

LENGTH OF PRG 10765

IDENT	PHANTOM	
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IF 1 ASSEMBLE STATISTICS GATHERI

SIZE OF A USER VMM
DENOTES A PSA REFERANCE

REFERANCE TO DEVICE MACRO
REFERANCE TO A CONTROL BLOCK

NUMBER OF WORDS ON A TV SCREEN
SCREENL+SCREENL+SCREENL+SCREENL

NUMBER OF CHARACTERS/LINE

REGISTER FILE FOR NUMBER OF USERS
REGISTER FILE WORD FOR THE DATE
RF WORD THAT POINTS TO PSA

SAVE FOR STATISTICAL BUFFER LOCAT

ENDPOINT PUT HERE BY INITIAL
SLSBITS STUCK HERE BY INITIAL

00020
00031
00055
00171

79
30
81
82

MAXHS EQU
FREEMIN EQU
FREEMAX EQU
ALIASTRM EQU

208
31B
55B
171B

MAX TERM FOR HIGH SPEED TERMINALS
LOW PATCH TERMINAL
HIGHEST GENERAL PATCH TERM
PHANTOM TERM WHEN SOMEONE

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*
*   NOTES TO THE NOVICE
*
*   LINES USED BY PHANTOM:
*   1   EQUIPS TO SYSTEM OVERLAY IN INITIAL PHASE
*       EQUIPS TO MESSAGE# IN MESS AND DMESS
*   2   EQUIPS TO TASK TO COPY TASKS TO
*   3   EQUIPS TO TASK INPUT FILE
*   10  EQUIPS TO $FILE400 FOR OWNER
*   11  EQUIPS TO ↑SYSTAT FOR INFORMSTION GATHERING
*   15  EQUIPS TO SCRATCH FILE FOR BACKSPACE
*   20  EQUIPS TO ↑FORMACC TO WRITE FORMS INFO ON
*
*   WHEN PHANTOM IS ENTERED FROM INITIAL THE FOLLOWING INFORMATION
*   IS IN THE REGISTER FILES:
*   RF50 NAME OF THE RUNNING SYSTEM
*   RF51 DITTO
*   RF67 IF SIGN OFF, TPUNITS AVAILABLE ON THE SYSTEM
*       IF SIGN ON, BITS 22-15 TPUNITS AVAIL ON SYSTEM
*       BITS 14-0 TPUNITS OPERATIONAL
*   RF70 THE NAME OF THIS PHANTOM
*   RF71 DITTO
*   RF74 ADDRESS OF END OF SYSTEM FREE STORAGE
*   RF75 SLSBITS
*       BIT0 - LOG PHANTOM IN
*       BIT1 - SUBMIT AUTO JOBS
*       BIT2 - RESTORE SUSPENDED INFORMATION
*       BIT3 - NORMAL OS3 RUNNING
*   RF76 0 IF TVS EXIST ON THIS SYSTEM
*
*   THE SYMBOL #PSA# IS TAGGED ONTO ALL REGERANCES TO PSAS
*
*   THE SYMBOL #MAC# IS TAGGED ONTO ALL REFERANCES TO DEVICE MACROS
*
*   THE SYMBOL #HALT# IS TAGGED ONTO ALL STOPS (UJP *) INSIDE
*   PHANTOM. THESE STOPS ARE IMPOSSIBLE HAPPENINGS (E.G., UNABLE
*   TO EQUIP A TASK TO SUBMIT THE AUTO JOBS ON) BUT EXIST IN
*   ORDER TO CATCH THE MONITOR IN CASE IT DECIDES TO FULL ANYTHING
*   FUNNY.
*
*   THE SYMBOL #IMPURE# IS TAGGED ONTO ANY WORD OR FIELD THOSE
*   CONTENTS IS CHANGED.
*
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LOGGED IN

00000	00000	P	131	*			
			132	Z	EQU	*	
			133				
00000	00000	P	134		OUTBUFF	EQU	*
00001	00100000		135			00	0,1
00002	00004000		136			00	4000B
00003	00100004	P	137			00	PHANTOM,1
	77777777		138			OCT	-0
			139				
00004	00004	P	140		PHANTOM	EQU	*
	53020075		141			TMA	RF75
			142	*			
00005	17500002		143		ANA		2B
00006	03000067	P	144		AZJ, EQ		SKIPAJOB
00007	25000355	P	145		LDAQ		TASKFILE
00010	14100003		146		ENI		EQUIP, X1
00011	71400352	P	147		XREQ, I		TASKLUN2
00012	02500067	P	148		IJD		SKIPAJOB, X1
00013	12000002		149		SHA		23-E00BIT
00014	03300060	P	150		AZJ, LT		TASK25
00015	12000004		151		SHA		E00BIT-AUBIT
00016	03300060	P	152		AZJ, LT		TASK25
	00017	P	153		TASK00	EQU	*
00017	14600372	P	154		ENA		INBUFF
00020	14700024		155		ENQ		INBUFFL
00021	74400352	P	156		READ, I		TASKLUN2
00022	12000006		157		SHA		23-AUBIT
00023	03300056	P	158		AZJ, LT		TASK20
00024	05500000		159		QSG, S		0
00025	01000017	P	160		UJP		TASK00
00026	16577777		161		XOQ, S		77777B
00027	15500024		162		INQ, S		INBUFFL
00030	05700001		163		QSG		1
00031	01000056	P	164		UJP		TASK20
00032	41000661	P	165		STQ		TEMP
00033	20000372	P	166		LDA		INBUFF
00034	21000357	P	167		LDD		BCDJOB
00035	03500052	P	168		AQJ, NE		TASK10
00036	14100002		169		ENI		UNEQUIP, X1
00037	71400351	P	170		XREQ, I		TASKLUN
00040	25000353	P	170+001		LDAQ		TASK
00041	14100003		170+002		ENI		EQUIP, X1
00042	71400351	P	170+003		XREQ, I		TASKLUN
00043	02500346	P	170+004		IJD		LOGOUT, X1
00044	14100005		173		ENI		5, X1
00045	00702051	P	174		RTJ		FETCHITM
00046	01000052	P	174+001		UJP		TASK10
00047	01000052	P	174+002		UJP		TASK10
00050	14100023		182		ENI		SEND, X1
00051	71400351	P	184		XREQ, I		TASKLUN
	00052	P	185		TASK10	EQU	*
00052	14600372	P	186		ENA		INBUFF
00053	21000661	P	187		LDD		TEMP
00054	75400351	P	188		WRITE, I		TASKLUN
00055	01000017	P	189		UJP		TASK00
			190				
	00056	P	191		TASK20	EQU	*
00056	14100002		192		ENI		UNEQUIP, X1
00057	71400351	P	193		XREQ, I		TASKLUN
	00060	P	194		TASK25	EQU	*
00060	14100002		195		ENI		UNEQUIP, X1
00061	71400352	P	196		XREQ, I		TASKLUN2
00062	04100000		197		ISE		0, X1
00063	01000063	P	198		UJP		*+HALT
00064	53020075		199		TMA		RF75
00065	17477775		200		ANA, S		77775B
00066	53420075		201		TAM		RF75
	00067	P	202		SKIPAJOB	EQU	*
			203				
00067	53020076		204		TMA		RF76
00070	03000072	P	205		AZJ, EQ		*+2
00071	01000071	P	206		UJP		*+HALT
00072	53020050		207		TMA		RF50
00073	53010051		208		TMQ		RF51
00074	14100003		209		ENI		EQUIP, X1
00075	71400350	P	210		XREQ, I		SYSLUN
00076	02500346	P	211		IJD		LOGOUT, X1
00077	14700004		212		ENQ		REWIND
00100	72400350	P	213		CNTL, I		SYSLUN

CHECK RF75, SLSBITS STUCK
THERE BY INITIAL
CHECK PARTICULAR BIT
BIT NOT SET. NO AUTO SUBMIT

EQUIP TO INPUT FILE
IF NOT THERE FORGET THIS

IF AT EOD FLAKE OUT

IF ABNORMAL FLASK OUT

GET A RECORD

IF INPUT ABNORM FLAKE OUT

IGNORE EXTRA LONG RECORDS

GET LENGTH OF RECORD

END ON ZERO LENGTH RECORDS
STORE THE LENGTH

CHECK FO JOB CARD

UNEQUIP LAST AASK IF THERE

EQUIP TO THE TASK UNIT
THIS WILL BE A GOOD DAY
POINT TO BEGINNING OF DESTINATION
GET DESTINATION NAME
IF NOTHING NO DESTINATION
IF NUMBER ASSUME SITE

AND SEND IT TO PRORER QUEUE

OUTIT RECORD ONTO OUTPUT TASK

UNEQUIP TH TASK IF THERE

UNEQUIP THE INPUT FILE

HOW COULD HE DO THIS TO ME

REMOVE TASK SUBMIT BIT

DO TV EXIST ON THIS SYSTEM
JUMP IF THEY DO
DON'T GO AYAY
OBTAIN THE NAME OF THE RUNNING
SYSTEM

JUMP IF AN ERROR

00101 14700010
00102 72400350 P
00103 72400350 P
00104 72400350 P

00105 53020074
00106 17674000
00107 44006242 P
00110 44006244 P
00111 44006260 P

214
215
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223

END
CNTL,I
CNTL,I
CNTL,I

TMA
ANA
SWA
SWA
SWA

FWSP
SYSLUN
SYSLUN
SYSLUN

RF74
74000B
FRSCASG
FRSCGSG
FRSCGSGA

SPACE PAST THE OVERLAY

MASK TO PAGE BOUNDRY

00112	14300000		225		ENI	0,X3	SET START OF SYMBOL TABLE
	00113	P	226	MAP01	EQU	*	
00113	14100041		227		ENI	MAPBUFL-1,X1	BLANK FILL THE MAPP BUFF LINE
00114	20000653	P	228		LDA	BLANKS	
00115	40106473	P	229		STA	MAPBUF,X1	
00116	02500115	P	230		IJD	*-1,X1	
			231				
00117	14700042		232		ENQ	MAPBUFL	READ A LINE
00120	14606473	P	233		ENA	MAPBUF	
00121	74400350	P	234		READ,I	SYSLUN	
00122	22032354	P	235	06473 0	LACH	MAPBUF	GET THE FIRST CHAR
00123	03000156	P	236		AZJ,EQ	MAP07	JUMP IF A ZERO
00124	14100001		237		ENI	1,X1	START AT COLUMN 2
	00125	P	238	MAP06	EQU	*	
00125	14700060		239		ENQ	608	SPACE
	00126	P	240	MAP03	EQU	*	
00126	10100207		241		ISI	MAPBUFL+MAPBUFL+MAPBUFL+MAPBUFL-1,X1	
00127	01000131	P	242		UJP	*+2	
00130	01000113	P	243		UJP	MAP01	JUMP IF DONE WITH THE CURRENT LI
00131	22432354	P	244	06473 0	LACH	MAPBUF,X1	GET THE NEXT CHAR
00132	03400126	P	245		AQJ,EQ	MAP03	LOOP IF A SPACE
00133	14700000		246		ENQ	0	SET ADDRESS TO ZERO
	00134	P	247	MAP04	EQU	*	
00134	12000025		248		SHA	21	PUT ON HIGH END
00135	13000003		249		SHAQ	3	PUT NUMBER TOGETHER
00136	15100001		250		INI	1,X1	INCREMENT THE POINTER
00137	22432354	P	251	06473 0	LACH	MAPBUF,X1	GET THE NEXT CHAR
00140	05600012		252		ASG	10	SKIP IF NOT A DIGIT
00141	01000134	P	253		UJP	MAP04	LOOP IF NOT
00142	13000030		254		SHAQ	24	PUT VALUE IN A
00143	35000347	P	255		SSA	BITORNOT	SET THE SUBPROGRAM BIT MAYBE
00144	40310767	P	256		STA	SYMTAB+VALUE,X3	SAVE THE VALUE WORD
00145	14277770		257		ENI	-7,X2	GET 8 CHAR SYMBOL
	00146	P	258	MAP05	EQU	*	
00146	15100001		259		INI	1,X1	INCREMENT THE POINTER
00147	22432354	P	260	06473 0	LACH	MAPBUF,X1	GET A CHAR
00150	42403313	P	261	00662 3	SACH	TEMP+7,X2	SAVE IT
00151	02200146	P	262		IJI	MAP05,X2	JUMP IF NOT DONE
00152	25000661	P	263		LDAQ	TEMP	GET THE SYMBOL
00153	45310765	P	264		STAQ	SYMTAB+NAME,X3	SAVE THE NAME
00154	15300003		265		INI	ENTRYL,X3	FIX THE SYMTAB POINTER
00155	01000125	P	266		UJP	MAP06	LOOP BACK
			267				
	00156	P	268	MAP07	EQU	*	
00156	20000347		269		LDA	BITORNOT	SUBPROGRAM BIT
00157	03100163	P	270		AZJ,NE	MAPEND	JUMP IF SET WE ARE DONE
00160	20000665	P	271		LDA	BIT23	SET THE BIT
00161	40000347	P	272		STA	BITORNOT	SAVE IT
00162	01000113	P	273		UJP	MAP01	LOOP BACK
			274				
	00163	P	275	MAPEND	EQU	*	
00163	47310764		276		STI	SYMLENTH,X3	SAVE THE LENGTH OF THE SYMTAB
00164	14100002	P	277		ENI	UNEQUIP,X1	UNEQUIP THE SYSTEM OVERLAY
00165	71400350	P	278		XREQ,I	SYSLUN	

00166	14300000		280		ENI	0,X3	
	00167	P	281	KEYLOOK	EQU		
00167	14577777		282		ENQ,S	77777B	
00170	54110764	P	283		LDI	SYMLENTH,X1	LOAD THE LENGTH OF THE TABLE
00171	20300417	P	284	KEYMEQ	LDA	KEYWORD,X3	LOAD A KEY WORD
00172	06110765	P	285		MEQ	SYMTAB+NAME,X1	
00173	01000346	P	286		UJP	KEYJMP	
00174	20110766	P	287		LCA	SYMTAB+NAME+1,X1	
00175	31300420	P	288		SBA	KEYWORD+1,X3	
00176	03100171	P	289		AZJ,NE	KEYMEQ	
00177	20110767	P	290		LDA	SYMTAB+VALUE,X1	
00200	44300421	P	291		SWA	KEYWORD+2,X3	
	00201	P	292	KEY01	EQU	*	
00201	15300003		293		INI	3,X3	
00202	05300226		294		ISG	KEYWORDL,X3	
00203	01000167	P	295		UJP	KEYLOOK	
			296				
00204	14177774		297		ENI	-3,X1	
00205	01000214	P	298		UJP	KEY04	
00206	20100567	P	299	KEY02	LDA	KEYPOINT+2,X1	LOAD THE POINTER
00207	53600000		300		TAI	X2	LOAD THE REAL VALUE
00210	55400000		301		ROS		
00211	20200000		302		LDA	0,X2	
00212	55000000		303		RIS		
00213	44100567	P	304	KEY04	SWA	KEYPOINT+2,X1	
00214	15100003		305		INI	3,X1	ADVANCE TO THE NEXT ENTRY
00215	05100060		306		ISG	KEYPNTL,X1	SKIP IF TOO FAR
00216	01000206	P	307		UJP	KEY02	
			308				
00217	20000462	P	309		LDA	FRCNT	
00220	15477764		310		INA,S	-11	GENERATE ADDRESS OF FRPNT
00221	44006223	P	311		SWA	FRSC04	AND SAVE IT
			312				
			313				
00222	53020034		314		TMA	RF34	GET THE PSA POINTER
00223	12077766		315		SHA	-9	
00224	53700000		316		TAI	X3	X3 POINTS TO THE PSA
00225	30000440	P	317		ADA	CR	
00226	44001306	P	318		SWA	L100STAT	LOCATION OF LUN 100 STATUS
00227	24000665	P	319		LCA	BIT23	A LARGE NUMBER
00230	55400000		320		ROS		SET SOME LIMITS
00231	40400470	P	321		STA,I	MFBLKS,PSA	
00232	40400473	P	322		STA,I	MFBLK LIM,PSA	
00233	40400504	P	323		STA,I	SFBLK LIM,PSA	
00234	40400507	P	324		STA,I	TRUNTIME,PSA	
00235	40400520	P	325		STA,I	TIMLIM,PSA	
00236	14600017		326		ENA	17B	
00237	40400523	P	327		STA,I	UDBITS,PSA	GIVE PHANTOM SOME PRIORITY
00240	14600000		328		ENA	0	
00241	40400534	P	329		STA,I	CMCODE,PSA	CLEAR ANY PENDING ENTRY CODES
00242	55000000		330		RIS		
00243	20000641	P	331		LDA	BLOCKS	ADDRESS OF BLOCKS
00244	44004561	P	332		SWA	BLOCKMEQ	
00245	20000636	P	333		LDA	PSABLK	
00246	44002221	P	334		SWA	FRETRM14	SET UP #HS FREE# MEQ
			335				
00247	14100023		336		ENI	20-1,X1	
00250	20000653	P	337		LDA	BLANKS	
00251	40100713	P	338		STA	BQNAME,X1	INIT QUEUE NAMES TO BLANKS
00252	02500251	P	339		IJD	*-1,X1	
00253	14300000		340		ENI	0,X3	POINTER INTO BATCHQ
00254	14277777		341		ENI	-0,X2	POINTER TO BQNAME
00255	20000611	P	342		LDA	NBATCHQ	
00256	44000305	P	343		SWA	BQN08	INIT FINAL POINTER
00257	12077776		344		SHA	-1	GE NUMBER OF BATCH QUES
00260	40000712	P	345		STA	BQNAMEL	SAVE AS LENGTH OF NAME TABLE
00261	20000567	P	346		LDA	SENDTAB	
00262	15600001		347		INA	1	
00263	44000645	P	348		SWA	SENDTAB1	FORM OTHER SENDTAB POINTER
00264	44005360	P	349		SWA	PSAST01	
00265	44000276	P	350		SWA	BQN03	
			351				
	00266	P	352	BQN02	EQU	*	
00266	54100572	P	353		LDI	SENDTABL,X1	GET LENGTH OF SENDTAB
00267	21000737	P	354		LQ	TSKHT	
00270	20000622	P	355		LDA	BATCHQ	
00271	17677777		356		ANA	77777B	REMOVE ANY EXTRA
00272	53340000		357		AIA	X3	POINT TO PROPER ENTRY
00273	53040000		358		AQA		ADD TASK HARD TYPE

