

ABNRET							
ABRTN	2626/GEN	2627/GEN	3553-SLS				
AF	2387-EQU	2689/DATA					
	312/LI	312/LI	313/MSP	322/D8	323/GEN	325/D8	326/GEN
	328/D8	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	655.1/8R	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			
AT8Z							
	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					
BLDMTEL	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			
CCBUFTL						
402/BAL	3892=LI					
CDPB						
201/REF	4086/LW					
CHARGES						
4093=BAL	4220/B					
CHARBK						
3366/BE	3371=CI					
CHARBK5						
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						

CHNGTYPE	1930/BCS	1933=BUMP					
CIC	1917/BNE	1929=CAL1					
CLEANSTACK	192/REF						
CMND	60/DEF	2345/LI	3486-RFS	3555/BE	3564/B	3779/LI	
CMNDSFT	336.10=CNAME						
CMNERR1	1115/B	1123/B	1124-EQU				
	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							
CNCL10	3844-LI	3856/B					
CNCL20	3813/B	3817-CI					
CNCL30	3832-EQU	3861/DATA					
CNCL9	3837/BNE	3847-EQU					
CBCLN	3814-EQU	3812/BL					
CBMESS	208/REF	1932/LW	1954/CB	2130/CB			
CBMML00P	198.1/REF	451.5/LI					
CBCOFF	1982-SLS	1992/BNEZ					
CBCON	1993/LI	2041-TEXT					
CBCPRT	1990/LI	2040-TEXT					
	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-EQU	2848.77/DCMND		
CBUPLF2	2099/BE	2106-CI		
CBUPLE3	2107/BG	2114-LI		
CBUPLE5	2122/BGE	2122-EQU		
CPLCMN	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-EQU		
CPXUSR	190.2/REF	451.22/BANZ		
CRATE	84.1/DEF	236.3-EQU	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							

	2089-EQU	2848.76/CMND				
DFLTA						
	669/CD	681/LD	710/CW	1372/LD	1373/LD	2590-TEXTC
DELTABIT						
	121/DEF	349-EQU	499/LI	678/LI	1279/LI	
DELTAOK						
	1366/BAZ	1371-EQU				
DELTASET						
	1356-RES	2848.70/CMND				
DELTA1						
	1276/CD	2589-TEXT				
DISPFPT						
	2161/CAL1	2226-RES				
DISPLAY						
	2159-RES	2848.43/CMND	2848.63/CMND			
DISPSW						
	2487.14/BLE	2487.71-EQU				
DNTSEND						
	2258.19/BANZ	2258.22-EQU				
DBBLT						
	1021/BNEZ	1046-EQU				
DALL						
	776/CW	858/CW	1004/CW	1292/CW	2542-TEXT	
DBL0						
	856/BANZ	989-EQU				
DBL01						
	991/BNE	1004-CW				
DAME						
	779/BE	825-LI				
DAME1						
	829-LCI	839/B				
DAME2						
	827/BEZ	833-LW				
DONE						
	1810/BNE	1823-EQU	3917/CLOSE			
DONE						
	3918/OPEN	4140/B	4146-RES			

D8NT	1171.1-EQU	2848.21/CMND				
D8NTBIT	126/DEF	354-EQU	587.4/LI	652/LI	1143/LI	1175/LI
	2090/LI	2097/LI	2258.17/LI			1227/LI
D8NT8K	587.15/BANZ	587.17-PULL				
D88N	781/BE	841-LI	1219/BF			
D88VER	783/BE	843-CI	1221/BF			
D88VER1	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				
ECH8	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							
	145/RF	3509/STS	3515/LW	3518.3/STS	3522.5/STS		
ERRABN1							
	393/BEZ	3500/BAZ	3512-EQU				
ETMFQT							
	2183/LM	2230-RES					
EXLYBIT							
	85/DEF	1365/CW	2550-EQU				
EXPNDSZ							
	98/DEF	262-EQU	263/EQU				
EXTDGB							
	849/BE	963-RES					
EXTEND							
	2073-EQU	2848.74/CMND					
EXTNDBIT							
	134/DEF	363-EQU	2084/LW				
FDP							
	667/CD	1350/LD	1351/LD	2585-TEXTC			
FDPBIT							
	122/DEF	350-EQU	671/LI	1285/LI			
FDPSET							
	1349-RES	2848.17/CMND					
FDP1							
	675/LD	1283/CD	2587-TEXT				
FEXTIMG							
	85.1/DEF	260.1-EQU	260.2/EQU	899.2/AND	899.3/STW	1028.2/AND	1028.3/STW
	1052.2/AND	1052.3/STW					
FID							
	63/DEF	537/BAL	1247/BAL	2332/BAL	2825/BAL	3709-LI	
FIDER							
	2825-BAL	3424/B					
FID8							
	3720-CI	3730/B					
FID2							
	3724-PULL	3738/B					
FID3							
	3713/BE	3718/BE	3727-LCI				

FID4							
FILENT	3721/BE	3731=PUSH					
FIPRBC	163/REF	801/BAL	899/BAL	1027/BAL	1052/BAL		
FLAGS	129/DEF	357=EQU	877/LI	1006/LI	2829/LI		
FLOB	493/AND	255R=DATA					
FLOBBITS	64/DEF	891/BAL	1016/BAL	2334/BAL	3251=PUSH		
FLOBBUF	2568=DATA	3254/LW					
FMTCLCL	86/DEF	265=EQU	266/EQU	2377/LM	3260/STM	3262/STW	3263/STW
FBRSEC	3269/STM	3272/STM	3276/STM	3278/CAL1			
FBRTRAN	206/REF	1464/BAL	1517/BAL	1561/BAL	1625.1/BAL	2333/BAL	2383/BAL
FBRUNDP	3810/BAL						
FPFPT	274=EQU	3944/DB1	3947/DB1	3955/DB	3962/DB	4160/DB	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					
GC0MNP	65/DEF	696/BAL	722/BAL	3902=EQU			
	88/DEF	2580=DATA	3674/CLM				
	1684/LI	168R=TEXT					

	1521/CAL1	2703-GEN					
GET							
	203/REF	2848.11/CMND	2848.53/CMND				
GETACPAS							
	785/BAL	1869-RES					
GETFIELD							
	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	
GETUSR0							
	3185/BE	3206-EQU					
GPFPT							
	89/DEF	378.9/CAL1	2751-GEN				
GROUPP							
	614-LW	1359/B	1375/B	1375.51/B	1532/B	2492/B	2817/B
	2820/B	2839/B					
GROUP2A							
	586/B	615-LW					
GROUP2B							
	546/B	619-EQU	1257/BLE				
GROUP2C							
	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-SFT	336.29/SET	336.30/SET	336.31/SET	
336.38/CLOSE						
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	530.1/CW
564.2/CW	1512.1/CW	3093.1/LW				
ITSOK						

ITSBK10	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	4044/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/CW
	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
	1228/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					
JOBICAL							
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	1208/LI	1223/LI	1335/LI	1510/LI	2080/LI	2487.10/LI	
3538/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	1052.1-LI	1095/B					
LD6	336.26/GEN 2848.35/CMND	336.27/ERR0R 2848.36/CMND	2848.9/CMND 2848.56/CMND	2848.10/CMND 2848.62/CMND	2848.15/CMND	2848.28/CMND	2848.33/CMND
LF	312-LI	323-GEN	326-GEN	329-LCI	331-LCI	336.20-TEXT	336.26-GEN
LINK	2593-TEXTC	2832/LD					
LIST	1190-LI	2848.14/DCMND					
LISTCOM	1159/B	1166/B	1197-CI				
LIST1	1198/BF	1223-LI					
LIST2	1227-LI	1232/B					
LIST3	1229/BNEZ	1233-LW					
LIST4	1226/BNEZ	1236.1-BAL					
LIST5	1231.1/B	1235.1-BAL					
LLINES	1857/LM	2610-TEXT					
LMNCMD	513/BG	516/BNE	530-EQU				
LMNCMD10	532/BANZ	536-EQU					
LMSG	1943/LM	2561-TEXT					
L0BLT	1002/BANZ	1012-LI					
L0FINS	906/B	967/B	1037-EQU	1059/B			
L0FLG	125/DEF	352-EQU	1039/LI	1215/LI			

LOGOFF	691/CD	1375.50/LD	2596-TFXTC	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
L0ME	996/BE	999/BE	1001/BE	1003/BE	1063=LI		
L0ME3	1065/BNEZ	1081=LW					
L0MG0	1015/BEZ	1019=LI					
L00P	3337=BDR 3385/BGEZ	3352/BEZ 3382/BE	3355/B	3363/BE	3370/B	3381/B	3383/B
L00P1	3337/BDR	3341=EQU					
L00P5	3338=PULL	3376/B	3390/B				
L0SETUP	1022-EQU	1080/B					
LP	875/CW	1000/CW	2545-TFXT				
LSTAT	1893/CW	2848.66=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			
MESSAGE5					
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		
M0DEFCW	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	2564.37/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	1176.2/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				

NBMMSG	451.8/BEZ	451.17=EGU					
NBNF	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			
BPCCDS	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	1848/BIR					
PLATEN4						
1846/BNE	1850-AI					
PLIST						
164/REF	803/STW					
PPAS						
166/REF	3264/LW					
PRDCRM						
195/REF	219R/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	1473/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	224R/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	73.1/DEF	457.1=EGU				
PROMPTO	420/BCR	427.4=EGU				
PULL	320=CNAME					
PUSH	319=CNAME					
QUIT	717/BANZ	722=LI	2848.18/CMND	2848.26/CMND	2848.27/CMND	2848.39/CMND
R:UERR	1452/B	3193/B	3202/B	3220=BUMP		
RADPLUS	2200/BGEZ	2204=RES				
RADSQT	2212/LM	2234=RES				
RATEERR	4215=RES	4222/DATA	4229/DATA			
RD:USERS	1392/BAL	1516/BAL	3139=EGU			
RDERT	2408=LI	2682/DATA	2715/DATA			
READ	453/CAL1	2624=GEN				
READAM	158/REF	632/BAL	764/BAL	1142.1/BAL	1217/BAL	1236.1/BAL
READBKUP	2368/CAL1	2713=GEN				3950/BAL
RESET	172/REF	2848.44/CMND	2848.55/CMND			
RETN	93.1/DEF	451.9/LI	451.30/LI	1985/LI	2567=DATA	
RFE	3255/LI	3256/LI	3282=B			
R0M\$BLT	875=CW	916/BNE	927/BNE			
R0M\$BLT1						

R0MDEV	879/BANZ	884=LW	959/B			
R0MDEV1	861/BNE	914=EGU				
R0MGB0	921/BE	925/BE	928=LI			
R0MGB01	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:COUP	336.6/OPEN	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			
	402=LI				
SH;LNM					
	172/REF	920/CH	995/CH		
SHFTBUF					
	1112/BAL	1120/BAL	3757=EGU		
SHFT05					
	3777/BLE	3782=EGU			
SHFT10					
	3785=EGU	3791/BDR			
SHFT20					
	3788/BDR	3790=BDR			
SHFT30					
	3790/BDR	3791=BDR			
SHOW					
	1509=EGU	2848.19/CMND			
SHOWXX					
	1522/BCS	1542=BUMP			
SINBRFL					
	117/DEF	345=EGU	635/LI	638/LI	3482/LI
SISSET					
	118/DEF	346=EGU	786/LI	825/LI	3479/LI
SIZER					
	2374/BG	2412=EGU			
SIZETAB1					
	1888/LI	2790=EGU			
SIZETAB2					
	2800=EGU				
SIZETAB3					
	2809=EGU				
SIZETERM					
	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				

STATUS	1290/BAL	1310/BAL	1317-RFS				
STATUSL	2244-RFS	2848.44/CMND	2848.66/CMND				
STKINIT	2246/BAL	3932-RES					
STLOOP	386/LW	2541-GEN	3488/LW				
STOPS	2375-EQU	2409/B					
STRTBIT	768/BAL	852/BAL	3419-RFS				
SUA60	128/DEF	356-EQU	1254/LI	1311/LI			
SV:LSIZ	2549-DATA						
SWGKEY	171/REF	919/LI	994/LI				
SWITCH	2487.15-EQU	2487.69/BGE					
SWONE	2487.9-EQU	2848.75/CMND					
SWRSET	2487.77/BCS	2487.80-LI					
SWSSET	2487.23/BE	2487.29-LI					
SYNTAX	2487.26-EQU						
	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				
S69PRBC	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	2678-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							

3352/BE	3360-EQU				
TERMTYPE					
1903/LW	2005-DATA				
TESTE0M					
770/BE	806-LI	1041/BFZ			
TESTSI					
786-LI	2822/BEZ				
TESTSI1					
789-LW	822/B				
TESTSI2					
782/BEZ	796-PUSH				
TEXTJUNK					
3939/LM	4287-RES				
TIMER					
3946/CAL1	4210-GEN				
TIMEVERT					
3949/BAL	4159-RES				
TM:DB					
1049/LD	1082/LD	2603-TEXTC			
TM:GB					
644/LD	896/LD	932/LD	2601-TEXTC		
TM:LB					
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	4052/AND				
TPFLG					
364.2-EQU	1375.37/LW				
TSTAKSZ					
270-EQU	2541/GEN				
TTP					
218.1/SREF	1375.22/LI				

TTYPTAB						
TTYP0	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		
UNDER	1243/CD	1269/CD	2588=TEXT			
UNKLMN	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	336.16/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	3733/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	2592-TEXTC			
XPO					
	2258.25/BR				
YBLK					
	3345/BE	3352-CI	3359/B		
YESFDP					
	674-EQU				
YEXIT					
	692/BE	695-EQU			
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				
ZFR0BK					
	3975/BAL	4094/BAL	4109/BAL	4119/BAL	4196-LI

ZFR0BK1	4197-LB	4204/BIR			
Z4	4064-EQU	4067/LI	4070/LI		
1DAY	3956-EQU	3958-EQU	3960/AT		
\$R0M	650/B	859/BE	949-EQU		
\$R0MFLG	123/DEF	351-EQU	648/LI	806/LI	888/LI
!LOGSZ	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:

P 1. CALL USER PROGRAMS AND SYSTEM PROCESSORS

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

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

P

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TEL-TERMINAL EXECUTIVE LANGUAGE 40

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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 M0NSTK AND COPIES OF THE
*P* PASS2-GENERATED DEVICE AND 0PLABEL 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
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00000000

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

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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 !
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 J:ASSIGN
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	8N	TEXT
91	DEF	8PENBIT	FCD BIT IN DCB WORD 0
92	DEF	8PENME	8PEN PRIME PLIST FOR UC
93	DEF	8VER	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 DCH 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	8NBIT
120		DEF	8VERBIT
121		DEF	DELTABIT
122		DEF	FDPBIT
123		DEF	8ROMFLG

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124	DEF	COMFLG
125	DEF	LBFLG
126	DEF	DBNTBIT
127	DEF	CCBUFBIT
128	DEF	STRTBIT
129	DEF	FIPROC
130	DEF	MSGEBIT
131	DEF	IQUIT
132	DEF	UDELTFLG
133	DEF	UNKLMN
134	DEF	EXTNDBIT

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 JBICCARs	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:LNm	LOGICAL NAME TABLE (SYSGEN)
173		REF J:JIT	START OF JIT
174		REF,1 JB:LPp	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

TEL-TERMINAL EXECUTIVE LANGUAGE

179	REF	SETFILE	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	I:LOGSZ	SIZE OF I:USER RECORD
189	REF	J:START	*TEMP* RUNNING PRGM START ADDR
190	REF	T:ERR	PRINTS TEL'S ERROR MSGS
1*	REF	EX	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	J:SBUF1VP	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 M:UC DCB
209	REF	DCACCESS	# OF DC I/O OPERATIONS

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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*			* REFS FROM LITERALS *
4*			*****
5*	REF	XA	LITERAL CONSTANT
6*	REF	XFFFD	LITERAL CONSTANT
7*			*****
8*			* REFS FROM AMRDEF *
9*			*****
10*	REF	AMIBRG	POINTER TO AVAILABLE A/M SPACE
11*	REF	AMISTDOP	INTER-JOB-STEP IMAGE OF JIBPT

Address	Hex Value	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*	FFFD7ECP	MUCRSET	EQU	'X'128131'	'X'FFFD7ECP', 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'12B'	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).		

```

250 PAGE
251 *****
252 *
253 * THE FOLLOWING DEFINES THE LAYOUT OF TEL'S DATA PAGE
254 * AND SHOULD BE CHANGED WITH CARE
255 *
256 EXT SETBUF EQU SBUF1VPA WINDOW PAGE, SP. BUFFER 1
257 000000FF SETBUFSZ EQU 255
258 000000FF S SETBUFE EQU SETBUF+SETBUFSZ
259 00000100 S TELSTACK EQU SETBUFE+1 SPD MUST BE ON DWD BOUNDARY
260 00000102 S NLSAVE EQU TELSTACK+2 TEMP FOR 1ST WORD IN TELBUF
1* 00000103 S FEXTIMG EQU NLSAVE+1 IMAGE OF FILE EXT BITS AT A/M READ
2* 00000104 S SZCELL EQU FEXTIMG+1
262 00000105 S EXPNDSZ EQU SZCELL+1
263 00000106 S TELBUF EQU EXPNDSZ+1
264 0000011A S SCNPTRSV EQU TELBUF+20
265 0000011B S FL0PBUF EQU SCNPTRSV+1 PLIST BUILD AREA
266 00000120 S DCBTAB2 EQU FL0PBUF+1R
1* 00000133 S M:TEL EQU DCBTAB2+6
268 00000028 S M:TELSIZ EQU 40 MINIMUM DCB SIZE
269 0000015B S STACKO EQU M:TEL+M:TELSIZ TELSTACK STARTS HERE
270 000000A4 TSTAKSZ EQU SBUF1VPA+511+STACKO SIZE OF TELSTACK
271 *****
272 SPACE 3

273 EXT LOGSIZE EQU ;LOGSZ
274 0000000V FORSEC EQU 0 SET TO 0 FOR ELAP TIME IN MIN

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LIST
LIST

PAGE

