```


                 OPERATING SYSTEM =  NOS 2.8.7 871/871.   23/09/20. PRINTED = 24/05/29. 16.52.27.

                 UJN          =  FDL871      FAMILY    = CYBER         JOB ORIGIN    = INTERACTIVE.
                 CREATING JSN =  AACT        USER NAME = INSTALL       SERVICE CLASS = INTERACTIVE.





    AAAAAAAAAA    AAAAAAAAAA    AAAAAAAAAA   IIIIIIIIIIII   AAAAAAAAAA    AAAAAAAAAA    CCCCCCCCCC   VV        VV
   AAAAAAAAAAAA  AAAAAAAAAAAA  AAAAAAAAAAAA  IIIIIIIIIIII  AAAAAAAAAAAA  AAAAAAAAAAAA  CCCCCCCCCCCC  VV        VV
   AA        AA  AA        AA  AA        AA       II       AA        AA  AA        AA  CC        CC  VV        VV
   AA        AA  AA        AA  AA        AA       II       AA        AA  AA        AA  CC        CC   VV      VV
   AA        AA  AA        AA  AA        AA       II       AA        AA  AA        AA  CC              VV      VV
   AA        AA  AA        AA  AA        AA       II       AA        AA  AA        AA  CC              VV      VV
   AA        AA  AA        AA  AA        AA       II       AA        AA  AA        AA  CC               VV    VV
   AAAAAAAAAAAA  AAAAAAAAAAAA  AAAAAAAAAAAA       II       AAAAAAAAAAAA  AAAAAAAAAAAA  CC               VV    VV
   AAAAAAAAAAAA  AAAAAAAAAAAA  AAAAAAAAAAAA       II       AAAAAAAAAAAA  AAAAAAAAAAAA  CC               VV    VV
   AA        AA  AA        AA  AA        AA       II       AA        AA  AA        AA  CC                VV  VV
   AA        AA  AA        AA  AA        AA       II       AA        AA  AA        AA  CC                VV  VV
   AA        AA  AA        AA  AA        AA       II       AA        AA  AA        AA  CC                VV  VV
   AA        AA  AA        AA  AA        AA       II       AA        AA  AA        AA  CC                 V  V
   AA        AA  AA        AA  AA        AA       II       AA        AA  AA        AA  CC        CC       VVVV
   AA        AA  AA        AA  AA        AA  IIIIIIIIIIII  AA        AA  AA        AA  CCCCCCCCCCCC       VVVV
   AA        AA  AA        AA  AA        AA  IIIIIIIIIIII  AA        AA  AA        AA  CCCCCCCCCCC         VV


MWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWM
WMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMW
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WMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMW
MWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWMWM
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1   *EDIT FDL
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DECK - COPYRT

COPYRT MODIFIERS.

NS2796

4 ACTIVE LINE(S). 1 INACTIVE LINE(S). 1 INSERTED LINE(S).

FDL MODIFIERS.

FDL1	NS21000	NS22000	NS2241	NS2278	FDL2	242L642	FDL3	251L664	FDL4	FDL5	281L803
*CALL	COMPMAC						FDL	153			
*CALL	COMSCPS						FDL	154			
*CALL	COMSMSP						FDL	155			
*CALL	COMSPIM						FDL	156			
*CALL	COMSSRU						FDL	157			
*CALL	COMPCTI						242L642	66	185		
*CALL	COMPRNS						242L642	67	185		
*CALL	COMPCLD						FDL	1379			
*CALL	COMPCRA						FDL	1380			
*CALL	COMPSAF						FDL	1383			
*CALL	COMPSFB						FDL	1384			
*CALL	COMPSTI						FDL	1385			
*CALL	COMPIRA						FDL	1387			
*CALL	COMPCRS						FDL	1576			
*CALL	COMPDDT						242L642	104	1918		
*CALL	COMPCRA						FDL	2141			
*CALL	COMPSAF						FDL	2142			
*CALL	COMPSFB						FDL	2143			
*CALL	COMPSTI						FDL	2144			
*CALL	COMPIRA						FDL	2146			
*CALL	COMPACS						FDL	2271			
*CALL	COMPANS						FDL	2272			

2308 ACTIVE LINE(S). 201 INACTIVE LINE(S). 231 INSERTED LINE(S).

DECKS ON PROGRAM LIBRARY.

COPYRT	COMCSFN	COMPC2D	COMPVID	COMSWEI	0ST	IHFU	TDUMP	COMFXFO	COMXSEB	EORSS15	SUBMT
CETEXT	COMCSKW	COMPDDT	COMPVLC	COMSZOL	0VJ	INSTALL	TDUOUT	COMFXSB	COMTALT	M86FORM	TARO
ECSTEXT	COMCSNF	COMPDLI	COMPVMS	COMS0VU	0VU	ISF	TDUTAB	COMFXSC	COMTBLD	M86SERV	TERMDEF
PPTEXT	COMCSNM	COMPDTS	COMPVPA	COMS1DS	1AJ	KEY	TERMIO	COMFXWK	COMTBLP	EORSS16	TSIM
PSSTEXT	COMCSOE	COMPDVC	COMPVSP	COMS1MV	1CD	KEYEX	TRMDEF	FSEBUFF	COMTCTW	VERMSGC	TSTAT
NOSTEXT	COMCSRI	COMPDV5	COMPWBB	COMS1RM	1CK	KEYPAN	ULIB	FSECMDS	COMTDBG	EORSS17	WAIT
SSYTEXT	COMCSRT	COMPECX	COMPWCB	COMS176	1CL	KRONREF	VALEX	FSEDATA	COMTDBP	MSE	WAITINP
SYSTEXT	COMCSSN	COMPFAT	COMPWEI	COMTBAN	1DL	LDI	VALNET	FSEEDIT	COMTDEF	MSESLAV	WSTAT
CPCOM	COMCSST	COMPFLF	COMPWSS	COMTCVT	1DS	LIBEDIT	VCC	FSEEX	COMTDER	MSECONF	BTASK
PPCOM	COMCSTF	COMPGBN	COMPWVE	COMTDA8	1HY	LIBGEN	VDTSUBS	FSEFILE	COMTDFP	EORSS18	CRMTASK
COMCMAC	COMCSYS	COMPGFP	COMSACC	COMTDP6	1IO	LIBRARY	VERIFY	FSEFORM	COMTERR	SSCONTL	CTASK
COMCCMD	COMCTIO	COMPGTN	COMSATF	COMTDP9	1IS	LIDOU	VFYLIB	FSEHELP	COMTFMT	FREEDSK	ITASK
COMABZF	COMCUPC	COMPICT	COMSBIO	COMTDSP	1LC	LISTLB	VIRTERM	FSELIB	COMTLAB	DESTAGE	KDIS
COMAFET	COMCUSB	COMPIFR	COMSCIO	COMTNAP	1MA	LISTLID	MAC1	FSEMAIN	COMTLBP	EORSS19	LOGT
COMAMSS	COMCVDE	COMPIMB	COMSCPD	COMTVDT	1MB	LIST80	MAC2	FSEPROC	COMTMOV	ISHARED	MSABT
COMAPFP	COMCVDT	COMPIOU	COMSCPS	COMT6DP	1MC	LOADBC	RFORM	FSESCRN	COMTMVD	COMKMAC	OFFTASK
COMAPFS	COMCVLC	COMPIRA	COMSCVS	COMT8AD	1MD	LO72	SYMSERV	FSESUBS	COMTMVP	COMKARF	RCTASK
COMCARG	COMCVQF	COMPLDA	COMSDFS	COMT9DP	1MI	MAG	CPUREL	FSETABL	COMTOUT	COMKBRD	RTASK
COMCARM	COMCWOD	COMPLDB	COMSDFT	COMUCPD	1MS	MAGNET	APRINST	FSEWORK	COMTSIT	COMKBST	STASK
COMCBAN	COMCWTA	COMPMRA	COMSDSL	COMUEST	1MT	MFILES	CMRINST	FSTEACH	COMTUSE	COMKCBD	SYSMSG
COMCBLP	COMCWTC	COMPMRM	COMSDSP	COMUFMT	1MU	MLSEXEC	EQPINST	SMFEX	COMTUSP	COMKCBT	XTASK
COMCCCE	COMCWTH	COMPMRQ	COMSDST	COMUJCA	1MV	MODIFY	IPRINST	SMFSTAT	COMTVLD	COMKCRM	COMCCDM
COMCCDD	COMCWTO	COMPMSV	COMSEJT	COMUOUT	1PP	MODVAL	COMLBAS	SMF	COMTVLF	COMKDPB	COMCCDP
COMCCFD	COMCWTS	COMPNFL	COMSESS	COMUPRB	1RI	MSI	COMLESM	1HP	COMTVLM	COMKFIO	COMSSTM
COMCCHD	COMCWTW	COMPPDI	COMSEVT	COMUQPR	1RM	NOTE	COMLFLD	COMCLNI	COMTVLP	COMKFLD	ADC
COMCCHG	COMCZAP	COMPPPR	COMSHIO	COMUQQC	1RO	OPLEDIT	COMLIPR	IAFP	COMTVLV	COMKIPR	BAT
COMCCIO	COMCZTB	COMPRBB	COMSIOQ	CALLCPU	1SJ	PACK	COMLSCD	IAFTM	COMTVLX	COMKKIM	DCC
COMCCNS	COMDMAC	COMPRCB	COMSIOU	CALLDIS	1TA	PANEL	COMLUEM	IAFTR	CALLFAS	COMKNWC	DDF
COMCCOD	COMDDBS	COMPRCS	COMSJCE	CALLPPU	1TM	PANSUBS	COMLVER	1TN	1SS	COMKNWF	DOG
COMCCPA	COMDDCM	COMPREI	COMSJIO	CALLSYS	1TO	PDU	APRDECK	RECOVER	EORSS1	COMKOPD	DS1
COMCCPM	COMDDIS	COMPREL	COMSJRO	CALLTAB	1VP	PFAM	CMRDECK	0MF	GMSG	COMKRRD	HFM
COMCCPT	COMDDSP	COMPRFI	COMSLFD	CALLINT	1XD	PFDM	EQPDECK	1MR	SMSG	COMKSCD	MPF
COMCCUA	COMDD7S	COMPRJC	COMSLFM	CPM	1XM	PFDUMP	IPRDECK	MREC	CALPFU	COMKSTC	SMP
COMCCVI	COMDGJD	COMPRLA	COMSLSD	CVL	1XY	PFHELPR	LIBDECK	MTE	GETMST	COMKTAF	WRM
COMCCVL	COMDSYS	COMPRLI	COMSMLS	DIO	5ME	PFILES	RDFP	COMBFAS	SETQP	COMKTDM	1TS
COMCDCM	COMDTFN	COMPRLM	COMSMMF	DIS	6DC	PFLIST	SUPERM	COMBBZF	EORSS2	COMKTER	DDFILE
COMCDCP	COMFCID	COMPRLS	COMSMRT	DSD	6DD	PFLOAD	VEMEM	COMBCDD	SSOVL	COMKTIF	DEMUX
COMCDTC	COMFVD2	COMPRNS	COMSMSC	DSP	6DE	PFS	ZTDAMT0	COMBCHN	SSARG	COMKTIP	DMPCCC
COMCDXB	COMFVD3	COMPRSI	COMSMSI	ELM	6DI	PROFILE	ZTDCCLC	COMBCMD	EORSS3	COMKTLD	KEYUTIL
COMCECM	COMFXTI	COMPRSS	COMSMSP	FDL	6DP	PURGALL	ZTDCCON	COMBCMS	SSEXEC	COMKTRF	LPT
COMCECS	COMFXVT	COMPSAF	COMSMST	IMS	6DX	QDSPLAY	ZTDCERR	COMBCPR	EORSS4	COMKTRN	MST
COMCEDT	COMFPAN	COMPSCA	COMSMTR	LFM	BATCHIO	QDUMP	ZTDCVRB	COMBFET	SSSLV	COMKTSA	PACKER
COMCFCE	COMFTIO	COMPSDA	COMSMTX	MDD	BLANK	QFSP	ZTDNMT0	COMBHFC	EORSS5	COMKTSC	SCRSIM
COMCFLD	COMFVDT	COMPSDI	COMSNCD	MSM	CATALOG	QFTLIST	ZTDPCLP	COMBKDA	ACCCAT	COMKTST	STIMULA
COMCFQO	COMFVD1	COMPSDN	COMSNET	MTR	CATLIST	QGET	ZTDPERR	COMBKDD	ACCMAP	COMKZFN	TST
COMCGMS	COMPMAC	COMPSDR	COMSPDT	OSB	CHKPT	QLOAD	ZTDPFIL	COMBLBL	SSINIT	TAFPRC	DFSORT
COMCGTO	COMPACS	COMPSEI	COMSPFM	O26	CLASS	QMOVE	ZTDPTBD	COMBLRQ	EORSS6	CALLKTS	PSAMP
COMCHXB	COMPANS	COMPSES	COMSPFS	PFM	CLDT	QREC	ZTDPTBS	COMBMAP	SSALTER	KTSDMP	SECART
COMCIQP	COMPAPI	COMPSFB	COMSPFU	PFU	CODING	RECLAIM	ZTDTFIL	COMBMAT	EORSS7	LIBTASK	MSGID
COMCJCR	COMPAST	COMPSFE	COMSPIM	PPR	CONFIG	REDO	ZTDTTAB	COMBMCT	SSBLD	TAFLOG	ABC
COMCLFM	COMPCDB	COMPSFI	COMSPRD	QAC	CONTROL	RESEQ	ZTDVERB	COMBOVL	EORSS8	TAF	CHD
COMCLOD	COMPCDD	COMPSFN	COMSPRO	QAP	COPYB	RESEX	ZTDVMT0	COMBPFP	SSDEBUG	TAFREC	DEBUG
COMCMSF	COMPCEA	COMPSIC	COMSQAC	QFM	COPYC	RESTART	ZTDVPDT	COMBPFS	EORSS9	BAAML	CPD
COMCMTM	COMPCFP	COMPSMI	COMSQFS	REC	CPMEM	ROUTE	5870JDL	COMBRCD	SSDEF	DMREC	ICPD
COMCMTP	COMPCHD	COMPSNT	COMSREM	RPV	CPUMLD	SCREX	EOR1	COMBSIT	EORSS10	TARL	ACPD

COMCMVE	COMPCHI	COMPSOF	COMSRPV	SET	CPUMTR	SCTD	EOR2	COMBSNS	SSLABEL	TMSG	PROBE
COMCOVL	COMPCHL	COMPSPA	COMSRSX	SFM	CPUPFM	SDSPLAY	EOR3	COMBTDM	EORSS11	AAMI	XEDIT
COMCPFM	COMPCHM	COMPSRA	COMSSCD	SFP	CUESHEL	SECHDR	EOR4	COMBUCR	SSMOVE	AAML	XEDITH
COMCPFP	COMPCIB	COMPSRR	COMSSCP	SLL	CVLCP	SETCORE	EOR5	COMBUDT	EORSS12	BEGIN	1DA
COMCPFS	COMPCLC	COMPSRU	COMSSCR	STL	DAYFILE	SFORM	EOR6	COMXACM	SSUSE	BLDABH	0CT
COMCPFU	COMPCKP	COMPSSE	COMSSFM	TLX	DFTERM	SFS	EOR7	COMXBST	EORSS13	CALLRTN	COMCCKD
COMCPOP	COMPCLD	COMPSSF	COMSSFS	VEJ	DOCMENT	SHOW	EOR8	COMXCCB	SSVAL	CALLTRN	COMCMBS
COMCQFM	COMPCLX	COMPSTA	COMSSRT	VER	DSDI	SHOWEX	EOR9	COMXCTF	EORSS14	CALLTSK	COMPTFM
COMCQFP	COMPCMA	COMPSTI	COMSSRU	XHC	EDIT	SMFSUBS	EOR10	COMXEMC	EXDRVR	CEASE	COMSTFU
COMCRDA	COMPCMX	COMPSUD	COMSSSD	0AU	ENQUIRE	SORT	COMFDS1	COMXEXP	SXDEST	CHKON	TFM
COMCRDC	COMPCOB	COMPSUT	COMSSSE	0AV	FCOPY	STAGE	COMFDS2	COMXFCQ	SXHLR	CMDUMP	TFU
COMCRDH	COMPCPE	COMPTGB	COMSSSJ	0BF	FILES	SUBMIT	COMFFSE	COMXHLR	SXINIT	DSDUMP	TFILES
COMCRDO	COMPCRA	COMPTLB	COMSTCM	0DF	FOTD	SUBSYST	COMFMLT	COMXINT	SXKD	EXTRACT	TFSP
COMCRDS	COMPCRS	COMPTMA	COMSTDR	0DQ	GENPFD	SYMPCOD	COMFONL	COMXIPR	SXLLR	INTOT	LDISTAP
COMCRDW	COMPCSC	COMPUFT	COMSTFM	0FA	GTR	SYSEDIT	COMFSGL	COMXJCA	SXMAIN	JOURNL	GETTASV
COMCRSB	COMPCTE	COMPUPP	COMSTIO	0PT	HELPLIB	TCOMND	COMFSMF	COMXLTC	SXSERV	LIMITS	SETTASV
COMCRSP	COMPCTI	COMPUPS	COMSTIR	0QM	HOSTCPY	TDU	COMFTAB	COMXMFD	SXSTGE	LOGIN	TMSPROC
COMCRTN	COMPCUA	COMPVEI	COMSTRX	0RF	HSTCOPY	TDUEX	COMFXCM	COMXMMF	SXSLV	MULTCB	TMSPROG
COMCSCB	COMPCUT	COMPVFC	COMSVED	0RP	IAFEX	TDUFILE	COMFXED	COMXMSC	SXUCP	SEND	
COMCSFM	COMPCVI	COMPVFN	COMSVER	0RT	IEDIT	TDUIN	COMFXFL	COMXOVL	SX3UCP	SETCHT	

COMMON DECKS ON PROGRAM LIBRARY.

COPYRT	COMCGTO	COMCSYS	COMPAST	COMPIFR	COMPSIC	COMSCVS	COMSRPV	COMUEST	COMFXED	COMXHLR	COMKBST
CPCOM	COMCHXB	COMCTIO	COMPCDB	COMPIMB	COMPSMI	COMSDFS	COMSRSX	COMUFMT	COMFXFL	COMXINT	COMKCBD
PPCOM	COMCIQP	COMCUPC	COMPCDD	COMPIOU	COMPSNT	COMSDFT	COMSSCD	COMUJCA	COMFXFO	COMXIPR	COMKCBT
COMCMAC	COMCJCR	COMCUSB	COMPCEA	COMPIRA	COMPSOF	COMSDSL	COMSSCP	COMUOUT	COMFXSB	COMXJCA	COMKCRM
COMCCMD	COMCLFM	COMCVDE	COMPCFP	COMPLDA	COMPSPA	COMSDSP	COMSSCR	COMUPRB	COMFXSC	COMXLTC	COMKDPB
COMABZF	COMCLOD	COMCVDT	COMPCHD	COMPLDB	COMPSRA	COMSDST	COMSSFM	COMUQPR	COMFXWK	COMXMFD	COMKFIO
COMAFET	COMCMSF	COMCVLC	COMPCHI	COMPMRA	COMPSRR	COMSEJT	COMSSFS	COMUQQC	COMCLNI	COMXMMF	COMKFLD
COMAMSS	COMCMTM	COMCVQF	COMPCHL	COMPMRM	COMPSRU	COMSESS	COMSSRT	COMLBAS	COMBFAS	COMXMSC	COMKIPR
COMAPFP	COMCMTP	COMCWOD	COMPCHM	COMPMRQ	COMPSSE	COMSEVT	COMSSRU	COMLESM	COMBBZF	COMXOVL	COMKKIM
COMAPFS	COMCMVE	COMCWTA	COMPCIB	COMPMSV	COMPSSF	COMSHIO	COMSSSD	COMLFLD	COMBCDD	COMXSEB	COMKNWC
COMCARG	COMCOVL	COMCWTC	COMPCLC	COMPNFL	COMPSTA	COMSIOQ	COMSSSE	COMLIPR	COMBCHN	COMTALT	COMKNWF
COMCARM	COMCPFM	COMCWTH	COMPCKP	COMPPDI	COMPSTI	COMSIOU	COMSSSJ	COMLSCD	COMBCMD	COMTBLD	COMKOPD
COMCBAN	COMCPFP	COMCWTO	COMPCLD	COMPPPR	COMPSUD	COMSJCE	COMSTCM	COMLUEM	COMBCMS	COMTBLP	COMKRRD
COMCBLP	COMCPFS	COMCWTS	COMPCLX	COMPRBB	COMPSUT	COMSJIO	COMSTDR	COMLVER	COMBCPR	COMTCTW	COMKSCD
COMCCCE	COMCPFU	COMCWTW	COMPCMA	COMPRCB	COMPTGB	COMSJRO	COMSTFM	ZTDAMT0	COMBFET	COMTDBG	COMKSTC
COMCCDD	COMCPOP	COMCZAP	COMPCMX	COMPRCS	COMPTLB	COMSLFD	COMSTIO	ZTDCCLC	COMBHFC	COMTDBP	COMKTAF
COMCCFD	COMCQFM	COMCZTB	COMPCOB	COMPREI	COMPTMA	COMSLFM	COMSTIR	ZTDCCON	COMBKDA	COMTDEF	COMKTDM
COMCCHD	COMCQFP	COMDMAC	COMPCPE	COMPREL	COMPUFT	COMSLSD	COMSTRX	ZTDCERR	COMBKDD	COMTDER	COMKTER
COMCCHG	COMCRDA	COMDDBS	COMPCRA	COMPRFI	COMPUPP	COMSMLS	COMSVED	ZTDCVRB	COMBLBL	COMTDFP	COMKTIF
COMCCIO	COMCRDC	COMDDCM	COMPCRS	COMPRJC	COMPUPS	COMSMMF	COMSVER	ZTDNMT0	COMBLRQ	COMTERR	COMKTIP
COMCCNS	COMCRDH	COMDDIS	COMPCSC	COMPRLA	COMPVEI	COMSMRT	COMSWEI	ZTDPCLP	COMBMAP	COMTFMT	COMKTLD
COMCCOD	COMCRDO	COMDDSP	COMPCTE	COMPRLI	COMPVFC	COMSMSC	COMSZOL	ZTDPERR	COMBMAT	COMTLAB	COMKTRF
COMCCPA	COMCRDS	COMDD7S	COMPCTI	COMPRLM	COMPVFN	COMSMSI	COMS0VU	ZTDPFIL	COMBMCT	COMTLBP	COMKTRN
COMCCPM	COMCRDW	COMDGJD	COMPCUA	COMPRLS	COMPVID	COMSMSP	COMS1DS	ZTDPTBD	COMBOVL	COMTMOV	COMKTSA
COMCCPT	COMCRSB	COMDSYS	COMPCUT	COMPRNS	COMPVLC	COMSMST	COMS1MV	ZTDPTBS	COMBPFP	COMTMVD	COMKTSC
COMCCUA	COMCRSP	COMDTFN	COMPCVI	COMPRSI	COMPVMS	COMSMTR	COMS1RM	ZTDTFIL	COMBPFS	COMTMVP	COMKTST
COMCCVI	COMCRTN	COMFCID	COMPC2D	COMPRSS	COMPVPA	COMSMTX	COMS176	ZTDTTAB	COMBRCD	COMTOUT	COMKZFN
COMCCVL	COMCSCB	COMFVD2	COMPDDT	COMPSAF	COMPVSP	COMSNCD	COMTBAN	ZTDVERB	COMBSIT	COMTSIT	COMCCDM
COMCDCM	COMCSFM	COMFVD3	COMPDLI	COMPSCA	COMPWBB	COMSNET	COMTCVT	ZTDVMT0	COMBSNS	COMTUSE	COMCCDP
COMCDCP	COMCSFN	COMFXTI	COMPDTS	COMPSDA	COMPWCB	COMSPDT	COMTDA8	ZTDVPDT	COMBTDM	COMTUSP	COMSSTM
COMCDTC	COMCSKW	COMFXVT	COMPDVC	COMPSDI	COMPWEI	COMSPFM	COMTDP6	COMFDS1	COMBUCR	COMTVLD	COMCCKD
COMCDXB	COMCSNF	COMFPAN	COMPDV5	COMPSDN	COMPWSS	COMSPFS	COMTDP9	COMFDS2	COMBUDT	COMTVLF	COMCMBS
COMCECM	COMCSNM	COMFTIO	COMPECX	COMPSDR	COMPWVE	COMSPFU	COMTDSP	COMFFSE	COMXACM	COMTVLM	COMPTFM
COMCECS	COMCSOE	COMFVDT	COMPFAT	COMPSEI	COMSACC	COMSPIM	COMTNAP	COMFMLT	COMXBST	COMTVLP	COMSTFU

COMCEDT COMCSRI COMFVD1 COMPFLF COMPSES COMSATF COMSPRD COMTVDT COMFONL COMXCCB COMTVLV
COMCFCE COMCSRT COMPMAC COMPGBN COMPSFB COMSBIO COMSPRO COMT6DP COMFSGL COMXCTF COMTVLX
COMCFLD COMCSSN COMPACS COMPGFP COMPSFE COMSCIO COMSQAC COMT8AD COMFSMF COMXEMC COMKMAC
COMCFQO COMCSST COMPANS COMPGTN COMPSFI COMSCPD COMSQFS COMT9DP COMFTAB COMXEXP COMKARF
COMCGMS COMCSTF COMPAPI COMPICT COMPSFN COMSCPS COMSREM COMUCPD COMFXCM COMXFCQ COMKBRD

DECKS WRITTEN ON COMPILE FILE.

FDL

102600B STORAGE USED. 8087 LINES WRITTEN ON COMPILE FILE.

LDD

1412THE

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STORAGE ALLOCATION.

            ADDRESS   LENGTH            BINARY CONTROL CARDS.

               1100     2556            IDENT  LDD,/LDD/LDD
               3656     (427)

                                  BLOCKS    TYPE      ADDRESS    LENGTH

                                  PROGRAM*  ABSOLUTE        0      3372
                                  //        ABSOLUTE     3372       264



            ADDRESS   LENGTH            BINARY CONTROL CARDS.

               1100     1463            IDENT  LDQ,/LDQ/LDQ
               2563     (245)



            ADDRESS   LENGTH            BINARY CONTROL CARDS.

               1100      353            IDENT  2LD,PPFW
               1453      (60)           END


                                  BLOCKS    TYPE      ADDRESS    LENGTH

                                  PROGRAM*  ABSOLUTE        0      1410
                                  LITERALS* ABSOLUTE     1410        43
                                  BUFFERS   ABSOLUTE     1453         0



                                        IDENT  LDD,/LDD/LDD                                     FDL            1
                                        PERIPH                                                  FDL            2
                        D_M             BASE   MIXED                                            FDL            3
                                        SST                                                     FDL            4
                          1     IRA$    EQU    1           SET USER RANDOM ADDRESS INITIALIZATION    FDL            5
                          1     MSR$    EQU    1           SET USER MASS STORAGE ERROR PROCESSING    FDL            6
                          1     QUAL$   EQU    1           SET UNQUALIFIED COMMON DECKS              FDL            7
                                COMMENT 82/02/26. 92/09/17. FDL - LOAD FAST DYNAMIC LOAD DIRECTORIES. FDL           8
                                        COMMENT  COPYRIGHT CONTROL DATA SYSTEMS INC.  1992.     281L803        1
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                    ***       LDD - LOAD FAST DYNAMIC LOAD DIRECTORIES.                    FDL         12
                    *         S. L. KSANDER.     76/04/01.                                 FDL         13


                    ***             LDD PROCESSES THE PHYSICAL LOADING OF FAST DYNAMIC     FDL         15
                    *         LOAD CAPSULE DIRECTORY INFORMATION INTO THE USER SPECIFIED    FDL         16
                    *         AREA.  IF A FUNCTION CODE OF 404 IS PRESENT THEN             FDL         17
                    *         CCL PROCEDURE RECORDS ARE LOCATED RATHER THAN CAPSULES.      FDL         18



                    ***       CALL FORMAT.                                                 FDL         20
                    *                                                                      FDL         21
                    *                                                                      FDL         22
                    *T        18/ *LDD* ,1/,1/A,4/,12/ DI,6/ RSTAT,1/B,17/ FET             FDL         23
                    *                                                                      FDL         24
                    *         A      AUTO RECALL.                                          FDL         25
                    *         DI     DIRECTORY INDEX. (*LDD* RECALL ONLY)                  FDL         26
                    *         RSTAT  RECALL STATUS BITS. (*LDD* RECALL ONLY)               FDL         27
                    *                2/LOCAL USER LIBRARY OFFSET.                          FDL         28
                    *                4/GLOBAL LIBRARY SET INDEX.                           FDL         29
                    *         B      *LDD* RECALL STATUS.                                  FDL         30
                    *                                                                      FDL         31
                    *                                                                      FDL         32
                    *         FET.                                                         FDL         33
                    *                                                                      FDL         34
                    *T  FET   42/  *GROUP*,9/ STATUS,9/  CODE                             FDL         35
                    *T,       12/,18/ LIST,12/ DIRL,18/ DIRA                               FDL         36
                    *                                                                      FDL         37
                    *         INITIAL CALL.                                                FDL         38
                    *                                                                      FDL         39
                    *         GROUP  NAME OF GROUP FOR WHICH DIRECTORY INFORMATION IS      FDL         40
                    *                REQUESTED                                             FDL         41
                    *         STATUS IGNORED                                               FDL         42
                    *         CODE   FUNCTION CODE.                                        FDL         43
                    *                0 = LOCATE CAPSULES.                                  FDL         44
                    *                402 = LOCATE TEXT RECORD IN *CLD*.                    NS2278       1
                    *                404 = LOCATE TEXT RECORDS.                            FDL         45
                    *         LIST   ADDRESS OF LIBRARY NAME LIST THAT IS TO BE SEARCHED   FDL         46
                    *                AFTER THE GLOBAL LIBRARY SET, TERMINATED BY ZERO WORD FDL         47
                    *         DIRL   LENGTH OF DIRECTORY STORAGE AREA                      FDL         48
                    *         DIRA   BASE ADDRESS OF DIRECTORY AREA                        FDL         49
                    *                                                                      FDL         50
                    *                                                                      FDL         51
                    *         CALL COMPLETION.                                             FDL         52
                    *                                                                      FDL         53
                    *         GROUP  NOT CHANGED                                           FDL         54
                    *         STATUS 000 = NO ERRORS                                       FDL         55
                    *                001 = ILLEGAL FUNCTION CODE                           FDL         56
                    *                002 = BAD DIRECTORY ADDRESS AND/OR LENGTH (OUTSIDE OF FDL         57
                    *                      JOB FL)                                         FDL         58
                    *                003 = BAD LIBLIST ADDRESS AND/OR LENGTH (OUTSIDE OF   FDL         59
                    *                      JOB FL)                                         FDL         60
                    *                010 = LIBRARY NOT FOUND OR LIBRARY NOT MASS STORAGE   FDL         61
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*                     RESIDENT                                   FDL          62
*               020 = INSUFFICIENT DIRECTORY SPACE GIVEN         FDL          63
*        CODE   SET TO 001                                       FDL          64
*        LIST   NOT CHANGED                                      FDL          65
*        DIRL   SET TO ACTUAL LENGTH REQUIRED                    FDL          66
*        DIRA   NOT CHANGED                                      FDL          67
*                                                                FDL          68
*        *LDD* RECALL.                                           FDL          69
*                                                                FDL          70
*        AFTER EACH LIBRARY HAS BEEN PROCESSED, *LDD* WILL CHECK FDL          71
*        THE TOTAL NUMBER OF SECTORS READ AGAINST THE ASSEMBLY   FDL          72
*        CONSTANT *RSLM*.  IF THIS LIMIT IS EXCEEDED, *LDD* WILL FDL          73
*        PLACE ITSELF IN RECALL AND RESTART AGAIN WHEN IT IS     FDL          74
*        RECALLED.                                               FDL          75
*                                                                FDL          76
*                                                                FDL          77
*        DIRECTORY ENTRY FORMAT.                                 FDL          78
*                                                                FDL          79
*                                                                FDL          80
*        SYSTEM FILE DIRECTORY ENTRY.                            FDL          81
*                                                                FDL          82
*T DIRA   12/7777,12/  0,12/  FNT,6/ ORD,18/  0                  FDL          83
*T,DIRA+1 42/ NAME, 18/ INDEX                                    FDL          84
*T,DIRA+2 1/1,23/  0,18/  PRU,18/  LENGTH                        FDL          85
*                                                                FDL          86
*                                                                FDL          87
*        LOCAL FILE DIRECTORY ENTRY.                             FDL          88
*                                                                FDL          89
*T DIRA   1/1,41/  *LFN*,18/  0                                  FDL          90
*T,DIRA+1 42/ NAME, 18/ INDEX                                    FDL          91
*T,DIRA+2 1/1,23/  0,18/  PRU,18/  LENGTH                        FDL          92
*                                                                FDL          93
*                                                                FDL          94
*        FNT      ADDRESS OF SYSTEM FILE FNT ENTRY               FDL          95
*        ORD      ORDINAL OF SYSTEM LIBRARY IN LIBRARY NAME TABLE FDL         96
*        LFN      LOCAL FILE NAME                                FDL          97
*        NAME     NAME OF CAPSULE OR TEXT RECORD.                FDL          98
*        INDEX    INDEX RELATIVE TO START OF DIRECTORY OF THE FILE FDL        99
*                 ENTRY ASSOCIATED WITH THIS NAME.               FDL         100
*        PRU      DISK ADDRESS OF FIRST SECTOR OF CAPSULE OR TEXT FDL        101
*                 RECORD.                                        FDL         102
*        LENGTH   LENGTH OF CAPSULE OR TEXT RECORD.              FDL         103
```

