

/DECTAPE-SYSTEM EXERCISER MODULE-----

/REV. DATE -- 4/18/72 -- (1)
 /THIS IS AVAILABLE IN DECTPI OR DECTPS (1400 OR 400 FOR BUFSIZ)

.EBREL

00000 R 600004 A	UDSW	600004	/SYSTEM COMMUN. WORD
00001 R 000000 A		0	/ADDITIONAL COMMUN. WORDS.
00002 R 000000 A		0	
00003 R 000000 A		0	
00004 R 001013 R	.DSA	DSERV	/SERVICE ENTRANCE
00005 R 000530 R	.DSA	DINIT	/INITIALIZATION ENTRANCE.
00006 R 040503 A	.SIXBT	"DECTAP"	/TEST NAME. ***** (DECTPI OR DECTPS)
00007 R 240120 A			
00010 R 000002 A		2	/MASK FOR CHAIN MODE
00011 R A	.BLOCK	7	

/SYSERR 0 /SYSTEM ERROR FLAG
 ERCODE 0 /WORD COUNT FOR ERROR WORDS
 0 /ERROR CODE
 0 /ADDITIONAL ERROR DATA WORDS.

00020 R 000000 A
00021 R 000000 A
00022 R 000000 A
00023 R 000000 A
00024 R 000000 A
00025 R 000000 A
00026 R 000000 A
00027 R 000000 A
00030 R 000000 A
00031 R 000000 A

/OPERATING PARAMETER STORAGE CELLS.

00032 R 000000 A	CURHAN	0	/CURRENT TRANSPORT NO.
00033 R 000000 A	BLKNUM	0	/BLOCK NUMBER TO BE READ OR
00034 R 000000 A	BLOCK	0	
00035 R 000000 A	DECWC	0	
00036 R 000000 A	HANCNT	0	
00037 R 000000 A	RDWRT	0	
00040 R 000000 A	NUMBLK	0	/WRITTEN INTO, AND MAX. NO. BLKS.
00041 R 000000 A	SVSTA	0	
00042 R 000000 A	SVSTB	0	

00043 R 000000 A	DISTSW	0	/DISTRIBUTION SWITCH IN DSERV.
00044 R 000000 A	POLSW	0	
00045 R 000000 A	ERRFLG	0	
00046 R 000000 A	RUNLEN	0	
00047 R 000000 A	MOVERR	0	/SECOND ERROR FLAG.
00050 R 000000 A	INWC	0	
00051 R 000000 A	INCA	0	
00052 R 000000 A	APIFLG	0	/API ACTIVE FLAG.

00053 R 000000 A		0	
00054 R A	SAVERR	.BLOCK 10 .EJECT	/SECOND ERROR SAVE

004000 A BUFSIZ=4000
 000400 A BLKSIZ=400
 000010 A BUFBLK=BUFSIZ/400
 000440 A TSTRUN=440

/BUFFER LENGTH, ***** (1400 OR 400)
 /BLOCK LENGTH.

/

00064 R 021400 A SEARCH 021400
 00065 R 206413 R LAC7 LAC (7)
 00066 R 000004 A DELTA 4

/SEARCH COMMAND.

707541 A DTCA=707541
 707552 A DTRA=707552
 707544 A DTXA=707544
 707545 A DTLA=707545
 707561 A DTEF=707561
 707572 A DTRB=707572
 707601 A DTDF=707601
 707764 A EBA=707764
 707702 A EEM=707702

/CLEAR STATUS A-REG.
 /READ STATUS A-REG.
 /XOR STATUS A-REG.
 /LOAD STATUS A-REG.
 /SKIP ON ERROR FLAG.
 /READ STATUS B-REG.
 /SKIP ON DEC TAPE FLAG.
 /ENABLE BANK MODE ADDRESSING
 /TURN ON EXTEND MODE FOR PDP-9

00067 R 000030 A SYSWC 30
 00070 R 000031 A SYSCA 31

/

/TEMPORARY STORAGE CELLS.

00071 R 000000 A TEMP1 0
 00072 R 000000 A TEMP2 0
 00073 R 000000 A TEMP3 0
 00074 R 000000 A TEMP4 0
 00075 R 000000 A TEMP5 0
 00076 R 000000 A TEMP6 0
 00077 R 000000 A TEMP7 0

/

/TRANSPORT NUMBERS-USED IN PREPARING COMMANDS.

00100 R 100000 A HANNUM 100000
 00102 R 200000 A 200000
 00103 R 300000 A 300000
 00104 R 400000 A 400000
 00105 R 500000 A 500000
 00106 R 600000 A 600000
 00107 R 700000 A 700000

/

/CURRENT BLOCK NUMBER TABLE

00110 R A BKNUM .BLOCK 10
 00120 R A MAPSTR .BLOCK 400
 00520 R A ACTIVE .BLOCK 10
 .EJECT

/DECTAPE INITIALIZATION ROUTINE.

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/
DINIT 0
00530 R 000000 A          EBA
00531 R 707764 A          EEM
00532 R 707702 A          DZM      DSTSW1
00533 R 146362 R          LAC      UODSW+3
00534 R 200003 R          AND      (377777)
00535 R 506414 R          SNA
00536 R 741200 A          JMP      .+4
00537 R 600543 R          CMA
00540 R 740001 A          TAD      (1)
00541 R 346415 R          SKP
00542 R 741000 A          LAW      -TSTRUN      /PRESET RUN COUNTER.
00543 R 777340 A          DAC      RUNLEN
00544 R 040046 R          LAW      -1
00545 R 777777 A          DAC      FIRST#      /FOR PARITY ERROR
00546 R 046365 R          LAC      LAC7
00547 R 200065 R          DAC      E007
00550 R 042125 R          LAC      DINIT      /SET RETURN ADR. IN DESRV.
00551 R 200530 R          DAC      DSERV
00552 R 041013 R          DZM      MOVERR      /CLEAR SECOND ERROR FLAG.
00553 R 140047 R          DZM      APIFLG      /CLEAR API FLAG.
00554 R 140052 R          DZM      SYSERR
00555 R 140020 R          DZM      ERCODE-1
00556 R 140021 R          DZM      ERRFLG      /CLEAR SYSTEM ERROR FLAG.
00557 R 140045 R          DZM      DONE#
00560 R 146361 R          JMS      RESBUF
00561 R 102010 R          LAW      -BUFSIZ/4
00562 R 777000 A          DAC      DIN.1#
00563 R 046355 R          JMS      BUFGEN
00564 R 101772 R          ISZ      DIN.1
00565 R 446355 R          JMP      .-2
00566 R 600564 R          DTCA      /CLEAR A REG.
00567 R 707541 A          CLA
00570 R 750000 A          DTLA      /AND ALL FLAGS IN CONTROL.
00571 R 707545 A          LAW      -7      /SET-UP TO POLL HANDLERS.
00572 R 777771 A          DAC      DIN.1#
00573 R 046355 R          LAC      (1)      /PRESET HANDLER NO, FIRST
00574 R 206415 R          DAC      CURHAN      /BLOCK NUMBER TO 2 AND NO.
00575 R 040032 R          LAC      (3)      /OF BLOCKS TO 1 FOR INITIAL
00576 R 206416 R          DAC      BLKNUM      /TRY ON EACH HANDLER.
00577 R 040033 R          LAC      (1)
00600 R 206415 R          DAC      NUMBLK
00601 R 040040 R          LAW      -410      /CLEAR ALL MAPS TO ZERO
00602 R 777370 A          DAC      DIN.2#      /((I.E., NONE WRITTEN), INCLUDE
00603 R 046356 R          LAC      (MAPSTR)      /ACTIVE TABLE AS WELL.
00604 R 206417 R          DAC      DIN.3#
00605 R 046357 R          DZM*     DIN.3
00606 R 166357 R          ISZ      DIN.3
00607 R 446357 R          ISZ      DIN.2
00610 R 446356 R          JMP      .-3
00611 R 600606 R          .EJECT