```

*
* 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*
13*          BPCDS          SET           X'680',X'126'
14*          S              SET           S:NUMC(AF(1))
15*
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(SCOR(AF(2),B,LD6)),AF(3)
27*          ERROR,7,SCOR(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

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32*
337

TEL-TERMINAL EXECUTIVE LANGUAGE
CLOSE I,J,K,S,PCDS
TITLE 'TEL-TERMINAL EXECUTIVE LANGUAGE'

Line	Hex	Symbol	Mode	Value	Description
338		*			*****
339		*			* BIT USAGE OF JITELFLGS *
340		*			*****
341		*			
342	00000001	JSTEP	EGU	1	AT JOB STEP
343	00000002	BRKBIT	EGU	2	BREAK RECEIVED
344	00000004	PHSFLG	EGU	4	0=BUILD 00 DCB, 1=BUILD L0 DCB
345	00000008	SINREL	EGU	8	DO NOT RELEASE SI ENTRIES FROM A/M
346	00000010	SISSET	EGU	X'10'	SI HAS BEEN ASSIGNED
347	00000020	BNBIT	EGU	X'20'	'0N' HAS BEEN SPECIFIED
348	00000040	BVERBIT	EGU	X'40'	'0VER' HAS BEEN SPECIFIED
349	00000080	DELTABIT	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	IQUIT	EGU	Y0004	IMPLIED QUIT FLAG
361	00000014	UDELTFLG	EGU	Y0008	UNDER DELTA IMPLIED FOR NEXT COMMAND
362	00000015	UNKLMN	EGU	Y001	UNRECOGNIZED LOAD MODULE
363	00000016	EXTNDBIT	EGU	Y002	USER REQUESTED EXTENDED MEMORY MODE
364	00400000		EGU	X'400000'	PROCESSING SINGLE USR ABRT (INITRCVR
1*	00000018	PIDGFLG	EGU	Y008	DEFERRED MSG PENDING
2*	00000014	TPFLG	EGU	Y1	REQUEST LOGOFF TO TP

TEL-TERMINAL EXECUTIVE LANGUAGE

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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

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

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50*      *
51*      *
52*      * J:OPT | | | | | 1 1 1 1 1 1 |
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*      *

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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 DO WE HAVE SBUF1 ALREADY
 B GETSB1 NO, EVERYTHING'S O.K.
 * WE'VE GOT SBUF1. BOY, ARE WE IN TROUBLE...
 CAL1,5 MSTRMODE GET MSTRMODE
 SUA X1601,0

 GETSB1 EQU \$
 LI,SR2 SBUF1VPA TEL'S CONTEXT PAGE
 CAL1,8 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 BLDMTL INITIALIZE MITEL !DCB!
 *
 DB DEBUG#0 ***NORMAL MODE***
 LW,D2 JIAMR CHK IF A/M RECORD EXISTS
 BEZ ERRABN1 IF NOT, LOG USER OFF
 FIN
 LW,D2 JI TELFLGS
 CI,D2 BRKBIT
 BANZ BREAKER BREAK SET
 LB,R7 JI ABC TEST STATUS OF LAST MAJOR COMMAND
 BNEZ SYSERR
 LB,R7 JI RNST TEST FOR RUN STATUS FLAGS SET

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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 0001U
418      02 0001D 04800517
419      02 0001E 7020000A A
420      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 0002A
444     02 0002A 02200070 A
445     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    PROMPT0  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    X1401    RESET MODE4, BIT 1
CAL1,8   MCTCPL  DO MICT TO RESET MODE4
LI,D1    X1030E001 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.

PROMPT0  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...
    
```

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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'	T0 SET
13*	02	0003B	47100000	X	STS,R1	M:UC	UBTD T0 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

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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	5	
8*	02	00055	25A00003	N	STM,SR3	M:UC+3	REST OF SAVED M:UC DATA
464							
465	02	00056	32F00000	X	LW,D4	J:TELFLGS	CHECK IF IMPLIED QUIT
1*	02	00057	31F00013	N	CW,D4	IQUIT	OCCURRED ON PREVIOUS COMMAND
467	02	00058	68400067		BAZ	PRMPT50	B IF NO
1*	02	00059	38F00013	N	SW,D4	IQUIT	RESET IMPLIED QUIT FLAG
469	02	0005A	35F00000	X	STW,D4	J:TELFLGS	AND IN CURRENT FLAGS
470	02	0005B	21100001	A	CI,R1	1	1 CHAR RESPONSE TO QUIT
471	02	0005C	69300067		BNE	PRMPT50	B IF NO
472	02	0005D	72C00106	N	LB,D1	TELBUF	GET FIRST CHARACTER
473	02	0005E	21C0000D	A	CI,D1	X'0D'	WAS IT A CARRIAGE RETURN
474	02	0005F	68300062		BE	PRMPT20	B TO DO IMPLIED QUIT
475	02	00060	21C00015	A	CI,D1	X'15'	WAS IT LINE FEED
476	02	00061	69300067		BNE	PRMPT50	B TO NORMAL PROCESSING
477		02 00062			PRMPT20	EGU	*
478	02	00062	32200102	N	LW,R2	NLSAVE	GET 1ST WORD OF PREVIOUS COMMAND
479	02	00063	35200106	N	STW,R2	TELBUF	RESTORE 1ST WORD
480	02	00064	72100000	X	LB,R1	JB:CCARS	GET PREVIOUS ARS
1*	02	00065	32F00013	N	LW,D4	IQUIT	SET IMPLIED QUIT
482	02	00066	68000078		B	ITSBK10	
483							
484		02 00067			PRMPT50	EGU	*
485	02	00067	32200001	A	LW,R2	R1	
486	02	00068	202FFFFFF	A	AI,R2	=1	
487	02	00069	72C40106	N	LB,D1	TELBUF,R2	GET LINE TERMINATOR
488	02	0006A	21C00015	A	CI,D1	X'15'	IST IT LINE FEED
489	02	0006B	6930006D		BNE	*+2	B IF NO
1*	02	0006C	32F00013	N	LW,D4	IQUIT	SET IMPLIED QUIT FLAG.
2*	02	0006D	32C0001C	N	LW,D1	CPXUSR	JB:CCARS ALREADY
3*	02	0006E	31C00000	X	CW,D1	J:JIT	SET IF IN
4*	02	0006F	69400071		BANZ	*+2	CPX MODE:
491	02	00070	75100000	X	STB,R1	JB:CCARS	SAVE ORIGINAL ARS=1
492	02	00071	32C00000	X	ITSBK	LW,D1	J:TELFLGS
							RESET TEL WORKING FLAGS

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TEL-TERMINAL EXECUTIVE LANGUAGE

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493	02	00072	48C0071F	AND,D1	FLAGS	
494	02	00073	35C00000 X	STW,D1	J:TELFLGS	
497	02	00074	31F00014 N	CW,D4	UDELFLG	CHECK IF PREVIOUS COMMAND WAS
498	02	00075	68400078	BAZ	ITS0K10	UNDER DELTA , B IF NO
499	02	00076	22700080 A	LI,R7	DELTABIT	YES, SET UNDER DELTA FLAG
500	02	00077	47700000 X	STS,R7	J:TELFLGS	FOR THE CURRENT COMMAND
501		02 00078		ITS0K10	EGU	*
502				*		
503				*		* PICK-UP FIRST FIELD OF INPUT STATEMENT AND DECODE COMMAND VERB.
504				*		
505	02	00078	22200000 A	LI,R2	0	INITIALIZE BUFFER POSITION
506	02	00079		NEXTTIME	RES	0
507	02	00079	6AA0048A	BAL,SR3	GETFIELD	
508	02	0007A	21700000 A	CI,R7	0	INSURE DATA IS PRESENT
509	02	0007B	6830001D	BE	PROMPT	GO AGAIN IF NO COMMAND GIVEN
510	02	0007C	2160004B A	CI,R6	1,1	DID A PERIOD TERMINATE THE FIELD-
511	02	0007D	69300083	BNE	SCANCVT	NO, NOT A LOAD MODULE
512	02	0007E	21700001 A	CI,R7	1	DID FIELD CONTAIN MORE THAN 1 CHAR.
513	02	0007F	69200095	BG	LMNCMD	YES, MUST BE A LMN.
514	02	00080	72B0000C A	LB,SR4	D1	IMPLIES A LMN OR PCL COMMAND.
515	02	00081	21B000D3 A	CI,SR4	1L1	L .ACCNT ENTERED AS COMMAND.
516	02	00082	69300095	BNE	LMNCMD	IF NOT A L COMMAND, MUST BE A LMN.
517				*		
518				*		* SCAN COMMAND VERB TABLE(S)
519				*		
1*		02 00083		SCANCVT	EGU	*
2*	02	00083	02200020 A		PUSH	2,D1
	02	00084	08C00100 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
11*	02	0008D	67080829	VECTAB2	EXU	SCNVERB,R4

RL2
RL2

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TEL-TERMINAL EXECUTIVE LANGUAGE

12* 02 0008E 683000B4
 13* 02 0008F 6450008D
 14* 02 00090 20800001 A
 15* 02 00091 692000A8
 16*
 17* 02 00092 49C00000 06
 18* 02 00093 49D00000 06
 19* 02 00094 6800008C
 527
 528
 529
 530 02 00095
 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
 547
 564 02 000A8
 1* 02 000A8 02200020 A
 02 000A9 0AC00100 N
 2* 02 000AA 31F00013 N

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
 *
 * PROCESS A COMPLEX LMN AS COMMAND.
 *
 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
 *
 DOUBLE1 FGU \$
 PULL 2,D1 RESTORE USER'S TYPED COMMAND
 CW,D4 IQUIT CHECK FOR IMPLIED QUIT

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TEL-TERMINAL EXECUTIVE LANGUAGE

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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,SR2	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	3B100000 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

645	02	000E0	6A800001	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	%R0MFLG	NO = CREATE % DEFAULT
649	02	000E4	47100000	X	STS,R1	JITELFLGS	SET RETURN FLAG
650	02	000E5	6800018B		B	%R0M	THIS WILL RETURN %+1
651	02	000E6	6A800000	X	GRPEXT2 BAL,SR4	WRITEAM	WRITE ASSIGN/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	JIBPT	
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'20000'	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	N0FDP	BR, IF FDP BIT NOT SET
674	02	000FD			YESFDP EQU	%	SET UP DEBUGGER ASSOCIATION
675	02	000FD	12000730		LD,R0	FDP1	DEBUGGER ASSO.
676	02	000FE	68000103		B	XEXIT	SKIP DELTA ASSOCIATION
677							
678	02	000FF	22000080	A	* N0FDP LI,R0	DELTABIT	
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

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TEL-TERMINAL EXECUTIVE LANGUAGE

65

682 02 00103
683
684 02 00103
685 00000001
686 02 00103 223D7ECF 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 MOD,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    CCBUFBIT   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,SR3  GETFIELD
      BAL,D    STOPS,5
      CI,R7    0              DIS WE GET SOME DATA
      BE      TESTEOM        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    DOLL           A $ IS EXPLICITLY ILLEGAL AS A FID
      BE      CHKULM        SYNTAX ERROR
      CW,D1    ME
      BE      DOME
    
```

```

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

TESTSI2

MCSI

TESTEOM

```

CW,D1 0N
BE 000N
CW,D1 0VER
BE 000VER
EGU *
BAL,R5 GETACPAS
LI,R5 S1SET
LS,R5 J;TELFLGS
BEZ TESTSI2
LW,R2 SCNPTRSV
AI,R2 =1
B CHKULM
    
