TELBUF  
 \$+2  
 TELBUF  
 3

SET SIZE TO 51

H01 18:36 SEP 08, '75

MESSAGE COMMAND VERB

128

2297	02	00640	2AC007E4	LM,D1	SENDMES	
2298	02	00641	0420000C A	CAL1,2	D1	SEND THE MESSAGE
2299	02	00642	21F00001 A	CI,D4	1	
2300	02	00643	69300649	BNE	MESSAGE3	
2301	02	00644	02200020 A	LCI	2	INSERT TABS & ASTERISK
2302	02	00645	20200111 N	STM,R2	TELBUF+11	FOR 2ND PART OF MSG
2303	02	00646	75100111 N	STB,R1	TELBUF+11	INSERT BYTE COUNT
2304	02	00647	22E00111 N	LI,D3	TELBUF+11	BUFFER ADDR FOR PPT IN REGS
2305	02	00648	0420000C A	CAL1,2	D1	SEND 2ND HALF OF MESSAGE
2306	02	00649	6800001D	MESSAGE3	B	PROMPT
2307				*		
2308				*		
2309						
2310	02	0064A	0005055C A	BBOUND	8	
	02	0064B	5C5C5C40 A	MSGMESS	DATA	X'0005055C',X'5C5C5C40'
2311				*		
2312	02	0064C		MESSAGE4	FGU	9 CONVERT LOWER CASE CHARS
1*				*****		*****
2*				*E*	ERROR: GRP 03, OD=00	*
3*				*E*	DESCRIPTION: USER WANTS TO SEND MESSAGE TO OPERATOR,	*
4*				*E*	BUT HE WON'T BE ABLE TO RECEIVE A REPLY.	*
5*				*****		*****
6*	02	0064C	04800517	CAL1,8	C0CSTATC	GET TERMINAL STATUS
7*	02	0064D	31B0001E N	CW,SR4	Y2	MODES DEFER BIT
8*	02	0064E	68400651	BAZ	*+3	DEFER NOT SET, MSG O.K.
9*	02	0064F	22C30D00 A	LI,D1	X'030D00'	DISALLOW (ERRMSG KEY)
10*	02	00650	6800070E	B	CMNERR1	
11*				*		
2313	02	00651	72100000 X	LB,R1	JB:CCARS	GET RECORD SIZE
2314	02	00652	32400001 A	LW,R4	R1	
2315	02	00653	204FFFFFF A	AI,R4	=1	
2316	02	00654	72580106 N	MESSAGE5	LB,R5	TELBUF,R4 GET DATA
2317	02	00655	1950065C	CLM,R5	AT0Z	IS IT LOWER CASE
2318	02	00656	69600658	BCS,6	*+2	NO
2319	02	00657	20500040 A	AI,R5	X'40'	YES-MAKE IT UPPER
2320	02	00658	75580106 N	STB,R5	TELBUF,R4	
2321	02	00659	204FFFFFF A	AI,R4	=1	

W01 18136 SEP 08, 175

2322 02 0065A 64100654

2323 02 0065B E800000F A

2324 \*

2325 \*

2326

2327 02 0065C 000000A9 A AT9Z

02 0065D 00000081 A

2328 \*

2329

MESSAGE COMMAND VERB

BDR,R1 MESSAGE5

B \*D4

BOUND 8

DATA X'1A9',X'181' Z.....T8.....A

TITLE 'BACKUP COMMAND VERB'

H01 18136 SEP 08, 175

2330 02 0065E  
 2331 02 0065E 6AA0048A  
 2332 02 0065F 6AB009AD  
 2333 02 00660 6A400000 X  
 2334 02 00661 6AB0086F  
 2335  
 2336  
 2337  
 2338  
 2339  
 2340  
 2341  
 2342 02 00662 21000003 A  
 2343 02 00663 69300667  
 2344 02 00664 22C30202 A  
 2345 02 00665 2200090F  
 2346 02 00666 68000000 X  
 2347  
 2348 02 00667 048007D2  
 2349  
 2350  
 2351  
 2352  
 2353  
 2354  
 2355 02 00668 6880066B  
 2356 02 00669 22C30201 A  
 2357 02 0066A 6800070E  
 2358  
 2359  
 2360 02 0066B 32E007CF  
 2361 02 0066C 32F007D0  
 2362 02 0066D 46E00000 X  
 2363 02 0066E 46F00001 N  
 2364 02 0066F 22100004 A  
 2365 02 00670 041007BF  
 2366 02 00671 35E00000 X

BACKUP COMMAND VERB  
 \*  
 \*E\* ERROR:  
 \*E\* GROUP 03, CODE=02, SUBCODE=02  
 \*E\* DESCRIPTION:  
 \*E\* THE FILE NAMED ON THE BACKUP OR GET COMMAND  
 \*E\* DOESN'T EXIST.  
 \*\*\*\*\*  
 \*E\* CI,R0 3 DOES FILE EXIST  
 \*E\* BNE \$+4 IT EXISTS,  
 \*E\* LI,D1 X'030202' ERROR CODE & SUBCODE  
 \*E\* LI,R0 CLEANSTACK SIMULATE  
 \*E\* B T\$ERR BAL...  
 \*  
 \*E\* CAL1,R GETPG GET A PAGE  
 \*\*\*\*\*  
 \*E\* ERROR:  
 \*E\* GROUP 03, CODE=02, SUBCODE=01  
 \*E\* DESCRIPTION:  
 \*E\* FAILED TO GET PAGE TO READ BACKUP RECORD  
 \*\*\*\*\*  
 \*E\* BCR,B \$+3 GOT PAGE  
 \*E\* LI,D1 X'030201' NO PAGE, ERROR  
 \*E\* B CMNERR1 TELL USER & ABORT  
 \*  
 \* SWITCH ACCOUNT TO ISYS & DB OPEN INPUT  
 \*E\* LW,D3 SYSACT  
 \*E\* LW,D4 SYSACT+1  
 \*E\* XW,D3 J:ACCN  
 \*E\* XW,D4 J:ACCN+1  
 \*E\* LI,R1 4 FOR INPUT  
 \*E\* CAL1,1 OPENBKUP  
 \*E\* STW,D3 J:ACCN RESTORE USER'S

2367 02 00672 35F00001 N  
 2368 02 00673 041007D4  
 2369 02 00674 32500140 N  
 2370 02 00675 2550007E A  
 2371 02 00676 32700005 A  
 2372 02 00677 2050000A A  
 2373 02 00678 21500200 A  
 2374 02 00679 69200692  
 2375 02 0067A  
 2376 02 0067A 022000A0 A  
 2377 02 0067B 2AA00123 N  
 2378 02 0067C ABAE0009 A  
 2379 02 0067D 2070000A A  
 2380 02 0067E 25700002 A  
 2381 02 0067F 041007DA  
 2382 02 00680 048007D3  
 2383 02 00681 6A400000 X  
 2384 02 00682 046007E1  
 2385 02 00683 6800001D  
 2386

STW,D4 J;ACCN+1  
 CAL1,1 READBKUP  
 LW,R5 M:TEL+13  
 SLS,R5 =2  
 LW,R7 R5  
 AI,R5 10  
 CI,R5 512  
 BG SIZER  
 STLEOP FGU \*  
 LCI 10  
 LM,SR3 FLOPBUF+8  
 STM,SR3 \*SR2,R7  
 AI,R7 10  
 SLS,R7 2  
 WRITOUT CAL1,1 WRITERC  
 CAL1,8 PGDR0P  
 BAL,R4 FMTELCL  
 CAL1,6 BKUPCAL  
 B PROMPT  
 SPACE 3

ACCOUNT  
 READ IN BACKUP RECORD  
 GET CURRENT RECORD SIZE  
 CONVERT TO WORDS  
 SIZE OF AN ENTRY  
 WILL IT FIT  
 NO  
 MOVE ENTRY  
 TO RECORD  
 NEW RECORD SIZE  
 IN BYTES  
 WRITE OUT THE RECORD TO BACKUP FILE  
 DROP A PAGE  
 CLOSE THE BACKUP FILE  
 SEND A CAL FOR THE BACKUP PROCESS

2387 02 00684  
 2388 02 00684 72A0000A A  
 2389 02 00685 21A00003 A  
 2390 02 00686 6830068C  
 2391  
 2392  
 2393  
 2394  
 2395  
 2396  
 2397  
 2398 02 00687 35E00000 X  
 2399 02 00688 35F00001 N  
 2400 02 00689 048007D3

ABRTN FGU \*  
 LB,SR3 SR3  
 CI,SR3 3  
 BE 0PEN1  
 \*\*\*\*\*  
 \*E\* ERROR!  
 \*E\* GROUP 03, CODE=02,SUBCODE=03  
 \*E\* DESCRIPTION:  
 \*E\* WE GOT AN ABNORMAL TRYING TO OPEN F:BACKUP.  
 \*E\* ASSUME IT'S BUSY & TELL USER TO TRY LATER.  
 \*\*\*\*\*  
 STW,D3 J;ACCN  
 STW,D4 J;ACCN+1  
 CAL1,8 PGDR0P

\*\*\*\*\*  
 DOES THE BACKUP FILE EXIST  
 NO, GO OPEN IT !OUT!  
 \*\*\*\*\*  
 RESTORE USER'S  
 ACCOUNT  
 GIVE THE PAGE BACK

H01 18:36 SEP 08, 1975

2401 02 0068A 22C30203 A  
 2402 02 0068B 6800070E  
 2403  
 2404 02 0068C 22100002 A  
 2405 02 0068D 041007BF  
 2406 02 0068E 35E00000 X  
 2407 02 0068F 35F00001 N  
 2408 02 00690 22700000 A  
 2409 02 00691 6800067A  
 2410  
 2411  
 2412  
 2413  
 2414  
 2415  
 2416  
 2417  
 2418 02 00692  
 2419 02 00692 22C30200 A  
 2420 02 00693 6A000000 X  
 2421 02 00694 68000680  
 2422

BACKUP COMMAND VERB  
 LI,D1 X'030203' ERROR CODE & SUBCODE  
 B CMNERR1 TELL USER  
 \*  
 OPEN1 LI,R1 2 FOR OUT MODE  
 CAL1,1 OPENBKUP  
 STW,D3 J:ACCN RESTORE USER'S ACCOUNT  
 STW,D4 J:ACCN\*1  
 RDERT LI,R7 0 SET RECORD INDEX TO 0  
 B STL00P  
 \*\*\*\*\*  
 \*E\* ERROR:  
 \*E\* GROUP 03, CODE=02, SUBCODE=00  
 \*E\* DESCRIPTION:  
 \*E\* THE BACKUP RECORD IS FULL & WE CAN'T ADD THE  
 \*E\* USER'S REQUEST. TELL USER & THEN GJOB FILL TO  
 \*E\* DO THE CURRENT RECORD.  
 \*\*\*\*\*  
 SIZER FQU 8  
 LI,D1 X'030200' BACKUP RECORD FULL CODE  
 BAL,R0 T&ERR TYPE ERROR MSG  
 B WRITOUT+1  
 TITLE 'JOB COMMAND VERB'



```

2423
2424
2425
2426
2427
2428
2429      02 00695
2430      02 00695 21100001 A
2431      02 00696 682008F7
2432      02 00697 22C00000 A
2433      02 00698 2230000C A
2434      02 00699 6AA008A0
2435      02 0069A 21700004 A
2436      02 0069B 692008F7
2437      02 0069C 02200020 A
           02 0069D 0B100100 N
2438      02 0069E 21700000 A
2439      02 0069F 683006C6
2440      02 006A0 6A100995
2441      02 006A1 21800000 A
2442      02 006A2 681006A6
2443      02 006A3 02200020 A
           02 006A4 0A100100 N
2444      02 006A5 680008F7
2445      02 006A6 041007E7
2446      02 006A7 21800000 A
2447      02 006A8 683006B5
2448      02 006A9 21800001 A
2449      02 006AA 683006B7
2450      02 006AB 21800002 A
2451      02 006AC 683006BC
2452      02 006AD 21800003 A
2453      02 006AE 683006B9
2454      02 006AF 21800004 A
2455      02 006B0 683006C4
2456      02 006B1
2457      02 006B1 2210071D
    
```

```

*****
*F*      NAME:      JOB
*F*      PURPOSE:   THE JOB COMMAND IS USED TO INQUIRE INTO THE
*F*      STATUS OF BATCH JOBS. MULTIPLE SYSIDS ARE PERMITTED
*F*      ON A SINGLE JOB COMMAND LINE.
*****
JOB      FGU      $
           CI,R1    1
           BLE      SYNTAX
           LI,D1    0      CLEAR DATA RECEIVING AREA
           LI,R3    D1    LOAD ADDRESS WHERE DATA WILL BE PUT
           BAL,SR2  SCAN  AFTER THE SCAN; GO TO SCAN ROUTINE.
           CI,R7    4      DOES THE FIELD CONTAIN MORE THAN
           BG       SYNTAX FOUR CHARACTERS; YES=ERROR
           PUSH    2,R1
           02 0069D 0B100100 N
           CI,R7    0      DOES THE FIELD CONTAIN ANY CHARS.
           BE       MULJOB NO, GET NEXT FIELD
           BAL,R1   HEX2BIN GO CONVERT FIELD TO BINARY
           CI,SR1   0      WAS AN ILLEGAL CHARACTER PRESENT
           BGE      JOB2
           PULL     2,R1   YES; THERE WAS AN ERROR. RESTORE BUF
           B        SYNTAX POINTER.
JOB2     CAL1,1    JOBCAL ISSUE THE JOB CAL.
           CI,SR1   0      IS THE JOB COMPLETED
           BE       JCMPLT YES; GO TO THE JOB COMPLETED ROUTINE
           CI,SR1   1      IS THE JOB RUNNING
           BE       JRUNNG YES; GO TO THE JOB RUNNING ROUTINE
           CI,SR1   2      IS THE JOB WAITING TO COMPUTE
           BE       JWAIT2RN YES; GO TO THE WAITING TO RUN ROUTINE
           CI,SR1   3
           BE       JDNTEXT
           CI,SR1   4      IS JOB WAITING FOR SYMBIANT OUTPUT
           BE       JWAIT2BT YES; GO TO WAITING FOR OUTPUT ROUTINE
GIVEMEH  FGU      $
           LI,R1    EHMSG  THE JOB NEVER EXISTED OR JID. IS
    
```

H01 18:36 SEP 08, '75

134

Job ID	Mode	Job Name	Job Class	Job Command	Verb	Description	
2458	02	006B2	22200004	A	LI,R2	4	INDECIPHERABLE SEND OUT
2459	02	006B3	04100790		CAL,D1	1	WRITE THE ICH MESSAGE
2460	02	006B4	6800001D		B		PROMPT GO BACK & GIVE ANOTHER PROMPT
2461		02	006B5		JCMPLT	FGU	\$
2462	02	006B5	22C30900	A	LI,D1	X1030900	ERRMSG KEY FOR 'COMPLETED'
2463	02	006B6	680006BA		B	J0BMSG	TELL USER & SCAN FOR MORE
2464		02	006B7		JRUNNG	FGU	\$
2465	02	006B7	22C30901	A	LI,D1	X1030901	ERRMSG KEY FOR 'RUNNING'
2466	02	006B8	680006BA		B	J0BMSG	
2467		02	006B9		JDNTEXT	FGU	\$
2468	02	006B9	22C30902	A	LI,D1	X1030902	ERRMSG KEY FOR 'D0ESNT EXIST'
2469	02	006BA	220006C6		J0BMSG	LI,R0	MULJ0B TO LOOK FOR MORE SYSIDS
2470	02	006BB	68000000	X	B	T0ERR	TYPE MSG
2471		02	006BC		JWAIT2RN	FGU	\$
2472	02	006BC	32C0000A	A	LW,D1	SR3	PUT # OF USERS IN RUN QUEUE INTO D1
2473	02	006BD	6AB00979		BAL,SR4	BINDECBCD	GO CONVERT NUMBER IN D1
2474	02	006BE	32F0000D	A	LW,D4	D2	CONVERTED NUMBER
2475	02	006BF	22C30903	A	LI,D1	X1030903	ERRMSG KEY FOR 'WAITING:'
2476	02	006C0	6AB00000	X	BAL,SR4	T0ERRTXT	GET THE TEXT FOR MSG
2477	02	006C1	35F20003	A	STW,D4	3,R1	STORE HEX NUMBER INTO MSG
2478	02	006C2	220006C6		LI,R0	MULJ0B	TO CHECK FOR MORE SYSIDS
2479	02	006C3	68000000	X	B	T0WRERR	WRITE MSG
2480		02	006C4		JWAIT20T	FGU	\$
2481	02	006C4	22C30904	A	LI,D1	X1030904	ERRMSG KEY FOR 'WAITING TO 0/P'
2482	02	006C5	680006BA		B	J0BMSG	
2483		02	006C6		MULJ0B	FGU	\$
2484	02	006C6	02200020	A	PULL	2,R1	
	02	006C7	0A100100	N			
2485	02	006C8	21100001	A	CI,R1	1	
2486	02	006C9	6820001D		BLE	PROMPT	
2487	02	006CA	68000697		B	J0B+2	
					TITLE	'SWITCH COMMAND VERB'	

1\*

SWITCH COMMAND VERB

```

2*
3*
4*
5*
6*
7*
8*
9*      02 006CB
10* 02 006CB 22300001 A
11* 02 006CC 31300000 X
12* 02 006CD 6840082F
13* 02 006CE 21100001 A
14* 02 006CF 682006FF
15*      02 006D0
16* 02 006D0 6AA0048A
17* 02 006D1 2160007E A
18* 02 006D2 693008F7
19* 02 006D3 21700004 A
20* 02 006D4 692008F7
21* 02 006D5 72C0000C A
22* 02 006D6 21C00009 A
23* 02 006D7 683006DC
24* 02 006D8 21C000E2 A
25* 02 006D9 693008F7
26*      02 006DA
27* 02 006DA 22E0003F A
28* 02 006DB 680006DD
29* 02 006DC 22E00000 A
30* 02 006DD 09E00100 N
31* 02 006DE 22B00006 A
32* 02 006DF 22F00000 A
33* 02 006E0 6AA0048A
34* 02 006E1 31C0071A
35* 02 006E2 693006E5
36* 02 006E3 22F0003F A
37* 02 006E4 680006F6
38* 02 006E5 21700001 A

```

```

*****
*F*      NAME:      SWITCH
*F*      PURPOSE:   THE SWITCH COMMAND IS USED TO SET AND RESET
*F*      THE 6 PSEUDO-SENSE SWITCHES IN THE USER'S TCB.
*F*      SWITCH SETTINGS MAY NOT BE CHANGED EXCEPT AT
*F*      JOB STEP.
*****

```

```

SWITCH  EQU      $
        LI,R3    JSTEP          ARE WE
        CW,R3    J:TELFLGS     AT JOB STEP
        BAZ      NTJBST       NO, ILLEGAL
        CI,R1    1             A NULL ARGUMENT MEANS
        BLE      DISPSW       DISPLAY CURRENT SETTINGS

SWGKEY  EQU      $
        BAL,SR3  GETFIELD     SCAN FOR SET OR RSET
        CI,R6    1=1          IS TERMINATOR CORRECT
        BNE      SYNTAX       NO
        CI,R7    4            MAXIMUM KEYWORD SIZE
        BG       SYNTAX       TOO BIG, STOP NOW
        LB,D1    D1           CHECK ONLY 1ST CHAR
        CI,D1    1R1         IS IT RSET
        BE       SWRSET       YES.
        CI,D1    1S1         IS IT SET
        BNE      SYNTAX       NO, SO IT'S ILLEGAL

SWSET   EQU      $
        LI,D3    X'3F'       TO STORE 1'S FOR SET
        B        $+2

SWRSET  LI,D3    0           TO STORE 0'S FOR RSET
        PUSH    D3          SAVE SET/RSET FLAG
        LI,SR4   6          LOOP CNTR FOR 6 SWITCHES

GETSW   BAL,SR3  GETFIELD     SCAN FOR SWITCH NUMBER
        CW,D1    TXALL       IS IT ALL
        BNE     $+3         NO
        LI,D4    X'3F'       YES, ALL 6 SWITCHES
        B       GETSWX
        CI,R7    1          IS FIELD LENGTH SINGLE DIGIT

```

39\* 02 006E6 693008F7  
 40\* 02 006E7 7250000C A  
 41\* 02 006E8 215000F1 A  
 42\* 02 006E9 691008F7  
 43\* 02 006EA 215000F6 A  
 44\* 02 006EB 692008F7  
 45\* 02 006EC 48500004 N  
 46\* 02 006ED 22C00040 A  
 47\* 02 006EE 3A500005 A  
 48\* 02 006EF 25CA0000 A  
 49\* 02 006F0 49F0000C A  
 50\* 02 006F1 2160006B A  
 51\* 02 006F2 693006F6  
 52\* 02 006F3 64B006E0  
 53\*  
 54\*  
 55\*  
 56\*  
 57\*  
 58\* 02 006F4 22C30B00 A  
 59\* 02 006F5 6800070E  
 60\*  
 61\* 02 006F6  
 62\* 02 006F6 2160005E A  
 63\* 02 006F7 683006FA  
 64\* 02 006F8 21100001 A  
 65\* 02 006F9 681008F7  
 66\* 02 006FA 08E00100 N  
 67\* 02 006FB 47E00000 F  
 68\* 02 006FC 21100001 A  
 69\* 02 006FD 681006D0  
 70\* 02 006FE 6800001D  
 71\* 02 006FF  
 72\* 02 006FF 32C00000 F  
 73\* 02 00700 25C0001A A  
 74\* 02 00701 22200002 A  
 75\* 02 00702 227FFFFA A

		SWITCH COMMAND VERB	
BNE	SYNTAX		NO, ILLEGAL IF NOT ALL
LB,R5	D1		GET CHAR
CI,R5	1,1		CHECK IF IN LIMITS
BL	SYNTAX		
CI,R5	16,1		
BG	SYNTAX		
AND,R5	M4		CONVERT TO BINARY
LI,D1	X140,1		MAKE A BIT TO SHIFT
LCW,R5	R5		FOR RIGHT SHIFT
SLS,D1	0,R5		SHIFT TO PROPER POSITION
BR,D4	D1		MERGE
CI,R6	1,1		MORE IN THIS GROUP
BNE	GETSWX		NO, GO STORE,
BDR,SR4	GETSW		YES, GO DO IT
*****			
*E*	FRROR!	GROUP 03, 0B=00	*
*E*	DESCRIPTION!	THE USER SPECIFIED MORE THAN 6 SWITCH	*
*E*		SETTING IN A SWITCH SET OR RESET GROUP.	*
*****			
LI,D1	X1030B00,1		ERROR CODE & SUBCODE
B	CMNERR1		
*			
GETSWX	EGU	\$	
CI,R6	1,1		NEW GROUP COMING
BE	\$+3		YES
CI,R1	1		END OF LINE
BGE	SYNTAX		NO, ERROR.
PULL	D3		
STS,D3	J:JIT+SS		DO STORE FOR SET OR RESET
CI,R1	1		IS THERE MORE TO SCAN
BGE	SWGKEY		YES
B	PROMPT		
DISPSW	EGU	\$	
LW,D1	J:JIT+SS		GET CURRENT SETTINGS
SLS,D1	26		SHIFT LEFT ALL THE WAY
LI,R2	2		FOR WRITE.
LI,R7	=6		COUNT

H01 18136 SEP 08, '75

76\* 02 00703 25C00001 A  
 77\* 02 00704 69800707  
 78\* 02 00705 22100718  
 79\* 02 00706 68000708  
 80\* 02 00707 22100719  
 81\* 02 00708 04100790  
 82\* 02 00709 65700703  
 83\* 02 0070A 6800001D

DSWLOOP SLS,D1  
 BCS,8  
 LI,R1  
 B  
 SWONE LI,R1  
 CAL1,1  
 BIR,R7  
 B  
 TITLE

SWITCH COMMAND VERB  
 1 CHECK A BIT  
 SWONE IT'S ON  
 TX0 IT'S OFF  
 \$+2  
 TX1  
 WRITE WRITE THE ONE OR ZERO  
 DSWLOOP DO NEXT  
 PROMPT  
 'BATCH COMMAND VERB'

2488

H01 18:36 SEP 08, 1975

2489 02 0070B  
2490 02 0070B 1260073A  
2491 02 0070C 22000000 A  
2492 02 0070D 68000008  
2493

BATCH2

FGU  
LD,R6  
LI,D1  
B  
TITLE

BATCH COMMAND VERB

\*  
BATCH LMN FOR LOAD  
0 NO FURTHER SCAN  
GROUP2 GO TO LOAD  
!ERROR HANDLING!