00274	14577777		359	ENQ,S	77777B	
00275	55400000		360	ROS		
00276	06200000		361	MEQ	IMPURE,2	LOOK FOR THE NAME
00277	01000303	P	362	UJP	BQN05	NOT FOUND
00300	20400567	P	363	LDA,I	SENDTAB	GET NAME
00301	55000000		364	RIS		
00302	40200713	P	365	STA	BQNAME,X2	STORE THE NAME
	00303	P	366	EQU	*	
00303	55000000		367	RIS		
00304	15300000		368	INI	2,X3	MOVE TO NEXT BATCH QUEUE
00305	05300000		369	ISG	IMPURE,X3	SKIP IF ALL DONE
00306	02200266	P	370	IJI	BQN02,X2	GET NEXT ONE
			371			
00307	54200712	P	372	LDI	BQNAME,X2	GET LENGTH OF TABLE
00310	14300003		373	ENI	4-1,X3	
00311	21000653	P	374	LDQ	BLANKS	
00312	20200712	P	375	LDA	BQNAME-1,X2	
00313	03500322	P	376	AQJ,NE	BQN15	JUMP IF LAST FOUR NOT BLANK
00314	15277776		377	INI	-1,X2	
00315	02700312	P	378	IJD	*-3,X3	
00316	25000342	P	379	LDAQ	BQNAME	ASSUME LAST FOUR IF...
00317	45200713	P	380	STAQ	BQNAME,X2	...LAST FOUR ARE BLANK
00320	25000344	P	381	LDAQ	BQNAME+2	
00321	45200715	P	382	STAQ	BQNAME+2,X2	
	00322	P	383	EQU	*	
			384			
00322	53020067		385	TMA	RF67	GET TAPE COUNT
00323	03300331	P	386	AZJ,LT	TPCT10	JUMP IF THIS IS A RELOAD
00324	53010067		387	TMQ	RF67	GET DRIVES IN Q ALSO
00325	12000017		388	SHA	15	KEEP NUMBER OF DRIVES IN UPPER 9
00326	53040000		389	AQA		MAKE TPUNITS AND OPERATIONAL EQ
00327	35000665	P	390	SSA	BIT23	MARK AS VALUE KNOWN
00330	53420067		391	TAM	RF67	
	00331	P	392	EQU	*	
00331	12077760		393	SHA	-15	
00332	17600377		394	ANA	377B	EXTRACT TAPES AVAIL
00333	40000646	P	395	STA	TPUNITS	SPECIFY TAPE UNITS
00334	15600001		396	INA	1	
00335	44003215	P	397	SWA	DOWNMT10	REMEMBER NUMBER OF DRIVES ON SYS
00336	20000561	P	398	LDA	HARDWARE	
00337	15600001		399	INA	1	FOR HARDWARE + 1
00340	44003171	P	400	SWA	DOWN05	
00341	01001660	P	401	UJP	INITCL	INITIALLY CLEAR INBUFF AND SCREE
			402			
00342	63216242		403	BQNAME	BCD	4,TASKCR1 UT01UT02
			404			
00346	01000346	P	405	LOGOUT	UJP	*+HALT
	00346	P	406			
			407	KEYJMP	EQU	LOGOUT
			408			
00347	00000000		409	BITORNOT	VFO	A24/IMPURE
			410			
			411			
00350	00000001		412	SYSLUN	OCT	1
00351	00000002		413	TASKLUN	OCT	2
00352	00000003		414	TASKLUN2	OCT	3
			415			
			416			
00353	63216242		417	TASK	BCD	2,TASK
00355	63216242		418	TASKFILE	BCD	2,TASKS
00357	17414622		419	BCDJOB	BCD	1,[JOB
			420	IF	*-(OUTBUFF+SCREENL) GE 0,	INITIALIZATION AREA TOO BIG

Address	Label	Value	Symbol	Attributes	Comments
00372	00372 P	422	ORGR		OUTBUFF+SCREENL PRECEDING STORAGE IS SACRAFICED
00416	00024 37000000	423 424 425	INBUFF INBUFFL SAVEX1	BSS EQU VFD	20 *-INBUFF A6/TVSEND,03/0,A15/IMPURE
00417	00417 P 00417 P	426 427 428	KEYWORD TTABLE	EQU EQU	* * ITEMS IN TTABLE ARE PRINTED OUT FOR TRAFFIC COMMA DS
00430	44254421 44625063 31462264 31453031 00014	429 430 431 432 433 434		VFD VFD VFD VFD	H48/MEMARRAY,A9/0,A15/IMPURE H48/MSQTOTAL,A9/20,A15/IMPURE H48/IOBUSY,A9/50,A15/IMPURE H48/INHIBIT,A9/70,A15/IMPURE
00433	21232345	435	TTABLEL	EQU	*-TTABLE
00435	00300000	436	ACCNUM	BCD	2,ACCNUM
00436	23516060	437	CR	BCD	2,CR
00440	00000000	438		BCD	IMPURE,X3
00441	63255144	439	IF	BCD	2,IF
00443	00300000	440	TERMINAL	BCD	2,TERMINAL
00444	65444460	441	VMM	BCD	2,VMM
00446	00300000	442	SYSCM	BCD	2,SYSCM
00447	62706223	443		BCD	IMPURE,X3
00451	00300000	444	.SKIP01	BCD	2,.SKIP01
00452	44254421	445	MEMARRAY	BCD	2,MEMARRAY
00454	00000000	446		BCD	IMPURE
00455	31462246	447	IOBOUND	BCD	2,IOBOUND
00457	00300000	448	FRCNT	BCD	2,FRCNT
00460	26512345	449	SCREAM	BCD	2,SCREAM
00462	00100000	450	MFBLKS	BCD	2,MFBLKS
00463	62235125	451	MFBLKCLIM	BCD	2,MFBLKCLIM
00465	00000000	452	SELECT	BCD	2,SELECT
00466	44262243	453	SYSCODE	BCD	2,SYSCODE
00470	00300000	454	SFBLKCLIM	BCD	2,SFBLKCLIM
00471	44262243	455	TRUNTIME	BCD	2,TRUNTIME
00473	00300000	456	TOTALTIM	BCD	2,TOTALTIM
00474	62254325	457	TFBLKS	BCD	2,TFBLKS
00476	00300000	458	TIMLIM	BCD	2,TIMLIM
00477	62706223	459	UDBITS	BCD	2,UDBITS
00501	00300000	460	UTAPEMAX	BCD	2,UTAPEMAX
00502	62262243	461	INTBIT	BCD	2,INTBIT
00504	00300000	462	CMCODE	BCD	2,CMCODE
00505	63516445	463	FLAGS	BCD	2,FLAGS
00507	00300000	464	FAKECBI	BCD	2,FAKECBI
00510	63466321	465	URBLOK	BCD	2,URBLOK
00512	00300000	466	URBLOKI	BCD	2,URBLOKI
00513	63262243	467	URBLOKIZ	BCD	2,URBLOKIZ
00515	00300000	468	LUNLIST	BCD	2,LUNLIST
00516	63314443	469	HARDWARE	BCD	2,HARDWARE
00520	00300000	470	TAPESAVL	BCD	2,TAPESAVL
00521	64242231	471	KEYPOINT	BCD	2,KEYPOINT
00523	00300000	472		BCD	IMPURE
00524	64632147	473		BCD	2,SENDTABP
00526	00300000	474		BCD	IMPURE,X3
00527	31456322	475		BCD	2,INTBIT
00531	00000000	476		BCD	IMPURE
00532	23442346	477		BCD	2,CMCODE
00534	00300000	478		BCD	IMPURE,X3
00535	26432127	479		BCD	2,FLAGS
00537	00000000	480		BCD	IMPURE
00540	26214225	481		BCD	2,FAKECBI
00542	00000000	482		BCD	IMPURE
00543	64512243	483		BCD	2,URBLOK
00545	00000000	484		BCD	IMPURE
00546	64512243	485		BCD	2,URBLOKI
00550	00000000	486		BCD	IMPURE
00551	64512243	487		BCD	2,URBLOKIZ
00553	00000000	488		BCD	IMPURE
00554	43644543	489		BCD	2,LUNLIST
00556	00300000	490		BCD	IMPURE,X3
00557	30215124	491		BCD	2,HARDWARE
00561	00100000	492		BCD	IMPURE,X1
00562	63214725	493		BCD	2,TAPESAVL
00564	00000000	494		BCD	IMPURE
00565	62254524	495 496 497 498 499 500		BCD	2,KEYPOINT

00567	00100000	501	SENDTAB	00	IMPURE,X1
00570	62254524	502		BCD	2,SENDILP
00572	00000000	503	SENDTABL	00	IMPURE
00573	63456444	504		BCD	2,TNUMLISP
00575	00300000	505	TNUMLIST	00	IMPURE,X3
00576	31244325	506		BCD	2,IDLEP
00600	00000000	507	IDLE	00	IMPURE
00601	22632330	508		BCD	2,BTCHNUMP
00603	00000000	509	BATCHNUM	00	IMPURE
00604	45222163	510		BCD	2,NBATPSAP
00606	00000000	511	NBATPSA	00	IMPURE
00607	45222163	512		BCD	2,NBATCHQP
00611	00000000	513	NBATCHQ	00	IMPURE
00612	50632122	514		BCD	2,QTABLEP
00614	00200000	515	QTABLE	00	IMPURE,X2
00615	63214725	516		BCD	2,TAPELISP
00617	00300000	517	TAPELIST	00	IMPURE,X3
00620	22216323	518		BCD	2,BATCHQP
00622	00300000	519	BATCHQ	00	IMPURE,X3
00623	22632330	520		BCD	2,BTCHPSAP
00625	00100000	521	BATCHPSA	00	IMPURE,X1
00626	47212725	522		BCD	2,PAGETABP
00630	00200000	523	PAGETABL	00	IMPURE,X2
00631	64625144	524		BCD	2,USRMAXP
00633	00000000	525	USERMAX	00	IMPURE
00634	47622122	526		BCD	2,PSABLKP
00636	00300000	527	PSABLK	00	IMPURE,X3
00637	22434623	528		BCD	2,BLOCKSP
00641	00300000	529	BLOCKS	00	IMPURE,X3
00642	22434623	530		BCD	2,BLOCKSLP
00644	00000000	531	BLOCKSL	00	IMPURE
	00060	532	KEYPNTL	EQU	*-KEYPOINT
	00226	533	KEYWORDL	EQU	*-KEYWORD
		534			
00645	00100000	535	SENDTAB1	00	IMPURE,X1
00646	00000000	536	TPUNITS	00	IMPURE

INDIRECTLY THROUGH HERE

00647	62706212	538	SYSBCD	BCD	1, SYS;
00650	47302112	539	BCDPHAC	BCD	1, PHA;
00651	24464525	540	BCUDONE	BCD	1, DONE
00652	26314325	541	BCDFILE	BCD	3, FILE
00655	62316325	542	BCDSITE	BCD	1, SITE
00656	54545454	543	STARS	BCD	1, ***
	00653	544	BLANKS	EQU	BCDFILE+1
00657	60442562	545	SPMESS	BCD	2, MESSAGE
00661	00000000	546	TEMP	VFD	A24/IMPURE, A24/IMPURE
00663		547	MACROA	BSS	1
00664	60000000	548	BIT2322	OCT	60000000
00665	40000000	549	BIT23	OCT	40000000
00666	20000000	550	BIT22	OCT	20000000
00667	10000000	551	BIT21	OCT	10000000
00670	14000000	552	BIT2120	OCT	14000000
00671	04000000	553	BIT20	OCT	04000000
00672	02000000	554	BIT19	OCT	02000000
00673	01000000	555	BIT18	OCT	01000000
00674	00400000	556	BIT17	OCT	00400000
	00671	557	HSBIT	EQU	BIT20
00675	67777777	558	NBIT21	OCT	67777777
00676	57777777	559	NBIT22	OCT	57777777
00677	17777777	560	NBIT2322	OCT	17777777
	00666	561		IF	GET NE 1, GOTO .SKIP10
00700	77700000	562	ZEROENT	EQU	BIT22
00701	01000000	563	MSKU9	OCT	77700000
00702	00010000	564	USEBIT	BCD	1, 1000
00703	00000100	565		BCD	1, 0100
00704	00000010	566		BCD	1, 0010
00705	00000001	567		BCD	1, 0001
		568		BCD	1, 0001
		569	.SKIP10		
00706	00000012	570	D10	DEC	10
00707	00001750	571	D1000	DEC	1000
00710	00165140	572	D60000	DEC	60000
00711	15567200	573	HOUR	DEC	3600000
00712	00000000	574	BQNAMEL	OCT	0
00713		575	BQNAME	BSS	20
00737	01300000	576	TSKHT	OCT	01300000
00740	00200000	577	LPHT	OCT	00200000
00741	00000000	578	FLASHCNT	VFD	A24/IMPURE
00742	00000000	579	EXP	VFD	A24/IMPURE
00743	00000000	580	LSEQNO	VFD	A24/IMPURE
00744	00000000	581	MVEA	VFD	A24/0, A24/0, A24/0
	00745	582	MVEB	EQU	MVEA+1
	00746	583	MVEC	EQU	MVEB+1
00747	00000000	584	EXPPQNT	VFD	A24/IMPURE
00750	00000000	585	JOBNUM	VFD	A24/IMPURE, A24/IMPURE
	00751	586	VALCODE	EQU	JOBNUM+1
		587	*		
		588	* UPPER SIX BITS OF JUMP ADDRESS HAVE FLAGS		
		589	* BIT 23 - IF ONLY DO COMMAND OF SJ1 IS ON		
		590	* BIT 22 - BLANK SCREEN PERIODICLY		
		591	* BIT 21 - ONLY DO ONCE (GOTO FREETERM NECT TIME)		
		592	* COMTAB	EQU	*
00752	51254348	593		VFD	H48/RELOAD, 09/400, A15/RELOAD
00755	51256631	594		VFD	H48/REWIND, 09/100, A15/REWINDC
00760	42314343	595		VFD	H48/KILL, 09/100, A15/KILLC
00763	22426247	596		VFD	H48/BKSP, 09/100, A15/BKSPC
00766	62635163	597		VFD	H48/STRT, 09/100, A15/STRTC
00771	22626060	598		VFD	H48/BS, 09/000, A15/BSTAT
00774	24466645	599		VFD	H48/DOWN, 09/100, A15/DOWNC
00777	64476060	600		VFD	H48/UP, 09/100, A15/UPC
01002	64632147	601		VFD	H48/UTAPES, 09/100, A15/UTAPESC
01005	46664525	602		VFD	H48/OWNER, 09/700, A15/OWNER
01010	26512525	603		VFD	H48/FREECHEC, 09/500, A15/FREESTOR
01013	62606060	604		VFD	H48/S, 09/000, A15/PSALOCK
01016	64606060	605		VFD	H48/U, 09/200, A15/USERLIST
01021	63606060	606		VFD	H48/T, 09/000, A15/TRAFFIC
01024	50643125	607		VFD	H48/QUIET, 09/000, A15/QUIET
01027	51256263	608		VFD	H48/RESTORE, 09/000, A15/RESTORE
		609		IF	GET NE 1, GOTO .SKIP20
01032	27216330	610		VFD	H48/GATHER, 09/500, A15/GATHER
01035	64452721	611		VFD	H48/UNGATHER, 09/500, A15/UNGATHER
		612	.SKIP20		
01040	26606060	613		VFD	H48/F, 09/000, A15/FREETERM
01043	26432162	614		VFD	H48/FLASH, 09/400, A15/FLASH
01046	23606060	615		VFD	H48/C, 09/000, A15/DEVICE
01051	24606060	616		VFD	H48/D, 09/0, A15/DUMPIT

PSABLK BIT FOR BLOCKED INPUT DEVI

DUMP EXPRESSION VALUE

01057	44255260	620	VFD	H48/MES,09/500,A15/MESSAGE	
01062	24442562	621	VFD	H48/DMES,09/500,A15/DMESSAGE	
01065	44644363	622	VFD	H48/MULTI,09/000,A15/MULTI	
01070	22236060	623	VFD	H48/BC,09/000,A15/BC	
01073	22433162	624	VFD	H48/BLIST,09/200,A15/BLIST	
01076	22444665	625	VFD	H48/BMOVE,09/200,A15/BMOVE	
01101	62214343	626	VFD	H48/SALL,09/000,A15/SALL	
01104	43606060	627	VFD	H48/L,09/000,A15/LIST	
01107	44466525	628	VFD	H48/MOVE,09/0,A15/MOVE	
	00140	629	EQU	*-COMTAB	
		630			
	00025	631	PATCHL EQU	FREEMAX-FREENIN+1	
01112	00000000	632	PATCHES OCT	0+IMPURE	NUMBER OF FREE PATCH TERMINALS
01113		633	PATCHBUF BSS	PATCHL	
		634			
01140	55627062	635	STATNAME DCD	2,↑SYSTAT	NAME OF STATUS DATA FILE
01142	00000013	636	STATLUN DEC	11	

01143	01000000		638	DECBCD	UJP	IMPURE			
01144	47101157	P	639		STI	DBX1SV,X1		SAVE X1 UNTIL EXIT	
01145	44001153	P	640		SWA	DCH		SET LEADING ZERO FLAG	
01146	14500000		641		ENA	0		FIX FOR DIVIDE	
01147	01001151	P	642		UJP	*+2			
01150	13077747		643		SHAQ	-24			
01151	51000706	P	644		DVA	D10			
01152	43400000	P	645		SQCH	OUTBUFF,X1			
01153	04000000		646	DCH	ISE	IMPURE,0		SKIP IF LEADING ZEROS	
01154	03001157	P	647		AZJ,EQ	DBX1SV		NUMBER DONE, SPLIT	
01155	15177776		648		INI	-1,X1			
01156	02601150	P	649		IJD	*-6,X2		LOOP TILL ALL DIGITS LISTED	
01157	14100000		650	DBX1SV	ENI	IMPURE,X1		RESTORE X1	
01160	01001143	P	651		UJP	DECBCD		RETURN	
01161	20400625	P	653	RBSLB	LDA,I	BATCHPSA		GET PSA POINTER	
01162	03001171	P	654		AZJ,EQ	RBSLE		NOT LOGGED IN	
01163	53700000		655		TAI	X3			
01164	20400476	P	656		LDA,I	SELECT,PSA		GET BATCH QUEUE POINTER	
01165	12077755		657		SHA	6-24		MOVE QUEUE NUMBER TO LOWER 6 BITS	
01166	17600077		658		ANA	77B		AND OFF ALL OTHER GARBAGE	
01167	03501171	P	659		AQJ,NE	RBSLE		THIS QUEUE DIDNT SUBMIT THIS JOB	
01170	15200001		660		INI	1,X2		COUNT JOB FROM THIS QUEUE	
01171	02501161	P	661	RBSLE	IJD	RBSLB,X1		LOOK AT NEXT BATCH PSA	
01172	55000000		662		RIS				
01173	53200000		663		TIA	X2		COUNT TO A	
01174	14100000		664		ENI	IMPURE,X1		RESTORE X1	
01175	14300000		665		ENI	IMPURE,X3		RESTORE X3	
01176	01000000		666	RBJCNT	UJP	IMPURE			
01177	47101174	P	667		STI	*-3,X1		SAVE X1	
01200	47301175	P	668		STI	*-3,X3		SAVE X3	
01201	14200000		669		ENI	0,X2		ZERO COUNTER	
01202	54100606	P	670		LDI	NBATPSA,X1		COUNT OF BATCH PSAS TO CHECK	
01203	55400000		671		ROS				
01204	01001171	P	672		UJP	RBSLE			
01205	01000000		674	PACKACT	UJP	IMPURE			
01206	55700000		675	* PS.	X3 IS NOT	FREE HEREIN			
01207	37000677	P	676		AQE			SAVE JOB NUM AND VAL CODE	
01210	14200005		677		LPA	NBIT2322		REMOVE FLAGS	
01211	13077747		678		ENI	6-1,X2		PRINT 6 DIGITS	
01212	51000706	P	679	US04	SHAQ	-24			
01213	43400000	P	680		DVA	D10			
01214	15177776		681		SQCH	OUTBUFF,X1			
01215	02601211	P	682		INI	-1,X1			
01216	55100000		683		IJD	US04,X2			
01217	13000006		684		ELQ			GET THE USER CODE	
01220	05600011		685		SHAQ	6		IS IT NUMERIC	
01221	01001235	P	686		ASG	9			
01222	14200003		687		UJP	US07			
01223	13077771		688		ENI	3,X2		4 CHARACTERS	
01224	43400013	P	689		SHAQ	-6			
01225	15177776		690		SQCH	OUTBUFF+11,X1			
01226	02601223	P	691		INI	-1,X1			
			692		IJD	*-3,X2			
			693						
01227	14700061		694	US06	ENQ	61B		###	
01230	55200000		695		EUA				
01231	05400000		696		ASG,S	0		SKIP IF LOGGED IN	
01232	14700040		697		ENQ	H#-#		MAKE SEPERATOR A DASK IF NOT IN	
01233	43400013	P	698		SQCH	OUTBUFF+11,X1		###	
01234	01001205	P	699		UJP	PACKACT		RETURN	
			700						
01235	13000022		701	US07	SHAQ	18			
01236	15100001		702		INI	1,X1			
01237	14200004		703		ENI	5-1,X2		5 DIGIT NUMBER	
01240	13077747		704		SHAQ	-24			
01241	51000706	P	705		DVA	D10			
01242	43400013	P	706		SQCH	OUTBUFF+11,X1			
01243	15177776		707		INI	-1,X1			
01244	02601240	P	708		IJD	*-4,X2			