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                    ***       DAYFILE MESSAGES.                                            FDL         105
                    *                                                                      FDL         106
                    *         * LDD - ARGUMENT ERROR - XXXXXX.* = FET ADDRESS .LT. 2 OR    FDL         107
                    *         .GT. FL-2.                                                   FDL         108
                    *                                                                      FDL         109
                    *         * LDD - I/O SEQUENCE ERROR - FILENAM AT XXXXXX.* = MULTIPLE  FDL         110
                    *         CONCURRENT FUNCTIONS WERE ATTEMPTED ON FILE *FILENAM*.       FDL         111
                    *                                                                      FDL         112
                    *         * LDD - DEVICE ERROR - FILENAM AT XXXXXX.* = AN UNRECOVERED  FDL         113
                    *         DEVICE ERROR WAS ENCOUNTERED ON FILE *FILENAM*.              FDL         114
                    *                                                                      FDL         115
                    *         FOR ALL MESSAGES, XXXXXX IS THE ADDRESS OF THE *LDD*         FDL         116
                    *         PARAMETER BLOCK.                                             FDL         117


                    ***       OPERATOR MESSAGES.                                           FDL         119
                    *                                                                      FDL         120
                    *                                                                      FDL         121
                    *         NONE.                                                        FDL         122


                    ****      ASSEMBLY CONSTANTS.                                          FDL         124
                                                                                           FDL         125
                                                                                           FDL         126
                              QUAL   ERR           ERROR CODES.                            FDL         127
                1    ILF      EQU    1             ILLEGAL FUNCTION                        FDL         128
                2    IAD      EQU    2             ILLEGAL ADDRESS                         FDL         129
                3    FNF      EQU    3             FILE NOT FOUND (LDQ)                    FDL         130
                3    ILA      EQU    3             ILLEGAL LIBLIST ADDRESS (LDD)           FDL         131
                4    IRA      EQU    4             ILLEGAL RANDOM ADDRESS                  FDL         132
                5    WPR      EQU    5             WRONG PROGRAM                           FDL         133
                6    IBF      EQU    6             INSUFFICIENT BUFFER                     FDL         134
               10    ILE      EQU    10            ILLEGAL LIBRARY ENTRY                   FDL         135
               20    IDS      EQU    20            INSUFFICIENT DIRECTORY SPACE            FDL         136
                                                                                           FDL         137
               40    FERT     EQU    40            FATAL ERROR TYPES.                      FDL         138
                                                                                           FDL         139
               40    ARG      EQU    40            ARGUMENT ERROR (MUST ALWAYS BE FATAL)   FDL         140
               41    IOS      EQU    41            I/O SEQUENCE ERROR (MUST ALWAYS BE FATAL) FDL       141
               42    MSR      EQU    42            MASS STORAGE ERROR (MUST ALWAYS BE FATAL) FDL       142
                              QUAL   *                                                     FDL         143
                                                                                           FDL         144
                1    MEPO     EQU    1             MASS STORAGE ERROR PROCESSING OPTION    FDL         145
             1000    RSLM     EQU    1000          RECALL SECTOR LIMIT                     FDL         146
                                                                                           FDL         147
                    ****                                                                   FDL         148
```

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                          ***       COMMON DECKS.                                          FDL         150
                                                                                           FDL         151
                                                                                           FDL         152
          0                         CTEXT  COMPMAC - PP SYSTEM MACROS.                     COMPMAC       1
          0                         CTEXT  COMSCPS - CPUMTR SUBFUNCTION CODES.             COMSCPS       1
          0                         CTEXT  COMSMSP - MASS STORAGE PROCESSING EQUIVALENCES. COMSMSP       1
          0                         CTEXT  COMSPIM - PP INSTRUCTION MNEMONICS.             COMSPIM       1
          0                         CTEXT  COMSSRU - DEFINE SRU PARAMETERS.                COMSSRU       1



                          ****      DIRECT LOCATION ASSIGNMENTS.                           FDL         159
                                                                                           FDL         160
                                                                                           FDL         161
                    17     ER       EQU    17          EOR FLAG                            FDL5          1
                    20     FS       EQU    20 - 24     FST ENTRY                           FDL         162
                    25     CC       EQU    25          CAPSULE COUNT                       FDL         163
                    26     GO       EQU    26          GROUP ORDINAL                       FDL         164
                    27     CL       EQU    27          LENGTH OF CENTRAL MEMORY DIRECTORY  FDL         165
                    30     GN       EQU    30 - 34     GROUP NAME                          FDL         166
                    30     AB       EQU    30 - 34     NAME TO SEARCH FOR IN *CLD*         FDL         167
                    35     UL       EQU    35 - 36     USER SPECIFIED FILE LIST ADDRESS    FDL         168
                    37     DI       EQU    37          ACTUAL DIRECTORY LENGTH             FDL         169
                    40     FN       EQU    40 - 44     FNT ENTRY                           FDL         170
                    45     FW       EQU    45 - 46     FWA OF CM BUFFER                    FDL         171
                    45     TI       EQU    45 - 46     LIBRARY BASE RANDOM INDEX           FDL         172
                    47     EC       EQU    47          ERROR CODE                          FDL5          2
                    57     FA       EQU    57          RELATIVE FNT ADDRESS IN NFL         FDL         174
                    60     BL       EQU    60          BUFFER LIMIT ADDRESS                FDL         175
                    61     SI       EQU    61 - 62     SRU INCREMENT TO ERROR PROCESSOR    FDL         176
                    63     RI       EQU    63 - 64     RANDOM INDEX                        FDL         177
                    65     BS       EQU    65 - 66     BUFFER SIZE (CM BUFFER)             FDL         178
                    65     DA       EQU    65 - 66     DIRECTORY BASE ADDRESS              FDL         179
                    67     DL       EQU    67          USER SPECIFIED DIRECTORY LENGTH     FDL         180
                                                                                           FDL         181
                          ****                                                             FDL         182
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                                 **        MACRO DEFINITIONS.                                          FDL        185


                                 **        COMMON - COMMON CODE FOR *LDD* AND *LDQ*.                   242L642      2
                                 *                                                                     242L642      3
                                 *         THIS MACRO PROVIDES IDENTICAL CODE FOR *LDD* AND *LDQ*.     242L642      4
                                                                                                       242L642      5
                                                                                                       242L642      6
                                  COMMON   MACRO                                                       242L642      7
                                  CIS      SPACE  4,10                                                 242L642      8
                                 **        CIS - CLEAR INTERLOCKS.                                     242L642      9
                                 *                                                                     242L642     10
                                 *         ENTRY  (CISA) = TRACK NUMBER IF INTERLOCK SET.              242L642     11
                                 *                                                                     242L642     12
                                 *         EXIT   (CISA) = 0.                                          242L642     13
                                 *                                                                     242L642     14
                                 *         CALLS  CTI.                                                 242L642     15
                                                                                                       242L642     16
                                                                                                       242L642     17
                                  CIS      SUBR                ENTRY/EXIT                              242L642     18
                                           LDC    0                                                    242L642     19
                                  CISA     EQU    *-1                                                  242L642     20
                                           ZJN    CISX         IF NO INTERLOCK SET                     242L642     21
                                           RJM    CTI                                                  242L642     22
                                 *         LDN    0            CLEAR INTERLOCK SET STATUS              242L642     23
                                           STM    CISA                                                 242L642     24
                                           UJN    CISX         RETURN                                  242L642     25
                                  MSR      SPACE  4,15                                                 242L642     26
                                 **        MSR - MASS STORAGE ERROR PROCESSING.                        242L642     27
                                 *                                                                     242L642     28
                                 *         ENTRY  (A) = STATUS RETURNED FROM AN I/O ERROR.             242L642     29
                                 *                (T5) = EST ORDINAL.                                  242L642     30
                                 *                (FA) = FNT ADDRESS IF LOCAL FILE PRESENT.            242L642     31
                                 *                     = 0, OTHERWISE.                                 242L642     32
                                 *                                                                     242L642     33
                                 *         USES   FS+4, IR+4.                                          242L642     34
                                 *                                                                     242L642     35
                                 *         CALLS  CIS.                                                 242L642     36
                                 *                                                                     242L642     37
                                 *         MACROS ERROR, EXECUTE.                                      242L642     38
                                                                                                       242L642     39
                                                                                                       242L642     40
                                  MSR      CON    0            ENTRY                                   242L642     41
                                           SHN    21-12                                                242L642     42
                                           MJN    MSR2         IF UNRECOVERABLE ERROR                  242L642     43
                                           LDM    MSD                                                  242L642     44
                                           SHN    21-13                                                242L642     45
                                           MJN    MSR3         IF NOT SUBSYSTEM                        242L642     46
                                  MSR2     RJM    CIS                                                  242L642     47
                                           ERROR  MSR          * DEVICE ERROR.*                        242L642     48
                                                                                                       242L642     49
                                 *         CALL *1RJ* TO RECALL THE PP AND ROLL THE JOB.               242L642     50
                                                                                                       242L642     51
                                  MSR3     LDD    T5           EST ORDINAL                             242L642     52
                                           STD    IR+4                                                 242L642     53
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                                  RJM    CIS          CLEAR INTERLOCKS                                  242L642      54
                                  AOD    FS+4         SET FET NOT BUSY                                  242L642      55
                                  LDD    FA                                                             242L642      56
                                  ZJN    MSR4         IF NO LOCAL FNT                                   242L642      57
                                  NFA    FA,R                                                           242L642      58
                                  ADN    FSTL                                                           242L642      59
                                  CWD    FS                                                             242L642      60
                         MSR4     EXECUTE  1RJ                                                          242L642      61
                                  SPACE  4,10                                                           242L642      62
                        **        COMMON DECKS.                                                         242L642      63
                                                                                                        242L642      64
                                                                                                        242L642      65
                                  CTEXT  COMPCTI - CLEAR TRACK INTERLOCK.                               COMPCTI       1
                         CTI      SPACE  4,10                                                           242L642       1
                                  IF     -DEF,QUAL$,1                                                   COMPCTI       3
                                  QUAL   COMPCTI                                                        COMPCTI       4
                        *         COMMENT  COPYRIGHT CONTROL DATA SYSTEMS INC.  1992.                   281L803       1
                         CTI      SPACE  4,10                                                           242L642       2
                        ***       CTI - CLEAR TRACK INTERLOCK.                                          COMPCTI       7
                        *         J. L. WARDELL      72/05/24.                                          COMPCTI       8
                         CTI      SPACE  4,15                                                           242L642       3
                        ***              CTI CLEARS WRITE INTERLOCK FOR TRACK SPECIFIED.                COMPCTI      10
                        *                                                                               COMPCTI      11
                        *         ENTRY  (A) = TRACK NUMBER.                                            242L642       4
                        *                (T5) = EST ORDINAL.                                            242L642       5
                        *                                                                               242L642       6
                        *         EXIT   (A) = 0.                                                       242L642       7
                        *                                                                               COMPCTI      15
                        *         USES   CM - CM+4.                                                     COMPCTI      16
                        *                                                                               COMPCTI      17
                        *         MACROS MONITOR.                                                       242L642       8
                        *                                                                               242L642       9
                        *         XREF   COMSCPS.                                                       242L642      10
                                                                                                        COMPCTI      19
                                                                                                        COMPCTI      20
                         CTI      SUBR                ENTRY/EXIT                                        COMPCTI      21
                                  STD    CM+2         SET TRACK                                         COMPCTI      22
                                  LDD    T5           SET EST ORDINAL                                   NS22000       2
                                  STD    CM+1                                                           COMPCTI      24
                                  LDN    CTIS         CLEAR TRACK INTERLOCK                             COMPCTI      25
                                  STD    CM+3                                                           COMPCTI      26
                                  MONITOR STBM                                                          COMPCTI      27
                        *         LDN    0                                                              242L642      11
                                  UJN    CTIX         RETURN                                            242L642      12
                                  SPACE  4,10                                                           242L642      13
                         QUAL$    IF     -DEF,QUAL$                                                     COMPCTI      30
                                  QUAL   *                                                              COMPCTI      31
                         CTI      EQU    /COMPCTI/CTI                                                   COMPCTI      32
                         QUAL$    ENDIF                                                                 COMPCTI      33
                                  ENDX                                                                  COMPCTI      34
                                  CTEXT  COMPRNS - READ NEXT SECTOR.                                    COMPRNS       1
                         RNS      SPACE  4,10                                                           242L642       1
                                  IF     -DEF,QUAL$,1                                                   COMPRNS       3
                                  QUAL   COMPRNS                                                        COMPRNS       4
                        *         COMMENT  COPYRIGHT CONTROL DATA SYSTEMS INC.  1992.                   281L803       1
                         RNS      SPACE  4,10                                                           242L642       2
                        ***       RNS - READ NEXT SECTOR.                                               COMPRNS       7
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                     *         G. R. MANSFIELD.  70/08/30.                             COMPRNS      8
                      RNS      SPACE  4,25                                             242L642      3
                     ***              RNS READS THE NEXT SECTOR OF A FILE TO A PP BUFFER.  COMPRNS     10
                     *                                                                 COMPRNS     11
                     *         IF *MSR$* IS DEFINED A CALL WILL BE MADE TO *MSR* ON A   COMPRNS     12
                     *         MASS STORAGE ERROR.  IF IT IS POSSIBLE FOR *MSR* TO CORRECT  242L642      4
                     *         THE ERROR, IT CAN RETURN TO *RNS* WHICH WILL UPDATE T1, T6,  242L642      5
                     *         AND T7 AND RETURN TO ITS CALLER.  IF *MSR$* IS NOT DEFINED,  242L642      6
                     *         (A) IS NEGATIVE ON EXIT AND T1, T6, AND T7 ARE NOT UPDATED.  242L642      7
                     *                                                                 COMPRNS     15
                     *         ENTRY  (A) = 6/ FLAGS FOR DRIVER, 12/ PP BUFFER ADDRESS.  COMPRNS     16
                     *                (T5) = EST ORDINAL.                              NS22000      1
                     *                (T6) = TRACK.                                    COMPRNS     18
                     *                (T7) = SECTOR.                                   COMPRNS     19
                     *                                                                 COMPRNS     20
                     *         EXIT   (A) = (T1) = WORD COUNT OF SECTOR.               COMPRNS     21
                     *                (T3) = ADDRESS OF PP BUFFER.                     COMPRNS     22
                     *                (T6 - T7) ADVANCED IF NO EOI.                    COMPRNS     23
                     *                (A) .LT. 0 IF MASS STORAGE ERROR AND *MSR$* NOT  242L642      8
                     *                            DEFINED. (A) = RESPONSE FROM DRIVER.  242L642      9
                     *                                                                 COMPRNS     24
                     *         USES   T3.                                              COMPRNS     25
                     *                                                                 COMPRNS     26
                     *         CALLS  RDS.                                             COMPRNS     27
                                                                                       COMPRNS     28
                                                                                       COMPRNS     29
                      RNS2     LDD    T1            RETURN WITH (A) = WORD COUNT       COMPRNS     30
                                                                                       COMPRNS     31
                      RNS      SUBR                 ENTRY/EXIT                         COMPRNS     32
                               STD    T3            SET BUFFER ADDRESS                 COMPRNS     33
                               RJM    RDS           READ SECTOR                        COMPRNS     34
                      MSR$     IF     DEF,MSR$                                         COMPRNS     35
                               PJN    RNS0          IF NO ERROR                        COMPRNS     36
                               RJM    MSR           PROCESS MASS STORAGE READ ERROR    COMPRNS     37
                      RNS0     BSS    0                                                COMPRNS     38
                      MSR$     ELSE                                                    242L642     10
                               MJN    RNSX          IF ERROR                           242L642     11
                      MSR$     ENDIF                                                   COMPRNS     39
                               LDM    1,T3          SET SECTOR WORD COUNT              COMPRNS     40
                               STD    T1                                               COMPRNS     41
                               LDI    T3            CHECK FIRST CONTROL BYTE           COMPRNS     42
                               NJN    RNS1          IF NOT EOF                         COMPRNS     43
                               STD    T1            CLEAR WORD COUNT                   COMPRNS     44
                               LDM    1,T3          CHECK NEXT CONTROL BYTE            COMPRNS     45
                               ZJN    RNSX          RETURN IF EOI                      COMPRNS     46
                      RNS1     STD    T7            SET NEXT SECTOR                    COMPRNS     47
                               SHN    6                                                COMPRNS     48
                               PJN    RNS2          IF NOT NEW TRACK                   COMPRNS     49
                               SHN    -6            SET NEXT TRACK                     COMPRNS     50
                               STD    T6                                               COMPRNS     51
                               LDN    0             CLEAR SECTOR                       COMPRNS     52
                               STD    T7                                               COMPRNS     53
                               UJN    RNS2          RETURN WITH (A) = WORD COUNT       COMPRNS     54
                               SPACE  4,10                                             242L642     12
                      QUAL$    IF     -DEF,QUAL$                                       COMPRNS     56
                               QUAL   *                                                COMPRNS     57
                      RNS      EQU    /COMPRNS/RNS                                     COMPRNS     58
```

```
                                 QUAL$    ENDIF                                                        COMPRNS     59
                                          ENDX                                                         COMPRNS     60
                                          ENDM                                                         242L642     68


                                **        ERROR - SET ERROR STATUS.                                    FDL        187
                                *                                                                      FDL        188
                                *                                                                      FDL        189
                                *NAME     ERROR  CODE                                                  FDL        190
                                *                                                                      FDL        191
                                *         ENTRY  *NAME* = OPTIONAL LOCATION TAG.                       FDL        192
                                *                *CODE* = ERROR CODE.                                  FDL        193
                                                                                                       FDL        194
                                          PURGMAC ERROR                                                FDL        195
                                                                                                       FDL        196
                                 ERROR    MACRO  A                                                     FDL        197
                                          MACREF ERROR                                                 FDL        198
                                          LDN    /ERR/A                                                FDL        199
                                          RJM    ERR                                                   FDL        200
                                          ENDM                                                         FDL        201


                                **        LDCA - LOAD ABSOLUTE CM ADDRESS.                             FDL        203
                                *                                                                      FDL        204
                                *                                                                      FDL        205
                                *NAME     LDCA    DC                                                   FDL        206
                                *                                                                      FDL        207
                                *         ENTRY  *NAME* = OPTIONAL LOCATION TAG.                       FDL        208
                                *                *DC* = FIRST OF TWO DIRECT LOCATIONS TO BE USED.      FDL        209
                                                                                                       FDL        210
                                          PURGMAC LDCA                                                 FDL        211
                                                                                                       FDL        212
                                 LDCA     MACRO  X                                                     FDL        213
                                          MACREF LDCA                                                  FDL        214
                                          LDD    X                                                     FDL        215
                                          LPN    37                                                    FDL        216
                                          SHN    6                                                     FDL        217
                                          ADD    RA                                                    FDL        218
                                          SHN    6                                                     FDL        219
                                          ADD    X+1                                                   FDL        220
                                          ENDM                                                         FDL        221
```

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                **      MSG - DEFINE MESSAGE.                                   FDL     223
                *                                                               FDL     224
                *ERR    MSG    (TEXT)                                           FDL     225
                *                                                               FDL     226
                *       ENTRY  *ERR* = ERROR CODE.                              FDL     227
                *              *TEXT* = ERROR MESSAGE.                          FDL     228
                                                                                FDL     229
                       PURGMAC MSG                                              FDL     230
                                                                                FDL     231
                       MACRO  MSG,ERR,TEXT                                      FDL     232
                       LOCAL  A                                                 FDL     233
                       MACREF MSG                                               FDL     234
                 A     MICRO  1,,$TEXT$                                         FDL     235
                 A     MICCNT A                                                 FDL     236
                       ERRNG  20D-A       MESSAGE TOO LONG                      FDL     237
                 ERR   CON    =Z$TEXT$                                         FDL     238
                       ENDM                                                     FDL     239
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                                          QUAL   LDD                                        FDL         241
                                                                                            FDL         242
                                   ***    LDD - MAIN PROGRAM.                               FDL         243
                                                                                            FDL         244
                                                                                            FDL         245
       1100                               ORG    PPFW                                       FDL         246
                                                                                            FDL         247
       1100          0200 3373     LDD    RJM    PRS          PRESET                        FDL         248
       1102          1400          LDDB   LDN    0                                          NS2278        2
                                   *      LDN    1            (FUNCTION CODE 402)           NS2278        3
       1103          0535                 NJN    LDD3.4       IF FUNCTION CODE IS 402       NS2278        4
       1104          3074                 LDD    CP           READ GLOBAL LIBRARY SET       FDL         249
       1105          2100 0112            ADC    LB1W                                       FDL         250
       1107          6173 3372            CRM    TLBD,TR                                    FDL         251
       1111          1400          LDD1   LDN    0            CLEAR FNT ADDRESS             FDL         252
       1112          3457                 STD    FA                                         FDL         253
       1113          3440                 STD    FN           CLEAR FILE NAME               FDL         254
       1114          5400 3010            STM    SISA                                       242L642      69
       1116          1400                 PAUSE                                             FDL         255
       1124          3011                 LDD    CM+1         CHECK ERROR FLAGS             FDL         256
       1125          0403                 ZJN    LDD3         IF NO ERROR FLAGS             FDL         257
       1126          0100 2655     LDD2   LJM    SCS          SET COMPLETE STATUS           FDL         258
                                                                                            FDL         259
       1130          0200 2127     LDD3   RJM    CRP          CHECK RECALL PARAMETERS       FDL         260
       1132          0200 1273            RJM    GNL          GET NEXT LIBRARY              FDL         261
       1134          3040                 LDD    FN           CHECK LIBRARY FOUND           FDL         262
       1135          0515                 NJN    LDD5         IF NOT END OF LIBRARIES       FDL         263
       1136          1400          LDDA   LDN    0                                          FDL         264
                                   *      LDN    1            (FUNCTION CODE 404)           FDL         265
       1137          0466                 ZJN    LDD2         IF NOT FUNCTION CODE 404      FDL         266
       1140          0200 2576     LDD3.4 RJM    SCP          SEARCH *CLD* FOR PROCEDURE RECORD NS2278      5
       1142          0505                 NJN    LDD4         IF ENTRY FOUND                FDL         268
       1143          1410                 ERROR  ILE          ILLEGAL LIBRARY ENTRY         FDL         269
       1146          0357                 UJN    LDD2         EXIT                          FDL         270
                                                                                            FDL         271
       1147          0200 2434     LDD4   RJM    PDE          PROCESS DIRECTORY ENTRY       FDL         272
       1151          0354                 UJN    LDD2         SET COMPLETE STATUS           FDL         273
                                                                                            FDL         274
       1152          0200 1364     LDD5   RJM    LNL          LOCATE NEXT LIBRARY           FDL         275
       1154          3040                 LDD    FN           CHECK LIBRARY FOUND           FDL         276
       1155          0413                 ZJN    LDD6         IF LIBRARY NOT FOUND          FDL         277
                                                                                            FDL         278
                                   *      PROCESS *ULIB* RECORD.                            FDL         279
                                                                                            FDL         280
       1156          2000 3423            LDC    BUF          LOAD BUFFER MEMORY            FDL         281
       1160          0200 2342            RJM    LBM                                        FDL         282
       1162          2000 3423            LDC    BUF          RESET BUFFER ADDRESS          FDL         283
       1164          3403                 STD    T3                                         FDL         284
       1165          0200 3053            RJM    VUT          VALIDATE *ULIB* TABLES        FDL         285
       1167          0507                 NJN    LDD7         IF NO ERROR IN *ULIB* TABLES  FDL         286
                                                                                            FDL         287
       1170          1410          LDD6   ERROR  ILE          ILLEGAL LIBRARY ENTRY         FDL         288
       1173          0200 2014            RJM    CIS          CLEAR INTERLOCK STATUS        FDL         289
       1175          0332                 UJN    LDD8                                       FDL         290
                                                                                            FDL         291
       1176          0200 1714     LDD7   RJM    SFG          SEARCH FOR GROUP NAME         FDL         292
       1200          0467                 ZJN    LDD6         IF NO MATCH ON GROUP NAME     FDL         293
```