138

ERROR HANDLING

2522  
 2523  
 2524  
 2525  
 2526  
 2527  
 2528  
 2529  
 2530  
 2531  
 2532  
 2533  
 2534  
 2535  
 2536  
 2537  
 2538  
 2539  
 2540

02 0070E 22000903  
 02 0070F 68000000 X

```

*****
*D*      NAME:      CMNERR1
*D*      CALL:
*D*      B      CMNERR1
*D*      DESCRIPTION:
*D*      THIS IS A COMMON ENTRY POINT FOR REPORTING
*D*      TEL ERRORS TO THE USER. EXIT IS EVENTUALLY TO
*D*      PROMPT, ALLOWING THE USER TO QUIT OR CONTINUE
*D*      THE INTERRUPTED OPERATION.
*D*      INPUT:
*D*      D1 CONTAINS THE GROUP CODE (3), ERROR CODE, & SUBCODE
*D*      INTERFACE:
*D*      T$ERR - TO GET AND PRINT THE ERROR MSG
*D*      SYN1 - TO CLEAN UP TEL'S STUFF
*****
CMNERR1  FGU      $
          LI,R0   SYN1      SIMULATE BAL
          B       T$ERR     PRINT ERROR MSG
          TITLE   !TABLES, CONSTANTS, AND SUCH!
  
```

TABLES, CONSTANTS, AND SUCH

Line #	DD	MM	YY	Address	Mode	Name	Gen	Size	Content	Notes
2541	02	00	710	00A40000	A	STKINIT	GEN	16,16	TSTAKSZ,C	TO INIT. TELSTACK SPD
2542	02	00	711	5B404040	A	DBLL	TEXT		'B'	
2543	02	00	712	7AE2F8E2	A	SYS	TEXT		'!SYS'	
2544	02	00	713	D4C54040	A	ME	TEXT		'ME'	
2545	02	00	714	D3D74040	A	LP	TEXT		'!LP'	
2546	02	00	715	D5D64040	A	NO	TEXT		'!N'	
2547	02	00	716	D6D54040	A	BN	TEXT		'!BN'	
2548	02	00	717	D6E5C5D9	A	OVER	TEXT		'!OVER'	
1*	02	00	718	F0404040	A	TX0	TEXT		'!0'	
2*	02	00	719	F1404040	A	TX1	TEXT		'!1'	
3*	02	00	71A	C1D3D340	A	TXALL	TEXT		'!ALL'	
2549	02	00	71B	00600000	A	SUA60	DATA		X'600000'	SUA 60=XX CBDE
2550				0000001B	S	EXLYBIT	EGU		Y04	EXECUTE ONLY BIT IN J;EXLY
2551				00000016	S	OPENBIT	EGU		Y002	OPEN BIT IN DCB (X'00200000')
1*				EXT		NBIT30	EGU		XFFFD	
2*				00000011	S	TENTH8U	EGU		Y0001	FOR CHARGES IN PENNIES.
2556	02	00	71C	00000000	A	CARRETRN	DATA		X'0D000000'	
2557	02	00	71D	C5C86F40	A	EHMSG	DATA,4		X'C5C86F40',X'7C400000'	
	02	00	71E	7C400000	A					
2558	02	00	71F	0020000B	A	FLAGS	DATA		X'0020000B'	
2561	02	00	720	D3C9D5C5	A	LMSG	TEXT		'!LINE'	LINE # FOR TERMINAL
2562	02	00	721	40404040	A		TEXT		'!'	MESSAGE (FILLED)
2563	02	00	722	15000000	A		DATA		X'15000000'	FOLLOWED BY CR.
2567	02	00	723	155A0000	A	RETN	DATA		X'155A0000'	
2568	02	00	724	C7400209	A	FL0PBITS	DATA		X'C7400209'	WORD 1 OF FL0P PLIST
2575	02	00	725	01000008	A	NAMEVLP	DATA		X'01000008'	
2576						*				
2577						*				BEGIN DOUBLEWORD TABLE
2578						*				
2579							BBUND		8	
2580	02	00	726	000000F0	A	F0F9	DATA		X'F0',X'F9'	
	02	00	727	000000F9	A					
2581	02	00	728	000000C1	A	C1C6	DATA		X'C1',X'C6'	
	02	00	729	000000C6	A					
2582	02	00	72A	C5C4C9E3	A	EDITA	TEXT		'!EDIT'	
	02	00	72B	40404040	A					
2583	02	00	72C	03D7C3D3	A	PCL	TEXTC		'!PCL'	



H01 18136 SEP 08, '75

TABLES, CONSTANTS, AND SUCH

141

2584	02	0072D	40404040 A		TEXT	' ! ' !
2585	02	0072E	03C6C4D7 A	FDP	TEXTC	' FDP !
2586	02	0072F	40404040 A		TEXT	' ! ' !
2587	02	00730	C6C4D740 A	FDP1	TEXT	' FDP !
	02	00731	40404040 A			
2588	02	00732	E4D5C4C5 A	UNDER	TEXT	' UNDER !
	02	00733	D9404040 A			
2589	02	00734	C4C5D3E3 A	DELTA1	TEXT	' DELTA !
	02	00735	C1404040 A			
2590	02	00736	05C4C5D3 A	DELTA	TEXTC	' DELTA !
	02	00737	E3C14040 A			
2591	02	00738	04C5C4C9 A	EDIT	TEXTC	' EDIT !
	02	00739	E3404040 A			
2592	02	0073A	05C2C1E3 A	BATCH	TEXTC	' BATCH !
	02	0073B	C3C84040 A			
2593	02	0073C	04D3C9D5 A	LINK	TEXTC	' LINK !
	02	0073D	D2404040 A			
2594	02	0073E	07D4C5E3 A	METASYM	TEXTC	' METASYM !
	02	0073F	C1E2F8D4 A			
2595	02	00740	04C6D6D9 A	F0RTRAN	TEXTC	' F0RT !
	02	00741	E3404040 A			
2596	02	00742	05D3D6C7 A	LOGOFF	TEXTC	' LOGON !
	02	00743	D6D54040 A			
2597	02	00744	05C2C1E2 A	BASIC	TEXTC	' BASIC !
	02	00745	C9C34040 A			
2598	02	00746	04E2C8D6 A	XSHOW	TEXTC	' SHOW !
	02	00747	E6404040 A			
2599					BBUND	8
2600	02	00748	04D47AE2 A	TM:SI	TEXTC	' M:SI !
	02	00749	C9404040 A			
2601	02	0074A	04D47AC7 A	TM:GB	TEXTC	' M:GB !
	02	0074B	D6404040 A			
2602	02	0074C	04D47AD3 A	TM:LB	TEXTC	' M:LB !
	02	0074D	D6404040 A			
2603	02	0074E	04D47AC4 A	TM:DB	TEXTC	' M:DB !
	02	0074F	D6404040 A			
2604				*		

```

2605 * END OF DOUBLEWORD TABLE
2606 *
2607 02 00750 C9D5D7E4 A PARMMSG TEXT ('INPUT ERROR=RETRY')
      02 00751 E340C5D9 A
      02 00752 D9D6D960 A
      02 00753 D9C5F3D9 A
      02 00754 E8404040 A
2608 02 00755 D8E4C9E3 A BKMSG TEXT ('QUIT ')
      02 00756 6F404040 A
2609 02 00757 4040F6C9 A WIDTH TEXT (' WIDTH= ')
      02 00758 C4E3C87E A
      02 00759 40404040 A
2610 02 0075A 4040D3C9 A LINES TEXT (' LINES= ')
      02 0075B D5C5F27E A
      02 0075C 40404040 A
2611 02 0075D D5D6D5C5 A NONE TEXT ('NONE')
2612 *
2613 02 0075E PATCH RES 50
2614 * THIS IS THE GENERAL PLIST FOR WRITING THROUGH THE M:UC DCB. THE BUFFER
2615 * ADDRESS MUST BE IN R1 AND THE BUFFER SIZE MUST BE IN R2.
2616 *
2617 02 00790 11000000 N WRITE GEN,8,24 X'111',M:UC
2618 02 00791 30000000 A GEN,4,28 3,0
2619 02 00792 80000001 A GEN,1,31 1,R1
2620 02 00793 80000002 A GEN,1,31 1,R2
2621 *
2622 * PLIST FOR READING USER COMMANDS INTO TELBUF IN USER'S CONTEXT
2623 *
2624 02 00794 10000000 N READ GEN,8,24 X'110',M:UC
2625 02 00795 F0000000 A GEN,7,25 X'1781,0
2626 02 00796 00000943 GEN,1,31 0,ABNRET
2627 02 00797 00000943 GEN,1,31 0,ABNRET
2628 02 00798 00000106 N DATA TELBUF
2629 02 00799 00000050 A GEN,1,31 0,80
2630 *
2631 *
2632 *

```



H01 18136 SEP 08, '75

TABLES, CONSTANTS, AND SUCH

2669 02 007B3 7AE2F8E2 A  
 2670 02 007B4 40404040 A  
 2671 02 007B5 03010202 A  
 2672 02 007B6 DFEF803F A  
 2673 02 007B7 AFC0BF9F A  
 2674  
 2675  
 2676  
 2677  
 2678 02 007B8 28000000 N  
 2679 02 007B9 80000000 A  
 2680 02 007BA 00000000 A  
 2681 02 007BC 00000000 A  
 2682 02 007BE 00000000 A  
 2683  
 2684  
 2685  
 2686 02 007BF 14000133 N  
 2687 02 007C0 F7480019 A  
 2688 02 007C1 00000690  
 2689 02 007C2 00000684  
 2690 02 007C3 80000009 A  
 2691 02 007C4 00000800 A  
 2692 02 007C5 00000002 A  
 2693 02 007C6 00000002 A  
 2694 02 007C7 80000001 A  
 2695 02 007C8 00000002 A  
 2696 02 007C9 00000007 A  
 2697 02 007CA 01 A  
 02 007CA 1 00 A  
 02 007CA 2 03 A  
 02 007CA 3 03 A  
 2698 02 007CB 08C67AC2 A  
 02 007CC C1C3D2E4 A  
 02 007CD D7404040 A

SECAC TEXT 'SYS'  
 TEXT ' '  
 GEN,8,8,8,8 3,1,2,2  
 DATA X'DFEF803F'  
 DATA X'AFC0BF9F'

\*  
 \*  
 \* DEVICE PLIST FOR TABS COMMAND VERB.  
 \*

TABPL GEN,8,24 X'28',M:UC  
 GEN,1,31 1,0  
 GEN,64 0  
 GEN,64 0  
 GEN,32 0

\*  
 \* PLIST FOR OPENING THE BACKUP RECORD  
 \*

BPENBKUP GEN,8,24 X'14',M:TEL  
 DATA X'F7480019'  
 DATA RDERT  
 DATA ABRTN  
 PZE \*SR2  
 DATA 2048  
 DATA 2  
 DATA 2  
 GEN,1,14,17 1,0,R1  
 DATA 2  
 DATA 7  
 DATA,1 1,0,3,3

ABNORMAL RETURN  
 MAXIMUM RECORD SIZE  
 KEYED FILE  
 DIRECT ACCESS  
 MODE  
 SAVE  
 MAXIMUM KEY LENGTH

TEXTC 'BACKUP'

2699	02 007CE	02	A	DATA,1	2,1,2,2		
	02 007CE	1	A				
	02 007CE	2	A				
	02 007CE	3	A				
2700	02 007CF	7AE2F8E2	A	SYSACT	TEXT	!;SYS	ACCOUNT
	02 007D0	40404040	A				
2701				*			
2702				* PLIST	TO GET COMMON PAGE FOR SHOW COMMAND		
2703	02 007D1	0C000001	A	GCOMNPG	GEN,8,24	X'1C1,1	GET 1 COMMON PAGE
2704				*			
2705				* PLIST	TO GET A PAGE FOR THE PURPOSE OF READING IN THE BACKUP RECORD		
2706	02 007D2	08000001	A	GETPG	GEN,8,7,17	X'1081,0,1	
2707				*			
2708				* PLIST	TO RELEASE A PAGE AFTER WRITING OUT THE BACKUP RECORD		
2709	02 007D3	09000001	A	PGDRBP	GEN,8,7,17	X'1091,0,1	
2710				*			
2711				* PLIST	FOR READING THE BACKUP RECORD		
2712				*			
2713	02 007D4	10000133	N	READBKUP	GEN,8,24	X'101,M:TEL	
2714	02 007D5	B8000010	A	DATA	X'B8000010'		
2715	02 007D6	00000690		DATA	RDERT		READ ERROR RETURN
2716	02 007D7	80000009	A	GEN,1,14,17	1,0,SRP		BUFFER ADDRESS
2717	02 007D8	00000800	A	DATA	2048		BUFFER SIZE
2718	02 007D9	000007DF		DATA	BKUPKEY		KEY ADDRESS
2719				*			
2720				* PLIST	FOR WRITING OUT THE BACKUP RECORD		
2721				*			
2722	02 007DA	11000133	N	WRITERC	GEN,8,24	X'111,M:TEL	
2723	02 007DB	38000050	A	DATA	X'38000050'		
2724	02 007DC	80000009	A	GEN,1,14,17	1,0,SRP		BUFFER ADDRESS
2725	02 007DD	80000007	A	PZE	*R7		SIZE OF RECORD
2726	02 007DE	000007DF		DATA	BKUPKEY		KEY ADDRESS
2727				*			
2728	02 007DF	06C2C1C3	A	BKUPKEY	TEXTC	'BACKUP'	
	02 007E0	DRE4D740	A				
2729				*			
2730				*			

2731				* PLIST TO NOTIFY THE SYSTEM THAT THERE IS A FILE WHICH MUST BE BACKEDUP
2732				*
2733	02	007E1	06000000 A	BKUPCAL GEN,8,24 6,0
2734	02	007E2	04C6C9D3 A	TEXTC 'FILL'
	02	007E3	D3404040 A	
2735				*
2736				*
2737				* PLIST FOR THE MESSAGE COMMAND
2738				*
2739	02	007E4	00000000 A	SENDMES GEN,8,24 X'10',0
2740	02	007E5	80000000 A	GEN,1,31 1,0
2741	02	007E6	00000106 N	DATA TELBUF ADDRESS OF BUFFER
2742				*
2743				* PLIST FOR THE JOB COMMAND
2744				*
2745	02	007E7	2F000133 N	JOBICAL GEN,8,24 X'2F1',M:TEL JOBENT STATUS FPT
2746	02	007E8	00000000 A	DATA 0
1*				*
2*				* PLIST FOR THE ERASE COMMAND
3*				*
4*	02	007E9	1A000000 A	ERASFPT GEN,8,24 X'1A',0 M:LDEV
5*	02	007EA	80000040 A	PZE *X'40'
6*	02	007EB	000003F1 A	DATA 'L1'
2747				*
2748				* PLIST TO GET AND RELEASE SPECIAL BUFFER
2749				* PAGES IN CONTEXT AREA.
2750				*
2751	02	007EC	84000009 A	GPFPT GEN,1,7,24 1,4,SR2 GET PAGE
2752	02	007ED	85000009 A	FPFPT GEN,1,7,24 1,5,SR2 RELEASE PAGE
2754				*
2755				* PLIST FOR THE DECOUPLE COMMAND
2756				*
2757	02	007EE	10800000 A	MDCPL GEN,8,1,23 X'1D',1,0
2758				*
1*				* PLIST FOR M:CT (COUPLE)
2*				*
3*	02	007EF	06200000 A	MCTCPL GEN,8,3,21 6,1,0

4*	02 007F0	04000000 A	DATA	X'04000000'	
5*	02 007F1	80000004 A	PZE	*R4	
6*			*		
7*			* PLIST FOR MIGETID CAL		
8*			*		
9*	02 007F2	00000000 A	GETID	GEN,8,24	X'01,0 USED FOR TP COMMAND
10*			*		
11*			* PLIST FOR MICT CAL (SEND COMMAND)		
12*			*		
13*	02 007F3	06200000 A	CTFPT	GEN,8,3,21	6,1,0
14*	02 007F4	01000000 A	DATA	X'01000000'	
15*	02 007F5	80000004 A	PZE	*R4	
16*			*		
17*			* PLIST FOR MICVM CAL (MAPPER)		
18*			*		
19*	02 007F6	8700000A A	MAPIT	GEN,1,7,24	1,7,SR3 PHYSICAL ADDRESS IN SR3
20*	02 007F7	80000009 A	PZE	*SR2	VIRTUAL ADDRESS IN SR2
21*			*		
22*			* PLIST FOR MIMASTER BEFORE SUA		
23*			*		
24*	02 007F8	08000000 A	MSTRMODE	GEN,8,24	8,0
2774			*		
2775			* TABLE OF CONVERSIONS FOR TERMINAL COMMAND		
2776			*		
2777	02 007F9	F3F34040 A	TERMTAB1	TEXT	'33 !
2778	02 007FA	F3F54040 A		TEXT	'35 !
2779	02 007FB	F3F74040 A		TEXT	'37 !
2780	02 007FC	F7F0F1F5 A		TEXT	'7015 !
2781	02 007FD	E2E3C1E3 A		TEXT	'STAT !
2782	02 007FE	C5E2F3C4 A		TEXT	'ESTD !
2783	02 007FF	C5C1D7D3 A		TEXT	'EAPL !
2784	02 00800	E2E2F3C4 A		TEXT	'SSTD !
2785	02 00801	E2C1D7D3 A		TEXT	'SAPL !
2786	02 00802	D4C5D4D6 A		TEXT	'MEMB !
2787	02 00803	C5E7C5C3 A		TEXT	'EXEC !
2788	02 00804	C4C1F3C1 A		TEXT	'DATA !
2789	02 00805	E3C94040 A		TEXT	'TI !