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00612 R 140036 R	DZM	HANCNT	/CLEAR HANDLER COUNTER.
00613 R 206420 R	LAC	(ACTIVE+1)	/SET UP TO MARK ACTIVE
00614 R 046356 R	DAC	DIN.2	/HANDLERS AND SET POLLING
00615 R 206421 R	LAC	(BKNUM+1)	
00616 R 046360 R	DAC	DIN.4#	
00617 R 206422 R	LAC	(DINI.3)	/SWITCH.
00620 R 046372 R	DAC	POLSW1#	
00621 R 040044 R	DAC	POLSW	
00622 R 206423 R	LAC	(FNDB.3+1)	
00623 R 046373 R	DAC	POLSW2#	
00624 R 777400 A	LAW	-BLKSIZ	/SET INITIAL WORD COUNT.
00625 R 040035 R	DAC	DECWC	
00626 R 750001 A	CLC	.	
00627 R 040037 R	DAC	RDWRT	
00630 R 101413 R	/		
00631 R 200032 R	DINI.2	JMS	/FIND BLOCK.
00632 R 101705 R	LAC	FNDBLK	/IF RETURN HERE, HANDLER
00633 R 346417 R	JMS	CURHAN	/ON LINE. SET BLOCK 1
00634 R 046357 R	TAD	MPY32	/AS WRITTEN IN.
00635 R 206424 R	DAC	(HAPSTR)	
00636 R 066357 R	LAC	DIN.3	/MARK FOR MAP BLOCK 1.
00637 R 440036 R	DAC*	(40000)	
00640 R 777777 A	ISZ	DIN.3	/INCREMENT HANDLER CNT.
00641 R 066356 R	LAW	HANCNT	/SET THIS HANDLER ACTIVE.
00642 R 206416 R	DAC*	-1	
00643 R 066360 R	LAC	DIN.2	
	LAC	(3)	
	DAC*	DIN.4	
	.EJECT		

/ROUTINE FOR PARAMETER MODE -----

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/
00644 R 200000 R      LAC      UODSW      /IS PARAMETER MODE CALLED FOR
00645 R 506425 R      AND      (100000)
00646 R 741200 A      SNA
00647 R 600753 R      JMP      DINI.3
00650 R 200003 R      LAC      UODSW+3
00651 R 506414 R      AND      (377777
00652 R 740001 A      CMA
00653 R 040046 R      DAC      RUNLEN
00654 R 200000 R      LAC      UODSW
00655 R 506426 R      AND      (300)
00656 R 546427 R      SAD      (0)
00657 R 600753 R      JMP      DINI.3
00660 R 546430 R      SAD      (100)
00661 R 600670 R      JMP      RDTST
00662 R 546431 R      SAD      (200)
00663 R 741000 A      SKP
00664 R 601115 R      JMP      TERMIN
00665 R 750001 A      CLC
00666 R 040037 R      DAC      RDWRT
00667 R 741000 A      SKP
00670 R 140037 R      RDTST  DZM      RDWRT      /BEGIN READ TEST.
00671 R 206432 R      LAC      (JMP*  SUMEXT)
00672 R 042125 R      DAC      ER07
00673 R 774000 A      LAW      -BUFSIZ
00674 R 046411 R      DAC      TST.1#
00675 R 206433 R      LAC      (BUF)
00676 R 046412 R      DAC      TST.2#
00677 R 200001 R      LAC      UODSW+1
00700 R 066412 R      DAC*   TST.2
00701 R 446412 R      ISZ      TST.2
00702 R 600753 R      JAR      TST.1
00704 R 200002 R      LAC      UODSW+2
00705 R 741100 A      SPA
00706 R 600714 R      JMP      TST1      /UODSW+2 FOR REC LENGTH.
00707 R 741200 A      SNA
00710 R 600714 R      JMP      TST1
00711 R 346434 R      TAD      (-BUFSIZ-1)
00712 R 741100 A      SPA
00713 R 600716 R      JMP      .+3
      .EJECT

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00714	R	206435	R	TST1	LAC	(BUFSIZ)
00715	R	040002	R		DAC	UODSW+2
00716	R	750001	A		CLC	
00717	R	340002	R		TAD	UODSW+2
00720	R	506436	R		AND	(7400)
00721	R	744000	A		CLL	
00722	R	742020	A		RTR	
00723	R	742020	A		RTR	
00724	R	742020	A		RTR	
00725	R	742020	A		RTR	
00726	R	346415	R		TAD	(1)
00727	R	040040	R		DAC	NUMBLK
00730	R	750001	A		CLC	
00731	R	340002	R		TAD	UODSW+2
00732	R	740001	A		CMA	
00733	R	040035	R		DAC	DECWC
00734	R	206416	R		LAC	(3)

				/		
00735	R	040033	R	TST2	DAC	BLKNUM
00736	R	101413	R		JMS	FNDBLK
00737	R	200033	R		LAC	BLKNUM
00740	R	340040	R		TAD	NUMBLK
00741	R	340066	R		TAD	DELTA
00742	R	040033	R		DAC	BLKNUM
00743	R	346437	R		TAD	(-1073)
00744	R	741100	A		SPA	
00745	R	600750	R		JMP	.+3
00746	R	206416	R		LAC	(3)
00747	R	040033	R		DAC	BLKNUM
00750	R	440046	R		ISZ	RUNLEN
00751	R	600736	R		JMP	TST2
00752	R	601115	R		JMP	TERMIN

.EJECT

/PARA. TEST LOOP.

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00753 R 707541 A   DINI.3 DTCA      /CLEAR ALL FLAGS
00754 R 206416 R   LAC        (3)
00755 R 040033 R   DAC        BLKNUM
00756 R 440032 R   ISZ        CURHAN  /INCREMENT PARAMETERS
00757 R 446356 R   ISZ        DIN.2   /FOR NEXT HANDLER.
00760 R 446360 R   ISZ        DIN.4
00761 R 446355 R   ISZ        DIN.1
00762 R 600630 R   JMP        DINI.2   /RECYCLE, NOT DONE.

00763 R 206440 R   LAC        (OSER.8+1)
00764 R 040044 R   DAC        POLSW
00765 R 206441 R   LAC        (ER03)
00766 R 046372 R   DAC        POLSW1
00767 R 206442 R   LAC        (ER04)
00770 R 046373 R   DAC        POLSW2
00771 R 200036 R   LAC        HANCNT  /DONE, RESET POLLING SWITCH.
00772 R 741200 A   SNA
00773 R 602050 R   JMP        ER01   /ERROR 1--NO TRANSPORTS.
00774 R 740001 A   CMA
00775 R 346415 R   TAD        (1)
00776 R 046376 R   DAC        SLN.1
00777 R 750000 A   CLA
01000 R 340046 R   TAD        RUNLEN
01001 R 744000 A   CLL
01002 R 446376 R   ISZ        SLN.1
01003 R 601000 R   JMP        .-3
01004 R 040046 R   DAC        RUNLEN

01005 R 101160 R   DCTAP1 JMS       SLNXHN  /TEST LOOP - SELECT NEXT
01006 R 101255 R   JMS       MAPSBR  /HANDLER, THEN LOOK UP BLOCK
01007 R 101413 R   JMS       FNDBLK /IN MAP, FIND BLOCK ON TAPE
01010 R 440046 R   ISZ       RUNLEN /AND PERFORM OPERATION.
01011 R 601005 R   JMP       DCTAP1 /CHECK FOR END OF PASS.
01012 R 601115 R   JMP       TERMIN /END - EXIT.

.EJECT

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/SERVICE ENTRANCE TO DEC-TAPE ROUTINE.