```

IS THIS THE FIRST SI ENTRY

YES
MULT SI NOT ALLOWED, SYNTAX ERROR

*
* THIS FID MUST NOW BE SET IN THE ASSIGN/MERGE TABLES REPLACING ALL
* PREVIOUS M:SI ASSIGNMENTS.
*

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 OVER/ON CONDITION

ANY MORE MESSAGE
NO

TEST FOR TRAILING GARBAGE

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PARSE COMPILE AND ASSEMBLE COMMANDS

70

819 02 00157 69300231
 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 20C00007 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 S1SET 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 OF LABEL PLIST
 LM,D1 OPENME
 STM,D1 3,R5
 B MGS1+3
 DBME2 LW,R4 J:ABUF
 LD,R6 TMISI
 BAL,SR4 ASSIGN
 LW,D1 AM10RG,R4 OLD AVAIL HEAD
 AI,D1 7 SIZE THIS ENTRY
 STW,D1 AM10RG,R4 UPDATE HEAD
 B DBME1
 TITLE IPARSE OVER/ON PORTION OF COMMAND VERB1

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Line	Op	Code	Address	Mode	Verb	Code	Verb	Description
841	02	00168	22300020	A	DBBN	LI,R3	ONBIT	SET ONI FLAG
842	02	00169	6800016D			B	DBOVER1	
843	02	0016A	21700004	A	DBOVER	CI,R7	4	DOUBLECHECK OVER IMPLICATION
844	02	0016B	6920013B			BG	A1	ITS AN SI FID
845	02	0016C	22300040	A		LI,R3	OVERBIT	SET IOVER1 FLAG
846	02	0016U			DBOVER1	EQU	*	
847	02	0016D	47300000	X		STS,R3	J:TELFLGS	
848	02	0016E	2160006B	A		CI,R6	CI,1	DID ADVERB END WITH A COMMA
849	02	0016F	683001C5			BE	EXTDGO	ASSUME IMPLIED SPECIFICATION IF YES
850	02	00170	6AA0048A		DBRSE	BAL,SR3	GETFIELD	
851	02	00171	21700000	A		CI,R7	0	INSURE WE GOT DATA
852	02	00172	68300231			BE	CHKULM	SYNTAX ERROR
853	02	00173	6A0A08DF			BAL,0	STOPS,R5	
854	02	00174	22500004	A		LI,R5	PHSFLG	PHASING FLAG FOR GO OR LO
855	02	00175	31500000	X		CW,R5	J:TELFLGS	
856	02	00176	694001D1			BANZ	DOLO	SET * PROCESS FOR LO
857	02	00177	47500000	X		STS,R5	J:TELFLGS	OTHERWISE, FLIP TO DO LO NEXT
858	02	00178	31C00711			CW,D1	DOLL	TEST FOR * ROM SPECIFICATION
859	02	00179	683001BB			BE	*ROM	
860	02	0017A	31C00713			CW,D1	ME	ME IS NOT ALLOWABLE FOR OUTPUT
861	02	0017B	6930019E			BNE	ROMDEV	
862	02	0017C	32100000	X		LW,R1	J:TELFLGS	IS IT
863	02	0017D	31100015	N		CW,R1	UNKLMN	UNRECOGNIZED LMN
864	02	0017E	6940012A			BANZ	ENTPRG	IGNORE ERROR AND EXECUTE LMN
865								*****
866						*E*	ERROR1	*
867						*E*	GROUP 03, CODE=01, SUBCODE=04	*
868						*E*	DESCRIPTION:	*
869						*E*	USER SPECIFIED ON OR OVER ME WHICH IS ILLEGAL	*
870						*E*	AS ROM NAME.	*
871								*****
872	02	0017F	22C30104	A		LI,D1	X'030104'	ERROR CODE & SUBCODE
873	02	00180	6800070E			B	CMNERR1	TELL USER & PROMPT
874						*		
875	02	00181	31C00714		ROM\$BLT	CW,D1	LP	LP IS NON-ALLOWED IN THIS POSITION
876	02	00182	68300231			BE	CHKULM	SYNTAX ERROR
877	02	00183	22F08000	A		LI,D4	FIPROC	WAS FID ALREADY...

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PARSE OVER/ON PORTION OF COMMAND VERB

72

878	02	00184	31F00000	X		CW,D4	J:TELFLGS	...PROCESSED
879	02	00185	6940018A			BANZ	R0M\$BLT1	YES
880	02	00186	02200020	A		LCI	2	CREATE COMPLETE FID FROM INPUT DATA
881	02	00187	2A900000	X		LM,SR2	J:ACCN	PUT LOG-ON ACCOUNT IN SR2,SR3
882	02	00188	22700000	A		LI,R7	0	NO PASSWORD IS ASSUMED IN R7, SR1
883	02	00189	22800000	A		LI,SR1	0	
884	02	0018A	32400000	X	R0M\$BLT1	LW,R4	J:ABUF	
885	02	0018B	22500020	A		LI,R5	0NBIT	WAS 'ON' SPECIFIED
886	02	0018C	4A500000	X		LS,R5	J:TELFLGS	
887	02	0018D	68300194			BEZ	R0M\$G0	NO
888	02	0018E	22500200	A		LI,R5	\$R0MFLG	IS BUILD * DEFAULT
889	02	0018F	4A500000	X		LS,R5	J:TELFLGS	SPECIFIED
890	02	00190	69300194			BNEZ	R0M\$G0	YES
891	02	00191	6AB0086F			BAL,SR4	FL0P	CHECK IF FILE ALREADY EXISTS
892	02	00192	21000000	A		CI,R0	0	
893	02	00193	683001C9			BE	0NERR	FILE EXISTS, ON ILLEGAL
894		02	00194		R0M\$G0	EQU	*	
895	02	00194	09700100	N		PUSH	R7	
896	02	00195	1260074A			LD,R6	TMIG0	RELEASE ANY PREVIOUS G0 ENTRIES AS
897	02	00196	6AB00000	X		BAL,SR4	ASSIGN	THIS IS A NEW SPECIFICATION.
898	02	00197	08700100	N		PULL	R7	
899	02	00198	6AB00000	X		BAL,SR4	FILENT	FILL FILE DATA INTO ASSIGN ENTRY
1*	02	00199	225FFFFFFE	A	R0M\$G01	LI,R5	=2	RESET FILE
2*	02	0019A	40500103	N		AND,R5	FEXTIMG	EXTENSION FOR
3*	02	0019B	35500103	N		STW,R5	FEXTIMG	MIG0.
905	02	0019C	22500080	A		LI,R5	X'80'	
906	02	0019D	680001FD			B	L0FINS	

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 44500010 N
924 02 001A7 2150C3D7 A
925 02 001A8 683001AB
926 02 001A9 2150D5D6 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 6AB00000 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 247A0003 A
943 02 001BA 68000199

*
* CHKS FOR LDEV,CP OR NO. IF FOUND BUILDS
* DEVICE PLIST FOR M;G0. OTHERWISE RETURNS TO
* ROM\$BLT AND PROCESSES FOR FID.
*
*
ROMDEV EQU \$
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 ICP1 CARD PUNCH
BE ROMDEV1
CI,R5 IN01
BNE ROM\$BLT G0 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 AM;ORG,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 0018B
 950 02 0018B 22500007 A
 951 02 0018C 6AB009A8
 952 02 0018D 3550000C A
 953 02 0018E 32D00000 05
 954 02 0018F 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 CIG!
 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 L\$FINS

 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'
 BAL,SR4 T\$ERRTXT ERROR CODE & SUBCODE
 GET MSG

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PARSE AVER/ON PORTION OF COMMAND VERB

75

981 02 001CD 02200030 A
 982 02 001CE 24520002 A
 983 02 001CF 22000903
 984 02 001DO 68000000 X

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

*
 *
 * 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 22F00000 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 NO
 BE L0ME
 DBL01 CW,D1 D0LL 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 L0MG0 NO
 BAL,SR4 FL0P CHECK FOR UNIQUE FILE
 CI,R0 0

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PARSE OVER/ON PORTION OF COMMAND VERB

76

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

L0MGB

L0SETUP

L0FINS

D0BLT

LAS

BE 0NERR
 LI,R5 C0MFLG
 LS,R5 J:TELFLGS
 BNEZ D0BLT
 LW,R4 J:ABUF
 PUSH R7
 LD,R6 TM;L0
 BAL,SR4 ASSIGN
 PULL R7
 BAL,SR4 FILENT
 EQU \$
 LI,R5 =5
 AND,R5 FEXTIMG
 STW,R5 FEXTIMG
 LI,R5 MSGEBIT
 STS,R5 J:TELFLGS
 LI,R5 1
 EQU \$
 STS,R5 AM;STDBP,R4
 LI,R5 L0FLG
 LS,R5 J:TELFLGS
 BEZ TEST0M
 CI,R1 0
 BG CHKULM
 BAL,SR4 WRITEAM
 B PR0MPT
 EQU \$
 LW,R4 J:ABUF
 PUSH R7
 LD,R6 TM;D0
 BAL,SR4 ASSIGN
 PULL R7
 BAL,SR4 FILENT
 LI,R5 X'FFFFFF'
 AND,R5 FEXTIMG
 STW,R5 FEXTIMG
 LI,R5 X:100'

FILE EXISTS, 0N 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:L0.

SET END OF MSG FLAG

SET L0 SPEC IN 0PTIONS

HAVE WE BEEN PROCESSING A LIST CMD

N0
INSURE N0 TRAILING JAZZ

WRITE A/M
YES=00 FOR NEXT MESSAGE

MAKE ENTRY FOR D0 DCB

RESET FILE
EXTENSION FOR
M:D0.
SET D0 IN 0PTIONS

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

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PARSE OVER/ON PORTION OF COMMAND VERB

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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 6AB0n9D7
02 00238 12C0n008 06
02 00239 1260n738
02 0023A 6800n23F

02 0023B
02 0023C
02 0023D
02 0023E 6800n23F
02 0023F 0220n020 A
02 00240 25C0n106 N
02 00241 72C0n000 X
02 00242 6A00nA21
02 00243 6800n0C7

02 00244
02 00244 2110n001 A
02 00245 6920n8F7
02 00246 32D0n014 N
02 00247 47D0n000 X
02 00248 6800n01D

*
* BUILD SHORT FORM REQUEST
*
BUILD EQU \$
BAL,SR4 SHFTBUF SHIFT REQUEST
LD,D1 BUILDA
LD,R6 EDIT
B CMNDSET

*
* EDIT SHORT FORM COMMAND VERB
*
EDITO EQU \$
BAL,SR4 SHFTBUF SHIFT COMMAND
LD,D1 EDITA MAKE IT LOOK LIKE
LD,R6 EDIT LONG FORM
B CMNDSET

CMNDSET EQU \$
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 EQU \$
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'

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```

1140      02 00249
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
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
BG
BAL,SR4
LW,R4
LI,R3
LS,R3
BNEZ
LI,D2
STS,D2
B
FQU
LI,R3
AND,R3
STW,R3
BAL,SR4
B
TITLE

```

DEBUG COMMAND VERB

```

$
5
SYNTAX
READAM
J:ABUF
DONTBIT
J:TEFLGS
DEBUG1
X'10000'
AMISTD8P,R4
DEBUG2
$
XIEFFFF'
AMISTD8P,R4
AMISTD8P,R4
WRITEAM
PROMPT
!OUTPUT 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

```


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1158 02 00258 22400000 A
 1159 02 00259 6800026C
 1160
 1161
 1162
 1163 02 0025A 22300404 A
 1164 02 0025B 47300000 X
 1165 02 0025C 22400002 A
 1166 02 0025D 6800026C
 1167
 1168
 1169
 1170
 1171
 1* 02 0025E
 1175 02 0025E 22301000 A
 1176 02 0025F 47300000 X
 1*
 2*
 3*
 4*
 5*
 6*
 7* 02 00260 21100000 A
 8* 02 00261 69200079
 9* 02 00262 22C30116 A
 10* 02 00263 6800070E
 11*
 1184 02 00264 0080 A
 02 00264 2 0001 A
 1185 02 00265 0100 A
 02 00265 2 0000 A
 1186 02 00266 FFFFFFF7F A
 1187 02 00267 FFFFFFFE A
 1188 02 00268 FFFFFFFF A
 1189

OUTPUT COMMAND VERB
 LI,R4 0 SET COMMAND INDEX
 B LISTCOM
 *
 COMMENT COMMAND VERB
 *
 COMMENT LI,R3 COMFLG+PHSFLG FLIP PHASE TO L0 & SET CMD UNIQUE
 STS,R3 J:TELFLGS
 LI,R4 2 SET COMMAND INDEX FOR COMMENT
 B LISTCOM
 *
 * THIS LOGIC HANDLES THE ADVERB DONT BY SETTING A SPECIAL FLAG AND
 * CONTINUING THE COMMAND INTERPRETATION. THE FLAG IS CHECKED ONLY IN
 * THE COMMAND PROCESS WHERE IT HAS MEANING.
 *
 DONT FGU *
 LI,R3 DONTBIT
 STS,R3 J:TELFLGS SET DONT FLAG IN TELFLGS

 E ERROR: GROUP 3, CODE = 01=16 *
 E DESCRIPTION: THE USER SAID 'DONT' WITHOUT SPECIFYING *
 E THE VERB OR WITH AN ILLEGAL COMMAND, SO WE GIVE *
 E 'EM THE BIRD (SIC). *

 CI,R1 0 ANY UN-SCANNED CHARACTERS
 BG NEXTTIME
 GIVEBIRD LI,D1 X'030116' ERROR CODE & SUBCODE
 B CMNERR1 TELL USER...
 *
 OPTAB DATA,2 X'80',X'01'
 DATA,2 X'100',X'0'
 *
 NOPTAB DATA X'FFFFFF7F'
 DATA X'FFFFFFE'
 DATA X'FFFFFFF'
 TITLE 'LIST COMMAND VERB'

				LIST COMMAND VERB		
1190	02	00269	22300004 A	LIST	LI,R3	PHSFLG FLIP THE PHASE TO L0
1191	02	0026A	47300000 X		STS,R3	J:TELFLGS
1192	02	0026B	22400001 A		LI,R4	1 SET COMMAND INDEX FOR LIST
1193				*		
1194				*		THE FOLLOWING IS COMMON CODE USED BY THE LIST, OUTPUT AND COMMENT
1195				*		COMMAND VERBS. R4 MUST CONTAIN AN INDEX UNIQUE TO THE COMMAND.
1196				*		
1197	02	0026C	21100000 A	LISTCOM	CI,R1	0 TEST FOR FOLLOWING MODIFIER
1198	02	0026D	6830027C		BE	LIST1 NO DATA=IMPLIES FUNCTION CHANGE
1199				*****		
1200				*E*	ERROR!	*
1201				*E*	GROUP 03, CODE=01, SUBCODE=00	*
1202				*E*	DESCRIPTION:	*
1203				*E*	USER ISSUED LIST, COMMENT OR OUTPUT COMMAND	*
1204				*E*	WITH IMPLIED ASSIGNMENT CHANGE, E.G. LIST ON	*
1205				*E*	DC/ABC, WHEN NOT AT JOB STEP. THIS IS ILLEGAL AND	*
1206				*E*	WE TYPE A MESSAGE AND PROMPT.	*
1207				*****		
1208	02	0026E	22300001 A		LI,R3	JSTEP PRE-ASSIGN CAN ONLY BE DONE
1209	02	0026F	4A300000 X		LS,R3	J:TELFLGS AT JOB STEP
1210	02	00270	6830082F		BEZ	NTJBST COMMAND ILLEGAL UNLESS JOB STEP TIME
1211				*		
1212	02	00271	32C00000 05		LW,D1	VERB1
1213	02	00272	2230000C A		LI,R3	D1
1214	02	00273	6AA008A0		BAL,SR3	SCAN OBTAIN MODIFIER
1215	02	00274	22300800 A		LI,R3	L0FLG SET LIST CMD FLAG
1216	02	00275	47300000 X		STS,R3	J:TELFLGS
1217	02	00276	6AB00000 X		BAL,SR4	READAM NO=READ IT IN
1218	02	00277	31C00716		CW,D1	ON IS MODIFIER ON
1219	02	00278	68300168		BE	D00N YES=ENTER COMMON CODE
1220	02	00279	31C00717		CW,D1	OVER HOW ABOUT OVER
1221	02	0027A	6830016A		BE	D00VER
1222	02	0027B	680008F7		B	SYNTAX
1223	02	0027C	22300001 A	LIST1	LI,R3	JSTEP NEITHER ONE IS AN ERROR
1224	02	0027D	22500000 N		LI,R5	J:OPT ARE WE AT JOB STEP OR BREAK
1225	02	0027E	4A300000 X		LS,R3	J:TELFLGS
1226	02	0027F	6930028B		BNEZ	LIST4 JOB STEP

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1227 02 00280 22301000 A
 1228 02 00281 4A300000 X
 1229 02 00282 69300286
 1230 02 00283 52380264
 1231 02 00284 C7300005 A
 1* 02 00285 68000289
 1233 02 00286 32380266
 1234 02 00287 C8300005 A
 1235 02 00288 B5300005 A
 1* 02 00289 6AB00000 X
 1236 02 0028A 6800001D
 1* 02 0028B 6AB00000 X
 2* 02 0028C 32500000 X
 3* 02 0028D 20500000 N
 1238 02 0028E 68000280
 1239

LIST2

LIST3

LIST5

LIST4

LI,R3
LS,R3
BNEZ
LM,R3
STS,R3
B
LW,R3
AND,R3
STW,R3
BAL,SR4
B
BAL,SR4
LW,R5
AI,R5
B
TITLE

LIST COMMAND VERB

DONTBIT
J:TELFLGS TEST FOR DONT ADVERB
LIST3 IT HAS BEEN GIVEN
OPTAB,R4
*R5
LIST5
NOPTAB,R4 TURN OFF OPTION
*R5
*R5
WRITEAM
PROMPT
READAM NBP IF ALREADY IN
J:ABUF
AM:STDOP
LIST2
!START COMMAND!

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START COMMAND

84

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	

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START COMMAND

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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		START75	EGU	*
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		START3	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			START4	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	START5	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	START6	LI,R6	X:30000!
1300	02	002CE	2270FFFF	A	LI,R7	X:FFFF!	BYTE COUNT FOR IDL
1301	02	002CF	4A60n000	X	LS,R6	J:JIT	MASK TO GET SYSID
1302	02	002D0	2560n008	A	SLS,R6	8	GET SYSID
1303	02	002D1	2060n0D3	A	AI,R6	!L!	POSITION
1304	02	002D2	0220n020	A	LCI	2	R6 = TEXTC IDL
1305	02	002D3	2AD0n000	X	LM,D2	J:ACCN	
1306	02	002D4	6800n2A0		B	START2	

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START COMMAND

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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 08600100 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 0
 CI,R1 1
 BLE STARTERR
 BAL,R0 START9
 LI,R5 STRTBIT
 STS,R5 J:TELFLGS
 PUSH 9,R6
 B START7

MORE INFO MUST FOLLOW

*
*

START9

RES 0
 LCI 3
 LM,R6 J:LMN
 CI,R6 0
 BE STARTERR
 LCI 2
 LM,D2 J:ACCN
 LI,SR3 0
 LI,SR4 0
 B *R0
 TITLE 'CONTINUE COMMAND VERB'

INSURE A LMN EXISTS

PASS. FOR LINK LM ALWAYS=0

1328
 1329
 1330
 1331
 1332
 1333
 1334
 1335 02 002E6 22300001 A
 1336 02 002E7 4A300000 X
 1337 02 002E8 683002EB
 1338 02 002E9 22C30114 A
 1339 02 002EA 6800070E
 1340
 1341 02 002EB
 1342 02 002EB 22600000 A
 1343 02 002EC 22700000 A
 1344 02 002ED
 1345
 1346 02 002ED 68000103 *S*
 1347

 E ERROR!
 E GROUP 03, CODE=01, SUBCODE=14
 E DESCRIPTION:
 E USER SAID CONTINUE (GO) WHILE AT JOB STEP.
 E THERE IS NO PROGRAM TO GO BACK TO.