MEMBEX  
EXECUP8RT  
DATAP8INT  
TEXAS INSTRUMENTS SERIES 700

H01 18:36 SEP 08, 175  
2790 00000000

2791  
2792  
2793  
2794  
2795 02 00806 00 A  
02 00806 1 01 A  
02 00806 2 02 A  
02 00806 3 03 A  
2796 02 00807 00 A  
02 00807 1 04 A  
02 00807 2 06 A  
02 00807 3 08 A  
2797 02 00808 0A A  
02 00808 1 02 A  
02 00808 2 00 A  
02 00808 3 00 A  
2798 02 00809 02 A  
2799  
2800 00000000  
2801  
2802  
2803  
2804 02 0080A 05 A  
02 0080A 1 05 A  
02 0080A 2 05 A  
02 0080A 3 05 A  
2805 02 0080B 00 A  
02 0080B 1 01 A  
02 0080B 2 01 A  
02 0080B 3 01 A  
2806 02 0080C 01 A  
02 0080C 1 03 A  
02 0080C 2 02 A  
02 0080C 3 00 A  
2807 02 0080D 05 A  
2808

TABLES, CONSTANTS, AND SUCH

148  
SIZETAB1 EQU \$-TERMTAB1=1  
\*  
\*  
\*SIZE OF TERMTAB1,2,3 ARE ALL THE SAME PARALLEL TABLES.\*\*  
\*  
TERMTAB2 DATA,1 0,1,2,3 C8C TRANSLATION TABLE TABLE  
  
DATA,1 0,4,6,8 DUMMY,4,6,8  
  
DATA,1 10,2,0,0  
  
DATA,1 2 TI  
BOUND 4  
SIZETAB2 EQU BA(\$)-BA(TERMTAB2)=1  
\*  
\*  
\* IDLE ALGORITHM NUMBER TABLE  
TERMTAB3 DATA,1 5,5,5,5 M33, M35, M37, 7015  
  
DATA,1 0,1,1,1 DUMMY, ESTD, EAPL, SSTD  
  
DATA,1 1,3,2,0 SAPL, MEM0, EXEC, DATAPBINT  
  
DATA,1 5 TI  
BOUND 4



H01 18136 SEP 08, 175  
2809 0000000F  
2810

TABLES, CONSTANTS, AND SUCH  
SIZE TAB3 EQU BA(\*)=BA(TERM TAB3)=1  
TITLE ' '

2811  
 2812  
 2813  
 2814  
 2815 02 0080E 22C0012D  
 2816 02 0080F 1260073E  
 2817 02 00810 680000C8  
 2818 02 00811 22C0012D  
 2819 02 00812 12600740  
 2820 02 00813 680000C8  
 2821  
 2822 02 00814 1260072C  
 2823 02 00815 680000B0  
 2824  
 2825 02 00816 6AB009AD  
 2826 02 00817 22500060 A  
 2827 02 00818 4A500000 X  
 2828 02 00819 6830013C  
 2829 02 0081A 22F00000 A  
 2830 02 0081B 47F00000 X  
 2831 02 0081C E8000000 A  
 2832

\*  
 \* THE FOLLOWING GROUPS OF CODE ARE THE VECTOR AMPLIFIERS FOR THE LOAD  
 \* AND CONTINUE TYPE OF COMMANDS. THE COMMAND VERB IS TRANSLATED INTO LMN  
 \*  
 ASSEMBLE LI,D1      PARSER  
                   LD,R6      MFTASYM  
                   B            GRBUP?  
 COMPILE LI,D1      PARSER  
                   LD,R6      FORTRAN  
                   B            GRBUP?  
 \*  
 PCLCALL LD,R6      PCL  
           B            SPCASP                    SET UNKLMN TO STOP SCAN  
 \*  
 FIDER BAL,SR4      FID                    GO BREAK FID  
           LI,R5      0NBIT+0VERBIT      WAS 0VER/0N SPECIFIED  
           LS,R5      J:TELFLGS  
           BEZ            TESTSI                    NEITHER  
           LI,D4      FIPROC                    SET FLAG TO INDICATE...  
           STS,D4      J:TELFLGS                    ...FILE HAS BEEN PROCESSED  
           B            \*0                    EXIT  
           TITLE      'RUN AND LINK COMMAND VERBS'

H01 18:36 SEP 08, 1975

RUN AND LINK COMMAND VERBS

151

```

2833      02 00810
2834      02 0081D 225FFFFFFE A
2835      02 0081E 48500000 X
2836      02 0081F 35500000 X
2837      02 00820 22C00000 A
2838      02 00821 1260073C
2839      02 00822 680000C8
2840
2841
2842
2843
2844
2845      02 00823
2846      02 00823 48D00000 X
2847      02 00824 35D00000 X
  1*      02 00825 6AB00000 X
2848      02 00826 68000016
  1*

```

```

RUN      FGU      S
          LI,R5    -2
          AND,R5   J:CPP8
          STW,R5   J:CPP8
          LI,D1    0
          LD,R6    LINK
          B        GROUP2          GO LOAD LINK

*
*
*          BREAK PROCESSING (RESETS BRK BIT)
*
*
BREAKER  RES      0
          AND,D2   NBIT30
          STW,D2   J:TELFLGS
          BAL,SR4  CPXBREAK          UNDS CPX MODE IF ACTIVE
          B        BUFINT
          TITLE   IVALID TEL COMMAND TABLES!

```

VALID TEL COMMAND TABLES

Line	Mode	Address	Label	Command	Table
2*	03	00000		VECTOR1	CSECT 1
3*	03	00000	02000000 A		NBP
4*	04	00000		VECTOR2	CSECT 1
5*	04	00000	02000000 A		NBP
6*	05	00000		VERB1	CSECT 1
7*	05	00000	40404040 A		TEXT 1 1
8*				*	
9*	05	00001	C3D6D7E8 A		CMND 'COPY',LD6,PCL
	03	00001	1260072C 02		
10*	05	00002	C5C4C9E3 A		CMND 'EDIT',LD6,EDIT
	03	00002	12600738 02		
11*	05	00003	C7C5F340 A		CMND 'GET',B,GET
	03	00003	68000000 N		
12*	05	00004	D1D6C240 A		CMND 'JOB',B,JOB
	03	00004	68000695 02		
13*	05	00005	D3C9D5D2 A		CMND 'LINK',B,RUN
	03	00005	6800081D 02		
14*	05	00006	D3C9F2E3 A		DCMND 'LIST',B,LIST
	03	00006	68000269 02		
15*	05	00007	D6C6C640 A		CMND 'OFF',LD6,LOGOFF
	03	00007	12600742 02		
16*	05	00008	D9E4D540 A		CMND 'RUN',B,RUN
	03	00008	6800081D 02		
17*	05	00009	C6C4D740 A		CMND 'FDP',B,FDPSET
	03	00009	680002EE 02		
18*	05	0000A	D8E4C9E3 A		CMND 'QUIT',B,QUIT
	03	0000A	68000119 02		
19*	05	0000B	E2C8D6E6 A		CMND 'SHOW',B,SHOW
	03	0000B	68000350 02		
20*	05	0000C	E2C1F5C5 A		CMND 'SAVE',B,SAVE
	03	0000C	68000000 N		
21*	05	0000D	C4D6D5E3 A		CMND 'DONT',B,DONT
	03	0000D	6800025E 02		
22*	05	0000E	E3C1C2E2 A		CMND 'TABS',B,TABS
	03	0000E	680003F0 02		
23*	05	0000F	E2C5F340 A		CMND 'SET',B,SET
	03	0000F	68000000 N		

VALID TEL COMMAND TABLES

24*	05	00010	D4C5F3C1 A	CMND	'META',B,ASSEMBLE	
	03	00010	6800080E 02			
25*	05	00011	D7C3D340 A	CMND	'PCL',B,PCLCALL	
	03	00011	68000814 02			
26*	05	00012	E2E3D6D7 A	CMND	'STOP',B,QUIT	
	03	00012	68000119 02			
27*	05	00013	C5D5C440 A	CMND	'END',B,QUIT	
	03	00013	68000119 02			
28*	05	00014	C2E8C540 A	CMND	'BYE',LD6,LOGOFF	
	03	00014	12600742 02			
29*	05	00015	E3D74040 A	CMND	'TP',B,TP	
	03	00015	680002FC 02			
30*	05	00016	E2C5D5C4 A	DCMND	'SEND',B,SEND	
	03	00016	68000616 02			
31*	05	00017	C5C3C8D6 A	DCMND	'ECH0',B,FCH0	
	03	00017	68000000 N			
32*	05	00018	E4404040 A	CMND	'U',B,UDEL T	
	03	00018	68000244 02			
33*	05	00019	D3404040 A	CMND	'L',LD6,PCL	PCL LIST
	03	00019	1260072C 02			
34*	05	0001A	C2404040 A	CMND	'B',B,BUILD	EDIT BUILD
	03	0001A	68000237 02			
35*	05	0001B	C4404040 A	CMND	'D',LD6,PCL	PCL DELETE
	03	0001B	1260072C 02			
36*	05	0001C	C3404040 A	CMND	'C',LD6,PCL	PCL COPY
	03	0001C	1260072C 02			
37*	05	0001D	C5404040 A	CMND	'F',B,EDITO	EDIT
	03	0001D	6800023B 02			
38*	05	0001E	D4404040 A	CMND	'M',B,MESSAGEO	MESSAGE
	03	0001E	6800061F 02			
39*	05	0001F	D8404040 A	CMND	'Q',B,QUIT	QUIT
	03	0001F	68000119 02			
40*	05	00020	E2404040 A	CMND	'S',B,START	
	03	00020	6800028F 02			
41*	05	00021	D7C1C7C5 A	CMND	'PAGE',B,PAGE	
	03	00021	6800043D 02			
42*	05	00022	E7C5D840 A	CMND	'XEQ',B,0X	



HO1 18136 SEP 08, '75

VALID TEL COMMAND TABLES

155

60*	04 00007	6800025A 02			
	06 00010	C6D6D9E3 A	CMND	IFORT41,B,COMPILE	
	06 00011	F4404040 A			
	04 00008	68000811 02			
61*	06 00012	C3D6D5E3 A	CMND	ICONTINUE1,B,CONTINUE	
	06 00013	C9D5F4C5 A			
	04 00009	680002E6 02			
62*	06 00014	C4C5D3C5 A	CMND	IDELETE1,LD6,PCL	
	06 00015	E3C54040 A			
	04 0000A	1260072C 02			
63*	06 00016	C4C9F2D7 A	CMND	IDISPLAY1,B,DISPLAY	
	06 00017	D3C1F840 A			
	04 0000B	680005BC 02			
64*	06 00018	D6E4F3D7 A	DCMND	IOUTPUT1,B,OUTPUT	
	06 00019	E4E34040 A			
	04 0000C	68000258 02			
65*	06 0001A	E2E3C1D9 A	CMND	ISTART1,B,START	
	06 0001B	E3404040 A			
	04 0000D	6800028F 02			
66*	06 0001C	E2E3C1E3 A	LSTAT CMND	ISTATUS1,B,STATUS	
	06 0001D	E4E24040 A			
	04 0000E	6800060E 02			
67*	06 0001E	E3C5D9D4 A	CMND	ITERMINAL1,B,TERMINAL	
	06 0001F	C9D5C1D3 A			
	04 0000F	68000493 02			
68*	06 00020	D7D3C1E3 A	CMND	IPLATEN1,B,PLATEN	
	06 00021	C5D54040 A			
	04 00010	68000448 02			
69*	06 00022	D7C1F2E2 A	CMND	IPASSWRD1,B,PASSWRD	
	06 00023	E6D6D9C4 A			
	04 00011	6800030B 02			
70*	06 00024	C4C5D3E3 A	CMND	IDELTA1,B,DELTASET	
	06 00025	C1404040 A			
	04 00012	680002F2 02			
71*	06 00026	D7D9C9D5 A	CMND	IPRINT1,B,PRINT	
	06 00027	E3404040 A			
	04 00013	68000579 02			

VALID TEL COMMAND TABLES

72\* 04 00028 D4C5F2E2 A  
 06 00029 C1C7C540 A  
 04 00014 6800062E 02  
 73\* 06 0002A C2C1C3D2 A  
 06 0002B E4D74040 A  
 04 00015 6800065E 02  
 74\* 06 0002C C5E7F3C5 A  
 06 0002D D5C44040 A  
 04 00016 68000581 02  
 75\* 06 0002E E2E609E3 A  
 06 0002F C3C84040 A  
 04 00017 680006CB 02  
 76\* 06 00030 C4C5C3D6 A  
 06 00031 E4D703C5 A  
 04 00018 68000587 02  
 77\* 06 00032 C3D6F4D7 A  
 06 00033 D3C54040 A  
 04 00019 6800058C 02  
 78\* 06 00034 C5D9C1E2 A  
 06 00035 C5404040 A  
 04 0001A 6800057D 02  
 79\* 06 00036 C4C5C2E4 A  
 06 00037 C7404040 A  
 04 0001B 68000249 02  
 80\* 06 00038 E6C8C5D9 A  
 06 00039 C5404040 A  
 04 0001C 6800036E 02

CMND !MESSAGE!,B,MESSAGE  
 CMND !BACKUP!,B,BACKUP  
 CMND !EXTEND!,B,EXTEND  
 CMND !SWITCH!,B,SWITCH  
 CMND !DECOUPLE!,B,DECOUPLE  
 DCMND !CBUPLE!,B,CBUPLE  
 CMND !ERASE!,B,ERASE  
 DCMND !DEBUG!,B,DEBUG  
 CMND !WHERE!,B,WHERE

81\* 0000001C

SIZVERB2 EGU \*-VECTOR2-1 CSECT LENGTH \* NUM CMNDS  
 \*  
 \* THE FOLLOWING TWO TABLES ARE BIT PARALLEL TO VERB1 & VERB2.  
 \* A 1 BIT INDICATES THAT THE COMMAND MAY BE PRECEDED BY !DONT!  
 \*  
 DBITS1 DATA DBIT1 GENERATES SIZVERB1/32 WORDS  
 DBITS2 DATA DBIT2 GENERATES SIZVERB2/32 WORDS  
 USECT TFL  
 \*

86\* 04 0001D 00600020 A  
 04 0001E 00000000 A  
 87\* 04 0001F 05000840 A  
 88\* 04 00020  
 89\*



H01 18136 SEP 08, 175

VALID TEL COMMAND TABLES

157

```
90*
91*
92* 02 00827 00000027 A SCNVBSIZ DATA SIZVERB1 FOR SINGLE WORD SEARCH
93* 02 00828 0000001C A DATA SIZVERB2 FOR DOUBLEWORD SEARCH
94*
95* 02 00829 31CA0000 05 * SCNVERB CW,D1 VERB1,R5
96* 02 0082A 11CA0000 06 CD,D1 VERB2,R5
97*
98* 02 0082B 670A0000 03 * VECTORS FXU VECTOR1,R5
99* 02 0082C 670A0000 04 FXU VECTOR2,R5
100*
101* 02 0082D 318A001D 04 * DCMPRS CW,SR1 DBITS1,R5
102* 02 0082E 318A001F 04 CW,SR1 DBITS2,R5
3076 TITLE 'SUB-ROUTINES'
```

PAGE

```

3077
3078
3079
3080
3081 02 0082F 22C30100 A NTJBST LI,D1 X'030100' ERROR CODE & SUBCODE
3082 02 00830 6800070E B CMNERR1 TELL USER & PROMPT
3083 *****
3084 *E* FRROR:
3085 *E* GROUP 03, CODE=01, SUBCODE=13
3086 *E* DESCRIPTION:
3087 *E* USER SAID START OR START UNDER WITH NO LM NAME.
3088 *E* THIS IMPLIES $ FILE, BUT THERE ISN'T ONE, SO...
3089 *****
3090 02 00831 22C30113 A STARTERR LI,D1 X'030113' ERROR CODE & SUBCODE
3091 02 00832 6800070E B CMNERR1
3092
3093 02 00833
1* 02 00833 32100013 N BKOPTO FQU $
3095 02 00834 47100000 X LW,R1 IQUIT SET IMPLIED QUIT COMMAND TO ALLOW
3096 02 00835 32100106 N STS,R1 J:TELFLGS ICR: TO CAUSE PROCESSING OF CURRENT
3097 02 00836 35100102 N LW,R1 TELBUF COMMAND. SAVE 1ST WORD OF COMMAND
3098 02 00837 22100755 BKOPT STW,R1 NLSAVE FOR RESTORE AFTER NEXT READ
3099 02 00838 22200005 A LI,R1 BKMSG
3100 02 00839 04100790 CAL1,1 WRITE
3101 02 0083A 68000903 B SYN1
3102 *****
3103 *E* FRROR:
3104 *E* GROUP 03, CODE=07, SUBCODE=00
3105 *E* DESCRIPTION:
3106 *E* THE USER'S TERMINAL TYPE SPECIFIED IN HIS
3107 *E* TERMINAL COMMAND WAS INVALID OR THE CHANGE
3108 *E* TERMINAL TYPE CAL WAS UNSUCCESSFUL.
3109 *****
3110 02 0083B 22C30700 A TERMERR LI,D1 X'030700' ERROR CODE & SUBCODE
3111 02 0083C 6800070E B CMNERR1

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PAGE

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02 00830  
 02 0083D 32300100 N  
 02 0083E 20300001 A  
 02 0083F 22100006 N  
 02 00840 13100100 N

```

*****
*D* NAME: RD:USERS *
*D* CALL: *
*D* BAL,R0 RD:USERS *
*D* CALLED BY PASSWORD AND SHOW COMMANDS *
*D* REGISTERS: *
*D* NO REGISTERS ARE PRESERVED *
*D* INPUT: *
*D* R2 = OPEN MODE, IN#1, INOUT #4 *
*D* J:ACCN,J:UNAME = USED TO FORM KEY FOR :USERS REC. *
*D* :LOGSZ = SIZE OF :USERS RECORD *
*D* OUTPUT: *
*D* USERS AUTHORIZATION RECORD IN MEMORY *
*D* R3 = ADDRESS OF RECORD IN CORE *
*D* SCRATCH: *
*D* R1,R4,R5,R6,SR3,SR4,D1,D3,D4 *
*D* DATA: *
*D* @PUSR, WORD 0, IS USED TO FORM WORD 0 OF READ FPT *
*D* DESCRIPTION: *
*D* A BUFFER IS CREATED IN TELSTACK & THE :USERS *
*D* KEY IS PLACED IN IT. :USERS IS OPENED IN THE MODE *
*D* SPECIFIED IN R2. THE RECORD IS THEN READ IN ON *
*D* TOP OF THE KEY. THE CALLER MUST RESTORE THE *
*D* TELSTACK SPACE, EXCEPT IF ERRORS OCCUR WHILE *
*D* ACCESSING :USERS. *
*****
RD:USERS FGU $
LW,R3 TELSTACK CREATE BUFFER...
AI,R3 1
BUMP LOGSIZE+RWUSRSZ,R1

*
* NOW FORM THE KEY FOR :USERS IN FRONT OF THE BUFFER.
* KEY IS TEXTC ACCOUNT,BLANK,NAME
*
CONCAT FGU $
    
```

SUB-ROUTINES

3148	02	00841	22400000	A	LI,R4	0	INITIALIZE COUNT
3149	02	00842	225FFFF8	A	LI,R5	=8	FOR 8 CHARACTER ACCOUNT
3150	02	00843	20400001	A	CONCATA	AI,R4	COUNT THE CHAR
3151	02	00844	726A0002	N	LB,R6	J;ACCN+2,R5	GET ACCOUNT CHAR.
3152	02	00845	21600040	A	CI,R6	' '	IS IT BLANK
3153	02	00846	6830084B		BE	CONCATB	YES
3154	02	00847	F5680003	A	STB,R6	*R3,R4	NO, STORE IT
3155	02	00848	65500843		BIR,R5	CONCATA	DO NEXT CHAR.
3156	02	00849	22600040	A	LI,R6	' '	BLANK FOR SPACER
3157	02	0084A	20400001	A	AI,R4	1	COUNT SPACER
3158	02	0084B	F5680003	A	CONCATB	STB,R6	STORE SPACER
3159	02	0084C	225FFFF4	A	LI,R5	=12	FOR 12 CHAR USER NAME
3160	02	0084D	726A0003	N	CONCATN	LB,R6	GET NAME CHAR
3161	02	0084E	21600040	A	CI,R6	' '	IS IT BLANK
3162	02	0084F	68300853		BE	CONCATE	YES, ALMOST DONE...
3163	02	00850	20400001	A	AI,R4	1	NO, COUNT IT
3164	02	00851	F5680003	A	STB,R6	*R3,R4	STORE CHAR.
3165	02	00852	6550084D		BIR,R5	CONCATN	DO NEXT
3166	02	00853	F5400003	A	CONCATE	STB,R4	STORE COUNT
3167					*		
3168					*	NOW CHANGE ACCOUNT TO ISYS & DO THE OPEN	
3169					*		
3170	02	00854	02200020	A	LCI	2	
3171	02	00855	2A5007B3		LM,R5	SECAC	
3172	02	00856	2AE00000	X	LM,D3	J;ACCN	SAVE USER'S ACCOUNT
3173	02	00857	24500000	X	STM,R5	J;IACCN	
3174	02	00858	22A00000	A	LI,SR3	0	SET UP TO CHECK FOR ERRORS
3175	02	00859	041007A6		CAL,1	BPUSR	OPEN :USERS
3176	02	0085A	02200020	A	LCI	2	RESTORE USER'S
3177	02	0085B	24E00000	X	STM,D3	J;ACCN	ACCOUNT
3178					*****		
3179					*E*	ERROR!	
3180					*E*	GROUP 03, CODE=05, SUBCODE=00	
3181					*E*	DESCRIPTION:	
3182					*E*	:USERS WAS BUSY WHEN ATTEMPTING OPEN INPUT	
3183					*****		
3184	02	0085C	21A00000	A	CI,SR3	0	ANY ERROR ON OPEN

H01 18:36 SEP 08, 1975

SUB-ROUTINES

3185 02 0085D 68300865  
 3186  
 3187  
 3188  
 3189 02 0085E 25A00070 A  
 3190 02 0085F 21A01402 A  
 3191 02 00860 69300863  
 3192 02 00861 22C30500 A  
 3193 02 00862 6800086C  
 3194

BE GOTUSR0 NO, EVERYTHING FINE  
 \*  
 \* SINCE M:TEL ADDR IS LESS THAN X'10000', WE NEEDN'T WORRY  
 \* ABOUT BIT 15 EVER.  
 SLS,SR3 =16 RIGHT JUSTIFY ERROR CODE  
 CI,SR3 X'1402' IS :USERS BUSY  
 BNE \*+3 NO, SOME OTHERR ERROR  
 LI,D1 X'030500' YES, TELL USER  
 B R:UERR  
 SPACE 5

3195  
 3196  
 3197  
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 3200  
 3201 02 00863 22C30501 A  
 3202 02 00864 6800086C  
 3203  
 3204  
 3205  
 3206 02 00865  
 3207 02 00865 02200060 A  
 3208 02 00866 2A50079E  
 3209 02 00867 20560000 X  
 3210 02 00868 04160000 X  
 3211  
 3212  
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 3215  
 3216

\*\*\*\*\*  
 \*E\* ERROR: \*  
 \*E\* GROUP 03, CODE=05, SUBCODE=01 \*  
 \*E\* DESCRIPTION: \*  
 \*E\* I/O ERROR OF SOME SORT ON TRYING TO OPEN :USERS \*  
 \*\*\*\*\*  
 LI,D1 X'030501' ERROR CODE & SUBCODE  
 B R:UERR  
 \*  
 \* MOVE READ FPT TO STACK & DO READ  
 \*  
 GOTUSR0 FGU \$  
 LCI 6 SIZE OF FPT  
 LM,R5 RWUSR MOVE  
 STM,R5 LOGSIZE,R3 FPT TO STACK  
 CAL1,1 LOGSIZE,R3 READ THE USER'S RECORD  
 \*\*\*\*\*  
 \*E\* ERROR: \*  
 \*E\* GROUP 03, CODE=05, SUBCODE=02 \*  
 \*E\* DESCRIPTION: \*  
 \*E\* I/O ERROR READING :USERS RECORD \*  
 \*\*\*\*\*

H01 18136 SEP 08, '75

3217	02	00869	21A00000	A
3218	02	0086A	E9300000	A
3219	02	0086B	22C30502	A
3220	02	0086C	225FFFFFFA	N
	02	0086D	13500100	N
3221	02	0086E	6800070E	
3222				

R:UERR

\*

SUB-ROUTINES

CI,SR3	0	ANY ERROR
BNEZ	*R0	NOPE...
LI,D1	X'030502'	ERROR CODE & SUBCODE
BUMP	=(LOGSIZE+RWUSRSZ),R5	CLEAN UP STACK
B	CMNERR1	

SUB-ROUTINES

PAGE

3223  
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02 0086F 022000F0 A  
02 00870 05100100 N  
02 00871 321007A6  
02 00872 49100014 N  
02 00873 32200724  
02 00874 22300890  
02 00875 22400890  
02 00876 22500001 A  
02 00877 22600001 A