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/
01013 R 000000 A DSERV 0
01014 R 707764 A EBA
01015 R 707702 A EEM
01016 R 046347 R DAC ACSAVE# /SAVE AC INCASE API ENTRY.
01017 R 707552 A DTRA
01020 R 040041 R DAC SVSTA
01021 R 707572 A DTRB
01022 R 040042 R DAC SVSTB
01023 R 200020 R LAC SYSERR /PREVIOUS ERROR FLAG HIGH.
01024 R 741200 A SNA
01025 R 601054 R JMP DSER.1 /NO, TRY MOVE ERROR.
01026 R 546443 R SAD (-5)
01027 R 621013 R JMP* DSERV

01030 R 206444 R DSER.4 LAC (400000) /CHECK API ON.

01031 R 705501 A SPI
01032 R 601043 R JMP DSER.2 /NOT ON.
01033 R 777777 A LAW -1 /ON, SET API FLAG.
01034 R 040052 R DAC APIFLG
01035 R 707561 A DTEF /CHECK ON INTERRUPT.
01036 R 741000 A SKP
01037 R 601131 R JMP DSER.6 /ERROR INTERRUPT.
01040 R 707601 A DTDF
01041 R 602076 R JMP ER05 /NEITHER, ERROR.
01042 R 620043 R JMP* DISTSW /MAG. TAPE FLAG INTERRUPT.

/
01043 R 140052 R DSER.2 DZM APIFLG /RESET API FLAG - API OFF.
01044 R 707561 A DTEF /CHECK ON INTERRUPT
01045 R 741000 A SKP
01046 R 601131 R JMP DSER.6 /ERROR INTERRUPT.
01047 R 707601 A DTDF
01050 R 741000 A SKP
01051 R 620043 R JMP* DISTSW /MAG. TAPE FLAG INTERRUPT.
01052 R 750001 A CLC /NEITHER - RETURN TO MONITOR.
01053 R 621013 R JMP* DSERV

/
01054 R 200047 R DSER.1 LAC MOVERR /CHECK MOVERR FOR ENTRY
01055 R 740200 A SZA
01056 R 601063 R JMP DSER.5 /NOT MOVERR - SERVICE INTER.
01057 R 206362 R LAC DSTSW1#
01060 R 740200 A SZA
01061 R 602043 R JMP BREAK1
01062 R 601030 R JMP DSER.4
01063 R 200053 R DSER.5 LAC SAVERR-1 /IS MOVE ERROR - TRANSFER
01064 R 346445 R TAD (-1) /DATA IN SAVERR TO ERCODE.
01065 R 040071 R DAC TEMP1
01066 R 206446 R LAC (SAVERR-1)
01067 R 040072 R DAC TEMP2

01070 R 206447 R LAC (ERCODE-1)
01071 R 040073 R DAC TEMP3
/

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01072	R	220072	R	DSER.7	LAC*	TEMP2	/MORE DATA.
01073	R	060073	R		DAC*	TEMP3	
01074	R	440072	R		ISZ	TEMP2	
01075	R	440073	R		ISZ	TEMP3	
01076	R	440071	R		ISZ	TEMP1	
01077	R	601072	R		JMP	DSER.7	
01100	R	777777	A		LAW	-1	/SET SYSERR AGAIN, CLEAR
01101	R	040020	R		DAC	SYSERR	/MOVE ERROR FLAG, AND
01102	R	140047	R		DZM	MOVERR	/EXIT THRU END PUT.
01103	R	622306	R		JMP*	ENDPUT	
				/			
01104	R	101772	R	EXIT	JMS	BUGEN	/CHANGE DATA IN BUFFER.
01105	R	200052	R		LAC	APIFLG	/EXIT - AFTER INITIATING
01106	R	740200	A		SZA		/AN OPERATION - CHECK API
01107	R	601112	R		JMP	.+3	/FLAG.
01110	R	703344	A		DBR		
01111	R	621013	R		JMP*	DSERV	/NOT ON - EXIT TO MONITOR.
01112	R	206347	R		LAC	ACSAVE	/ON - RESTORE AC.
01113	R	703344	A		DBR		
01114	R	621013	R		JMP*	DSERV	/EXIT.
				/			
01115	R	200020	R	TERMIN	LAC	SYSERR	
01116	R	741200	A		SNA		
01117	R	140021	R		DZM	ERCODE-1	
01120	R	206450	R		LAC	(-4)	
01121	R	040020	R		DAC	SYSERR	
01122	R	601104	R		JMP	EXIT	/GO TO EXIT.
				/			
01123	R	620044	R	DSER.8	JMP*	POLSW	/FLAG ON. - POLLING SWITCH.
01124	R	200042	R		LAC	SVSTB	
01125	R	506424	R		AND	(40000)	/REGISTERS, ETC., CHECK FOR
01126	R	741200	A		SNA		/A SELECT ERROR.
01127	R	601150	R		JMP	DSER.3	/NO, GO TO NEXT OP.
01130	R	602056	R		JMP	ER02	/YES, FLAG AN ERROR 2.
				/			
01131	R	750000	A	DSER.6	CLA		
01132	R	707544	A		DTXA		
01133	R	200042	R		LAC	SVSTB	
01134	R	506451	R		AND	(010000)	/CHECK FOR TIMING ERROR
01135	R	741200	A		SNA		
01136	R	601142	R		JMP	.+4	
01137	R	200003	R		LAC	UDDSW+3	/CHECK TO SEE IF INHIBITED
01140	R	741100	A		SPA		
01141	R	601417	R		JMP	FNDBLK+4	/YES, TRY AGAIN
01142	R	200042	R		LAC	SVSTB	
01143	R	506425	R		AND	(100000)	
01144	R	741200	A		SNA		
01145	R	601123	R		JMP	DSER.8	
01146	R	206452	R		LAC	(60000)	
01147	R	626373	R		JMP*	PULSW2	
				/			
01150	R	200042	R	DSER.3	LAC	SVSTB	/GO TO NEXT OPERATION. /CHECK FOR PARITY ERROR,

01151 R 506453 R	AND (20000)	/IF SO STOP TRANSPORT
01152 R 741200 A	SNA	
01153 R 602067 R	JMP ER04	/GO TO ERROR 4.
01154 R 707552 A	DTRA	/PARITY ERROR
01155 R 506453 R	AND (20000)	
01156 R 707544 A	DTXA	
01157 R 602067 R	JMP ER04	
	.EJECT	