```
                                                                                     FDL       294
                                   *        PROCESS *OPLD* RECORD.                   FDL       295
                                                                                     FDL       296
 1201         0200 3003                     RJM     SIS         SET INTERLOCK STATUS FDL       297
 1203         3021                          LDD     FS+1        SET FIRST TRACK      FDL       298
 1204         3406                          STD     T6                               FDL       299
 1205         0200 3130                     RJM     CRA         CONVERT RANDOM ADDRESS   FDL   300
 1207         0760                          MJN     LDD6        IF RANDOM INDEX ERROR    FDL   301
 1210         2000 3423                     LDC     BUF         LOAD BUFFER MEMORY   FDL       302
 1212         0200 2342                     RJM     LBM                              FDL       303
 1214         2000 3423                     LDC     BUF         RESET BUFFER ADDRESS FDL       304
 1216         3403                          STD     T3                               FDL       305
 1217         0200 3022                     RJM     VOT         VALIDATE *OPLD* TABLE    FDL   306
 1221         0746                          MJN     LDD6        IF ERROR IN *OPLD* TABLE FDL   307
 1222         0200 1615                     RJM     PGM         PROCESS GROUP MEMBERS    FDL   308
 1224         0403                          ZJN     LDD8        IF NO FIND OR CAPSULE PROCESSING  FDL  309
 1225         0100 1126                     LJM     LDD2        IF FIND ON FUNCTION CODE 404      FDL  310
                                                                                     FDL       311
 1227         3624                LDD8      AOD     FS+4        SET FILE NOT BUSY    FDL       312
 1230         3057                          LDD     FA                               FDL       313
 1231         0406                          ZJN     LDD9        IF NOT LOCAL LIBRARY FDL       314
 1232         3055                          NFA     FA,R                             FDL       315
 1235         1601                          ADN     FSTL                             FDL       316
 1236         6220                          CWD     FS                               FDL       317
 1237         0100 1111           LDD9      LJM     LDD1        LOOP                 FDL       318
```

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                                       ***      GNL - GET NEXT LIBRARY NAME.                                  FDL          322
                                        *                                                                      FDL          323
                                        *       ENTRY   (UL - UL+1) = ADDRESS OF NEXT USER LIBLIST ENTRY.      FDL          324
                                        *               (TLBD) = GLOBAL LIBRARY SET.                           FDL          325
                                        *               (FN) = 0.                                              FDL          326
                                        *                                                                      FDL          327
                                        *       EXIT    (FN) = 0 IF NO LIBRARY FOUND.                          FDL          328
                                        *               (FN - FN+4) = NAME OF NEXT USER LIBRARY.               FDL          329
                                        *               (UL - UL+1) = UPDATED TO NEXT USER LIBLIST ENTRY.      FDL          330
                                        *               TO *ERR* IF ILLEGAL LIBLIST ADDRESS.                   FDL          331
                                        *                                                                      FDL          332
                                        *       USES    T7, CM - CM+4, FN - FN+4, UL - UL+1.                   FDL          333
                                                                                                               FDL          334
                                                                                                               FDL          335
                                        *       PROCESS USER LIBLIST ENTRY.                                    FDL          336
                                                                                                               FDL          337
        1241      3035                  GNL4    LDD     UL          CHECK USER SPECIFIED LIBLIST               FDL          338
        1242      1014                          SHN     14                                                     FDL          339
        1243      3136                          ADD     UL+1                                                   FDL          340
        1244      0426                          ZJN     GNLX        IF NO USER SPECIFIED LIBLIST               FDL          341
        1245      1071                          SHN     -6          CHECK USER LIBLIST ADDRESS                 FDL          342
        1246      3256                          SBD     FL                                                     FDL          343
        1247      0704                          MJN     GNL6        IF LIBLIST ADDRESS WITHIN FL               FDL          344
        1250      1403                  GNL5    ERROR   ILA         ILLEGAL LIBLIST ADDRESS                    FDL          345
                                                                                                               FDL          346
        1253      3035                  GNL6    LDCA    UL          READ LIBRARY NAME                          FDL          347
        1261      6040                          CRD     FN                                                     FDL          348
        1262      3636                          AOD     UL+1        ADVANCE LIBLIST ADDRESS                    FDL          349
        1263      1063                          SHN     -14                                                    FDL          350
        1264      3535                          RAD     UL                                                     FDL          351
        1265      3043                  GNL7    LDD     FN+3        SET LIBRARY NAME                           FDL          352
        1266      1377                          SCN     77                                                     FDL          353
        1267      3443                          STD     FN+3                                                   FDL          354
        1270      1400                          LDN     0                                                      FDL          355
        1271      3444                          STD     FN+4                                                   FDL          356
                                                                                                               FDL          357
        1272      0100 1272             GNL     SUBR                ENTRY/EXIT                                 FDL          358
        1274      2000 3375                     LDC     TLBD+3      CHECK END OF GLOBAL LIBRARY SET TABLE      FDL          359
                            1275        GNLA    EQU     *-1                                                    FDL          360
        1276      3407                          STD     T7                                                     FDL          361
        1277      2300 3411                     LMC     TLBDL                                                  FDL          362
                            1300        GNLB    EQU     *-1                                                    FDL          363
                                        *       LMC     TLBDL-5     (ONE LOCAL USER LIBRARY)                   FDL          364
                                        *       LMC     TLBDL-12    (TWO LOCAL USER LIBRARIES)                 FDL          365
        1301      0405                          ZJN     GNL1        IF END OF GLOBAL LIBRARY SET               FDL          366
        1302      4007                          LDI     T7          GET NEXT LIBRARY ORDINAL                   FDL          367
        1303      1071                  GNLC    SHN     -6          POSITION ORDINAL                           FDL          368
                                        *       SHN     0           (LIBRARY ORDINAL IN LOWER SIX BITS)        FDL          369
        1304      1277                          LPN     77                                                     FDL          370
        1305      0503                          NJN     GNL2        IF NOT END OF GLOBAL LIBRARY SET           FDL          371
        1306      0100 1241             GNL1    LJM     GNL4                                                   FDL          372
                                                                                                               FDL          373
        1310      3407                  GNL2    STD     T7                                                     FDL          374
        1311      5600 1362                     AOM     GNLE        ADVANCE GLOBAL LIBRARY INDEX               FDL          375
        1313      1076                          SHN     -1                                                     FDL          376
        1314      2100 3375                     ADC     TLBD+3                                                 FDL          377
        1316      5400 1275                     STM     GNLA                                                   FDL          378
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1320         5000 1303                    LDM    GNLC        ADVANCE SHIFT INSTRUCTION                    FDL    379
1322         1171                         LMN    -6+77                                                    FDL    380
1323         5400 1303                    STM    GNLC                                                     FDL    381
1325         3007                         LDD    T7                                                       FDL    382
1326         1777                         SBN    77                                                       FDL    383
1327         0416                         ZJN    GNL3        IF LOCAL USER LIBRARY                        FDL    384
1330         1676                         ADN    76          SET OFFSET = (ORDINAL-1) * 2                 FDL    385
1331         1001                         SHN    1                                                        FDL    386
1332         3407                         STD    T7                                                       FDL    387
1333         2000 0144                    LDC    LBDP        READ LIBRARY DIRECTORY                       FDL    388
1335         6010                         CRD    CM                                                       FDL    389
1336         3012                         LDD    CM+2        FORM ADDRESS OF LIBRARY NAME                 FDL    390
1337         1014                         SHN    14                                                       FDL    391
1340         3113                         ADD    CM+3                                                     FDL    392
1341         3107                         ADD    T7          ADD OFFSET                                   FDL    393
1342         6040                         CRD    FN          READ LIBRARY NAME                            FDL    394
1343         0100 1265                    LJM    GNL7                                                     FDL    395
                                                                                                          FDL    396
                                  *      READ LOCAL FILE LIBRARY NAME.                                    FDL    397
                                                                                                          FDL    398
1345         3074                GNL3     LDD    CP          READ LOCAL USER LIBRARY NAME                 FDL    399
1346         2100 0114                    ADC    LB3W                                                     FDL    400
                          1347   GNLD     EQU    *-1                                                      FDL    401
                                  *      ADC    LB2W        (SECOND LOCAL USER LIBRARY)                  FDL    402
1350         6040                         CRD    FN          READ LIBRARY NAME                            FDL    403
1351         5700 1347                    SOM    GNLD        ADVANCE LOCAL USER LIBRARY POINTER           FDL    404
1353         1505                         LCN    5           ADVANCE END OF GLOBAL LIBRARY SET TABLE      FDL    405
1354         5500 1300                    RAM    GNLB                                                     FDL    406
1356         5600 2141                    AOM    CRPA        ADVANCE RECALL VALUE                         FDL    407
1360         0100 1265                    LJM    GNL7                                                     FDL    408
                                                                                                          FDL    409
1362         0000                GNLE     CON    0           GLOBAL LIBRARY SET BYTE INDEX                FDL    410
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                                      ***       LNL - LOCATE NEXT LIBRARY.                                              FDL         412
                                      *                                                                                 FDL         413
                                      *         ENTRY  (FN - FN+3) = LIBRARY NAME.                                      FDL         414
                                      *                (LNLA) = FNT ADDRESS SYSTEM FILE.                                FDL         415
                                      *                                                                                 FDL         416
                                      *         EXIT   (FN) = 0 IF LIBRARY NOT FOUND.                                   FDL         417
                                      *                (T5) = EQUIPMENT.                                                FDL         418
                                      *                (T6) = FIRST TRACK OF LIBRARY FILE.                              FDL         419
                                      *                (FA) = FNT ADDRESS IF LOCAL FILE LIBRARY FOUND.                  FDL         420
                                      *                (PDEB) = INDEX OF LIBRARY FILE HEADER IN DIRECTORY.              FDL         421
                                      *                (RI - RI+1) = RANDOM INDEX OF LIBRARY *ULIB* RECORD.             FDL         422
                                      *                (FS - FS+4) = FST OF LOCAL FILE USER LIBRARY.                    FDL         423
                                      *                (DIRA - DIRA+4) = FIRST WORD OF DIRECTORY ENTRY FOR              FDL         424
                                      *                                  LIBRARY.                                       FDL         425
                                      *                (CISA) = SET TO INDICATE INTERLOCK CLEARED.                      FDL         426
                                      *                (SISA) = SET TO INDICATE IF INTERLOCK REQUIRED.                  FDL         427
                                      *                RANDOM ACCESS PROCESSORS PRESET.                                 FDL         428
                                      *                DRIVER LOADED AND ERROR PROCESSING SET.                          FDL         429
                                      *                                                                                 FDL         430
                                      *         USES   FA, CM - CM+4, FN - FN+4, FS - FS+4, RI - RI+4,                  FDL         431
                                      *                T1 - T7.                                                         FDL         432
                                      *                                                                                 FDL         433
                                      *         CALLS  CRA, IRA, SAF, SFB, SIS.                                         FDL         434
                                      *                                                                                 FDL         435
                                      *         MACROS ERROR, SETMS, SFA.                                               242L642      70
                                                                                                                        FDL         437
                                                                                                                        FDL         438
           1363          0100 1363     LNL      SUBR                   ENTRY/EXIT                                       FDL         439
           1365          0200 3200              RJM    SAF             SEARCH FOR ASSIGNED FILE                         FDL         440
           1367          0503                   NJN    LNL1            IF FILE FOUND                                    FDL         441
           1370          0100 1444              LJM    LNL5            SEARCH SYSTEM LIBRARIES                          FDL         442
                                                                                                                        FDL         443
           1372          0200 3255     LNL1     RJM    SFB             SET FILE BUSY                                    FDL         444
           1374          0404                   ZJN    LNL2            IF FILE SET BUSY                                 FDL         445
           1375          1441                   ERROR  IOS             * I/O SEQUENCE ERROR.*                           FDL         446
                                                                                                                        FDL         447
           1400          3013          LNL2     LDD    CM+3            CHECK FILE MODE                                  242L642      71
           1401          1204                   LPN    4                                                                FDL         452
           1402          0410                   ZJN    LNL2.1          IF NOT EXECUTE-ONLY                              FDL         453
           1403          3074                   LDD    CP              CHECK VALID ACCESS                               FDL         454
           1404          2100 0115              ADC    EOCW                                                             FDL         455
           1406          6001                   CRD    T1                                                               FDL         456
           1407          3001                   LDD    T1                                                               FDL         457
           1410          3357                   LMD    FA                                                               FDL         458
           1411          0527                   NJN    LNL4            IF NOT VALID ACCESS                              FDL         459
           1412          3014          LNL2.1   LDD    CM+4            CHECK FILE TYPE                                  FDL         460
           1413          1071                   SHN    -6                                                               FDL         461
           1414          1112                   LMN    PMFT                                                             FDL         462
           1415          0507                   NJN    LNL3            IF NO PERMANENT FILE                             FDL         463
           1416          3013                   LDD    CM+3            CHECK ACCESS MODE                                FDL         464
           1417          1220                   LPN    20                                                               NS2241        1
           1420          0404                   ZJN    LNL3            IF NOT M, A, RM, OR RA MODE                      FDL         466
           1421          3021                   LDD    FS+1                                                             242L642      72
           1422          5400 3010              STM    SISA            SET INTERLOCK REQUIRED STATUS                    242L642      73
           1424          3020          LNL3     LDD    FS                                                               242L642      74
           1425          3405                   STD    T5                                                               FDL         472
           1426          0200 0245              SFA    EST             READ EST ENTRY                                   NS22000       2
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                                      ADK    EQDE                                NS22000      3
     1430      6010                   CRD    CM                                  FDL        474
     1431      3010                   LDD    CM         CHECK EQUIPMENT TYPE     FDL        475
     1432      1006                   SHN    21-13                               FDL        476
     1433      0605                   PJN    LNL4       IF NOT MASS STORAGE      FDL        477
     1434      3022                   LDD    FS+2       CHECK FOR TRACK          FDL        478
     1435      0403                   ZJN    LNL4       IF FILE EMPTY            FDL        479
     1436      0100 1552              LJM    LNL10      PROCESS LOCAL FILE       FDL        480
                                                                                 FDL        481
                             *        SET ERROR STATUS.                          FDL        482
                                                                                 FDL        483
     1440      1400           LNL4    LDN    0          CLEAR FIRST BYTE OF LIBRARY NAME  242L642     75
     1441      3440                   STD    FN                                  FDL        486
     1442      0100 1363              LJM    LNLX       RETURN                   FDL        487
                                                                                 FDL        488
                             *        SEARCH LIBRARY NAME TABLE FOR LIBRARY.     FDL        489
                                                                                 FDL        490
     1444      3405           LNL5    STD    T5         CLEAR LIBRARY ORDINAL    FDL        491
     1445      2000 0144              LDC    LBDP       READ LIBRARY NAME TABLE FWA  FDL    492
     1447      6007                   CRD    CM-1                                FDL        493
     1450      3605           LNL6    AOD    T5         ADVANCE ORDINAL          FDL        494
     1451      3011                   LDD    CM+1       READ LIBRARY NAME        FDL        495
     1452      1014                   SHN    14                                  FDL        496
     1453      3112                   ADD    CM+2                                FDL        497
     1454      6020                   CRD    FS                                  FDL        498
     1455      1601                   ADN    1          READ RANDOM ADDRESS      FDL        499
     1456      6060                   CRD    RI-3                                FDL        500
     1457      3020                   LDD    FS         COMPARE CHARACTERS 1 AND 2  FDL     501
     1460      0457                   ZJN    LNL4       IF END OF LIBRARY NAME TABLE  FDL   502
     1461      3340                   LMD    FN                                  FDL        503
     1462      0406                   ZJN    LNL8       IF CHARACTERS MATCH      FDL        504
     1463      1402           LNL7    LDN    2          ADVANCE LIBRARY NAME TABLE ADDRESS  FDL  505
     1464      3512                   RAD    CM+2                                FDL        506
     1465      1063                   SHN    -14                                 FDL        507
     1466      3511                   RAD    CM+1                                FDL        508
     1467      0360                   UJN    LNL6       LOOP TO END OF LIBRARY NAME TABLE  FDL  509
                                                                                 FDL        510
     1470      3041           LNL8    LDD    FN+1       COMPARE CHARACTERS 3 AND 4  FDL     511
     1471      3321                   LMD    FS+1                                FDL        512
     1472      0570                   NJN    LNL7       IF NO COMPARE            FDL        513
     1473      3042                   LDD    FN+2       COMPARE CHARACTERS 5 AND 6  FDL     514
     1474      3322                   LMD    FS+2                                FDL        515
     1475      0565                   NJN    LNL7       IF NO COMPARE            FDL        516
     1476      3043                   LDD    FN+3       COMPARE CHARACTER 7      FDL        517
     1477      3323                   LMD    FS+3                                FDL        518
     1500      1377                   SCN    77                                  FDL        519
     1501      0561                   NJN    LNL7       IF NO COMPARE            FDL        520
                                                                                 FDL        521
                             *        FORM SYSTEM LIBRARY DIRECTORY HEADER.      FDL        522
                                                                                 FDL        523
     1502      1466                   LDN    ZERL       CLEAR DIRECTORY ENTRY    FDL        524
     1503      6170 3411              CRM    DIRA,ON                             FDL        525
     1505      3037                   LDD    DI         SET INDEX TO FILE ENTRY  FDL        526
     1506      5400 2473              STM    PDEB                                FDL        527
     1510      3005                   LDD    T5         ADD LIBRARY ORDINAL      FDL        528
     1511      1006                   SHN    6                                   FDL        529
     1512      5400 3414              STM    DIRA+3                              FDL        530
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1514        1500                          LCN    0                                     FDL        531
1515        5400 3411                     STM    DIRA                                  FDL        532
1517        1473                          LDN    FNTP        READ SYSTEM FST ENTRY     FDL        533
1520        6010                          CRD    CM                                    FDL        534
1521        3010                          LDD    CM                                    FDL        535
1522        1014                          SHN    14                                    FDL        536
1523        3311                          LMD    CM+1                                  FDL        537
                          0               ERRNZ  SYFO        SYSTEM FILE ORDINAL .NE. 0 FDL       538
1524        1601                          ADN    FSTG                                  FDL        539
1525        6020                          CRD    FS                                    FDL        540
1526        6005                          CRD    T5                                    242L642     76
1527        3063                          LDD    RI          SET RANDOM ADDRESS BIAS   FDL        545
1530        1014                          SHN    14                                    FDL        546
1531        3164                          ADD    RI+1                                  FDL        547
1532        1701                          SBN    1                                     FDL        548
1533        3446                          STD    TI+1                                  FDL        549
1534        1063                          SHN    -14                                   FDL        550
1535        3445                          STD    TI                                    FDL        551
1536        0200 3336                     RJM    IRA         INITIALIZE RANDOM ACCESS PROCESSORS FDL 552
1540        0200 3130                     RJM    CRA         CONVERT RANDOM ADDRESS    FDL        553
1542        0603                          PJN    LNL9        IF NO RANDOM INDEX ERROR  FDL        554
1543        0100 1440                     LJM    LNL4                                  FDL        555
                                                                                       FDL        556
1545        1403                LNL9      SETMS  READSYS     SYSTEM SELECTION OF EQUIPMENT FDL    557
1550        0100 1363                     LJM    LNLX        RETURN                    FDL        558
                                                                                       FDL        559
                               *          FORM LOCAL LIBRARY DIRECTORY HEADER.         FDL        560
                                                                                       FDL        561
1552        3021                LNL10     LDD    FS+1        SET FIRST TRACK           FDL        562
1553        3406                          STD    T6                                    FDL        563
1554        1400                          LDN    0           SET INITIAL RANDOM ADDRESS FDL       564
1555        3463                          STD    RI                                    FDL        565
1556        3445                          STD    TI                                    FDL        566
1557        1401                          LDN    FSMS                                  FDL        567
1560        3464                          STD    RI+1                                  FDL        568
1561        1701                          SBN    1           SET RANDOM ADDRESS BIAS   FDL        569
1562        3446                          STD    TI+1                                  FDL        570
1563        3077                          LDD    MA          FORM FIRST WORD OF DIRECTORY FDL     571
1564        6240                          CWD    FN                                    FDL        572
1565        6170 3411                     CRM    DIRA,ON                               FDL        573
1567        2000 4000                     LDC    4000        FLAG FILE DIRECTORY ENTRY FDL        574
1571        5500 3411                     RAM    DIRA                                  FDL        575
1573        3037                          LDD    DI          SET INDEX TO FILE ENTRY   FDL        576
1574        5400 2473                     STM    PDEB                                  FDL        577
1576        0200 3336                     RJM    IRA         INITIALIZE RANDOM ACCESS PROCESSORS FDL 578
1600        0200 3003                     RJM    SIS         SET INTERLOCK STATUS      FDL        579
1602        0200 3130                     RJM    CRA                                   FDL        580
1604        0603                          PJN    LNL11       IF NO RANDOM INDEX ERROR  FDL        581
1605        0100 1440                     LJM    LNL4                                  FDL        582
                                                                                       FDL        583
1607        1400                LNL11     SETMS  IO                                    242L642     77
1612        0100 1363                     LJM    LNLX        RETURN                    FDL        585
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                                ***       PGM - PROCESS GROUP MEMBERS.                              FDL      587
                                *                                                                   FDL      588
                                *         ENTRY  (GO) = ORDINAL OF GROUP NAME WITHIN CURRENT LIBRARY.  FDL   589
                                *                (T2) = *OPLD* TABLE BASE ADDRESS.                  FDL      590
                                *                (BL) = BUFFER LIMIT ADDRESS.                       FDL      591
                                *                (ER) = BUFFER EOR/EOF/EOI STATUS.                  FDL      592
                                *                (GN - GN+4) = NAME OF *CCL* PROCEDURE TO LOCATE    FDL      593
                                *                IF FUNCTION CODE 404.                              FDL      594
                                *                                                                   FDL      595
                                *         EXIT   ALL CAPSULES OR PROCEDURE RECORDS PROCESSED.       FDL      596
                                *                (A) = 1 IF FIND ON FUNCTION CODE 404.              FDL      597
                                *                (A) = 0 IF NO FIND ON FUNCTION CODE 404 OR *EOR*   FDL      598
                                *                STATUS REACHED FOR PROCESSING OF CAPSULES.         FDL      599
                                *                TO *SCS* IF ERROR FLAG SET.                        FDL      600
                                *                                                                   FDL      601
                                *         USES   T1, T2, T3.                                        FDL      602
                                *                                                                   FDL      603
                                *         CALLS  LBM, PDE, SIS.                                     FDL      604
                                                                                                    FDL      605
                                                                                                    FDL      606
    1614         0100 1614       PGM      SUBR                    ENTRY/EXIT                        FDL      607
    1616         3002                     LDD    T2               SKIP *OPLD* TABLE                 FDL      608
    1617         1605                     ADN    1*5                                                FDL      609
    1620         3403            PGM1     STD    T3               SET BASE ADDRESS                  FDL      610
    1621         1400            PGM2     LDN    0                                                  FDL      611
                                *         LDN    1                (FUNCTION CODE 404)               FDL      612
                           1621  PGMA     EQU    *-1                                                FDL      613
    1622         0433                     ZJN    PGM5             IF NOT FUNCTION CODE 404          FDL      614
    1623         5003 0004                LDM    4,T3             CHECK FOR TYPE *PROC*             FDL      615
    1625         1120                     LMN    20                                                 FDL      616
    1626         0403                     ZJN    PGM3             IF TYPE *PROC*                    FDL      617
    1627         0100 1667                LJM    PGM6             IF NOT TYPE *PROC*                FDL      618
                                                                                                    FDL      619
    1631         3003            PGM3     LDD    T3                                                 FDL      620
    1632         3401                     STD    T1                                                 FDL      621
    1633         1430                     LDN    GN               CHECK NAME FOR MATCH              FDL      622
    1634         3402                     STD    T2                                                 FDL      623
    1635         4002            PGM4     LDI    T2                                                 FDL      624
    1636         4301                     LMI    T1                                                 FDL      625
    1637         0530                     NJN    PGM6             IF NO MATCH                       FDL      626
    1640         3601                     AOD    T1                                                 FDL      627
    1641         3602                     AOD    T2                                                 FDL      628
    1642         1133                     LMN    GN+3                                               FDL      629
    1643         0571                     NJN    PGM4             IF 3 BYTES NOT PROCESSED          FDL      630
    1644         4002                     LDI    T2               CHECK FOURTH BYTE                 FDL      631
    1645         4301                     LMI    T1                                                 FDL      632
    1646         1377                     SCN    77                                                 FDL      633
    1647         0520                     NJN    PGM6             IF NO MATCH                       FDL      634
    1650         0200 2434                RJM    PDE              PROCESS DIRECTORY ENTRY           FDL      635
    1652         1401                     LDN    1                                                  FDL      636
    1653         0100 1614                LJM    PGMX             RETURN                            FDL      637
                                                                                                    FDL      638
    1655         5003 0004       PGM5     LDM    4,T3             CHECK FOR TYPE *CAP*              FDL      639
    1657         1116                     LMN    16                                                 FDL      640
    1660         0507                     NJN    PGM6             IF NOT TYPE *CAP*                 FDL      641
    1661         5003 0005                LDM    5,T3             CHECK GROUP ORDINAL               FDL      642
    1663         3326                     LMD    GO                                                 FDL      643
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1664       0503                  NJN   PGM6        IF NOT CORRECT GROUP ORDINAL         FDL      644
1665       0200 2434             RJM   PDE         PROCESS DIRECTORY ENTRY              FDL      645
1667       1412           PGM6   LDN   2*5         INCREMENT BASE ADDRESS               FDL      646
1670       3503                  RAD   T3                                               FDL      647
1671       3260                  SBD   BL          CHECK BUFFER LIMIT                   FDL      648
1672       0603                  PJN   PGM7        IF BUFFER EXHAUSTED                  FDL      649
1673       0100 1621             LJM   PGM2        LOOP                                 FDL      650
                                                                                        FDL      651
1675       3017           PGM7   LDD   ER          CHECK EOR STATUS                     FDL      652
1676       0503                  NJN   PGM8        IF NOT *EOR* IN BUFFER               FDL      653
1677       0100 1614             LJM   PGMX        IF *EOR* IN BUFFER                   FDL      654
                                                                                        FDL      655
1701       0200 3003      PGM8   RJM   SIS         SET INTERLOCK STATUS                 FDL      656
1703       2000 3423             LDC   BUF         RELOAD BUFFER                        FDL      657
1705       0200 2342             RJM   LBM         LOAD BUFFER MEMORY                   FDL      658
1707       2000 3425             LDC   BUF+2       RESET BASE ADDRESS                   FDL      659
1711       0100 1620             LJM   PGM1        LOOP                                 FDL      660


                         ***     SFG - SEARCH FOR GROUP MEMBERS.                        FDL      662
                         *                                                              FDL      663
                         *       ENTRY  (A) = NUMBER OF GROUP NAMES IN *ULIB* RECORD.   FDL      664
                         *              (T2) = *ULIB* TABLE BASE ADDRESS.               FDL      665
                         *              (TI - TI+1) = BASE RANDOM ADDESS OF LIBRARY.    FDL      666
                         *              (GN - GN+4) = GROUP NAME.                       FDL      667
                         *              (BL) = BUFFER LIMIT ADDRESS.                    FDL      668
                         *              (ER) = BUFFER EOR/EOF/EOI STATUS.               FDL      669
                         *                                                              FDL      670
                         *       EXIT   (A) = 0 IF NO GROUP NAMES FOUND.                FDL      671
                         *              (A) .NE. 0 IF GROUP NAME FOUND WITHIN *ULIB* RECORD.  FDL      672
                         *              (A) = 1 IF FUNCTION CODE 404.                   FDL      673
                         *              (CC) = NUMBER OF CAPSULES IN CURRENT GROUP.     FDL      674
                         *              (GO) = ORDINAL OF GROUP WITHIN CURRENT LIBRARY. FDL      675
                         *              (RI - RI+1) = RANDOM INDEX OF LIBRARY *OPLD* RECORD.  FDL      676
                         *              TO *SCS* IF ERROR FLAG SET.                     FDL      677
                         *                                                              FDL      678
                         *       USES   T3, CC, GO, RI - RI+1.                          FDL      679
                         *                                                              FDL      680
                         *       CALLS  LBM, SIS.                                       FDL      681
                                                                                        FDL      682
                                                                                        FDL      683
1713       0100 1713      SFG    SUBR              ENTRY/EXIT                           FDL      684
1715       3425                  STD   CC          SAVE GROUP COUNT                     FDL      685
1716       5002 0003             LDM   3,T2        SET *OPLD* RANDOM ADDRESS            FDL      686
1720       3146                  ADD   TI+1                                             FDL      687
1721       3464                  STD   RI+1                                             FDL      688
1722       1063                  SHN   -14                                              FDL      689
1723       5102 0002             ADM   2,T2                                             FDL      690
1725       3145                  ADD   TI                                               FDL      691
1726       3463                  STD   RI                                               FDL      692
1727       1400           SFGA   LDN   0                                                FDL      693
                         *       LDN   1           (FUNCTION CODE 404)                  FDL      694
1730       0562                  NJN   SFGX        IF FUNCTION CODE 404                 FDL      695
1731       1401                  LDN   1           INITIALIZE GROUP NAME ORDINAL        FDL      696
1732       3426                  STD   GO                                               FDL      697
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 1733          3002                 LDD     T2            SKIP *ULIB* HEADER                       FDL         698
 1734          1605                 ADN     5                                                      FDL         699
 1735          3403          SFG1   STD     T3            SET BASE ADDRESS                         FDL         700
 1736          3030          SFG2   LDD     GN            CHECK GROUP NAME                         FDL         701
 1737          4303                 LMI     T3                                                     FDL         702
 1740          2200 3777            LPC     3777                                                   FDL         703
 1742          0411                 ZJN     SFG4          IF MATCH                                 FDL         704
 1743          3725          SFG3   SOD     CC            DECREMENT GROUP COUNT                    FDL         705
 1744          0446                 ZJN     SFGX          IF ALL GROUPS PROCESSED                  FDL         706
 1745          3626                 AOD     GO            INCREMENT GROUP ORDINAL                  FDL         707
 1746          1405                 LDN     5             ADVANCE TO NEXT ITEM                     FDL         708
 1747          3503                 RAD     T3                                                     FDL         709
 1750          3260                 SBD     BL            CHECK BUFFER LIMIT                       FDL         710
 1751          0624                 PJN     SFG5          IF BUFFER EXHAUSTED                      FDL         711
 1752          0363                 UJN     SFG2          LOOP                                     FDL         712
                                                                                                   FDL         713
 1753          3031          SFG4   LDD     GN+1          COMPARE NAME CHARACTERS 3 AND 4          FDL         714
 1754          5303 0001            LMM     1,T3                                                   FDL         715
 1756          0564                 NJN     SFG3          IF NO MATCH                              FDL         716
 1757          3032                 LDD     GN+2          COMPARE NAME CHARACTERS 5 AND 6          FDL         717
 1760          5303 0002            LMM     2,T3                                                   FDL         718
 1762          0560                 NJN     SFG3          IF NO MATCH                              FDL         719
 1763          3033                 LDD     GN+3          COMPARE NAME CHARACTER 7                 FDL         720
 1764          5303 0003            LMM     3,T3                                                   FDL         721
 1766          1377                 SCN     77                                                     FDL         722
 1767          0553                 NJN     SFG3          IF NO MATCH                              FDL         723
 1770          5003 0004            LDM     4,T3          SET CAPSULE COUNT                        FDL         724
 1772          3425                 STD     CC                                                     FDL         725
 1773          0100 1713            LJM     SFGX          RETURN                                   FDL         726
                                                                                                   FDL         727
 1775          3017          SFG5   LDD     ER            CHECK EOR STATUS                         FDL         728
 1776          0503                 NJN     SFG6          IF EOR NOT IN BUFFER                     FDL         729
 1777          0100 1713            LJM     SFGX          RETURN, SET NAME NOT FOUND               FDL         730
                                                                                                   FDL         731
 2001          0200 3003     SFG6   RJM     SIS           SET INTERLOCK STATUS                     FDL         732
 2003          2000 3423            LDC     BUF           RELOAD BUFFER                            FDL         733
 2005          0200 2342            RJM     LBM           LOAD BUFFER MEMORY                       FDL         734
 2007          2000 3425            LDC     BUF+2         RESET BASE ADDRESS                       FDL         735
 2011          0100 1735            LJM     SFG1          LOOP                                     FDL         736
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                                   **      COMMON SUBROUTINES.                                      242L642      79
                                                                                                    242L642      80
                                                                                                    242L642      81
          2013         0100 2013           COMMON                                                   242L642      82



                                   **      CRP - CHECK RECALL PARAMETERS.                           FDL          768
                                   *                                                                FDL          769
                                   *       ENTRY  (DPPB - DPPB+1) = CURRENT ACCUMULATOR UPDATE.     FDL          770
                                   *                                                                FDL          771
                                   *       USES   CM - CM+4, GN+3 - GN+4.                           FDL          772
                                   *                                                                FDL          773
                                   *       CALLS  DPP.                                              FDL          774
                                   *                                                                FDL          775
                                   *       MACROS LDCA, MONITOR.                                    FDL          776
                                                                                                    FDL          777
                                                                                                    FDL          778
          2126         0100 2126    CRP    SUBR                 ENTRY/EXIT                          FDL          779
          2130         5000 2245           LDM    DPPC          CHECK TIME TO RECALL                FDL          780
          2132         2177 6777           ADC    -RSLM                                             FDL          781
          2134         0771                MJN    CRPX          IF NOT TIME TO RECALL               FDL          782
                                                                                                    FDL          783
                                   *       SET RECALL PARAMETERS.                                   FDL          784
                                                                                                    FDL          785
          2135         5000 1362           LDM    GNLE                                              FDL          786
          2137         1076                SHN    -1                                                FDL          787
          2140         3410                STD    CM                                                FDL          788
          2141         1400         CRPA   LDN    0             SET NUMBER OF LOCAL USER LIBRARIES  FDL          789
          2142         1004                SHN    4                                                 FDL          790
          2143         3310                LMD    CM                                                FDL          791
          2144         1006                SHN    6                                                 FDL          792
          2145         1140                LMN    40            SET RECALL BIT                      FDL          793
          2146         3553                RAD    IR+3                                              FDL          794
          2147         3037                LDD    DI            SET DIRECTORY INDEX                 FDL          795
          2150         3452                STD    IR+2                                              FDL          796
          2151         5000 1303           LDM    GNLC          SET LIBRARY ORDINAL POSITION        FDL          797
          2153         1201                LPN    1                                                 FDL          798
          2154         1101                LMN    1                                                 FDL          799
          2155         3434                STD    GN+4                                              FDL          800
          2156         5000 2656           LDM    SCSA          SET EXISTING ERROR CODE             FDL          801
          2160         1011                SHN    11                                                FDL          802
          2161         3534                RAD    GN+4                                              FDL          803
          2162         1063                SHN    -14                                               FDL          804
          2163         3533                RAD    GN+3                                              FDL          805
          2164         3053                LDCA   IR+3          REWRITE PARAMETER BLOCK             FDL          806
          2172         6230                CWD    GN                                                FDL          807
          2173         1401                LDN    1             SELECT NO DROP PP                   FDL          808
          2174         0200 2214           RJM    DPP           UPDATE ACCOUNTING                   FDL          809
          2176         1466                LDN    ZERL                                              FDL          810
          2177         6010                CRD    CM                                                FDL          811
          2200         1405                LDN    PTLR          PRU TRANSFER LIMIT                  FDL          812
          2201         3410                STD    CM                                                FDL          813
          2202         3077                LDD    MA            STORE PP RECALL REQUEST             FDL          814
          2203         6250                CWD    IR                                                FDL          815
          2204         1601                ADN    1                                                 FDL          816
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2205          6210                         CWD    CM                                     FDL        817
2206          1472                         MONITOR  RECM                                 FDL        818
2211          0100 0257                    LJM    PPR          EXIT TO PP RESIDENT       FDL        819


                                 **        DPP - DROP PPU.                               FDL        821
                                 *                                                       FDL        822
                                 *         ENTRY  (A) = 0 IF PP TO BE DROPPED.           FDL        823
                                 *                (FA) = FNT ADDRESS.                    FDL        824
                                 *                (FS - FS+4) = FST INFORMATION.         FDL        825
                                 *                (DPPB - DPPB+1) = MASS STORAGE ACCOUNTING INCREMENT.   FDL        826
                                 *                                                       FDL        827
                                 *         EXIT   ACCOUNTING UPDATED.                    FDL        828
                                 *                FST SET NOT BUSY.                      FDL        829
                                 *                PP DROPPED IF SELECTED.                FDL        830
                                 *                                                       FDL        831
                                 *         USES   CM - CM+4.                             FDL        832
                                 *                                                       FDL        833
                                 *         MACROS MONITOR, NFA.                          FDL        834
                                                                                         FDL        835
                                                                                         FDL        836
2213          0100 2213           DPP      SUBR                ENTRY/EXIT                FDL        837
2215          3412                         STD    CM+2         SET PP DROP / NO DROP OPTION   FDL        838
2216          3057                         LDD    FA                                     FDL        839
2217          0407                         ZJN    DPP1         IF NO LOCAL FNT           FDL        840
2220          3624                         AOD    FS+4                                   FDL        841
2221          3055                         NFA    FA,R         SET FST NOT BUSY          FDL        842
2224          1601                         ADN    FSTL                                   FDL        843
2225          6220                         CWD    FS                                     FDL        844
2226          3077                DPP1     LDD    MA           COPY PARAMETER WORD TO MESSAGE BUFFER   FDL        845
2227          6370 2240                    CWM    DPPA,ON                                FDL        846
2231          1401                         LDN    1            SET WORD COUNT            FDL        847
2232          3411                         STD    CM+1                                   FDL        848
2233          2000 0114                    MONITOR UADM                                  FDL        849
2237          0353                         UJN    DPPX         RETURN                    FDL        850
                                                                                         FDL        851
2240          0020                DPPA     CON    AISS         SUB FUNCTION              FDL        852
2241          0053                         CON    IOAW         WORD TO UPDATE            FDL        853
2242          5024                         CON    40D*100+20D  FIELD TO UPDATE           FDL        854
2243          0000 0000           DPPB     CON    0,0          INCREMENT                 FDL        855
2245          0000                DPPC     DATA   0            PRU COUNTER               FDL        856
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                                **        ERR - ERROR PROCESSOR.                                      FDL        858
                                *                                                                     FDL        859
                                *         ENTRY  (A) = ERROR CODE.                                    FDL        860
                                *                                                                     FDL        861
                                *         EXIT   RETURN IF CONTINUATION ERROR. (MULTIPLE ERROR CODES) FDL        862
                                *                SET ERROR CODE AND DROP IF NON-FATAL ERROR.          FDL        863
                                *                EXECUTE *2LD* IF FATAL ERROR.                        FDL        864
                                *                                                                     FDL        865
                                *         USES   EC, SI - SI+1.                                       FDL5         3
                                *                                                                     FDL        867
                                *         CALLS  SCS, 2LD.                                            FDL        868
                                *                                                                     FDL        869
                                *         MACROS EXECUTE.                                             FDL        870
                                                                                                      FDL        871
                                                                                                      FDL        872
 2246       0100 2246            ERR      SUBR                ENTRY/EXIT                              FDL        873
 2250       3447                          STD    EC           STORE ERROR CODE                        FDL5         4
 2251       1740                          SBN    /ERR/FERT    CHECK FOR FATAL ERROR                   FDL        875
 2252       0713                          MJN    ERR1         IF NOT FATAL ERROR                      FDL        876
 2253       5000 2243                     LDM    DPPB         SET MASS STORAGE INCREMENT              FDL        877
 2255       3461                          STD    SI                                                   FDL        878
 2256       5000 2244                     LDM    DPPB+1                                               FDL        879
 2260       3462                          STD    SI+1                                                 FDL        880
 2261       2035 1404                     EXECUTE 2LD                                                 FDL        881
                                                                                                      FDL        882
 2265       1500                 ERR1     LCN    0            SET ERROR CODE BITS IN RESPONSE         FDL        883
 2266       3347                          LMD    EC                                                   FDL5         5
 2267       5400 2274                     STM    ERRA                                                 FDL        885
 2271       5000 2656                     LDM    SCSA                                                 FDL        886
 2273       2200 2273                     LPC    *                                                    FDL        887
                      2274       ERRA     EQU    *-1                                                  FDL        888
 2275       3347                          LMD    EC                                                   FDL5         6
 2276       5400 2656                     STM    SCSA                                                 FDL        890
 2300       3047                          LDD    EC           CHECK FOR CONTINUATION                  FDL5         7
 2301       1110                          LMN    /ERR/ILE                                             FDL        892
 2302       0443                          ZJN    ERRX         IF CONTINUATION ERROR                   FDL        893
 2303       1130                          LMN    /ERR/IDS&/ERR/ILE                                    FDL        894
 2304       0441                          ZJN    ERRX         IF CONTINUATION ERROR                   FDL        895
 2305       0100 2655                     LJM    SCS          SET COMPLETE STATUS                     FDL        896
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                                  **        IBA - INCREMENT BUFFER ADDRESS.                                     FDL         898
                                  *                                                                             FDL         899
                                  *         ENTRY  (T3) = BUFFER ADDRESS.                                       FDL         900
                                  *                (IBAA - IBAA+1) = DATA SAVED FROM LAST SECTOR.               FDL         901
                                  *                                                                             FDL         902
                                  *         EXIT   (A) .GE. 0 IF BUFFER FULL.                                   FDL         903
                                  *                (T3) = NEW BUFFER ADDRESS.                                   FDL         904
                                  *                (BL) = BUFFER LIMIT ADDRESS.                                 FDL         905
                                  *                (IBAA - IBAA+1) = DATA SAVED FROM CURRENT SECTOR.            FDL         906
                                  *                PREVIOUS DATA RESTORED OVER LINKAGE BYTES.                   FDL         907
                                  *                                                                             FDL         908
                                  *         USES   T3.                                                          FDL         909
                                                                                                                FDL         910
                                                                                                                FDL         911
          2307          4003               IBA1     LDI    T3            SAVE DATA AREA                         FDL         912
          2310          5400 2337                   STM    IBAA                                                 FDL         913
          2312          5003 0001                   LDM    1,T3                                                 FDL         914
          2314          5400 2340                   STM    IBAA+1                                               FDL         915
          2316          1501                        LCN    1             SET EXIT CONDITION                     FDL         916
                                                                                                                FDL         917
          2317          0100 2317          IBA      SUBR                 ENTRY/EXIT                             FDL         918
          2321          5000 2337                   LDM    IBAA          RESTORE PREVIOUS DATA                  FDL         919
          2323          4403                        STI    T3                                                   FDL         920
          2324          5000 2340                   LDM    IBAA+1                                               FDL         921
          2326          5403 0001                   STM    1,T3                                                 FDL         922
          2330          2000 0500                   LDC    100*5         INCREMENT BUFFER ADDRESS               FDL         923
          2332          3503                        RAD    T3                                                   FDL         924
          2333          2177 1001                   ADC    -BFMS         CHECK BUFFER FULL                      FDL         925
          2335          0751                        MJN    IBA1          IF BUFFER NOT FULL                     FDL         926
          2336          0360                        UJN    IBAX          EXIT                                   FDL         927
                                                                                                                FDL         928
                                                                                                                FDL         929
          2337          0000 0000          IBAA     CON    0,0           DATA SAVE AREA                         FDL         930



                                  **        LBM - LOAD BUFFER MEMORY.                                           FDL         932
                                  *                                                                             FDL         933
                                  *         ENTRY  (A) = ADDRESS OF START OF BUFFER.                            FDL         934
                                  *                                                                             FDL         935
                                  *         EXIT   (BL) = BUFFER LIMIT ADDRESS.                                 FDL         936
                                  *                (ER) = BUFFER EOR/EOF/EOI STATUS.                            FDL         937
                                  *                (DPPB - DPPB+1) = SRU ACCUMULATOR INCREMENTED.               FDL         938
                                  *                BUFFER FILLED OR EOR/EOF/EOI ENCOUNTERED.                    FDL         939
                                  *                CHANNEL DROPPED.                                             FDL         940
                                  *                TRACK INTERLOCK CLEARED, IF SET.                             FDL         941
                                  *                TO *SCS* IF ERROR FLAG SET.                                  FDL         942
                                  *                                                                             FDL         943
                                  *         USES   T3, BL, ER, DPPB - DPPB+1.                                   FDL         944
                                  *                                                                             FDL         945
                                  *         CALLS  CIS, IBA, RNS, SCS.                                          FDL         946
                                  *                                                                             FDL         947
                                  *         MACROS ENDMS, PAUSE.                                                FDL         948
                                                                                                                FDL         949
                                                                                                                FDL         950
          2341          0100 2341          LBM      SUBR                 ENTRY/EXIT                             FDL         951
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2343       3403                    STD    T3           SET BUFFER FWA                              FDL        952
2344       1602                    ADN    2            SET INITIAL BUFFER LIMIT                    FDL        953
2345       3460                    STD    BL                                                       FDL        954
2346       0304                    UJN    LBM2                                                     FDL        955
                                                                                                   FDL        956
2347       0200 2320       LBM1    RJM    IBA          INCREMENT BUFFER ADDRESS                    FDL        957
2351       0632                    PJN    LBM4         IF BUFFER FULL                              FDL        958
2352       1401            LBM2    LDN    IMLL         INCREMENT MASS STORAGE ACCUMULATOR          FDL        959
2353       5500 2244               RAM    DPPB+1                                                   FDL        960
2355       1063                    SHN    -14                                                      FDL        961
2356       5500 2243               RAM    DPPB                                                     FDL        962
2360       5600 2245               AOM    DPPC                                                     FDL        963
2362       3003                    LDD    T3           READ NEXT SECTOR                            FDL        964
2363       0200 2076               RJM    RNS                                                      FDL        965
2365       1002                    SHN    2            ADJUST BUFFER LIMIT ADDRESS                 FDL        966
2366       3101                    ADD    T1                                                       FDL        967
2367       3560                    RAD    BL                                                       FDL        968
2370       3001                    LDD    T1           SET EOR/EOF/EOI STATUS                      FDL        969
2371       1071                    SHN    -6                                                       FDL        970
2372       3417                    STD    ER                                                       FDL        971
2373       0553                    NJN    LBM1         IF NOT EOR/EOF/EOI                          FDL        972
                                                                                                   FDL        973
2374       5000 2337       LBM3    LDM    IBAA         RESTORE BASHED DATA                         FDL        974
2376       4403                    STI    T3                                                       FDL        975
2377       5000 2340               LDM    IBAA+1                                                   FDL        976
2401       5403 0001               STM    1,T3                                                     FDL        977
2403       0200 0535       LBM4    ENDMS                                                           FDL        978
2405       0200 2014               RJM    CIS          CLEAR INTERLOCK STATUS                      FDL        979
2407       1400                    PAUSE                                                           FDL        980
2415       3011                    LDD    CM+1         CHECK ERROR FLAG                            FDL        981
2416       0403                    ZJN    LBM5         IF ERROR FLAG NOT SET                       FDL        982
2417       0100 2655               LJM    SCS          SET COMPLETE STATUS                         FDL        983
                                                                                                   FDL        984
2421       0100 2341       LBM5    LJM    LBMX         RETURN                                      FDL        985
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                                   **        PDE - PROCESS DIRECTORY ENTRY.                           FDL       1018
                                   *                                                                  FDL       1019
                                   *         ENTRY  (T3) = ADDRESS OF DIRECTORY ENTRY.                FDL       1020
                                   *                (CL) = LENGTH OF CENTRAL MEMORY DIRECTORY.        FDL       1021
                                   *                (DI) = CURRENT LENGTH REQUIRED FOR DIRECTORY.     FDL       1022
                                   *                (DL) = USER SPECIFIED DIRECTORY LENGTH.           FDL       1023
                                   *                (TI - TI+1) = BASE RANDOM ADDESS OF LIBRARY.      FDL       1024
                                   *                (PDEB) = INDEX TO LIBRARY FILE HEADER IN DIRECTORY.  FDL    1025
                                   *                (DIRA - DIRA+4) = FIRST WORD OF DIRECTORY ENTRY.  FDL       1026
                                   *                                                                  FDL       1027
                                   *         EXIT   IF ENTRY FOUND IN DIRECTORY.                      FDL       1028
                                   *                  NO CHANGE.                                      FDL       1029
                                   *                IF ENTRY NOT FOUND AND NO DIRECTORY OVERFLOW.     FDL       1030
                                   *                  (CL) UPDATED TO REFLECT ENTRY LENGTH.           FDL       1031
                                   *                  (DI) UPDATED TO REFLECT ACTUAL DIRECTORY LENGTH.  FDL     1032
                                   *                  ENTRY WRITTEN TO DIRECTORY.                     FDL       1033
                                   *                IF ENTRY NOT FOUND AND DIRECTORY OVERFLOW.        FDL       1034
                                   *                  (DI) UPDATED TO REFLECT ACTUAL DIRECTORY LENGTH.  FDL     1035
                                   *                  ERROR CODE *IDS* SET IN RESPONSE.               FDL       1036
                                   *                                                                  FDL       1037
                                   *         USES   T1, T3, CL, DI, DL.                               FDL       1038
                                   *                                                                  FDL       1039
                                   *         CALLS  SFE.                                              FDL       1040
                                                                                                      FDL       1041
                                                                                                      FDL       1042
                                   *         PROCESS DIRECTORY OVERFLOW.                              FDL       1043
                                                                                                      FDL       1044
         2423      3001             PDE6     LDD    T1           ADVANCE ACTUAL DIRECTORY SPACE REQUIRED  FDL   1045
         2424      3537                      RAD    DI                                                FDL       1046
         2425      5000 3411                 LDM    DIRA         CHECK IF FILE HEADER PRESENT         FDL       1047
         2427      0404                      ZJN    PDEX         IF NO FILE HEADER                    FDL       1048
         2430      1400                      LDN    0            CLEAR FILE HEADER                    FDL       1049
         2431      5400 3411                 STM    DIRA                                              FDL       1050
                                                                                                      FDL       1051
         2433      0100 2433        PDE      SUBR                ENTRY/EXIT                           FDL       1052
         2435      3027                      LDD    CL                                                FDL       1053
         2436      0404                      ZJN    PDE1         IF CENTRAL DIRECTORY EMPTY           FDL       1054
         2437      0200 2744                 RJM    SFE          SEARCH FOR DUPLICATE ENTRY           FDL       1055
         2441      0471                      ZJN    PDEX         IF ENTRY FOUND                       FDL       1056
         2442      1402             PDE1     LDN    2            SET DIRECTORY ENTRY LENGTH           FDL       1057
         2443      3401                      STD    T1                                                FDL       1058
         2444      5000 3411                 LDM    DIRA                                              FDL       1059
         2446      0402                      ZJN    PDE2         IF NO FILE HEADER REQUIRED           FDL       1060
         2447      3601                      AOD    T1                                                FDL       1061
         2450      3067             PDE2     LDD    DL                                                FDL       1062
                             2450   PDEA     EQU    *-1                                               FDL       1063
                                   *PDE2     UJN    PDE6         (DIRECTORY OVERFLOW)                 FDL       1064
         2451      3227                      SBD    CL                                                FDL       1065
         2452      3201                      SBD    T1                                                FDL       1066
         2453      0612                      PJN    PDE3         IF WITHIN DIRECTORY                  FDL       1067
         2454      5000 2574                 LDM    PDED                                              FDL       1068
         2456      5400 2450                 STM    PDEA                                              FDL       1069
         2460      1420                      ERROR  IDS          INSUFFICIENT DIRECTORY SPACE         FDL       1070
         2463      0100 2423                 LJM    PDE6         UPDATE REQUIRED DIRECTORY LENGTH     FDL       1071
                                                                                                      FDL       1072
         2465      3001             PDE3     LDD    T1           ADVANCE CENTRAL MEMORY DIRECTORY LENGTH  FDL   1073
         2466      3527                      RAD    CL                                                FDL       1074
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  2467         3003                         LDD    T3           SET CAPSULE NAME ADDRESS           FDL       1075
  2470         5400 2567                    STM    PDEC                                            FDL       1076
  2472         2000 2472                    LDC    *            SET FILE INDEX                     FDL       1077
                         2473     PDEB      EQU    *-1                                             FDL       1078
  2474         5403 0004                    STM    4,T3                                            FDL       1079
  2476         5003 0007                    LDM    7,T3         SET ENTRY LENGTH                   FDL       1080
  2500         1071                         SHN    -6                                              FDL       1081
  2501         5400 3422                    STM    DIRB+4                                          FDL       1082
  2503         5003 0006                    LDM    6,T3                                            FDL       1083
  2505         1006                         SHN    6                                               FDL       1084
  2506         5500 3422                    RAM    DIRB+4                                          FDL       1085
  2510         1063                         SHN    -14                                             FDL       1086
  2511         5400 3421                    STM    DIRB+3                                          FDL       1087
  2513         3046                         LDD    TI+1         SET RANDOM ADDRESS OF CAPSULE      FDL       1088
  2514         5103 0011                    ADM    11,T3                                           FDL       1089
  2516         1014                         SHN    14                                              FDL       1090
  2517         5400 3420                    STM    DIRB+2       SAVE UPPER 12 BITS                 FDL       1091
  2521         1071                         SHN    -6                                              FDL       1092
  2522         1377                         SCN    77                                              FDL       1093
  2523         5500 3421                    RAM    DIRB+3                                          FDL       1094
  2525         3045                         LDD    TI                                              FDL       1095
  2526         5103 0010                    ADM    10,T3                                           FDL       1096
  2530         1006                         SHN    6                                               FDL       1097
  2531         5500 3420                    RAM    DIRB+2                                          FDL       1098
  2533         1400                         LDN    0            SET CORE ADDRESS                   FDL       1099
  2534         5400 3417                    STM    DIRB+1                                          FDL       1100
  2536         2000 4000                    LDC    4000                                            FDL       1101
  2540         5400 3416                    STM    DIRB                                            FDL       1102
  2542         5000 3411                    LDM    DIRA         CHECK TWO OR THREE WORD ENTRY      FDL       1103
  2544         0413                         ZJN    PDE4         IF TWO WORD ENTRY                  FDL       1104
                                                                                                   FDL       1105
                                  *         WRITE THREE WORD DIRECTORY ENTRY.                      FDL       1106
                                                                                                   FDL       1107
  2545         3065                         LDCA   DA           WRITE HEADER WORD TO DIRECTORY     FDL       1108
  2553         3137                         ADD    DI           ADD INDEX                          FDL       1109
  2554         6370 3411                    CWM    DIRA,ON      FILE HEADER                        FDL       1110
  2556         0310                         UJN    PDE5         WRITE DIRECTORY                    FDL       1111
                                                                                                   FDL       1112
                                  *         WRITE TWO WORD DIRECTORY ENTRY.                        FDL       1113
                                                                                                   FDL       1114
  2557         3065               PDE4      LDCA   DA           WRITE DIRECTORY                    FDL       1115
  2565         3137                         ADD    DI           ADD INDEX                          FDL       1116
  2566         6370 0000          PDE5      CWM    **,ON        CAPSULE NAME                       FDL       1117
                         2567     PDEC      EQU    *-1                                             FDL       1118
  2570         6370 3416                    CWM    DIRB,ON      POSITION INFORMATION               FDL       1119
  2572         0100 2423                    LJM    PDE6         UPDATE REQUIRED DIRECTORY LENGTH   FDL       1120
                                                                                                   FDL       1121
  2574                            PDED      BSS    0                                               FDL       1122
L 2450                                      LOC    PDEA                                            FDL       1123
L 2450         0352                         UJN    PDE6                                            FDL       1124
  2575                                      LOC    *O                                              FDL       1125
```

```
                          **        SCP - SEARCH *CLD* FOR PROCEDURE RECORDS.                  FDL       1127
                          *                SCP SEARCHES THE *CLD* FOR A SPECIFIED PROCEDURE    FDL       1128
                          *                RECORD AND THEN SETS UP THE ENTRY CONDITIONS FOR    FDL       1129
                          *                *PDE* TO PROCESS THE DIRECTORY ENTRY.               FDL       1130
                          *                                                                    FDL       1131
                          *         ENTRY  (AB - AB+4) = NAME LEFT JUSTIFIED, ZERO FILLED.     FDL       1132
                          *                                                                    FDL       1133
                          *         EXIT   (TI - TI+1) = 0.                                    FDL       1134
                          *                (PDEB) = 0.                                         FDL       1135
                          *                (DIRA - DIRA+4) = SYSTEM LIBRARY DIRECTORY HEADER.  FDL       1136
                          *                (T3) = *BUF*, WHERE *BUF* CONTAINS THE *CLD* ENTRY IN FDL     1137
                          *                       THE FOLLOWING FORMAT.                        FDL       1138
                          *                                                                    FDL       1139
                          *T BUF    42/PROCEDURE NAME, 18/0                                    FDL       1140
                          *T BUF+1  36/0, 24/RANDOM ADDRESS BIAS                               FDL       1141
                          *                                                                    FDL       1142
                          *         USES   T3, T5, T6, TI - TI+1, PDEB, DIRA - DIRA+4.         FDL       1143
                          *                                                                    FDL       1144
                          *         CALLS  CLD.                                                FDL       1145
                                                                                               FDL       1146
                                                                                               FDL       1147
        2575      0100 2575  SCP    SUBR                   ENTRY/EXIT                          FDL       1148
        2577      1466              LDN    ZERL            CLEAR DIRECTORY ENTRY               FDL       1149
        2600      6170 3411         CRM    DIRA,ON                                             FDL       1150
        2602      1500              LCN    0               FORM SYSTEM LIBRARY DIRECTORY HEADER FDL      1151
        2603      5400 3411         STM    DIRA                                                FDL       1152
        2605      0200 3110         RJM    CLD             SEARCH CENTRAL LIBRARY DIRECTORY    FDL       1153
        2607      0465              ZJN    SCPX            IF ENTRY NOT FOUND                  FDL       1154
        2610      6170 3430         CRM    BUF+5,ON          READ PST ENTRY                    FDL       1155
        2612      1400              LDN    0               CLEAR ALTERNATE EQ POINTER          FDL       1156
        2613      3405              STD    T5                                                  FDL       1157
        2614      3077              LDD    MA              SET ENTRY POINT NAME IN BUFFER      FDL       1158
        2615      6230              CWD    AB                                                  FDL       1159
        2616      6170 3423         CRM    BUF,ON                                              FDL       1160
        2620      2000 3423         LDC    BUF             SET UP POINTER TO ENTRY             FDL       1161
        2622      3403              STD    T3                                                  FDL       1162
        2623      5000 3426         LDM    BUF+3                                               FDL       1163
        2625      1377              SCN    77                                                  FDL       1164
        2626      5400 3426         STM    BUF+3                                               FDL       1165
        2630      1400              LDN    0                                                   FDL       1166
        2631      5400 3427         STM    BUF+4                                               FDL       1167
        2633      5400 3430         STM    BUF+1*5+0                                           FDL       1168
        2635      5400 3431         STM    BUF+1*5+1                                           FDL       1169
        2637      5400 3432         STM    BUF+1*5+2                                           FDL       1170
        2641      3445              STD    TI                                                  FDL       1171
        2642      3446              STD    TI+1                                                FDL       1172
        2643      5400 2473         STM    PDEB                                                FDL       1173
        2645      5000 3433         LDM    BUF+1*5+3                                           FDL       1174
        2647      1277              LPN    77                                                  FDL       1175
        2650      5400 3433         STM    BUF+1*5+3                                           FDL       1176
        2652      1401              LDN    1                                                   FDL       1177
        2653      0100 2575         LJM    SCPX            RETURN                              FDL       1178
```

```
                                **        SCS - SET COMPLETE STATUS.                                      FDL   1180
                                *                                                                         FDL   1181
                                *         ENTRY  (DI) = ACTUAL LENGTH OF DIRECTORY REQUIRED.              FDL   1182
                                *                (SCSA) = CURRENT STATUS CODE.                            FDL   1183
                                *                (IR+3 - IR+4) = FET ADDRESS.                             FDL   1184
                                *                                                                         FDL   1185
                                *         EXIT   STATUS SET IN FIRST WORD OF FET.                         FDL   1186
                                *                UPDATED DIRECTORY LENGTH RETURNED.                       FDL   1187
                                *                LOCAL FILE SET NOT BUSY IF PRESENT.                      FDL   1188
                                *                                                                         FDL   1189
                                *         USES   GN - GN+4, CM - CM+4, FS - FS+4.                         FDL   1190
                                *                                                                         FDL   1191
                                *         CALLS  DPP.                                                     FDL   1192
                                *                                                                         FDL   1193
                                *         MACROS LDCA.                                                    FDL   1194
                                                                                                          FDL   1195
                                                                                                          FDL   1196
2655            2000 0000         SCS     LDC    0            SET STATUS CODE                           FDL   1197
                          2656    SCSA    EQU    *-1                                                    FDL   1198
2657            1011              SHN    11           POSITION STATUS RESPONSE                          FDL   1199
2660            1601              ADN    1            SET COMPLETE BIT                                  FDL   1200
2661            3434              STD    GN+4                                                           FDL   1201
2662            1063              SHN    -14                                                            FDL   1202
2663            3533              RAD    GN+3                                                           FDL   1203
2664            3053              LDCA   IR+3         RETURN LENGTH OF DIRECTORY                        FDL   1204
2672            1601              ADN    1                                                              FDL   1205
2673            6010              CRD    CM                                                             FDL   1206
2674            3012              LDD    CM+2         SET DIRECTORY LENGTH                              FDL   1207
2675            1377              SCN    77                                                             FDL   1208
2676            1006              SHN    6                                                              FDL   1209
2677            3337              LMD    DI                                                             FDL   1210
2700            1071              SHN    -6                                                             FDL   1211
2701            3412              STD    CM+2                                                           FDL   1212
2702            3037              LDD    DI                                                             FDL   1213
2703            1006              SHN    6                                                              FDL   1214
2704            3313              LMD    CM+3                                                           FDL   1215
2705            1377              SCN    77                                                             FDL   1216
2706            3313              LMD    CM+3                                                           FDL   1217
2707            3413              STD    CM+3                                                           FDL   1218
2710            3053              LDCA   IR+3         RETURN STATUS                                     FDL   1219
2716            6230              CWD    GN                                                             FDL   1220
2717            1601              ADN    1            RETURN UPDATED DIRECTORY LENGTH                   FDL   1221
2720            6210              CWD    CM                                                             FDL   1222
2721            1400              LDN    0            SELECT DROP PP                                    FDL   1223
2722            0200 2214         RJM    DPP          UPDATE ACCOUNTING                                 FDL   1224
2724            0100 0257         LJM    PPR          EXIT TO PP RESIDENT                               FDL   1225
```

```
                                **      SFE - SEARCH FOR ENTRY IN CENTRAL MEMORY DIRECTORY.          FDL    1227
                                *                                                                   FDL    1228
                                *       ENTRY  (T3) = INDEX TO CAPSULE NAME.                        FDL    1229
                                *              (CL) = LENGTH OF CENTRAL MEMORY DIRECTORY.           FDL    1230
                                *                                                                   FDL    1231
                                *       EXIT   (A) .EQ. 0 IF MATCHING ENTRY FOUND.                  FDL    1232
                                *              (A) .NE. 0 IF NO MATCH FOUND.                        FDL    1233
                                *                                                                   FDL    1234
                                *       USES   T1, CM - CM+4.                                       FDL    1235
                                                                                                    FDL    1236
                                                                                                    FDL    1237
 2726          3011             SFE4   LDD    CM+1        COMPARE BYTE 2 OF CAPSULE NAMES          FDL    1238
 2727          5303 0001               LMM    1,T3                                                 FDL    1239
 2731          0535                    NJN    SFE3        IF BYTES DO NOT COMPARE                  FDL    1240
 2732          3012                    LDD    CM+2        COMPARE BYTE 3 OF CAPSULE NAMES          FDL    1241
 2733          5303 0002               LMM    2,T3                                                 FDL    1242
 2735          0531                    NJN    SFE3        IF BYTES DO NOT COMPARE                  FDL    1243
 2736          3013                    LDD    CM+3                                                 FDL    1244
 2737          5303 0003               LMM    3,T3                                                 FDL    1245
 2741          1377                    SCN    77                                                   FDL    1246
 2742          0524                    NJN    SFE3        IF CHARACTERS DO NOT COMPARE             FDL    1247
                                                                                                    FDL    1248
 2743          0100 2743        SFE    SUBR               ENTRY/EXIT                               FDL    1249
 2745          1400                    LDN    0           INITIALIZE DIRECTORY OFFSET              FDL    1250
 2746          3401                    STD    T1                                                   FDL    1251
 2747          3601             SFE1   AOD    T1          INCREMENT DIRECTORY OFFSET               FDL    1252
 2750          3065             SFE2   LDCA   DA          GET DIRECTORY ENTRY                      FDL    1253
 2756          3101                    ADD    T1                                                   FDL    1254
 2757          6010                    CRD    CM                                                   FDL    1255
 2760          3010                    LDD    CM                                                   FDL    1256
 2761          1006                    SHN    6                                                    FDL    1257
 2762          0764                    MJN    SFE1        IF FILE SPECIFICATION ENTRY              FDL    1258
                                                                                                    FDL    1259
                                *       COMPARE DIRECTORY ENTRY.                                    FDL    1260
                                                                                                    FDL    1261
 2763          1071                    SHN    -6                                                   FDL    1262
 2764          4303                    LMI    T3          COMPARE NAMES                            FDL    1263
 2765          0440                    ZJN    SFE4        IF BYTES COMPARE                         FDL    1264
 2766          1402             SFE3   LDN    2           INCREMENT DIRECTORY OFFSET               FDL    1265
 2767          3501                    RAD    T1                                                   FDL    1266
 2770          3227                    SBD    CL                                                   FDL    1267
 2771          0756                    MJN    SFE2        IF MORE CAPSULES TO PROCESS              FDL2      1
 2772          1401                    LDN    1           SET EXIT CONDITION                       FDL    1269
 2773          0347                    UJN    SFEX        RETURN                                   FDL    1270
```

```
                                 **        SIS - SET INTERLOCK STATUS.                                        FDL        1272
                                 *                                                                            FDL        1273
                                 *         ENTRY  (SISA) = TRACK NUMBER IF INTERLOCK REQUIRED.                242L642      83
                                 *                                                                            242L642      84
                                 *         EXIT   (CISA) = TRACK NUMBER IF INTERLOCK SET.                     242L642      85
                                 *                (T6) SAVED AND RESTORED.                                    FDL        1279
                                 *                TO *SCS* IF ERROR FLAG SET.                                 FDL        1280
                                 *                                                                            FDL        1281
                                 *         USES   T6.                                                         FDL        1282
                                 *                                                                            FDL        1283
                                 *         CALLS  STI, SCS.                                                   FDL        1284
                                                                                                              FDL        1285
                                                                                                              FDL        1286
   2774      3006                 SIS1     LDD    T6          SET TRACK INTERLOCKED STATUS                    242L642      86
   2775      5400 2016                     STM    CISA                                                        242L642      87
   2777      2000 0000                     LDC    0           RESTORE CURRENT TRACK                           242L642      88
                          3000    SISB     EQU    *-1                                                         242L642      89
   3001      3406                          STD    T6                                                          242L642      90
                                                                                                              242L642      91
   3002      0100 3002            SIS      SUBR               ENTRY/EXIT                                      242L642      92
   3004      3006                          LDD    T6                                                          242L642      93
   3005      5400 3000                     STM    SISB                                                        242L642      94
   3007      2000 0000                     LDC    0           CHECK INTERLOCK REQUIRED STATUS                 242L642      95
                          3010    SISA     EQU    *-1                                                         242L642      96
   3011      0470                          ZJN    SISX        IF NO INTERLOCK REQUIRED                        242L642      97
   3012      3406                          STD    T6                                                          FDL        1294
   3013      0200 3275                     RJM    STI         SET TRACK INTERLOCK                             FDL        1295
   3015      0456                          ZJN    SIS1        IF ERROR FLAG NOT SET                           FDL        1296
   3016      0100 2655                     LJM    SCS         SET COMPLETE STATUS                             FDL        1297


                                 **        VOT - VALIDATE *OPLD* TABLE.                                       FDL        1305
                                 *                                                                            FDL        1306
                                 *         ENTRY  (T3) = BUFFER ADDRESS.                                      FDL        1307
                                 *                (BL) = BUFFER LIMIT ADDRESS.                                FDL        1308
                                 *                                                                            FDL        1309
                                 *         EXIT   (A) .LT. 0 IF ERROR IN TABLE.                               FDL        1310
                                 *                (T2) = *OPLD* TABLE BASE ADDRESS.                           FDL        1311
                                                                                                              FDL        1312
                                                                                                              FDL        1313
   3020      1501                 VOT1     LCN    1           SET EXIT CONDITION                              FDL        1314
                                                                                                              FDL        1315
   3021      0100 3021            VOT      SUBR               ENTRY/EXIT                                      FDL        1316
   3023      5003 0002                     LDM    2,T3        CHECK PREFIX TABLE                              FDL        1317
   3025      2300 7700                     LMC    7700                                                        FDL        1318
   3027      0570                          NJN    VOT1        IF NOT 7700 TABLE                               FDL        1319
   3030      5003 0003                     LDM    3,T3        SET *OPLD* TABLE ADDRESS                        FDL        1320
   3032      1601                          ADN    1                                                           FDL        1321
   3033      3402                          STD    T2                                                          FDL        1322
   3034      1002                          SHN    2                                                           FDL        1323
   3035      3502                          RAD    T2                                                          FDL        1324
   3036      1602                          ADN    2                                                           FDL        1325
   3037      3103                          ADD    T3                                                          FDL        1326
   3040      3402                          STD    T2                                                          FDL        1327
   3041      1616                          ADN    3*5-1       CHECK MINIMUM *OPLD* IN BUFFER                  FDL        1328
```

```
3042          3260                        SBD    BL                                             FDL        1329
3043          0654                        PJN    VOT1         IF *OPLD* NOT IN BUFFER           FDL        1330
3044          4002                        LDI    T2           CHECK *OPLD* TABLE                FDL        1331
3045          2300 7000                   LMC    7000                                           FDL        1332
3047          0550                        NJN    VOT1         IF NOT *OPLD* TABLE               FDL        1333
3050          0350                        UJN    VOTX         RETURN                            FDL        1334



                                **        VUT - VALIDATE *ULIB* TABLES.                         FDL        1336
                                *                                                               FDL        1337
                                *         ENTRY  (T3) = BUFFER ADDRESS.                         FDL        1338
                                *                (BL) = BUFFER LIMIT ADDRESS.                   FDL        1339
                                *                                                               FDL        1340
                                *         EXIT   (A) = NUMBER OF GROUP NAMES IN *ULIB*.         FDL        1341
                                *                (A) = 1 IF FUNCTION CODE 404.                  FDL        1342
                                *                (A) = 0 IF ERROR IN *ULIB* TABLE.              FDL        1343
                                *                (T2) = *ULIB* TABLE BASE ADDRESS.              FDL        1344
                                                                                                FDL        1345
                                                                                                FDL        1346
3051          1400               VUT2     LDN    0            SET EXIT CONDITION                FDL        1347
                                                                                                FDL        1348
3052          0100 3052          VUT      SUBR                ENTRY/EXIT                        FDL        1349
3054          5003 0002                   LDM    2,T3         CHECK PREFIX TABLE                FDL        1350
3056          2300 7700                   LMC    7700                                           FDL        1351
3060          0570                        NJN    VUT2         IF NOT 7700 TABLE                 FDL        1352
3061          5003 0003                   LDM    3,T3         SET PREFIX TABLE LENGTH           FDL        1353
3063          1601                        ADN    1                                              FDL        1354
3064          3402                        STD    T2                                             FDL        1355
3065          1002                        SHN    2                                              FDL        1356
3066          3502                        RAD    T2                                             FDL        1357
3067          1602                        ADN    2                                              FDL        1358
3070          3103                        ADD    T3                                             FDL        1359
3071          3402                        STD    T2                                             FDL        1360
3072          1611                        ADN    2*5-1        CHECK MINIMUM *ULIB* IN BUFFER    FDL        1361
3073          3260                        SBD    BL                                             FDL        1362
3074          0654                        PJN    VUT2         IF *ULIB* NOT IN BUFFER           FDL        1363
3075          4002                        LDI    T2           CHECK *ULIB* RECORD               FDL        1364
3076          2300 7600                   LMC    7600                                           FDL        1365
3100          0550                        NJN    VUT2         IF NOT *ULIB* RECORD              FDL        1366
3101          1400               VUTA     LDN    0                                              FDL        1367
                                *         LDN    1            (FUNCTION CODE 404)               FDL        1368
3102          0402                        ZJN    VUT1         IF NOT FUNCTION CODE 404          FDL        1369
3103          0346                        UJN    VUTX         RETURN                            FDL        1370
                                                                                                FDL        1371
3104          5002 0001          VUT1     LDM    1,T2         SET NUMBER OF GROUP NAMES IN *ULIB*  FDL     1372
3106          0343                        UJN    VUTX         RETURN                            FDL        1373
```

```
                                  **       COMMON DECKS.                                            FDL       1376
                                                                                                    FDL       1377
                                                                                                    FDL       1378
         3107                              CTEXT  COMPCLD - SEARCH CENTRAL LIBRARY DIRECTORY.       COMPCLD      1
         3127                              CTEXT  COMPCRA - CONVERT RANDOM ADDRESS.                 COMPCRA      1
         3175                              CTEXT  COMPSAF - SEARCH FOR ASSIGNED FILE.               COMPSAF      1
         3245                              CTEXT  COMPSFB - SET FILE BUSY.                          COMPSFB      1
         3273                              CTEXT  COMPSTI - SET TRACK INTERLOCK.                    COMPSTI      1
                                                                                                    FDL       1386
         3335                              CTEXT  COMPIRA - INITIALIZE RANDOM ACCESS PROCESSORS.    COMPIRA      1



                                           USE    //                                                FDL       1389
                                                                                                    FDL       1390
                                  **       TLBD - GLOBAL LIBRARY SET.                               FDL       1391
                                                                                                    FDL       1392
                                                                                                    FDL       1393
                         3372      TLBD    EQU    *                                                 FDL       1394
                         3411      TLBDL   EQU    TLBD+3*5                                          FDL       1395
                                                                                                    FDL       1396
                                                                                                    FDL       1397
                                  *        RETURNED DIRECTORY ENTRY.                                FDL       1398
                                                                                                    FDL       1399
                         3411      DIRA    EQU    TLBDL                                             FDL       1400
                         3416      DIRB    EQU    DIRA+1*5                                          FDL       1401
                                                                                                    FDL       1402
                                                                                                    FDL       1403
                                  **       BUF - MASS STORAGE BUFFER.                               FDL       1404
                                                                                                    FDL       1405
                                                                                                    FDL       1406
                         3423      BUF     EQU    DIRB+1*5                                          FDL       1407
                                                                                                    FDL       1408
                         3352      .1      SET    BFMS+1-BUF-2                                      FDL       1409
                            5              ERRZR  .1/500      MAXIMUM SECTORS FOR BUFFER            FDL       1410
                          252              ERRNG  .1-.1/500*500 BYTES REMAINING BEFORE OVERFLOW     FDL       1411
```

```
                                    **        PRS - PRESET.                                         FDL        1414
                                    *                                                               FDL        1415
                                    *         ENTRY  (IR - IR+4) = *LDD* CALL.                      FDL        1416
                                    *                                                               FDL        1417
                                    *         EXIT   (DI) = 0.                                      FDL        1418
                                    *                (CL) = 0.                                      FDL        1419
                                    *                (GN - GN+4) = GROUP NAME.                      FDL        1420
                                    *                (DL) = USER SPECIFIED DIRECTORY LENGTH.        FDL        1421
                                    *                (DA) = DIRECTORY BASE ADDRESS.                 FDL        1422
                                    *                (UL - UL+1) = USER SPECIFIED LIBLIST ADDRESS.  FDL        1423
                                    *                (LNLA) = FNT FWA.                              FDL        1424
                                    *                TO *ERR* IF ILLEGAL PARAMETER OR ADDRESS.      FDL        1425
                                    *                                                               FDL        1426
                                    *         USES   CL, CM - CM+4, DA, DI, DL, FA, GN - GN+4,      FDL        1427
                                    *                UL - UL+1, LNLA.                               FDL        1428
                                    *                                                               FDL        1429
                                    *         CALLS  CRS.                                           FDL        1430
                                    *                                                               FDL        1431
                                    *         MACROS ERROR, LDCA.                                   FDL        1432
                                                                                                    FDL        1433
                                                                                                    FDL        1434
          3372          0100 3372    PRS      SUBR                  ENTRY/EXIT                      FDL        1435
          3374          1400                  LDN    0                                              FDL1          1
          3375          3437                  STD    DI             CLEAR DIRECTORY INDEX           FDL1          2
          3376          3457                  STD    FA             CLEAR FNT ADDRESS               FDL1          3
          3377          3427                  STD    CL             CLEAR CENTRAL DIRECTORY LENGTH  FDL        1438
          3400          3053                  LDD    IR+3           SET RECALL OPTION               FDL        1439
          3401          1072                  SHN    -5                                             FDL        1440
          3402          1201                  LPN    1                                              FDL        1441
          3403          5500 3551             RAM    PRSA                                           FDL        1442
          3405          3053                  LDD    IR+3           CHECK PARAMETER ADDRESS         FDL        1443
          3406          5400 3600             STM    PRSB           SAVE RECALL PARAMETERS          FDL        1444
          3410          1237                  LPN    37                                             FDL        1445
          3411          3453                  STD    IR+3                                           FDL        1446
          3412          1014                  SHN    14                                             FDL        1447
          3413          3354                  LMD    IR+4                                           FDL        1448
          3414          1702                  SBN    2                                              FDL        1449
          3415          0705                  MJN    PRS1           IF ILLEGAL ADDRESS              FDL        1450
          3416          1603                  ADN    1+2                                            FDL        1451
          3417          1071                  SHN    -6                                             FDL        1452
          3420          3256                  SBD    FL                                             FDL        1453
          3421          0704                  MJN    PRS2           IF PARAMETER ADDRESS WITHIN FL  FDL        1454
          3422          1440         PRS1     ERROR  ARG            * ARGUMENT ERROR.*              FDL        1455
                                                                                                    FDL        1456
          3425          0200 3650    PRS2     RJM    CRS            CHECK RECALL STATUS             FDL        1457
          3427          0472                  ZJN    PRS1           IF NOT CALLED WITH AUTO RECALL  FDL        1458
          3430          3053                  LDCA   IR+3           READ GROUP NAME AND FUNCTION CODE FDL      1459
          3436          6030                  CRD    GN                                             FDL        1460
          3437          1601                  ADN    1              READ SECOND WORD OF PARAMETER BLOCK FDL    1461
          3440          6010                  CRD    CM                                             FDL        1462
          3441          3033                  LDD    GN+3           CLEAR STATUS CODE               FDL        1463
          3442          1377                  SCN    77                                             FDL        1464
          3443          3433                  STD    GN+3                                           FDL        1465
          3444          3034                  LDD    GN+4           CHECK FUNCTION CODE             FDL        1466
          3445          2200 0776             LPC    776                                            FDL        1467
          3447          0425                  ZJN    PRS4           IF LEGAL FUNCTION CODE          FDL        1468
          3450          2300 0402             LMC    402            CHECK FOR FUNCTION CODE 402     NS2278        6
```