01245 01001227 P 709 UJP US06

01246	14100002		711	INERROR	ENI	ERMESL-1,X1	
01247	20101255	P	712		LDA	ERMES,X1	MOVE ERROR MESSAGE
01250	40100000	P	713		STA	OUTBUFF,X1	TO OUTPUT BUFFER
01251	02501247	P	714		IJD	*-2,X1	LOOP TILL ALL WORDS MOVED
01252	14602164	P	715		ENA	FREETERM	SEND TO FREETERM IF TRIES AGAIN
01253	44001634	P	716		SWA	NEXT	SET RETURN ADDRESS
01254	01001271	P	717		UJP	WRITEOUT	GO WRITE OUT MESSAGE
			718				
01255	31454764		719	ERMES	BCD	3,INPUT ERROR	
	00003		720	ERMESL	EQU	*-ERMES	

	01260	P	720+002	ILLTERM	EQU	*	
01260	14100020		720+003		ENI	M3,X1	
01261	14200074		720+004		ENI	50+10,X2	
01262	00704026	P	720+005		RTJ	CHAROUT	#ILLEGAL TERMINAL NUMBER#
01263	01001271	P	720+006		UJP	WRITEOUT	

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*****
723 *
724 *          FLASH      THIS USED TO REPEAT THE DISPLAY AS FAST AS
725 *          POSSIBLE
726 *
*****

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			728				
	01264	P	729				
01264	47001300	P	730	FLASH	EQU	* FLASHFLG,0	
01265	01001634	P	747		STI	NEXT	
			748		UJP		

01266	26512525		750	FREE	BCD	1, FREE	
01267	40000000		751	WAITSV	OCT	40000000+IMPURE	
01270	42104210		752	PBOXCHK	OCT	42104210+IMPURE	
			753				
			754				
			755				
J1271	14600000	P	756	WRITEOUT	ENA	OUTBUFF	WRITE OUT THE CONTENTS OF
01272	14700372		757		ENQ	SCREENL	OUTBUFF
01273	76000144		758		WRITE	100	
			759				
	01274	P	760	WAITLOOP	EQU	*	
01274	14100415		761		ENI	SCREENL+INBUFFL-1,X1	B
01275	21000653	P	762		LDQ	BLANKS	
01276	41100000	P	763		STQ	OUTBUFF,X1	
01277	02501276	P	764		IJD	*-1,X1	
			765				
01300	04000001		766	FLASHFLG	ISE	IMPURE+1,0	SKIP IF FLASH MODE
01301	01001305	P	767		UJP	NOTFLASH	
01302	00101634	P	770		SJ1	NEXT	KEEP GOING IF CNT IS NEG AND SJ1
01303	14600001		772		ENA	1	SAY NO LONGER FLASHING
01304	44001300	P	773		SWA	FLASHFLG	
			779				
	01305	P	780	NOTFLASH	EQU	*	
	01305	P	781	PAUSE	EQU	*	
01305	55400000		782		ROS		
01306	21000000		783	L100STAT	LDQ	IMPURE,PSA	GET STATUS OF LUN 100
01307	55000000		784		RIS		
01310	12400004		785		SHQ	23-19	
01311	05500000		786		OSG,S	0	SKIP NOTHING WANTED ON TV
01312	01001576	P	787		UJP	READIN	
			788	TIMLOOP	EQU	*	
01313	14777777		789		ENQ	77777B	A LARGE NUMBER IN Q
01314	14300011		790		ENI	CALLBL-1,X3	GET SIZE OF TABLE
			791	TIMLOOP1	EQU	*	
01315	20301646	P	792		LDA	CALLBTM,X3	GET A TIME ENTRY
01316	03301353	P	793		AZJ,LT	CALLBGOT	JUMP IF IMMEDIATE PROCESSING
01317	03001323	P	794		AZJ,EQ	TIMLOOP2	JUMP IF NOTHING SPECIAL
01320	03601323	P	795		AQJ,GE	TIMLOOP2	JUMP IF THIS IS NOT THE LOWEST
J1321	53730060		796		TIM	RF60,X3	REMEMBER LOWEST PERSON
J1322	13077747		797		SHAQ	-24	REMEMBER LOWEST AGE
			798	TIMLOOP2	EQU	*	
01323	02701315	P	799		IJD	TIMLOOP1,X3	
J1324	04777777		800		QSE	77777B	SKIP IF NOTHING FOUND
01325	01001331	P	801		UJP	TIMSET	
01326	14201360	P	802		ENI	PROC60,X2	VERY ODD - SET 60 SEC PROCESSING
01327	14300074		803		ENI	60,X3	
01330	01001716	P	804		UJP	CALLBACK	
			805				
	01331	P	806	TIMSET	EQU	*	
01331	53330060		807		YMI	RF60,X3	GET POINTER TO X3
01332	20301646	P	808		LDA	CALLBTM,X3	GET TIME TO WAIT
01333	14100026		809		ENI	WAIT,X1	
01334	71000000		810		XREQ	0	WAIT THAT AMOUNT OF TIME
01335	40001267	P	811		STA	WAITSV	SAVE TIME REMAINING TO WAIT
01336	31301646	P	812		SBA	CALLBTM,X3	CALC TIME WAITED
01337	13077747		813		SHAQ	-24	
01340	14300011		814		ENI	CALLBL-1,X3	
			815	TIMLOOP5	EQU	*	
01341	20301646	P	816		LDA	CALLBTM,X3	GET ENTRY
01342	03001347	P	817		AZJ,EQ	TIMLOOP6	JUMP IF EMPTY ENTRY
01343	53040000		818		AQA		DECREMENT TIME TO WAIT
01344	03101346	P	819		AZJ,NE	*+2	
01345	35000665	P	820		SSA	BIT23	IF ZERO SET IMMEDIATE PROCESSING
01346	40301646	P	821		STA	CALLBTM,X3	
			822	TIMLOOP6	EQU	*	
01347	02701341	P	823		IJD	TIMLOOP5,X3	
01350	20001267	P	824		LDA	WAITSV	GET THE RETURN ED VALUE
01351	03001313	P	825		AZJ,EQ	TIMLOOP	IF WHOLE WAIT GO PROCESS
01352	01001576	P	826		UJP	READIN	IF OPERATOR DO HIS THING FIRST
			827				
	01353	P	828	CALLBGOT	EQU	*	GO PROCESS ROUTINE
01353	14600000		829		ENA	0	
01354	40301646	P	830		STA	CALLBTM,X3	TURN OFF THIS RETURN
01355	20301672	P	831		LDA	CALLBASV,X3	RESTORE A REG
01356	21301704	P	832		LDQ	CALLBGSV,X3	RESTORE Q REG
01357	01701660	P	833		UJP,I	CALLBAD,X3	GOTO ROUTINE
			834				
01360	14600074	P	835	PROC60	EQU	*	
			836		ENA	60	SET UP FOR ANOTHER...

01361	40301646	P	837	STA	CALLBTM,X3	...	60 SECOND WAIT
01362	01001520	P	838	IF GET NE	1, GOTO .SKIP30		
01363	53130062		839	STATGET	UJP	NSTATGET+IMPURE	
01364	14600006		840	TMI	RF62,X1		GET POINTER INTO BUFFER
01365	40100000		841	ENA	FIXSIZ		FIRST ENTRY IS SIZE OF FIX AREA
01366	53020037		842	STA	0,X1		GET BUFFER PAGE IN CORE
01367	53010022		843	TMA	DATE		
01370	45100001		844	TMQ	CLOCK		
01371	54300600	P	845	STAQ	1,X1		PLACE DATE AND TIME
01372	55400000		846	LDI	IDLE,X3		
01373	20400512	P	847	ROS			
01374	55000000		848	LDA,I	TOTALTIM,PSA		GET IDLE RUN TIME
01375	53010020		849	RIS			
01376	45100003		850	TMQ	RF20		GET READ WRITE COUNT
01377	53020035		851	STAQ	3,X1		STORE IN BUFFER
01400	40100005		852	EQU	6		
01401	15100006		853	TMA	NU		STORE NUMBER OF USERS
01402	53600000		854	STA	FIXSIZ-1,X1		MOVE TO VARIQBLE AREA
01403	01001506	P	855	INI	FIXSIZ,X1		
01404	53630061	P	856	TAI	X2		
01405	55400000		857	REM	IDLE%S PSA POINTER	STILL IN X3	
01406	20400443	P	858	UJP	VML20	LOOK THROUGH THE PSAS	
01407	21400457	P	859				
01410	55000000		860	VML00	EQU	*	
01411	37000700	P	861	TIM	RF61,X2		SAVE NUMBER OF USERS
01412	40100000		862	ROS			
01413	14400000		863	LDA,I	TERMINAL,PSA		GET TERMINAL NUMBER
01414	03401426	P	864	LDQ,I	IOBOUND,PSA		GET IOBOUND WORD
01415	13600057		865	RIS			
01416	53630060		866	LPA	MSKU9		MASK OUT TERMINAL NUMBER
01417	37000677	P	867	STA	0,X1		
01420	47201421	P	868	ENA,S	0		
01421	13600000		869	AQJ,EQ	VML05		JUMP IF RUNNING USER
01422	53020060		870	SCAQ	47,X2		MOVE BIT INTO GRASP
01423	12000006		871	TIM	RF60,X2		SAVE LOCATION OF TOP BIT
01424	05200030		872	LPA	NBIT2322		REMOVE BIT WE KNOW ABOUT
01425	53240000		873	STI	*+1,X2		SAVE NEW INDEX
01426	55400000	P	874	SCAQ	IMPURE,X2		FIND NEXT BIT
01427	21400451	P	875	TMA	RF60		
01430	55000000		876	SHA	6		
01431	05500000		877	ISG	24,X2		SKIP IF THERE WAS NO OTHER BIT
01432	15610000		878	AIA	X2		PUT TWO BITS TOGETHER
01433	44100000		879	EQU	*		
01434	53300000		880	ROS			
01435	15600040		881	LDQ,I	SYSCM,PSA		GET WHETHER IN CONTROL MODE
01436	44001467	P	882	RIS			
01437	53430060		883	QSG,S	0		
01440	21000666	P	884	INA	100000		IN IN CMODE ADD BIT
01441	55400000	P	885	SWA	0,X1		STORE IN BUFFER
01442	20400446	P	886	TIA	X3		GET PSA POINTER
01443	03401467	P	887	INA	VMSIZ		CALCULATE END OF TABLE
01444	03201453	P	888	SWA	VMLASTA		
01445	53600000		889	TIM	RF60,0		ZERO COUNTER TEMP
01446	20200000		890	LDQ	ZEROENT		GET ENTRY FOR ZEROPAGE
01447	17470000		891				
01450	03101467	P	892	VML05	EQU	*	
01451	14200004		893	ROS			
01452	01001463	P	894	LDA,I	VMM,PSA		GET VMM ENTRY
01453	12000003	P	895	AQJ,EQ	VML10		IF ZERP AGE IGNORE
01454	53600000		896	AZJ,GE	VML03		JUMP IF NOT LIBRARY PAGE
01455	17200007		897	TAI	X2		
01456	04200000		898	LDA	0,X2		GET LIB ENTRY
01457	01001463	P	899	ANA,S	700000		
01460	12000013		900	AZJ,NE	VML10		JUMP IF ON MS
01461	03301463	P	901	ENI	4,X2		IN CORE - COUNT IT
01462	14200001	P	902	UJP	VML06		
01463	01463	P	903				
01464	53600000		904	VML03	EQU	*	
01465	17200007		905	SHA	3		
01466	04200000		906	TAI	X2		
01467	01001463	P	907	ANI	7,X2		RETRIEVE PAGE STATUS
01468	12000013		908	ISE	0,X2		SKIP IF PAGE IN CORE
01469	03301463	P	909	UJP	VML06		
01470	14200001	P	910	SHA	11		
01471	01463	P	911	AZJ,LT	*+2		
01472			912	ENI	1,X2		TYPE ONE OF ALTERED PAGE
01473			913	EQU	*		
01474			914				
01475			915				

01463	55000000		916	RIS		
01464	53020060		917	TMA	RF60	
01465	30200701	P	918	ADA	USEBIT,X2	COUNT PAGE TYPE
01466	53420060		919	TAM	RF60	
	01467	P	920	EQU	*	
01467	10300000		921	IS1	IMPURE,X3	
01470	01001441	P	922	UJP	VMLOOP	
			923			
01471	55000000		924	RIS		RIS JUST IN CASE
01472	54301467	P	925	LDI	VMLASTA,X3	
01473	15377737		926	INI	-VMSIZ,X3	RESTORE PSA POINTER
01474	53020060		927	TMA	RF60	
01475	40100001		928	STA	1,X1	STORE COUNT IN BUFFER
01476	55400000		929	ROS		
01477	21400512	P	930	LDQ,I	TOTALTIM,PSA	GET USER TOTAL TIME
01500	20300000		931	LDA	0,X3	GET POINTER TO NEXT PSA
01501	55000000		932	RIS		
01502	41100002		933	STQ	2,X1	STORE TIME IN USER'S ENTRY
01503	15100003		934	INI	3,X1	MOVE TO NEXT ENTRY
01504	53700000		935	TAI	X3	
01505	53230061		936	TMI	RF61,X2	GET USER COUNT BACK
	01506	P	937	EQU	*	
01506	02601404	P	938	IJD	VML00,X2	JUMP IF MORE PSAS TO CHECK
			939			
01507	05110454	P	940	ISG	END0BUF,X1	SKIP IF AT END OF BUFF
01510	01001517	P	941	UJP	VML30	
01511	53100000		942	TIA	X1	
01512	15467777	P	943	INA,S	-0BUF	CALCULATE WORD COUNT
01513	13077747		944	SHAQ	-24	MOVE INTO Q
01514	14610000	P	945	ENA	0BUF	
01515	76401142	P	946	WRITE,I	STATLUN	WRITE BUFFER OUT
01516	14110000	P	947	ENI	0BUF,X1	
	01517	P	948	EQU	*	
01517	53530062		949	TIM	RF62,X1	SAVE BUFFER POSITION
	01520	P	950			
			951	NSTATGET	EQU	*
			952	.SKIP30		
			953			
			954	* CHECK	THEM PATCH	TERMINALS
			955	FIRSTIME	EQU	*
			956	LDA	PATCHES	GET NUMBER OF FREE TERMINALS
01520	20001112	P	957	ASG	5	SKIP IF ENOUGH TERMINALS AROUND
01521	05600005	P	958	UJP	*+3	TRY TO FIND SOME
01522	01001525	P	959	SSH	PBOXCHK	ENOUGH AROUND BUT SKIP IF TIME
01523	10001270	P	960	UJP	LOOKNOT	
01524	01001564	P	961	ENI	PATCHL-1,X1	
01525	14100024	P	962	LDA	PATCHBUF,X1	
01526	20101113	P	963	SHA	-1	AGE THE TERMINAL
01527	12077776		964	STA	PATCHBUF,X1	
01530	40101113	P	965	IJD	*-3,X1	
01531	02501526	P	966			
			967	LDQ	WAITSV	
01532	21001267	P	968	ENA	1	LET TERM AGE 4 MIN
01533	14600001		969	QSG,S	0	
01534	05500000		970	ENA	0	IF FIRST TIME FREE TERMINAL
01535	14600000		971	SWA	PL00K07	
01536	44001553	P	972	ENI	PL00K20,X2	ENTER RETURN ADDRESS
01537	14201564	P	973			
	01540	P	974	FREECHK	EQU	*
01540	14100000		975	ENI	0,X1	
01541	14300031		976	ENI	FREEMIN,X3	MIN FREE TERM TO X3
	01542	P	977	PL00K05	EQU	*
01542	55400000		978	ROS		
01543	20400636	P	979	LDA,I	PSABLK	GET TERMINAL STATUS
01544	55000000		980	RIS	0	SKIP IF NOT LOGGED IN
01545	04600000		981	ASE		
01546	01001556	P	982	UJP	PL00K10	
01547	20301062	P	983	LDA	PATCHBUF-FREEMIN,X3	
01550	05600001		984	ASG	1	SKIP IF TERMINAL NOT FREE
01551	15100001		985	INI	1,X1	COUNT FREE TERMINAL
01552	03201560	P	986	AZJ,GE	PL00K15	JUMP IF WE KNOW THAT ALREADY
01553	14500001		987	PL00K07	ENQ,S	WAIT 4 MIN BEFORE GIVING UP TERM
01554	41301062	P	988	STQ	PATCHBUF-FREEMIN,X3	
01555	01001560	P	989	UJP	PL00K15	
			990			
	01556	P	991	PL00K10	EQU	*
01556	14477777		992	ENA,S	777778	REMEMBER HE'S LOGGED IN
01557	40301062	P	993	STA	PATCHBUF-FREEMIN,X3	
	01560	P	994	PL00K15	EQU	*