/SELECT NEXT HANDLER

01160	R	000000	A	SLNXHN	0	/SELECTS, ON A RANDOM BASIS,
01161	R	200036	R	LAC	HANCNT	
01162	R	741200	A	SNA		
01163	R	602050	R	JMP	ER01	
01164	R	101723	R	JMS	RANGEN	/NEXT HANDLER FROM THOSE
01165	R	506413	R	AND	(7)	/AVAILABLE, BLKNUM OF NEXT
01166	R	741200	A	SNA		/BLOCK TO BE READ OR WRITTEN
01167	R	601164	R	JMP	SLNXHN+4	/IN, AND MAX. NUMBER OF
01170	R	040032	R	DAC	CURHAN	/HALF BLOCKS TO BE READ
01171	R	346454	R	TAD	(ACTIVE)	/OR WRITTEN.
01172	R	046376	R	DAC	SLN.1#	
01173	R	226376	R	LAC*	SLN.1	
01174	R	741200	A	SNA		
01175	R	601164	R	JMP	SLNXHN+4	/HANDLER NOT AVAILABLE.
01176	R	101723	R	JMS	RANGEN	/HANDLER AVAILABLE, GET
01177	R	506413	R	AND	(7)	/NUMBER OF BLOCKS,
01200	R	346415	R	TAD	(1)	
01201	R	740001	A	CMA		
01202	R	346415	R	TAD	(1)	
01203	R	046376	R	DAC	SLN.1	
01204	R	777770	A	LAW	-BUFBLK	
01205	R	046377	R	DAC	SLN.2#	
01206	R	146400	R	DZM	SLN.3#	
01207	R	446400	R	ISZ	SLN.3	
01210	R	446376	R	ISZ	SLN.1	
01211	R	741000	A	SKP		
01212	R	601215	R	JMP	.+3	
01213	R	446377	R	ISZ	SLN.2	
01214	R	601207	R	JMP	.-5	
01215	R	206400	R	LAC	SLN.3	
01216	R	040040	R	DAC	NUMBLK	
01217	R	200032	R	LAC	CURHAN	
01220	R	346455	R	TAD	(BKNUM)	
01221	R	046376	R	DAC*	SLN.1	
01222	R	226376	R	DAC*	SLN.1	
01223	R	040033	R	DAC	BLKNUM	
01224	R	101723	R	JMS	RANGEN	/GET BLOCK NUMBER TO START.
01225	R	506413	R	AND	(7)	
01226	R	346445	R	TAD	(-1)	
01227	R	340033	R	TAD	BLKNUM	
01230	R	040033	R	DAC	BLKNUM	
01231	R	066376	R	DAC*	SLN.1	
01232	R	346456	R	TAD	(-3)	
01233	R	740100	A	SMA		/CHECK THAT BLOCK NUM IS
01234	R	601237	R	JMP	.+3	/BETWEEN 1 AND 1076.
01235	R	206416	R	LAC	(3)	/IF OUTSIDE RANGE, FORCE
01236	R	601230	R	JMP	.-6	/IT TO BLOCK 2.
01237	R	340040	R	TAD	NUMBLK	
01240	R	346457	R	TAD	(-1070)	
01241	R	741100	A	SPA		
01242	R	621160	R	JMP*	SLNXHN	/EXIT.

SLNX.1

01243 R 750001 A
01244 R 340033 R
01245 R 740001 A
01246 R 346460 R
01247 R 040040 R
01250 R 740300 A
01251 R 621160 R
01252 R 206415 R
01253 R 040040 R
01254 R 601235 R

CLC
TAD BLKNUM
CMA
TAD (1073)
DAC NUMBLK
SMAISZA
JMP* SLNXHN
LAC (1)
DAC NUMBLK
JMP SLNX.1
.EJECT

/MAP SUBROUTINE - ENTRY WITH CURHAN, BLKNUM, AND NUMBLK ALREADY SET.
 /
 /FIND BLKNUM IN MAP - THEN DETERMINE IF PREVIOUSLY WRITTEN IN OR NOT.
 /IF WRITTEN, READ UP TO NUMBLK WRITTEN BLOCKS. IF NOT WRITTEN,
 /WRITE UP TO NUMBLK BLOCK WITHOUT OVERLAPPING PREVIOUS WRITE.
 /

01255 R 000000 A
 01256 R 200032 R
 01257 R 101705 R
 01260 R 346417 R
 01261 R 040071 R
 01262 R 750001 A
 01263 R 340040 R
 01264 R 740001 A
 01265 R 040074 R
 01266 R 140075 R
 01267 R 777777 A
 01270 R 040037 R
 01271 R 200033 R

MAPSBR 0
 LAC CURHAN
 JMS MPY32
 TAD (MAPSTR)
 DAC TEMP1
 CLC
 TAD NUMBLK
 CMA
 DAC TEMP4
 DZM TEMP5
 LAW -1
 DAC RDWRT
 LAC BLKNUM

/TEMP STORE-----
 /TEMP1 - MAP WORD POINTER
 /TEMP2 - MAP BIT POINTER 1.
 /TEMP3 - MAP BIT POINTER 2.
 /TEMP4 - NUMBLK
 /TEMP5 - NUMBER OF BLOCKS
 /TO BE USED IN NEXT OPERATION.
 /TEMP6 - END OF MAP.
 /RDWRT - FLG FOR READ OR WRITE
 /AS NEXT OPERATION.

/FIND ENTRY WORD CONTAINING
 /THIS BLOCK NUMBER.

01272 R 346461 R
 01273 R 741100 A
 01274 R 601277 R
 01275 R 440071 R
 01276 R 601272 R

/MAPS.2 TAD (-22)
 SPA
 JMP MAPS.1
 ISZ TEMP1
 JMP MAPS.2

01277 R 346462 R
 01300 R 740001 A
 01301 R 346415 R
 01302 R 040072 R
 01303 R 777755 A
 01304 R 040073 R
 01305 R 220071 R

/MAPS.1 TAD (23)
 CMA
 TAD (1)
 DAC TEMP2
 LAW -23
 DAC TEMP3
 LAC* TEMP1

/FOUND WORD, SET REMAINDER
 /+1 AND LOCATE BLOCK BIT
 /WITHIN WORD.

/SCAN FOR THIS BLOCKS BIT.

01306 R 440073 R
 01307 R 440072 R
 01310 R 741000 A
 01311 R 601316 R
 01312 R 745100 A
 01313 R 744002 A
 01314 R 740010 A
 01315 R 601306 R

/MAPS.4 ISZ TEMP3
 ISZ TEMP2
 SKP
 JMP MAPS.3
 SPA|CLL
 STL
 RAL
 JMP MAPS.4

/IN THIS MAP WORD.

01316 R 740100 A
 01317 R 601341 R

/MAPS.3 SMA
 JMP MAPS.9

/FOUND, CHECK FOR THIS BLOCK
 /ALREADY WRITTEN IN.

01320 R 140037 R
 01321 R 440075 R
 01322 R 740010 A
 01323 R 440074 R
 01324 R 741000 A
 01325 R 601373 R
 01326 R 440073 R

/MAPS.6 DZM RDWRT
 ISZ TEMP5
 RAL
 ISZ TEMP4
 SKP
 JMP MAPS.5
 ISZ TEMP3

/PREVIOUSLY WRITTEN, DO A READ.
 /INCREMENT BLOCKS

/CHECK THAT NUMBLKS WILL

01327	R	741000	A		SKP		/NOT BE EXCEEDED.
01330	R	601334	R		JMP	MAPS.8	/DONE.
01331	R	740100	A	MAPS14	SMA		/BIT
01332	R	601373	R		JMP	MAPS.5	/NOT ON EXIT.
01333	R	601321	R		JMP	MAPS.6	
01334	R	777756	A	MAPS.8	LAW	-22	
01335	R	040073	R		DAC	TEMP3	
01336	R	440071	R		ISZ	TEMP1	/END OF WORD, GET NEXT WORD.
01337	R	220071	R		LAC*	TEMP1	/GET NEXT WORD
01340	R	601331	R		JMP	MAPS14	/CONTINUE.
01341	R	440075	R	MAPS.9	ISZ	TEMP5	/INCRE. BLOCK AND CHECK
01342	R	744002	A		STL		
01343	R	740010	A		RAL		
01344	R	440074	R		ISZ	TEMP4	
01345	R	741000	A		SKP		
01346	R	601363	R		JMP	MAPS.7	
01347	R	440073	R		ISZ	TEMP3	/THAT NUMBLK NOT EXCEEDED.
01350	R	741000	A		SKP		
01351	R	601355	R		JMP	MAPS11	
01352	R	741100	A	MAPS12	SPA		
01353	R	601366	R		JMP	MAPS13	/WRITTEN AREA, DONE.
01354	R	601341	R		JMP	MAPS.9	/NOT END CONTINUE.
01355	R	060071	R	MAPS11	DAC*	TEMP1	/END, REPMACE THIS ENTRY
01356	R	777756	A		LAW	-22	
01357	R	040073	R		DAC	TEMP3	
01360	R	440071	R		ISZ	TEMP1	/GET NEXT WORD.
01361	R	220071	R		LAC*	TEMP1	
01362	R	601352	R		JMP	MAPS12	
01363	R	440073	R	MAPS.7	ISZ	TEMP3	/RECTIFY REMAINDER OF
01364	R	741000	A		SKP		/WORD
01365	R	601372	R		JMP	MAPS10	
01366	R	745100	A	MAPS13	SPA!CLL		
01367	R	744002	A		STL		
01370	R	740010	A		RAL		
01371	R	601363	R		JMP	MAPS.7	
01372	R	060071	R	MAPS10	DAC*	TEMP1	/PUT IT AWAY
01373	R	200075	R	MAPS.5	LAC	TEMP5	/SAVE FINAL NUMBER OF
01374	R	040040	R		DAC	NUMBLK	/BLOCKS AND SET UP
01375	R	740001	A		CMA		
01376	R	346415	R		TAD	(1)	
01377	R	040075	R		DAC	TEMP5	
01400	R	777770	A		LAW	-BUFBLK	
01401	R	346445	R		TAD	(-1)	
01402	R	340040	R		TAD	NUMBLK	
01403	R	740100	A		SMA		
01404	R	740040	A		HLT		
01405	R	750000	A		CLA		
01406	R	346463	R		TAD	(-BLKSIZ)	
01407	R	440075	R		ISZ	TEMP5	
01410	R	601406	R		JMP	.-2	