```

*****
*D* NAME: FL0P
*D* CALL:
*D* BAL,SR4 FL0P
*D* REGISTERS:
*D* PRESERVES ALL REGISTERS EXCEPT R0
*D* INPUT:
*D* R7=SR1 = FILE PASSWORD OR ZER0ES
*D* SR2=SR3 = FILE ACCOUNT OR ZER0ES
*D* D1=D3 = FILE NAME (NON.TEXTC), MAX 11 CHARS
*D* OUTPUT:
*D* R0 = ZER0 IF NO ERROR, 0THERWISE CONTAINS
*D* ERROR CODE, RIGHT JUSTIFIED.
*D* DATA:
*D* 0PUSR = WORD 0 OF 0PEN FPT
*D* NAME = FILE NAME VLP CONTR WD
*D* PACC = ACCOUNT VLP CONTR WD
*D* PPAS = PASSWORD VLP CONTR WD
*D* INTERFACE:
*D* NFND = CONVERTS FILE NAME TO TEXTC
*D* DESCRIPTION:
*D* A TEST 0PEN FPT IS BUILT IN THE CONTEXT PAGE AT
*D* !FL0PBUF!. MODE IS SET TO 0UT SO SAVE ROUTINE
*D* CAN USE THE FPT BY TURNING OFF THE TEST BIT.
*D* SINCE THE DCB IS NOT 0PENED, THE CALLER NEED NOT
*D* CLOSE IT.
*****
FL0P PUSH 15,R1
LW,R1 0PUSR GET FPT WORD 0
BR,R1 Y0008 TURN ON TEST BIT
LW,R2 FL0PBITS PARAM. PRES. BITS
LI,R3 RFE ERR
LI,R4 RFE ABN
LI,R5 1 0RG = CONSEC
LI,R6 1 ACC = SEQUEN

```

SUB-ROUTINES

```

3259 02 00878 02200060 A
3260 02 00879 2010011B N
3261 02 0087A 22600002 A
3262 02 0087B 35600121 N
3263 02 0087C 35600122 N
3264 02 0087D 32600000 X
3265 02 0087E 21700000 A
3266 02 0087F 68300881
3267 02 00880 20600200 A
3268 02 00881 02200030 A
3269 02 00882 2060012A N
3270 02 00883 32800000 X
3271 02 00884 02200030 A
3272 02 00885 20800127 N
3273 02 00886 6AA00891
3274 02 00887 32500000 X
3275 02 00888 02200040 A
3276 02 00889 20500123 N
3277 02 0088A 22A00000 A
3278 02 0088B 0410011B N
3279 02 0088C 7200000A A
3280 02 0088D 022000F0 A
      02 0088E 0A100100 N
3281 02 0088F E800000B A
3282 02 00890 E8000008 A
    
```

RFE

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LCI          6          STORE FPT,
STM,R1      FL0PBUF    WORDS 0=5
LI,R6       2
STW,R6      FL0PBUF+6  MODE = 0UT
STW,R6      FL0PBUF+7  DISP = SAVE
LW,R6       PPAS       SKELETON PASSW VLP
CI,R7       0          IS PASSWORD PRESENT
BE          *+2        NO
AI,R6       X102001    YES, TURN ON SIGNIF.
LCI          3
STM,R6      FL0PBUF+15  INSERT PASSWORD
LW,SR1      PACC       SKELETON ACCOUNT VLP
LCI          3
STM,SR1     FL0PBUF+12  INSERT ACCOUNT
BAL,SR3     NFND       MAKE NAME TEXTC
LW,R5       NAME
LCI          4
STM,R5      FL0PBUF+8  INSERT NAME
LI,SR3      0          CLEAR ERROR RETURN
CAL,1,1     FL0PBUF    DO THE OPEN
LB,R0       SR3       POSITION ANY ERROR CODE
PULL        15,R1
B           *SR4
B           *SR1      ERROR RETURN TO CAL+1
    
```



PAGE

\* THE 'NFND' ROUTINE IS USED WHEN A LMN HAS BEEN PRESENTED AS A COMMAND.  
 \* IT FORMS A TEXTC LMN FORMAT IN REGS 6,7 AND 8. ENTRY IS WITH BAL,SR3.  
 \* THE INPUT LMN MUST BE IN D1, D2 AND D3.

3283						
3284						
3285						
3286						
3287						
3288	02	00891	02200020	A	NFND	PUSH 2,R4
	02	00892	0A400100	N		
3289	02	00893	22400000	A		LI,R4 0
3290	02	00894	12600000	06		LD,R6 VERB2 BLANK FILL BUFFER
3291	02	00895	32800000	05		LW,SR1 VERB1
3292	02	00896	7258000C	A	NFND1	LB,R5 D1,R4
3293	02	00897	21500040	A		CI,R5 C1 1
3294	02	00898	6830089C			BE NFND2
3295	02	00899	20400001	A		AI,R4 1
3296	02	0089A	75580006	A		STB,R5 R6,R4
3297	02	0089B	68000896			B NFND1
3298	02	0089C	75400006	A	NFND2	STB,R4 R6 INSERT COUNT
3299	02	0089D	02200020	A		PULL 2,R4
	02	0089E	0A400100	N		
3300	02	0089F	E800000A	A		B *SR3

PAGE

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```

\* THE SCAN SUB-ROUTINE PROGRESSES THROUGH THE INPUT COMMAND PICKING UP THE NEXT FIELD. IT PROVIDES THE BOOKKEEPING TO ALWAYS START AT THE BEGINNING OF A FIELD. FIELD TERMINATORS ARE DETERMINED BY THE CONTENTS OF TABLE (TERMS). LEADING AND TRAILING BLANKS ARE SUPPRESSED AS WELL AS SERVING AS A TERMINATOR. ALL DATA ENCLOSED WITHIN PARENS() IS IGNORED AND ANY CHARACTERS MAY BE USED.

\* ENTRY IS MADE WITH A BAL,SR3 SCAN OR BAL,SR3 SCAN#

\* A BAL TO SCAN# IS USED TO INCLUDE # AS A TERMINATOR FOR THE SET COMMAND

\* R2 = BYTE DISPLACEMENT WITHIN INPUT FIELD(NEXT FIELDS! STARTING POSITION).

\* R3 = ADDRESS TO WHERE FIELD IS TO BE MOVED. ZERO IF NO MOVE IS TO TAKE PLACE.

\* R1 = REMAINING SIZE OF INPUT MESSAGE(ARS).

\* ON EXIT, THE FOLLOWING IS IN THE REGISTERS:

\* R6 = FIELD DELIMITER CHARACTER(EXCEPT EOM IS NEVER SEEN=R1=0).

\* R7 = NUMBER OF CHARACTERS IN FIELD, EXCLUSIVE OF SEPERATORS.

\* SR1 = DESTROYED.

\* R5 = INDEX INTO TERMS TABLE(CHARACTER TYPE THAT STOPPED THE SCAN).

\* R1 = AS ABOVE BUT DECREMENTED BY NUMBER OF CHARACTERS SCANNED.

\* R2 = AS ABOVE POSITIONED TO START OF NEXT FIELD

\* NOTE=R1=0 IMPLIES END OF MESSAGE.

02 008A0	22500009	A	SCAN	LI,R5	SIZETERM=2	SKIP # AND = SIGNS
02 008A1	680008A3			B	SCAN2	
02 008A2	2250000B	A	SCAN#	LI,R5	SIZETERM	
02 008A3	22800000	A	SCAN2	LI,SR1	0	
02 008A4	22700000	A		LI,R7	0	
02 008A5	09000100	N		PUSH	R0	
02 008A6	22000000	A		LI,R0	0	CLEAR PAREN COUNTER
02 008A7	09500100	N		PUSH	R5	SAVE TERMS TABLE SIZE
02 008A8	22500000	A		LI,R5	0	PRE-SET DELIMIT VECTOR TO BLANK
02 008A9	641008AD		LOOP	BDR,R1	LOOP1	

H01 18136 SEP 08, '75

SUB-ROUTINES

167

3338	02	008AA	08000100	N	LOOP5	PULL	R0	REMOVE TERMS TABLE SIZE FROM STACK
3339	02	008AB	08000100	N		PULL	R0	
3340	02	008AC	E800000A	A		B	*SR3	REMAINING BYTES
3341	02	008AD			LOOP1	FGU	*	
3342	02	008AD	72640106	N		LB,R6	TELBUF,R2	CHAR
3343	02	008AE	20200001	A		AI,R2	1	AND INCREMENT TO NEXT POSITION
3344	02	008AF	21600040	A		CI,R6	1 1	BLANK TEST
3345	02	008B0	683008B7			BE	YBLK	
3346	02	008B1	2160004D	A		CI,R6	1 1	PROVIDE SKIP ON PAREN FEATURE
3347	02	008B2	683008D3			BE	PAREN8	
3348	02	008B3	2160005D	A		CI,R6	1 1	END PAREN SKIP
3349	02	008B4	683008D5			BE	PARENC	
3350	02	008B5	21600005	A		CI,R6	X'05'	TAB TEST=SAME AS BLANK
3351	02	008B6	693008BB			BNE	TERMTST	
3352	02	008B7	21700000	A	YBLK	CI,R7	0	TEST FOR PREVIOUS DATA
3353	02	008B8	683008A9			BEZ	LOOP	IGNORE LEADING BLANKS
3354	02	008B9	20800001	A		AI,SR1	1	SET BLANK FLAG
3355	02	008BA	680008A9			B	LOOP	SUPPRESS TRAILING BLANKS
3356	02	008BB			TERMTST	FGU	*	SCAN FOR TERMINATING CHARACTERS
3357	02	008BB	21000000	A		CI,R0	0	
3358	02	008BC	683008BE			BE	TERMTST1	
3359	02	008BD	680008B7			B	YBLK	FORCE BLANK LOGIC DURING SKIP
3360	02	008BE			TERMTST1	FGU	*	
3361	02	008BE	B2500100	N		LW,R5	*TELSTACK	GET TERMS TABLE SIZE
3362	02	008BF	716A08DC			CB,R6	TERMS,R5	
3363	02	008C0	683008AA			BE	LOOP+1	
3364	02	008C1	645008BF			BDR,R5	*-2	
3365	02	008C2	21800000	A		CI,SR1	0	NOT A TERMINATOR=TEST BLANK FLAG
3366	02	008C3	683008C8			BE	CHAR0K	JUMP IF NOT SET
3367	02	008C4	20100001	A		AI,R1	1	RESET POSITION TO START OF NEW FIELD
3368	02	008C5	202FFFFFF	A		AI,R2	=1	
3369	02	008C6	22600040	A		LI,R6	1 1	FORCE BLANK DELIMITER
3370	02	008C7	680008AA			B	LOOP+1	
1*					* NOTE:		MAX FIELD LENGTH =11. THE FOLLOWING TEST IS SPECIAL	
2*					*		CASE FOR THE WHERE COMMAND.	
3371	02	008C8	21A00388		CHAR0K	CI,SR3	WHSC	
3372	02	008C9	683008CE			BE	CHAR0K5	

3373	02	008CA	2170000B	A	CI,7	11		
3374	02	008CB	693008CE		BNE	CHAROKS		
3375	02	008CC	22A00231		LI,SR3	CHKULM		T00 MANY CHARS.
3376	02	008CD	680008AA		B	L00P5		
3377	02	008CE	21300000	A	CHAROKS	CI,R3	0	IS DATA TO BE MOVED
3378	02	008CF	683008D1		BE	*+2		NO
3379	02	008D0	F56E0003	A	STB,R6	*R3,R7		YES
3380	02	008D1	20700001	A	AI,R7	1		COUNT CHARACTER
3381	02	008D2	680008A9		B	L00P		AND GO FOR NEXT ONE
3382	02	008D3	20000001	A	PAREN0	AI,R0	1	BUMP PAREN COUNT
3383	02	008D4	680008A9		B	L00P		
3384	02	008D5	200FFFFF	A	PARENC	AI,R0	=1	DECREMENT PAREN COUNT
3385	02	008D6	681008A9		BGEZ	L00P		
3386	02	008D7	22000000	A	LI,R0	0		CLEAR COUNT
3387	02	008D8	21700000	A	CI,R7	0		STRAY CLOSE PAREN IS IGNORED
3388	02	008D9	683008A9		BE	L00P		
3389	02	008DA	22A00231		LI,SR3	CHKULM		BUT IS FLAGGED AS ERROR WHEN MORE
3390	02	008DB	680008AA		B	L00P5		CLOSE THAN OPENS EXIST.

\*  
 \* THE TERMS TABLE IS A BYTE TABLE CONTAINING A TERMINATOR CHARACTER IN  
 \* EACH ENTRY. THE SCAN SUBROUTINE LOOKS AT THE TABLE FROM BACK TO FRONT  
 \* AND THE FIRST ENTRY MUST BE A DUMMY. A SPACE SEPERATOR IS NOT NEEDED  
 \* AS THIS LOGIC IS PERFORMED MORE EFFICIENTLY OUTSIDE OF THE TABLE.  
 \* THE TERMINATOR # MUST BE LAST ENTRY IN TABLE  
 \* THE TERMINATOR . MUST BE THE NEXT TO LAST ENTRY IN TABLE.

3398	02	008DC	40	A	TERMS	DATA,1	CI'		DUM=DUMB
3399	02	008DC	1 6F	A		DATA,1	CI'	INDEX 1	ORDERING WITHIN
3400	02	008DC	2 7E	A		DATA,1	CI#'	2	THIS TABLE IS
3401	02	008DC	3 61	A		DATA,1	CI/!	3	IMPORTANT IF
3402	02	008DD	4B	A		DATA,1	CI,!	4	ADDITIONAL ENTRIES
3403	02	008DD	1 6E	A		DATA,1	CI>!	5	ARE DESIRED,
3404	02	008DD	2 4C	A		DATA,1	CI<!	6	ALWAYS ENTER
3405	02	008DD	3 5E	A		DATA,1	CI!'	7	THEM BELOW
3406	02	008DE	6B	A		DATA,1	CI,!	8	THIS POINT
3407	02	008DE	1 7D	A		DATA,1	CI!!!	9	
3408	02	008DE	2 6U	A		DATA,1	!-!		
3409	02	008DE	3 7B	A		DATA,1	CI#'	10	

H01 18136 SEP 08, 175  
3410 00000000  
3411

SIZETERM FGU  
BOUND

SUB-ROUTINES  
BA(\*)=BA(TERMS)=1  
4

PAGE

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3412
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3419 02 008DF
3420 02 008DF E8000000 A
3421 02 008E0 68000231
3422 02 008E1 68000231
3423 02 008E2 68000231
3424 02 008E3 68000816
3425 02 008E4 68000231
3426 02 008E5 68000231
3427 02 008E6 68000231
3428 02 008E7 E8000000 A
3429 02 008E8 68000231
3430 02 008E9 68000231
3431 02 008EA 68000231
3432
3433
3434
3435 02 008EB 02000000 A
3436 02 008EC 680008F7
3437 02 008ED 680008F7
3438 02 008EE 68000000 X
3439 02 008EF 680008F7
3440 02 008F0 680008F7
3441 02 008F1 680008F7
3442 02 008F2 02000000 A
3443 02 008F3 680008F7
3444 02 008F4 680008F7
3445 02 008F5 680008F7
3446 02 008F6 68000000 X
    
```

\*  
 \* 'STOPS' IS A VECTOR USED TO DEFINE THE TERMINATING CHARACTER AND ENTER  
 \* THE CORRECT LOGIC. IT IS EMPLOYED DURING THE SCAN OF A COMPILE OR  
 \* ASSEMBLE DIRECTIVE, THE FORMAT IS ORIENTED TO THE TERMS TABLE AND MAY  
 \* NOT BE ALTERED WITHOUT CORRECT CORRESPONDENCE TO TERMS.

```

*
STOPS  RES      O
        B      *0      SPACE
        B      CHKULM  QUESTION MARK ILLEGAL
        B      CHKULM  * ILLEGAL
        B      CHKULM  / ILLEGAL
        B      FIDER   * IMPLIES COMPLEX FID
        B      CHKULM  > ILLEGAL
        B      CHKULM  < ILLEGAL
        B      CHKULM  | ILLEGAL
        B      *0      ,
        B      CHKULM
        B      CHKULM  * (MINUS)
        B      CHKULM
    
```

\*  
 \* THE FOLLOWING IS A UNIQUE TERMINATOR VECTOR FOR THE SET COMMAND.  
 \* DEVICE CODE FIELD.

```

SETSTP  NOP
        B      SYNTAX  THE ORDER OF THIS VECTOR IS KEUED
        B      SYNTAX  TO THE TERMS TABLE.
        B      SETFLE  * ILLEGAL IN THIS FIELD
        B      SYNTAX  / IMPLIES FILE PLIST
        B      SYNTAX  * ILLEGAL IN THIS FIELD
        B      SYNTAX  > ILLEGAL IN THIS FIELD
        B      SYNTAX  < ILLEGAL IN THIS FIELD
        B      NOP     | REQUIRES DEVICE OPTION PLIST
        B      SYNTAX  * ILLEGAL IN THIS FIELD
        B      SYNTAX
        B      SYNTAX
        B      SETNUMB * IMPLIES DEVICE SERIAL NUMBER
    
```

PAGE

\* THE FOLLOWING IS ENTERED ANY TIME SOME UNINTELLIGIBLE ENTITY IS  
 \* ENCOUNTERED DURING THE FIELD SCAN OR MESSAGE PARSE. THE ACTION IS TO  
 \* PUT OUT THE '!'EH!' MESSAGE AND TURN THE CONSOLE BACK TO THE USER FOR  
 \* A RETRY. THE ENTIRE MSG MUST BE RE-ENTERED.

\*

SYNTAX	EQU	*	
	LW,R1	R2	SAVE ERROR POSITION
	BAL,SR4	BINDECBCD	CONVERT BINARY PLACE VALUE TO PRINT
	LCI	2	
	LM,R6	EHMSG	
	LI,R1	1	PUT LAST 2 DIGITS IN MESSAGE.
	STW,D2	R7,R1	
	LW,R1	TELSTACK	
	AI,R1	1	
	PUSH	2,R6	
	LI,R2	8	
	CAL,1	WRITE	

\*

\* ANY PREVIOUS PROCESSING WILL HAVE NO LASTING EFFECT AS THE A/M TABLE  
 \* WILL BE READ FROM DISC AGAIN, THEREBY NULLIFYING ERROR MSG.

\*

SYN1	EQU	*	
	LW,R1	J:ABUF	RELEASE A-M BUFF AS REQ'D
	BEZ	SYN3	
	LI,SR2	AMBUF	
	DB1	DEBUG=0	NORMAL MODE
	CAL,8	FPFPT	
	LI,R1	0	
	STW,R1	J:ABUF	
	LI,R1	S:SET	WAS AN SI CREATED ON THIS CMD
	LS,R1	J:TELFLGS	
	BEZ	SYN3	NO
	LI,R1	=(SINOREL+1)	TURN OFF SI DONT RELEASE FLAG
	AND,R1	J:TELFLGS	
	STW,R1	J:TELFLGS	

3447			
3448			
3449			
3450			
3451			
3452			
3453	02	008F7	
3454	02	008F7	32C00002 A
3455	02	008F8	6AB00979
3456	02	008F9	02200020 A
3457	02	008FA	2A60071D
3458	02	008FB	22100001 A
3459	02	008FC	55D20007 A
3460	02	008FD	32100100 N
3461	02	008FE	20100001 A
3462	02	008FF	02200020 A
	02	00900	0B600100 N
3463	02	00901	22200008 A
3464	02	00902	04100790
3465			
3466			
3467			
3468			
1*	02	00903	
3472	02	00903	32100000 X
3473	02	00904	6830090F
3474	02	00905	22900000 N
3475	02	00906	
3476	02	00906	048007ED
3477	02	00907	22100000 A
3478	02	00908	35100000 X
3479	02	00909	22100010 A
3480	02	0090A	4A100000 X
3481	02	0090B	6830090F
3482	02	0090C	221FFFF7 A
3483	02	0090D	4B100000 X
3484	02	0090E	35100000 X

SUB-ROUTINES

```

3485      02 0090F
3486      02 0090F
3487      02 0090F      22C0015B N
3488      02 00910      32D00710
3489      02 00911      15C00100 N
3490      02 00912      6800001D
3491
3492
3493
3494      02 00913
3495      02 00913      32100000 X
3496      02 00914      48100000 X
3497      02 00915      35100000 X
  1*      02 00916      2251FFFF A
3498      02 00917      72400000 X
3499      02 00918      21400004 A
3500      02 00919      68400924
3501      02 0091A      22400020 A
3502      02 0091B      223001FF A
3503      02 0091C      4A300000 X
3504      02 0091D      25300001 A
3505      02 0091E      69800921
3506      02 0091F      204FFFFFF A
3507      02 00920      6800091D
3509      02 00921      47400000 F
3510      02 00922      224000B3 A
3511      02 00923      75400000 X
3512      02 00924
  1*
  2*      02 00924      22400000 A
3515      02 00925      32C00000 F
3516      02 00926      25C00178 A
3517      02 00927      72C00000 X
3518      02 00928      25C00108 A
  1*      02 00929      75400000 X
  2*      02 0092A      75400000 X
  3*      02 0092B      47400000 F
    
```

```

SYN3      EGU      $
CLEANSTACK RES      0
              LI,D1      STACK0
              LW,D2      STKINIT
              STD,D1      TELSTACK
              B           PROMPT

*
*PROCESS A SYSTEM DETECTED ERROR.
*
SYSERR     EGU      $
              LW,R1      J:TELFLGS
              AND,R1      NBIT30
              STW,R1      J:TELFLGS
              LI,R5      X:1FFFF1
              LB,R4      J:RNST
              CI,R4      4
              BAZ        ERRABN1
              LI,R4      32
              LI,R3      X:1FF1
              LS,R3      J:ASSIGN
              SLS,R3      1
              BCS,R      $+3
              AI,R4      -1
              B           $-3
              STS,R4      J:JIT+ER0
              LI,R4      X:1B31
              STB,R4      J:ABC
ERRABN1    EGU      $
* READ THE ERROR MESSAGE FILE
              LI,R4      0
              LW,D1      J:JIT+ER0
              SLD,D1      =8
              LB,D1      J:ABC
              SLD,D1      8
              STB,R4      J:ABC
              STB,R4      J:RNST
              STS,R4      J:JIT+ER0
    
```

```

START OF STACK SPACE
STACK SIZE
STORE STACK PTR DWD
GIVE MEM ANOTHER GB

TURN OFF ANY BREAK BIT

MASK FOR STS LATER

GET ERROR SUBCODE
AND HOLD IN D2
GET MAJOR ERROR CODE
AND MERGE SUB-CODE
CLEAR...
...ERROR...
...CELLS
    
```



```

3522 02 0092C 6A000000 X
1* 02 0092D 22200000 A
2* 02 0092E 2231FFFF A
3* 02 0092F 75200000 X
4* 02 00930 75200000 X
5* 02 00931 47200000 F
6* 02 00932 25C00078 A
7* 02 00933 21C000A9 A
3530 02 00934 68300937
3531 02 00935 32100000 X
3532 02 00936 69300117
3533 02 00937 12600742
3534 02 00938 32800000 05
3535 02 00939 32D00712
1* 02 0093A 32E00000 06
2* 02 0093B 12A00000 06
3538 02 0093C 22000001 A
3539 02 0093D 31000000 X
3540 02 0093E 69400941
3541 02 0093F 66000000 X
3542 02 00940 6800010D
3543 02 00941 22000000 A
3544 02 00942 04900001 A
    
```

SUB-ROUTINES

```

BAL,R0 T$ERR
LI,R2 0
LI,R3 X:1FFFF!
STB,R2 J:ABC
STB,R2 J:RNST
STS,R2 J:JIT+ERR
SLS,D1 =8
CI,D1 X:IA9!
BE $+3
LW,R1 J:AMR
BNEZ XABORT
LD,R6 LOGOFF
LW,SR1 VERB1
LW,D2 SYS
LW,D3 VERB2
LD,SR3 VERB2
LI,R0 J$STEP
CW,R0 J:TELFLGS
BANZ $+3
AWM,R0 J:TELFLGS
B INBREAK
LI,0 0
CAL,9 1
    
```

```

TYPE ERROR MSG
MASK TO STS ERR
CLEAR ANY ERROR FROM
READING ERRMSG

SCRUB OFF SUBCODE
A/M ERROR, SET BY T:AMRDWT
LOG IEM OFF
A/M ERROR
NO, ABORT TO GET CLEAN TEL
DB
INTERPRITIVE
EXIT
TO
LOGOFF

EXIT IF AT JOB STEP...