01560	10300055		995	ISI	FREEMAX,X3	
01561	01001542	P	996	UJP	PLCOK05	
01562	47101112	P	997	STI	PATCHES,X1	STORE NUMBER OF FREE TERMINALS
01563	01200000		998	UJP	0,X2	RETURN
	01564	P	999			
			1000	PLOOK20	EQU	*
			1001			
	01564	P	1002	LOOKNOT	EQU	*
01564	04000001		1003	BLNKONCE	ISE	1+IMPURE,0
01565	01001305	P	1004		UJP	PAUSE
01566	14300171		1005		ENI	ALIASTRM,X3
01567	55400000		1006		ROS	
01570	20400636	P	1007		LDA,I	PSABLK
01571	55000000		1008		RIS	
01572	04600000		1009		ASE	0
01573	01001305	P	1010		UJP	PAUSE
01574	47301564	P	1011		STI	BLNKONCE,X3
01575	01001271	P	1012		UJP	WRITEOUT
			1013			
	01576	P	1014	READIN	EQU	*
			1015			
01576	14600372	P	1016		ENA	INBUFF
01577	14700024		1017		ENQ	INBUFFL
01600	74000144		1018		READ	100
			1019			
01601	14100000		1020		ENI	0,X1
01602	00702051	P	1021		RTJ	FETCHITM
01603	01001634	P	1022		UJP	NEXT10
01604	01001634	P	1023		UJP	NEXT10
01605	47100416	P	1024		STI	SAVEX1,X1
01606	14100140		1025		ENI	COMTAB,X1
01607	14577777		1026		ENQ,S	777778
01610	06300752	P	1027	COMMEQ	MEQ	COMTAB,3
01611	01001634	P	1028		UJP	NEXT10
01612	20002145	P	1029		LDA	ITEM+1
01613	31100753	P	1030		SBA	COMTAB+1,X1
01614	03001617	P	1031		AZJ,EQ	*+3
01615	20002144	P	1032		LDA	ITEM
01616	01001610	P	1033		UJP	COMMEQ
01617	20100754	P	1034		LDA	COMTAB+2,X1
01620	03301640	P	1035	NEXT01	AZJ,LT	SJ1CK
			1036		EQU	*
01621	04601264	P	1037		ASE	FLASH
01622	01001624	P	1038		UJP	*+2
01623	01001264	P	1039		UJP	FLASH
01624	44001634	P	1040		SWA	NEXT
01625	47001635	P	1041		STI	NEXT20,0
01626	44001564	P	1042		SWA	BLNKONCE
01627	12000001		1043		SHA	1
01630	03201632	P	1044		AZJ,GE	*+2
01631	44001635	P	1045		SWA	NEXT20
01632	12000001	P	1046		SHA	1
01633	03301642	P	1047		AZJ,LT	ONLYONCE
			1048	NEXT10	EQU	*
01634	14102164	P	1049	NEXT	ENI	FREETERM+IMPURE,X1
01635	04000000	P	1050	NEXT20	ISE	U+IMPURE,0
01636	47001564	P	1051		STI	BLNKONCE,0
01637	01100000		1052		UJP	0,X1
			1053			
01640	00101621	P	1054	SJ1CK	SJ1	NEXT01
01641	01001634	P	1055		UJP	NEXT10
			1056			
	01642	P	1057	ONLYONCE	EQU	*
01642	54101634	P	1058		LDI	NEXT,X1
01643	14602164	P	1059		ENA	FREETERM
01644	44001634	P	1060		SWA	NEXT
01645	01001635	P	1061		UJP	NEXT+1

SKIP IF SCREEN NOT ALREADY BLANK

GET STATUS OF TERMINALS ALIAS

SKIP IF NO ONE LOGGED IN

REMEMBER IT'S BEEN BLANKED

START AT THE BEGINNING OF THE LIN

LOOK FOR THE COMMAND

CHECK THE LAST 4 CHARACTERS

JUMP IT OK

LOAD THE JUMP ADDRESS
JUMP IF SJ1 REQUIRED

DO NOT CHANGE FOR FLASH

FLASH IS VER Y SPECIAL

SAY DON'T BLANK

CHANGE MIND AND BLANK

DO THIS ONLY ONCE

GET WHERE WE'RE GOING
SKIP IF NOT TO BLANK SCREEN
SAY IT'S ON THE SCREEN

ALLOW IF SJ1 ON
IF NO SJ1 FAKE ILLEGAL COMMAND

GET ROUTINE WE'RE GOING TO

DO A FREETERM NEXT TIME
GOTO ROUTINE

1064
1065
1066
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1075

```

*****
* ROUTINE TO RETURN TO A LOCATION AFTER A CERTAIN NUMBER
* OF SECONDS. CALL FORMAT:
*
* ENI <ADDRESS TO RETURN TO>,X2
* ENI <SECONDS TO WAIT>,X3
* UJP CALLBACK
*
* THE AQ REGISTER IS RETURNED AND X3 POINTS TO THE CALLBACK TABLES FOR
* THIS ENTRY. IF THE ROUTINE WISHES TO BE CALLED AGAIN SET
* CALLBTM,X3 TO ZERO. IF ONE WISHES TO BE CALLED AGAIN, SET THE
* NUMBER OF SECONDS INTO CALLBTM,X3. IN EITHER CASE, AFTER PROCESSING
* JUMP TO #PAUSE#.
*****
    
```

01646 00012
01660 01660 P
01660 14100415
01661 21000653 P
01662 41100000 P
01663 02501662 P
01664 14600074
01665 40001646 P
01666 14601360 P
01667 40001660 P
01670 01001520 P
01672 01672 P
01704

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1080
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1100
1101
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1103
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1105
1106
1107
1108
1109

```

CALLBL EQU 10 MAX NUMBER OF CALL BACKS
CALLBTM BSS CALLBL
CALLBAD EQU *
* INITIAL IZATION ROUTINE SITS HERE
INITCL ENI SCREENL+INBUFFL-1,X1 BLANK THINGS THE FIRST TIME
LDQ BLANKS
STQ OUTBUFF,X1
IJD *-1,X1
ENA 60 SET UP 60 SEC PROCESSING
STA CALLBTM
ENA PROC60
STA CALLBAD
UJP FIRTIME CHECK PATCH TERMINALS
ORGR CALLBAD+CALLBL
CALLBASV BSS CALLBL
CALLBOSV BSS CALLBL
CALLBACK EQU *
STAQ TEMP
ENQ,S 77777B
ENA 0
ENI CALLBL,X1
MEQ CALLBTM,1 FIND AN EMPTY ENTRY
UJP *+HALT
TIA X2
STA CALLBAD,X1 STORE RETURN ADDRESS
TIA X3
STA CALLBTM,X1 STORE CALL BACK TIME
LDAQ TEMP
STA CALLBASV,X1 SAVE A REG
STQ CALLBOSV,X1 SAVE Q
UJP PAUSE PROCESS OTHER TIMES
    
```

01716 01716 P
01717 45000661 P
01720 14577777
01721 14600000
01722 14100012
01723 06101646 P
01724 01001723 P
01725 53200000
01726 40101660 P
01727 53300000
01727 40101646 P
01730 25000661 P
01731 40101672 P
01732 41101704 P
01733 01001305 P

01734	01000000		1111	EXPEVAL	UJP	IMPURE	
01735	14601774	P	1112		ENA	EXPADD	
01736	44001756	P	1113		SWA	EXPCPJMP	START WITH AN ADD
01737	14600000		1114		ENA	0	
01740	40000742	P	1115		STA	EXP	ZERO EXPRESSION RETURN ORIGINAL
01741	00702051	P	1116	EXPNXT	RTJ	FETCHITM	GO GET NUMBER OR SYMBOL
01742	01002022	P	1117		UJP	EXPTCK	CHECK FOR POINT #.#
01743	01001756	P	1118		UJP	EXPCPJMP	NUMBER RETURNED, OPERATE UPON IT
01744	54110764	P	1119		LDI	SYMLENTH,X1	GET SYMBOL TABLE LENGTH
01745	14577777		1120		ENG,S	77777B	MASK FOR MEQ
01746	20002144	P	1121	EXPCNTMQ	LDA	ITEM	GET 4 CHARS OF SYMBOL
01747	06310765	P	1122		MEQ	SYMTAB,ENTRXL	LOOK FOR SYMBOL
01750	01001734	P	1123		UJP	EXPEVAL	SYMBOL NOT FOUND, ERROR RETURN
01751	20002145	P	1124		LDA	ITEM+1	GET LAST 4 CHARACTERS
01752	31110766	P	1125		SBA	SYMTAB+1,X1	
01753	03101746	P	1126		AZJ,NE	EXPCNTMQ	NOT COMPLETE MATCH, LOOK SOME MOR
01754	20110767	P	1127		LDA	SYMTAB+VALUE,X1	GET THE VALUE OF SYMBOL
01755	17677777		1128		ANA	77777B	VALUE ONLY - HIT NON-SUBPROGRAM B
01756	01000000		1129	EXPCPJMP	UJP	IMPURE	PERFORM OPERATION
01757	22010643	P	02150 3	1130			
01758	14700077	P	1131	NEXTOP	LACH	TERMCHR	GET TERMINATING CHARACTER
01761	13000022		1132	NEXTOP01	ENQ	77B	
01762	14100011		1133		SHAQ	18	SHIFT MASK AND CHARACTER TO HIGH
01763	06102033	P	1134		ENI	EXPOPTBL,X1	LENGTH OF OPERATOR TABLE
01764	01001734	P	1135		MEQ	EXPOPTAB,1	LOOK FOR OPERATOR
01765	20102033	P	1136		UJP	EXPEVAL	CANT FIND OPERATOR, ERROR RETURN
01766	44001756	P	1137		LDA	EXPOPTAB,X1	GET OPERATION JUMP ADDRESS
01767	12000010		1138		SWA	EXPCPJMP	SAVE IN JUMP INSTRUCTION
01770	03301756	P	1139		SHA	8	
01771	54100416	P	1140		AZJ,LT	EXPCPJMP	DO WHAT NEEDS BE DONE
01772	01001741	P	1141		LDI	SAVEX1,X1	GET INPUT BUFFER POINTER
			1142		UJP	EXPNXT	GO GET OPERAND
			1143				
01773	16477777		1144	EXPSUBT	XOA,S	77777B	
01774	34000742	P	1145	EXPADD	RAU	EXP	
01775	01001757	P	1146		UJP	NEXTOP	GET NEXT OPERATOR
			1147				
01776	37000742	P	1148	EXPAND	LPA	EXP	
01777	40000742	P	1149	EXPSTEXT	STA	EXP	
02000	01001757	P	1150		UJP	NEXTOP	
			1151				
02001	35000742	P	1152	EXPOR	SSA	EXP	
02002	01001777	P	1153		UJP	EXPSTEXT	
			1154				
02003	50000742	P	1155	EXPMULT	MUA	EXP	
02004	01001777	P	1156		UJP	EXPSTEXT	
			1157				
	02005	P	1158	EXPDIV	EQU	*	
02005	40000661	P	1159		STA	TEMP	
02006	20000742	P	1160		LDA	EXP	
02007	13077747		1161		SHAQ	-24	
02010	51000661	P	1162		DVA	TEMP	
02011	01001777	P	1163		UJP	EXPSTEXT	
			1164				
02012	54100416	P	1165	EXPSPACE	LDI	SAVEX1,X1	
02013	22401750	P	00372 0	1166	LACH	INBUFF,X1	GET NEXT CHARACTER
02014	15100001		1167		INI	1,X1	
02015	47100416	P	1168		STI	SAVEX1,X1	
02016	01001760	P	1169		UJP	NEXTOP01	LOOK FOR AN OPERATOR
			1170				
02017	14600001		1171	EXPTERM	ENA	1	
02020	34001734	P	1172		RAD	EXPEVAL	FIX RETURN ADDRESS
02021	01001734	P	1173		UJP	EXPEVAL	EXIT P+2
			1174				
02022	22010643	P	02150 3	1175	EXPTCK	TERMCHR	GET TERMINATING CHARACTER
02023	04600033		1176		ASE	PERIOD	SKIP IF A POINT #.#
02024	01001734	P	1177		UJP	EXPEVAL	JUNK IN STRING, ERROR
02025	22401750	P	00372 0	1178	LACH	INBUFF,X1	GET THE NEXT CHARACTER
02026	42010643	P	02150 3	1179	SACH	TERMCHR	
02027	15100001		1180		INI	1,X1	LOOK AT NEXT CHARACTER
02030	47100416	P	1181		STI	SAVEX1,X1	SAVE NEW LINE POINTER
02031	20000747	P	1182		LDA	EXPPPOINT	GET THE VALUE OF POINT
02032	01001756	P	1183		UJP	EXPCPJMP	GO OPERATE ON IT
			1184				
	02033	P	1185	EXPOPTAB	EQU	*	
02033	20001774		1186		VFD	06/20,03/0,A15/EXPADD	
02034	40001773		1187		VFD	06/40,03/0,A15/EXPSUBT	
02035	77001776		1188		VFD	06/77,03/0,A15/EXPAND	
02036	61002005		1189		VFD	06/61,03/0,A15/EXPDIV	

02037 54002003
02040 52002001
02041 60102012
02042 73102017
02043 37102017
00011

1190
1191
1192
1193
1194
1195

EXPOPTBL EQU

VFD
VFD
VFD
VFD
VFD
VFD

06/54,03/0,A15/EXPMULT
06/52,03/0,A15/EXPOR
06/60,03/1,A15/EXPSPACE
06/73,03/1,A15/EXPTERM
06/37,03/1,A15/EXPTERM
*-EXPOPTAB

02044	47302150	P		1197	DONLETX	STI	TERMWRD,X3	SAVE TERMINATING CHARACTER
02045	14600002			1198	DONELET	ENA	2	
02046	34002051	P		1199		RAO	FETCHITM	FIX RETURN ADDRESS
02047	25002144	P		1200		LOAD	ITEM	ITEM RETURNED IN AQ
02050	47100416	P		1201	FEEXT	STI	SAVE X1,X1	SAVE X1
02051	01000000			1202	FETCHITM	UJP	IMPURE	
02052	22401750	P	00372 0	1203	FETD1	LACH	INBUFF,X1	GET A CHARACTER
02053	15100001			1204		INI	1,X1	
02054	04600060			1205		ASE	60B	SKIP IF A BLANK
02055	01002062	P		1206		UJP	FNNBLK	FOUND A NON-BLANK CHARACTER
02056	05100121			1207		ISS	4*INBUFFL+1,X1	SKIP IF BUFFER CHECKED
02057	01002052	P		1208		UJP	FETD1	CONTINUE CHECKING
02060	42010643	P	02150 3	1209		SACH	TERMCHR	SET TERMINATING CHARACTER
02061	01002050	P		1210		UJP	FEEXT	RETURN P+1
				1211				
02062	53700000			1212	FNNBLK	TAI	X3	SAVE CHARACTER IN INDEX
02063	05600012			1213		ASG	12B	SKIP IF NON-NUMERIC
02064	01002115	P		1214		UJP	FETNUM	NUMBER FOUND, CONVERT IT
02065	25002151	P		1215		LOAD	CLASWRD	GET CLASSIFICATION WORD
02066	13300000			1216		SHAQ	0,X3	SHIFT TO APPROPRIATE BIT
02067	47302150	P		1217		STI	TERMWRD,X3	SAVE IN CASE WE EXIT
02070	03202050	P		1218		AZJ,GE	FEEXT	BAD CHARACTER, TO START WITH
02071	14200000			1219		ENI	0,X2	
02072	25000653	P		1220		LOAD	BLANKS	
02073	45002144	P		1221		STAQ	ITEM	
02074	01002105	P		1222		UJP	LETNUM01	
02075	22401750	P	00372 0	1223	FLETLP	LACH	INBUFF,X1	
02076	15100001			1224		INI	1,X1	
02077	05600012			1225		ASG	12B	SKIP IF NON-NUMERIC
02100	01002106	P		1226		UJP	LETNUM	NUMBERS ARE OK IN SYMBOLS
02101	53700000			1227		TAI	X3	
02102	25002151	P		1228		LOAD	CLASWRD	
02103	13300000			1229		SHAQ	0,X3	SEE IF A LETTER OR NOT
02104	03202044	P		1230		AZJ,GE	DONLETX	NON-LETTER, EXIT
02105	53300000			1231	LETNUM01	TIA	X3	GET CHARACTER BACK
02106	05200010			1232	LETNUM	ISS	8,X2	SEE IF 2 WORDS PACKED ALREADY
02107	01002112	P		1233		UJP	*+3	NOPE
02110	42010643	P	02150 3	1234		SACH	TERMCHR	SET TERMINATION CHARACTER
02111	01002045	P		1235		UJP	DONELET	EXIT
02112	42410620	P	02144 0	1236		SACH	ITEM,X2	
02113	15200001			1237		INI	1,X2	
02114	01002075	P		1238		UJP	FLETLP	
				1239				
02115	55600000			1240	FETNUM	AEU	8	SAVE FIRST CHARACTER OF NUMBER
02116	14600010			1241		ENA	10	OCTAL RADIX
02117	04000000			1242	FRCHK	ISE	IMPURE,0	
02120	14600012			1243		ENA	10	DECIMAL RADIX
02121	40002147	P		1244		STA	FRADIX	SAVE THE PROPER RADIX
02122	22401750	P	00372 0	1245	FETNL	LACH	INBUFF,X1	
02123	15100001			1246		INI	1,X1	
02124	05100121			1247		ISS	4*INBUFFL+1,X1	SKIP IF INPUT ALL LOOKED AT
02125	01002127	P		1248		UJP	*+2	
02126	01002131	P		1249		UJP	FNEXT	EXIT
02127	05600012			1250		ASG	12B	SKIP IF DELIMETER FOUND
02130	01002136	P		1251		UJP	FETNUM2	
02131	42010643	P	02150 3	1252	FNEXT	SACH	TERMCHR	SAVE TERMINATION CHARACTER
02132	14600001			1253		ENA	1	
02133	34002051	P		1254		RAO	FETCHITM	RETURN P+2
02134	55200000			1255		EUA	FETNUM2	GET NUMBER BACK
02135	01002050	P		1256		UJP	FEEXT	EXIT
				1257				
02136	53700000			1258	FETNUM2	TAI	X3	
02137	55200000			1259		EUA		
02140	50002147	P		1260		MUA	FRADIX	
02141	53340000			1261		AIA	X3	
02142	55600000			1262		AEU		
02143	01002122	P		1263		UJP	FETNL	
				1264				
02144				1265	ITEM	BSS	3	
02147	00000000			1266	FRADIX	VFD	A24/IMPURE	
02150				1267	TERMWRD	BSS	1	
	10643	P		1268	TERMCHR	EQU,C	TERMWRD+3	
02151	17740177			1269	CLASWRD	OCT	17740177,60077700	