01411 R 040035 R
01412 R 621255 R

DAC DECWC
JMP* MAPSBR
.EJECT

/SAVE THAT VALUE IN WC.
/EXIT.

/SEARCH ROUTINE, LOCATES TAPE WITH THIS BLOCK NUMBER READY TO
/WRITE OR READ IN THE FORWARD DIRECTION.

```

/
01413 R 000000 A   FNDBLK 0
01414 R 750001 A   CLC
01415 R 340033 R   TAD      BLKNUM
01416 R 040033 R   DAC      BLKNUM
01417 R 102016 R   JMS      HOLD
01420 R 206464 R   LAC      (BLOCK)  /SET BLOCK LOC IN CA TO
01421 R 040051 R   DAC      INCA      /GET BLOCK NUMBER.
01422 R 060070 R   DAC*     SYSCA
01423 R 140050 R   DZM      INWC
01424 R 160067 R   DZM*     SYSWC      /CLEAR WC
01425 R 206465 R   LAC      (HANNUM)  /GET CURRENT TRANSPORT NO.
01426 R 340032 R   TAD      CURHAN    /AND ASSEMBLE SEARCH COMMAND.
01427 R 046366 R   DAC      FND.1#
01430 R 226366 R   LAC*     FND.1
01431 R 340064 R   TAD      SEARCH
01432 R 707545 A   DTLA
01433 R 206466 R   LAC      (FNDB.1)  /LOAD
01434 R 040043 R   DAC      DISTSW    /SET SWITCH
01435 R 601104 R   JMP      EXIT      /AND EXIT.

/
01436 R 101712 R   FNDB.1 JMS      CHKBLK  /CHECK CURRENT BLOCK AGAINST
01437 R 540033 R   SAD      BLKNUM
01440 R 601517 R   JMP      FNDB.7    /THIS IS IT.
01441 R 750001 A   CLC      /NOT IT.
01442 R 340033 R   TAD      BLKNUM    /CALCULATE DISTANCE TO
01443 R 740001 A   CMA      /BLOCK AND DIRECTION.
01444 R 340034 R   TAD      BLOCK
01445 R 740100 A   SMA
01446 R 601461 R   JMP      FNDB.3    /REVERSE DIRECTION.
01447 R 040050 R   DAC      INWC      /CONTINUE IN THIS DIRECTION.
01450 R 060067 R   DAC*     SYSWC    /SET WC AND CHANGE TO
01451 R 206467 R   LAC      (010200) /CONTINUOUS MODE.
01452 R 707544 A   DTXA
01453 R 206470 R   LAC      (FNDB.2)
01454 R 040043 R   DAC      DISTSW
01455 R 601104 R   JMP      EXIT

/
01456 R 206467 R   FNDB.2 LAC      (010200)  /CHANGE TO NORMAL MODE.
01457 R 707544 A   DTXA
01460 R 601436 R   JMP      FNDB.1

/
01461 R 206471 R   FNDB.3 LAC      (040200)  /REVERSE DIRECTION
01462 R 707544 A   DTXA
01463 R 206472 R   LAC      (FNDB.4)
01464 R 040043 R   DAC      DISTSW
01465 R 601104 R   JMP      EXIT

/
01466 R 101712 R   FNDB.4 JMS      CHKBLK  /CHECK POSITION GOING IN
01467 R 750001 A   CLC
01470 R 340033 R   TAD      BLKNUM    /REVERSE DIRECTION.

```

01471 R 740001 A		CMA		
01472 R 340034 R		TAD	BLOCK	
01473 R 346473 R		TAD	(2)	
01474 R 740300 A		SZA	SMA	
01475 R 741000 A		SKP		
01476 R 601515 R		JMP	FNDB.6	/GO FORWARD NOW
01477 R 740001 A		CMA		/CONTINUE IN BACKWARD
01500 R 346415 R		TAD	(1)	/MODE FOR DELTA BLOCKS
01501 R 040050 R		DAC	INWC	
01502 R 060067 R		DAC*	SWC	
01503 R 206467 R		LAC	(010200)	/SET CONTINUOUS.
01504 R 707544 A		DTXA		
01505 R 206474 R		LAC	(FNDB.5)	
01506 R 040043 R		DAC	DISTSW	
01507 R 601104 R		JMP	EXIT	
01510 R 206475 R	/	FNDB.5	LAC (050200)	/REVERSE DIRECTION AND SET
01511 R 707544 A		DTXA		/NORMAL MODE.
01512 R 206466 R		LAC	(FNDB.1)	/SET FORWARD LOOK
01513 R 040043 R		DAC	DISTSW	
01514 R 601104 R		JMP	EXIT	
01515 R 206471 R	/	FNDB.6	LAC (040200)	/CHANGE TO FORWARD
01516 R 601511 R		JMP	FNDB.5+1	
01517 R 206431 R	/	FNDB.7	LAC (000200)	
01520 R 707544 A		DTXA		
01521 R 200034 R		LAC	BLOCK	
01522 R 540033 R		SAD	BLKNUM	
01523 R 741000 A		SKP		
01524 R 601417 R		JMP	FNDBLK+4	
01525 R 440033 R		ISZ	BLKNUM	
01526 R 200037 R		LAC	RDWRT	
01527 R 740200 A		SZA		
01530 R 101613 R		JMS	SUMCHK	
01531 R 707601 A		DTDF		
01532 R 741000 A		SKP		
01533 R 601543 R		JMP	FNDB.9	
01534 R 707561 A		DTEF		
01535 R 601531 R		JMP	.-4	
01536 R 707552 A		DTRA		
01537 R 040041 R		DAC	SVSTA	
01540 R 707572 A		DTRB		
01541 R 040042 R		DAC	SVSTB	
01542 R 601131 R		JMP	DSER.6	
01543 R 200034 R	FNDB.9	LAC	BLOCK	
01544 R 540033 R		SAD	BLKNUM	
01545 R 741000 A		SKP		
01546 R 601414 R		JMP	FNDBLK+1	
01547 R 200035 R		/		
01550 R 040050 R		LAC	DECWC	/SET WORD COUNT,
01551 R 060067 R		DAC	INWC	
		DAC*	SWC	