SET JOB STEP FLAG AND
ABORT IF NOT...
    
```

PAGE

\* THE FOLLOWING LOGIC IS PROVIDED TO HANDLE THE OCCURANCE OF AN ABNORMAL  
 \* OR ERROR CONDITION INCURRED DURING THE READ OF THE USER TERMINAL.  
 \* THE '05' ERROR IS IGNORED AS THE MESSAGE HAS ALREADY BEEN REPEATED BY  
 \* THE TIME IT IS SENSED. OTHER ERRORS WILL OUTPUT A MESSAGE AND ALLOW  
 \* THE USER TO TRY AGAIN.

\*  
 \*

3553	02 00943	25A00068 A	ABNRET	SLS,SR3	=24	POSITION ERROR CODE
3554	02 00944	21A00005 A		CI,SR3	X'05'	
3555	02 00945	6830090F		BE	CLEANSTACK	
3556	02 00946	22100106 N		LI,R1	TELBUF	ECHO INPUT
3557	02 00947	32200004 N		LW,R2	ARS	
3558	02 00948	2520006F A		SLS,R2	=17	
3559	02 00949	202FFFFF A		AI,R2	=1	
3560	02 0094A	04100790		CAL1,1	WRITE	
3561	02 0094B	22100750		LI,R1	PARMSG	PUT OUT ERROR MSG.
3562	02 0094C	22200011 A		LI,R2	17	
3563	02 0094D	04100790		CAL1,1	WRITE	
3564	02 0094E	6800090F		B	CLEANSTACK	GIVE ANOTHER TRY

SUB-ROUTINES

1\*  
 2\*  
 3\*  
 4\*  
 5\*  
 6\*  
 7\*  
 8\*  
 9\*  
 10\*  
 11\*  
 12\*  
 13\*  
 14\*           02 0094F  
 15\* 02 0094F   2291FE00 A  
 16\* 02 00950   048007F6  
 17\* 02 00951   69800959  
 18\* 02 00952   2291FC00 A  
 19\* 02 00953   048007F6  
 20\* 02 00954   69800959  
 21\* 02 00955   22B001FF A  
 22\* 02 00956   47A00009 A  
 23\* 02 00957   02200000 A  
 24\* 02 00958   E8000008 A  
 25\*  
 26\*  
 27\*  
 28\*  
 29\*  
 30\*  
 31\*  
 32\*  
 33\*  
 34\*  
 35\*  
 36\*           02 00959  
 37\* 02 00959   045007F8

PAGE  
 \*\*\*\*\*  
 \*D\*   NAME:   MAPPER  
 \*D\*   CALL:   CALLED BY ROUTINES WHICH NEED TO LOOK AT MONITOR  
 \*D\*   TABLES:  PIDGMSG  
 \*D\*   REGISTERS:  USES SR1,SR2,SR3,SR4.  ALL OTHERS ARE UNTOUCHED  
 \*D\*   INPUT:   SR1 = LINK REGISTER  
 \*D\*           SR3 = MONITOR ADDRESS TO BE EXAMINED  
 \*D\*   OUTPUT:  SR2 = VIRTUAL ADDRESS (IN USER'S SPACE) OF MONITOR  
 \*D\*           ADDRESS  
 \*D\*   SCRATCH: SR4 = CLOBBERED  
 \*D\*   DESCRIPTION:  MAPPER GETS TWO CONTIGUOUS DYNAMIC PAGES, FRE  
 \*\*\*\*\*  
 MAPPER EQU \$  
 LI,SR2   X'1FE00'  
 CAL1,8   MAPIT           LAST VIRTUAL PAGE  
 BCS,8    MAPFAIL        DO THE 1ST SAD  
 LI,SR2   X'1FC00'  
 CAL1,8   MAPIT           SAD FAILED; SUA  
 BCS,8    MAPFAIL        NEXT-TO-LAST VIRTUAL PAGE  
 LI,SR4   X'1FF'  
 STS,SR3  SR2            DO THE 2ND SAD  
 LCI       0              SAD FAILED; SUA  
 B         \*SR1            MASK FOR STS  
                           MERGE PG DISPL INTO VIRT PG ADDR  
                           RETURN  
 \*\*\*\*\*  
 \*S\*   SCREECH CODE:       60=04  
 \*S\*   REPORTED BY:       TEL  
 \*S\*   MESSAGE:           TEL ISSUED SINGLE USER ABORT ON YOU  
 \*S\*   TYPE:              SUA  
 \*S\*   REGISTERS:         SR2 CONTAINS THE VIRTUAL PAGE ADDRESS THROUGH  
 \*S\*                       WHICH WE WERE TRYING TO SAD.  
 \*S\*   REMARKS:           THIS SCREECH INDICATES A PROBLEM IN MEMORY  
 \*S\*                       MANAGEMENT OR A LOGIC PROBLEM IN TEL WHICH CAUSED  
 \*S\*                       THE USER'S MAP TO BE LEFT 'DIRTY' FROM A PREVIOUS SAD  
 \*\*\*\*\*  
 MAPFAIL EQU \$  
 CAL1,5   MSTRMODE

18:36 SEP 08, '75

SUB-ROUTINES

38\* 02 0095A 0F000000 X  
02 0095B 00600104 A

SUA X'60',4

39\*  
40\*  
41\*  
42\*  
43\*  
44\*  
45\*  
46\*  
47\*  
48\*

\*\*\*\*\*  
\*D\* NAME: UNMAPPER \*  
\*D\* CALL: MUST BE CALLED AFTER EACH CALL TO MAPPER \*  
\*D\* REGISTERS: USES SR1,SR2,SR4. ALL OTHER ARE UNTOUCHED. \*  
\*D\* INPUT: SR4 - LINK REGISTER \*  
\*D\* OUTPUT: TWO VIRTUAL PAGES ARE RELEASED. \*  
\*D\* SCRATCH: CLOBBERS SR1,SR2 \*  
\*D\* DESCRIPTION: UNMAPPER ISSUES M:FVP CALLS FOR THE PAGE \*  
\*D\* INPUT IN SR2 AND THE PAGE FOLLOWING IT. \*  
\*\*\*\*\*

49\* 02 0095C  
50\* 02 0095C 2291FE00 A  
51\* 02 0095D 048007ED  
52\* 02 0095E 2291FC00 A  
53\* 02 0095F 048007ED  
54\* 02 00960 E800000B A

UNMAPPER EQU \$  
LI,SR2 X'1FE00' LAST VIRTUAL PAGE  
CAL1,8 FPFPT FREE THE FIRST PAGE  
LI,SR2 X'1FC00' NEXT-TO-LAST VIRTUAL PAGE  
CAL1,8 FPFPT FREE THE SECOND PAGE  
B \*SR4 RETURN

PAGE

```

3565
3566
3567
3568
3569
3570
3571
3572
3573
3574
3575
3576
3577
3578
3579
3580
3581
3582
3583
3584
3585
3586
3587
3588
3589
3590
3591
3592
3593
3594
3595
3596
3597
3598
3599
3600

```

				02 00961	HEX2EBC	EQU	\$	
						PUSH	3,R6	
	02	00961	02200030	A				
	02	00962	04600100	N				
	02	00963	22600969			LI,R6	HEX2ESKP	SET FOR SKIP LEADING ZEROS
	02	00964	12C00000	06		LD,D1	VERB2	CLEAR D1 & D2 TO BLANKS
	02	00965	227FFFF8	A		LI,R7	=8	
	02	00966	22800000	A	HEX2EBC1	LI,SR1	0	
	02	00967	25800104	A		SLD,SR1	4	MOST SIG. DIGIT TO SR1
	02	00968	680C0000	A		B	0,R6	NOP IF SKP FLAG SET
					HEX2ESKP	EQU	\$	
	02	00969	21800000	A		CI,SR1	0	IS IT LEADING ZERO
	02	0096A	68300972			BE	HEX2EBC2	YES, IGNORE IT
	02	0096B	2260096C			LI,R6	\$+1	RESET SKP FLG TO BYPASS TEST
	02	0096C	21800009	A		CI,SR1	9	NUMERIC
	02	0096D	69200970			BG	\$+3	NO, ALPHA
	02	0096E	208000F0	A		AI,SR1	X'FO'	
	02	0096F	68000971			B	\$+2	
	02	00970	208000B7	A		AI,SR1	CIA'XIA'	TO MAKE EBCDIC
	02	00971	758E000E	A		STB,SR1	D3,R7	
	02	00972	65700966		HEX2EBC2	BIR,R7	HEX2EBC1	DO NEXT DIGIT

```

*****
*D* NAME: HEX2EBC
*D* REGISTFRS:
*D* USES SR2,SR4,D1,D2, PRESERVES ALL OTHERS.
*D* CALL:
*D* BAL,SR4 HEX2EBC
*D* INPUT:
*D* BINARY NUMBER TO BE CONVERTED IN SR2
*D* OUTPUT:
*D* RETURNS EBCDIC RESULT IN D1 AND D2
*D* DESCRIPTION:
*D* THIS ROUTINE CONVERTS THE NUMBER IN SR2 TO
*D* EBCDIC, THE RESULT IS RIGHT JUSTIFIED AND
*D* BLANK FILLED IN D1 & D2 WITH LEADING ZEROS
*D* SUPPRESSED.
*****

```

H01 18:36 SEP 08, '75

3601	02	00973	31D00000	05
3602	02	00974	69300976	
3603	02	00975	20D000B0	A
3604	02	00976	02200030	A
	02	00977	0A600100	N
3605	02	00978	E800000B	A

SUB-ROUTINES

CW,D2	VFRB1
BNE	*+2
AI,D2	C'01=C' 1
PULL	3,R6
B	*SR4

ALL BLANKS MEANS ZERO VALUE  
RETURN, POSITIVE VALUE  
MAKE RESULT ZERO  
RESTORE SAVED REGS  
RETURN

178

PAGE

\* THIS IS A SUB-ROUTINE WHICH CONVERTS A BINARY BUFFER POSITION TO A  
 \* PRINTABLE DECIMAL VALUE.  
 \* ENTER WITH  
 \*         D1 = DIGIT TO BE CONVERTED(HEX).  
 \*  
 \* EXIT WITH  
 \*         D1, D2 = 8 CHARACTER RESULT  
 \*  
 \*         REGS R1, D3 AND D4 ARE DESTROYED

3606  
 3607  
 3608  
 3609  
 3610  
 3611  
 3612  
 3613  
 3614  
 3615  
 3616  
 3617 02 00979  
 3618         02 00979  
 3619 02 00979 22100007 A  
 3620 02 0097A 32F0000C A  
 3621 02 0097B 22E00000 A  
 3622 02 0097C 36E00000 X  
 3623 02 0097D 20E000F0 A  
 3624 02 0097E 75E2000C A  
 3625 02 0097F 201FFFFFF A  
 3626 02 00980 6810097B  
 3627 02 00981 E800000B A

BINDCB RES 0 STATUS ROUTINE ENTRY POINT  
 BINDECBCD EQU \$  
           LI,R1 7  
           LW,D4 D1  
 BINA       LI,D3 0  
           DW,D3 XA  
           AI,D3 X'F0'  
           STB,D3 D1,R1  
           AI,R1 =1  
           BGEZ BINA  
           B \*SR4

PAGE

\* THE DECBIN ROUTINE WILL CONVERT AN EBCDIC DECIMAL CHARACTER STRING TO  
 \* BINARY.  
 \* ENTER WITH A BAL,SR4 AND:  
 \* R7 = NUMBER OF CHARACTERS  
 \* R3 = WORD ADDRESS OF FIRST CHARACTER  
 \* EXIT WITH:  
 \* R7 = RESULT  
 \* OTHER REGISTERS ARE RETURNED INTACT

3628  
 3629  
 3630  
 3631  
 3632  
 3633  
 3634  
 3635  
 3636  
 3637  
 3638 02 00982 02200030 A  
 02 00983 04900100 N  
 3639 02 00984 09400100 N  
 3640 02 00985 22900000 A  
 3641 02 00986 22400000 A  
 3642 02 00987 F2B80003 A  
 3643 02 00988 20BFFF10 A  
 3644 02 00989 691008F7  
 3645 02 0098A 21B0000A A  
 3646 02 0098B 681008F7  
 3647 02 0098C 2390000A A  
 3648 02 0098D 3090000B A  
 3649 02 0098E 20400001 A  
 3650 02 0098F 64700987  
 3651 02 00990 35900007 A  
 3652 02 00991 08400100 N  
 3653 02 00992 02200030 A  
 02 00993 0A900100 N  
 3654 02 00994 E800000B A

DECBIN PUSH 3,SR2  
 PUSH R4  
 LI,SR2 0  
 LI,R4 0  
 DECBIN1 LB,SR4 \*R3,R4  
 AI,SR4 =X'F0'  
 BLZ SYNTAX  
 CI,SR4 X'A'  
 BGE SYNTAX  
 MI,SR2 X'A'  
 AW,SR2 SR4  
 AI,R4 1  
 BDR,R7 DECBIN1  
 STW,SR2 R7  
 PULL R4  
 PULL 3,SR2  
 B \*SR4

REMOVE LEADING F



PAGE

\* THIS ROUTINE CONVERTS AN EBDIC HEX FIELD TO BINARY  
 \* ENTER: BAL,R1  
 \* D1 = NUMBER TO BE CONVERTED  
 \* EXIT :  
 \* SR1 = BINARY RESULT  
 \* WHEN A NON HEX CHARACTER IS ENCOUNTERED, A NEGATIVE VALUE WILL  
 \* BE RETURNED IN SR1 TO INDICATE THE ERROR.  
 \*  
 \* THE FOLLOWING REGISTERS WILL BE DESTROYED  
 \* R2  
 \* SR2  
 \*

3655  
 3656  
 3657  
 3658  
 3659  
 3660  
 3661  
 3662  
 3663  
 3664  
 3665  
 3666  
 3667  
 3668 02 00995  
 3669 02 00995 22800000 A  
 3670 02 00996 22200000 A  
 3671 02 00997 7294000C A  
 3672 02 00998 21900000 A  
 3673 02 00999 E8300001 A  
 3674 02 0099A 19900726  
 3675 02 0099B 689009A0  
 3676 02 0099C 19900728  
 3677 02 0099D 6890099F  
 3678 02 0099E 680009A6  
 3679 02 0099F 20900009 A  
 3680 02 009A0 2590001C A  
 3681 02 009A1 25800104 A  
 3682 02 009A2 20200001 A  
 3683 02 009A3 21200004 A  
 3684 02 009A4 69100997  
 3685 02 009A5 E8000001 A  
 3686  
 3687 02 009A6 228FFFFFF A  
 3688 02 009A7 E8000001 A

HEX2BIN FQU \$  
 LI,SR1 0  
 LI,R2 0  
 SCN LB,SR2 D1,R2  
 CI,SR2 0  
 BE \*R1  
 CLM,SR2 FOF9  
 BCR,9 CONTINU  
 CLM,SR2 C1C6  
 BCR,9 CONTINU=1  
 B ERBIN  
 AI,SR2 9  
 CONTINU SLS,SR2 28  
 SLD,SR1 4  
 AI,R2 1  
 CI,R2 4  
 BL SCN  
 B \*R1  
 \*  
 ERBIN LI,SR1 =1 INDICATE ERROR  
 B \*R1

PAGE

\* THIS SUB-ROUTINE CREATES A 4 CHARACTER FILE NAME FOR \* FILES. THE USER  
 \* LINE NUMBER IS USED TO MAKE THE NAME UNIQUE. A TRAILING L OR R IS USED  
 \* TO DIFFERENTIATE BETWEEN A ROM OR LMN FILE. THE 2 CHARACTER LINE  
 \* ENTER ON BAL,SR4 WITH:  
 \* R5 \* HEX L OR R RIGHT JUSTIFIED FOR DESIRED TYPE.  
 \* EXIT WITH R5 CONTAINING COMPLETED NAME. R4 IS DESTROYED

3689  
 3690  
 3691  
 3692  
 3693  
 3694  
 3695  
 3696  
 3697 02 009A8  
 3698 02 009A8 25500008 A  
 3699 02 009A9 20500040 A  
 3700 02 009AA 32400000 X  
 3701 02 009AB 55400005 A  
 3702 02 009AC E800000B A

NAME# RES 0  
 SLS,R5 8  
 AI,R5 X1401  
 LW,R4 J:JIT  
 STH,R4 R5  
 B \*SR4

PAGE

\* THIS BIT OF LOGIC IS USED TO OBTAIN A COMPLEX FID PRIOR TO ENTERING  
 \* THE NORMAL PROCESS FOR THE SI DCB. IF ACCOUNT HAS NOT BEEN SUPPLIED,  
 \* IT IS OBTAINED FROM JIT. LMN IS CURRENTLY IN D1, D2, AND D3. RETURN  
 \* ACCOUNT IN SR2, SR3 AND PASSWORD(OR ZEROS) IN R7, SR1.  
 \*

3703								
3704								
3705								
3706								
3707								
3708								
3709	02	009AD	2230000C	A	FID	LI,R3	D1	GET NEXT SUB-FIELD
3710	02	009AE	02200030	A		PUSH	3,D1	SAVE LMN
	02	009AF	05C00100	N				
3711	02	009B0	72640106	N		LB,R6	TELBUF,R2	FID. THIS LOGIC
3712	02	009B1	21600040	A		CI,R6	' '	IS FOR USE ON A LMN LOAD FROM
3713	02	009B2	683009C3			BE	FID3	THE USER'S ACCOUNT
3714	02	009B3	22600000	A		LI,R6	0	
3715	02	009B4	12C00000	06		LD,D1	VERB2	BLANK FILL
3716	02	009B5	6AA008A0			BAL,SR3	SCAN	
3717	02	009B6	21700000	A		CI,R7	0	WAS AN ACCOUNT GIVEN
3718	02	009B7	683009C3			BE	FID3	NO
3719	02	009B8	02200020	A		PUSH	2,D1	
	02	009B9	05C00100	N				
3720	02	009BA	2160004B	A	FID0	CI,R6	' '	IS THERE A PASSWORD SUB-FIELD
3721	02	009BB	683009C8			BE	FID4	YES
3722	02	009BC	22700000	A		LI,R7	0	NO-PUT IN ZEROS
3723	02	009BD	22800000	A		LI,SR1	0	
3724	02	009BE	02200020	A	FID2	PULL	2,SR2	REGAIN ACCOUNT
	02	009BF	0A900100	N				
3725	02	009C0	02200030	A		PULL	3,D1	REGAIN LMN
	02	009C1	0AC00100	N				
3726	02	009C2	E800000B	A		B	*SR4	GO PROCESS THE RESULT
3727	02	009C3	02200020	A	FID3	LCI	2	GET ACCOUNT FROM JIT
3728	02	009C4	2A900000	X		LM,SR2	J:ACCN	
3729	02	009C5	02200020	A		PUSH	2,SR2	
	02	009C6	05900100	N				
3730	02	009C7	680009BA			B	FID0	
3731	02	009C8	02200030	A	FID4	PUSH	3,D1	
	02	009C9	05C00100	N				
3732	02	009CA	2230000C	A		LI,R3	D1	
3733	02	009CB	12C00000	06		LD,D1	VERB2	

H01 18136 SEP 08, '75

3734 02 009CC 6AA008A0  
3735 02 009CD 35C00007 A  
3736 02 009CE 35D00008 A  
3737 02 009CF 02200030 A  
02 009D0 0AC00100 N  
3738 02 009D1 680009BE

SUB-ROUTINES

BAL,SR2 SCAN  
STW,D1 R7  
STW,D2 SR1  
PULL 3,D1  
B FID2

PAGE

\* THIS ROUTINE BLANKS THE SPECIFIED BUFFER  
 \* R2 = BYTE COUNT  
 \* R1 = BUFFER ADDRESS  
 \*

3739  
 3740  
 3741  
 3742  
 3743  
 3744           02 009D2  
 3745   02 009D2   25100002 A  
 3746   02 009D3   75200001 A  
 3747   02 009D4   22000040 A  
 3748   02 009D5   61000003 A  
 3749   02 009D6   E8000004 A

BLANKBUF FQU       \$  
           SLR,R1    2  
           STB,R2    R1  
           LI,R0     1  
           MBS,R0    3  
           B         \*R4

\*  
 \*  
 \* SHIFT COMMAND RIGHT TO CONSTRUCT LONG FORM COMMANDS FROM SHORT FORM.  
 \*  
 \* R1 = # OF REMAINING CHARS IN INPUT REQUEST, I.E. # TO MOVE  
 \* R7 = # OF CHARACTERS IN COMMAND, DETERMINES # TO MOVE  
 \*

3750  
 3751  
 3752  
 3753  
 3754  
 3755  
 3756  
 3757           02 009D7  
 3758   02 009D7   22A00008 A  
 3759   02 009D8   38A00002 A  
 3760   02 009D9   E820000B A  
 3761   02 009DA   32300001 A  
 3762   02 009DB   32400003 A  
 3763   02 009DC   30400002 A  
 3764   02 009DD   21300001 A  
 3765   02 009DE   682009E0  
 3766   02 009DF   204FFFFFF A  
 3767   02 009E0   32600004 A  
 3768   02 009E1   3060000A A

SHFTBUF FQU       \$  
           LI,SR3    8            COMPUTE # OF POSITIONS TO  
           SW,SR3    R2            SHIFT TO ALLOW 2 WORD CMND  
           BLEZ       \*SR4         EXIT IF NONE TO SHIFT  
           LW,R3     R1            R3 IS SOURCE BYTE POINTER  
           LW,R4     R3  
           AW,R4     R2            COMPUTE SOURCE BYTE POINTER  
           CI,R3     1            CHECK IF 1 CHAR CMND  
           BLE       \$+2            MOVE TERMINATOR  
           AI,R4     =1  
           LW,R6     R4  
           AW,R6     SR3           R6 IS DESTINATION BYTE POINTER

\*\*\*\*\*  
 \*E\*        ERROR!  
 \*E\*                    GROUP 03, CODE=08, SUBCODE=00  
 \*E\*        DESCRIPTION!  
 \*E\*                    THE SIZE OF THE EXPANDED MESSAGE WOULD EXCEED TELBUF  
 \*E\*                    (& CLOBBER TELSTACK). RETURN IS THROUGH CLEANSTACK.  
 \*\*\*\*\*

3769  
 3770  
 3771  
 3772  
 3773  
 3774  
 3775

H01 18:36 SEP 08, '75

3776 02 009E2 21600050 A  
 3777 02 009E3 682009E7  
 3778 02 009E4 22C30800 A  
 3779 02 009E5 2200090F  
 3780 02 009E6 68000000 X  
 3781  
 3782 02 009E7  
 3783 02 009E7 25A00018 A  
 3784 02 009E8 66A00000 X  
 3785 02 009E9  
 3786 02 009E9 72C80106 N  
 3787 02 009EA 75CC0106 N  
 3788 02 009EB 643009ED  
 3789 02 009EC E800000B A  
 3790 02 009ED 646009EE  
 3791 02 009EE 644009E9  
 3792

\*  
 SHFT05  
 \*  
 SHFT10  
 \*  
 SHFT20  
 SHFT30  
 \*

SUB-ROUTINES

CI,R6 80  
 BLE SHFT05  
 LI,D1 X'030800'  
 LI,R0 CLEANSTACK  
 B T\$ERR  
 \*  
 FQU \*  
 SLS,SR3 24  
 AWM,SR3 JB;CCARS  
 \*  
 FQU \*  
 LB,D1 TELBUF,R4  
 STB,D1 TELBUF,R6  
 BDR,R3 SHFT20  
 B \*SR4  
 BDR,R6 SHFT30  
 BDR,R4 SHFT10

IS SIZE > TELBUF  
 NO...  
 YES, ERROR CODE & SUBCODE  
 RETURN FOR T\$ERR  
 REPORT ERROR

SR3 IS ALSO THE ADDITIONAL SIZE  
 OF THE INPUT REQUEST

MOVE IT

PAGE

3793  
 3794  
 3795  
 3796  
 3797  
 3798  
 3799  
 3800 02 009EF  
 3801 02 009EF 22C00000 A  
 3802 02 009F0 22D00000 A  
 3803 02 009F1 2230000C A  
 3804 02 009F2 6AA008A0  
 3805 02 009F3 02200020 A  
 02 009F4 0B100100 N  
 3806 02 009F5 21700004 A  
 3807 02 009F6 692008F7  
 3808 02 009F7 6A100995  
 3809 02 009F8 691008F7  
 3810 02 009F9 6A400000 X  
 3811 02 009FA 04100A1A  
 3812 02 009FB 22000040 A  
 3813 02 009FC 680009FF  
 3814 02 009FD  
 3815 02 009FD 750E000C A  
 3816 02 009FE 20700001 A  
 3817 02 009FF 21700004 A  
 3818 02 00A00 691009FD  
 3819 02 00A01 22D30A00 A  
 3820 02 00A02 46C0000D A  
 3821 02 00A03 6AB00000 X  
 3822 02 00A04 35D20001 A  
 3823 02 00A05 F5200001 A  
 3824 02 00A06 04200A1E  
 3825 02 00A07 222FFFDD A  
 02 00A08 13200100 N  
 3826  
 3827 02 00A09 02200020 A

\*  
 \* THIS ROUTINE DELETES ANY INPUT SYMBIANT FILES IN THE SYMBIANT TABLES  
 \* WITH THE SPECIFIED SYSID. IF THE SYSID REFERS TO A RUNNING BATCH JOB  
 \* THE JOB IS ABORTED (IF THE CURRENT USERS ACCOUNT = THE ACCOUNT OF  
 \* THE SPECIFIED JOB).  
 \*  
 CANCEL EQU \*  
 LI,D1 0 0 SYSID BUFFER  
 LI,D2 0  
 LI,R3 D1  
 BAL,SR3 SCAN GET SYSID  
 PUSH 2,R1 SAVE SCANIS REGS  
 CI,R7 4 SYSID MUST BE < 5 CHARS  
 BG SYNTAX  
 BAL,R1 HEX2BIN CONVERT TO BINARY  
 BLZ SYNTAX B IF ERROR  
 BAL,R4 FMTELCL SAFETY CLOSE  
 CAL1,1 CANCL DELETE IT  
 LI,R0 X1401 SUPPLY TRAILING BLANKS  
 B CNCL10  
 CNCL9 EQU \*  
 STB,R0 D1,R7 IN SPECIFIED ID  
 AI,R7 1  
 CNCL10 CI,R7 4 DONE  
 BL CNCL9 NOT DONE  
 LI,D2 X1030A001 ERRMSG KEY FOR 'CANCELED'  
 XW,D1 D2 SAVE TEXT FOR ID IN D2  
 BAL,SR4 T\$ERRTXT GET MSG  
 STW,D2 1,R1 STORE ID INTO MSG  
 STB,R2 \*R1 MAKE MSG TEXTC  
 CAL1,2 SENDCNCL  
 BUMP =(MAXMSG\*\*2),R2 GIVE MSG BUFFER BACK  
 \*  
 MULIDS PULL 2,R1