 CONTINUE LI,R3 JSTEP ARE WE AT A JOB STEP
 LS,R3 J;TELFLGS
 BEZ CONTINX NOT AT STEP, O.K.....
 LI,D1 X'030114' ERROR CODE & SUBCODE
 B CMNERR1 TELL USER
 *
 CONTINX RES 0
 LI,R6 0 SET UP RETURN EXIT
 LI,R7 0
 DB1 DBUG=1 DEBUG MODE
 B TEL TEMP *****
 B XEXIT
 TITLE 'IFDP VERB SETUP'

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FDP VERB SETUP

1348
 1349 02 002EE
 1350 02 002EE 1260072E
 1351 02 002EF 1200072E
 1352 02 002F0 22C00000 A
 1353 02 002F1 680000C8
 1354

*
 FDPSET RES 0
 LD,R6 FDP
 LD,R0 FDP
 LI,D1 0
 B GROUP2
 TITLE IDELTA 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* *F* NAME: TP
4* *F* PURPOSE: THE TP COMMAND IS A SPECIAL FORM OF LOGOFF
5* *F* WHICH TELLS THE SYSTEM TO LOG THIS USER OFF
6* *F* TIMESHARING AND MAKE THE LINE AVAILABLE AS A TP
7* *F* LINE.
8* *F* DESCRIPTION: THE FOLLOWING TESTS ARE MADE BEFORE PROCESSING
9* *F* THE COMMAND:
10* *F* 1. THE SYSTEM MUST BE SYSGENED FOR TP
11* *F* 2. TPG (THE TP GHOST) MUST BE ACTIVE
12* *F* IF THESE CONDITIONS ARE SATISFIED, WE WILL PERFORM
13* *F* THE SPECIAL LOGOFF. OTHERWISE, AN ERROR MESSAGE
14* *F* IS GENERATED AND THE USER REMAINS IN TEL
15* *****
16* 02 002FL TP FGU *
17* *****
18* *E* FRROR: GRP 03, OC=01
19* *E* DESCRIPTION: THE USER ISSUED THE TP COMMAND AND THE
20* *E* SYSTEM IS NOT SYSGENED FOR TP,
21* *****
22* 02 002FC 22C00000 N LI,D1 TTP SREF, WILL BE ZERO
23* 02 002FD 69300300 BNEZ $+3 IF OPTION NOT GENIED,
24* 02 002FE 22C30C01 A LI,D1 X1030C01 ERROR CODE
25* 02 002FF 6800070E B CMNERR1
26* *
27* *****
28* *E* FRROR: GRP 03, OC=02
29* *E* DESCRIPTION: M:GETID RETURNED CC1 SET, INDICATING TPG
30* *E* IS NOT ACTIVE.
31* *****
32* 02 00300 047007F2 CAL,7 GETID TPG IS ACTIVE IF
33* 02 00301 68800304 BCR,8 $+3 CC1 IS NOT SET,
34* 02 00302 22C30C02 A LI,D1 X1030C02 ERROR CODE
35* 02 00303 6800070E B CMNERR1
36* *
37* 02 00304 32F0001D N LW,D4 TPFLG SET TP FLAG FOR
38* 02 00305 47F00000 X STS,D4 J:TELFLGS STEP.

```

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TP COMMAND VERB

91

39*
 40*
 41*
 42*
 43*
 44*
 45*
 46* 02 00306 22C3n003 A
 47* 02 00307 6A00n000 X
 48*
 49* 02 00308 22C0n000 A
 50* 02 00309 1260n742
 51* 02 0030A 6800n008

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

 * 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 GROUP2 TO LOGOFF.
 TITLE !PASSWORD COMMAND VERB!

1376

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 3+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 20160000 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 FMT 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 225FFFFA N
 02 0033A 13500100 N
 1469 02 0033B 72200000 X
 1470 02 0033C 202FFFFFF 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      JB:CCARS     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
          B          *SR1        ERROR RETURN VECTOR
          BPERR

```

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 ZEROES, 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 ZEROES
 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
	BCR,R4	*-2	
	BUMP	=(LOGSIZE+RWUSRSZ),R5	CLEAN STACK
	LI,D1	0	DONT SCAN COMMAND
	LI,R4	500	***TEMP***
	STW,D1	*SR2,R4	***TEMP***
	LD,R6	XSHOW	COMMAND TO R6&R7
	B	GROUP2	GO LOAD AND LINK

PAGE

1533
 1534
 1535
 1536
 1537
 1538
 1539
 1540
 1541
 1542 02 0036A 225FFFFA N
 02 0036B 19500100 N
 1543 02 0036C 22C30300 A
 1544 02 0036D 6800070E
 1545

 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
 LI,D1 X!030300! 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
 CI,D1 2
 BAZ GIVEMEH
 CI,R1 1
 BLE GIVEMEH
 BAL,R4 FMTELCL
 LW,R3 TELSTACK
 AI,R3 20
 LW,D1 #1 1
 STW,D1 0,R3
 STW,D1 1,R3
 STW,D1 2,R3
 STW,D1 3,R3
 STW,D1 4,R3
 LI,D1 0
 PUSH R3
 BAL,SR3 SCAN
 CI,R6 1,1
 BNE SYNTAX
 CI,R7 8
 BG SYNTAX
 CI,R7 0
 BLE SYNTAX
 LW,R3 *TELSTACK
 AI,R3 2
 BAL,SR3 SCAN
 CI,R7 12
 BG SYNTAX
 CI,R7 0
 BLE SYNTAX

SEE IF FEATURE ENABLED
 THE 2 BIT IN S:CBUP
 MUST BE SET.
 WE MUST HAVE AN ARGUMENT
 OR WE COMPLAIN.
 MAKE SURE MITEL CLOSED.
 A WORK AREA
 OVER HERE A WAYS...
 PRESET THIS BUFFER AREA
 TO BLANKS.
 WE ADDED 20 BECAUSE OTHER
 ROUTINES, SUCH AS SCAN,
 USE THE STACK TOO.

REMEMBER THAT.

BETTER END ON A COMMA
 OR I WONT LIKE YOU.

TOO LONG

TOO SHORT
 TOP OF STACK
 NOW DO 3 WORD NAME

WHSC

GUESS IT LOOKS GOOD.

LINE	TIME	MODE	ADDRESS	CHAR	WHERE	COMMAND	VERB	COMMENT
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:PRIVPOKE.....
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	CAL,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	CAL,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 KNOW, 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

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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	FORCE DCB CLOSED.
1628	02	003B8	21E00000	A	CI,14	0	FIND ANYBODY....
1629	02	003B9	69300010		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							
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							
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'	MBDE#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 4UD6D940 A
      02 003E1 C6C9D3C5 A
      02 003E2 4UC5D9D9 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
      CAL,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
      CAL,1 WRITE COMPLAIN
      B WHERE4 AND CUT OUT...
      GASP TEXT 'CANNOT ACCESS ;LOGD FILE'
    
```

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02 003EF C6C9D3C5 A
1689

WHERE COMMAND VERB

102

TITLE

ITABS COMMAND VERB:

Address	Op	Op Code	Operand	Condition	Command	Verb	Output
1725					*		OUTPUT CURRENT TABS
1726		02	00414		TABS1	FGU	\$
1727	02	00414	22300013	N		LI,R3	PT TO END OF TABS
1728	02	00415	227FFFF0	A		LI,R7	=16 INDEX BACK
1729	02	00416	F2AE0003	A		LB,SR3	*R3,R7 ANY TAB ENTRIES
1730	02	00417	6930041C			BNEZ	TABS2 YES
1731	02	00418	2210075D			LI,R1	NONE NO
1732	02	00419	22200004	A		LI,R2	4 BYTE COUNT
1733	02	0041A	04100790			CAL1,1	WRITE OUTPUT NONE MSSG
1734	02	0041B	6800001D			B	PROMPT PROMPT
1735					*		
1736		02	0041C		TABS2	FGU	\$
1737	02	0041C	32600100	N		LW,R6	TELSTACK
1738	02	0041D	20600001	A		AI,R6	1 SPACE
1739	02	0041E	22500010	A		BUMP	16,R5 FOR OUTPUT
	02	0041F	13500100	N			
1740	02	00420	2200006B	A		LI,R0	1,1 COMMA BETWEEN ENTRIES
1741	02	00421	22200000	A		LI,R2	0 INITIAL BYTE COUNT
1742	02	00422	F2CE0003	A	TABS4	LB,D1	*R3,R7 GET TAB ENTRY
1743	02	00423	68300435			BEZ	TABS3 NO ENTRY, GIVEUP
1744	02	00424	6AB00979			BAL,SR4	BINDECBCD CONVERT TO DECIMAL
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' IS DATA A ZERO
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

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 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

AI,R2
 BIR,R7
 EQU
 AI,R2
 LI,R0
 STB,R0
 LW,R1
 CAL1,1
 BUMP
 B
 TITLE

TABS COMMAND VERB

1
 TABS4
 \$
 =1
 *R6,R2
 R6
 WRITE
 =16,R5
 PROMPT
 !PAGE COMMAND VERB!

BLANK

BUFFER ADDR TO R1
 BUTPUT TO TERMINAL
 EVEN UP

PROMPT

```

1772
1773
1774
1775
1776
1777
1778      02 0043U
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. OUTPUT 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'
    
```

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				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 22200000C 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
          LB,D1   0,R5    GET DATA BYTE
          BAL,SR4 BINDECBCD CONVERT IT
          LI,R0   ' '
          LI,R1   =4      COUNT
          LB,R5   D3,R1   PICK UP THE CONVERTED BYTE
          CI,R5   '0'
          BNE     PLATEN4
          STB,R0  D3,R1   CHANGE LEADING ZERO TO BLANK
          BIR,R1  PLATEN3 CHECK NEXT DIGIT
          AI,D2   C'0'-C'1' TO PRINT ZERO
          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
          CAL,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
    
```

1863			*		
1864			*		
1865	02 0048A	12C00000 06	GETFIELD	LD,D1	VERB2
1866	02 0048B	32E00000 06		LW,D3	VERB2
1867	02 0048C	2230000C A		LI,R3	D1
1868	02 0048D	680008A0		B	SCAN
1869	02 0048E		GETACPAS	RES	EXIT ON SR3
1870	02 0048E	02200020 A		LCI	0
1871	02 0048F	2A900000 X		LM,SR2	2
1872	02 00490	22700000 A		LI,R7	J:ACCN
1873	02 00491	22800000 A		LI,SR1	0
1874	02 00492	680A0000 A		B	0,R5
1875			TITLE		TERMINAL COMMAND VERB1

Line	Time	Code	Address	Hex	Label	Terminal	Command	Verb	Comment
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 TEM STATUS
1884	02	0049A	2160006B	A		CI,R6	!,!		, TERMINATED SCAN
1885	02	0049B	6830049E			RE	\$+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	FBOUNDP		
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 !STAT!US
1894	02	004A5	683004D0			BE	CBCSTAT		
1895	02	004A6	6800083B			B	TERMERR		
1896	02	004A7			FBOUNDP	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	B5AA0009	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	B5520009	A		STW,R5	*SR2,R1		STORE CBCTERM

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	+38/ 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	6930004C8		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	+38/ 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	6980004CD		BCS,8	CHNGERR	ERROR EXIT
1931	02	004CA	225FFFFFFC A		BUMP	=4,R5	RESTORE STACK
	02	004CB	13500100 N				
1932	02	004CC	6800001D		B	PROMPT	
1933	02	004CD	225FFFFFFC 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+C0CLN	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	

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TERMINAL COMMAND VERB

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1947	02	004D9	25320000	A	STM,3	0,1	PUT AWAY MSG WITH LINE #	
1948	02	004DA	22200009	A	LI,R2	9	AND HOW LONG IT IS	
1949	02	004DB	04100790		CAL1,1	WRITE	SO DO IT,	
1950	02	004DC	04800517		CAL1,8	CBCSTATC	NOW GET STATUS OF LINE	
1*	02	004DD	33000000	X	MTW,0	S;CBUP	IS THE FEATURE ENABLED	
2*	02	004DE	682004F6		BLE	CBCSTAT2	B/NOPE, DONT TALK ABOUT IT...	
3*	02	004DF	21801000	A	CI,SR1	X'1000'	IS THIS A 2741 LINE	
4*	02	004E0	694004F6		BANZ	CBCSTAT2	B/YUP, CAN'T DO COUPLING...	
1951	02	004E1	7270000A	A	LB,R7	SR3	LOOK AT COUPLE STATUS	
1952	02	004E2	2570007A	A	SLS,R7	=6	IN UPPER TWO BITS OF MODE4	
1*	02	004E3	21700002	A	CI,R7	2	IS THE COUPLED BIT SET	
2*	02	004E4	684004F3		BAZ	CBCSTAT0	B/NOPE, DONT CHECK TIE BYTE.	
1953	02	004E5	22100003	A	LI,1	3		
1954	02	004E6	71A20000	F	CB,SR3	M;UC+CBCLN,1	ARE WE COUPLED TO SOMEBODY	
1955	02	004E7	683004F3		BE	CBCSTAT0	IF EQUAL, NOPE...	
1956	02	004E8	3290000A	A	LW,SR2	SR3	IF SO, GET # OF LINE COUPLED	
1957	02	004E9	6AB00961		BAL,SR4	HEX2EBC	TO, GRUNCH TO CHARACTERS,	
1958	02	004EA	32100100	N	LW,1	TELSTACK		
1959	02	004EB	20100001	A	AI,1	1		
1960	02	004EC	02200050	A	LCI	5		
1961	02	004ED	2A300574		LM,3	MCPLD		
1*	02	004EE	55D00007	A	STH,D2	R7	PLUNK IN LINE NUMBER	
1964	02	004EF	02200050	A	LCI	5		
1965	02	004F0	25320000	A	STM,3	0,1		
1966	02	004F1	22200012	A	LI,2	18		
1967	02	004F2	680004F5		B	CBCSTAT1+1		
1968	02	004F3	2220000E	A	CBCSTAT0	LI,R2	14	LENGTH OF MESSAGES
1969	02	004F4	321E0568		CBCSTAT1	LW,R1	CPLMSG,R7	WHICH MESSAGE
1970	02	004F5	04100790		CAL1,1	WRITE	PRINT IT BUT,	
1*	02	004F6	72300008	A	CBCSTAT2	LB,R3	SR1	LOOK AT COCTERM TO
1975	02	004F7	203FFFFC	A	AI,R3	=4		
1976	02	004F8	691004FA		BLZ	=+2		
1977	02	004F9	2530007F	A	SLS,R3	=1		
1978	02	004FA	3216051C		LW,R1	TTYPTAB+4,R3		
1979	02	004FB	6A400510		BAL,R4	CBCPRY	PRINT TERMINAL TYPE	
1980	02	004FC	3290053B		LW,SR2	MODECW		
1981	02	004FD	22A0053B		LI,SR3	MODECW		

Year	Month	Day	Time	Address	Code	Command	Verb	Description
1982	02	00	4FE	25900001	A	CBCML00P SLS,SR2	1	
1983	02	00	4FF	6880080C		BEV	NBC0CM	BIT TO BE IGNORED
1984	02	00	500	20A00001	A	AI,SR3	1	
1985	02	00	501	22100723		LI,R1	RETN	NEW LINE
1986	02	00	502	22200001	A	LI,R2	1	
1987	02	00	503	04100790		CAL1,1	WRITE	
1988	02	00	504	8210000A	A	LW,R1	*SR3	
1989	02	00	505	6A400510		BAL,R4	CBCPRT	IDENTIFY MODE
1990	02	00	506	22100545		LI,R1	CBC0N	GIVE
1991	02	00	507	20800000	A	AI,SR1	0	ON/
1992	02	00	508	6910050A		BLZ	*+2	OFF
1993	02	00	509	22100546		LI,R1	CBC0FF	MSG
1994	02	00	50A	22200004	A	LI,R2	4	
1995	02	00	50B	04100790		CAL1,1	WRITE	
1996	02	00	50C	25800001	A	SLS,SR1	1	
1997	02	00	50D	20900000	A	AI,SR2	0	
1998	02	00	50E	693004FE		BNEZ	CBCML00P	GO IF MORE TO CHECK
1999	02	00	50F	6800001D		B	PROMPT	
2000	02	00	510			CBCPRT	EQU	*
2001	02	00	510	72200001	A	LB,R2	R1	
2002	02	00	511	04100790		CAL1,1	WRITE	
2003	02	00	512	68080000	A	B	0,R4	
2004						*		
2005	02	00	513	06200000	A	TERMTYPE DATA	X'06200000'	FPT FOR TRANS TBL
2006	02	00	514	06000000	A	DATA	X'06000000'	& CBC IDLE ALGORITHM
2007	02	00	515	00000000	A	DATA	0	IDLE FIELD
2008	02	00	516	00000000	A	DATA	0	C0CTERM FIELD
2009						*		
2010						*		
2011	02	00	517	06600000	A	CBCSTATC GEN,8,24	20 6,6,0	GET EXTENDED LINE STATUS
2012						*		
2013	02	00	518	07000520		TTYPTAB GEN,8,24	7,TTYPO	
2014	02	00	519	07000522		GEN,8,24	7,TTYPI	
2015	02	00	51A	07000524		GEN,8,24	7,TTYPI	
2016	02	00	51B	09000526		GEN,8,24	9,TTYPI	
2017	02	00	51C	0E000529		GEN,8,24	14,TTYPI	
2018	02	00	51D	0E00052D		GEN,8,24	14,TTYPI	

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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	008CACA0 A	M0DECW	DATA	X1008C6CA0!
2030	02	0053C	08000547		GEN,8,24	8,MM0
2031	02	0053D	0E000549		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

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2037	02	00543	10000560		GEN,8,24	16,MM7	
2038	02	00544	0E000564		GEN,8,24	14,MM8	
2039				*			
2040	02	00545	40D6D540	A	C0C0N	TEXT	! 0N !
2041	02	00546	40D6C6C6	A	C0C0FF	TEXT	! 0FF !
2042	02	00547	C5C3C8D6	A	MM0	TEXT	! ECHO PLEX !
	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			

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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!

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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	!ERASE COMMAND!	