01552 R 346476 R	TAD	(4001)	
01553 R 340000 A	SCA		
01555 R 206477 R	LAC	(BUF-1)	/AND BUFFER START.
01556 R 040051 R	DAC	INCA	
01557 R 060070 R	DAC*	SYSCA	
01560 R 200037 R	LAC	RDWRT	/READ OR WRITE.
01561 R 741200 A	SNA		
01562 R 601565 R	JMP	.,+3	/READ.
01563 R 206500 R	LAC	(015200)	/WRITE.
01564 R 741000 A	SKP		
01565 R 206501 R	LAC	(013200)	
01566 R 707544 A	DTXA		/CHANGE MODE AND PERFORM
01567 R 206502 R	LAC	(FNDB.8)	/FUNCTION.
01570 R 040043 R	DAC	DISTSW	
01571 R 601105 R	JMP	EXIT+1	
01572 R 707552 A	/ FNDB.8 DTRA		
01573 R 506453 R	AND	(20000)	
01574 R 707544 A	DTXA		
01575 R 750001 A	CLC		
01576 R 340050 R	TAD	INWC	/WORD COUNT
01577 R 740001 A	CMA		
01600 R 340051 R	TAD	INCA	
01601 R 740001 A	CMA		
01602 R 346415 R	TAD	(1)	
01603 R 360070 R	TAD*	SYSCA	
01604 R 740200 A	SZA		
01605 R 626372 R	JMP*	POLSW1	/UNEQUAL - FLAG ER03.
01606 R 200037 R	LAC	RDWRT	
01607 R 741200 A	SNA		
01610 R 101676 R	JMS	CHKSUM	
01611 R 140045 R	DZM	ERRFLG	/CLEAR ERROR FLAG
01612 R 621413 R	JMP*	FNDBLK	/EXIT.
	.EJECT		

/SUMCHECKING SUBROUTINE.

/

/ENTRANCE FOR GEN. THE SUM CHECK.

01613	R	000000	A	SUMCHK	0	
01614	R	206503	R		LAC	(SUMC.1)
01615	R	046402	R		DAC	SUMSW#
01616	R	206504	R		LAC	(SUMC.6)
01617	R	046403	R		DAC	SUMSW1#
01620	R	046403	R		DAC	SUMCHK#
01621	R	046401	R	SUMC.2	DAC	SUMEXT#
01622	R	750001	A		CLC	
01623	R	340040	R		TAD	NUMBLK
01624	R	740001	A		CMA	
01625	R	046404	R		DAC	SUM.1#
01626	R	206433	R		LAC	(BUF)
01627	R	046405	R		DAC	SUM.2#
01630	R	777402	A		LAW	-376
01631	R	046406	R		DAC	SUM.3#
01632	R	200033	R		LAC	BLKNUM
01633	R	046407	R		DAC	SUM.4#
01634	R	626403	R	SUMC.3	JMP*	SUMSW1
01635	R	066405	R	SUMC.6	DAC*	SUM.2
01636	R	446405	R		ISZ	SUM.2
01637	R	366405	R		TAD*	SUM.2
01640	R	446406	R		ISZ	SUM.3
01641	R	601636	R		JMP	.-3
01642	R	626402	R		JMP*	SUMSW
01643	R	446405	R	SUMC.1	ISZ	SUM.2
01644	R	066405	R		DAC*	SUM.2
01645	R	446407	R	SUMC.5	ISZ	SUM.4
01646	R	446404	R		ISZ	SUM.1
01647	R	741000	A		SKP	
01650	R	626401	R		JMP*	SUMEXT
01651	R	777402	A		LAW	-376
01652	R	046406	R		DAC	SUM.3
01653	R	446405	R		ISZ	SUM.2
01654	R	206407	R		LAC	SUM.4
01655	R	601634	R		JMP	SUMC.3

.EJECT

01656	R	446405	R	SUMC.4	ISZ	SUM.2
01657	R	740001	A		CMA	
01660	R	346415	R		TAD	(1)
01661	R	366405	R		TAD*	SUM.2
01662	R	046410	R		DAC	SUM.5#
01663	R	740200	A		SZA	
01664	R	602125	R		JMP	ER07
01665	R	601645	R		JMP	SUMC.5

/						
01666	R	740001	A	SUMC.7	CMA	
01667	R	346415	R		TAD	(1)
01670	R	366405	R		TAD*	SUM.2
01671	R	046410	R		DAC	SUM.5
01672	R	740200	A		SZA	
01673	R	602125	R		JMP	ER07
01674	R	226405	R		LAC*	SUM.2
01675	R	601636	R		JMP	SUMC.6+1

/						
01676	R	000000	A	CHKSUM	0	
01677	R	206505	R		LAC	(SUMC.4
01700	R	046402	R		DAC	SUMSW
01701	R	206506	R		LAC	(SUMC.7
01702	R	046403	R		DAC	SUMSW1
01703	R	201676	R		LAC	CHKSUM
01704	R	601621	R		JMP	SUMC.2

/MULTIPLY ROUTINE.

/						
01705	R	000000	A	MPY32	0	
01706	R	744010	A		RCL	
01707	R	742010	A		RTL	
01710	R	742010	A		RTL	
01711	R	621705	R		JMP*	MPY32

/						
01712	R	000000	A	CHKBLK	0	
01713	R	200034	R		LAC	BLOCK
01714	R	506507	R		AND	(7777)
01715	R	040034	R		DAC	BLOCK
01716	R	346510	R		TAD	(-1102)
01717	R	740100	A		SMA	
01720	R	602100	R		JMP	ER06
01721	R	200034	R		LAC	BLOCK
01722	R	621712	R		JMP*	CHKBLK
					.EJECT	

/RANDOM NUMBER GENERATOR ROUTINE

01723 R 000000 A
 01724 R 201761 R
 01725 R 346511 R
 01726 R 741100 A
 01727 R 601737 R
 01730 R 206512 R
 01731 R 041761 R
 01732 R 201760 R
 01733 R 745100 A
 01734 R 744002 A
 01735 R 740010 A
 01736 R 041760 R
 01737 R 221761 R

/
 RANGEN 0
 LAC RANDEX
 TAD (-RANTBL-10)
 SPA
 JMP RANTAD-1
 LAC (RANTBL)
 DAC RANDEX
 LAC RANCON
 SPA!CLL
 STL
 RAL
 DAC RANCON
 LAC* RANDEX

01740 R 341760 R
 01741 R 061761 R
 01742 R 441757 R
 01743 R 601750 R
 01744 R 366427 R
 01745 R 061761 R
 01746 R 777750 A
 01747 R 041757 R
 01750 R 201756 R
 01751 R 740020 A
 01752 R 361761 R
 01753 R 041756 R
 01754 R 441761 R
 01755 R 621723 R
 01756 R 000000 A
 01757 R 777750 A

/
 RANTAD TAD RANCON
 DAC* RANDEX
 ISZ RANCNT
 JMP .+5
 TAD* (0)
 DAC* RANDEX
 LAW -30
 DAC RANCNT
 LAC RANSAV
 RAR
 TAD* RANDEX
 DAC RANSAV
 ISZ RANDEX
 JMP* RANGEN
 RANSAV 0
 RANCNT -30

01760 R 123456 A
 01761 R 001772 R
 01762 R 654321 A
 01763 R 361416 A
 01764 R 055363 A
 01765 R 546060 A
 01766 R 243035 A
 01767 R 762572 A
 01770 R 453237 A
 01771 R 150214 A

/
 RANCON 123456
 RANDEX RANTBL+10
 RANTBL 654321
 361416
 055363
 546060
 243035
 762572
 453237
 150214
 .EJECT

/BUFFER RANDOM DATA GENERATION ROUTINE.

```

01772 R 000000 A   /
01773 R 777774 A   /
01774 R 046351 R   /
01775 R 101723 R   /
01776 R 741200 A   /
01777 R 601775 R   /
02000 R 066352 R   /
02001 R 446352 R   /
02002 R 446353 R   /
02003 R 741000 A   /
02004 R 102010 R   /
02005 R 446351 R   /
02006 R 601775 R   /
02007 R 621772 R   /

```

```

BUFGEN 0
        LAW      -4
        DAC      BUF.1#
BUF.1   JMS      RANGEN
        SNA
        JMP      BUFG.1
        DAC*     BUF.2#
        ISZ      BUF.2
        ISZ      BUF.3#
        SKP
        JMS      RESBUF
        ISZ      BUF.1
        JMP      BUFG.1
        JMP*     BUFGEN