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3452  0414          ZJN   PRS2.5   IF FUNCTION CODE IS 402                    NS2278     7
3453  1106          LMK   404&402  CHECK FOR FUNCTION CODE 404                NS2278     8
3454  0515          NJN   PRS3     IF ILLEGAL FUNCTION CODE                   FDL     1470
                                                                              FDL     1471
                    *     SET FUNCTION CODE 404 PROCESSING.                   FDL     1472
                                                                              FDL     1473
3455  5600 1136     AOM   LDDA                                               FDL     1474
3457  5600 1621     AOM   PGMA                                               FDL     1475
3461  5600 1727     AOM   SFGA                                               FDL     1476
3463  5600 3101     AOM   VUTA                                               FDL     1477
3465  0307          UJN   PRS4                                               FDL     1478
                                                                            NS2278     9
                    *     SET FUNCTION CODE 402 PROCESSING.                 NS2278    10
                                                                            NS2278    11
3466  5600 1102     PRS2.5 AOM  LDDB                                        NS2278    12
3470  0304          UJN   PRS4     CONTINUE PROCESSING                      NS2278    13
                                                                              FDL     1479
3471  1401          PRS3  ERROR  ILF      ILLEGAL FUNCTION CODE              FDL     1480
                                                                              FDL     1481
3474  3012          PRS4  LDD    CM+2     SET LENGTH OF USER SPECIFIED DIRECTORY FDL     1482
3475  1006                SHN    6                                           FDL     1483
3476  3467                STD    DL                                          FDL     1484
3477  3013                LDD    CM+3                                        FDL     1485
3500  1071                SHN    -6                                          FDL     1486
3501  3567                RAD    DL                                          FDL     1487
3502  3013                LDD    CM+3     SET DIRECTORY BASE ADDRESS         FDL     1488
3503  1237                LPN    37                                          FDL     1489
3504  3465                STD    DA                                          FDL     1490
3505  1014                SHN    14                                          FDL     1491
3506  3114                ADD    CM+4                                        FDL     1492
3507  3466                STD    DA+1                                        FDL     1493
3510  1702                SBN    2        CHECK DIRECTORY ADDRESS            FDL     1494
3511  0706                MJN    PRS5     IF ILLEGAL ADDRESS                 FDL     1495
3512  1601                ADN    2-1                                         FDL     1496
3513  3167                ADD    DL                                          FDL     1497
3514  1071                SHN    -6                                          FDL     1498
3515  3256                SBD    FL                                          FDL     1499
3516  0704                MJN    PRS6     IF DIRECTORY ADDRESS WITHIN FL     FDL     1500
3517  1402          PRS5  ERROR  IAD      ILLEGAL DIRECTORY ADDRESS          FDL     1501
                                                                              FDL     1502
3522  3012          PRS6  LDD    CM+2     SET USER LIBLIST ADDRESS           FDL     1503
3523  1071                SHN    -6                                          FDL     1504
3524  3436                STD    UL+1                                        FDL     1505
3525  3011                LDD    CM+1                                        FDL     1506
3526  1006                SHN    6                                           FDL     1507
3527  3536                RAD    UL+1                                        FDL     1508
3530  1063                SHN    -14                                         FDL     1509
3531  1237                LPN    37                                          FDL     1510
3532  3435                STD    UL                                          FDL     1511
3533  1014                SHN    14       CHECK USER SPECIFIED LIBLIST ADDRESS FDL     1512
3534  3336                LMD    UL+1                                        FDL     1513
3535  0414                ZJN    PRS9     IF NO LIBLIST ADDRESS SPECIFIED    FDL     1514
3536  1702                SBN    2                                           FDL     1515
3537  0705                MJN    PRS7     IF ILLEGAL ADDRESS                 FDL     1516
3540  1602                ADN    2                                           FDL     1517
3541  1071                SHN    -6                                          FDL     1518
3542  3256                SBD    FL                                          FDL     1519
```

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3543  0706                    MJN   PRS9    IF USER LIBLIST ADDRESS WITHIN FL          FDL  1520
3544  1403              PRS7  ERROR ILA     ILLEGAL LIBLIST ADDRESS                    FDL  1521
                                                                                       FDL  1522
3547  0100 3372         PRS8  LJM   PRSX    RETURN                                     FDL  1523
                                                                                       FDL  1524
3551  1400              PRS9  LDN   0       CHECK RECALL STATUS                        FDL  1525
                   3551 PRSA  EQU   *-1                                               FDL  1526
                        *     LDN   1       (RECALL OPTION)                          FDL  1527
3552  0474                    ZJN   PRS8    IF NOT RECALL OPTION                       FDL  1528
3553  3052                    LDD   IR+2    SET DIRECTORY LENGTH PARAMETER             FDL  1529
3554  3437                    STD   DI                                                 FDL  1530
3555  3427                    STD   CL      CL = MIN(DL,DI)                            FDL  1531
3556  3267                    SBD   DL                                                 FDL  1532
3557  0703                    MJN   PRS10   IF (DL) .LT. (DI)                          FDL  1533
3560  3067                    LDD   DL                                                 FDL  1534
3561  3427                    STD   CL                                                 FDL  1535
3562  3053              PRS10 LDCA  IR+3    SET PREVIOUS ERROR CODES                   FDL  1536
3570  6010                    CRD   CM                                                 FDL  1537
3571  3013                    LDD   CM+3                                               FDL  1538
3572  1014                    SHN   14                                                 FDL  1539
3573  3114                    ADD   CM+4                                               FDL  1540
3574  1066                    SHN   -11                                                FDL  1541
3575  5400 2656               STM   SCSA                                               FDL  1542
3577  2000 3577               LDC   *       SET LIBRARY PARAMETERS                     FDL  1543
                   3600 PRSB  EQU   *-1                                               FDL  1544
                        *     LDC   IR+3    (RECALL PARAMETERS)                        FDL  1545
3601  1071                    SHN   -6                                                 FDL  1546
3602  1217                    LPN   17                                                 FDL  1547
3603  1001                    SHN   1                                                  FDL  1548
3604  5400 1362               STM   GNLE                                               FDL  1549
3606  1076                    SHN   -1                                                 FDL  1550
3607  5500 1275               RAM   GNLA                                               FDL  1551
3611  3014                    LDD   CM+4    CHECK BYTE POSITION                        FDL  1552
3612  1201                    LPN   1                                                  FDL  1553
3613  0407                    ZJN   PRS11   IF NO REPOSITION NEEDED                   FDL  1554
3614  2000 1000               LDC   SHNI+0                                             FDL  1555
3616  5400 1303               STM   GNLC                                               FDL  1556
3620  5600 1362               AOM   GNLE                                               FDL  1557
3622  5000 3600         PRS11 LDM   PRSB    SET LOCAL USER LIBRARY PARAMETERS          FDL  1558
3624  1065                    SHN   -12                                                FDL  1559
3625  0420                    ZJN   PRS12   IF NO LOCAL USER LIBRARIES                 FDL  1560
3626  5500 2141               RAM   CRPA    SET LIBRARY ORDINAL POSITION               FDL  1561
3630  1277                    LPN   77      SET LOCAL USER LIBRARY OFFSET              FDL  1562
3631  3410                    STD   CM                                                 FDL  1563
3632  1002                    SHN   2                                                  FDL  1564
3633  3510                    RAD   CM                                                 FDL  1565
3634  2000 3411               LDC   TLBDL                                              FDL  1566
3636  3210                    SBD   CM                                                 FDL  1567
3637  5400 1300               STM   GNLB                                               FDL  1568
3641  2000 0113               LDC   LB2W                                               FDL  1569
3643  5400 1347               STM   GNLD                                               FDL  1570
3645  0100 3372         PRS12 LJM   PRSX    RETURN                                     FDL  1571
```

```
                          **        COMMON DECKS.                                                 FDL       1573
                                                                                                  FDL       1574
                                                                                                  FDL       1575
3647                                CTEXT  COMPCRS - CHECK RECALL STATUS.                         COMPCRS      1
```

```
          IDENT  LDQ,/LDQ/LDQ                                           FDL       1579
  COMMENT 82/02/26. 92/09/17. FDL - LOAD QUICKLY.                       FDL       1580
          COMMENT  COPYRIGHT CONTROL DATA SYSTEMS INC.  1992.           281L803      2




***       LDQ - LOAD QUICKLY.                                           FDL       1583
*         GREGG TOWNSEND.    76/02/04.                                  FDL       1584
*         J. J. EIKUM.       76/04/01.                                  FDL       1585




***              LDQ IS USED TO QUICKLY READ A CAPSULE OR OVERLAY INTO  FDL       1587
*         THE FIELD LENGTH OF A JOB, GIVEN THE RANDOM ADDRESS OF THE    FDL       1588
*         CAPSULE OR OVERLAY ON A MASS STORAGE DEVICE.  THE PREFIX      FDL       1589
*         TABLE IS REMOVED AND THE REST OF THE RECORD IS TRANSFERRED    FDL       1590
*         WITHOUT MODIFICATION.                                         FDL       1591




***       CALL.                                                         FDL       1593
*                                                                       FDL       1594
*                                                                       FDL       1595
*T,       18/  *LDQ*,24/ ,18/ ADDR                                      FDL       1596
*                                                                       FDL       1597
*         ADDR   ADDRESS OF A FOUR-WORD PARAMETER BLOCK:                FDL       1598
*                                                                       FDL       1599
*T ADDR   42/  *FILE*,9/STAT,9/FUNC                                     FDL       1600
*T,       42/  *GRPNAME*,18/0                                           FDL       1601
*T,       42/  *NAME*,18/FWA                                            FDL       1602
*T,       24/0,18/PRU,18/LWA+1                                          FDL       1603
*                                                                       FDL       1604
*         *FILE* FILE FROM WHICH TO LOAD.   IF BITS 59-48 = 7777,       FDL       1605
*                THEN LOAD FROM THE SYSTEM.                             FDL       1606
*         STAT   STATUS RETURNED BY LDQ.                                FDL       1607
*                000  FUNCTION COMPLETED SUCCESSFULLY.                  FDL       1608
*                001  ILLEGAL FUNCTION.                                 FDL       1609
*                002  CM BUFFER NOT COMPLETELY WITHIN FIELD LENGTH.     FDL       1610
*                003  NO SUCH FILE, NOT MASS STORAGE, OR EXECUTE-ONLY.  FDL       1611
*                004  PRU NUMBER OUTSIDE FILE BOUNDARIES.               FDL       1612
*                005  WRONG PROGRAM OR GARBAGE FOUND AT SPECIFIED PRU.  FDL       1613
*                006  INSUFFICIENT FWA-LWA SPACE TO HOLD PROGRAM.       FDL       1614
*         FUNC   FUNCTION REQUEST.  LDQ WILL ADD 1 WHEN FINISHED.       FDL       1615
*                000  LOAD CAPSULE.                                     FDL       1616
*                002  LOAD OVERLAY.                                     FDL       1617
*         *GRPNAME*  NAME OF CAPSULE GROUP.  IGNORED FOR OVERLAY LOAD.  FDL       1618
*         *NAME* NAME OF CAPSULE OR OVERLAY TO BE LOADED.               FDL       1619
*         FWA    FIRST WORD ADDRESS OF LOADABLE AREA.                   FDL       1620
*         LWA+1  UPPER LIMIT OF LOADABLE AREA.                          FDL       1621
*         PRU    PRU ADDRESS OF PROGRAM TO BE LOADED.                   FDL       1622
```

```
          ***       DAYFILE MESSAGES.                                                FDL       1624
          *                                                                          FDL       1625
          *         * LDQ - ARGUMENT ERROR - XXXXXX.* = FET ADDRESS .LT. 2 OR        FDL       1626
          *         .GT. FL-4.                                                       FDL       1627
          *                                                                          FDL       1628
          *         * LDQ - I/O SEQUENCE ERROR - FILENAM AT XXXXXX.* = MULTIPLE      FDL       1629
          *         CONCURRENT FUNCTIONS WERE ATTEMPTED ON FILE *FILENAM*.           FDL       1630
          *                                                                          FDL       1631
          *         * LDQ - DEVICE ERROR - FILENAM AT XXXXXX.* = AN UNRECOVERED      FDL       1632
          *         DEVICE ERROR WAS ENCOUNTERED ON FILE *FILENAM*.                  FDL       1633
          *                                                                          FDL       1634
          *         FOR ALL MESSAGES, XXXXXX IS THE ADDRESS OF THE *LDD*             FDL       1635
          *         PARAMETER BLOCK.                                                 FDL       1636
```

```
                                           QUAL   LDQ                                         FDL       1638
                                                                                              FDL       1639
                                    **     LDQ - MAIN PROGRAM.                                FDL       1640
                                                                                              FDL       1641
                                                                                              FDL       1642
          1100                             ORG    PPFW                                        FDL       1643
          1100          0200 1776    LDQ   RJM    PRS                                         FDL       1644
          1102          0200 1467          RJM    RFS          READ FIRST SECTOR              FDL       1645
          1104          0200 1361          RJM    CPY          COPY PROGRAM                   FDL       1646
                                    *      UJN    CFN                                         FDL       1647



                                    **     CFN - COMPLETE FUNCTION.                           FDL       1649
                                                                                              FDL       1650
                                                                                              FDL       1651
          1106          3644         CFN   AOD    FN+4         SET PARAMETER BLOCK COMPLETE   FDL       1652
          1107          3053               LDCA   IR+3         REWRITE FIRST PARAMETER WORD   FDL       1653
          1115          6240               CWD    FN                                          FDL       1654
                                    *      UJN    DPP                                         FDL       1655



                                    **     DPP - DROP PP.                                     FDL       1657
                                                                                              FDL       1658
                                                                                              FDL       1659
          1116          3057         DPP   LDD    FA                                          FDL       1660
          1117          0407               ZJN    DPP1         IF NOT LOCAL FILE LOAD         FDL       1661
          1120          3624               AOD    FS+4                                        FDL       1662
          1121          3055               NFA    FA,R         SET FST NOT BUSY               FDL       1663
          1124          1601               ADN    FSTL                                        FDL       1664
          1125          6220               CWD    FS                                          FDL       1665
          1126          3077         DPP1  LDD    MA           STORE *UADM* PARAMETER BLOCK   FDL       1666
          1127          6370 1143          CWM    DPPA,ON                                     FDL       1667
          1131          1401               LDN    1            SET WORD COUNT                 FDL       1668
          1132          3411               STD    CM+1                                        FDL       1669
          1133          1400               LDN    0            SET DROP PP FLAG               FDL       1670
          1134          3412               STD    CM+2                                        FDL       1671
          1135          2000 0114          MONITOR UADM        UPDATE ACCOUNTING AND DROP PP  FDL       1672
          1141          0100 0257          LJM    PPR                                         FDL       1673
                                                                                              FDL       1674
                                                                                              FDL       1675
          1143          0020         DPPA  CON    AISS         SUB FUNCTION                   FDL       1676
          1144          0053               CON    IOAW         WORD TO UPDATE                 FDL       1677
          1145          5024               CON    40D*100+20D  FIELD TO UPDATE                FDL       1678
          1146          0000 0000          CON    0,0          INCREMENT                      FDL       1679
```

```
                                  **        COMMON SUBROUTINES.                                  242L642     99
                                                                                                 242L642    100
                                                                                                 242L642    101
          1150       0100 1150              COMMON                                               242L642    102


                                  **        CPN - COMPARE NAMES.                                 FDL        1682
                                  *                                                              FDL        1683
                                  *         ENTRY  (A) = ADDRESS OF NAME 1.                      FDL        1684
                                  *                (GN - GN+3) = NAME 2.                         FDL        1685
                                  *                                                              FDL        1686
                                  *         EXIT   (A) = 0 IF SEVEN CHARACTERS MATCH.            FDL        1687
                                  *                                                              FDL        1688
                                  *         USES   T2.                                           FDL        1689
                                                                                                 FDL        1690
                                                                                                 FDL        1691
          1263       0100 1263     CPN      SUBR               ENTRY/EXIT                        FDL        1692
          1265       3402                   STD    T2                                            FDL        1693
          1266       4002                   LDI    T2          COMPARE FIRST BYTES               FDL        1694
          1267       3330                   LMD    GN                                            FDL        1695
          1270       0572                   NJN    CPNX        IF NOT EQUAL                      FDL        1696
          1271       5002 0001              LDM    1,T2        COMPARE SECOND BYTES              FDL        1697
          1273       3331                   LMD    GN+1                                          FDL        1698
          1274       0566                   NJN    CPNX        IF NOT EQUAL                      FDL        1699
          1275       5002 0002              LDM    2,T2        COMPARE THIRD BYTES               FDL        1700
          1277       3332                   LMD    GN+2                                          FDL        1701
          1300       0562                   NJN    CPNX        IF NOT EQUAL                      FDL        1702
          1301       5002 0003              LDM    3,T2        COMPARE SEVENTH CHARACTERS        FDL        1703
          1303       3333                   LMD    GN+3                                          FDL        1704
          1304       1377                   SCN    77                                            FDL        1705
          1305       0355                   UJN    CPNX        RETURN WITH (A)=0 ONLY IF MATCH   FDL        1706
```

```
                                    **        CPY - COPY PROGRAM.                                          FDL       1708
                                    *                                                                      FDL       1709
                                    *         ENTRY  (T1) = VALID WORD COUNT.                              FDL       1710
                                    *                (T3) = ADDRESS OF WORDS IN PP BUFFER.                 FDL       1711
                                    *                (T5) = EST ORDINAL.                                   NS22000      4
                                    *                (T6) = TRACK.                                         FDL       1713
                                    *                (T7) = SECTOR.                                        FDL       1714
                                    *                (ER) = EOR FLAG.                                      FDL       1715
                                    *                (FW - FW+1) = FWA OF CM BUFFER.                       FDL       1716
                                    *                (BS - BS+1) = BUFFER SIZE.                            FDL       1717
                                    *                (BFMS - BFMS+501) = FIRST SECTOR.                     FDL       1718
                                    *                                                                      FDL       1719
                                    *         EXIT   TO *ERR* IF CM BUFFER TOO SMALL.                      FDL       1720
                                    *                CHANNEL DROPPED.                                      FDL       1721
                                    *                                                                      FDL       1722
                                    *         USES   T1, T3, T6, T7, CM - CM+4, FW - FW+1, BS - BS+1,      FDL5         9
                                    *                EC, ER.                                               FDL5        10
                                    *                                                                      FDL       1724
                                    *         CALLS  CIS, DDT, MSR, RNS.                                   FDL4         1
                                    *                                                                      FDL       1726
                                    *         MACROS ENDMS, ERROR.                                         FDL       1727
                                                                                                           FDL       1728
                                                                                                           FDL       1729
                                    *         PROCESS DIRECT TRANSFER COPY.                                NS21000      4
                                                                                                           NS21000      5
          1306      3045             CPY4     LDD    FW          SET *DDT* PARAMETERS                      NS21000      6
          1307      3165                      ADD    BS                                                    NS21000      7
          1310      1014                      SHN    14                                                    NS21000      8
          1311      3146                      ADD    FW+1                                                  NS21000      9
          1312      3166                      ADD    BS+1                                                  NS21000     10
          1313      1014                      SHN    14                                                    NS21000     11
          1314      3412                      STD    CM+2                                                  NS21000     12
          1315      1071                      SHN    -6                                                    NS21000     13
          1316      1377                      SCN    77                                                    NS21000     14
          1317      3145                      ADD    FW                                                    NS21000     15
          1320      3413                      STD    CM+3                                                  NS21000     16
          1321      3046                      LDD    FW+1                                                  NS21000     17
          1322      3414                      STD    CM+4                                                  NS21000     18
          1323      2003 7777                 LDC    RDDS*10000+7777                                       NS21000     19
          1325      0200 1574                 RJM    DDT         DO DIRECT TRANSFER                        NS21000     20
          1327      1063                      SHN    -14                                                   251L664      1
          1330      3447                      STD    EC          SAVE STATUS                               FDL5        11
          1331      3004                      LDD    T4          NUMBER OF SECTORS TRANSFERED              NS21000     22
          1332      5500 1147                 RAM    DPPA+4      UPDATE ACCOUNT INCREMENT                  NS21000     23
                                  0           ERRNZ  IMLL-1      CODE DEPENDS ON VALUE                     NS21000     24
          1334      1063                      SHN    -14                                                   NS21000     25
          1335      5500 1146                 RAM    DPPA+3                                                NS21000     26
          1337      3047                      LDD    EC                                                    FDL5        12
          1340      0414                      ZJN    CPY6        IF NO ERRORS                              NS21000     28
          1341      1015                      SHN    21-4                                                  251L664      2
          1342      0705                      MJN    CPY5        IF INSUFFICIENT FL TO LOAD                NS21000     30
          1343      5000 0103                 LDM    RDCT                                                  FDL4         2
          1345      0200 1162                 RJM    MSR         PROCESS MASS STORAGE ERROR                FDL4         3
                                                                                                           NS21000     32
          1347      0200 0535        CPY5     ENDMS                                                        NS21000     33
          1351      1406                      ERROR  IBF         INSUFFICIENT BUFFER                       FDL       1731
                                                                                                           FDL       1732
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1354          0200 0535            CPY6     ENDMS                                                NS21000     34
1356          0200 1151                     RJM     CIS          CLEAR INTERLOCK STATUS         FDL3         2
                                                                                                FDL       1739
1360          0100 1360            CPY      SUBR                 ENTRY/EXIT                     FDL       1740
1362          3065                 CPY1     LDD     BS           DECREMENT BUFFER SIZE          FDL       1741
1363          1014                          SHN     14                                          FDL       1742
1364          3366                          LMD     BS+1                                        FDL       1743
1365          3201                          SBD     T1                                          FDL       1744
1366          0760                          MJN     CPY5         IF BUFFER TOO SMALL            NS21000     35
1367          3466                          STD     BS+1                                        FDL       1746
1370          1063                          SHN     -14                                         FDL       1747
1371          3465                          STD     BS                                          FDL       1748
1372          3003                          LDD     T3           SET PP BUFFER ADDRESS          FDL       1749
1373          5400 1404                     STM     CPYA                                        FDL       1750
1375          3045                          LDCA    FW           WRITE BUFFER TO CM             FDL       1751
1403          6301 0000                     CWM     **,T1                                       FDL       1752
                         1404      CPYA     EQU     *-1                                         FDL       1753
1405          3001                          LDD     T1           UPDATE FWA                     FDL       1754
1406          3546                          RAD     FW+1                                        FDL       1755
1407          1063                          SHN     -14                                         FDL       1756
1410          3545                          RAD     FW                                          FDL       1757
1411          3017                          LDD     ER                                          FDL       1758
1412          0503                          NJN     CPY3         IF EOR NOT READ                FDL       1759
1413          0100 1354            CPY2     LJM     CPY6         EXIT                           NS21000     36
                                                                                                FDL       1761
1415          2000 6776            CPY3     LDC     BFMS         READ NEXT SECTOR               FDL       1762
                         1416      CPYC     EQU     *-1                                         NS21000     37
                                *           LJM     CPY4         (DIRECT TRANSFER COPY)         NS21000     38
1417          0200 1233                     RJM     RNS                                         FDL       1763
1421          1071                          SHN     -6           SAVE EOR FLAG                  FDL       1764
1422          3417                          STD     ER                                          FDL       1765
1423          1401                          LDN     IMLL         INCREMENT PRU COUNT            FDL       1766
1424          5500 1147                     RAM     DPPA+4                                      FDL       1767
1426          1063                          SHN     -14                                         FDL       1768
1427          5500 1146                     RAM     DPPA+3                                      FDL       1769
1431          3001                          LDD     T1                                          FDL       1770
1432          0460                          ZJN     CPY2         IF EMPTY PRU                   FDL       1771
1433          1402                          LDN     2            ADJUST FWA TO SKIP HEADER      FDL       1772
1434          3503                          RAD     T3                                          FDL       1773
1435          0100 1362                     LJM     CPY1         LOOP                           FDL       1774



                                **          ERR - SET ERROR AND EXIT.                           FDL       1776
                                *                                                               FDL       1777
                                *           ENTRY   (A) = ERROR CODE.                           FDL       1778
                                *                   (DPPA+3 - DPPA+4) = MASS STORAGE INCREMENT. FDL       1779
                                *                                                               FDL       1780
                                *           EXIT    TO *2LD* IF FATAL ERROR.                    FDL       1781
                                *                   TO *CFN* IF NON-FATAL ERROR.                FDL       1782
                                *                   (BITS 11-13 OF FN+4) = STATUS.              FDL       1783
                                *                                                               FDL       1784
                                *           USES    EC, SI, SI+1.                               FDL5        13
                                *                                                               FDL5        14
                                *           CALLS   CFN, CIS.                                   FDL3         3
                                                                                                FDL       1786
```

```
                                                                           FDL       1787
 1437      0100 1437      ERR      SUBR                                    FDL       1788
 1441      3447                    STD    EC          SAVE ERROR CODE      FDL5        15
 1442      0200 1151               RJM    CIS         CLEAR INTERLOCK STATUS FDL3       4
                                                                           FDL       1795
 1444      3047           ERR1     LDD    EC          CHECK ERROR TYPE     FDL5        16
 1445      1740                    SBN    /ERR/FERT                        FDL       1797
 1446      0713                    MJN    ERR2        IF NON-FATAL ERROR   FDL       1798
 1447      5000 1146               LDM    DPPA+3      SET ACCOUNTING INCREMENT FDL   1799
 1451      3461                    STD    SI                               FDL       1800
 1452      5000 1147               LDM    DPPA+4                           FDL       1801
 1454      3462                    STD    SI+1                             FDL       1802
 1455      2035 1404               EXECUTE 2LD        PROCESS ERROR        FDL       1803
                                                                           FDL       1804
 1461      3047           ERR2     LDD    EC          SET STATUS FIELD     FDL5        17
 1462      1011                    SHN    11                               FDL       1806
 1463      3544                    RAD    FN+4                             FDL       1807
 1464      0100 1106               LJM    CFN         EXIT                 FDL       1808



                         **        RFS - READ FIRST SECTOR.                FDL       1839
                         *                                                 FDL       1840
                         *         ENTRY  (T4) = CHANNEL.                  FDL       1841
                         *                (T5) = EST ORDINAL.              NS22000      5
                         *                (T6) = TRACK.                    FDL       1843
                         *                (T7) = SECTOR.                   FDL       1844
                         *                (GN - GN+3) = OVERLAY/CAPSULE NAME.  FDL   1845
                         *                                                 FDL       1846
                         *         EXIT   TO *ERR* IF ERROR DETECTED.      FDL       1847
                         *                (T1) = VALID WORD COUNT.         FDL       1848
                         *                (T3) = ADDRESS OF WORDS IN PP BUFFER.  FDL 1849
                         *                (T6) = CURRENT TRACK.            FDL       1850
                         *                (T7) = NEXT SECTOR.              FDL       1851
                         *                (ER) = 0 IF EOR.                 FDL       1852
                         *                                                 FDL       1853
                         *         USES   T2, CM - CM+4, GN - GN+4.        FDL       1854
                         *                                                 FDL       1855
                         *         CALLS  CPN, RNS.                        FDL       1856
                         *                                                 FDL       1857
                         *         MACROS ENDMS, ERROR.                    FDL       1858
                                                                           FDL       1859
                                                                           FDL       1860
 1466      0100 1466      RFS      SUBR               ENTRY/EXIT           FDL       1861
 1470      1401                    LDN    IMLL        INCREMENT PRU COUNT  FDL       1862
 1471      5500 1147               RAM    DPPA+4                           FDL       1863
 1473      2000 6776               LDC    BFMS        READ FIRST SECTOR    FDL       1864
 1475      0200 1233               RJM    RNS                              FDL       1865
 1477      1071                    SHN    -6          SAVE EOR FLAG        FDL       1866
 1500      3417                    STD    ER                               FDL       1867
 1501      1402                    LDN    2           ADJUST BUFFER POINTER TO SKIP HEADER  FDL  1868
 1502      3503                    RAD    T3                               FDL       1869
 1503      4003                    LDI    T3          CHECK FIRST WORD     FDL       1870
 1504      2300 7700               LMC    7700                             FDL       1871
 1506      0535                    NJN    RFS1        IF NOT 7700 TABLE (ERROR)  FDL  1872
 1507      3003                    LDD    T3          COMPARE CAPSULE/OVERLAY NAME TO EXPECTED  FDL  1873
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1510      1605                    ADN    5                                       FDL      1874
1511      0200 1264               RJM    CPN                                     FDL      1875
1513      0530                    NJN    RFS1        IF NOT SAME NAME            FDL      1876
1514      5003 0001               LDM    1,T3        SKIP 7700 TABLE             FDL      1877
1516      1601                    ADN    1           ENSURE 7700 HEADER IN SECTOR FDL     1878
1517      3402                    STD    T2                                      FDL      1879
1520      1002                    SHN    2                                       FDL      1880
1521      3102                    ADD    T2                                      FDL      1881
1522      3503                    RAD    T3                                      FDL      1882
1523      3001                    LDD    T1          ADJUST WORD COUNT           FDL      1883
1524      3202                    SBD    T2                                      FDL      1884
1525      0716                    MJN    RFS1        IF WORD COUNT IN 77 TABLE .GT. SECTOR SIZE FDL 1885
1526      3401                    STD    T1                                      FDL      1886
1527      3044                    LDD    FN+4                                    FDL      1887
1530      0420                    ZJN    RFS2        IF LOADING A CAPSULE        FDL      1888
1531      4003                    LDI    T3                                      FDL      1889
1532      1071                    SHN    -6                                      FDL      1890
1533      1750                    SBN    50                                      FDL      1891
1534      0707                    MJN    RFS1        IF .LT. 50XX TABLE          FDL      1892
1535      1702                    SBN    52-50                                   FDL      1893
1536      0405                    ZJN    RFS1        IF 52XX TABLE               FDL      1894
1537      1703                    SBN    54-52+1                                 FDL      1895
1540      0603                    PJN    RFS1        IF .GT. 54XX TABLE          FDL      1896
1541      0100 1466               LJM    RFSX        VALID OVERLAY FORMAT, EXIT  FDL      1897
                                                                                 FDL      1898
1543      0200 0535        RFS1   ENDMS                                          FDL      1899
1545      1405                    ERROR  WPR         WRONG PROGRAM               FDL      1900
                                                                                 FDL      1901
1550      4003             RFS2   LDI    T3          CHECK HEADER                FDL      1902
1551      2300 6000               LMC    6000                                    FDL      1903
1553      0567                    NJN    RFS1        IF NOT CAPSULE              FDL      1904
1554      3053                    LDCA   IR+3        READ GROUP NAME             FDL      1905
1562      1601                    ADN    1                                       FDL      1906
1563      6030                    CRD    GN                                      FDL      1907
1564      3003                    LDD    T3                                      FDL      1908
1565      1605                    ADN    5                                       FDL      1909
1566      0200 1264               RJM    CPN         COMPARE WITH ACTUAL READ    FDL      1910
1570      0552                    NJN    RFS1        IF NOT SAME NAME            FDL      1911
1571      0100 1466               LJM    RFSX        RETURN                      FDL      1912



                         **       COMMON DECKS.                                  FDL      1914
                                                                                 FDL      1915
                                                                                 FDL      1916
1573                              CTEXT  COMPDDT - DIRECT DISK TRANSFER.         COMPDDT     1
                                  LIST   G                                       COMPDDT   149
1753      0002                    VFD    10/0,2/REC.CP                           *ECHO*  .1
1754      0002                    VFD    10/0,2/REC.CS                           *ECHO*  .1
1755      0002                    VFD    10/0,2/REC.RA                           *ECHO*  .1
1756      0002                    VFD    10/0,2/REC.FT                           *ECHO*  .1
1757      0002                    VFD    10/0,2/REC.CF                           *ECHO*  .1
1760      0002                    VFD    10/0,2/REC.ID                           *ECHO*  .1
1761      0000                    VFD    10/0,2/REC.DF                           *ECHO*  .1
1762      0000                    VFD    10/0,2/REC.ME                           *ECHO*  .1
1763      0000                    VFD    10/0,2/REC.AD                           *ECHO*  .1
```