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ERASE COMMAND

118

2*
3*
4*
5*
6*
7*
8*
9* 02 0057D
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 ERASPT 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 J:TELFLGS AT JOB STEP
 BEZ NTJBST BR IF NOT
*
 LW,R5 EXTNDBIT
 STS,R5 J:TELFLGS SET EXTEND BIT
 B PROMPT
 TITLE 'DECOUPLE, COUPLE VERBS'

DECOUPLE, COUPLE VERBS

Line	Time	Code	Address	Mode	Verb	Parameter	Comment
2089	02	00587			DECOUPLE	FGU	\$
2090	02	00587	22C01000	A		LI,D1	DONTBIT
2091	02	00588	4BC00000	X		AND,D1	J:TELFLGS
2092	02	00589	69300262			BNE	GIVEBIRD
2093	02	0058A	048007EE			CAL1,8	MDCPL
2094	02	0058B	6800001D			B	PROMPT
2095						SPACE	2
2096	02	0058C			COUPLE	FGU	\$
2097	02	0058C	22C01000	A		LI,D1	DONTBIT
2098	02	0058D	4BC00000	X		AND,D1	J:TELFLGS
2099	02	0058E	68300593			BE	COUPLE1
2100					*		
2101					*		DONT COUPLE ISSUED
2102	02	0058F	21100000	A		CI,R1	0
2103	02	00590	692006B1			BG	GIVEMEH
1*	02	00591	22400000	A		LI,R4	0
2*	02	00592	68000596			B	CPLCMN
2106	02	00593	21100001	A	COUPLE1	CI,R1	1
2107	02	00594	69200599			BG	COUPLE2
2108					*		
2109					*		'COUPLE' TYPED- ISSUE PERMIT COUPLE CAL.
1*	02	00595	32400018	N		LW,R4	Y008
2*	02	00596	20400080	A	CPLCMN	AI,R4	X'80'
3*	02	00597	048007EF			CAL1,8	MCTCPL
2111	02	00598	6800001D			B	PROMPT
2112					*		
2113					*		COUPLE XX ISSUED. ATTEMPT COUPLE TO TERMINAL
2114	02	00599	22C00000	A	COUPLE2	LI,D1	0
2115	02	0059A	2230000C	A		LI,R3	D1
2116	02	0059B	6AA008A0			BAL,SR3	SCAN
2117	02	0059C	21700002	A		CI,R7	2
2118	02	0059D	692008F7			BG	SYNTAX
2119	02	0059E	02200020	A		PUSH	2,R1
	02	0059F	0B100100	N			
2120	02	005A0	6A100995			BAL,R1	HEX2BIN

DECOUPLE TERMINALS
 IS THE DONT FLAG SET..
 IF SO, HE SAY 'DONT DECOUPLE'
 AND WE SAY 'DONT WHAT !.....'
 JUST ISSUE THE CAL
 AND LEAVE

SEE IF THE DONT FLAG
 IS SET. IF IT IS, THIS
 IS A DONT COUPLE VERB

DID THEY SAY 'DONT COUPLE XX'
 YUP. GIVE 'EM EH.
 TO RESET MODE4 BIT
 GO DO COMMON M:CT
 AN ARGUMENT MUST MEAN
 COUPLE TO A TERMINAL

TO SET MODE4 BIT
 COUPLE PERMISSION BIT
 SET/RSET MODE4, BIT 0

GO GET IT
 MORE THAN 2 CHRS IS
 AN ERROR.

CONVERT IT

DECOUPLE, COUPLE VERBS

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 49800B2E
 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 C3D6F4D7 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

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 'X'1D000000' OTHERWISE OR IN THE FPT
 CAL1,8 SR1 AND ISSUE THE CAL.
 BCR,8 PROMPT COUPLE SUCCESSFULL..
 BCS,4 COUPLE5 LINE NOT ON. TELL 'EM.
 LI,R1 NOLINE UNSUCCESSFULL, TELL 'EM
 15 THE BAD NEWS
 LI,R2 15
 CAL1,1 WRITE
 B PROMPT EXIT IN DISGUST.
 COUPLE5 LI,R1 NOLINE
 LI,R2 28 GIVE 'EM THE BAD NEWS
 CAL1,1 WRITE
 B PROMPT
 NOLINE TEXT 'COUPLE REFUSED. LINE NOT ON.'

2146 TITLE 'DISPLAY COMMAND VERB'


```

2147 *
2148 *
2149 *
2150 *
2151 *
2152 *
2153 *
2154 *
2155 *
2156 *
2157 *
2158 *
2159 02 005BC DISPLAY RES 0
2160 02 005BC 6AB00612 BAL,SR4 0UTCARR OUTPUT LINE OF BALNKS
2161 02 005BD 048005FA CAL1,8 DISPFPT GO GET DISPLAY INFO FROM MONITOR
2162 02 005BE 32C00007 A LW,D1 R7 NO. OF USERS
2163 02 005BF 6AB00979 BAL,SR4 BINDECBCD GO CONVERT NO. IN D1= ANS. IN D2
2164 02 005C0 3270000D A LW,R7 D2 PUT CONVERTED NO INTO R7
2165 02 005C1 32C00005 A LW,D1 R5 ETMF
2166 02 005C2 6AB00979 BAL,SR4 BINDECBCD GO CONVERT TO DEC. = ANS. IN D2
2167 02 005C3 3250000D A LW,R5 D2 RESET ETMF BOX WITH DEC VALUE
2168 02 005C4 32C00006 A LW,D1 R6 MEDIAN VALUE OF TERM RESPONSE TIME
2169 02 005C5 6AB00979 BAL,SR4 BINDECBCD GO CONVERT TO DEC FOR OUTPUT
2170 02 005C6 3260000D A LW,R6 D2 RESET MEDIAN VALUE TO DEC.
2171 *
2172 02 005C7 32100100 N LW,R1 TELSTACK GET OUTPUT BUFFER
2173 02 005C8 20100001 A AI,R1 1 ADDRESS
2174 02 005C9 02200030 A LCI 3
2175 02 005CA 2A8005FB LM,SR1 USERSQT GET USERS MESS AND STORE INTO BUFF
2176 02 005CB 25820000 A STM,SR1 0,R1 FOR CONSOLE PRINT OUT.
2177 02 005CC 35720002 A STW,R7 2,R1 PUT NO. OF USERS INTO MESSAGE
2178 02 005CD 3220071C LW,R2 CARRETRN INSERT CARRIAGE RETURN
2179 02 005CE 35220003 A STW,R2 3,R1 STORE INTO BUFFER AREA FOR OUTPUT
2180 02 005CF 2220000D A LI,R2 13 NO. OF CHARS TO OUTPUT
2181 02 005D0 04100790 CAL1,1 WRITE WRITE MESS. ON TYPEWRITER
2182 02 005D1 02200030 A LCI 3 PICKUP ETMF QUOTE AND PUT INTO BUFF
2183 02 005D2 2A8005FE LM,SR1 ETMFGT PUT ETMF VALUE INTO BUFFER

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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

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2221 02 005F6 22200019 A
2222 02 005F7 04100790
2223 02 005F8 6AB00612
2224 02 005F9 6800001D

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

2225
2226 02 005FA
2227 02 005FA 13000000 A

*
DISPFPT RES 0
DATA X'13000000'

2228 02 005FB
2229 02 005FB E4E2C5D9 A
02 005FC E2407E40 A
02 005FD 40404040 A

USERSQT RES 0
TEXT 'USERS = '

2230 02 005FE
2231 02 005FE C5E3D4C6 A
02 005FF 40407E40 A
02 00600 40404040 A

ETMFQT RES 0
TEXT 'ETMF = '

2232 02 00601
2233 02 00601 D9C5F2D7 A
02 00602 D6D5F2C5 A
02 00603 40F9F06C A
02 00604 40404C40 A
02 00605 40404040 A
02 00606 40D4F2C5 A
02 00607 C3E24040 A

MEANQT RES 0
TEXT 'RESPONSE 90% < MSECS '

2234 02 00608
2235 02 00608 D9C1C4E2 A
02 00609 407E4040 A
02 0060A 40404040 A
02 0060B 404040C7 A
02 0060C D9C1D5E4 A
02 0060D D3C5F240 A

RADSQT RES 0
TEXT 'RADS = GRANULES'

2236

TITLE 'STATUS COMMAND VERB'

2237			*	
2238			*	THE STATUS VERB IS PROCESSED BELOW. THE WORK IS DONE
2239			*	IN THE ROUTINE STATUSL. NO REGISTERS ARE SET ON
2240			*	ENTRY TO THE ROUTINE STATUSL. THE LINE IS OUTPUT TO THE
2241			*	TERMINAL FROM THE ROUTINE STATUSL.
2242			*	
2243			*	
2244	02 0060E		STATUS	RES 0
2245	02 0060E	6AB00612		BAL,SR4 OUTCARR OUTPUT LINE OF BLANKS
2246	02 0060F	6A200A3C		BAL,R2 STATUSL GO COMPUTE AND PRINT OUTPUT LINE
2247	02 00610	6AB00612		BAL,SR4 OUTCARR OUTPUT LINE OF BLANKS
2248	02 00611	6800001D		B PROMPT
2249				SPACE 4

2250			*	
2251			*	THE FOLLOWING ROUTINE OUTPUTS ONE LINE OF BLANKS
2252			*	SR4 IS THE LINK REGISTER
2253			*	R1 AND R2 ARE DESTROYED
2254	02 00612		OUTCARR	RES 0
2255	02 00612	2210071C		LI,R1 CARRETRN POINT TO CARRIAGE RETURN WORD
2256	02 00613	22200001 A		LI,R2 1 THE NO. OF CHARACTERS TO OUTPUT
2257	02 00614	04100790		CAL1,1 WRITE OUTPUT TO TERMINAL
2258	02 00615	E800000B A		B *SR4 EXIT
1*				TITLE 'SEND COMMAND'

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 PURPOSE: THE SEND COMMAND IS USED TO ENABLE/DISABLE
F RECEIPT OF MESSAGES SENT TO THE USER TERMINAL
F BY THE CP-V OPERATOR.
F DESCRIPTION: THE DEFAULT SETTING FOR THE SEND FLAG IS
F TO ALLOW OPERATOR MESSAGES. WHEN THE USER SAYS
F DONT SEND, ALL OPERATOR MESSAGES ARE DISALLOWED.
F HOWEVER, ANY GLOBAL BROADCASTS WHICH ARE DEFERRED
F WHILE THE USER IS NOT IN TEL WILL BE PRINTED BY
F TEL THE NEXT TIME HE GETS CONTROL. DONT SEND ALSO
F DISALLOWS USE OF THE MESSAGE COMMAND, SINCE THE USER
F 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 FGU \$
 BR,R4 X20 MERGE MASK
 CAL1,8 CTFPT SET/RSET DEFER MSG FLAG
 B PRBMP
 TITLE !MESSAGE COMMAND VERB!

MESSAGE COMMAND VERB

```

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* OUTPUT: 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'

```

```

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 201FFFFFF 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 28200106 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 79100106 N
2296      02 0063F 02200030 A
    
```

```

MESSAGE0 EQU $
          BAL,D4 MESSAGE4
          LI,D4 0
          LB,R4 JB,CCARS
          AI,R4 =2
          CI,R4 73
          BLE $+2
          LI,R4 73
          LW,R5 R4
          AI,R5 6
          LW,R1 R5
          LB,R6 TELBUF,R4
          STB,R6 TELBUF,R5
          AI,R5 =1
          BDR,R4 $=3
          B MESSAGE1

*
MESSAGE EQU $
          BAL,D4 MESSAGE4
          LI,D4 0
          LB,R1 JB,CCARS
          AI,R1 =2

*
MESSAGE1 CI,R1 51
          BLE MESSAGE2
          AI,R1 =51+7
          LI,D4 1
MESSAGE2 LCI 2
          LM,R2 MSGMESS
          STM,R2 TELBUF
          CI,D4 1
          BNE $+4
          LI,R5 51
          STB,R5 TELBUF
          B $+2
          STB,R1 TELBUF
          LCI 3
    
```

```

CHK FOR LOWER CASE CHARS
EXCEED FLG
GET RECORD SIZE
SET INDX&DR0P 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

CHK FOR LOWER CASE CHARS
EXCEED FLG
GET RECORD SIZE
DR0P C/R& SPACE

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

SET SIZE TO 51
    
```

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MESSAGE COMMAND VERB

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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	EQU	8 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
2317	02	00655	1950065C	CLM,R5	AT0Z	GET DATA
2318	02	00656	69600658	BCS,6	*+2	IS IT LOWER CASE
2319	02	00657	20500040 A	AI,R5	X'40'	NO
2320	02	00658	75580106 N	STB,R5	TELBUF,R4	YES-MAKE IT UPPER
2321	02	00659	204FFFFFF A	AI,R4	=1	

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2322 02 0065A 64100654

BDR,R1

MESSAGE COMMAND VERB

MESSAGE5

2323 02 0065B E800000F A

B

*D4

2324 *

2325 *

2326

BOUND

8

2327 02 0065C 000000A9 A

AT0Z

DATA

X'1A91',X'181'

Z.....T0.....A

02 0065D 00000081 A

2328 *

TITLE

'BACKUP COMMAND VERB'

2329

```

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
BACKUP  FGU      *
          BAL,SR3 GETFIELD      GET FILE NAME
          BAL,SR4 FID           & ACCT, PSWD, IF PRESENT
          BAL,R4  FMTELCL      SAFETY CLOSE
          BAL,SR4 FLBP         TEST IF FILE EXISTS
*****
*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.
*****
          CI,R0    3           DOES FILE EXIST
          BNE      $+4         IT EXISTS.
          LI,D1    X'030202'   ERROR CODE & SUBCODE
          LI,R0    CLEANSTACK  SIMULATE
          B        T$ERR       BAL...
*
          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
*****
          BCR,R   $+3         GET PAGE
          LI,D1    X'030201'   NO PAGE, ERROR
          B        CMNERR1     TELL USER & ABORT
*
* SWITCH ACCOUNT TO ISYS & DB OPEN INPUT
          LW,D3    SYSACT
          LW,D4    SYSACT+1
          XW,D3    J:ACCN
          XW,D4    J:ACCN+1
          LI,R1    4           FOR INPUT
          CAL1,1   OPENBKUP
          STW,D3   J:ACCN      RESTORE USER IS
    
```

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
 CAL1,1
 LW,R5
 SLS,R5
 LW,R7
 AI,R5
 CI,R5
 BG
 STLEOP FQU
 LCI
 LM,SR3
 STM,SR3
 AI,R7
 SLS,R7
 WRITOUT CAL1,1
 CAL1,8
 BAL,R4
 CAL1,6
 B
 SPACE

BACKUP COMMAND VERB
 J;ACCN+1 ACCOUNT
 READBKUP READ IN BACKUP RECORD
 M:TEL+13 GET CURRENT RECORD SIZE
 =2 CONVERT TO WORDS
 R5
 10 SIZE OF AN ENTRY
 512 WILL IT FIT
 SIZER NO
 *
 10
 FL0PBUF+8 MOVE ENTRY
 *SR2,R7 TO RECORD
 10 NEW RECORD SIZE
 2 IN BYTES
 CAL1,1 WRITERC WRITE OUT THE RECORD TO BACKUP FILE
 CAL1,8 PGDR0P DROP A PAGE
 BAL,R4 FMTELCL CLOSE THE BACKUP FILE
 CAL1,6 BKUPCAL SEND A CAL FOR THE BACKUP PROCESS
 B PROMPT
 SPACE 3

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 FQU *
 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 RESTORE USER'S
 STW,D4 J;ACCN+1 ACCOUNT
 CAL1,8 PGDR0P GIVE THE PAGE BACK

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2401 02 0068A 22C3n203 A
 2402 02 0068B 6800n70E
 2403
 2404 02 0068C 2210n002 A
 2405 02 0068D 0410n7BF
 2406 02 0068E 35E0n000 X
 2407 02 0068F 35F0n001 N
 2408 02 00690 2270n000 A
 2409 02 00691 6800n67A

BACKUP COMMAND VERB
 X'030203' ERROR CODE & SUBCODE
 CMNERR1 TELL USER
 *
 OPEN1 LI,R1 2 FOR BUT 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

2410
 2411
 2412
 2413
 2414
 2415
 2416
 2417

 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.

2418 02 00692
 2419 02 00692 22C3n200 A
 2420 02 00693 6A00n000 X
 2421 02 00694 6800n680
 2422

SIZER FQU *
 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
          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.
          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
          FGU      $
          LI,R1    EHMSG     THE JOB NEVER EXISTED OR JID. IS
    
```

JOB2

GIVEMEH

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JOB COMMAND VERB

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2458	02	006B2	22200004	A	LI,R2	4	INDECIPHERABLE SEND OUT
2459	02	006B3	04100790		CAL1,1	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	X10309001	ERRMSG KEY FOR 'COMPLETED'
2463	02	006B6	680006BA		B	JOBMSG	TELL USER & SCAN FOR MORE
2464		02	006B7		JRUNNG	FGU	\$
2465	02	006B7	22C30901	A	LI,D1	X10309011	ERRMSG KEY FOR 'RUNNING'
2466	02	006B8	680006BA		B	JOBMSG	
2467		02	006B9		JDNTEXT	FGU	\$
2468	02	006B9	22C30902	A	LI,D1	X10309021	ERRMSG KEY FOR 'DONESNT EXIST'
2469	02	006BA	220006C6		JOBMSG	LI,R0	TO LOOK FOR MORE SYSIDS
2470	02	006BB	68000000	X	B	TERR	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	DP	CONVERTED NUMBER
2475	02	006BF	22C30903	A	LI,D1	X10309031	ERRMSG KEY FOR 'WAITING!'
2476	02	006C0	6AB00000	X	BAL,SR4	TERRTXT	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	MULJOB	TO CHECK FOR MORE SYSIDS
2479	02	006C3	68000000	X	B	TWRERR	WRITE MSG
2480		02	006C4		JWAIT2BT	FGU	\$
2481	02	006C4	22C30904	A	LI,D1	X10309041	ERRMSG KEY FOR 'WAITING TO B/P'
2482	02	006C5	680006BA		B	JOBMSG	
2483		02	006C6		MULJOB	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	JOB+2	
					TITLE	'SWITCH COMMAND VERB'	

1*

```

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 21C000D9 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  FGU      $
        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  FGU      $
        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   FGU      $
        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   LI,D4    0          SCAN FOR SWITCH NUMBER
        BAL,SR3  GETFIELD   IS IT ALL
        CW,D1    TXALL
        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 45500004 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 227FFFFFA A

```

```

SWITCH COMMAND VERB
BNE SYNTAX NO, ILLEGAL IF NOT ALL
LB,R5 D1 GET CHAR
CI,R5 '1' CHECK IF IN LIMITS
BL SYNTAX
CI,R5 '6'
BG SYNTAX
AND,R5 M4 CONVERT TO BINARY
LI,D1 X'40' 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' 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 X'030B00' ERROR CODE & SUBCODE
B CMNERR1
*
GETSWX FQU $
CI,R6 '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 EQU $
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

```


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76* 02 00703 25000001 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,R8
 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

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2489 02 0070B
2490 02 0070B 1260073A
2491 02 0070C 22000000 A
2492 02 0070D 6800000C8
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!