```

```

02010 R 000000 A   /
02011 R 774000 A   /
02012 R 046353 R   /
02013 R 206433 R   /
02014 R 046352 R   /
02015 R 622010 R   /

```

```

RESBUF 0
        LAW      -BUFSIZ
        DAC      BUF.3
        LAC      (BUF)
        DAC      BUF.2
        JMP*     RESBUF

```

```

02016 R 000000 A   /
02017 R 750004 A   /
02020 R 506473 R   /
02021 R 741200 A   /
02022 R 622016 R   /
02023 R 102025 R   /
02024 R 602017 R   /

```

```

HOLD 0
        LAS
        AND      (2)
        SNA
        JMP*     HOLD
        JMS      BREAK
        JMP      .-5

```

```

02025 R 000000 A   /
02026 R 046350 R   /
02027 R 750010 A   /
02030 R 046367 R   /
02031 R 200020 R   /
02032 R 741200 A   /
02033 R 602036 R   /
02034 R 777776 A   /
02035 R 602037 R   /
02036 R 777773 A   /
02037 R 040020 R   /
02040 R 777777 A   /
02041 R 046362 R   /
02042 R 601105 R   /

```

```

BREAK 0
        DAC      BRKAC#
        GLK
        DAC      LINK#
        LAC      SYSERR
        SNA
        JMP      .+3
        LAW      -2
        JMP      .+2
        LAW      -5
        DAC      SYSERR
        LAW      -1
        DAC      DSTSW1
        JMP      EXIT+1

```

```

02043 R 146362 R   /
02044 R 206367 R   /
02045 R 740020 A   /
02046 R 206350 R   /
02047 R 622025 R   /

```

```

BREAK1 DZM      DSTSW1
        LAC      LINK
        RAR
        LAC      BRKAC
        JMP*     BREAK

```

.EJECT

02050 R 206415 R	ER01	LAC	(1)	/ERROR 1 - - NO MORE HANDLERS
02051 R 102262 R		JMS	RESPUT	/AVAILABLE.
02052 R 777777 A		LAW	-1	
02053 R 046361 R		DAC	DONE	
02054 R 102306 R		JMS	ENDPUT	
/				
02055 R 601115 R		JMP	TERMIN	
/				
02056 R 206473 R	ER02	LAC	(2)	/SELECT ERROR - DELETE
02057 R 102146 R		JMS	ERPUT	/HANDLER
02060 R 602242 R		JMP	DELHAN	
/				
02061 R 707552 A	ER03	DTRA		/WORD COUNT - CURRENT ADDRESS
02062 R 506453 R		AND	(20000)	
02063 R 707544 A		DTXA		
02064 R 206416 R		LAC	(3)	
02065 R 102146 R		JMS	ERPUT	/ERROR AFTER OPERATION.
02066 R 602216 R		JMP	CHKFLG	
/				
02067 R 200042 R	ER04	LAC	SVSTB	
02070 R 506453 R		AND	(20000)	
02071 R 740200 A		SZA		
02072 R 602102 R		JMP	PARERR	/PARITY ERROR
02073 R 206513 R		LAC	(4)	/OTHER STATUS B ERRORS.
02074 R 102146 R		JMS	ERPUT	
02075 R 602216 R		JMP	CHKFLG	
/				
02076 R 206514 R	ER05	LAC	(5)	/API FLAG ERROR.
02077 R 602051 R		JMP	ER01+1	
/				
02100 R 206515 R	ER06	LAC	(6)	
02101 R 602074 R		JMP	.-5	
		.EJECT		

02102	R	446365	R	PARERR	ISZ	FIRST	
02103	R	602123	R		JMP	PARER1	
02104	R	777773	A		LAW	-5	
02105	R	446370	R		BAR	BARCNT#	
02107	R	101413	R		JMS	FNDBLK	/DO IT AGAIN
02110	R	446370	R	PARER2	ISZ	PARCNT	
02111	R	602107	R		JMP	.-2	
02112	R	777777	A		LAW	-1	
02113	R	446365	R		DAC	FIRST	
02114	R	206371	R		LAC	PARTOT	
02115	R	744020	A		RCR		
02116	R	740020	A		RAR		
02117	R	742020	A		RTR		
02120	R	246516	R		XOR	(10)	
02121	R	102146	R		JMS	ERPUT	
02122	R	601010	R		JMP	DCTAP1+3	
02123	R	446371	R	PARER1	ISZ	PARTOT	
02124	R	602110	R		JMP	PARER2	
02125	R	206413	R	ER07	LAC	(7)	
02126	R	102262	R		JMS	RESPUT	
02127	R	200041	R		LAC	SVSTA	
02130	R	102301	R		JMS	PUT	
02131	R	200034	R		LAC	BLOCK	
02132	R	102301	R		JMS	PUT	
02133	R	200040	R		LAC	NUMBLK	
02134	R	102301	R		JMS	PUT	
02135	R	750001	A		CLC		
02136	R	346433	R		TAD	(BUF)	
02137	R	740001	A		CMA		
02140	R	346405	R		TAD	SUM.2	
02141	R	102301	R		JMS	PUT	
02142	R	206410	R		LAC	SUM.5	
02143	R	102301	R		JMS	PUT	
02144	R	102306	R		JMS	ENDPUT	
02145	R	602216	R		JMP	CHKFLG	

.EJECT

02146	R	000000	A	ERPUT	0			/PUT AWAY ERROR PARAMETERS
02147	R	102262	R		JMS	RESPUT		/FOR MONITOR AFTER ERROR.
02150	R	200041	R		LAC	SVSTA		
02151	R	102301	R		JMS	PUT		
02152	R	200042	R		LAC	SVSTB		/STATUS B REG.
02153	R	102301	R		JMS	PUT		
02154	R	206363	R		LAC	ERN.1#		
02155	R	546515	R		SAD	(6)		
02156	R	741000	A		SKP			
02157	R	602163	R		JMP	.+4		
02160	R	200034	R	ERPU.2	LAC	BLOCK		
02161	R	102301	R		JMS	PUT		
02162	R	602214	R		JMP	ERPU.1		
02163	R	200042	R		LAC	SVSTB		
02164	R	506424	R		AND	(40000)		
02165	R	740200	A		SZA			
02166	R	602214	R		JMP	ERPU.1		
02167	R	200050	R		LAC	INWC		/BEGINNING WORD COUNT.
02170	R	102301	R		JMS	PUT		
02171	R	220067	R		LAC*	SYSWC		/ENDING WORD COUNT.
02172	R	102301	R		JMS	PUT		
02173	R	200051	R		LAC	INCA		/BEGINNING CURRENT ADDRESS.
02174	R	102301	R		JMS	PUT		
02175	R	220070	R		LAC*	SYSCA		/ENDING CURRENT ADDRESS.
02176	R	046364	R		DAC	ERP.1#		
02177	R	102301	R		JMS	PUT		
02200	R	206363	R		LAC	ERN.1		
02201	R	546513	R		SAD	(4)		
02202	R	602160	R		JMP	ERPU.2		
02203	R	206363	R		LAC	ERN.1		
02204	R	546416	R		SAD	(3)		
02205	R	602214	R		JMP	ERPU.1		
02206	R	200041	R		LAC	SVSTA		
02207	R	506517	R		AND	(1000)		
02210	R	741200	A		SNA			
02211	R	602214	R		JMP	.+3		
02212	R	226364	R		LAC*	ERP.1		/FIRST WORD PUTAWAY BY TRANS.
02213	R	102301	R		JMS	PUT		
02214	R	102306	R	ERPU.1	JMS	ENDPUT		/CLOSE ERROR FILE.
02215	R	622146	R		JMP*	ERPUT		
					.EJECT			