```

3828 02 00A0A 0A100100 N
3828 02 00A0B 21100001 A
3829 02 00A0C 6820001D
3830 02 00A0D 680009EF
3831
3832 02 00A0E
3833 02 00A0E 22200001 A
3834 02 00A0F 7224000A A
3835 02 00A10 2520007F A
3836 02 00A11 21200039 A
3837 02 00A12 69300A16
3838
3839
3840
3841
3842
3843 02 00A13 22C30A01 A
3844 02 00A14 22000A09
3845 02 00A15 68000000 X
3846
3847 02 00A16
3848 02 00A16 2120003A A
3849 02 00A17 693006B1
3850
3851
3852
3853
3854
3855 02 00A18 22C30A02 A
3856 02 00A19 68000A14
3857
3858 02 00A1A
3859 02 00A1A 2F000133 N
3860 02 00A1B 88000000 A
3861 02 00A1C 00000A0E
3862 02 00A1D 80000008 A
3863
    
```

```

CI,R1 1 MORE IDIS
BLE PROMPT NOPE
B CANCEL DO NEXT SYSID

*
CNCL20 EQU * ABNORMAL ON DELETE
LI,R2 1
LB,R2 SR3,R2 GET SUBCODE
SLS,R2 =1
CI,R2 X'39' IS IT THAT THE ID DOESNT EXIST
BNE CNCL30 B IF NO

*****
*E* ERROR: GROUP 3, CODE=0A, SUBCODE=01 *
*E* DESCRIPTION: THE SYSID SPECIFIED DOES NOT MATCH THE *
*E* USER'S ACCOUNT OR IS INVALID. *
*****
CNCLMSG LI,D1 X'030A01' ERROR CODE & SUBCODE
LI,R0 MULIDS TO SCAN FOR MORE AFTER MSG
B T$ERR TYPE ERROR MSG

*
CNCL30 EQU *
CI,R2 X'3A' IS IT TOO LATE
BNE GIVEMEH GIVE HIM EH

*****
*E* ERROR: GROUP 3, CODE=0A, SUBCODE=02 *
*E* DESCRIPTION: THE SPECIFIED SYSID DOESN'T EXIST YET OR *
*E* HAS ALREADY COMPLETED *
*****
CNCLMSG LI,D1 X'030A02' ERROR CODE & SUBCODE
B CNCLMSG

*
CANCL EQU *
GEN,R24 X'2F',M;TEL
GEN,R24 X'88',0
DATA CNCL20 ABN
PZE *SR1

* M;MESSGE FPT TO TELL OPERATOR (CANCELED)
    
```



H01 18:36 SEP 08, 1975

3864 02 00A1E  
3865 02 00A1E 00000000 A  
3866 02 00A1F 80000000 A  
3867 02 00A20 80000001 A

SEND CNCL EQU  
DATA  
PZE  
PZE

SUB-ROUTINES

\$  
0  
\*0  
\*R1

3868  
 3869  
 3870  
 3871 02 00A21  
 3872 02 00A21 22200106 N  
 3873 02 00A22 22300000 N  
 3874 02 00A23 25200102 A  
 3875 02 00A24 72400000 X  
 3876 02 00A25 21400050 A  
 3877 02 00A26 68200A29  
 3878  
 3879  
 3880  
 3881  
 3882  
 3883  
 3884  
 3885  
 3886  
 3887  
 3888 02 00A27 22C30801 A  
 3889 02 00A28 6800070E  
 3890 02 00A29 75400003 A  
 3891 02 00A2A 61200000 A  
 3892 02 00A2B E8000000 A  
 3893 02 00A2C 22300106 N  
 3894 02 00A2D 22200000 N  
 3895 02 00A2E 68000A23

```

PAGE
* R2 =FROM
* R3 =TO
TELCCBUF RES 0
LI,R2 TELBUF FROM
LI,R3 J;CCBUF TO
BUFCOM SLD,R2 2
LB,R4 JB;CCARS
CI,R4 80 MAX CHARS
BLE #+3 SIZE 0,K.
*****
*E* ERROR:
*E* GROUP 03, CODE=08, SUBCODE=01
*E* DESCRIPTION:
*E* IN TRANSFERRING COMMAND TO OR FROM J;CCBUF,
*E* THE SIZE IN J;PUF IS > 80. THIS IS REALLY
*E* A MORE SERIOUS PROBLEM THAN THE ERROR MSG
*E* INDICATES, SINCE SOMEONE HAS UNDOUBTABLY STEPPED
*E* ON THE J;T FIELD.
*****
LI,D1 X'030801' ERROR CODE & SUBCODE
B CMNERR1 TELL USER & ABORT
STB,R4 R3
MBS,R2 0
B *0
CCBUFTEL LI,R3 TELBUF TO
LI,R2 J;CCBUF
B BUFCOM
    
```

PAGE

```

*****
*D* NAME: FREEBUF1
*D* CALL: CALLED BEFORE EXITING OR ABORTING TEL
*D* REGISTERS: USES R4,R5,SR1,SR2,D4
*D* INPUT: D4 = LINK REGISTER
*D* OUTPUT: SBUF1 IS RELEASED IF IT'S IN THE USER'S MAP
*D* INTERFACE: CALLS KILLMTEL TO RELEASE TEL'S DYNAMIC DCB
*D* DESCRIPTION: FREEBUF1 FIRST RELEASES M:TEL AND
*D* THEN FREES SBUF1 (IF PRESENT). THE CHECK IS SLIGHTLY
*D* REDUNDANT, SINCE NOTHING IN TEL WOULD WORK IF WE
*D* LOST SBUF1 BEFORE WE GOT HERE.
*****

```

1\*  
2\*  
3\*  
4\*  
5\*  
6\*  
7\*  
8\*  
9\*  
10\*  
11\*  
12\*  
13\*

02 00A2F

```

FREEBUF1 EQU *
*
* RELEASE M:TEL BEFORE LOSING PAGE
*

```

3902  
3903  
3904  
3905  
3906 02 00A2F 6A400000 X  
1\* 02 00A30 6A400A37  
3911 02 00A31 68300A36  
1\* 02 00A32 35800004 A  
3912 02 00A33 22900100 N  
3913 02 00A34 048007ED  
1\* 02 00A35 32800004 A  
2\* 02 00A36 E800000F A

```

BAL,R4 KILLMTEL RELEASE M:TEL !DCB!
BAL,R4 CHKBUF1 DO WE HAVE SBUF1
BE FRBFXT NO, RETURN
STW,SR1 R4 SAVE SR1 FROM T:FVP
LI,SR2 TELSTACK YES,
CAL1,8 FPFPT LOSE IT
LW,SR1 R4 RESTORE SR1 AND
FRBFXT B *D4 RETURN.

```

```

*****
*D* NAME: CHKBUF1
*D* CALL: CALLED AT INITIAL ENTRY TO TEL AND BEFORE EACH
*D* EXIT OR ABORT (BY FREEBUF1).
*D* REGISTERS: USES R4,R5,SR2. ALL OTHERS ARE UNTOUCHED.
*D* INPUT: R4 = LINK REGISTER
*D* OUTPUT: RETURNS TO CALL+1 IF SBUF1 IS NOT IN USER'S MAP
*D* RETURNS TO CALL+2 IF SBUF1 IS IN THE USER'S MAP
*D* SCRATCH: CLOBBERS R5,SR2
*D* DESCRIPTION: JX:CMAP IS CHECKED FOR FPMC AT JSBUF1VP
*****

```

3\*  
4\*  
5\*  
6\*  
7\*  
8\*  
9\*  
10\*  
11\*  
12\*  
13\*  
14\*

02 00A37

```

CHKBUF1 EQU *

```

H01

18136 SEP 08, 1975  
15\* 02 00A37 22500000 N  
16\* 02 00A38 22900000 N  
17\* 02 00A39 719A0000 N  
18\* 02 00A3A 68380000 A  
19\* 02 00A3B 68080001 A  
20\*

SUB-ROUTINES

LI,R5 JSBUF1VP  
LI,SR2 FPMC  
COMPARE,SR2 JX:CMAP,R5  
BE 0,R4  
B 1,R4

PAGE NUMBER OF SBUF1  
FREE PAGE MAP CONSTANT  
DO WE HAVE THE BUFFER  
NO, RETURN +1  
YES, RETURN +2

3916				PAGE		
3917				CLOSE	TYPE, DONE	
3918				OPEN	TYPE, DONE	
3919			*			
3920			*			
3921			*			
3922			*			
3923			*			
3924			*			
3925			*			
3926			*			
3927			*			
3928			*			
3929			*			
3930			*			
3931			*			
3932	02 00A3C			STATUSL	RES	0
3933	02 00A3C	09200100 N			PSW, R2	TELSTACK
3934			*			
3935			*			
3936	02 00A3D	32100100 N			LW, R1	TELSTACK
3937	02 00A3E	20100006 A			AI, R1	6
3938	02 00A3F	022000E0 A			LCI	14
3939	02 00A40	2A200B1C			LM, R2	TEXTJUNK
3940	02 00A41	24220000 A			STM, R2	0, R1
3941	02 00A42	32800001 A			LW, SR1	R1
3942	02 00A43	201FFFFC A			AI, R1	=4
3943			*			
3944	02 00A44				D81	F0RSEC
3945			*S*		PSW, SR1	TELSTACK
3946	02 00A44	04800AEB			CAL1, 8	TIMER
3947	02 00A45				D81	F0RSEC
3948			*S*		PLW, SR1	TELSTACK
3949	02 00A45	6AB00AD0			BAL, SR4	TIMEVERT
3950	02 00A46	6AB00000 X			BAL, SR4	READAM
3951	02 00A47	32100000 X			LW, R1	J:ABUF
3952	02 00A48	32E2000C A			LW, D3	12, R1

\* THE ROUTINE STATUS PRINTS OUT THE FOLLOWING LINE ON  
 \* THE USER'S TERMINAL WHEN THE CALL STATUS IS RECEIVED  
 \* FROM THE USER:  
 \* CPU = M, MMMM CON = H:MM INT = NN CHG = XXXX  
 \* WHICH IS :  
 \* 1. CPU TIME IN MINUTES  
 \* 2. CONSOLE TIME IN HOURS AND MINUTES  
 \* 3. NUMBER OF INTERACTIONS  
 \* 4. TOTAL CHARGE UNITS  
 \* CONTENTS OF ALL REGISTERS CAN BE ASSUMED TO BE DESTROYED BY  
 \* THIS ROUTINE.

\* CREATE STATUS LINE OUTPUT  
 \* SAVE RETURN ADDRESS  
 \* COMPUTE ELAPSED TIME  
 \* GET BUFFER ADDRESS FOR OUTPUT  
 \* MESSAGE  
 \* MOVE OUTPUT TEXT TO  
 \* BUILD BUFFER  
 \* SET INDEX TO HANDLE 4 WORDS FOR  
 \* TIME CAL  
 \* SR1 DESTROYED BY M:TIME  
 \* RESTORE SR1  
 \* CONVERT TIME TO BIN MIN FROM 12:00  
 \* NOW D3 HAS MIN. FROM MIDN. IN BIN.  
 \* GET J:TIME FROM A/M TABLE

H01 18136 SEP 08, 1975

SUB-ROUTINES

194

3953	02	00A49	31D0000E	A	CW,D2	D3	COMPARE LOGON TIME WITH LOGOFF TIME
3954	02	00A4A	68100A4C		BGE	#+2	IS LOGOFF TIME LESS THAN LOGON TIME
3955			00000000		D0	F0RSEC	
3956				*S*	FGU	1440*60	
3957					FLSE		
3958			000005AU		FGU	1440	
3959					FIN		
3960	02	00A4B	20D005A0	A	AI,D2	1DAY	FOR CROSSING MIDNIGHT
3961	02	00A4C	38D0000E	A	SW,D2	D3	SUBTRACT LOGON TIME FROM LOGOFF TIME
3962			00000001		D0	F0RSEC#0	
3963	02	00A4D	09D00100	N	PSW,D2	TELSTACK	SAVE MINUTES
3964	02	00A4E	22C00000	A	LI,D1	0	SETUP D1 FOR DIVIDE INSTRUCTION.
3965	02	00A4F	36C00B2F		DW,D1	#60	GET TIME IN HRS AND MINUTES.
3966	02	00A50	35C00009	A	STW,D1	SR2	SAVE MINUTES
3967	02	00A51	32C0000D	A	LW,D1	D2	CONVERT HOURS TO EBCDIC
3968	02	00A52	6AB00979		BAL,SR4	BINDCB	
3969	02	00A53	32C00009	A	LW,D1	SR2	GET MINUTES
3970	02	00A54	35D00009	A	STW,D2	SR2	SAVE HOURS
3971	02	00A55	6AB00979		BAL,SR4	BINDCB	CONVERT MINUTES TO EBCDIC
3972	02	00A56	22C0407A	A	LI,D1	! !	
3973	02	00A57	55C0000D	A	STH,D1	D2	D2 = ! ;MM!
3974	02	00A58	32C00009	A	LW,D1	SR2	GET HOURS AGAIN (IN EBCDIC)
3975	02	00A59	6AB00AE1		BAL,SR4	ZER0BK	CONVERT LEADING ZER0S TO BLANKS
3976	02	00A5A	25D00208	A	SCS,D2	8	D2 = !MM !
3977	02	00A5B	25C00378	A	SCD,D1	#8	D1,D2 = ! H!,H:MM!
3978					ELSE		
3979				*S*	LW,R7	SR1	
3980				*S*	LI,D1	0	
3981				*S*	DW,D1	#60	D1:=BIN SECS; D2:=BIN TOT MINS
3982				*S*	PSW,D2	TELSTACK	BIN TOT MINS ARE SAVED
3983				*S*	STW,D2	7,R7	TEMP SAVE 0F BIN TOT MINS
3984				*S*	BAL,SR4	BINDCB	D2:=EBC SECS
3985				*S*	XW,D2	7,R7	D2:=BIN TOT MINS; SAVE EBC SECS
3986				*S*	LI,D1	0	
3987				*S*	DW,D1	#60	D1:=BIN MINS; D2:=BIN HRS
3988				*S*	STW,D2	R6	R6:=BIN HRS
3989				*S*	BAL,SR4	BINDCB	D2:=EBC MINS

SUB-ROUTINES

3990			*S*	LI,D1	1:1	!!! TO PRECEDE MM IN BUFFER
3991			*S*	SLS,D2	16	SHIFT FBC MINS NEXT TO !!!
3992			*S*	LI,R2	3	COUNT FOR MBS
3993			*S*	LW,R3	R7	R3:=WA(DEST)
3994			*S*	SLS,R3	+2	R3:=BA(DEST)+6+4+2
3995			*S*	AI,R3	6+4+2	R3:=BA(DEST)
3996			*S*	STB,R2	R3	SET COUNT IN RU1
3997			*S*	LI,2	51	R2:=BA(SOURCE) (BYTE 3 OF D1)
3998			*S*	MBS,2	0	IMM INTO BUFFER..
3999			*S*	LW,D1	R6	RESTORE BIN HRS
4000			*S*	BAL,SR4	BINDCB	D2:=EBC HRS
4001			*S*	SLS,R7	+1	R7 NOW HALF WORD ADDR
4002			*S*	STH,D2	6,R7	HH INTO BUFFER
4003			*S*	SLS,R7	=1	R7 WORD ADDR AGAIN
4004			*S*	LI,R1	7+4+1	
4005			*S*	LI,D1	!!!	
4006			*S*	STB,D1	*R7,R1	SS INTO BUFFER
4007			*S*	LW,D1	6,R7	
4008			*S*	LW,D2	7,R7	
4009				FIN		
4010	02 00A5C	32700008	A	LW,R7	SR1	
4011	02 00A5D	35CE0006	A	STW,D1	6,R7	PUT MINS + HRS TIME IN MESSAGE BUFF
4012	02 00A5E	35DE0007	A	STW,D2	7,R7	IN LOGON TO BE PRINTED OUT LATER
4013						
4014			*	* COMPUTE CHARGE UNITS		
4015			*			
4016	02 00A5F	32600100	N	LW,R6	TELSTACK	GET BUFFER TO READ RATE FILE
4017	02 00A60	2060004E	A	AI,R6	78	
4018	02 00A61	04100AF2		CAL1,1	BRATE	OPEN RATE FILE
4019	02 00A62	04100B01		CAL1,1	RRATE	READ IT
4020	02 00A63	04100B08		CAL1,1	CRATE	CLOSE IT
4021	02 00A64	32100000	X	LW,R1	J:ABUF	CHECK IF THERE IS ANYTHING IN J:RAT
4022	02 00A65	22C70000	A	LI,D1	X1700001	
4023	02 00A66	45C2000D	A	AND,D1	13,R1	
4024	02 00A67	25C00070	A	SLS,D1	=16	
4025	02 00A68	69300A6A		BNEZ	\$+2	IF J:RATE = 0, SET DEFAULTS
4026	02 00A69	20C00001	A	AI,D1	1	IF NOT, DEFAULT TO TABLE 1