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ERROR HANDLING

2522
 2523
 2524
 2525
 2526
 2527
 2528
 2529
 2530
 2531
 2532
 2533
 2534
 2535
 2536
 2537 02 0070E
 2538 02 0070E 22000903
 2539 02 0070F 68000000 X
 2540

```

*****
*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'
```

Line	Time	Code	Address	Label	Type	Value	Comment
2541	02 00710	00A40000	A	STKINIT	GEN,16,16	TSTAKSZ,C	TO INIT. TELSTACK SPD
2542	02 00711	5B404040	A	DBLL	TEXT	'B'	
2543	02 00712	7AE2F8E2	A	SYS	TEXT	'!SYS'	
2544	02 00713	D4C54040	A	ME	TEXT	'ME'	
2545	02 00714	D3D74040	A	LP	TEXT	'LP'	
2546	02 00715	D5D64040	A	NO	TEXT	'NO'	
2547	02 00716	D6D54040	A	BN	TEXT	'BN'	
2548	02 00717	D6E5C5D9	A	OVER	TEXT	'OVER'	
1*	02 00718	F0404040	A	TXO	TEXT	'O'	
2*	02 00719	F1404040	A	TX1	TEXT	'1'	
3*	02 0071A	C1D3D340	A	TXALL	TEXT	'ALL'	
2549	02 0071B	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	TENTHBU	EGU	Y0001	FOR CHARGES IN PENNIES.
2556	02 0071C	00000000	A	CARRETRN	DATA	X'0D000000'	
2557	02 0071D	C5C86F40	A	EHMSG	DATA,4	X'C5C86F40',X'7C400000'	
	02 0071E	7C400000	A				
2558	02 0071F	0020000B	A	FLAGS	DATA	X'0020000B'	
2561	02 00720	D3C9D5C5	A	LMSG	TEXT	'LINE'	LINE # FOR TERMINAL
2562	02 00721	40404040	A		TEXT	' '	MESSAGE (FILLED)
2563	02 00722	15000000	A		DATA	X'15000000'	FOLLOWED BY CR.
2567	02 00723	155A0000	A	RETN	DATA	X'155A0000'	
2568	02 00724	C7400209	A	FL0PBITS	DATA	X'C7400209'	WORD 1 OF FL0P PLIST
2575	02 00725	01000008	A	NAMEVLP	DATA	X'01000008'	
2576				*			
2577				* BEGIN DOUBLEWORD TABLE			
2578				*			
2579					BBUND	8	
2580	02 00726	000000F0	A	FOF9	DATA	X'F0',X'F9'	
	02 00727	000000F9	A				
2581	02 00728	000000C1	A	C1C6	DATA	X'C1',X'C6'	
	02 00729	000000C6	A				
2582	02 0072A	C5C4C9E3	A	EDITA	TEXT	'EDIT '	
	02 0072B	40404040	A				
2583	02 0072C	03D7C3D3	A	PCL	TEXTC	'PCL'	

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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
2606
2607 02 00750 C9D5D7E4 A * END OF DOUBLEWORD TABLE
      02 00751 E340C5D9 A *
      02 00752 D9D6D960 A PARMMSG TEXT 'INPUT ERROR-RETRY!'
      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'11',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'10',M:UC
2625 02 00795 F0000000 A GEN,7,25 X'78',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

```


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TABLES, CONSTANTS, AND SUCH

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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
 *
 OPENBKUP 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
 TEXTC 'BACKUP'

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

2699 02 007CE 02 A
 02 007CE 1 01 A
 02 007CE 2 02 A
 02 007CE 3 02 A
 2700 02 007CF 7AE2F8E2 A
 02 007D0 40404040 A
 2701
 2702
 2703 02 007D1 0C000001 A
 2704
 2705
 2706 02 007D2 08000001 A
 2707
 2708
 2709 02 007D3 09000001 A
 2710
 2711
 2712
 2713 02 007D4 10000133 N
 2714 02 007D5 88000010 A
 2715 02 007D6 00000690
 2716 02 007D7 80000009 A
 2717 02 007D8 00000800 A
 2718 02 007D9 000007DF
 2719
 2720
 2721
 2722 02 007DA 11000133 N
 2723 02 007DB 38000050 A
 2724 02 007DC 80000009 A
 2725 02 007DD 80000007 A
 2726 02 007DE 000007DF
 2727
 2728 02 007DF 06C2C1C3 A
 02 007E0 D2E4D740 A
 2729
 2730

DATA,1 2,1,2,2
 SYSACT TEXT 1;SYS ' ACCOUNT
 *
 * PLIST TO GET COMMON PAGE FOR SHOW COMMAND
 GCOMNPG GEN,8,24 X'1C1,1 GET 1 COMMON PAGE
 *
 * PLIST TO GET A PAGE FOR THE PURPOSE OF READING IN THE BACKUP RECORD
 GETPG GEN,8,7,17 X'1081,0,1
 *
 * PLIST TO RELEASE A PAGE AFTER WRITING OUT THE BACKUP RECORD
 PGDRBP GEN,8,7,17 X'1091,0,1
 *
 * PLIST FOR READING THE BACKUP RECORD
 *
 READBKUP GEN,8,24 X'101,M:TEL
 DATA X'1B8000010'
 DATA RDERT READ ERROR RETURN
 GEN,1,14,17 1,0,SRP BUFFER ADDRESS
 DATA 2048 BUFFER SIZE
 DATA BKUPKEY KEY ADDRESS
 *
 * PLIST FOR WRITING OUT THE BACKUP RECORD
 *
 WRITERC GEN,8,24 X'111,M:TEL
 DATA X'138000050'
 GEN,1,14,17 1,0,SRP BUFFER ADDRESS
 PZE *R7 SIZE OF RECORD
 DATA BKUPKEY KEY ADDRESS
 *
 BKUPKEY TEXTC 'BACKUP'
 *
 *

```

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 JOBCAL GEN,8,24 X'2F',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

```

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TABLES, CONSTANTS, AND SUCH

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	XID'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	133 !
2778	02	007FA	F3F54040	A		TEXT	135 !
2779	02	007FB	F3F74040	A		TEXT	137 !
2780	02	007FC	F7F0F1F5	A		TEXT	17015!
2781	02	007FD	E2E3C1E3	A		TEXT	1STAT!
2782	02	007FE	C5E2F3C4	A		TEXT	1ESTD!
2783	02	007FF	C5C1D7D3	A		TEXT	1EAPL!
2784	02	00800	E2E2F3C4	A		TEXT	1SSTD!
2785	02	00801	E2C1D7D3	A		TEXT	1SAPL!
2786	02	00802	D4C5D4D6	A		TEXT	1MEMB!
2787	02	00803	C5E7C5C3	A		TEXT	1EXEC!
2788	02	00804	C4C1F3C1	A		TEXT	1DATA!
2789	02	00805	E3C94040	A		TEXT	1TI !

MEMOREX
EXECUPORT
DATAPBINT
TEXAS INSTRUMENTS SERIES 700

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

SIZETAB1 EQU *-TERMTAB1=1
 *
 *
 *SIZE OF TERMTAB1,2,3 ARE ALL THE SAME.PARALLEL TABLES.**
 *
 TERMTAB2 DATA,1 0,1,2,3 COB 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, DATAPINT
 DATA,1 5 TI
 BOUND 4

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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 GROUP?
 *
 PCLCALL LD,R6 PCL
 B SPCASP SET UNKLMN TO STOP SCAN
 *
 FIDER BAL,SR4 FID GO BREAK FID
 LI,R5 0NBIT+0VERBIT WAS OVER/ON 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'

2833		02 00810		RUN	FGU	*	
2834	02	0081D	225FFFFE A		LI,R5	=2	
2835	02	0081E	4B500000 X		AND,R5	J:CPP8	
2836	02	0081F	35500000 X		STW,R5	J:CPP8	
2837	02	00820	22C00000 A		LI,D1	0	
2838	02	00821	1260073C		LD,R6	LINK	
2839	02	00822	680000C8		B	GROUP2	GO LOAD LINK
2840				*			
2841				*			
2842				*			
2843				*			
2844				*			
2845	02	00823		BREAKER	RES	0	
2846	02	00823	4BD00000 X		AND,D2	NBIT30	
2847	02	00824	35D00000 X		STW,D2	JITELFLGS	
1*	02	00825	6AB00000 X		BAL,SR4	CPXBREAK	UNDB CPX MODE IF ACTIVE
2848	02	00826	68000016		B	BUFINT	
1*					TITLE	INVALID TEL COMMAND TABLES!	

Line	Code	Address	Mode	Label	Command	Table
2*	03	00000		VECTOR1	CSECT	1
3*	03	00000	02000000		NBP	
4*	04	00000		VECTOR2	CSECT	1
5*	04	00000	02000000		NBP	
6*	05	00000		VERB1	CSECT	1
7*	05	00000	40404040		TEXT	1 1
8*				*		
9*	05	00001	C3D6D7E8		CMND	'COPY',LD6,PCL
	03	00001	1260072C			
10*	05	00002	C5C4C9E3		CMND	'EDIT',LD6,EDIT
	03	00002	12600738			
11*	05	00003	C7C5F340		CMND	'GET',B,GET
	03	00003	68000000			
12*	05	00004	D1D6C240		CMND	'JOB',B,JOB
	03	00004	68000695			
13*	05	00005	D3C9D5D2		CMND	'LINK',B,RUN
	03	00005	6800081D			
14*	05	00006	D3C9F2E3		DCMND	'LIST',B,LIST
	03	00006	68000769			
15*	05	00007	D6C6C640		CMND	'OFF',LD6,LOGOFF
	03	00007	12600742			
16*	05	00008	D9E4D540		CMND	'RUN',B,RUN
	03	00008	6800081D			
17*	05	00009	C6C4D740		CMND	'FDP',B,FDPSET
	03	00009	680002EE			
18*	05	0000A	D8E4C9E3		CMND	'QUIT',B,QUIT
	03	0000A	68000119			
19*	05	0000B	E2C8D6E6		CMND	'SHOW',B,SHOW
	03	0000B	68000350			
20*	05	0000C	E2C1F5C5		CMND	'SAVE',B,SAVE
	03	0000C	68000000			
21*	05	0000D	C4D6D5E3		CMND	'DONT',B,DONT
	03	0000D	6800025E			
22*	05	0000E	E3C1C2E2		CMND	'TABS',B,TABS
	03	0000E	680003F0			
23*	05	0000F	E2C5F340		CMND	'SET',B,SET
	03	0000F	68000000			

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24* 05 00010 D4C5F3C1 A
 03 00010 6800080E 02
 25* 05 00011 D7C3D340 A
 03 00011 68000814 02
 26* 05 00012 E2E3D6D7 A
 03 00012 68000119 02
 27* 05 00013 C5D5C440 A
 03 00013 68000119 02
 28* 05 00014 C2E8C540 A
 03 00014 12600742 02
 29* 05 00015 E3D74040 A
 03 00015 680002FC 02
 30* 05 00016 E2C5D5C4 A
 03 00016 68000616 02
 31* 05 00017 C5C3C8D6 A
 03 00017 68000000 N
 32* 05 00018 E4404040 A
 03 00018 68000244 02
 33* 05 00019 D3404040 A
 03 00019 1260072C 02
 34* 05 0001A C2404040 A
 03 0001A 68000237 02
 35* 05 0001B C4404040 A
 03 0001B 1260072C 02
 36* 05 0001C C3404040 A
 03 0001C 1260072C 02
 37* 05 0001D C5404040 A
 03 0001D 6800023B 02
 38* 05 0001E D4404040 A
 03 0001E 6800061F 02
 39* 05 0001F D8404040 A
 03 0001F 68000119 02
 40* 05 00020 E2404040 A
 03 00020 6800028F 02
 41* 05 00021 D7C1C7C5 A
 03 00021 6800043D 02
 42* 05 00022 E7C5D840 A

VALID TEL COMMAND TABLES

CMND 'META',B,ASSEMBLE
 CMND 'PCL',B,PCLCALL
 CMND 'STOP',B,QUIT
 CMND 'END',B,QUIT
 CMND 'BYE',LD6,LOGOFF
 CMND 'TP',B,TP
 DCMND 'SEND',B,SEND
 DCMND 'ECHO',B,FCH8
 CMND 'U',B,UDEL T
 CMND 'L',LD6,PCL PCL LIST
 CMND 'B',B,BUILD EDIT BUILD
 CMND 'D',LD6,PCL PCL DELETE
 CMND 'C',LD6,PCL PCL COPY
 CMND 'F',B,EDITO EDIT
 CMND 'M',B,MESSAGEO MESSAGE
 CMND 'Q',B,QUIT QUIT
 CMND 'S',B,START
 CMND 'PAGE',B,PAGE
 CMND 'XEQ',B,EX

43*	03 00022	68000000 N			
	05 00023	C4C94040 A	CMND	DI ,B,DISPLAY	
44*	03 00023	6800058C 02			
	05 00024	E2E34040 A	CMND	ST ,B,STATUS	
45*	03 00024	6800060E 02			
	05 00025	E3404040 A	CMND	T ,B,TERMINAL	
46*	03 00025	68000493 02			
	05 00026	D9404040 A	CMND	R ,B,RESET	
47*	03 00026	68000000 N			
	05 00027	C7D64040 A	CMND	G0 ,B,CONTINUE	
48*	03 00027	680002E6 02			
	00000027		SIZVERB1	FQU	S=VECTOR1=1 CSECT LENGTH = NUM CMNDS
49*			*		
50*	06 00000		VERB2	CSECT 1	DOUBLEWORD COMMANDS
51*			* NOTE:	CSECT DIRECTIVE FORCES DOUBLEWORD BOUNDARY	
52*	06 00000	40404040 A		TEXT	' '
	06 00001	40404040 A			
53*	06 00002	D9C5F2E3 A	CMND	RESTORE ,B,GET	
	06 00003	D6D9C540 A			
	04 00001	68000000 N			
54*	06 00004	D7D9D6C3 A	CMND	PROCEED ,B,CONTINUE	
	06 00005	C5C5C440 A			
	04 00002	680002E6 02			
55*	06 00006	D9C5F2C5 A	CMND	RESET ,B,RESET	
	06 00007	E3404040 A			
	04 00003	68000000 N			
56*	06 00008	C2E4C9D3 A	BUILD A	CMND	BUILD ,LD6,EDIT
	04 00009	C4404040 A			
	04 00004	12600738 02			
57*	06 0000A	C2C1F3C3 A	CMND	BATCH ,B,BATCH2	
	06 0000B	C8404040 A			
	04 00005	6800070B 02			
58*	06 0000C	C3C1D5C3 A	CMND	CANCEL ,B,CANCEL	
	06 0000D	C5D34040 A			
	04 00006	680009EF 02			
59*	06 0000E	C3D6D4D4 A	DCMND	COMMENT ,B,COMMENT	
	06 0000F	C5D5F340 A			

60*	04 00007	6800025A 02			
	06 00010	C6D6D9E3 A	CMND		IFORT41,B,COMPILE
	06 00011	F4404040 A			
	04 00008	68000811 02			
61*	06 00012	C3D6D8E3 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		IPASSWORD1,B,PASSWORD
	06 00023	E6D6D9C4 A			
	04 00011	6800030B 02			
70*	06 00024	C4C5D3E3 A	CMND		IDELTA1,B,DELTA SET
	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			

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VALID TEL COMMAND TABLES

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

81* 0000001C

SIZVERB2 EGU

*-VECTOR2=1

CSECT LENGTH * NUM CMNDS

82*
83* * THE FOLLOWING TWO TABLES ARE BIT PARALLEL TO VERB1 & VERB2.
84* * A 1 BIT INDICATES THAT THE COMMAND MAY BE PRECEDED BY !DONT!
85* *
86* 04 0001D 00600020 A DBITS1 DATA DBIT1 GENERATES SIZVERB1/32 WORDS
04 0001E 00000000 A
87* 04 0001F 05000840 A DBITS2 DATA DBIT2 GENERATES SIZVERB2/32 WORDS
88* 04 00020 USECT TFL
89* *

VALID TEL COMMAND TABLES

```

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'

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PAGE

3077
 3078
 3079
 3080
 3081 02 0082F 22C30100 A
 3082 02 00830 6800070E
 3083
 3084
 3085
 3086
 3087
 3088
 3089
 3090 02 00831 22C30113 A
 3091 02 00832 6800070E
 3092
 3093 02 00833
 1* 02 00833 32100013 N
 3095 02 00834 47100000 X
 3096 02 00835 32100106 N
 3097 02 00836 35100102 N
 3098 02 00837 22100755
 3099 02 00838 22200005 A
 3100 02 00839 04100790
 3101 02 0083A 68000903
 3102
 3103
 3104
 3105
 3106
 3107
 3108
 3109
 3110 02 0083B 22C30700 A
 3111 02 0083C 6800070E

*
 * THE FOLLOWING ARE ERROR AMPLIFIERS USED TO PRINT THE CORRECT MESSAGE.
 *
 NTJBST LI,D1 X'030100' ERROR CODE & SUBCODE
 B CMNERR1 TELL USER & PROMPT

 E FRROR:
 E GROUP 03, CODE=01, SUBCODE=13
 E DESCRIPTION:
 E USER SAID START OR START UNDER WITH NO LM NAME.
 E THIS IMPLIES \$ FILE, BUT THERE ISN'T ONE, SO...