02153	14100012	P	1271	USERLIST	EQU	*	
02154	54300633	P	1272		ENI	10,X1	
02155	01002161	P	1273		LDI	USERMAX,X3	LOAD THE HIGH TERMINAL NUMBER
			1274		UJP	US01XX	
			1275				
02156	14100012		1276	US00	ENI	10,X1	START AT THE TOP AGAIN
02157	14300000		1277	USD1	ENI	IMPURE,X3	RESTORE THE TERMINAL POINTER
02160	55000000		1278		RIS		
02161	02702250	P	1279	USD1XX	IJD	US02,X3	
02162	14602153	P	1280		ENA	USERLIST	FIX NEXT
02163	44001634	P	1281		SWA	NEXT	
			1282				
	02164	P	1283	FREETERM	EQU	*	
02164	20001266	P	1284		LDA	FREE	
02165	40000013	P	1285		STA	OUTBUFF+11	
02166	14202170	P	1286		ENI	*+2,X2	GET RETURN ADDRESS
02167	01001540	P	1287		UJP	FREETCHK	CHECK ON FREE TERMINALS
02170	14100137		1288		ENI	95,X1	START IN COLUMN 42
02171	14300024		1289		ENI	PATCHL-1,X3	
	02172	P	1290	FRETRM02	EQU	*	
02172	20301113	P	1291		LDA	PATCHBUF,X3	LOOK FOR A TERMINAL
02173	04600000		1292		ASE	0	SKIP IF TERMINAL NOT FREE
02174	01002202	P	1293		UJP	FRETRM06	
02175	53300000		1294		TIA	X3	
02176	15600031		1295		INA	FREEMIN	FORM FREE TERMINAL NUMBER
02177	00702237	P	1296		RTJ	OUTTNM	PRINT TERM NUMBER
02200	15100057		1297		INI	TVLINEL-3,X1	POINT TO THE NEXT LINE
02201	05101750		1298		ISG	SCREENLC,X1	IS THE SCREEN FULL
02202	02702172	P	1299	FRETRM06	IJD	FRETRM02,X3	
02203	20001634	P	1300		LDA	NEXT	
02204	04602164	P	1301		ASE	FREETERM	SKIP IF REALLY A FREETERM
02205	01001271	P	1302		UJP	WRITEOUT	
02206	25002235	P	1303		LDAQ	BCDFREHS	
02207	45000000	P	1304		STAQ	OUTBUFF	STORE #FREE HS# ON SCREEN
02210	14100065		1305		ENI	50+3,X1	BEGIN IN COLUMN 3
02211	14600021		1306		ENA	MAXHS+1	
02212	53420061		1307		TAM	RF61	SET MAX HS TERM
	02213	P	1308	FRETRM10	EQU	*	
02213	53530060		1309		TIM	RF60,X1	SAVE WHERE ON THE SCREEN WE ARE
02214	20000671	P	1310		LDA	HSBIT	
02215	21000671	P	1311		LDQ	HSBIT	
02216	15777777		1312		INQ	777778	
02217	53130061		1313		TMI	RF61,X1	GET WHERE WE WERE LAST
02220	55400000		1314		ROS		
02221	06100000		1315	FRETRM14	MEQ	IMPURE,1	LOOK FOR NEXT NON-LOGGED IN HS TE
02222	01002233	P	1316		UJP	FRETRM13	NONE FOUND
02223	55000000		1317		RIS		
02224	53530061		1318		TIM	RF61,X1	REMEMBER WHERE WE ARE
02225	53100000		1319		TIA	X1	
02226	53130060		1320		TMI	RF60,X1	GET WHERE WE ARE ON THE SCREEN
02227	00702237	P	1321		RTJ	OUTTNM	PRINT THE TERM NUM
02230	15100057		1322		INI	TVLINEL-3,X1	MOVE TO NEXT TV LINE
02231	05101750		1323		ISG	SCREENLC,X1	SKIP IF NO MORE ROOM
02232	01002213	P	1324		UJP	FRETRM10	
			1325				
	02233	P	1326	FRETRM18	EQU	*	
02233	55000000		1327		RIS		
02234	01001271	P	1328		UJP	WRITEOUT	WRITE OUT THE SCREEN
			1329				
02235	60265125		1330	BCDFREHS	BCD	2, FREE HS	
			1331				
			1332				
			1333				
			1334				
			1335				
			1336				
02237	01000000		1337	ROUTINE TO OUTPUT THREE CHAR TERMINAL NUMBER IN A ONTO	UJP	IMPURE	
02240	14200002		1338	* SCREEN BEGINNING AT CHAR POSITION IN X1. USES AQ,X1,X2.	ENI	2,X2	
02241	12000017		1339	* WHEN DONE X1 POINTS TO CHAR AFTER TERM NUMBER.	SHA	15	OUT THREE CHARS
02242	14700000		1340		ENQ	0	
02243	13000003		1341		SHAQ	3	
02244	43400000	P	1342		SQCH	OUTBUFF,X1	TERM NUM IN OCTAL
02245	15100001		1343		INI	1,X1	
02246	02602242	P	1344		IJD	*-4,X2	
02247	01002237	P	1345		UJP	OUTTNM	
			1346				
	02250	P	1347	US02	EQU	*	
02250	47302157	P	1348		STI	US01,X3	SAVE THE TERMINAL NUMBER
02251	55400000		1349		ROS		

02252	20400636	P		1350	LDA,I	PSABLK	DOES A PSA EXIST
02253	05600001			1351	ASG	1	
02254	01002157	P		1352	UJP	US01	JUMP IF NOT
02255	53700000			1353	TAI	X3	
02256	12000001			1354	SHA	1	IS THE USER IN LOGOFF STATUS
02257	03302157	P		1355	AZJ,LT	US01	JUMP IF HE IS
02260	25400435	P		1356	LDAQ,I	ACCNUM,PSA	GET THE ACCOUNT/USER NUMBER
02261	55000000			1357	RIS		
02262	03202265	P		1357+001	AZJ,GE	*+3	JUMP IF LOGGED IN
02263	03102265	P		1357+002	AZJ,NE	*+2	JUMP IF NOT JUST LOGGING IN
02264	20000665	P		1357+003	LDA	BIT23	MAKE IDLE NEG ZERO ZERO
02265	00701205	P		1359	RTJ	PACKACT	GO PACK USERS ACCOUNT NO.
02266	20002157	P		1360	LDA	US01	LOAD THE TERMINAL NUMBER
02267	12000017			1361	SHA	15	
02270	14200002			1362	ENI	2,X2	
02271	14700000			1363	ENQ	0	
02272	13000003			1364	SHAQ	3	
02273	43400001	P	00000 1	1365	SQCH	OUTBUFF+1,X1	
02274	15100001			1366	INI	1,X1	
02275	02602271	P		1367	IJD	*-4,X2	
02276	55400000			1368	ROS		
02277	20400523	P		1369	LDA,I	UDBITS	GET USER FLAGS
02300	14700060			1370	ENQ	H# #	
02301	12000011			1371	SHA	23-14	MOVE SCREAM BIT TO POST
02302	05400000			1372	ASG,S	0	SKIP IF LEGAL JOB NUMBER
02303	14700075			1373	ENQ	BLOTCH	PLACE BLOTCH ON BAD NUM
02304	20400526	P		1374	LDA,I	UTAPEMAX,PSA	GET TAPES RESERVED BY HIM
02305	12077771			1375	SHA	-6	
02306	17600077			1376	ANA	77B	
02307	04600000			1377	ASE	0	SKIP IF NO TAPES
02310	14700054			1378	ENQ	H#*#	STAR IF HE HAS TAPES
02311	55000000			1379	RIS		
02312	43400001	P	00000 1	1380	SQCH	OUTBUFF+1,X1	
02313	15100071			1381	INI	57,X1	
02314	05101747			1382	ISG	SCREENLC-1,X1	IS THE SCREEN FULL
02315	01002157	P		1383	UJP	US01	
02316	04101762			1384	ISE	SCREENLC+10,X1	IS THIS THE FIRST COLUMN
02317	01002322	P		1385	UJP	*+3	
02320	14100036			1386	ENI	10+20,X1	
02321	01002157	P		1387	UJP	US01	
02322	14602156	P		1388	ENA	US00	PLAY WITH NEXT
02323	44001634	P		1389	SWA	NEXT	
02324	01002164	P		1390	UJP	FREETERM	


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02325 14100000 P
02326 00702770 P
02327 54100416 P
02330 22401747 P
02331 04400073 P
02332 01001246 P
02333 44002117 P
02334 00702051 P
02335 01001246 P
02336 03202340 P
02337 01001246 P
02340 03001246 P
02341 40003120 P
02342 54100663 P
02343 14600001 P
02344 14700002 P
02345 00703027 P
02346 21003120 P
02347 20000667 P
02350 55400000 P
02351 35100012 P
02352 40100012 P
02353 55000000 P
02354 37000671 P
02355 03002365 P
02356 53100000 P
02357 14300001 P
02360 14202362 P
02361 01001716 P
02362 53500000 P
02363 14600000 P
02364 01002350 P
02365 47100663 P
02366 41000661 P
02367 14200017 P
02370 00702737 P
02371 47300662 P
02372 54100663 P
02373 55400000 P
02374 20100013 P
02375 53600000 P
02376 25200001 P
02377 40300001 P
02400 17777777 P
02401 41300007 P
02402 25100000 P
02403 40300003 P
02404 41300005 P
02405 20100003 P
02406 15477775 P
02407 40300004 P
02410 04600000 P
02411 01002415 P
02412 20300001 P
02413 36300003 P
02414 03002443 P
02415 55000000 P
02416 20000661 P
02417 15477776 P
02420 53600000 P
02421 14700007 P
    
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*****
*
*           BKSP,<DEVICE>,<RECORDS>
*
*           THIS MARVEL WILL BACKSPACE ANY OUTPUT DEVICE.  THE DEVICE
*           SPECIFIED WILL BE BACKSPACES THE SPECIFIED NUMBER OF RECORDS
*           AND WILL START THE DEVICE OUT OF ASSORTED FORMS WAITS..
*
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BKSPC EQU *
      ENI 0,X1 CHECK FOR DEVICE ACTIVE
      RTJ GETMAC GET DEVICE NAME AND MACRO ADDRES
      LDI SAVEX1,X1
      LACH INBUFF-1,X1 GET DELIMETER
      ASE,S COMMA MUST BE FILLOWS BY A COMMA
      UJP INERROR
      SWA FRCHK MAKE DECIMAL PACKING
      RTJ FETCHITM GET THE TIMES TO REWIND
      UJP INERROR
      AZJ,GE *+2 MUST BE POSITIVE
      UJP INERROR NO SYMBOLS ALLOWED
      AZJ,EQ INERROR AND MUST BE POSITIVE
      STA ACCBUFF+8 SAVE RECS AND PUT ON OUT LINE
      LDI MACROA,X1+MAC GET POINTER TO MACRO
      ENA 1 ONE WORD FOR REC COUNT
      ENQ BKSPFLG
      RTJ OUTACC OUTPT ACCOUNTING INFO
      LDQ ACCBUFF+8 RESTORE RECORD COUNT
      LDA BIT21
BKSP02 EQU *
      ROS
      SSA ENIT,X1+MAC TRY TO STOP THE DEVICE
      STA ENIT,X1+MAC
      RIS
      LPA BIT20
      AZJ,EQ BKSP05 JUMP IF MACRO TOUCHABLE
      TIA X1
      ENI 1,X3 WAIT ONE SECOND
      ENI BKSP.CB,X2
      UJP CALLBACK RETURN IN ONE SECOND
BKSP.CB EQU *
      TAI X1 RESTORE MACRO POINTER
      ENA 0 NOTE RECORD COUNT IN Q
      UJP BKSP02 CHECK IF READY YET
BKSP05 EQU *
      STI MACROA,X1+MAC SAVE MACRO ADDRESS
      STQ TEMP SAVE RECORD COUNT
      ENI 15,X2 LUN TO EQUIP TO
      RTJ GETCB GET THE CONTROL BLOCK POINTER
      STI TEMP+1,X3+CNBLK SAV THE CONTROL BLOCK ADDRESS
      LDI MACROA,X1+MAC GET MACRO POINTER
      ROS
      LDA DEVBLK,X1+MAC GET 4 WORD BLOC KADDRESS
      TAI X2
      LDAQ 1,X2 GET LOAD POINT AND TFL
      STA LP,X3+CNBLK STORE INTO CONTROL BLOCK
      ANQ 77777B
      STQ TFL,X3+CNBLK
      LDAQ FB,X1+MAC GET CURRENT BLK AND BLKS REMAINI
      STA CBP,X3+CNBLK
      STQ BLKR,X3+CNBLK
      LDA BFCPP,X1+MAC GET CURRENT POSITION
      INA,S -2 MAKE USABLE FOR UIO
      STA CPP,X3+CNBLK
      ASE 0 SKIP IF POSSIBLY AT LOAD POINT
      UJP BKSP10
      LDA LP,X3+CNBLK
      SCA CBP,X3+CNBLK COMPARE PRESENT AND LP
      AZJ,EQ BKSP14 JUMP IF AT LOAD POINT
BKSP10 EQU *
      RIS
      LDA TEMP GET BACKSPACE CUNT
      INA,S -1 PREPARE FOR IJD
      TAI X2
      ENQ BKSP
    
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02422	02422	P	1471	BKSP12	EQU	*	
02423	72000017		1472		CNTL	15	
02424	37002475	P	1473		LPA	BKSPBBIT	CHECK FOR BAD THINGS
02425	03102476	P	1474		AZJ,NE	BKSP50	
02425	02602422	P	1475		IJD	BKSP12,X2	BACKSPACE SOME MORE
			1476				
			1477				
	02426	P	1478				
02426	55400000		1479	BKSP13	EQU	*	
02427	25300000		1480		ROS		
02430	40100000		1481		LDAQ	C3P,X3+CNBLK	GET BLOCK NUM AND CURRENT POSITI
02431	20100013		1482		STA	FB,X1+MAC	
02432	15500002		1483		LDA	DEVBLK,X1+MAC	
02433	12000011		1484		INQ,S	2	MAKE USABLE FOR MOVEBUFF
02434	13000017		1485		SHA	9	
02435	41100013		1486		SHAQ	15	
02436	20300005		1487		STQ	DEVBLK,X1+MAC	STORE CURRENT POSITION IN DEVBLK
02437	15400001		1488		LDA	BLKR,X3+CNBLK	
02440	40100001		1489		INA,S	1	ALLOW FOR MOVE BUFF RE-READ
02441	14701001		1490		STA	BLF,X1+MAC	STORE BLOCK REMAINING
02442	41100003		1491		ENQ	513	
			1492		STQ	BFCPP,X1+MAC	STORE MORE WORDS THEN PER FB
			1493				
	02443	P	1494				
02443	14477777		1495	BKSP14	EQU	*	
02444	14700000		1496		ENA,S	77777B	LP TO BEGINNING
02445	40300001		1497		ENQ	0	SET LENGTH TO ZERO
02446	41300007		1498		STA	LP,X3+CNBLK	THIS WILL JUST MAKE REQUEST...
02447	55000000		1499		STQ	TFL,X3+CNBLK	...FREE THE CORE BUFFER IF PRESE
02450	14100002		1500		RIS		...AND REMOVE THE LUN
02451	71000017		1501		ENI	UNEQUIP,X1	
02452	04100000		1502		XREQ	15	
02453	01002453	P	1503		ISE	0,X1	
			1504		UJP	*+HALT	THIS, OF COURSE, WILL NOT HAPPEN
			1505				
			1506				
02454	54100663	P	1507				
02455	55400000		1508				
02456	20100007		1509				
02457	55000000		1510				
02460	05600001		1511				
02461	01002716	P	1512				
	02462	P	1513				
02462	21000675		1514	BKSP20	EQU	*	
02463	55400000		1515		LQ	NBIT21	
02464	27100012		1516		ROS		
02465	21100012		1517		LDA	KILLFLAG,X1+MAC	
02466	40100012		1518		RIS		
02467	55000000		1519		ASG	1	SKIP IF THIS DEVICE START UP ABL
02470	13000032		1520		UJP	RWNO07	SET TO LOAD POINT
02471	03202547	P	1521				
02472	14600000		1522				
02473	40000661	P	1523				
02474	01002507	P	1524				
			1525				
02475	20400000		1526				
			1527				
	02476	P	1528				
02476	12000001		1529				
02477	03302426	P	1530				
02500	55400000		1531				
02501	44100007		1532				
02502	01002443	P					

* RESTORE THE MACRO

* NOW GET RID OF THE BACKUP LUN

* NOW WE START THE DEVICE

BKSPBBIT OCT (2↑AUBIT)+(2↑LPBIT)

BKSP50 EQU * 23-LPBIT

AZJ,LT BKSP13

ROS KILLFLAG,X1+MAC

SWA BKSP14

UJP

CHECK FOR BAD THINGS

BACKSPACE SOME MORE

GET BLOCK NUM AND CURRENT POSITI

MAKE USABLE FOR MOVEBUFF

STORE CURRENT POSITION IN DEVBLK

ALLOW FOR MOVE BUFF RE-READ

STORE BLOCK REMAINING

STORE MORE WORDS THEN PER FB

LP TO BEGINNING

SET LENGTH TO ZERO

THIS WILL JUST MAKE REQUEST...

...FREE THE CORE BUFFER IF PRESE

...AND REMOVE THE LUN

THIS, OF COURSE, WILL NOT HAPPEN

MACRO POINTER TO X1

SKIP IF THIS DEVICE START UP ABL

SET TO LOAD POINT

GET FLAGS WORD

SAVE STOP BIT

TURN OFF THE STOP BIT

STOP BIT TO POST

CALL URBLCK

SET ERRRO CONDITION

START THE MACRO

ARE WE AT LOAD POINT

JUMP IF SO

SAY TO KILL THE IDIOT FILE

FREE THE LUN FIRST

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```

*****
*
*           STRT,<DEVICE>
*
*           THIS ROUTINE AND COMMAND WILL START A DEVICE AFTER IF HAS
*           BEEN STOPPED BY A FORMS MESSAGE OF AN INITIAL START CONDITION.
*
*****
    