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1764          0001                VFD    10/0,2/REC.ST                          *ECHO*  .1
1765          0000                VFD    10/0,2/REC.SK                          *ECHO*  .1
1766          0000                VFD    10/0,2/REC.IW                          *ECHO*  .1
1767          0001                VFD    10/0,2/REC.LN                          *ECHO*  .1
1770          0001                VFD    10/0,2/REC.NR                          *ECHO*  .1
1771          0001                VFD    10/0,2/REC.RS                          *ECHO*  .1
1772          0001                VFD    10/0,2/REC.CR                          *ECHO*  .1
1773          0001                VFD    10/0,2/REC.RD                          *ECHO*  .1
1774          0001                VFD    10/0,2/REC.SA                          *ECHO*  .1
                                  LIST   *                                      COMPDDT    153
```

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                                         **        PRS - PRESET.                                                 FDL       1920
                                         *                                                                       FDL       1921
                                         *         ENTRY  (IR - IR+4) = LDQ  CALL.                               FDL       1922
                                         *                                                                       FDL       1923
                                         *         EXIT   TO *ERR* IF ERROR DETECTED.                            FDL       1924
                                         *                (FA) = 0 IF SYSTEM FILE.                               FDL       1925
                                         *                (FA) = FNT ADDRESS IF LOCAL FILE.                      FDL       1926
                                         *                (FS - FS+4) = FST ENTRY IF LOCAL FILE.                 FDL       1927
                                         *                (FN - FN+3) = FILE NAME.                               FDL       1928
                                         *                (FN+4) = FUNCTION CODE.                                FDL       1929
                                         *                (FW - FW+1) = FWA OF BUFFER.                           FDL       1930
                                         *                (BL - BL+1) = BUFFER LENGTH.                           FDL       1931
                                         *                (GN - GN+3) = OVERLAY/CAPSULE NAME.                    FDL       1932
                                         *                (T4) = CHANNEL.                                        FDL       1933
                                         *                (T5) = EST ORDINAL.                                    NS22000      6
                                         *                (T6) = TRACK.                                          FDL       1935
                                         *                (T7) = SECTOR.                                         FDL       1936
                                         *                CHANNEL RESERVED AND DISK POSITIONED.                  FDL       1937
                                         *                ERROR PROCESSING OPTION SET.                           FDL       1938
                                         *                                                                       FDL       1939
                                         *         USES   CM - CM+4, GN - GN+4.                                  FDL       1940
                                         *                                                                       FDL       1941
                                         *         CALLS  ALF, ASF, CRA, IRA, SMS, POS.                          FDL       1942
                                                                                                                 FDL       1943
                                                                                                                 FDL       1944
          1775          0100 1775         PRS      SUBR                 ENTRY/EXIT                               FDL       1945
          1777          1400                       LDN    0                                                      FDL       1946
          2000          3457                       STD    FA                                                     FDL       1947
          2001          3053                       LDD    IR+3          CHECK PARAMETER BLOCK ADDRESS            FDL       1948
          2002          1237                       LPN    37                                                     FDL       1949
          2003          3453                       STD    IR+3                                                   FDL       1950
          2004          1014                       SHN    14                                                     FDL       1951
          2005          3354                       LMD    IR+4                                                   FDL       1952
          2006          1702                       SBN    2                                                      FDL       1953
          2007          0705                       MJN    PRS1          IF ILLEGAL ADDRESS                       FDL       1954
          2010          1605                       ADN    3+2                                                    FDL       1955
          2011          1071                       SHN    -6                                                     FDL       1956
          2012          3256                       SBD    FL                                                     FDL       1957
          2013          0704                       MJN    PRS2          IF LEGAL ADDRESS                         FDL       1958
          2014          1440              PRS1     ERROR  ARG           * ARGUMENT ERROR.*                       FDL       1959
                                                                                                                 FDL       1960
          2017          3053              PRS2     LDCA   IR+3          READ FILE NAME AND FUNCTION CODE         FDL       1961
          2025          6040                       CRD    FN                                                     FDL       1962
          2026          1602                       ADN    2             READ FWA OF BUFFER                       FDL       1963
          2027          6010                       CRD    CM                                                     FDL       1964
          2030          1601                       ADN    1             READ RANDOM INDEX AND LWA                FDL       1965
          2031          6030                       CRD    GN                                                     FDL       1966
          2032          3043                       LDD    FN+3          CLEAR STATUS FIELD                       FDL       1967
          2033          1377                       SCN    77                                                     FDL       1968
          2034          3443                       STD    FN+3                                                   FDL       1969
          2035          3044                       LDD    FN+4                                                   FDL       1970
          2036          2200 0776                  LPC    776                                                    FDL       1971
          2040          3444                       STD    FN+4                                                   FDL       1972
          2041          1076                       SHN    -1                                                     FDL       1973
          2042          1702                       SBN    2                                                      FDL       1974
          2043          0704                       MJN    PRS3          IF LEGAL FUNCTION CODE                   FDL       1975
          2044          1401                       ERROR  ILF           ILLEGAL FUNCTION                         FDL       1976
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                                                                                    FDL     1977
2047      3013             PRS3     LDD    CM+3        SET FWA OF BUFFER            FDL     1978
2050      1237                      LPN    37                                       FDL     1979
2051      3445                      STD    FW                                       FDL     1980
2052      1014                      SHN    14                                       FDL     1981
2053      3314                      LMD    CM+4                                     FDL     1982
2054      3446                      STD    FW+1                                     FDL     1983
2055      1702                      SBN    2                                        FDL     1984
2056      0711                      MJN    PRS4        IF ILLEGAL ADDRESS           FDL     1985
2057      3033                      LDD    GN+3        CHECK LWA+1 OF BUFFER        FDL     1986
2060      1237                      LPN    37                                       FDL     1987
2061      1014                      SHN    14                                       FDL     1988
2062      3334                      LMD    GN+4                                     FDL     1989
2063      1701                      SBN    1                                        FDL     1990
2064      1071                      SHN    -6                                       FDL     1991
2065      3256                      SBD    FL                                       FDL     1992
2066      0704                      MJN    PRS5        IF LEGAL ADDRESS             FDL     1993
2067      1402             PRS4     ERROR  IAD         ILLEGAL ADDRESS              FDL     1994
                                                                                    FDL     1995
2072      3033             PRS5     LDD    GN+3        SET BUFFER LENGTH            FDL     1996
2073      1237                      LPN    37                                       FDL     1997
2074      1014                      SHN    14                                       FDL     1998
2075      3334                      LMD    GN+4                                     FDL     1999
2076      3246                      SBD    FW+1                                     FDL     2000
2077      3466                      STD    BS+1                                     FDL     2001
2100      1063                      SHN    -14                                      FDL     2002
2101      3245                      SBD    FW                                       FDL     2003
2102      3465                      STD    BS                                       FDL     2004
2103      1014                      SHN    14                                       FDL     2005
2104      3366                      LMD    BS+1                                     FDL     2006
2105      0761                      MJN    PRS4        IF FWA .GT. LWA+1            FDL     2007
2106      0460                      ZJN    PRS4        IF FWA .EQ. LWA+1            FDL     2008
2107      3033                      LDD    GN+3        SET RANDOM INDEX             FDL     2009
2110      1377                      SCN    77                                       FDL     2010
2111      1006                      SHN    6                                        FDL     2011
2112      3332                      LMD    GN+2                                     FDL     2012
2113      1006                      SHN    6                                        FDL     2013
2114      0433                      ZJN    PRS8        IF ILLEGAL RANDOM ADDRESS    FDL     2014
2115      3464                      STD    RI+1                                     FDL     2015
2116      1063                      SHN    -14                                      FDL     2016
2117      1277                      LPN    77                                       FDL     2017
2120      3463                      STD    RI                                       FDL     2018
2121      3053                      LDCA   IR+3        READ OVERLAY/CAPSULE NAME    FDL     2019
2127      1602                      ADN    2                                        FDL     2020
2130      6030                      CRD    GN                                       FDL     2021
                                                                                    FDL     2022
                          *         ACCESS FILE.                                    FDL     2023
                                                                                    FDL     2024
2131      3040                      LDD    FN          CHECK FILE TYPE              FDL     2025
2132      2300 7777                 LMC    7777                                     FDL     2026
2134      0404                      ZJN    PRS6        IF SYSTEM FILE               FDL     2027
2135      0200 2213                 RJM    ALF         ACCESS LOCAL FILE            FDL     2028
2137      0303                      UJN    PRS7                                     FDL     2029
                                                                                    FDL     2030
2140      0200 2303        PRS6     RJM    ASF         ACCESS SYSTEM FILE           FDL     2031
2142      0200 2527        PRS7     RJM    IRA         INITIALIZE RANDOM ACCESS     FDL     2032
2144      0200 2321                 RJM    CRA         CONVERT RANDOM ADDRESS       FDL     2033
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 2146          0604                 PJN    PRS9          IF LEGAL RANDOM ADDRESS                   FDL        2034
 2147          1404           PRS8  ERROR  IRA           ILLEGAL RANDOM ADDRESS                    FDL        2035
                                                                                                   FDL        2036
                             *      RESERVE CHANNEL.                                               FDL        2037
                                                                                                   FDL        2038
 2152          3057           PRS9  LDD    FA                                                      FDL        2039
 2153          0505                 NJN    PRS10         IF NOT SYSTEM FILE                        FDL        2040
 2154          1403                 SETMS  READSYS       ALLOW SYSTEM SELECTION OF EQUIPMENT       FDL        2041
 2157          0304                 UJN    PRS11         CHECK IF DIRECT TRANSFER SUPPORTED        NS21000      40
                                                                                                   NS21000      41
                             *      PRESET FOR DIRECT TRANSFER IF AVAILABLE.                       NS21000      42
                                                                                                   FDL        2043
 2160          1400           PRS10 SETMS  IO                                                      242L642     105
 2163          3014           PRS11 LDD    CM+4                                                    242L642     106
 2164          1003                 SHN    3                                                       NS21000      47
 2165          1613                 ADN    DILL                                                    NS21000      48
 2166          6010                 CRD    CM                                                      NS21000      49
 2167          3013                 LDD    CM+3                                                    NS21000      50
 2170          1006                 SHN    21-13                                                   NS21000      51
 2171          0611                 PJN    PRS12         IF DIRECT TRANSFER NOT AVAILABLE          NS21000      52
 2172          2000 1306            LDC    CPY4          PRESET *CPY* FOR DIRECT TRANSFER          NS21000      53
 2174          5400 1416            STM    CPYC                                                    NS21000      54
 2176          2000 0100            LDC    LJMI                                                    NS21000      55
 2200          5400 1415            STM    CPYC-1                                                  NS21000      56
 2202          0100 1775      PRS12 LJM    PRSX          RETURN                                    NS21000      57


                             **     ALF - ACCESS LOCAL FILE.                                       FDL        2047
                             *                                                                     FDL        2048
                             *      ENTRY  (FN - FN+3) = FILE NAME.                                FDL        2049
                             *                                                                     FDL        2050
                             *      EXIT   TO *ERR* IF ERROR.                                      FDL        2051
                             *             (T5) = EST ORDINAL.                                     NS22000       9
                             *             (T6) = FIRST TRACK.                                     FDL        2053
                             *             (FA) = FNT ADDRESS.                                     FDL        2054
                             *             (FS - FS+4) = FST ENTRY.                                FDL        2055
                             *             TRACK INTERLOCK SET IF NEEDED.                          FDL        2056
                             *                                                                     FDL        2057
                             *      USES   CM - CM+4, FN - FN+4, RI - RI+4, T0 - T6.               FDL        2058
                             *                                                                     FDL        2059
                             *      CALLS  ERR, SAF, SFB, STI.                                     FDL        2060
                             *                                                                     FDL        2061
                             *      MACROS ERROR, NFA, SFA.                                        NS22000      10
                                                                                                   FDL        2063
                                                                                                   FDL        2064
 2204          0200 2446      ALF6  RJM    SFB           SET FILE BUSY                             FDL        2065
 2206          0420                 ZJN    ALF2          IF FILE SET BUSY                          FDL        2066
 2207          1441                 ERROR  IOS           I/O SEQUENCE ERROR                        FDL        2067
                                                                                                   FDL        2068
 2212          0100 2212      ALF   SUBR                 ENTRY/EXIT                                FDL        2069
 2214          3040                 LDD    FN            CLEAR UPPER BIT                           FDL        2070
 2215          2200 3777            LPC    3777                                                    FDL        2071
 2217          3440                 STD    FN                                                      FDL        2072
 2220          0200 2371            RJM    SAF           SEARCH FOR ASSIGNED FILE                  FDL        2073
 2222          0561                 NJN    ALF6          IF FILE FOUND                             FDL        2074
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2223          1403               ALF1     ERROR  FNF          FILE NOT FOUND                             FDL         2075
                                                                                                         FDL         2076
2226          3013               ALF2     LDD    CM+3         CHECK FILE STATUS                          FDL         2077
2227          1204                        LPN    4                                                       FDL         2078
2230          0410                        ZJN    ALF3         IF NOT EXECUTE ONLY                        FDL         2079
2231          3074                        LDD    CP           CHECK VALID ACCESS                         FDL         2080
2232          2100 0115                   ADC    EOCW                                                    FDL         2081
2234          6001                        CRD    T1                                                      FDL         2082
2235          3001                        LDD    T1                                                      FDL         2083
2236          3357                        LMD    FA                                                      FDL         2084
2237          0563                        NJN    ALF1         IF NOT VALID ACCESS                        FDL         2085
2240          3055               ALF3     NFA    FA,R         RESET FST INFORMATION                      FDL         2086
2243          1601                        ADN    FSTL                                                    FDL         2087
2244          6020                        CRD    FS                                                      FDL         2088
2245          3022                        LDD    FS+2                                                    FDL         2089
2246          0454                        ZJN    ALF1         IF EMPTY FILE                              FDL         2090
2247          3020                        LDD    FS           SET EST ORDINAL                            NS22000       11
2250          3405                        STD    T5                                                      FDL         2092
2251          0200 0245                   SFA    EST          READ EST ENTRY                             NS22000       12
                                          ADK    EQDE                                                    NS22000       13
2253          6000                        CRD    T0                                                      FDL         2094
2254          3000                        LDD    T0           CHECK EQUIPMENT TYPE                       FDL         2095
2255          1006                        SHN    21-13                                                   FDL         2096
2256          0644                        PJN    ALF1         IF NOT ON MASS STORAGE                     FDL         2097
2257          3021                        LDD    FS+1         SET FIRST TRACK                            FDL         2098
2260          3406                        STD    T6                                                      FDL         2099
2261          3014                        LDD    CM+4         CHECK FOR TRACK INTERLOCK NEEDED           FDL         2100
2262          1071                        SHN    -6                                                      FDL         2101
2263          1112                        LMN    PMFT                                                    FDL         2102
2264          0514                        NJN    ALF5         IF NOT PERMANENT FILE                      FDL         2103
2265          3013                        LDD    CM+3                                                    FDL         2104
2266          1220                        LPN    20                                                      NS2241         2
2267          0411                        ZJN    ALF5         IF NOT M, A, RM, OR RA MODE                FDL         2106
2270          0200 2466                   RJM    STI          SET TRACK INTERLOCK                        FDL         2107
2272          0403                        ZJN    ALF4         IF INTERLOCK SET AND ERROR FLAG NOT SET    FDL         2108
2273          0100 1116                   LJM    DPP                                                     FDL         2109
                                                                                                         FDL         2110
2275          3006               ALF4     LDD    T6           SET TRACK INTERLOCKED STATUS               242L642      107
2276          5400 1153                   STM    CISA                                                    242L642      108
2300          0100 2212          ALF5     LJM    ALFX                                                    FDL         2113



                                **        ASF - ACCESS SYSTEM FILE.                                      FDL         2115
                                *                                                                        FDL         2116
                                *         EXIT   (T5) = EST ORDINAL.                                     NS22000       14
                                *                (T6) = FIRST TRACK.                                     FDL         2118
                                *                                                                        FDL         2119
                                *         USES   CM - CM+4.                                              FDL         2120
                                                                                                         FDL         2121
                                                                                                         FDL         2122
2302          0100 2302          ASF      SUBR                ENTRY/EXIT                                 FDL         2123
2304          1473                        LDN    FNTP         READ FNT POINTER                           FDL         2124
2305          6010                        CRD    CM                                                      FDL         2125
2306          3010                        LDD    CM           READ SYSTEM FILE FST                       FDL         2126
2307          1014                        SHN    14                                                      FDL         2127
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2310          3311                      LMD    CM+1                                           FDL        2128
                            0           ERRNZ  SYFO         SYSTEM FILE ORDINAL .NE. 0        FDL        2129
2311          1601                      ADN    FSTG                                           FDL        2130
2312          6010                      CRD    CM                                             FDL        2131
2313          3011                      LDD    CM+1         SET FIRST TRACK                   FDL        2132
2314          3406                      STD    T6                                             FDL        2133
2315          3010                      LDD    CM           SET SYSTEM EQUIPMENT              FDL        2134
2316          3405                      STD    T5                                             FDL        2135
2317          0362                      UJN    ASFX                                           FDL        2136


                                  **    COMMON DECKS.                                         FDL        2138
                                                                                              FDL        2139
                                                                                              FDL        2140
2320                                    CTEXT  COMPCRA - CONVERT RANDOM ADDRESS.              COMPCRA       1
2366                                    CTEXT  COMPSAF - SEARCH FOR ASSIGNED FILE.            COMPSAF       1
2436                                    CTEXT  COMPSFB - SET FILE BUSY.                       COMPSFB       1
2464                                    CTEXT  COMPSTI - SET TRACK INTERLOCK.                 COMPSTI       1
                                                                                              FDL        2145
2526                                    CTEXT  COMPIRA - INITIALIZE RANDOM ACCESS PROCESSORS.  COMPIRA      1
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                                          IDENT  2LD,PPFW                                 FDL       2149
                                          QUAL   2LD                                      FDL       2150
                                  COMMENT 82/02/26. 92/09/17. FDL - ERROR PROCESSOR.      FDL       2151
                                          COMMENT  COPYRIGHT CONTROL DATA SYSTEMS INC.  1992.  281L803     3


                                 **       ERP - ERROR PROCESSOR.                          FDL       2154
                                 *                                                        FDL       2155
                                 *        ENTRY  (EC) = ERROR CODE.                       FDL5        18
                                 *               (FA) = FNT ADDRESS IF LOCAL FILE.        FDL       2157
                                 *               (FA) = 0 IF SYSTEM FILE.                 FDL       2158
                                 *               (SI - SI+1) = MASS STORAGE ACCOUNTING INCREMENT.  FDL  2159
                                 *               (FN - FN+3) = FILE NAME.                 FDL       2160
                                 *               (IR - IR+1) = PP NAME.                   FDL       2161
                                 *               (IR+3 - IR+4) = PARAMETER BLOCK ADDRESS. FDL       2162
                                 *                                                        FDL       2163
                                 *        EXIT   LOCAL FILE SET COMPLETE.                 FDL       2164
                                 *               MESSAGE ISSUED.                          FDL       2165
                                 *               ACCOUNTING UPDATED.                      FDL       2166
                                 *               PPU DROPPED.                             FDL       2167
                                 *                                                        FDL       2168
                                 *        USES   T1, CM - CM+4.                           FDL       2169
                                 *                                                        FDL       2170
                                 *        CALLS  ACS, ANS, DFM.                           FDL       2171
                                 *                                                        FDL       2172
                                 *        MACROS MONITOR, NFA, PAUSE.                     FDL       2173
                                                                                          FDL       2174
                                                                                          FDL       2175
          1100                            ORG    PPFW                                     FDL       2176
          1100      0100 1100    ERP      SUBR                                            FDL       2177
          1102      2000 1453             LDC    BUF          SET ADDRESS FOR PROCESSOR NAME  FDL   2178
          1104      3401                  STD    T1                                       FDL       2179
          1105      1455                  LDN    1R           ADD SPACE CHARACTER         FDL       2180
          1106      1014                  SHN    14                                       FDL       2181
          1107      3150                  ADD    IR           SET FIRST CHARACTER         FDL       2182
          1110      1014                  SHN    14                                       FDL       2183
          1111      4401                  STI    T1                                       FDL       2184
          1112      4301                  LMI    T1           SET LAST CHARACTERS         FDL       2185
          1113      3151                  ADD    IR+1                                     FDL       2186
          1114      1014                  SHN    14                                       FDL       2187
          1115      5400 1454             STM    BUF+1                                    FDL       2188
          1117      1402                  LDN    2            SET ASSEMBLY ADDRESS        FDL       2189
          1120      3501                  RAD    T1                                       FDL       2190
          1121      1400                  LDN    0            SET BYTE BOUNDARY           FDL       2191
          1122      4401                  STI    T1                                       FDL       2192
          1123      2000 1410             LDC    =Z* - *      ADD * - *                   FDL       2193
          1125      0200 1300             RJM    ACS                                      FDL       2194
          1127      3047                  LDD    EC           ADD MESSAGE                 FDL5        19
          1130      1740                  SBN    /ERR/FERT                                FDL       2196
          1131      3402                  STD    T2                                       FDL       2197
          1132      5002 1261             LDM    TMSG,T2                                  FDL       2198
          1134      0200 1300             RJM    ACS                                      FDL       2199
          1136      2000 1410             LDC    =Z* - *      ADD * - *                   FDL       2200
          1140      0200 1300             RJM    ACS                                      FDL       2201
          1142      3047                  LDD    EC           CHECK ERROR TYPE            FDL5        20
```