 STARTERR LI,D1 X'030113' ERROR CODE & SUBCODE
 B CMNERR1
 *
 BKOPTO FQU \$
 LW,R1 IQUIT SET IMPLIED QUIT COMMAND TO ALLOW
 STS,R1 J:TELFLGS ICR: TO CAUSE PROCESSING OF CURRENT
 LW,R1 TELBUF COMMAND. SAVE 1ST WORD OF COMMAND
 STW,R1 NLSAVE FOR RESTORE AFTER NEXT READ
 BKOPT LI,R1 BKMSG
 LI,R2 5
 CAL1,1 WRITE
 B SYN1

 E FRROR:
 E GROUP 03, CODE=07, SUBCODE=00
 E DESCRIPTION:
 E THE USER'S TERMINAL TYPE SPECIFIED IN HIS
 E TERMINAL COMMAND WAS INVALID OR THE CHANGE
 E TERMINAL TYPE CAL WAS UNSUCCESSFUL.

 TERMERR LI,D1 X'030700' ERROR CODE & SUBCODE
 B CMNERR1

PAGE

```

3112
3113
3114 *D* NAME: RD:USERS
3115 *D* CALL:
3116 *D* BAL,R0 RD:USERS
3117 *D* CALLED BY PASSWORD AND SHOW COMMANDS
3118 *D* REGISTERS:
3119 *D* NO REGISTERS ARE PRESERVED
3120 *D* INPUT:
3121 *D* R2 = OPEN MODE, IN#1, INOUT #4
3122 *D* JIACCN,JIUNAME = USED TO FORM KEY FOR ;USERS REC.
3123 *D* ;LOGSZ = SIZE OF ;USERS RECORD
3124 *D* OUTPUT:
3125 *D* USERS AUTHORIZATION RECORD IN MEMORY
3126 *D* R3 = ADDRESS OF RECORD IN CORE
3127 *D* SCRATCH:
3128 *D* R1,R4,R5,R6,SR3,SR4,D1,D3,D4
3129 *D* DATA:
3130 *D* @PUSR, WORD 0, IS USED TO FORM WORD 0 OF READ FPT
3131 *D* DESCRIPTION:
3132 *D* A BUFFER IS CREATED IN TELSTACK & THE ;USERS
3133 *D* KEY IS PLACED IN IT. ;USERS IS OPENED IN THE MODE
3134 *D* SPECIFIED IN R2. THE RECORD IS THEN READ IN ON
3135 *D* TOP OF THE KEY. THE CALLER MUST RESTORE THE
3136 *D* TELSTACK SPACE, EXCEPT IF ERRORS OCCUR WHILE
3137 *D* ACCESSING ;USERS.
3138 *****
3139 02 00830 RD:USERS FGU $
3140 02 0083D 32300100 N LW,R3 TELSTACK CREATE BUFFER...
3141 02 0083E 20300001 A AI,R3 1
3142 02 0083F 22100006 N BUMP LOGSIZE+RWUSRSZ,R1
3143 *
3144 * NOW FORM THE KEY FOR ;USERS IN FRONT OF THE BUFFER.
3145 * KEY IS TEXTC ACCOUNT,BLANK,NAME
3146 *
3147 02 00841 CONCAT FGU $

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SUB-ROUTINES

3148 02 00841 22400000 A
 3149 02 00842 225FFFF8 A
 3150 02 00843 20400001 A
 3151 02 00844 726A0002 N
 3152 02 00845 21600040 A
 3153 02 00846 6830084B
 3154 02 00847 F5680003 A
 3155 02 00848 65500843
 3156 02 00849 22600040 A
 3157 02 0084A 20400001 A
 3158 02 0084B F5680003 A
 3159 02 0084C 225FFFF4 A
 3160 02 0084D 726A0003 N
 3161 02 0084E 21600040 A
 3162 02 0084F 68300853
 3163 02 00850 20400001 A
 3164 02 00851 F5680003 A
 3165 02 00852 6550084D
 3166 02 00853 F5400003 A
 3167
 3168
 3169
 3170 02 00854 02200020 A
 3171 02 00855 2A5007B3
 3172 02 00856 2AE00000 X
 3173 02 00857 2B500000 X
 3174 02 00858 22A00000 A
 3175 02 00859 041007A6
 3176 02 0085A 02200020 A
 3177 02 0085B 2BE00000 X
 3178
 3179
 3180
 3181
 3182
 3183
 3184 02 0085C 21A00000 A

LI,R4 0
 LI,R5 =8
 CONCAT A I,R4 1
 LB,R6 J;ACCN+2,R5
 CI,R6 ' '
 BE CONCATB
 STB,R6 *R3,R4
 BIR,R5 CONCATA
 LI,R6 ' '
 CONCATB STB,R6 *R3,R4
 LI,R5 =12
 CONCATN LB,R6 J;UNAME+3,R5
 CI,R6 ' '
 BE CONCAE
 AI,R4 1
 STB,R6 *R3,R4
 BIR,R5 CONCATN
 CONCAE STB,R4 *R3
 *
 * NOW CHANGE ACCOUNT TO ISYS & DO THE OPEN
 *
 LCI 2
 LM,R5 SECAC
 LM,D3 J;ACCN
 STM,R5 JIACCN
 LI,SR3 0
 CAL1,1 @PUSR
 LCI 2
 STM,D3 J;ACCN

 E ERROR!
 E GROUP 03, CODE=05, SUBCODE=00
 E DESCRIPTION:
 E IUSERS WAS BUSY WHEN ATTEMPTING OPEN INPUT

 CI,SR3 0

INITIALIZE COUNT
 FOR 8 CHARACTER ACCOUNT
 COUNT THE CHAR
 GET ACCOUNT CHAR.
 IS IT BLANK
 YES
 NO, STORE IT
 DO NEXT CHAR.
 BLANK FOR SPACER
 COUNT SPACER
 STORE SPACER
 FOR 12 CHAR USER NAME
 GET NAME CHAR
 IS IT BLANK
 YES, ALMOST DONE...
 NO, COUNT IT
 STORE CHAR.
 DO NEXT
 STORE COUNT
 SAVE USER'S ACCOUNT
 SET UP TO CHECK FOR ERRORS
 OPEN IUSERS
 RESTORE USER'S
 ACCOUNT
 ANY ERROR ON OPEN

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'100000', 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
 3198
 3199
 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 29560000 X
 3210 02 00868 04160000 X
 3211
 3212
 3213
 3214
 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 *

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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

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3223
3224 *****
3225 *D* NAME: FLBP *
3226 *D* CALL: *
3227 *D* BAL,SR4 FLBP *
3228 *D* REGISTERS: *
3229 *D* PRESERVES ALL REGISTERS EXCEPT R0 *
3230 *D* INPUT: *
3231 *D* R7=SR1 = FILE PASSWORD OR ZEROS *
3232 *D* SR2=SR3 = FILE ACCOUNT OR ZEROS *
3233 *D* D1=D3 = FILE NAME (NON-TEXTC), MAX 11 CHARS *
3234 *D* OUTPUT: *
3235 *D* R0 = ZERO IF NO ERROR, OTHERWISE CONTAINS *
3236 *D* ERROR CODE, RIGHT JUSTIFIED. *
3237 *D* DATA: *
3238 *D* BPUSR = WORD 0 OF OPEN FPT *
3239 *D* NAME = FILE NAME VLP CONTR WD *
3240 *D* PACC = ACCOUNT VLP CONTR WD *
3241 *D* PPAS = PASSWORD VLP CONTR WD *
3242 *D* INTERFACE: *
3243 *D* NFND = CONVERTS FILE NAME TO TEXTC *
3244 *D* DESCRIPTION: *
3245 *D* A TEST OPEN FPT IS BUILT IN THE CONTEXT PAGE AT *
3246 *D* 'FLBPBUF'. MODE IS SET TO OUT SO SAVE ROUTINE *
3247 *D* CAN USE THE FPT BY TURNING OFF THE TEST BIT. *
3248 *D* SINCE THE DCB IS NOT OPENED, THE CALLER NEED NOT *
3249 *D* CLOSE IT. *
3250 *****
3251 02 0086F 022000F0 A FLBP PUSH 15,R1
      02 00870 04100100 N
3252 02 00871 321007A6 LW,R1 BPUSR GET FPT WORD 0
3253 02 00872 49100014 N BR,R1 Y0008 TURN ON TEST BIT
3254 02 00873 32200724 LW,R2 FLBPBITS PARAM. PRES. BITS
3255 02 00874 22300890 LI,R3 RFE ERR
3256 02 00875 22400890 LI,R4 RFE ABN
3257 02 00876 22500001 A LI,R5 1 BRG = CONSEC
3258 02 00877 22600001 A LI,R6 1 ACC = SEQUEN
    
```

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SUBROUTINES

164

3259 02 00878 02200060 A
 3260 02 00879 2410011B 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 2460012A N
 3270 02 00883 32800000 X
 3271 02 00884 02200030 A
 3272 02 00885 24800127 N
 3273 02 00886 6AA00891
 3274 02 00887 32500000 X
 3275 02 00888 02200040 A
 3276 02 00889 24500123 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

LCI 6 STORE FPT,
 STM,R1 FL0PBUF WORDS 0=5
 LI,R6 2
 STW,R6 FL0PBUF+6 MODE = OUT
 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 'NFND1' 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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3301
3302
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3337

```

* 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	

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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 70	A		DATA,1	CI!!!	9	
3408	02	008DE	2 60	A		DATA,1	!-!		
3409	02	008DE	3 7B	A		DATA,1	CI#!	10	

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3410 00000000
3411

SIZETERM EQU
BOUND

SUBROUTINES
BA(*)=BA(TERMS)-1
4

PAGE

3412
 3413
 3414
 3415
 3416
 3417
 3418
 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 THE ORDER OF THIS VECTOR IS KEYED
 B SYNTAX TO THE TERMS TABLE.
 B SYNTAX * ILLEGAL IN THIS FIELD
 B SETFLE / 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 'IEH!' MESSAGE AND TURN THE CONSOLE BACK TO THE USER FOR
 * A RETRY. THE ENTIRE MSG MUST BE RE-ENTERED.

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

*
 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	
CAL1,1	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
CAL1,8	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	

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      START OF STACK SPACE
              LW,D2      STKINIT     STACK SIZE
              STD,D1     TELSTACK    STORE STACK PTR DWD
              B          PROMPT      GIVE IEM ANOTHER GO

*
*PROCESS A SYSTEM DETECTED ERROR.
*
SYSERR     EGU      $
              LW,R1      J:TELFLGS   TURN OFF ANY BREAK BIT
              AND,R1     NBIT30
              STW,R1     J:TELFLGS
              LI,R5      X:1FFFF'   MASK FOR STS LATER
              LB,R4      J:RNST
              CI,R4      4
              BAZ       ERRABN1
              LI,R4      32
              LI,R3      X:1FF'
              LS,R3      J:ASSIGN
              SLS,R3     1
              BCS,R      $+3
              AI,R4      -1
              B          $-3
              STS,R4     J:JIT+ER0
              LI,R4      X:1B3'
              STB,R4     J:ABC
ERRABN1    EGU      $
* READ THE ERROR MESSAGE FILE
              LI,R4      0
              LW,D1      J:JIT+ER0   GET ERROR SUBCODE
              SLD,D1     =8          AND HOLD IN D2
              LB,D1      J:ABC       GET MAJOR ERROR CODE
              SLD,D1     8          AND MERGE SUB-CODE
              STB,R4     J:ABC       CLEAR...
              STB,R4     J:RNST     ...ERROR...
              STS,R4     J:JIT+ER0   ...CELLS
    
```

SUB-ROUTINES

```

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
    
```

```

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 S+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 S+3
AWM,R0 J:TELFLGS
B INBREAK
LI,0 0
CAL1,9 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

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' LAST VIRTUAL PAGE
 CAL1,8 MAPIT DO THE 1ST SAD
 BCS,8 MAPFAIL SAD FAILED; SUA
 LI,SR2 X'1FC00' NEXT-TO-LAST VIRTUAL PAGE
 CAL1,8 MAPIT DO THE 2ND SAD
 BCS,8 MAPFAIL SAD FAILED; SUA
 LI,SR4 X'1FF' MASK FOR STS
 STS,SR3 SR2 MERGE PG DISPL INTO VIRT PG ADDR
 LCI 0
 B *SR1 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 MSTRM0DE

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SUBROUTINES

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
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3586
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3588
3589
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3592
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3596
3597
3598
3599
3600

```

				02 00961	HEX2EBC	EQU	\$		
	02	00961	02200030	A		PUSH	3,R6		
	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	NO 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'F0'		
	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* REGISTERS:
*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

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 05900100 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 FGR \$
 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

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

* 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

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	0A900100	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	

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3734	02	009CC	6AA008A0
3735	02	009CD	35C00007 A
3736	02	009CE	35D00008 A
3737	02	009CF	02200C30 A
	02	009D0	0AC00100 N
3738	02	009D1	680009BE

SUB-ROUTINES

BAL,SR3	SCAN
STW,D1	R7
STW,D2	SR1
PULL	3,D1
B	FID2

PAGE

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
 3750
 3751
 3752
 3753
 3754
 3755
 3756
 3757 02 009D7
 3758 02 009D7 22A00008 A
 3759 02 009D8 38A00002 A
 3760 02 009D9 E8200008 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
 3769
 3770
 3771
 3772
 3773
 3774
 3775

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

```

BLANKBUF FQU      $
              SLS,R1  2
              STB,R2  R1
              LI,R0   1 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

```

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 ERRBR;
 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. *

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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 009E7
 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 750E000C A
 3815 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
3829 02 00A0B 21100001 A
3830 02 00A0C 6820001D
3831 02 00A0D 680009EF
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 TSERR 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;MESSAGE FMT TO TELL OPERATOR (CANCELED)
    
```

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SUB-ROUTINES

3864		02 00A1E		SENDCNCL	FGU	*
3865	02	00A1E	00000000 A		DATA	0
3866	02	00A1F	80000000 A		PZE	*0
3867	02	00A20	80000001 A		PZE	*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 8+3 SIZE 8.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

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18:36 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*

SUBROUTINES

LI,R5 JSBUF1VP
LI,SR2 FPMC
CBMPARF,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

192

3916				PAGE		
3917				CLOSE	TYPE, DONE	
3918				OPEN	TYPE, DONE	
3919				*		
3920				*	THE ROUTINE STATUS PRINTS OUT THE FOLLOWING LINE ON	
3921				*	THE USER'S TERMINAL WHEN THE CALL STATUS IS RECEIVED	
3922				*	FROM THE USER;	
3923				*	CPU = M, MMM CON = H:MM INT = NN CHG = XXXX	
3924				*	WHICH IS :	
3925				*	1. CPU TIME IN MINUTES	
3926				*	2. CONSOLE TIME IN HOURS AND MINUTES	
3927				*	3. NUMBER OF INTERACTIONS	
3928				*	4. TOTAL CHARGE UNITS	
3929				*	CONTENTS OF ALL REGISTERS CAN BE ASSUMED TO BE DESTROYED BY	
3930				*	THIS ROUTINE.	
3931				*		
3932	02	00A3C		STATUSL	RES	0
3933	02	00A3C	09200100 N		PSW, R2	TELSTACK
3934				*	COMPUTE ELAPSED TIME	
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			D01	F0RSEC
3945			*S*		PSW, SR1	TELSTACK
3946	02	00A44	04800AEB		CAL1, 8	TIMER
3947	02	00A45			D01	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

CREATE STATUS LINE OUTPUT
 SAVE RETURN ADDRESS
 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

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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*	1DAY	1440*60	
3957				FLSE		
3958		000005AU		1DAY	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 ZEROS 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 OF 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	!!!	!!! 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							
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	X'70000'	
4023	02	00A66	48C2000D	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

*
* COMPUTE CHARGE UNITS
*

```

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
    
```

```

          AW,R6      *D1,R6      SET UP PRINTER IN RATE FILE
* TOTAL CPU TIME      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+DPACCESS
          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

*
*
*

SUB-ROUTINES

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 CP0+J;JIT
 SLS,R0 -17
 LW,D2 CP0+J;JIT
 SLS,D2 -17
 AW,D2 R0
 LW,R0 J:CPP0
 SLS,R0 -17
 AW,D2 R0
 LW,R0 CUP0+J;JIT
 SLS,R0 -17
 AW,D2 R0
 LW,R0 CDP0+J;JIT
 SLS,R0 -17
 AW,D2 R0
 MW,D1 7,R6
 AD,D3 D1
 DW,D3 TENTH0U
 LW,D1 D4
 BAL,SR4 BINDCB
 BAL,SR4 ZER0BK
 LW,R7 SR1
 STW,D1 13,R7
 STW,D2 14,R7

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 CHRG UNITS IN MSGE BUFFER IN
 LOGON-PRINT OUT LATER FOR ON LINE.