```

02503	14100007	P	1542	STRT0	EQU	*		
02504	00702770	P	1543		ENI	7,X1		DON'T CHECK FR DEVICE ACTIVE
02505	14477776		1544		RTJ	GETMAC		GET DEVICE NAME AND MACRO ADDRESS
02506	40000661	P	1545		ENA,S	-1		SCREAM CONDITION
02507	55400000	P	1546	STRT02	STA	TEMP		
02510	21100016	P	1547		EQU	*		
02511	55000000		1548	STRT03	ROS			
02512	27000672	P	1549		EQU	*		
02513	03102622	P	1550		LDQ	FORMSWRD,X1+MAC		GET FORMS WORD
02514	27000671	P	1551		RIS			
02515	03002606	P	1552		LDL	BIT19		IS THES AN OPERATOR READIED...
02516	53040000		1553		AZJ,NE	STRT60		...DEVICE - JUMP IF SO
02517	55400000		1554		LDL	BIT20		ARE WE WAITING ON FORMS
02520	40100016	P	1555		AZJ,EQ	STRT20		JUMP IF NOT
02521	14477776		1556	STRT04	AQA			CLEAR #WAITING#,SET #PRESENT#
02522	34400465	P	1557		ROS			
02523	55000000		1558		EQU	*		
02524	20000661	P	1559		STA	FORMSWRD,X1+MAC		RESTORE THE FORMS WORD
02525	03002547	P	1560		ENA,S	-1		
02526	55400000		1561		RAD,I	SCREAM		SET THE SCREAM CONDITION
02527	20100015		1562		RIS			
02530	15477776		1563+001		LDA	TEMP		GET ERROR STATUS
02531	53600000		1563+002		AZJ,EQ	STRT10		IF NOT #STRT# DON'T DO ACCOUNTING
02532	21100005		1563+003		ROS			
02533	53040000		1563+004		LDA	POSI,X1+MAC		GET SIZE OF FORMS RECORD
02534	53700000		1563+005		INA,S	-1		
02535	20300000	P	1564		TAI	X2		
02536	55000000		1565		LDQ	IMAD,X1+MAC		GET ADDRESS OF BUFFER
02537	40203120	P	1566		AQA			POINT TO END OF BUFFER
02540	55400000		1567		TAI	X3		
02541	15377776		1568	STRT08	EQU	*		
02542	02602535	P	1569		LDA	0,X3		GET FORMS MESSAGE...
02543	20100015		1570		RIS			
02544	55000000		1571		STA	ACCBUFF+8,X2		...AND STORE IN OUT LINE
02545	14700001		1572		ROS			
02546	00703027	P	1573		INI	-1,X3		
02547	20000665	P	1574		IJD	STRT08,X2		
02550	55400000		1575		LDA	POSI,X1+MAC		GET MESSAGE SIZE AFAIN
02551	35100004		1576		RIS			
02552	40100004		1577		ENQ	STRTFLG		
02553	55000000		1578		RTJ	OUTACC		OUTPUT THE ACCOUNTING INFO
02554	20000545	P	1579		EQU	*		
02555	44002573	P	1580	STRT10	LDA	BIT23		
02556	47102572	P	1581		ROS			
02557	55400000		1582		SSA	CALBAK,X1+MAC		SET CONTINUE BIT
02560	21400537	P	1583		STA	CALBAK,X1+MAC		
02561	55000000		1584		RIS			
02562	27000531	P	1585		LDA	URBLOK		ROUTINE TO GOTO
02563	03002574	P	1586	STRT11	EQU	*		
02564	25002572	P	1587		SWA	STRT16+1		STORE INTO PROTOTYPE
02565	14202570	P	1588		STI	STRT16,X1		STORE MACRO ADDR
02566	14100001		1589	STRT12	EQU	*		
02567	01001716	P	1590		ROS			
02570	45002572	P	1591		LDQ,I	FLAGS		GET FLAGS WORD
02571	01002557	P	1592		RIS			
02572	14100000		1593		LDL	INIBIT		SEE IF WAITING ALREADY
			1594		AZJ,EQ	STRT18		JUMP IF NOTHING WAITING
			1595		LDQ	STRT16		
			1596		ENI	STRT.CB,X2		PLACE TO RETURN TO
			1597		ENI	1,X1		TIME TO WAIT
			1600		UJP	CALLBACK		
			1601		EQU	*		
			1602	STRT.CB	STAQ	STRT16		RESTORE FLAGS WORD
			1603		UJP	STRT12		
			1604		ENI	IMPURE,X1		PROTOTYPE FOR INTERRUPT FAKING

02573	01000000		1608	UJP	IMPURE	
			1609			
	02574	P	1610	STRT18 EQU	*	
02574	20000531	P	1611	LDA	INTBIT	
02575	53040000		1612	AQA	TURN THE BIT ON	
02576	55600000		1613	AEU		
02577	25002572	P	1614	LDAQ	STRT16	
02600	55400000		1615	ROS		
02601	45400542	P	1616	STAQ,I	FAKECBI	SET THE ROUTINE ADDRESS
02602	55200000		1617	EUA		
02603	40400537	P	1618	STA,I	FLAGS	SET BIT TO FAKE INTERRUPT
02604	55000000		1619	RIS		
02605	01004241	P	1620	UJP	DEVICE	OUTPT A SCREEN
			1621			
	02606	P	1622	STRT20 EQU	*	
02606	27000564	P	1623	LDL	BIT2322	
02607	03002632	P	1624	AZJ,EQ	STRT30	JUMP IF NOTHING TO START
02610	14477776		1625	ENA,S	-1	
02611	55400000		1626	ROS		
02612	34400465	P	1627	RAD,I	SCREAM	TURN OFF SCREAMER
02613	20100016		1628	LDA	FORMSWRD,X1+MAC	
	02614	P	1629	STRT40 EQU	*	
02614	17777777		1630	ANQ	77777B	REMOVE FORMS BITS
02615	41100016		1631	STQ	FORMSWRD,X1+MAC	
02616	55000000		1632	RIS		
02617	03204241	P	1633	AZJ,GE	DEVICE	EXIT IF NOTHIN G TO DO
02620	20000550	P	1634	LOA	URBLOKI	
02621	01002555	P	1635	UJP	STRT11	GO START THE DEVICE
			1636			
	02622	P	1637	STRT60 EQU	*	
02622	17777777		1638	ANQ	77777B	REMOVE FORMS BITS
02623	14477776		1639	ENA,S	-1	
02624	55400000		1640	ROS		
02625	34400465	P	1641	RAD,I	SCREAM	TURN OFF THE SCREAMER
02626	41100016		1642	STQ	FORMSWRD,X1+MAC	CLEAR FORMS WAIT
02627	55000000		1643	RIS		
02630	20000553	P	1644	LDA	URBLOKIZ	
02631	01002555	P	1645	UJP	STRT11	START THE MACRO
			1646			
	02632	P	1647	STRT80 EQU	*	
02632	20000661	P	1648	LDA	TEMP	
02633	03004241	P	1649	AZJ,EQ	DEVICE	JUMP IF NOTHING ALLRIGHT
02634	14100173		1649+001	ENI	M8,X1	#IT#S ALREADY GOING, DUMMY#
02635	01003023	P	1649+002	UJP	ERRROUT1	

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```
*****
*
*           KILL,<DEVICE>
*
*           THIS COMMAND WILL KILL THE OUTPUT OF ANY ACTIVE DEVICE.
*
*****
```

02636 14100000 P
02637 00702770 P
02640 14400000
02641 40000661 P
02642 55400000
02643 21100016
02644 55000000
02645 27000665 P
02646 03302670 P
02647 55400000
02650 44100007
02651 40100001
02652 55000000
02653 41000662 P
02654 14600000
02655 14700003
02656 00703027 P
02657 21000662 P
02660 27000672 P
02661 03102622 P
02662 27000671 P
02663 55400000
02664 03002614 P
02665 13000030
02666 17677777
02667 01002520 P

02670 14100225 P
02671 01003023 P

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1695
1695+001
1695+002

```
KILLC EQU *
      ENI 0,X1
      RTJ GETMAC
      ENA,S 0
      STA TEMP
      ROS FORMSWRD,X1+MAC
      LDQ
      RIS
      LDL BIT23
      AZJ,LT KILL50
      ROS
      SWA KILLFLAG,X1+MAC
      STA BLF,X1+MAC
      RIS
      STQ TEMP+1
      ENA 0
      ENQ KILLFLG
      RTJ OUTACC
      LDQ TEMP+1
      LDL BIT19
      AZJ,NE STRT60
      LDL BIT20
      ROS
      AZJ,EQ STRT40
      SHAQ 24
      ANA 77777B
      UJP STRT04
      EQU *
      ENI M9,X1
      UJP ERR0UT1
```

```
CHECK FOR DEVICE ACTIVE
GET DEVICE NAME AND MACR OADDRS
NOTHING TO STRT IS OK

IF TAKING FORMS OUT...
...DON# KILLIT

SET THE KILL THE FILE FLAG
FORGET KILLED BLOCKS

SAVE FORMS WORD

OUTPUT ACCOUNTING NFO
RESTORE Q
IS THE DEVICE WAITING TO START
JUMP IF SO
IS DEVICE WAITING ON FORMS

JUMP IF NOT

REMOVE FORMS BITS

#NOTHING TO KILL#
```

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```
*****
*
*          REWIND,<DEVICE>
*
*          THIS WILL SET A OUTPUT DEVICE TO LOAD POINT TO PRINT THE
*          FILE OVER AGAIN. YOU ALSO GET TE FORMS RECORDS ALL OVER AGAIN.
*
*****
```

02672	14100000	P	1713	REWINDC	EQU	*		
02673	0070277J	P	1714		ENI	0,X1	CHECK FOR DEVICE ACTIVE	
02674	14600000		1715		RTJ	GETMAC	GET DEVICE NAME AND MACRO ADDRES	
02675	14700004		1716		ENA	0	ADD NO EXTRA WORDS	
02676	00703027	P	1717		ENQ	RWNOFLG		
02677	20000667	P	1718		RTJ	OUTACC	OUTPUT ACCOUNTING INFO	
	02700	P	1719		LDA	BIT21		
02700	55400000		1720	RWNO02	EQU	*		
02701	35100012		1721		ROS			
02702	40100012		1722		SSA	ENIT,X1+MAC	SET STOP BIT	
02703	55000000		1723		STA	ENIT,X1+MAC	SET STOP BIT	
02704	37000671	P	1724		RIS			
02705	03002715	P	1725		LPA	BIT20		
02706	53100000	P	1726		AZJ,EQ	RWNO05	JUMP IF MACRO SAFE TO TOUCH	
02707	14202712	P	1727		TIA	X1		
02710	14300001	P	1728		ENI	RWNO.CB,X2		
02711	01001716	P	1729		ENI	1,X3	WAIT ONE SECOND	
	02712	P	1730		UJP	CALLBACK		
02712	53500000		1731					
02713	14600000		1732	RWNO.CB	EQU	*		
02714	01002700	P	1733		TAI	X1	RESTORE MACRO POINTER	
	02715	P	1734		ENA	0		
02715	47100663	P	1735		UJP	RWNO02	CHECK AGAIN	
	02716	P	1736					
02716	55400000		1737					
02717	20100013		1738	RWNO05	EQU	*		
02720	53600000		1739		STI	MACROA,X1+MAC	SAVE MACRO ADDRESS	
02721	25200001		1740	RWNO07	EQU	*		
02722	17777777		1741		ROS			
02723	45100000		1742		LDA	DEVBLK,X1+MAC	GET POINTER TO 4 WORD FILE BLOCK	
02724	14601000		1743		TAI	X2		
02725	40100003		1744		LDAQ	1,X2	GET LP AND TFL	
02726	21100013		1745		ANQ	77777B	REMOVE RECORD COUNT	
02727	14600002		1746		STAQ	FB,X1+MAC	PLACE IN MACRO	
02728	14600002		1747		ENA	512		
02729	14600002		1748		STA	BFCPP,X1+MAC	SET FILE BLOCK DONE	
02730	12400011		1749		LQ	DEVBLK,X1+MAC		
02731	13000017		1750		ENA	2		
02732	40100013		1751		SHQ	9		
02733	55000000		1752		SHAQ	15	SET CURRENT POSITION TO BEGINNIN	
02734	01002462	P	1753		STA	DEVBLK,X1+MAC		
	02735	P	1754		RIS			
02735	14100245		1755		UJP	BKSP20	START THE DEVICE	
02736	01003023	P	1756					
	02735	P	1757	RWNO50	EQU	*		
	01003023	P	1757+001		ENI	M10,X1	#DEVICE NOT ACTIVE#	
			1757+002		UJP	ERRCUT1		

```

1767 * ROUTINE TO EQUIP LUN SPECIFIED BY X2 AND RETURN, IN X3,
1768 * A POINTER TO ITS CONTROL BLOCK
02737 01000000
02740 25000652 P
02741 14100003
02742 71200000
02743 04100000
02744 01002744 P
02745 16277777
02746 53020034
02747 12077766
02750 53700000
02751 55400000
02752 20400556 P
02753 53700000
      02754 P
02754 02302756 P
02755 01002755 P

      02756 P
02756 25377776
02757 53700000
02760 12000011
02761 17600377
02762 53240000
02763 03102754 P
02764 13000030
02765 53700000
02766 55000000
02767 01002737 P

1769 UJP IMPURE
1770 LDAQ BCDFILE QQUIP TO A FILE
1771 ENI EQUIP,X1
1772 XREQ 0,X2 GET THE LUN EQUIPPED
1773 ISE 0,X1 SKIP IF NO ERRORS
1774 UJP *+HALT
1775 XOI 77777B,X2 NEGATE TEH REQUIRED LUN NUM
1776 TMA RF34
1777 SHA -9
1778 TAI X3+PSA GET PSA POINTER INTO X3
1779 ROS
1780 LDA,I LUNLIST,PSA GET POINTER TO LUNLIST
1781 TAI X3
1782 EQU *
1783 IJI GETCB05,X3
1784 UJP *+HALT END OF LUNLIST AND NOTHING FOUND

1785
1786 GETCB05 EQU *
1787 LDAQ -1,X3 GET LUNLIST ELEMENT
1788 TAI X3
1789 SHA 9
1790 ANA 377B EXTRACT LUN
1791 AIA X2 SUBTRACT FROM LOOKING FOR
1792 AZJ,NE GETCB02 JUMP IF NOT FOUND HERE
1793 SHA 24
1794 TAI X3 PLACE CONTROL BLOCK POINTER IN X
1795 RIS
1796 UJP GETCB AND RETURN

```

```

1798 * ROUTINE TO GET A SYSBOL FROM THE INPUT STRING, FIND ITS MACRO
1799 * ADDRESS, AND RETURN WITH THE MACRO ADDRESS IN #MACROA# AND X1
1800 * AND ONLY IF THE MACRO IS ACTIVE.
1801 * ALSO IF CALLED WITH X1 NON ZERO DON#T CHECK FOR DEVICE ACTIVE
02770 01000000
02771 47103012 P
02772 54100416 P
02773 22401747 P 00371 3
02774 04600073
02775 01001246 P
02776 00702051 P
02777 01001246 P
03000 01001246 P
03001 40003111 P
03002 20000653 P
03003 03503022 P
03004 20003111 P
03005 00704555 P
03006 01003022 P
03007 53200000
03010 40000663 P
03011 53500000
03012 04000000
03013 01002770 P
03014 55400000
03015 20100013
03016 55000000
03017 05600001
03020 01002735 P
03021 01002770 P

      03022 P
03022 14100147
      03023 P
03023 14200376
03024 00704026 P
03025 01001271 P

1802 UJP IMPURE
1803 STI GETMAC2,X1 SAVE CHECK FLAG
1804 LOI SAVEX1,X1
1805 LACH INBUFF-1,X1 GET LAST DELIMETER
1806 ASE COMMA MUST BE A COMMA
1807 UJP INERROR
1808 RTJ FETCHITM
1809 UJP INERROR GET THE SYSBOL
1810 UJP INERROR MUST BE THERE...
1811 STA ACCBUFF+1 ...AND CANNOT BE A NUMBER
1812 LDA BLANKS SAVE DEVICE NAME
1813 AQJ,NE GETMAC4 ERROR IF > 4 CHARS
1814 LDA ACCBUFF+1 RETURN NAME
1815 RTJ QFIND FIND THE MACRO ADDR
1816 UJP GETMAC4 MUST BE DEFINED
1817 TIA X2 MACRO ADDR TO A
1818 STA MACROA SAV THE ADDR
1819 TAI X1 ALSO PLACE IN X1
1820 GETMAC2 ISE IMPURE,0 SKIP IF CHECK FOR ACTIVE
1821 UJP GETMAC JUST RETURN
1822 ROS
1823 LDA DEVBLK,X1+MAC GET ACTIVITY FLAG
1824 RIS
1825 ASG 1 SKIP IF MACRO ACTIVE
1826 UJP RWN050 SAV ITS NOT ACTIVE
1827 UJP GETMAC RETURN

1827+001
1827+002 GETMAC4 EQU *
1827+003 ENI M7,X1 #UNKNOWN DEVICE NAME#
1827+004 ERRROUT1 EQU *
1827+005 ENI 5*50+4,X2 WHERE TO PUT IT
1827+006 RTJ CHAROUT
1827+007 UJP WRITEOUT

```

```

1830 *
1831 * ROUTINE TO OUTPUT ACCOUNTING INFO FOR DEVICES BEING OPERATED ON
1832 * IF THEY ARE EITHER WAITING FOR FORMS OR HAVE FORMS. IT WRITES
1833 * ONTO THE FILE ↑FORMACC A RECORD OF THE FORM:
1834 *
1835 * WORD BITS CONTENTS
1836 * ---
1837 * 1 23-0 OPERATION ON DEVICE: 1 - STRT
1838 * 2 - BKSP
1839 * 3 - KILL
1840 * 4 - REWIND
1841 * 2 23-0 4 CHAR BCD IDENT OF DEVICE
1842 * 3 23-0 CONTENTS OF RF37 AT THE TIME
1843 * 4 23-0 CONTENTS OF RF22 AT THE TIME
1844 * 5 23 ONE IF SUBMITTING JOB WAS ABORTED WHEN OUTPUT OUTT
1845 * 22 ONE
1846 * 21-0 JOB NUMBER OF SUBMITTING JOB
1847 * 23-0 NUMBER OF RECORDS IN FILE ROUNDED TO NEAREST 512
1848 * 7 23-15 GARBAGE
1849 * 14-0 TOTAL NUMBER OF FILE BLOCKS IN THIS FILE
1850 * 8 23-15 GARBAGE
1851 * 14-0 FILE BLOCKS BEYOND CURRENT POSITION
1852 * 9 PRESENT IF BKSP - NUM OF RECS BACKSPACES
1853 * 9-... PRESENT IF SRTR - FORMS MESSAGE AS WRITTEN ON CONSOLE
1854 *
1855 *
1856 * CALLING SEQUENCE IS:
1857 *
1858 * ENI <MACRO ADDR>,X1
1859 * ENA <NUMBER OF EXTRA WORDS>
1860 * ENQ <OPERATION IDENT>
1861 * RTJ OUTACC
1862 *
*****

```

```

03026 55000000 P
03027 01000000
03030 15000010
03031 44003107 P
03032 41003110 P
03033 53020037
03034 53010022
03035 45003112 P
03036 20000670 P
03037 55400000
03040 37100016
03041 03003026 P
03042 20100013
03043 53600000
03044 20200003
03045 21100001
03046 55700000
03047 20200002
03050 21200000
03051 55000000
03052 40003116 P
03053 12400006
03054 13000022
03055 17577000
03056 55200000
03057 45003114 P
03060 55100000
03061 41003117 P
03062 25003146 P
03063 14100003
03064 71000024
03065 02503103 P
03066 12000006
03067 03203071 P
03070 01003070 P
03071 14700005
03072 72000024
03073 25003106 P
03074 76000024
03075 14100002
03076 71000024

```

```

1864 OUTA02 EQU *
1865 RIS
1866 UJP IMPURE
1867 OUTACC INA 8 ADD INFIXED AREA SIZE
1868 SWA OUTAWTI+1 PLACE IN WRITE INFO
1869 STQ ACCBUFF STORE OPERATION
1870 TMA DATE
1871 TMQ CLOCK PLACE DATE AND TIME
1872 STAQ ACCBUFF+2 IM BUFFER
1873 LDA BIT2120
1874 ROS
1875 LPA FORMSWRD,X1+MAC GET WAITING AND HAVE FORMS
1876 AZJ, EQ OUTA02 FORGET THIS IF NEITHER ON
1877 LDA DEVBLK,X1+MAC
1878 TAI X2
1879 LDA 3,X2 GET JOB NUMBER
1880 LDQ BLF,X1+MAC GET BLOCKS BEYOND HERE
1881 AQE SAVE THEM IN E
1882 LDA 2,X2
1883 LDQ 0,X2 GET PARTS TO RECORD COUNT
1884 RIS
1885 STA ACCBUFF+6 SAVE TFL
1886 SHQ 6
1887 SHA 9+9
1888 ANQ,S 77000B FORM APPROX NUMBER OF RECORDS
1889 EVA
1890 STAQ ACCBUFF+4 STORE INTO OUTPUT INFO
1891 ELQ
1892 STQ ACCBUFF+7 STORE BLOCKS AHEAD OF HERE
1893 EQU *
1894 LDAQ ACCFILE
1895 ENI EQUIP,X1
1896 XREQ 20 EQUIP TO ACCOUNTING FILE
1897 IJD OUTA10,X1 JUMP IF ANY PROLEMS
1898 SHA 23-AUBIT
1899 AZJ,GE *+2 JUMP IF FILE ALRIGHT
1900 UJP *+HALT STOP IF FILE ABNORMAL
1901 ENQ SEFF
1902 CNTL 20 GOTO THE END OF IT
1903 LDAQ OUTAWTI
1904 WRITE 20 WRITE THE ACCOUNTING INFO
1905 ENI UNEQUIP,X1
1906 XREQ 20 UJEQUIP FROM IT
1907

```


03077	04100000		1908	ISE	0,X1	SKIP IF NO ERRORS
03100	01003100	P	1909	UJP	*+HALT	STOP DEAD
03101	54100663	P	1910	LDI	MACROA,X1	RESTORE MACRO ADDRESS
03102	01003027	P	1911	UJP	OUTACC	RETURN
	03103	P	1912			
03103	04100003		1913	OUTA10 EQU	*	
03104	01003104	P	1914	ISE	4-1,X1	SKIP IF FILE BUSY
03105	01003062	P	1915	UJP	*+HALT	GET A SYSTEM'S PROGRAMMER HERE
			1916	UJP	OUTA04	WAIT FOR THE DEVICE
03106	00003110		1917			
			1918	OUTANTI VFD	09/0,A15/ACCBUFF,09/010,A15/IMPURE	
03110			1919			
03146	55264651		1920	ACCBUFF BSS	30	
			1921	ACCFILE BCD	2,+FORMACC	
			1922			
	00001		1923	STRNFLG EQU	1	
	00002		1924	BKSPFLG EQU	2	
	00003		1925	KILLFLG EQU	3	
	00004		1926	RWNDFLG EQU	4	