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1143         1140                    LMN    /ERR/ARG                                          FDL        2203
1144         0420                    ZJN    ERP3         IF * ARGUMENT ERROR.*                FDL        2204
1145         3057                    LDD    FA                                                FDL        2205
1146         0504                    NJN    ERP1         IF LOCAL FILE                        FDL        2206
1147         2000 1412               LDC    =Z*SYSTEM*                                        FDL        2207
1151         0305                    UJN    ERP2                                              FDL        2208
                                                                                              FDL        2209
1152         3043           ERP1     LDD    FN+3         TERMINATE FILE NAME                  FDL        2210
1153         1377                    SCN    77                                                FDL        2211
1154         3443                    STD    FN+3                                              FDL        2212
1155         1440                    LDN    FN           ADD FILE NAME                        FDL        2213
1156         0200 1300      ERP2     RJM    ACS                                               FDL        2214
1160         2000 1416               LDC    =Z* AT *     ADD * AT *                           FDL        2215
1162         0200 1300               RJM    ACS                                               FDL        2216
1164         3053           ERP3     LDD    IR+3         ADD ADDRESS                          FDL        2217
1165         1014                    SHN    14                                                FDL        2218
1166         3354                    LMD    IR+4                                              FDL        2219
1167         0200 1323               RJM    ANS                                               FDL        2220
1171         2000 1421               LDC    =Z*.*        ADD PERIOD                           FDL        2221
1173         0200 1300               RJM    ACS                                               FDL        2222
1175         2000 1453               LDC    BUF          ISSUE DAYFILE MESSAGE                FDL        2223
1177         0200 0423               RJM    DFM                                               FDL        2224
1201         1400                    PAUSE               CHECK ERROR FLAG                     FDL        2225
1207         3011                    LDD    CM+1                                              FDL        2226
1210         0506                    NJN    ERP4         IF ERROR FLAG SET                    FDL        2227
1211         1406                    LDN    PPET         SET ERROR FLAG                       FDL        2228
1212         3411                    STD    CM+1                                              FDL        2229
1213         1454                    MONITOR CEFM                                             FDL        2230
1216         3624           ERP4     AOD    FS+4         SET FST ENTRY COMPLETE               FDL        2231
1217         3047                    LDD    EC           CHECK ERROR TYPE                     FDL5         21
1220         1141                    LMN    /ERR/IOS                                          FDL        2233
1221         0410                    ZJN    ERP5         IF I/O SEQUENCE ERROR                FDL        2234
1222         3057                    LDD    FA                                                FDL        2235
1223         0406                    ZJN    ERP5         IF NO FST ADDRESS                    FDL        2236
1224         3055                    NFA    FA,R                                              FDL        2237
1227         1601                    ADN    FSTL                                              FDL        2238
1230         6220                    CWD    FS                                                FDL        2239
                                                                                              FDL        2240
1231         3061           ERP5     LDD    SI           SET ACCOUNTING INCREMENT             FDL        2241
1232         5400 1257               STM    ERPC                                              FDL        2242
1234         3062                    LDD    SI+1                                              FDL        2243
1235         5400 1260               STM    ERPC+1                                            FDL        2244
1237         3077                    LDD    MA           SET REQUEST IN MESSAGE BUFFER        FDL        2245
1240         6370 1254               CWM    ERPB,ON                                           FDL        2246
1242         1401                    LDN    1            SET WORD COUNT                       FDL        2247
1243         3411                    STD    CM+1                                              FDL        2248
1244         1400                    LDN    0            SET DROP PPU                         FDL        2249
1245         3412                    STD    CM+2                                              FDL        2250
1246         2000 0114               MONITOR UADM                                             FDL        2251
1252         0100 0257               LJM    PPR                                               FDL        2252
                                                                                              FDL        2253
1254         0020           ERPB     CON    AISS         SUB FUNCTION                         FDL        2254
1255         0053                    CON    IOAW         WORD TO UPDATE                       FDL        2255
1256         5024                    CON    40D*100+20D  FIELD TO UPDATE                      FDL        2256
1257         0000 0000      ERPC     CON    0,0          INCREMENT                            FDL        2257
```

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          1261                                TMSG     BSS    0                                                   FDL       2259
                                                       QUAL   ERR                                                 FDL       2260
        L   40                                         LOC    FERT                                                FDL       2261
        L   40          1422                  ARG      MSG    (ARGUMENT ERROR)                                    FDL       2262
        L   41          1432                  IOS      MSG    (I/O SEQUENCE ERROR)                                FDL       2263
        L   42          1444                  MSR      MSG    (DEVICE ERROR)                                      FDL       2264
          1264                                         LOC    *O                                                  FDL       2265
                                                       QUAL   *                                                   FDL       2266



                                             **        COMMON DECKS.                                              FDL       2268
                                                                                                                  FDL       2269
                                                                                                                  FDL       2270
          1264                                         CTEXT  COMPACS - ASSEMBLE CHARACTER STRING.                COMPACS      1
          1322                                         CTEXT  COMPANS - ASSEMBLE NUMERIC STRING.                  COMPANS      1




                                                       USE    BUFFERS                                             FDL       2274
          1453                                BUF      BSS    0            ASSEMBLY BUFFER                        FDL       2275



          1453                                         END                                                        FDL       2278

                                   77100B CM  STORAGE USED           15082 STATEMENTS     4128 SYMBOLS      001099 INVENTED SYMBOLS
                                     PARALLEL CPU ASSEMBLY           6.027 SECONDS        1405 REFERENCES



          SYMBOLIC REFERENCE TABLE.

          AB                30                     5/22 D   28/33
          AISS              20                    22/39     40/45     53/52
          BFMS            6776   NOSTEXT          24/28     33/35     43/26     44/48
          BL                60                     5/30 D   19/05     20/13     25/03 S   25/17 S   32/01     32/37
          BS                65                     5/33 D   42/30     43/07     43/12 S   48/28 S
                                                  42/27     43/05     43/10 S   48/25 S   48/30
          CC                25                     5/18 D   19/45 S   20/08 S   20/28 S
          CEFM              54   NOSTEXT          53/28
          CL                27                     5/20 D   26/36     26/48     26/57 S   30/41     34/26 S   36/12 S   36/16 S
          CM                10   NOSTEXT          11/19 S   16/20 S   21/52 S   29/36     35/20     36/44 S   48/06     51/04 S
                                                  11/20     16/22     21/54 S   29/38     35/23     36/46 S   49/14     51/05
                                                  14/11 S   16/24     22/01     29/39 S   35/26     36/48     49/17 S   51/07
                                                  14/12     16/33 S   22/25 S   29/43     35/30     40/38 S   49/18     53/23 S
                                                  14/14     16/35 S   22/35 S   30/12     35/41     40/40 S   50/03     53/24
                                                  15/37     17/04 S   25/29 S   30/15     35/44     42/32 S   50/27     53/27 S
                                                  15/46     17/05     25/30     30/18     36/18 S   42/36 S   50/31     53/46 S
                                                  15/50     17/07     29/27 S   30/29 S   36/19     42/38 S   50/55 S   53/48 S
                                                  16/02 S   21/29 S   29/28     30/30     36/21     47/45 S   50/56
                                                  16/03     21/32     29/33 S   34/50 S   36/33     48/02     51/01
          CP                74   NOSTEXT          11/12     11/19     14/21     15/40     25/29     50/06     53/23
```