```

4027 02 00A6A B06C000C A
4028
4029 02 00A6B 32D00000 X
4030 02 00A6C 30D00001 N
4031 02 00A6D 30D00000 X
4032 02 00A6E 30D00001 N
4033 02 00A6F 37CC0000 A
4034 02 00A70 12E0000C A
4035
4036 02 00A71 32D00002 N
4037 02 00A72 30D00002 N
4038 02 00A73 37CC0001 A
4039 02 00A74 10E0000C A
4040
4041 02 00A75 22D1FFFF A
4042 02 00A76 4BD00000 X
4043 02 00A77 37CC0002 A
4044 02 00A78 10E0000C A
4045
4046 02 00A79 32D00000 X
4047 02 00A7A 37CC0003 A
4048 02 00A7B 10E0000C A
4049
4050 02 00A7C 08D00100 N
4051
4052 02 00A7D 22C0FFFF A
4053 02 00A7E 4BC00000 F
4054 02 00A7F 22D0FFFF A
4055 02 00A80 4BD00000 F
4056 02 00A81 30C0000D A
4057 02 00A82 22D0FFFF A
4058 02 00A83 4BD00000 F
4059 02 00A84 30C0000D A
4060 02 00A85 32D0000C A
4061 02 00A86 37CC0004 A
4062 02 00A87 10E0000C A
4063
    
```

SUB-ROUTINES

```

* TOTAL CPU TIME
    AW,R6      *D1,R6      SET UP PRINTER IN RATE FILE
    LW,D2      J:UTIME      TOTAL USER EXECUTE TIME
    AW,D2      J:UTIME+1    TOTAL USER OVERHEAD TIME
    AW,D2      J:PTIME      TOTAL PROCESSOR EXECUTION TIME
    AW,D2      J:PTIME+1    TOTAL PROCESSOR OVERHEAD TIME
    MW,D1      0,R6
    LD,D3      D1

* CORE-TIME
    LW,D2      J:UTIME+2    USER CORE-TIME FACTOR
    AW,D2      J:PTIME+2    PROCESSOR CORE-TIME FACTOR
    MW,D1      1,R6
    AD,D3      D1

* TERMINAL INTERACTIONS
    LI,D2      X:1FFFF1    LOAD MASK
    AND,D2     J:INTER      GET NUMBER OF CONSOLE INTERACTIONS
    MW,D1      2,R6
    AD,D3      D1

* I/O CALS
    LW,D2      J:CALCNT     GET NUMBER OF I/O CALS
    MW,D1      3,R6
    AD,D3      D1

* ELAPSED TIME
    PLW,D2     TELSTACK     LOAD ELAPSED TIME
* TOTAL NUMBER OF I/O OPERATIONS
    LI,D1      X:FFFF1
    AND,D1     J:JIT+TPACCESS
    LI,D2      X:FFFF1
    AND,D2     J:JIT+DCACCESS
    AW,D1      D2
    LI,D2      X:FFFF1
    AND,D2     J:JIT+DPACCESS
    AW,D1      D2
    LW,D2      D1
    MW,D1      4,R6
    AD,D3      D1      CHARGES IN PENNIES

* TAPES
    
```



00000000  
 4064  
 4065  
 4066 02 00A88 22D00000 A  
 4067 02 00A89 22500000 N  
 4068 02 00A8A 720A0000 A  
 4069 02 00A8B 30D00000 A  
 4070 02 00A8C 22500000 N  
 4071 02 00A8D 720A0000 A  
 4072 02 00A8E 30D00000 A  
 4073 02 00A8F 37CC0005 A  
 4074 02 00A90 10E0000C A  
 4075 02 00A91 32000000 F  
 4076 02 00A92 2500006F A  
 4077 02 00A93 32D00000 F  
 4078 02 00A94 25D0006F A  
 4079 02 00A95 30D00000 A  
 4080 02 00A96 32000000 X  
 4081 02 00A97 2500006F A  
 4082 02 00A98 30D00000 A  
 4083 02 00A99 32000000 F  
 4084 02 00A9A 2500006F A  
 4085 02 00A9B 30D00000 A  
 4086 02 00A9C 32000000 F  
 4087 02 00A9D 2500006F A  
 4088 02 00A9E 30D00000 A  
 4089 02 00A9F 37CC0007 A  
 4090 02 00AA0 10E0000C A  
 4091 02 00AA1 36E00011 N  
 4092 02 00AA2 32C0000F A  
 4093 02 00AA3 6AB00979  
 4094 02 00AA4 6AB00AE1  
 4095 02 00AA5 32700008 A  
 4096 02 00AA6 35CE000D A  
 4097 02 00AA7 35DE000E A  
 4098  
 4099  
 4100

Z4

CHARGES

\*  
\*  
\*

FQU 0  
 REF,1 JB:TMTS,JB:PMTS  
 LI,D2 0  
 LI,R5 JB:TMTS+Z4  
 LB,R0 0,R5  
 AW,D2 R0  
 LI,R5 JB:PMTS+Z4  
 LB,R0 0,R5  
 AW,D2 R0  
 MW,D1 5,R6  
 AD,D3 D1  
 LW,R0 CPB+J;JIT  
 SLS,R0 -17  
 LW,D2 CPB+J;JIT  
 SLS,D2 -17  
 AW,D2 R0  
 LW,R0 J:CPPB  
 SLS,R0 -17  
 AW,D2 R0  
 LW,R0 CUPB+J;JIT  
 SLS,R0 -17  
 AW,D2 R0  
 LW,R0 CDPB+J;JIT  
 SLS,R0 -17  
 AW,D2 R0  
 MW,D1 7,R6  
 AD,D3 D1  
 DW,D3 TENTHOU  
 LW,D1 D4  
 BAL,SR4 BINDCB  
 BAL,SR4 ZER0BK  
 LW,R7 SR1  
 STW,D1 13,R7  
 STW,D2 14,R7  
 GET TOTAL CPU TIME

SUB-ROUTINES

TAPES MOUNTED

PACKS MOUNTED

GET CARD INPUT COUNT  
 SHIFT TO RIGHT,JUSTIFY THE COUNT  
 GET CARD PUNCH OUT COUNT  
 SHIFT TO RIGHT,JUSTIFY THE COUNT  
 ADD CD INPUT COUNT TO PUNCHOUT COUNT  
 GET PROCESSOR PAGES OUT COUNT  
 SHIFT TO RIGHT,JUSTIFY THE COUNT  
 ADD CURRENT PROCESSOR PGS OUT TO TOT  
 GET CURRENT USER PAGES OUT COUNT  
 SHIFT TO RIGHT,JUSTIFY THE COUNT  
 ADD RESULT TO TOTAL  
 GET DIAGNOSTIC PAGES OUT COUNT  
 SHIFT TO RIGHT,JUSTIFY THE COUNT  
 ADD COUNT TO TOTAL

CHG UNITS IN PENNIES,  
 CONVERT CHG UNITS TO EBCDIC  
 CONVERT LEADING ZEROS TO BLANKS

PUT CHRQ UNITS IN MSGE BUFFER IN  
 LOGON=PRINT OUT LATER FOR ON LINE.

H01 18136 SEP 08, 1975

SUB-ROUTINES

198

4101	02	00AAB	32C00000	X	LW,D1	J:UTIME	GET TOT USER EXECU TIME FOR CURR JOB
4102	02	00AA9	30C00001	N	AW,D1	J:UTIME+1	ADD TOT USER EXECU TIME TO TOTAL
4103	02	00AAA	30C00000	X	AW,D1	J:PTIME	ADD TOT PROCESS EXEC TIME TO TOT
4104	02	00AAB	30C00001	N	AW,D1	J:PTIME+1	ADD PROCESSOR OH TIME TO OTHER TOTAL
4105	02	00AAC	56C00B30		DH,D1	=X'00030000'	CONVERTS TICS TO MINUTES
4106	02	00AAD	6AB00979		BAL,SR4	BINDCB	CONVERT TIME TO EBCDIC
4107	02	00AAE	25C00008	A	SLS,D1	8	
4108	02	00AAF	20C0004B	A	AI,D1	1,1	
4109	02	00AB0	6AB00AE1		BAL,SR4	ZFR0BK	CONVERT LEADING ZEROS TO BLANKS
4110	02	00AB1	32700008	A	LW,R7	SR1	
4111	02	00AB2	02200020	A	LCI	2	MOVE TO MESSAGE AREA
4112	02	00AB3	2BC00002	A	STM,D1	2,R7	
4113					*		
4114					*	GET CONSOLE INTERACTIONS	
4115					*		
4116	02	00AB4	22C1FFFF	A	LI,D1	X'1FFFF'	
4117	02	00AB5	4BC00000	X	AND,D1	J:INTER	STRIP OFF 1ST-1/2 WD=NB, INTERACTION
4118	02	00AB6	6AB00979		BAL,SR4	BINDCB	CONVERT THE NUMBER TO BCD
4119	02	00AB7	6AB00AE1		BAL,SR4	ZFR0BK	CONVERT LEADING ZEROS TO BLANKS
4120	02	00AB8	32700008	A	LW,R7	SR1	
4121	02	00AB9	35DE000A	A	STW,D2	10,R7	PUT NB, INTERACT. IN ON-LINE MSGE
4122					*		
4123					*	FORMAT MESSAGE FOR BUTPUT	
4124					*		
4125	02	00ABA	32400100	N	LW,R4	TELSTACK	GET ADDRESS OF OUTPUT BUFFER
4126	02	00ABB	2040004E	A	AI,R4	78	
4127	02	00ABC	32500008	A	LW,R5	SR1	GET ADDRESS OF TEXT TO BE OUTPUT
4128	02	00ABD	2230003C	A	LI,R3	60	LOAD MESSAGE SIZE
4129	02	00ABE	22100000	A	LI,R1	0	LOAD POINTER TO PROCURING AREA
4130	02	00ABF	22200000	A	LI,R2	0	LOAD POINTER TO STORAGE AREA
4131	02	00AC0	68000AC3		B	HXX	
4132	02	00AC1	21C00040	A	CI,D1	1,1	
4133	02	00AC2	68300ACA		BE	HXXB	
4134	02	00AC3	F2C20005	A	LB,D1	*R5,R1	PICKUP TEXT BYTE
4135	02	00AC4	F5C40004	A	STB,D1	*R4,R2	STORE INTO BUFFER OUTPUT AREA
4136	02	00AC5	20200001	A	AI,R2	1	COUNT
4137	02	00AC6	20100001	A	AI,R1	1	

H01 18136 SEP 08, '75

SUB-ROUTINES

4138	02	00AC7	64300AC1	BDR,R3	HXXL	
4139	02	00AC8	04100B0A	CAL1,1	TYPE	
4140	02	00AC9	68000ACE	B	DBNE	
4141	02	00ACA		HXXB	RES	0
4142	02	00ACA	F2C20005 A	LB,D1	*R5,R1	FINISHED WITH ROUTINE
4143	02	00ACB	21C00040 A	CI,D1	' '	NEXT
4144	02	00ACC	69300AC4	BNE	HXXC	
4145	02	00ACD	68000AC6	B	HXXU	NO
4146	02	00ACE		DBNE	RES	YES
4147						DBNE WHEN WE GET HERE
4148				*		
4149				*****END OF ROUTINE*****		
4150	02	00ACE	08200100 N	PLW,R2	TFLSTACK	
4151	02	00ACF	E8000002 A	B	*R2	RETURN

PAGE

\* THE TIMEVERT SUB-ROUTINE PULLS THE HOUR/MINUTE TIME FROM TIMBUF AND  
 \* CONVERTS IT INTO A BINARY, MINUTES FROM MIDNIGHT REPRESENTATION, AND  
 \* STORES THE RESULT IN JIT.  
 \* ENTER WITH BAL,SR4. TIMBUF MUST HAVE HAD A M:TIME DONE INTO IT.  
 \*

\* IF SECFLAG SET, SR2 MUST CONTAIN DATA FROM M:TIME

4152							
4153							
4154							
4155							
4156							
4157							
4158							
4159	02	00AD0		TIMEVERT	RES	0	
4160		00000001			D8	F8RSEC=0	
4161	02	00AD0	B2C00001 A		LW,D1	*R1	
4162	02	00AD1	2230000C A		LI,R3	12	
4163	02	00AD2	22200002 A		LI,R2	2	
4164	02	00AD3	6AA00B0E		BAL,SR3	DECBIN10	
4165	02	00AD4	35400003 A		STW,R4	R3	MICKEY MOUSE FOR MI INSTRUCTION
4166	02	00AD5	2330003C A		MI,R3	60	CONVERT HOURS TO MINUTES
4167	02	00AD6	09300100 N		PSW,R3	TELSTACK	SAVE RESULTS
4168	02	00AD7	B2C00001 A		LW,D1	*R1	AND GET MINUTES VALUE
4169	02	00AD8	20100001 A		AI,R1	1	
4170	02	00AD9	B2D00001 A		LW,D2	*R1	
4171	02	00ADA	25C00118 A		SLD,D1	24	
4172	02	00ADB	2230000C A		LI,R3	12	
4173	02	00ADC	22200002 A		LI,R2	2	
4174	02	00ADD	6AA00B0E		BAL,SR3	DECBIN10	
4175	02	00ADE	08D00100 N		PLW,D2	TELSTACK	
4176	02	00ADF	30D00004 A		AW,D2	R4	CURRENT TIME TO D2
4177	02	00AEO	E800000B A		B	*SR4	
4178					ELSE		
4179			*S*		LB,R3	SR2	GET HRS
4180			*S*		MI,R3	60*60	HRS => SECS
4181			*S*		STW,R3	D2	ACCRUE IN D2
4182			*S*		SLS,SR2	8	SHIFT IN MINS
4183			*S*		LB,R3	SR2	
4184			*S*		MI,R3	60	GET MINS => SECS
4185			*S*		AW,D2	R3	ACCRUE
4186			*S*		SLS,SR2	8	SHIFT IN SECS
4187			*S*		LB,R3	SR2	GET SECS
4188			*S*		AW,D2	R3	

4189			*S*	B	*SR4	RETURN
4190				FIN		
4191			*			
4192			*	CHANGE	LEAD ZEROS INTO	BLANKS
4193			*	D1=D2	= DCB	ALSO ANSWER
4194			*	D4,R1	USED	
4195			*			
4196	02 00AE1	221FFFF8 A	ZER0BK	LI,R1	=8	CHARACTER COUNT AND BYTE POINTER
4197	02 00AE2	72F2000E A	ZER0BK1	LB,D4	D1+2,R1	GET NEXT CHARACTER FROM LEFT
4198	02 00AE3	21F000F0 A		CI,D4	'0'	IS IT A ZERO
4199	02 00AE4	E930000B A		BNE	*SR4	IF NOT, EXIT
4200	02 00AE5	22F00040 A		LI,D4	' '	IF IT IS, SUBSTITUTE A SPACE
4201	02 00AE6	75F2000E A		STB,D4	D1+2,R1	
4202	02 00AE7	211FFFFE A		CI,R1	=2	DON'T CONVERT LAST ZERO
4203	02 00AE8	E830000B A		BE	*SR4	
4204	02 00AE9	65100AE2		BIR,R1	ZER0BK1	
4205	02 00AEA	E800000B A		B	*SR4	

PAGE

4206							
4207				*			
4208				* PLIST TO OBTAIN DATE/TIME			
4209				*			
4210	02 00AEB	90000001 A	TIMER	GEN,8,1,23	X'90',F8RSEC,R1		
4211			*				
4212			*	COME HERE ON OPEN OR READ ERROR OF RATE FILE			
4213			*				
4214	02 00AEC	04100B08	MIRATER	CAL1,1	CRATE	CLOSE IT UP	
4215	02 00AED		RATEERR	RES	0		
4216	02 00AED	25C00140 A		SLD,D1	*64	ZERO CHARGE UNITS DESTINATION	
4217	02 00AEE	08800100 N		PLW,SR1	TELSTACK		
4218	02 00AEF	32800100 N		LW,SR1	TELSTACK	CALCULATE ADDRESS OF	
4219	02 00AFO	20800006 A		AI,SR1	6	TEST AREA	
4220	02 00AF1	68000AA3		B	CHARGES	CONTINUE PROCESSING	

PAGE

RATE FILE PARAMETER LISTS

```

4221
4222
4223
4224
4225 02 00AF2          *
4226 02 00AF2          *   BRATE
4227 02 00AF3          *   RES          0
4228 02 00AF4          *   GEN,8,24 X'14',M:XX   OPEN RATE FILE
4229 02 00AF5          *   DATA      X'CF400009' P1,P2,P5,P6,P7,P8,P10,F9,F12
4230 02 00AF6          *   DATA      RATEERR   ERROR RETURN ADDRESS
4231 02 00AF7          *   DATA      RATEERR   ABNORMAL RETURN ADDRESS
4232 02 00AF8          *   DATA      10        RECOVERY TRIES
4233 02 00AF9          *   DATA      1         CONSECUTIVE
4234 02 00AFA          *   DATA      1         SEQUENTIAL ACCESS
4235 02 00AFB          *   DATA      1         INPUT MODE
4236 02 00AFC          *   DATA      2         SAVE
4237 02 00AFD          *   DATA      X'01000202' FILE NAME
4238 02 00AFE          *   TEXT       !:RATE!
4239 02 00B00          *
4240 02 00B01          *   RRATE
4241 02 00B01          *   RES          0
4242 02 00B02          *   GEN,8,24 X'10',M:XX   READ RATE FILE
4243 02 00B03          *   DATA      X'F4000000' P1,P2,P3,P4,P6
4244 02 00B04          *   DATA      M1RATER   ERROR AD
4245 02 00B05          *   DATA      M1RATER   ABN AD
4246 02 00B06          *   GEN,1,31  1,R6     BUFFER AREA
4247 02 00B07          *   DATA      288     MAXIMUM SIZE
4248
4249
4250
4251 02 00B08          *   CRATE
4252 02 00B08          *   RES          0
4253 02 00B09          *   GEN,8,24 X'15',M:XX   CLOSE RATE FILE
4254
4255

```

TYPE ON USER'S TERMINAL

H01 18:36 SEP 08, 1975

SUB-ROUTINES

204

4256  
4257 02 00B0A 11000000 N  
4258 02 00B0B 30000000 A  
4259 02 00B0C 80000004 A  
4260 02 00B0D 80000002 A

\*  
TYPE

GEN,8,24 X'111',M1UC  
DATA X'30000000'  
GEN,1,31 1,R4  
GEN,1,31 1,R2

WRITE TO USER'S TERMINAL  
P3,P4  
BUFFER MESSAGE  
BUFFER SIZE IN R2



```

4261
4262
4263
4264
4265
4266
4267
4268
4269 02 00B0E
4270 02 00B0E 22400000 A
4271 02 00B0F 22500000 A
4272 02 00B10
4273 02 00B10 F2680003 A
4274 02 00B11 206FFF10 A
4275 02 00B12 2350000A A
4276 02 00B13 69400B1A
4277 02 00B14 30500006 A
4278 02 00B15 20400001 A
4279 02 00B16 64200B10
4280 02 00B17 35500004 A
4281 02 00B18 02200000 A
4282 02 00B19 E800000A A
4283 02 00B1A
4284 02 00B1A 02200080 A
4285 02 00B1B E800000A A
    
```

```

PAGE
* CONVERTS EBCDIC STRING TO BINARY
* R2 V NR. OF CHARACTERS
* R3 = WORD ADDRESS OF 1ST CHARACTER
* R4 = RESULT
* ENTER WITH BAL ON SR3
* CCI IS SET IF ANY ERRORS OCCURERS
*
DECBIN10 RES 0
          LI,R4 0
          LI,R5 0
DECBIN11 RES 0
          LB,R6 *R3,R4
          AI,R6 =X'F0' REMOVE LEADING 'F'
          MI,R5 10 MULTIPLY BY 10
          BCS,4 DECBIN21 CHK FOR ILLEGAL RESULTS
          AW,R5 R6
          AI,R4 1
          BDR,R2 DECBIN11
          STW,R5 R4
          LCI 0 SET CCI = 0 FOR GOOD RESULT
          B *SR3 EXIT
DECBIN21 RES 0
          LCI 8 SET CCU = 1 FOR BAD RESULT
          B *SR3
    