02216	R	200045	R	CHKFLG	LAC	ERRFLG	/CHECK DOUBLE ERROR FLAG
02217	R	740200	A		SZA		/FOR THIS TRANSPORT.
02220	R	602242	R		JMP	DELHAN	/ON - DELETE HIM.
02221	R	777777	A		LAW	=1	/OFF - TRY THE OPERATION AGAIN.
02222	R	040045	R		DAC	ERRFLG	
02223	R	200042	R		LAC	SVSTB	
02224	R	506425	R		AND	(100000)	
02225	R	741200	A		SNA		
02226	R	601417	R		JMP	FNDBLK+4	
02227	R	200043	R		LAC	DISTSW	
02230	R	546466	R		SAD	(FNDB.1)	
02231	R	741000	A		SKP		
02232	R	602235	R		JMP	.+3	
02233	R	206462	R		LAC	(60000)	
02234	R	601462	R		JMP	FNDB.3+1	
02235	R	546470	R		SAD	(FNDB.2)	
02236	R	741000	A		SKP		
02237	R	601417	R		JMP	FNDBLK+4	
02240	R	206520	R		LAC	(70000)	
02241	R	601462	R		JMP	FNDB.3+1	
/							
02242	R	200032	R	DELHAN	LAC	CURHAN	/DELETE THE CURRENT HANDLER
02243	R	346454	R		TAD	(ACTIVE)	/FROM THE GROUP.
02244	R	046354	R		DAC	DEL.1#	
02245	R	166354	R		DZM*	DEL.1	
02246	R	140045	R		DZM	ERRFLG	
02247	R	750001	A		CLC		/DECREMENT ON LINE
02250	R	340036	R		TAD	HANCNT	/HANDLER COUNT AND IF
02251	R	040036	R		DAC	HANCNT	/ZERO, FLAG AN ERROR 1.
02252	R	741100	A		SPA		
02253	R	602256	R		JMP	.+3	
02254	R	740200	A		SZA		
02255	R	601005	R		JMP	DCTAP1	/IF NOT, SELECT ANOTHER.
02256	R	707552	A		DTRA		
02257	R	506453	R		AND	(20000)	
02260	R	707544	A		DTXA		
02261	R	602050	R		JMP	ER01	
					.EJECT		

02262	R	000000	A	RESPUT	0		/RESET ERROR PUTAWAY ROUTINES.
02263	R	046363	R		DAC	ERN.1#	/SAVE ERROR NUMBER
02264	R	200020	R		LAC	SYSERR	/CHECK FOR PREVIOUS ERROR.
02265	R	740200	A		SZA		
02266	R	602273	R		JMP	PUTS.1	/YES, SAVE THIS ONE.
02267	R	206363	R		LAC	ERN.1	/NO, SET UP ERROR IN OUTPUT
02270	R	040022	R		DAC	ERCODE	/BUFFER
02271	R	206521	R		LAC	(ERCODE+1)	
02272	R	602276	R		JMP	PUTS.2	
02273	R	206363	R	PUTS.1	LAC	ERN.1	/IN SAVE AREA.
02274	R	040054	R		DAC	SAVERR	
02275	R	206522	R		LAC	(SAVERR+1)	
02276	R	046374	R	PUTS.2	DAC	PUT.1#	
02277	R	146375	R		DZM	PUT.2#	
02300	R	622262	R		JMP*	RESPUT	
02301	R	000000	A	PUT	0		/ITEM PUTAWAY ROUTINE.
02302	R	066374	R		DAC*	PUT.1	/SET UP BY RESPUT.
02303	R	446374	R		ISZ	PUT.1	
02304	R	446375	R		ISZ	PUT.2	
02305	R	622301	R		JMP*	PUT	
02306	R	000000	A	ENDPUT	0		/CLOSE ERROR OUTPUT
02307	R	446375	R		ISZ	PUT.2	
02310	R	200020	R		LAC	SYSERR	/CHECK FOR SECOND ERROR.
02311	R	740200	A		SZA		
02312	R	602332	R		JMP	PUTS.3	/YES
02313	R	206375	R		LAC	PUT.2	/NO, PUTAWAY NUMBER OF
02314	R	740001	A		CMA		/PARAMETERS.
02315	R	346415	R		TAD	(1)	
02316	R	040021	R		DAC	ERCODE-1	
02317	R	740100	A		SMA		
02320	R	740040	A		HLT		
02321	R	206361	R		LAC	DONE	
02322	R	741200	A		SNA		
02323	R	602327	R		JMP	.+4	
02324	R	777774	A		LAW	-4	
02325	R	040020	R		DAC	SYSERR	
02326	R	601104	R		JMP	EXIT	
02327	R	777777	A		LAW	-1	
02330	R	040020	R		DAC	SYSERR	
02331	R	622306	R		JMP*	ENDPUT	/EXIT.
02332	R	206375	R	PUTS.3	LAC	PUT.2	/PUT NUMBER OF PARAMETERS
02333	R	740001	A		CMA		/IN SAVE AREA.
02334	R	346415	R		TAD	(1)	
02335	R	040053	R		DAC	SAVERR-1	
02336	R	777777	A		LAW	-1	
02337	R	040047	R		DAC	MOVERR	/SET MOVE ERROR FLAG.
02340	R	206523	R		LAC	(-2)	
02341	R	040020	R		DAC	SYSERR	
02342	R	707552	A		DTRA		
02343	R	506453	R		AND	(20000)	
02344	R	707544	A		DTXA		
02345	R	601104	R		JMP	EXIT	/EXIT WITHOUT I/O START

02346 R

A

BUF

.BLOCK BUFSIZ+1
.EJECT

.END UODSW

000000 R
06413 R 000007 A *L
06414 R 377777 A *L
06415 R 000001 A *L
06416 R 000003 A *L
06417 R 000120 R *L
06420 R 000521 R *L
06421 R 000111 R *L
06422 R 000753 R *L
06423 R 001462 R *L
06424 R 040000 A *L
06425 R 100000 A *L
06426 R 000300 A *L
06427 R 000000 A *L
06430 R 000100 A *L
06431 R 000200 A *L
06432 R 626401 R *L
06433 R 002346 R *L
06434 R 773777 A *L
06435 R 004000 A *L
06436 R 007400 A *L
06437 R 776705 A *L
06440 R 001124 R *L
06441 R 002061 R *L
06442 R 002067 R *L
06443 R 777773 A *L
06444 R 400000 A *L
06445 R 777777 A *L
06446 R 000053 R *L
06447 R 000021 R *L
06450 R 777774 A *L
06451 R 010000 A *L
06452 R 060000 A *L
06453 R 020000 A *L
06454 R 000520 R *L
06455 R 000110 R *L
06456 R 777775 A *L
06457 R 776710 A *L
06460 R 001073 A *L
06461 R 777756 A *L
06462 R 000023 A *L
06463 R 777400 A *L
06464 R 000034 R *L
06465 R 000100 R *L
06466 R 001436 R *L
06467 R 010200 A *L
06470 R 001456 R *L
06471 R 040200 A *L
06472 R 001466 R *L
06473 R 000002 A *L
06474 R 001510 R *L
06475 R 050200 A *L
06476 R 004001 A *L

06477 R 002345 R *L
06500 R 015200 A *L
06501 R 013200 A *L
06502 R 001572 R *L
06503 R 001643 R *L
06504 R 001635 R *L
06505 R 001656 R *L
06506 R 001666 R *L
06507 R 007777 A *L
06510 R 776676 A *L
06511 R 776006 R *L
06512 R 001762 R *L
06513 R 000004 A *L
06514 R 000005 A *L
06515 R 000006 A *L
06516 R 000010 A *L
06517 R 001000 A *L
06520 R 070000 A *L
06521 R 000023 R *L
06522 R 000055 R *L
06523 R 777776 A *L

SIZE=06531

1 ERROR LINES