DA	65		5/34 D	27/34	27/41	30/27	35/31 S			
			27/34	27/41	30/27	35/28 S				
DFM	423	NOSTEXT	53/22							
DI	37		5/24 D	17/43	26/29 S	27/42	29/34	36/11 S		
			16/53	21/36	27/35	29/31	34/24 S			
DILL	13	NOSTEXT	49/16							
DL	67		5/35 D	26/45	35/22 S	35/25 S	35/35	36/13	36/15	
EC	47		5/28 D	23/27	23/34	42/48	44/06	52/50	53/30	
			23/17 S	23/32	42/42 S	44/03 S	44/15	52/57		
EOCW	115	NOSTEXT	15/41	50/07						
EQDE	0	NOSTEXT	16/01	50/20						
ER	17		5/16 D	19/09	20/31	25/20 S	43/22	43/31 S	44/51 S	
EXR	462	NOSTEXT	21/04	23/24	41/04	44/13				
FA	57		5/29 D	12/22	21/04	34/25 S	41/04	49/06	53/03	
			11/16 S	15/44	22/26	40/29	41/04	50/10	53/33	
			12/20	21/04	22/29	40/32	47/28 S	50/12	53/35	
FL	56	NOSTEXT	13/22	34/41	35/37	35/57	47/38	48/16		
FN	40		5/25 D	13/27 S	14/16 S	16/38	40/18 S	47/43 S	47/53 S	53/08
			11/17 S	13/31	14/25 S	16/41	40/20	47/48	48/49	53/10 S
			11/26	13/33 S	16/13 S	16/44	44/17 S	47/50 S	49/53	53/11
			11/40	13/35 S	16/30	17/39	45/14	47/51	49/55 S	
FNTP	73	NOSTEXT	17/03	50/54						
FS	20		5/17 D	15/53	16/28	17/10 S	22/28 S	41/04 S	50/17	
			12/05	15/55	16/39	17/29	22/31	41/04	50/25	
			12/19 S	16/06	16/42	21/04 S	40/31 S	50/14 S	53/29 S	
			12/24	16/25 S	16/45	21/04	40/34	50/15	53/37	
FSMS	1	NOSTEXT	17/34							
FSTG	1	NOSTEXT	17/09	51/03						
FSTL	1	NOSTEXT	12/23	21/04	22/30	40/33	41/04	50/13	53/36	
FTN	165	NOSTEXT	11/19	22/02	22/36	25/29	40/41	53/23	53/28	53/49
FW	45		5/26 D	42/29	42/37	43/15	43/21 S	48/07 S	48/27	
			42/26	42/35	43/15	43/19 S	48/04 S	48/24		
GN	30		5/21 D	20/17	21/44 S	29/24 S	34/53 S	41/28	48/10	48/33
			18/36	20/20	21/46 S	29/41	34/54	41/31	48/13	48/36
			18/43	20/23	21/48	34/48 S	41/22	45/34 S	48/20	48/45 S
			20/04	21/41 S	29/22 S	34/51	41/25	47/47 S	48/23	
GO	26		5/19 D	18/57	19/57 S	20/10 S				
IMLL	1		25/08	42/45	43/32	44/46				
IOAW	53	NOSTEXT	22/40	40/46	53/53					
IR	50	NOSTEXT	21/04 S	21/56	34/27	34/47	40/19	47/31 S	48/43	
			21/35 S	29/25	34/31	36/10	41/04 S	47/33	52/37	
			21/37 S	29/25	34/34 S	36/17	45/32	47/42	52/41	
			21/47	29/40	34/36	36/17	45/32	47/42	53/15	
			21/47	29/40	34/47	40/19	47/29	48/43	53/17	
IRA$	1		1/43 D							
LBDP	144	NOSTEXT	14/10	16/19						
LB1W	112	NOSTEXT	11/13							
LB2W	113	NOSTEXT	36/50							
LB3W	114	NOSTEXT	14/22							
LJMI	100		49/23							
MA	77	NOSTEXT	17/38	21/55	22/32	28/32	40/35	53/43		
MEPO	1		4/47 D							
MSD	110	NOSTEXT	21/04	41/04						
MSR$	1		1/44 D							
ON	70	NOSTEXT	16/52	22/33	27/43	28/24	28/34	53/44		
			17/40	27/36	27/45	28/29	40/36			
PMFT	12	NOSTEXT	15/48	50/29						