```

SUBROUTINES

ADDRESS	OPER	HEX	ASCII	CHAR	ROUTINE	PAGE	RES	OTHER	STATUS
4286									
4287	02	00B1C			TEXTJUNK				
4288	02	00B1C	15	A	CPU	DATA,1	X,15'		MESSAGE AREA
4289	02	00B1C	1 C3D7F4	A		DATA,3	'CPU'		
4290	02	00B1D	407E4040	A		TEXT	' # '		
4291	02	00B1E	40404040	A	CPUV	TEXT	' # '		FILLED
4292	02	00B1F	40404040	A		TEXT	' # '		FILLED
4293	02	00B20	4040C3D6	A		TEXT	' C@ '		
4294	02	00B21	D57E4040	A		TEXT	' N# '		
4295	02	00B22	40404040	A	CONV	TEXT	' # '		FILLED
4296	02	00B23	40404040	A		TEXT	' # '		FILLED
4297	02	00B24	40C9D5E3	A		TEXT	' INT'		
4298	02	00B25	407E4040	A		TEXT	' # '		
4299	02	00B26	40404040	A	INTV	TEXT	' # '		FILLED
4300	02	00B27	40C3C8C7	A		TEXT	' CHG'		
4301	02	00B28	407E4040	A		TEXT	' # '		
4302	02	00B29	40404040	A	CHGV	TEXT	' # '		FILLED
4303	02	00B2A	40404040	A		TEXT	' # '		FILLED
4304	02	00B2B	00000000	A		DATA	0		END OF MESSAGE
4305		02 00C0U				END	TEL		
	02	00B2C	40404040	A					
	02	00B2D	40D6D540	A					
	02	00B2E	10000000	A					
	02	00B2F	0000003C	A					
	02	00B30	00030000	A					

CONTROL SECTION SUMMARY: 01 00000 PT 0 02 00B31 PT 1 03 00028 PT 1 04 00020 PT 1  
 05 00028 PT 1 06 0003A PT 1

## \* SYMBOL VALUES

ABNRF/02 00943	ABRTN/02 00684	ANSRRC/00000000	ARS/00000004 S
ASSEMBLE/02 0080E	ATBZ/02 0065C	A1/02 0013B	BACKUP/02 0065E
BASIC/02 00744	BATCH/02 0073A	BATCH2/02 0070B	BINA/02 0097B
BINDCB/02 00979	BITS/00000001	BKMSG/02 00755	BKOPT/02 00837
BKOPT0/02 00833	BKUPCAL/02 007E1	BKUPKEY/02 007DF	BLANKBUF/02 009D2
BREAKER/02 00823	BUFCBM/02 00A23	BUFIN/02 00016	BUILD/02 00237
BUILDA/06 00008	CANCEL/02 009EF	CANCL/02 00A1A	CARRETRN/02 0071C
CCBUFTL/02 00A2C	CHARGES/02 00AA3	CHAROK/02 008C8	CHAROK5/02 008CE
CHGV/02 00B29	CHKBUF1/02 00A37	CHKULM/02 00231	CHNGERR/02 004CD
CHNGTYPE/02 00448	CMNDSET/02 0023F	CNCLMSG/02 00A14	CNCL10/02 009FF
CNCL20/02 00A0E	CNCL30/02 00A16	CNCL9/02 009FD	COCMLBPP/02 004FE
COCRFF/02 00546	COCBN/02 00545	COCPR/02 00510	COCSTAT/02 004D0
COCSTATC/02 00517	COCSTAT0/02 004F3	COCSTAT1/02 004F4	COCSTAT2/02 004F6
COMMA/02 00458	COMMENT/02 0025A	COMPILE/02 00811	CONCAT/02 00841
CONCATA/02 00843	CONCATB/02 0084B	CONCATE/02 00853	CONCATN/02 0084D
CONTINU/02 009AU	CONTINUE/02 002E6	CONTINX/02 002EB	CONV/02 00822
CONVBIN/02 005E9	COUPLE/02 0058C	COUPLE1/02 00593	COUPLE2/02 00599
COUPLE3/02 005A6	COUPLE5/02 005B1	CPLCMN/02 00596	CPLMSG/02 00568
CPU/02 00B1C	CPLV/02 00B1E	CRATE/02 00B08	CTFPT/02 007F3
C1C6/02 00728	DBITS1/04 0001D	DBITS2/04 0001F	DBIT1/LIST
DBIT2/0500084C	DBL10/02 000AF	DEBUG/00000000	DCBPRRC/00000000
DCMPRS/02 0082D	DEBUG/02 00249	DEBUG1/02 00253	DEBUG2/02 00256
DECBIN1/02 00987	DECBIN10/02 00B0E	DECBIN11/02 00B10	DECBIN21/02 00B1A
DECOUPLE/02 00587	DELTA/02 00736	DELTAOK/02 002F8	DELTASET/02 002F2
DELTA1/02 00734	DISCBPRRC/00000000	DISPFPT/02 005FA	DISPLAY/02 005BC
DISPSW/02 006FF	DNTSEND/02 0061B	DBBLT/02 00205	DBLL/02 00711
D0L0/02 001D1	D0L01/02 001DF	DBME/02 00159	DBME1/02 0015D
DBME2/02 00161	DBNE/02 00ACE	DBNT/02 0025E	DBNTOK/02 000C4
DBBN/02 00168	DBBVER/02 0016A	DBBVER1/02 0016D	DOUBLE1/02 000A8
DSWLBP/02 00703	D1/0000000C	D2/0000000D	D3/0000000E
D4/0000000F	EDIT/02 00738	EDITA/02 0072A	EDITO/02 0023B
EHMSG/02 0071D	ENTPRG/02 0012A	ERASE/02 0057D	ERASFPT/02 007E9
ERBIN/02 009A6	ERRABN1/02 00924	ETMFGT/02 005FE	EXTDGB/02 001C5
EXTEND/02 00581	FDP/02 0072F	FDPSET/02 002EE	FDP1/02 00730
FIDFR/02 00816	FID0/02 009BA	FID2/02 009BE	FID3/02 009C3
FID4/02 009C8	FLAGS/02 0071F	FLBPPBITS/02 00724	F0RSEC/00000000

18:36 SEP 08, 175

FBRTRAN/02 00740  
 GC8MNP6/02 007D1  
 GETSB1/02 00005  
 GIVFMEH/02 006B1  
 GR8UP2B/02 000CU  
 GRPEXT2/02 000E6  
 HEX2FSKP/02 00969  
 HXXL/02 00AC1  
 ITS8K/02 00071  
 J8B/02 00695  
 JRUNNG/02 006B7  
 LINK/02 0073C  
 LIST2/02 0028C  
 LLINFS/02 0075A  
 L8BLT/02 001E8  
 L8ME/02 00210  
 L8BP1/02 008AD  
 LSTAT/06 0001C  
 MAXMSG/0000008C  
 ME/02 00713  
 MESSAGE1/02 00632  
 MESSAGE5/02 00654  
 MM1/02 00549  
 MM5/02 00559  
 M8DECW/02 0053B  
 MSGMFSS/02 0064A  
 MULJ8B/02 006C6  
 M11/0000000B S  
 M15/0000000F S  
 M19/00000013 S  
 M22/00000016 S  
 M26/0000001A S  
 M3/00000003 S  
 M4/00000004 S  
 M8/00000008 S  
 NBIT30/EXT  
 NLSAVE/00000102 S

F8UNDP/02 004A7  
 GETACPAS/02 0048E  
 GETSW/02 006E0  
 G8TUSR8/02 00865  
 GR8UP2C/02 000D2  
 HEX2BIN/02 00995  
 HXX/02 00AC3  
 HXXU/02 00AC6  
 ITS8K10/02 00078  
 J8BCAL/02 007E7  
 JWAIT28T/02 006C4  
 LIST/02 00269  
 LIST3/02 00286  
 LMNCMD/02 00095  
 L8FINS/02 001FD  
 L8ME3/02 00222  
 L8BP5/02 008AA  
 MAPFAIL/02 00959  
 MCPLD/02 00574  
 MEANQT/02 00601  
 MESSAGE2/02 00636  
 METASYM/02 0073E  
 MM2/02 0054D  
 MM6/02 0055D  
 M8NPR8C/00000000  
 MSRCP/02 0056C  
 M1/00000001 S  
 M12/0000000C S  
 M16/00000010 S  
 M2/00000002 S  
 M23/00000017 S  
 M27/0000001B S  
 M30/0000001E S  
 M5/00000005 S  
 M9/00000009 S  
 NEXTTIME/02 00079  
 N8/02 00715

## SUB-ROUTINES

FRBFXT/02 00A36  
 GETID/02 007F2  
 GETSWX/02 006F6  
 GR8UP2/02 000C8  
 GRPEXT/02 000DD  
 HEX2EBC1/02 00966  
 HXXB/02 00ACA  
 INBREAK/02 0010D  
 JCMPLT/02 006B5  
 J8BMSG/02 006BA  
 JWAIT2RN/02 006BC  
 LISTC8M/02 0026C  
 LIST4/02 0028B  
 LMNCMD10/02 0009A  
 L8G8FF/02 00742  
 L8MG8/02 001EE  
 L8SETUP/02 001F7  
 MAPIT/02 007F6  
 MCTCPL/02 007EF  
 MESSAGE/02 0062E  
 MESSAGE3/02 00649  
 MGS1/02 00147  
 MM3/02 00552  
 MM7/02 00560  
 MPBITS/00000000  
 MUCRSET/FFFD7ECF  
 M1RATER/02 00AEC  
 M13/0000000D S  
 M17/00000011 S  
 M20/00000014 S  
 M24/00000018 S  
 M28/0000001C S  
 M31/0000001F S  
 M6/00000006 S  
 NAME8/02 009A8  
 NFND1/02 00896  
 N8C8CM/02 0050C

GASP/02 003EA  
 GETPG/02 007D2  
 GIVEBIRD/02 00262  
 GR8UP2A/02 000C9  
 GRPEXT1/02 000DF  
 HEX2EBC2/02 00972  
 HXXC/02 00AC4  
 INTV/02 00B26  
 JDNTEXT/02 006B9  
 J8B2/02 006A6  
 LAS/02 0020B  
 LIST1/02 0027C  
 LIST5/02 00289  
 LMSG/02 00720  
 L8G8SIZE/EXT  
 L8BP/02 008A9  
 LP/02 00714  
 MAPPER/02 0094F  
 MDCPL/02 007EE  
 MESSAGE0/02 0061F  
 MESSAGE4/02 0064C  
 MM0/02 00547  
 MM4/02 00555  
 MM8/02 00564  
 MSACP/02 00570  
 MULID8/02 00A09  
 M10/0000000A S  
 M14/0000000E S  
 M18/00000012 S  
 M21/00000015 S  
 M25/00000019 S  
 M29/0000001D S  
 M32/00000020 S  
 M7/00000007 S  
 NAMEVLP/02 00725  
 NFND2/02 0089C  
 N8DEL/02 00103

N8DRNT/02 000C5  
 N8MSG/02 0003F  
 8PEN1/02 0068C  
 8PUSR/02 007A6  
 PAGE/02 0043D  
 PARSF/02 00126  
 PCL/02 0072C  
 PIDGMSG/02 0003U  
 PLATFN3/02 00477  
 PRMPT50/02 00067  
 RIUERR/02 0086C  
 RD:USERS/02 0083D  
 RFE/02 00890  
 R8MDFV1/02 001AB  
 RUN/02 0081U  
 R1/00000001  
 R5/00000005  
 SCAN2/02 008A3  
 SCNVFRB/02 00829  
 SEND/02 00616  
 SETUP/02 00014  
 SHFT20/02 009ED  
 SIZER/02 00692  
 SIZETERM/0000000B  
 SRCHTAB1/02 0049F  
 SR4/0000000B  
 START1A/02 00297  
 START5/02 002C8  
 START75/02 002B8  
 STATUSL/02 00A3L  
 SUA60/02 0071B  
 SWRSFT/02 006DC  
 SYSACT/02 007CF  
 TABSA/02 003FD  
 TABS4/02 00422  
 TELCCBUF/02 00A21  
 TERMS/02 008DC

N8EGG/02 00043  
 N8NE/02 0075D  
 8PERR/02 00341  
 8RATE/02 00AF2  
 PARENC/02 008D5  
 PARSER/02 0012D  
 PCLCALL/02 00814  
 PLATEN/02 00448  
 PLATEN4/02 0047D  
 PR8MPTA/02 00049  
 RADPLUS/02 005E7  
 RDERT/02 00690  
 R8M8BLT/02 00181  
 R8M88/02 00194  
 RWUSR/02 0079E  
 R2/00000002  
 R6/00000006  
 SCN/02 00997  
 SCRAMBLE/02 00342  
 SENDCMN/02 0061C  
 SHFTBUF/02 009D7  
 SHFT30/02 009EE  
 SIZETAB1/0000000C  
 SIZVERB1/00000027  
 SR1/00000008  
 STACK0/0000015B S  
 START2/02 002A0  
 START6/02 002CD  
 START8/02 002D5  
 STKINIT/02 00710  
 SWGKEY/02 006D0  
 SWSET/02 006DA  
 S69PR8C/00000001  
 TABS1/02 00414  
 TABS5/02 00426  
 TENTH8U/00000011 S  
 TERMTAB1/02 007F9

SUB-ROUTINES

N8FDP/02 000FF  
 N8PTAB/02 00266  
 8PRSF/02 00170  
 8UTCARR/02 00612  
 PAREN8/02 008D3  
 PASSCLUP/02 00335  
 PGDR8P/02 007D3  
 PLATEN1/02 00469  
 PRINT/02 00579  
 PR8MPT0/02 0002A  
 RADSQT/02 00608  
 READ/02 00794  
 R8M8BLT1/02 0018A  
 R8M881/02 00199  
 RWUSR8Z/00000006  
 R3/00000003  
 R7/00000007  
 SCNPTRSV/0000011A S  
 SCRAMBLX/02 0034D  
 SENDCNCL/02 00A1E  
 SHFT05/02 009E7  
 SH8W/02 00350  
 SIZETAB2/0000000F  
 SIZVERB2/0000001C  
 SR2/00000009  
 START/02 0028F  
 START3/02 002BD  
 START7/02 002B2  
 START9/02 002DD  
 STL88P/02 0067A  
 SWITCH/02 006CB  
 SYN3/02 0090F  
 TABPL/02 007B8  
 TABS2/02 0041C  
 TABS6/02 0042B  
 TERMERR/02 0083B  
 TERMTAB2/02 00806

N8LINE/02 005B5  
 8PENBKUP/02 0078F  
 8PTAB/02 00264  
 8UTPUT/02 00258  
 PARMSG/02 00750  
 PASSWORD/02 0030B  
 PIDGFLG/00000018 S  
 PLATEN2/02 00473  
 PRMPT20/02 00062  
 QUIT/02 00119  
 RATEERR/02 00AED  
 READBKUP/02 007D4  
 R8MDEV/02 0019E  
 RRATE/02 00B01  
 R0/00000000  
 R4/00000004  
 SCANCVT/02 00083  
 SCNV8SIZ/02 00827  
 SECAC/02 00783  
 SENDMES/02 007E4  
 SHFT10/02 009E9  
 SH8WXX/02 0036A  
 SIZETAB3/0000000F  
 SPCASP/02 000B0  
 SR3/0000000A  
 STARTFRR/02 00831  
 START4/02 002C4  
 START70/02 002B0  
 STATUS/02 0060E  
 ST8PS/02 008DF  
 SW8NE/02 00707  
 SYS/02 00712  
 TABS/02 003F0  
 TABS3/02 00435  
 TABS7/02 00432  
 TERMINAL/02 00493  
 TERMTAB3/02 0080A

18:36 SEP 08, 1975

TERMTST/02 008BB  
 TESTSI/02 0013C  
 TIMFR/02 00AEB  
 TM:LB/02 0074C  
 TSTAKSZ/000000A4  
 TTYP2/02 00524  
 TTYP6/02 00531  
 TX1/02 00719  
 UNDER/02 00732  
 VECT/02 000B4  
 VECTORS/02 0082B  
 WHEREF1/02 0038C  
 WHERR/02 003D5  
 WHREAD/02 003BE  
 WRITERC/02 007DA  
 XEXIT/02 00103  
 X100/00000009 S  
 X200/0000000A S  
 X400/0000000B S  
 X800/0000000C S  
 YEXIT/02 0010B  
 Y000R/00000014 S  
 Y00R/00000018 S  
 Y0R/0000001C S  
 YR/00000020 S  
 1DAY/0000005A0

## \* EXTERNAL DEFINITIONS

AMBUF/EXT  
 CLEANSTACK/02 0090F  
 CPXUSR/0000001C S  
 DONTBIT/0000100U  
 FDPBIT/00000100  
 FLBP/02 0086F  
 FOF9/02 00726  
 INBREAK1/02 00115  
 MITEL/00000133 S  
 NFND/02 00891

TERMTST1/02 008BE  
 TESTSI1/02 0013F  
 TIMEVERT/02 00AD0  
 T0PPARSE/02 0012E  
 TTYPTAB/02 00518  
 TTYP3/02 00526  
 TTYP7/02 00536  
 TYPE/02 00B0A  
 UNMAPPER/02 0095C  
 VECTAB1/02 0008C  
 VECTOR1/03 00000  
 WHERE2/02 00391  
 WHERR1/02 003E4  
 WHSC/02 003A8  
 WRITOUT/02 0067F  
 XSHOW/02 00746  
 X1000/0000000D S  
 X2000/0000000E S  
 X4000/0000000F S  
 X8000/00000010 S  
 Y0001/00000011 S  
 Y001/00000015 S  
 Y01/00000019 S  
 Y1/0000001D S  
 ZER0BK/02 00AE1  
 \$R0M/02 001BB

BINDECBCD/02 00979  
 CMNERR1/02 0070E  
 DCBTAB2/0000012D S  
 EXLYBIT/0000001B S  
 FEXTIMG/00000103 S  
 FLBPBUF/0000011B S  
 GETFIELD/02 0048A  
 IGUIT/00000013 S  
 MITELSIZ/0000002R  
 NTJBST/02 0082F

## SUBROUTINES

TERMTYPE/02 00513  
 TESTSI2/02 00142  
 TM:DB/02 0074E  
 TP/02 002FC  
 TTYP0/02 00520  
 TTYP4/02 00529  
 TXALL/02 0071A  
 UDELT/02 00244  
 USERSQT/02 005FB  
 VECTAB2/02 0008D  
 VECTOR2/04 00000  
 WHERE3/02 0039A  
 WHM/02 003DF  
 WIDTH/02 00757  
 WUSR/02 007A4  
 X1/00000001 S  
 X2/00000002 S  
 X4/00000003 S  
 X8/00000004 S  
 YBLK/02 008B7  
 Y0002/00000012 S  
 Y002/00000016 S  
 Y02/0000001A S  
 Y2/0000001E S  
 ZER0BK1/02 00AE2

BRKBIT/00000002  
 C0MFLG/00000400  
 DECBIN/02 00982  
 EXPNDSZ/00000105 S  
 FID/02 009AD  
 FPFPT/02 007ED  
 GPFPT/02 007EC  
 JSTEP/00000001  
 MSGEBIT/00020000  
 0N/02 00716

TESTERM/02 0014A  
 TEXTJUNK/02 00B1C  
 TM:GB/02 0074A  
 TPFLG/0000001D S  
 TTYP1/02 00522  
 TTYP5/02 0052D  
 TX0/02 00718  
 UFLAGS/00000000  
 UTSPR0C/00000000  
 VECT010/02 000C7  
 WHERE/02 0036E  
 WHERE4/02 003B7  
 WH0PEN/02 003C4  
 WR:USFRS/02 00329  
 XAB0RT/02 00117  
 X10/00000005 S  
 X20/00000006 S  
 X40/00000007 S  
 X80/00000008 S  
 YESFUP/02 000FD  
 Y0004/00000013 S  
 Y004/00000017 S  
 Y04/0000001B S  
 Y4/0000001F S  
 Z4/00000000

CCBUFBIT/00002000  
 CPXEND/02 00046  
 DELTABIT/00000080  
 EXTNDBIT/00000016 S  
 FIPR0C/00008000  
 FREEBUF1/02 00A2F  
 HEX2EBC/02 00961  
 L0FLG/00000800  
 MSTRMADE/02 007F8  
 0NBIT/00000020

H01 18:36 SEP 08, 1975

BNERR/02 001C9  
BVERBIT/00000040  
PR0MPTF/02 0004E  
SETBUF/EXT  
SIN0REL/00000008  
SYN1/02 00903  
TELBUF/00000106 S  
UNKLMN/00000015 S  
WRITE/02 00790

OPENBIT/00000016 S  
PATCH/02 0075E  
RETN/02 00723  
SETBUFE/000000FF S  
S1SET/00000010  
SYSERR/02 00913  
TELSTACK/00000100 S  
VERB1/05 00000  
\$R0MFLG/00000200

SUBROUTINES

OPENME/02 0079A  
PHSFLG/00000004  
SCAN/02 008A0  
SETBUFSZ/000000FF  
STRTBIT/00004000  
SZCELL/00000104 S  
TMISI/02 00748  
VERB2/06 00000

OVER/02 00717  
PR0MPT/02 0001D  
SCAN#/02 008A2  
SETSTR/02 008EB  
SYNTAX/02 008F7  
TEL/02 00000  
UDELTFLG/00000014 S  
VERSCCELL/0000002B

211

\* PRIMARY REFERENCES

AM:BRG AM:STD0P  
C0CLN C0CMSS  
DPACCESS ECH0  
JIABC JIABUF  
JI:CPP0 JI:EXLY  
JI:PTIME JI:RNST  
JB:IFRS JB:IPPP  
JSBUF1VP JX:CMAP  
NAME 0X  
RCVPSD KEADAM  
SET SETFLE  
T\$ERRTXT T\$WRTERR  
:LOGSZ

ASSIGN  
CP0  
ER0  
JI:ACCN  
JI:EXTENT  
JI:START  
JB:PCW  
KILLMTFL  
PACC  
RESET  
SETNUMB  
TPACCESS

BLDMTEL  
CPXBREAK  
FILENT  
JI:AMR  
JI:INTER  
JI:TELFLGS  
JB:PMYS  
M:UC  
PLIST  
S:COUP  
SHILNM  
WRITEAM

BT31T00  
CPXREAD  
FMTCLCL  
JI:ASSIGN  
JI:JIT  
JI:UNAME  
JB:PRIV  
M:XX  
PPAS  
SAVE  
SS  
XA

CDP0  
CUP0  
FPMC  
JI:CALCNT  
JILMN  
JI:UTIME  
JB:TMYS  
MASKS  
PRDCRM  
SBUF1VPA  
SV:LSIZ  
XFFFD

CIC  
DCACCESS  
GET  
JI:CCBUF  
JI:0PT  
JB:CCARS  
JH:PC  
MODE  
PRDPRM  
SBUF2VPA  
T\$ERR  
:BIG

\* SECONDARY REFERENCES

SCRAM TTP

- \* NO UNDEFINED SYMBOLS
- \* ERROR SEVERITY LEVEL: 0
- \* NO ERROR LINES