```

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1932
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03150 03150 P
14600001
03151 P
53420060
03152 54100416 P
22401747 P 00371 3
03154 04600073 P
03155 01001246 P
03156 00702051 P
03157 01001246 P
03160 01001246 P
03161 20000653 P
03162 03501246 P
03163 20002144 P
03164 21003206 P
03165 03403207 P
03166 14577777
03167 14100010
03170 55400000
03171 06200000
03172 01003204 P
03173 20400561 P
03174 55000000
03175 37000666 P
03176 03003204 P
03177 55400000
03200 53020060
03201 44400561 P
03202 55000000
03203 01004241 P
03204 03204 P
55000000
03205 01001246 P
03206 63214725
03207 03207 P
53010060
03210 05700001
03211 14577776
03212 16577777
03213 53020067
03214 53040000
03215 05600000
03216 01003220 P
03217 01001246 P
03220 53420067
03221 13000030
03222 55400000
03223 34400564 P
03224 55000000
03225 01003420 P
03226 03226 P
14400000
03227 01003151 P

```

```

*****
*
* DOWN, <DEVICE>
*
* THIS COMMAND WILL MAKE UN AVAILABLE THE DE ICE SPECIFIRD. IF
* THE DEVICE IS A TAPE IT WILL DEVREMENT THE TAPES AVAILABLE
*
*****
1936 DOWNC EQU *
1937 ENA 1 FLAG FORR DOWN
1938 EQU *
1939 DOWN00 EQU *
1940 TAM RF60 PLACE IN TEMP
1941 LOI SAVEX1,X1
1942 LACH INBUFF-1,X1
1943 ASE COMMA CHECK FOR PARAMETER DELIM
1944 UJP INERROR
1945 RTJ FETCHITM GET THE DEVICE NAMME
1946 UJP INERROR
1947 UJP INERROR NO NUMBERS PLEASE
1948 LDA BLANKS
1949 AQJ,NE INERROR OLNY FOUR CHARS
1950 LDA ITEM
1951 LDQ BCOTAPE
1952 AQJ,EQ DOWNMT IF #TAPE# GET RID OF AN MT
1953 ENQ,S 77777B
1954 ENI 8,X1 SIZE OF HARDWARE TABLE
1955 ROS
1956 DOWN05 MEQ IMPURE,2 LOOK FOR DEVICE NAME
1957 UJP DOWN10
1958 LDA,I HARDWARE GET CONTROL WORD
1959 RIS
1960 LPA BIT22
1961 AZJ,EQ DOWN10 UJIT NOT UNIT RECORD
1962 ROS
1963 TMA RF60 GET UP DOWN FLAG
1964 SWA,I HARDWARE DOWN OR UP THE DEVICE
1965 RIS
1966 UJP DEVICE GIVE A C FOR COLOR
1967
1968 DOWN10 EQU *
1969 RIS
1970 UJP INERROR
1971
1972 BCOTAPE BCD 1,TAPE
1973
1974 DOWNMT EQU *
1975 TMQ RF60 GET UP/DOWN FLAG
1976 QSG 1
1977 ENQ,S -1
1978 XQQ,S 77777B MAKE + OR - 1
1979 TMA RF67 GET TAPES AVAILABLE
1980 AGA UP OR DOWN THE DRIVE
1981 DOWNMT10 ASG IMPURE SKIP IF TOO MANY IR TOO FEW
1982 UJP *+2
1983 UJP INERROR
1984 TAM RF67 KEEP NEW COUNT
1985 SHAQ 24
1986 ROS
1987 RAD,I TAPESAVL GIVE OR TAKE THE TAPE
1988 RIS
1989 UJP TRAFFIC DO A T FOR COLOUR
1990
1991
1992 UPC EQU *
1993 ENA,S 0
1994 UJP DOWN00 THE UP COMMAND IS LIKE THE DOWN

```

03230	47002117	P	1996	UTAPESC	EQU	*	MAKE FO OCTAL PACKING
03231	54100416	P	1997		STI	FRCHK,0	
03232	22401747	P	1998		LDI	SAVE X1,X1	
03233	04600073	P	1999	00371 3	LACH	INBUFF-1,X1	GET TERM CAHR
03234	01001246	P	2000		ASE	COMMA	
03235	00702051	P	2001		UJP	INERROR	CANNOT BE OTHER THEN COMMA
03236	01001246	P	2002		RTJ	FETCHITM	GET TERM NUMBER
03237	01003241	P	2003		UJP	INERROR	MUST BE THERE
03240	01001246	P	2004		UJP	*+2	MUST BE NUMBER
03241	03301260	P	2005		UJP	INERROR	
03242	21000633	P	2005+001		AZJ,LT	ILLTERM	CANNOT BE NEG
03243	03601260	P	2007		LDQ	USERMAX	
03244	40000744	P	2007+001		AQJ,GE	ILLTERM	MUST WITHIN RANGE
03245	47102117	P	2009		STA	MVEA	SAVE IT
03246	00702051	P	2010		STI	FRCHK,X1	MAKE FOR DEVIMAL PACKING
03247	01001246	P	2011		RTJ	FETCHITM	GET TAPES NUMBER
03250	01003252	P	2012		UJP	INERROR	
03251	01001246	P	2013		UJP	*+2	
03252	40000661	P	2014		UJP	INERROR	
03253	54300744	P	2015		STA	TEMP	SAVE NUMBER OF TAPES
03254	55400000	P	2016		LDI	MVEA,X3	GET TERM NUMBER
03255	20400636	P	2017		ROS		
03256	05600001	P	2018		LDA,I	PSABLK	GET PSA POINTER
03257	01003204	P	2019		ASG	1	SKIP IF LOGGED IN
03260	53700000	P	2020		UJP	DOWN10	
03261	20400526	P	2021		YAI	X3	
03262	21400564	P	2022		LDA,I	UTAPEMAX,PSA	GET MAX AND IN USE BY USER
03263	55000000	P	2023		LDQ,I	TAPESAVL	GET AVAILABLE TAPES IN SYSTEM
03264	41000662	P	2024		RIS		
03265	13077771	P	2025		STQ	TEMP+1	SAVE TAPES AVAILALE
03266	12400006	P	2026		SHAQ	-6	
03267	17600077	P	2027		SHQ	6	
03270	17700077	P	2028		ANA	77B	AMX FOR USER IN A
03271	31000661	P	2029		ANQ	77B	IN USE IN Q
03272	34000662	P	2030		SBA	TEMP	COMPUTE TAPES CHANGE VALUE
03273	20000661	P	2031		RAD	TEMP+1	COMPURE NEW TAPES AVL
03274	03703313	P	2032		LDA	TEMP	
03275	20000662	P	2032+001		AQJ,LT	UTAPES2	SETTING MAX BELOW USAGE
03276	03303315	P	2034		LDA	TEMP+1	GET TAPES AVAILABLE
03277	55400000	P	2034+001		AZJ,LT	UTAPES3	ERROR IF TAPES NOT AVAILABLE
03300	21400564	P	2036		ROS		
03301	40400564	P	2037		LDQ,I	TAPESAVL	GET WHAT USED TO BE FREE
03302	16477777	P	2038		STA,I	TAPESAVL	STORE NEW FREE TAPES
03303	53040000	P	2039		XOA,S	77777B	
03304	12000006	P	2040		AQA		COMPUTE DIFFERANCE
03305	34400526	P	2041		SHA	6	
03306	55000000	P	2042		RAD,I	UTAPEMAX,PSA	ADJUST MAX USER CAN HAVE
03307	14100041	P	2043		RIS		
	03310	P	2043+001	UTAPES1	ENI	M4,X1	
03310	14201666	P	2043+002		EQU	*	
03311	00704026	P	2043+003		ENI	1000-50,X2	
03312	01003420	P	2043+004		RTJ	CHAROUT	TELL HIM IT'S ASSIGNED
		P	2043+005		UJP	TRAFFIC	
		P	2043+006				
03313	14100115	P	2043+007	UTAPES2	EQU	*	
03314	01003310	P	2043+008		ENI	M6,X1	#MORE TAPES IN USE BY USER#
		P	2043+009		UJP	UTAPES1	
		P	2043+010				
03315	14100060	P	2043+011	UTAPES3	EQU	*	
03316	01003310	P	2043+012		ENI	M5,X1	#TAPES NOT AVAILABLE#
		P	2043+013		UJP	UTAPES1	

Address	Hex	Op	Label	Op	Comment
03317	44003405	P	PSALOOK	EQU	* PSAEFLG
03320	54100416	P	PSALK2	EQU	*
03321	22401747	P		LDI	SAVE X1, X1
03322	14700073	P		LACH	INBUFF-1, X1
03323	03503333	P		ENG	COMMA
03324	47002117	P		AQJ, NE	NOT COMMA SO USE IOBOUND
03325	00701734	P		STI	SAY OCTAL CONVERSION
03326	01003333	P		RTJ	GO DECODE PARAMETER
03327	20000742	P		UJP	NONSENSE - DO IOBOUND WORD
03330	17677777	P	PSALKCK	LDA	GET VALUE OF EXPRESSION
03331	05600177	P		ANA	77777B
03332	01003334	P		ASG	177B
03333	20000457	P	USEIOBND	UJP	*+2
03334	44003351	P		LDA	IOBOUND
				SWA	PSALKLDQ
03335	54300633	P	PSARST	EQU	*
03336	14200001	P		LDI	USERMAX, X3
03337	15377776	P		ENI	1, X2
03340	55000000	P	PSALK01X	INI	-1, X3
03341	47303372	P		RIS	PSALK01, X3
03342	55400000	P		STI	SAVE THE TERMINAL NUMBER
03343	20400636	P		ROS	IS A PSA PRESENT
03344	05600001	P		LDA, I	PSABLK
03345	01003372	P		ASG	1
03346	53700000	P		UJP	PSALK01
03347	12000001	P		TAI	X3
03350	03303372	P		SHA	1
03351	21300000	P	PSALKLDQ	AZJ, LT	PSALK01
03352	55000000	P		LQ	IMPURE, X3
03353	14100007	P		RIS	7, X1
03354	14600000	P		ENI	0
03355	13000003	P		ENA	3
03356	42400004	P		SHAQ	OUTBUFF+4, X2
03357	15200001	P		SACH	1, X2
03360	02503354	P		INI	*-4, X1
03361	21003372	P		IJD	PSALK01
03362	12400017	P		LQ	15
03363	14100002	P		SHQ	2, X1
03364	14600000	P		ENI	0
03365	13000003	P		ENA	3
03366	42777767	P		SHAQ	OUTBUFF-8, X2
03367	15200001	P		SACH	1, X2
03370	02503364	P		INI	*-4, X1
03371	15200047	P		IJD	TVLINEL-11, X2
				INI	
03372	14300000	P	PSALK01	ENI	IMPURE, X3
03373	02703400	P	PSAIJD	IJD	PSALINIC, X3
03374	55000000	P		RIS	RESTORE THE TERMINAL NUMBER
					JUMP IF NOT DONE
03375	14603335	P	PSADNXT	EQU	*
03376	44001634	P		ENA	PSARST
03377	01001271	P		SWA	NEXT
				UJP	WRITEOUT
03400	05201747	P	PSALINIC	EQU	*
03401	01003340	P		ISG	SCREENLC-1, X2
03402	15276047	P		UJP	PSALK01X
03403	05200060	P		INI	-SCREENLC+16, X2
03404	01003340	P		ISG	16+16+16, X2
03405	04000000	P		UJP	PSALK01X
03406	01003375	P	PSAEFLG	ISE	IMPURE, 0
03407	47303413	P		UJP	PSADNXT
03410	14603413	P		STI	*+4, X3
03411	44001634	P		ENA	*+3
03412	01001271	P		SWA	NEXT
03413	14300000	P		UJP	WRITEOUT
03414	14200001	P		ENI	IMPURE, X3
03415	01003340	P		ENI	1, X2
				UJP	PSALK01X
					CONTINUE LISTING
03416	47003405	P	SALL	EQU	*
03417	01003320	P		STI	PSAEFLG, 0
				UJP	PSALK2
					SAY STATUS ON ALL PSAS
					GO DO DUMP

Address	Count	Label	Operation	Comments
00000	P	2122	DATESPOT EQU	OUTBUFF
00007	P	2123	NAME SPOT EQU	OUTBUFF+7
00052	P	2124	NUMUSERS EQU,C	DATESPOT+42
00226	P	2125	WORD SPOT EQU,C	DATESPOT+150
03420	P	2126		
03421	P	2127		
03422	P	2128	TRAFFIC EQU	*
03423	P	2128+001	ENA	TRAFFIC
03424	P	2128+002	SWA	NEXT
03425	P	2129	TMA	DATE
03426	P	2130	SHA	-10
03427	P	2131	ANA	17B
03430	P	2132	TAI	X3
03431	P	2133	ENQ	60B
03432	P	2134	ENI	0,X1
03433	P	2135	ENI	-1,X2
03434	P	2136	UJP	DATE02
03435	P	2137	LACH	BCD MONTH,X1
03436	P	2138	INI	1,X1
03437	P	2139	AQJ,NE	DATE01
03440	P	2140	IJD	DATE01,X3
03441	P	2141	LACH	BCD MONTH,X1
03442	P	2142	INI	1,X2
03443	P	2143	SACH	DATESPOT,X2
03444	P	2144	INI	1,X1
03445	P	2145	AQJ,NE	*-4
03446	P	2146	TMA	DATE
03447	P	2147	SHAQ	-29
03448	P	2148	ANQ	37B
03449	P	2149	DVA	010
03450	P	2150	AZJ,EQ	*+3
03451	P	2151	SACH	DATESPOT+1,X2
03452	P	2152	INI	1,X2
03453	P	2153	SHAQ	24
03454	P	2154	SACH	DATESPOT+1,X2
03455	P	2155	ENA	73B
03456	P	2156	SACH	DATESPOT+2,X2
03457	P	2157	ENA	1
03458	P	2158	SACH	DATESPOT+4,X2
03459	P	2159	ENA	9
03460	P	2160	SACH	DATESPOT+5,X2
03461	P	2161	TMA	DATE
03462	P	2162	SHAQ	-38
03463	P	2163	ANQ	377B
03464	P	2164	DVA	010
03465	P	2165	SACH	DATESPOT+6,X2
03466	P	2166	SHAQ	24
03467	P	2167	SACH	DATESPOT+7,X2
03468	P	2168	TMA	DATE
03469	P	2169	ANA	37B
03470	P	2170	ENQ	13
03471	P	2171	AQJ,LT	*+2
03472	P	2172	INA,S	-12
03473	P	2173	SHAQ	-24
03474	P	2174	DVA	010
03475	P	2175	AZJ,EQ	*+4
03476	P	2176	SACH	DATESPOT+9,X2
03477	P	2177	INI	1,X2
03478	P	2178	UJP	*+4
03479	P	2179	AQJ,NE	*+3
03480	P	2180	ENQ	12
03481	P	2181	UJP	*-7
03482	P	2182	SHAQ	24
03483	P	2183	SACH	DATESPOT+9,X2
03484	P	2184	ENA	12B
03485	P	2185	SACH	DATESPOT+10,X2
03486	P	2186	TMA	CLOCK
03487	P	2187	SHAQ	-24
03488	P	2188	DVA	D60000
03489	P	2189	SHAQ	-24
03490	P	2190	DVA	010
03491	P	2191	SACH	DATESPOT+11,X2
03492	P	2192	SHAQ	24
03493	P	2193	SACH	DATESPOT+12,X2
03494	P	2194	ENA	44B
03495	P	2195	SACH	DATESPOT+15,X2
03496	P	2196	ENA	47B
03497	P	2197	TMQ	DATE
03498	P	2198	ANQ	37B

PLACE FOR SYSTEM NAME

ONCE A T, ALWAYS A T

MONTH TO X3

BCD FOR ,

BCD FOR :

BCD FOR M

BCD FOR P

03530	05700014			2199	QSG	12	SKIP IF AFTERNOON
03531	14600021			2200	ENA	218	BCD FOR A
03532	42400016	P	00003	2201	SACH	DATESPOT+14,X2	
03533	20000647	P		2202			
03534	40000007	P		2203	LDA	SYSBCD	
03535	53020050			2204	STA	NAMESPOT	
03536	53010051			2205	TMA	RF50	GET SYSTEM NAME
03537	45000010	P		2206	TMQ	RF51	
03540	53020070			2207	STAQ	NAMESPOT+1	PUT SYSTEM NAME IN OUTPUT BUFFER
03541	21000650	P		2208	TMA	RF70	GET PHAN NAME
03542	17470000			2209	LDQ	BCDPHAC	
03543	16606060			2210	ANA,S	70000B	
03544	13000014			2211	XQA	6060B	ADD SPACES
03545	45000023	P		2212	SHAQ	12	
03546	53020070			2213	STAQ	NAMESPOT+12	
03547	53010071			2214	TMA	RF70	
03550	13000014			2215	TMQ	RF71	
03551	17570000			2216	SHAQ	12	
03552	16706060			2217	ANQ,S	70000B	
03553	45000025	P		2218	XQA	6060B	
03554	53020035			2219	STAQ	NAMESPOT+14	
03555	13077747			2220	TMA	NU	
03556	51000700	P		2221	SHAQ	-24	
03557	04600000			2222	DVA	D10	
03560	42000052	P	00012	2223	ASE	0	
03561	43000053	P	00012	2224	SACH	NUMUSERS	
03562	14200003			2225	SQCH	NUMUSERS+1	
03563	14177773			2226	ENI	3,X2	MOVE THE #USERS# TEXT
03564	22417647	P	03751	2227	ENI	-USERMESL+1,X1	
03565	42400052	P	00012	2228	LACH	USERMES+USERMESL-1,X1	
03566	15200001			2229	SACH	NUMUSERS,X2	
03567	02103564	P		2230	INI	1,X2	
				2231	IJI	*-3,X1	
				2232			
				2233			
03570	11000226	P	00045	2234	ECHA	WORDSPOT	
03571	46003720	P		2235	SCHA	SQCHCHX	
03572	14200000			2236	ENI	0,X2	
	03573	P		2237	EQU	*	
03573	20200421	P		2238	LDA	TTABLE+2,X2	LOAD THE GOOD STUFF
03574	44003607	P		2239	SWA	WORDDP02	SAVE THE ADDRESS
03575	12000011			2240	SHA	9	
03576	53500000			2241	TAI	X1	POSITION TO X1
03577	17100777			2242	ANI	777B,X1	JUST THE POSITION
03600	25200417	P		2243	LDAQ	TTABLE,X2	LOAD THE SYMBOL
03601	14300000			2244	ENI	0,X3	
03602	13000006			2245	SHAQ	6	
03603	00703717	P		2246	RTJ	SQCHCH	
03604	10300007			2247	ISI	7,X3	
03605	01003602	P		2248	UJP	*-3	
03606	55400000			2249	RUS		
03607	20000000			2250	WORDDP02 LDA	IMPURE	LOAD THE INFORMATION
03610	55000000			2251	RIS		
				2252			
03611	04100034			2253	ISE	20+8,X1	* THE FOLLOWING 3 LINES ARE TO FAKE OUT OPERATORS
03612	01003614	P		2254	UJP	*+2	SKIP IF #MSQTOTAL#
03613	12077776			2255	SHA	-1	DIVIDE MSQTOTAL BY 2
03614	15100001			2256	INI	1,X1	
03615	14700000			2257	ENQ	0	PRINT OUT THE VALUE IN THE SYMBOL
03616	13000003			2258	SHAQ	3	
03617	00703717	P		2259	RTJ	SQCHCH	
03620	10300007			2260	ISI	7,X3	
03621	01003615	P		2261	UJP	*-4	
03622	15200003			2262	INI	3,X2	
03623	05200014			2263	ISG	TTABLEL,X2	SKIP IF DONE
03624	01003573	P		2264	UJP	WORDDUMP	
				2265			
03625	20000646	P		2266	LDA	TPUNITS	
03626	03001271	P		2267	AZJ,EQ	WRITEOUT	IF NO TAPES FORGET THIS
03627	15477776			2268	INA,S	-1	MAKE LAST DRIVE NUMBER
03630	44003666	P		2269	SWA	TP07	
03631	14200045			2270	ENI	TPTITLEL-1,X2	
03632	20203760	P		2271	LDA	TPTITLE,X2	COPY TITLE INTO OUT BUFFER
03633	40200113	P		2272	STA	OUTBUFF+75,X2	
03634	02603632	P		2273	IJD	*-2,X2	
03635	14300000			2274	ENI	0,X3	BEGIN WITH DRIVE ZERO
03636	20000617	P		2275	LDA	TAPELIST	
03637	44003653	P		2276	SWA	TP02	
03640	14600704			2277	ENA	DRIVSPOT	GET BEGINNING OUTPUT PCINT

03641	53420060	P	2278	TP00	EQU	*	
03642	53130060		2279		TAM	RF60	SAVE IN REG FILE
03643	53300000		2280		TMI	RF60,X1	PLACE POINTER IN X1
03644	13000030		2281		TIA	X3	DROVE NUMBER TO A
03645	43400000	P	2282		SHAQ	24	
03646	54100645	P	2283		SQCH	OUTBUFF,X1	OUTPUT THE DRIVENUMBER
03647	14577777	P	2284		LDI	TPUNITS,X1	
03650	53300000		2285		ENQ,S	77777E	PREPERE TO LOOK FOR THE DRIVE
03651	35000665	P	2286		TIA	X3	
03652	55400000		2287		SSA	BIT23	
03653	06100000		2288		ROS		
03654	01003752	P	2289	TP02	MEQ	IMPURE,1	LOOK FOR THE DRIVE
03655	21400575	P	2290		UJP	TP60	JUMP IF UNASSIGNED
03656	55000000		2291		LDQ,I	TNUMLIST	GET ASSIGNED TAPE NUMBER
03657	53130060		2292		RIS		
03658	15100011		2293		TMI	RF60,X1	GET OUTPUT POINTER
03659	14800001		2294		INI	9,X1	POINT TO END OF NUMBER
03661	14200006		2295		ENA	1	SPECIFY NO LEADING ZEROS
03662	00701143	P	2296		ENI	7-1,X2	
03663	03664	P	2297		RTJ	DECBOD	OUTPUT THE NUMBER
03664	53020060	P	2298	TP05	EQU	*	
03665	15600062		2299		TMA	RF60	POSITION TO A
03666	10300000		2300		INA	50	MOVE TO NEXT LINE
03667	01003641	P	2301	TP07	ISI	IMPURE,X3	MOVE TO NEXT TAPE DRIVE
03670	54300646	P	2302		UJP	TP00	
03671	14100735	P	2303		LDI	TPUNITS,X3	
03672	01003705	P	2304		ENI	TPWTSPOT,X1	GET BEGINNING POSITION
03673	55400000		2305		UJP	TP16	
03674	20400617	P	2306	TP10	EQU	*	
03675	55000000		2307		ROS		
03676	03303705	P	2308		LDA,I	TAPELIST	GET ENTRY
03677	03003705	P	2309		RIS		
03700	13077747		2310		AZJ,LT	TP16	JUMP IF DRIVE ASSIGNED
03701	14600001		2311		AZJ,EQ	TP16	JUMP IF EMPRY ENTRY
03702	14200006		2312		SHAQ	-24	
03703	00701143	P	2313		ENA	1	SAY ON LEADING ZEROS
03704	15100062	P	2314		ENI	7-1,X2	
03705	02703673	P	2315	TP16	RTJ	DECBOD	OUTPUT THE TAPE NUMBER
03706	55400000		2316		INI	50,X1	MOVE TO NEXT LINE
03707	21400564	P	2317		EQU	*	
03710	55000000		2318		IJD	TP10,X3	LOOK AT NEXT LOC
03711	05500000		2319		ROS		
03712	14200001		2320		LDQ,I	TAPESAVL	GET NUMBER OF FREE DRIVES
03713	14600001		2321		RIS		
03714	14100753		2322		OSG,S	0	
03715	00701143	P	2323		ENI	2-1,X2	
03716	01001271	P	2324		ENA	1	SAY NO LEADING ZEROS
03717	01000000		2325		ENI	TPRSSPOT,X1	GET OUTPUT LOCATON
03720	43400000		2326		RTJ	DECBOD	OUTPUT THE UNRESERVED TAPE NUM
03721	15100001		2327		UJP	WRITEOUT	
03722	01003717	P	2328				
03723	60000000	P	2329				
03724	60412145		2330				
03725	60262522		2331				
03727	70604421		2332				
03731	21475131		2333				
03732	43604421		2334				
03733	70604164		2335				
03734	45256041		2336				
03736	21642764		2337				
03737	62636062		2338				
03742	60462363		2339				
03744	60454665		2340				
03746	51602425		2341				
03750	25516064		2342				
03752	00005		2343				
			2344				
			2345				
			2346				
			2347				
			2348				
			2349				
			2350				
			2351				
			2352				
			2353				
			2354				
			2355				
			2356				