GET TOTAL CPU TIME

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SUB-ROUTINES

198

4101 02 00AAB 32C00000 X
 4102 02 00AA9 30C00001 N
 4103 02 00AAA 30C00000 X
 4104 02 00AAB 30C00001 N
 4105 02 00AAC 56C00B30
 4106 02 00AAD 6AB00979
 4107 02 00AAE 25C00008 A
 4108 02 00AAF 20C0004B A
 4109 02 00AB0 6AB00AE1
 4110 02 00AB1 32700008 A
 4111 02 00AB2 02200020 A
 4112 02 00AB3 2BC00002 A
 4113
 4114
 4115
 4116 02 00AB4 22C1FFFF A
 4117 02 00AB5 4BC00000 X
 4118 02 00AB6 6AB00979
 4119 02 00AB7 6AB00AE1
 4120 02 00AB8 32700008 A
 4121 02 00AB9 35DE000A A
 4122
 4123
 4124
 4125 02 00ABA 32400100 N
 4126 02 00ABB 2040004E A
 4127 02 00ABC 32500008 A
 4128 02 00ABD 2230003C A
 4129 02 00ABE 22100000 A
 4130 02 00ABF 22200000 A
 4131 02 00AC0 68000AC3
 4132 02 00AC1 21C00040 A HXXL
 4133 02 00AC2 68300ACA
 4134 02 00AC3 F2C20005 A HXX
 4135 02 00AC4 F5C40004 A HXXC
 4136 02 00AC5 20200001 A
 4137 02 00AC6 20100001 A HXXU

LW,D1 J:UTIME
 AW,D1 J:UTIME+1
 AW,D1 J:PTIME
 AW,D1 J:PTIME+1
 DH,D1 #X'00030000'
 BAL,SR4 BINDCB
 SLS,D1 8
 AI,D1 1,1
 BAL,SR4 ZFR0BK
 LW,R7 SR1
 LCI 2
 STM,D1 2,R7

 *
 *
 *
 LI,D1 X'1FFFF'
 AND,D1 J:INTER
 BAL,SR4 BINDCB
 BAL,SR4 ZFR0BK
 LW,R7 SR1
 STW,D2 10,R7

 *
 *
 *
 LW,R4 TELSTACK
 AI,R4 78
 LW,R5 SR1
 LI,R3 60
 LI,R1 0
 LI,R2 0
 B HXX
 CI,D1 1,1
 BE HXXB
 LB,D1 *R5,R1
 STB,D1 *R4,R2
 AI,R2 1
 AI,R1 1

GET TOT USER EXECU TIME FOR CURR JOB
 ADD TOT USER EXECU TIME TO TOTAL
 ADD TOT PROCESS EXEC TIME TO TOT
 ADD PROCESSOR OH TIME TO OTHER TOTAL
 CONVERTS TICS TO MINUTES
 CONVERT TIME TO EBCDIC

 CONVERT LEADING ZEROS TO BLANKS

 MOVE TO MESSAGE AREA

 GET CONSOLE INTERACTIONS

 STRIP OFF 1ST-1/2 WD-NB. INTERACTION
 CONVERT THE NUMBER TO BCD
 CONVERT LEADING ZEROS TO BLANKS

 PUT NB. INTERACT. IN ON-LINE MSGE

 FORMAT MESSAGE FOR BUTPUT

 GET ADDRESS OF OUTPUT BUFFER

 GET ADDRESS OF TEXT TO BE OUTPUT
 LOAD MESSAGE SIZE
 LOAD POINTER TO PROCURING AREA
 LOAD POINTER TO STORAGE AREA

 PICKUP TEXT BYTE
 STORE INTO BUFFER OUTPUT AREA
 COUNT

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SUB-ROUTINES

4138	02	00AC7	64300AC1	BDR,R3	HXXL	
4139	02	00AC8	04100B0A	CAL1,1	TYPE	
4140	02	00AC9	68000ACE	B	DBNE	FINISHED WITH ROUTINE
4141	02	00ACA		HXXB	RES	NEXT
4142	02	00ACA	F2C20005 A		0	
4143	02	00ACB	21C00040 A	LB,D1	*R5,R1	
4144	02	00ACC	69300AC4	CI,D1	' '	
4145	02	00ACD	68000AC6	BNE	HXXC	NO
4146	02	00ACE		B	HXXU	YES
4147				DBNE	RES	0
4148				*		DBNE WHEN WE GET HERE
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			DB	F0RSEC=0		
4161	02	00AD0	B2C00001		LW,D1	*R1		
4162	02	00AD1	2230000C		LI,R3	12		
4163	02	00AD2	22200002		LI,R2	2		
4164	02	00AD3	6AA00B0E		BAL,SR3	DECBIN10		
4165	02	00AD4	35400003		STW,R4	R3		MICKEY MOUSE FOR MI INSTRUCTION
4166	02	00AD5	2330003C		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		

				B	*SR4	RETURN
4189			*S*	FIN		
4190						
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	M1RATER	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 00AF0	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          *   TEXTC     'RATE'
4239 02 00AFF          *   DATA      X'02010202' ACCOUNT
4240 02 00B00          *   TEXT      'SYS'
4241 02 00B01          *
4242 02 00B01          *   RRATE
4243 02 00B02          *   RES          0
4244 02 00B03          *   GEN,8,24 X'10',M:XX    READ RATE FILE
4245 02 00B04          *   DATA      X'F4000000' P1,P2,P3,P4,P6
4246 02 00B05          *   DATA      M1RATER    ERROR AD
4247 02 00B06          *   DATA      M1RATER    ABN AD
4248 02 00B07          *   GEN,1,31  1,R6      BUFFER AREA
4249 02 00B08          *   DATA      288      MAXIMUM SIZE
4250 02 00B09          *   DATA      0        BYTE DISPLACEMENT
4251 02 00B08          *
4252 02 00B08          *   CRATE
4253 02 00B09          *   RES          0
4254 02 00B08          *   GEN,8,24 X'15',M:XX    CLOSE RATE FILE
4255 02 00B09          *   DATA      0
4256
4257
4258
4259
4260
4261
4262
4263
4264
4265
4266
4267
4268
4269
4270
4271
4272
4273
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```

TYPE ON USER'S TERMINAL

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',MIUC
 DATA X'30000000'
 GEN,1,R1 1,R4
 GEN,1,R1 1,R2

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

```

4261
4262
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4264
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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'
          MI,R5 10
          BCS,4 DECBIN21
          AW,R5 R6
          AI,R4 1
          BDR,R2 DECBIN11
          STW,R5 R4
          LCI 0
          B *SR3
DECBIN21 RES 0
          LCI 8
          B *SR3
    
```

REMOVE LEADING 'F'
MULTIPLY BY 10
CHK FOR ILLEGAL RESULTS

SET CCI = 0 FOR GOOD RESULT
EXIT

SET CCU = 1 FOR BAD RESULT

4286					PAGE			
4287	02	00B1C			RES	0		
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	! C0!	
4294	02	00B21	D57E4040	A		TEXT	!N* !	
4295	02	00B22	40404040	A	C0NV	TEXT	! !	FILLED
4296	02	00B23	40404040	A		TEXT	! !	FILLED
4297	02	00B24	40C905E3	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	40D60540	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	ANSPR9C/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	BUFINT/02 00016	BUILD/02 00237
BUILDA/06 00008	CANCEL/02 009EF	CANCL/02 00A1A	CARRETRN/02 0071C
CCBUFTL/02 00A2C	CHARGES/02 00AA3	CHAR9K/02 008C8	CHAR9K5/02 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	C8CML88P/02 004FE
C8C8FF/02 00546	C8C8N/02 00545	C8CPRT/02 00510	C8CSTAT/02 004D0
C8CSTATC/02 00517	C8CSTAT0/02 004F3	C8CSTAT1/02 004F4	C8CSTAT2/02 004F6
C8MMA/02 00458	C8MMENT/02 0025A	C8MPLE/02 00811	C8NCAT/02 00841
C8NCATA/02 00843	C8NCATB/02 0084B	C8NCATE/02 00853	C8NCATN/02 0084D
C8NTINU/02 009AU	C8NTINUE/02 002E6	C8NTINX/02 002EB	C8NV/02 00822
C8NVBIN/02 005E9	C8UPLE/02 0058C	C8UPLE1/02 00593	C8UPLE2/02 00599
C8UPLE3/02 005A6	C8UPLE5/02 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	DCBPR9C/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
DECBUPLE/02 00587	DELTA/02 00736	DELTA9K/02 002F8	DELTASET/02 002F2
DELTA1/02 00734	DISCBPR9C/00000000	DISPFPT/02 005FA	DISPLAY/02 005BC
DISPSW/02 006FF	DNTSEND/02 0061B	D8BLT/02 00205	D8LL/02 00711
D8L8/02 001D1	D8L81/02 001DF	D8ME/02 00159	D8ME1/02 0015D
D8ME2/02 00161	D8NE/02 00ACE	D8NT/02 0025E	D8NT9K/02 000C4
D88N/02 00168	D88VER/02 0016A	D88VER1/02 0016D	D8UBLE1/02 000A8
DSWL88P/02 00703	D1/0000000C	D2/0000000D	D3/0000000E
D4/0000000F	EDIT/02 00738	EDITA/02 0072A	EDIT0/02 0023B
EHMSG/02 0071D	ENTPRG/02 0012A	ERASE/02 0057D	ERASFPT/02 007E9
ERBIN/02 009A6	ERRABN1/02 00924	ETMFQT/02 005FE	EXTD98/02 001C5
EXTEND/02 00581	FDP/02 0072F	FDPSET/02 002EE	FDP1/02 00730
FIDFR/02 00816	FID8/02 009BA	FID2/02 009BE	FID3/02 009C3
FID4/02 009C8	FLAGS/02 0071F	FL8PBITS/02 00724	F8RSEC/00000000

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FBRTRAN/02 0074U
 GC8MNP6/02 007D1
 GETSB1/02 00005
 GIVEMEH/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
 L8G8IZE/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

NBDANT/02 000C5
 NBMMSG/02 0003F
 BOPEN1/02 0068C
 BPUSR/02 007A6
 PAGE/02 0043D
 PARSF/02 00126
 PCL/02 0072C
 PIDGMSG/02 0003U
 PLATEN3/02 00477
 PRMPT50/02 00067
 RIUERR/02 0086C
 RD:USERS/02 0083D
 RFE/02 00890
 RMDV1/02 001AB
 RUN/02 0081D
 R1/000000C1
 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

NBEGG/02 00043
 NBNE/02 0075D
 BPERR/02 00341
 BRATE/02 00AF2
 PARENC/02 008D5
 PARSER/02 0012D
 PCLCALL/02 00814
 PLATEN/02 00448
 PLATEN4/02 0047D
 PRMPTA/02 00049
 RADPLUS/02 005E7
 RDERT/02 00690
 RMBBLT/02 00181
 RMBG8/02 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
 S69PR6C/00000001
 TABS1/02 00414
 TABS5/02 00426
 TENTHBU/00000011 S
 TERMTAB1/02 007F9

SUB-ROUTINES

NBFDP/02 000FF
 NBPTAB/02 00266
 BPRSF/02 00170
 BUTCARR/02 00612
 PAREN0/02 008D3
 PASSCLUP/02 00335
 PGDR6P/02 007D3
 PLATEN1/02 00469
 PRINT/02 00579
 PRMPT0/02 0002A
 RADSQT/02 00608
 READ/02 00794
 RMBBLT1/02 0018A
 RMBG81/02 00199
 RWUSRSZ/00000006
 R3/00000003
 R7/00000007
 SCNPTRSV/0000011A S
 SCRAMBLX/02 0034D
 SENDCNCL/02 00A1E
 SHFT05/02 009E7
 SHOW/02 00360
 SIZETAB2/0000000F
 SIZVERB2/0000001C
 SR2/00000009
 START/02 0028F
 START3/02 002BD
 START7/02 002B2
 START9/02 002DD
 STL66P/02 0067A
 SWITCH/02 006CB
 SYN3/02 0090F
 TABPL/02 007B8
 TABS2/02 0041C
 TABS6/02 0042B
 TERMERR/02 0083B
 TERMTAB2/02 00806

NBLINE/02 005B5
 BOPENBKUP/02 007BF
 BPTAB/02 00264
 BUTPUT/02 00258
 PARMMSG/02 00750
 PASSWORD/02 0030B
 PIDGFLG/00000018 S
 PLATEN2/02 00473
 PRMPT20/02 00062
 QUIT/02 00119
 RATEERR/02 00AED
 READBKUP/02 007D4
 RMBDEV/02 0019E
 RRATE/02 00B01
 R0/00000000
 R4/00000004
 SCANCVT/02 00083
 SCNVBSIZ/02 00827
 SECAC/02 007B3
 SENDMES/02 007E4
 SHFT10/02 009E9
 SHOWXX/02 0036A
 SIZETAB3/0000000F
 SPCASP/02 000B0
 SR3/0000000A
 STARTERR/02 00831
 START4/02 002C4
 START70/02 002B0
 STATUS/02 0060E
 STOPS/02 008DF
 SWONE/02 00707
 SYS/02 00712
 TABS/02 003F0
 TABS3/02 00435
 TABS7/02 00432
 TERMINAL/02 00493
 TERMTAB3/02 0080A

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TERMTST/02 008B^B
 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 0082^B
 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
 Y08/0000001C S
 Y8/00000020 S
 1DAY/000005A0

* EXTERNAL DEFINITIONS

AMBUF/FXT
 CLEANSTACK/02 0090F
 CPXUSR/0000001C S
 DBNTBIT/0000100U
 FDPBIT/00000100
 FLBP/02 0086F
 FOF9/02 00726
 INBRFAK1/02 00115
 MITEL/00000133 S
 NFND/02 00891

TERMTST1/02 008B^E
 TESTSI1/02 0013F
 TIMEVERT/02 00ADO
 T8PPARSE/02 0012F
 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
 WRITBUT/02 0067F
 XSHBW/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
 ZER8BK/02 00AE1
 8R8M/02 001BB

BINDECBCD/02 00979
 CMNERR1/02 0070E
 DCBTAB2/0000012D S
 EXLYBIT/0000001B S
 FEXTIMG/00000103 S
 FLBPBUF/0000011B S
 GETFIELD/02 0048A
 IQUIT/00000013 S
 MITELSIZ/00000028
 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
 ZER8BK1/02 00AE2

BRKBIT/00000002
 C8MFLG/00000400
 DECBIN/02 00982
 EXPNDSZ/00000105 S
 FID/02 009AD
 FPFPT/02 007ED
 GPFPT/02 007EC
 JSTEP/00000001
 MSGEBIT/00020000
 8N/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
 UTSPR8C/00000000
 VECTB10/02 000C7
 WHERE/02 0036E
 WHERE4/02 003B7
 WH8PEN/02 003C4
 WR:USFRS/02 00329
 XAB8RT/02 00117
 X10/00000005 S
 X20/00000006 S
 X40/00000007 S
 X80/00000008 S
 YESFDP/02 000FD
 Y0004/00000013 S
 Y004/00000017 S
 Y04/0000001B S
 Y4/0000001F S
 Z4/00000000

CCBUFFBIT/00002000
 CPXEND/02 00046
 DELTABIT/00000080
 EXTNDBIT/00000016 S
 FIPR8C/00008000
 FREEBUF1/02 00A2F
 HEX2EBC/02 00961
 L8FLG/00000800
 MSTRMADE/02 007F8
 8NBIT/00000020

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BNERR/02 001C9
BVERBIT/00000040
PR0MPT/02 0004E
SETBUF/EXT
SINREL/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
SISSET/00000010
SYSERR/02 00913
TELSTACK/00000100 S
VERB1/05 00000
SRBMFLG/00000200

SUBROUTINES

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

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

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* 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
JIACCN
JI:EXTENT
JISTART
JB:PCW
KILLMTFL
PACC
RESET
SETNUMB
TPACCESS

BLDMTEL
CPXBREAK
FILENT
JI:AMR
JI:INTER
JI:TELFLGS
JB:PMTS
M:UC
PLIST
S:CGUP
SHILNM
WRITEAM

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

CDP0
CUP0
FPMC
JI:CALCNT
JILMN
JI:UTIME
JB:TMTS
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