PPET	6	NOSTEXT	53/26								
PPFW	1100	NOSTEXT	11/06	40/06	52/01	52/31					
PPR	257	NOSTEXT	22/03	29/46	40/42	53/50					
PTLR	5		21/53								
QUAL$	1		1/45 D								
RA	55	NOSTEXT	12/22	21/47	27/41	30/27	40/19	43/15	48/43		
			13/26	22/29	29/25	34/47	40/32	45/32	50/12		
			21/04	27/34	29/40	36/17	41/04	47/42	53/35		
RDCT	103		42/52								
RDDS	3		42/39								
RECM	72	NOSTEXT	22/02								
RI	63		5/32 D	17/12	17/32 S	19/48 S	48/39 S				
			16/27 S	17/14	17/35 S	19/52 S	48/42 S				
RSLM	1000		4/48 D	21/22							
SHNI	1000		36/36								
SI	61		5/31 D	23/21 S	23/23 S	44/10 S	44/12 S	53/39	53/41		
STSW	20	NOSTEXT	11/19	25/29	53/23						
SYFO	0	NOSTEXT	17/08	51/02							
TI	45		5/27 D	17/18 S	17/37 S	19/51	27/21	28/46 S			
			17/16 S	17/33 S	19/47	27/14	28/45 S				
TR	73	NOSTEXT	11/14								
T0	0	NOSTEXT	50/21 S	50/22							
T1	1	NOSTEXT	15/42 S	18/41 S	26/28	26/56	30/40 S	43/36	50/09	52/45 S	
			15/43	18/46	26/41 S	30/25 S	43/08	45/10	52/34 S	52/47 I	
			18/35 S	25/16	26/44 S	30/26 S	43/16	45/13 S	52/39 I		
			18/39	25/18	26/49	30/28	43/18	50/08 S	52/40		
T2	2	NOSTEXT	18/22	18/45	31/51 S	32/30 S	32/47	41/27	45/11		
			18/37 S	19/46	31/53 S	32/32 S	41/20 S	41/30	52/52 S		
			18/38	19/50	31/56 S	32/35 S	41/21	45/06 S	52/53		
			18/42 S	20/01	32/03	32/39	41/24	45/08			
T3	3	NOSTEXT	11/48 S	19/04 S	20/27	25/13	27/15	31/46	43/39 S	45/29	
			12/12 S	20/03 S	24/15	25/24 I	27/22	31/49	44/53 S	45/35	
			18/24 S	20/05	24/17	25/26	28/36 S	31/55	44/54		
			18/29	20/12 S	24/23 I	27/01	30/13	32/25	44/57		
			18/34	20/18	24/25	27/05	30/16	32/28	45/04		
			18/53	20/21	24/27 S	27/06	30/19	32/34	45/09 S		
			18/56	20/24	25/01 S	27/09	30/37	43/13	45/16		
T4	4	NOSTEXT	42/43								
T5	5	NOSTEXT	15/56 S	16/21 S	17/11 S	28/31 S	50/18 S				
			16/18 S	16/55	21/04	41/04	51/08 S				
T6	6	NOSTEXT	12/06 S	31/14	31/21	50/26 S	51/06 S				
			17/30 S	31/18 S	31/26 S	50/38					
T7	7	NOSTEXT	13/40 S	13/46	13/53 S	14/04	14/09 S	14/15			
UADM	114	NOSTEXT	22/36	40/41	53/49						
UL	35		5/23 D	13/19	13/26	13/30 S	35/46 S	35/51			
			13/17	13/26	13/28 S	35/43 S	35/49 S				
ZERL	66	NOSTEXT	16/51	21/51	28/23						
(1RJ)	0		21/04 D	41/04 D							
(2LD)	0		23/24 D	44/13 D							
.EMS	535	NOSTEXT	25/27	42/55	43/01	45/26					
.EST	245	NOSTEXT	15/57	50/19							
.SMS	475	NOSTEXT	17/24	17/51	49/08	49/13					

SYMBOL QUALIFIER = ERR

ARG	40	4/42 D	34/43	47/40	53/01	54/04 L			
FERT	40	4/40 D	23/18	44/07	52/51	54/03			
FNF	3	4/32 D	50/01						
IAD	2	4/31 D	35/39	48/18					
IBF	6	4/36 D	42/56						
IDS	20	4/38 D	23/37	26/53					
ILA	3	4/33 D	13/24	36/02					
ILE	10	4/37 D	11/33	11/52	23/35	23/37			
ILF	1	4/30 D	35/18	47/57					
IOS	41	4/43 D	15/35	49/50	53/31	54/05 L			
IRA	4	4/34 D	49/02						
MSR	42	4/44 D	21/04	41/04	54/06 L				
WPR	5	4/35 D	45/27						

SYMBOL QUALIFIER = LDD

BUF	3423	11/45	12/11	20/36	28/34 S	28/39 S	28/43 S	28/50 S	
		11/47	19/14	20/38	28/35	28/41 S	28/44 S	33/33 D	
		12/09	19/16	28/29 S	28/37	28/42 S	28/48	33/35	
CIS	2014	11/53	21/04 D	21/04	21/04	25/28			
CISA	2016	21/04 D	21/04 S	31/15 S					
CISX	2013	21/04 L	21/04	21/04					
CLD	3110	28/27							
CRA	3130	12/07	17/20	17/47					
CRP	2127	11/24	21/20 D						
CRPA	2141	14/29 S	21/30 L	36/42 S					
CRPX	2126	21/20 L	21/23						
CRS	3650	34/45							
CTI	2062	21/04							
DIRA	3411	16/52 S	17/02 S	17/42 S	26/33 S	27/29	28/24 S	33/26 D	
		16/57 S	17/40 S	26/30	26/42	27/36	28/26 S	33/27	
DIRB	3416	27/08 S	27/13 S	27/20 S	27/26 S	27/45	33/33		
		27/11 S	27/17 S	27/24 S	27/28 S	33/27 D			
DPP	2214	21/50	22/24 D	29/45					
DPPA	2240	22/33	22/39 L						
DPPB	2243	22/42 L	23/20	23/22	25/09 S	25/11 S			
DPPC	2245	21/21	22/43 L	25/12 S					
DPPX	2213	22/24 L	22/37						
DPP1	2226	22/27	22/32 L						
ERR	2247	11/33	13/24	21/04	26/53	35/18	36/02		
		11/52	15/35	23/16 D	34/43	35/39			
ERRA	2274	23/28 S	23/31 D						
ERRX	2246	23/16 L	23/36	23/38					
ERR1	2265	23/19	23/26 L						
GNL	1273	11/25	13/37 D						
GNLA	1275	13/39 D	13/57 S	36/32 S					
GNLB	1300	13/42 D	14/28 S	36/49 S					
GNLC	1303	13/47 L	14/01	14/03 S	21/38	36/37 S			
GNLD	1347	14/23 D	14/26 S	36/51 S					
GNLE	1362	13/54 S	14/32 L	21/27	36/30 S	36/38 S			
GNLX	1272	13/20	13/37 L						
GNL1	1306	13/45	13/51 L						
GNL2	1310	13/50	13/53 L						

GNL3	1345	14/06	14/21 L							
GNL4	1241	13/17 L	13/51							
GNL5	1250	13/24 L								
GNL6	1253	13/23	13/26 L							
GNL7	1265	13/31 L	14/17	14/30						
IBA	2320	24/21 D	25/06							
IBAA	2337	24/16 S	24/18 S	24/22	24/24	24/33 L	25/23	25/25		
IBAX	2317	24/21 L	24/30							
IBA1	2307	24/15 L	24/29							
IRA	3336	17/19	17/45							
LBM	2342	11/46	12/10	19/15	20/37	24/57 D				
LBMX	2341	24/57 L	25/34							
LBM1	2347	25/06 L	25/21							
LBM2	2352	25/04	25/08 L							
LBM3	2374	25/23 L								
LBM4	2403	25/07	25/27 L							
LBM5	2421	25/31	25/34 L							
LDD	1100	1/39	11/08 L							
LDDA	1136	11/28 L	35/07 S							
LDDB	1102	11/09 L	35/15 S							
LDD1	1111	11/15 L	12/25							
LDD2	1126	11/22 L	11/30	11/34	11/37	12/17				
LDD3	1130	11/21	11/24 L							
LDD3.4	1140	11/11	11/31 L							
LDD4	1147	11/32	11/36 L							
LDD5	1152	11/27	11/39 L							
LDD6	1170	11/41	11/52 L	11/57	12/08	12/14				
LDD7	1176	11/50	11/56 L							
LDD8	1227	11/54	12/16	12/19 L						
LDD9	1237	12/21	12/25 L							
LNL	1364	11/39	15/28 D							
LNLX	1363	15/28 L	16/14	17/25	17/52					
LNL1	1372	15/30	15/33 L							
LNL10	1552	16/08	17/29 L							
LNL11	1607	17/48	17/51 L							
LNL2	1400	15/34	15/37 L							
LNL2.1	1412	15/39	15/46 L							
LNL3	1424	15/49	15/52	15/55 L						
LNL4	1440	15/45	16/05	16/07	16/12 L	16/29	17/22	17/49		
LNL5	1444	15/31	16/18 L							
LNL6	1450	16/21 L	16/36							
LNL7	1463	16/32 L	16/40	16/43	16/47					
LNL8	1470	16/31	16/38 L							
LNL9	1545	17/21	17/24 L							
MSR	2025	21/04 L								
MSR2	2034	21/04	21/04 L							
MSR3	2041	21/04	21/04 L							
MSR4	2055	21/04	21/04 L							
PDE	2434	11/36	18/49	19/02	26/35 D					
PDEA	2450	26/46 D	26/52 S	27/49						
PDEB	2473	16/54 S	17/44 S	27/04 D	28/47 S					
PDEC	2567	27/02 S	27/44 D							
PDED	2574	26/51	27/48 L							
PDEX	2433	26/31	26/35 L	26/39						
PDE1	2442	26/37	26/40 L							
PDE2	2450	26/43	26/45 L							
PDE3	2465	26/50	26/56 L							

PDE4	2557	27/30	27/41 L					
PDE5	2566	27/37	27/43 L					
PDE6	2423	26/28 L	26/54	27/46	27/50			
PGM	1615	12/15	18/21 D					
PGMA	1621	18/27 D	35/08 S					
PGMX	1614	18/21 L	18/51	19/11				
PGM1	1620	18/24 L	19/17					
PGM2	1621	18/25 L	19/07					
PGM3	1631	18/31	18/34 L					
PGM4	1635	18/38 L	18/44					
PGM5	1655	18/28	18/53 L					
PGM6	1667	18/32	18/40	18/48	18/55	19/01	19/03 L	
PGM7	1675	19/06	19/09 L					
PGM8	1701	19/10	19/13 L					
PRS	3373	11/08	34/22 D					
PRSA	3551	34/30 S	36/07 D					
PRSB	3600	34/32 S	36/25 D	36/39				
PRSX	3372	34/22 L	36/04	36/52				
PRS1	3422	34/38	34/43 L	34/46				
PRS10	3562	36/14	36/17 L					
PRS11	3622	36/35	36/39 L					
PRS12	3645	36/41	36/52 L					
PRS2	3425	34/42	34/45 L					
PRS2.5	3466	35/01	35/15 L					
PRS3	3471	35/03	35/18 L					
PRS4	3474	34/56	35/11	35/16	35/20 L			
PRS5	3517	35/33	35/39 L					
PRS6	3522	35/38	35/41 L					
PRS7	3544	35/54	36/02 L					
PRS8	3547	36/04 L	36/09					
PRS9	3551	35/52	36/01	36/06 L				
RNS	2076	25/14						
SAF	3200	15/29						
SCP	2576	11/31	28/22 D					
SCPX	2575	28/22 L	28/28	28/52				
SCS	2655	11/22	23/39	25/32	29/18 L	31/29		
SCSA	2656	21/42	23/29	23/33 S	29/19 D	36/23 S		
SFB	3255	15/33						
SFE	2744	26/38	30/23 D					
SFEX	2743	30/23 L	30/44					
SFE1	2747	30/26 L	30/32					
SFE2	2750	30/27 L	30/42					
SFE3	2766	30/14	30/17	30/21	30/39 L			
SFE4	2726	30/12 L	30/38					
SFG	1714	11/56	19/44 D					
SFGA	1727	19/53 L	35/09 S					
SFGX	1713	19/44 L	19/55	20/09	20/29	20/33		
SFG1	1735	20/03 L	20/39					
SFG2	1736	20/04 L	20/15					
SFG3	1743	20/08 L	20/19	20/22	20/26			
SFG4	1753	20/07	20/17 L					
SFG5	1775	20/14	20/31 L					
SFG6	2001	20/32	20/35 L					
SIS	3003	12/04	17/46	19/13	20/35	31/20 D		
SISA	3010	11/18 S	15/54 S	31/24 D				
SISB	3000	31/17 D	31/22 S					
SISX	3002	31/20 L	31/25					

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SIS1          2774                31/14 L   31/28
STI           3275                31/27
TLBD          3372                11/14 S   13/38     13/56     33/20 D   33/21
TLBDL         3411                13/41     33/21 D   33/26     36/47
VOT           3022                12/13     31/45 D
VOTX          3021                31/45 L   32/06
VOT1          3020                31/43 L   31/48     32/02     32/05
VUT           3053                11/49     32/24 D
VUTA          3101                32/42 L   35/10 S
VUTX          3052                32/24 L   32/45     32/48
VUT1          3104                32/44     32/47 L
VUT2          3051                32/22 L   32/27     32/38     32/41
.IO              0                17/51 D   17/51
.READSYS         3                17/24 D   17/24
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SYMBOL QUALIFIER = MACRO$

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ENDMS         1543                25/27 D   42/55 D   43/01 D   45/26 D
ERROR         2223                11/33 D   15/35 D   34/43 D   36/02 D   45/27 D   48/18 D   50/01 D
                                  11/52 D   21/04 D   35/18 D   41/04 D   47/40 D   49/02 D
                                  13/24 D   26/53 D   35/39 D   42/56 D   47/57 D   49/50 D
EXECUTE       1455                21/04 D   23/24 D   41/04 D   44/13 D
LDCA          2121                13/26 D   27/34 D   29/25 D   30/27 D   36/17 D   43/15 D   47/42 D
                                  21/47 D   27/41 D   29/40 D   34/47 D   40/19 D   45/32 D   48/43 D
MONITOR       1246                11/19 D   22/02 D   22/36 D   25/29 D   40/41 D   53/23 D   53/28 D   53/49 D
MSG             42                54/04 D   54/05 D   54/06 D
NFA           1224                12/22 D   21/04 D   22/29 D   40/32 D   41/04 D   50/12 D   53/35 D
PAUSE         1201                11/19 D   25/29 D   53/23 D
SETMS         2160                17/24 D   17/51 D   49/08 D   49/13 D
SFA           2530                15/57 D   50/19 D
```

SYMBOL QUALIFIER = LDQ

```
ALF           2213                48/52     49/52 D
ALFX          2212                49/52 L   50/40
ALF1          2223                50/01 L   50/11     50/16     50/24
ALF2          2226                49/49     50/03 L
ALF3          2240                50/05     50/12 L
ALF4          2275                50/35     50/38 L
ALF5          2300                50/30     50/33     50/40 L
ALF6          2204                49/48 L   49/57
ASF           2303                48/55     50/53 D
ASFX          2302                50/53 L   51/09
CFN           1106                40/18 L   44/18
CIS           1151                41/04 D   41/04     41/04     43/02     44/04
CISA          1153                41/04 D   41/04 S   50/39 S
CISX          1150                41/04 L   41/04     41/04
CPN           1264                41/19 D   45/02     45/37
CPNX          1263                41/19 L   41/23     41/26     41/29     41/33
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CPY	1361	40/09		43/04	D			
CPYA	1404	43/14	S	43/17	D			
CPYC	1416	43/27	D	49/22	S	49/24	S	
CPYX	1360	43/04	L					
CPY1	1362	43/05	L	43/40				
CPY2	1413	43/24	L	43/37				
CPY3	1415	43/23		43/26	L			
CPY4	1306	42/26	L	49/21				
CPY5	1347	42/51		42/55	L	43/09		
CPY6	1354	42/49		43/01	L	43/24		
CRA	2321	48/57						
CTI	1217	41/04						
DDT	1574	42/40						
DPP	1116	40/29	L	50/36				
DPPA	1143	40/36		42/44	S	43/33	S	44/09	44/47 S
		40/45	L	42/47	S	43/35	S	44/11	
DPP1	1126	40/30		40/35	L				
ERR	1440	41/04		44/02	D	47/40		48/18	49/50
		42/56		45/27		47/57		49/02	50/01
ERRX	1437	44/02	L						
ERR1	1444	44/06	L						
ERR2	1461	44/08		44/15	L				
IRA	2527	48/56							
LDQ	1100	38/01		40/07	L				
MSR	1162	41/04	L	42/53					
MSR2	1171	41/04		41/04	L				
MSR3	1176	41/04		41/04	L				
MSR4	1212	41/04		41/04	L				
PRS	1776	40/07		47/26	D				
PRSX	1775	47/26	L	49/25					
PRS1	2014	47/35		47/40	L				
PRS10	2160	49/07		49/13	L				
PRS11	2163	49/09		49/14	L				
PRS12	2202	49/20		49/25	L				
PRS2	2017	47/39		47/42	L				
PRS3	2047	47/56		48/02	L				
PRS4	2067	48/09		48/18	L	48/31		48/32	
PRS5	2072	48/17		48/20	L				
PRS6	2140	48/51		48/55	L				
PRS7	2142	48/53		48/56	L				
PRS8	2147	48/38		49/02	L				
PRS9	2152	49/01		49/06	L				
RFS	1467	40/08		44/45	D				
RFSX	1466	44/45	L	45/24		45/39			
RFS1	1543	44/56		45/12		45/21		45/26	L 45/38
		45/03		45/19		45/23		45/31	
RFS2	1550	45/15		45/29	L				
RNS	1233	43/29		44/49					
SAF	2371	49/56							
SFB	2446	49/48							
STI	2466	50/34							
.IO	0	49/13	D	49/13					
.READSYS	3	49/08	D	49/08					

SYMBOL QUALIFIER = 2LD

ACS	1300	52/49	52/54	52/56	53/12	53/14	53/20
ANS	1323	53/18					
BUF	1453	52/33	52/43 S	53/21	54/23 L		
ERP	1101	52/32 D					
ERPB	1254	53/44	53/52 L				
ERPC	1257	53/40 S	53/42 S	53/55 L			
ERPX	1100	52/32 L					
ERP1	1152	53/04	53/08 L				
ERP2	1156	53/06	53/12 L				
ERP3	1164	53/02	53/15 L				
ERP4	1216	53/25	53/29 L				
ERP5	1231	53/32	53/34	53/39 L			
TMSG	1261	52/53	54/01 L				

16.52.32.UCLP, 17, 031, 4.416KLNS.

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