```

00704
00735
00753
03752 03752 P
03752 55000000
03753 53230060
03754 15200003
03755 14100000
03756 00704026 P
03757 01003664 P
03760 03760 P
03760 60606060
03774 60602451
04011 40404040
04026 00046
    
```

```

2357 DRIVSPOT EQU 452
2358 TPWTSPOT EQU 477
2359 TPRSSPOT EQU 491
2360
2361 TP60 EQU *
2362 RIS
2362+001 TMI RF60,X2
2362+002 INI 3,X2
2362+003 ENI M1,X1
2362+004 RTJ CHAROUT
2370 UJP TP05
2371
2376 TPTITLE EQU *
2377 TEXT,C /
2378 TEXT,C /DRIVE
2379 TEXT,C /-----
2380 TPTITLEL EQU,C (*-TPTITLE)/4
2381 BSS 0
    
```

```

GET LINE WE#RE ON
MOVE AFTER NUMBDR
#UNASSIGNED#
MOVE MESSAGE TO SCREEN
CHECK NEXT DEVICE
    
```

```

TAPES DRIVES
WAITING UNRESERVED / /
-----
    
```



```

*****
2381+003 *
2381+004 * ROUTINE TO MOVE CHARACTERS INTO SCREEN BUFFER. *
2381+005 * *
2381+006 * ENI <MESSES REL ADDR>,X1 *
2381+007 * ENI <OUTBUFF REL ADDR>,X2 *
2381+008 * RTJ CHAROUT *
2381+009 * X2-POINTS JUST AFTER MESSAGE *
2381+010 * X3 AND Q UNCHANGED *
2381+011 *
*****
    
```

04026	01000000		2381+013			
	04027	P	2381+014	CHAROUT	UJP	IMPURE
04027	22420174	P	2381+015	CHAROUTX	EQU	*
04030	04000053		2381+016		LACH	MESSES,X1
04031	01004033	P	2381+017		ASE	H\$#
04032	01004028	P	2381+018		UJP	*+2
04033	42400000	P	2381+019		UJP	CHAROUT
04034	15200001		2381+020		SACH	OUTBUFF,X2
04035	15100001		2381+021		INI	1,X2
04036	01004027	P	2381+022		INI	1,X1
			2381+023		UJP	CHAROUTX
	20174	P	2381+024			MOVE NEXT CHAR
	00000		2381+025	MESSES	EQU,C	*
04037	64452162		2381+026	M1	EQU,C	*-MESSES
	00013		2381+027		TEXT,C	/UNASSIGNED\$/
04041	25245324		2381+028	M2	EQU,C	*-MESSES
	00020		2381+029		TEXT,C	/DOWN\$/
04043	31434325		2381+030	M3	EQU,C	*-MESSES
	00041		2381+031		TEXT,C	/ILLEGAL TERMINAL\$/
04047	53632147		2381+032	M4	EQU,C	*-MESSES
	00060		2381+033		TEXT,C	/TAPES ASSIGNED\$/
04053	51255064		2381+034	M5	EQU,C	*-MESSES
	00115		2381+035		TEXT,C	/REQUESTED EXCEEDS UNRESERVED\$/
04062	53444651		2381+036	M6	EQU,C	*-MESSES
	00147		2381+037		TEXT,C	/MORE TAPES IN USE BY USER\$/
04070	25515364		2381+038	M7	EQU,C	*-MESSES
	00173		2381+039		TEXT,C	/UNKNOWN DEVICE NAMES\$/
04075	44255331		2381+040	M8	EQU,C	*-MESSES
	00225		2381+041		TEXT,G	/IT'S ALREADY GOING, DUMMY\$/
04104	53454663		2381+042	M9	EQU,C	*-MESSES
	00245		2381+043		TEXT,G	/NOTHING TO KILL\$/
04110	53242565		2381+044	M10	EQU,C	*-MESSES
04114			2381+045		TEXT,C	/DEVICE NOT ACTIVE\$/
			2381+046	BSS		0

REALINE WORD BOUNDRY

```

2384
2385
2386
04115 P
04115 54100416 P
04116 22401747 P
04117 04600073 P
04120 01004232 P
04121 47002117 P
04122 00701734 P
04123 01001246 P
04124 20000742 P
04125 17677777 P
04126 44000747 P
04127 55600000 P
04130 12077764 P
04131 53500000 P
04132 16177777 P
04133 55400000 P
04134 20400454 P
04135 55000000 P
04136 12100027 P
04137 03304223 P
04140 55200000 P
04141 44004230 P
04142 53600000 P
04143 14604230 P
04144 44001634 P
04145 14100000 P
04146 47004165 P
04147 01004173 P
04150 53200000 P
04151 17603777 P
04152 04600000 P
04153 01004165 P
04154 53200000 P
04155 12077764 P
04156 53700000 P
04157 16377777 P
04160 55400000 P
04161 20400454 P
04162 55000000 P
04163 12300027 P
04164 03304171 P
04165 05100000 P
04166 01004207 P
04167 05101750 P
04170 01004173 P
04171 47204232 P
04172 01001271 P
04173 14300004 P
04174 53200000 P
04175 12000011 P
04176 13000003 P
04177 17700007 P
04200 43400000 P
04201 15100001 P
04202 02704176 P
04203 15100001 P
04204 20004165 P
04205 15600062 P
04206 44004165 P
04207 15100003 P
04210 14300007 P
04211 55400000 P
04212 20200000 P
04213 55000000 P
04214 13000003 P
04215 17700007 P
04216 43400000 P
04217 15100001 P
04220 02704214 P
04221 15200001 P

```

00371 3

00000 0

00000 0

```

*****
*
* THIS CODE WILL PERFORM THE DUMP OPERATION
*
*****

```

```

2388
2389 DUMPIT EQU *
2390
2391 LDI SAVEX1,X1 GET THE CHARACTER POINTER
2392 LACH INBUFF-1,X1 GET DELIMITER
2393 ASE COMMA SKIP IF A COMMA
2394 UJP DNEXT DUMP LAST LOCATION AGAIN
2395 STI FRCHK,0 SAY OCTAL CONVERSION
2396 RTJ EXPEVAL FIND DUMP ADDRESS
2397 UJP INERROR INPUT ERROR
2398 LDA EXP GET EXPRESSION VALUE
2399 DUMPME EQU *
2400 ANA 77777B AND TO 15 BITS
2401 SWA EXPPPOINT SET #.# VALUE
2402 DUMPENR AEU SAVE DUMP ADDRESS
2403 SHA -11 MOVE TO PAGE NO.
2404 TAI X1 PAGE NUMBER OT X1
2405 XOI 77777B,X1
2406 ROS
2407 LDA,I MEMARRAY GET MEMARRAY WORD
2408 RIS
2409 SHA 23,X1 SHIFT AND SEE IF PAGE USED
2410 AZJ,LT PAGENE PAGE IS NON-EXISTANT
2411 EUA GET DUMP ADDRESS BACK
2412 SWA DLAST SET CURRENT DUMP ADDRESS
2413 TAI X2 DUMP POINTER TO X2
2414 ENA DLAST
2415 SWA NEXT REPEAT LAST DUMP ON NEXT
2416 ENI 0,X1 OUTPUT BUFFER POINTER
2417 STI DMPCNT01,0 INITIALIZE BUFFER CHECK
2418 UJP DMPENR JUMP INTO MIDDLE OF LOOP
2419
2420 DMPLOOP TIA X2 CHECK TO SEE IF NEW PAGE
2421 ANA 3777B
2422 ASE 0 SKIP IF SO
2423 UJP DMPCNT01 CONTINUE
2424 TIA X2
2425 SHA -11 PAGE NUMBER IN A
2426 TAI X3
2427 XOI 77777B,X3
2428 ROS
2429 LDA,I MEMARRAY GET USED PAGES WORD
2430 RIS
2431 SHA 23,X3 THIS PAGE STATUS TO BIT 23
2432 AZJ,LT DMPEXT DONE, SINCE PAGE BOUNDRY
2433 ISG IMPURE,X1 SKIP IF LINE DONE
2434 UJP DMPCNT02 CONTINUE ON
2435 ISG SCREENLC,X1
2436 UJP *+3
2437 DMPEXT STI DNEXT,X2 SAVE NEXT WORD TO DUMP FOR MORE
2438 UJP WRITEOUT GO WRITE SCREEN
2439 ENI 4,X3
2440 TIA X2 GET DUMPING ADDRESS
2441 SHA 9
2442 SHAQ 3
2443 ANQ 7B
2444 SQCH OUTBUFF,X1 PUT IN BUFFER
2445 INI 1,X1
2446 IJD *-4,X3 LOOP TILL DONE
2447 INI 1,X1 SPACEING
2448 LDA DMPCNT01
2449 INA TVLINEL FIX FOR NEXT LINE
2450 SWA DMPCNT01
2451 DMPCNT02 INI 3,X1 SPACE BETWEEN WORDS
2452 ENI 7,X3
2453 ROS
2454 LDA 0,X2 GET MONITOR WORD
2455 RIS
2456 SHAQ 3
2457 ANQ 7B
2458 SQCH OUTBUFF,X1 PUT CHARACTER IN BUFFER
2459 INI 1,X1 INC POINTER
2460 IJD *-4,X3 LOOP TILL DONE
2461 INI 1,X2

```

04222	01004150	P	2462		UJP	DMPLOOP	DO NEXT WORD
			2463				
04223	14100004		2464	PAGENE	ENI	PNEMESL-1,X1	MOVE ERROR MESSAGE
04224	20104234	P	2465		LDA	PNEMES,X1	
04225	40100000	P	2466		STA	OUTBUFF,X1	
04226	02504224	P	2467		IJD	*-2,X1	LOOP TILL MOVED
04227	01001271	P	2468		UJP	WRITEOUT	WRITE OUT THE MESSAGE
			2469				
04230	14600000		2470	DLAST	ENA	IMPURE	LAST DUMP ADDRESS
04231	01004127	P	2471		UJP	DUMPENTR	GO DO DUMP AGAIN
			2472				
04232	14600000		2473	DNEXT	ENA	IMPURE	WHERE TO START DUMPING
04233	01004127	P	2474		UJP	DUMPENTR	
			2475				
04234	47212725		2476	PNEMES	BCD	5,PAGE NON-EXISTANT	
	00005		2477	PNEMESL	EQU	*-PNEMES	

```

2480 *****
2481 * THIS CODE WILL OUTPUT THE DEVICE STATUS INFORMATION *
2482 * *****
2484 URBDEF
2485
5 *
6 *****
7 *
8 URBLOCK BLOCK DEFINITIONS
9 *
10 *
11 FB EQU 0 POINTER TO NEXT FILE BLOCK
12 BLF EQU FB+1 COUNT OF BLOCKS IN THIS FILE
13 BFBGN EQU BLF+1 QUARTER PAGE NUMBER OF CURRENT
14 * 512 WORD BLOCK
15 BFCPP EQU BFBGN+1 POINTER TO NEXT WORD TO BE
16 * LOADED FROM THIS BLOCK. THIS
17 * POINTER IS RELATIVE TO THE
18 * BEGINNING OF THE CURRENT BLOCK
19 CALBAK EQU BFCPP+1 GO TO THIS ADDRESS WHEN BUFFER
20 * IS DONE AFTER AN INTERRUPT
21 * BIT23 SEZ CALBAK
22 IMAD EQU CALBAK+1 LOCATION WHERE RECORD IS TO BE
23 * PLACED OR MOVED FROM.
24 LNIM EQU IMAD+1 MAXIMUM ALLOWABLE RECORD SIZE
25 KILLFLAG EQU LNIM+1 STI *,0
26 ENAD EQU KILLFLAG+1 ENI BLOCK,X1
27 NJM EQU ENAD+1 UJP IMPURE
28 ENIT EQU NJM+1 TEMP FOR INDEX 3
29 * IF BIT23 DEVICE MUST BE STARTED
30 * BY OPERATOR
31 * IF BIT22 DO NOT PROCESS FORMS ON
32 * THIS DEVICE
33 * IF BIT21 THEN STOP MACRO
34 * IF BIT20 THEN BUFFER IS UNSAFE
35 * BIT19 IS A QUEUEING FLAG
36 DEVBLK EQU ENIT+1 PNTR TO FOUR WORD BLOCK
37 COUNT EQU DEVBLK+1 COUNT OF WORDS IN RECORD
38 POSI EQU COUNT+1 RELATIVE LOCATION IN BUFFER
39 PFWORD EQU POSI+1 CONTENTS OF PF1
40 FORMSWRD EQU PFWORD
41 *
42 * BIT19 SEZ WAITING FOR
43 * OPERATOR TO READY DEVICE
44 * BIT20 SEZ WANTS FORMS
45 * BIT21 SEZ HAS FORMS
46 * BIT22 SEZ TAKE FORMS OUT
47 * BIT23 SEZ SAME AS BIT22 BUT
48 * DRIVER IS WAITING TO OUTPUT NEXT
49 * FILE
50 IDENT EQU PFWORD+1 BCD IDENT OF THE DEVICE
51 URBEXITA EQU IDENT+1 ENI BLOCK,X1
52 URBEXIT EQU URBEXITA+1 UJP IMPURE
53 QINGLOC EQU URBEXIT+1 ADDRESS TO GO TO WHEN FILES
54 * ARE UNEQUIPPED
55 QPNT EQU QINGLOC+1 POINTER TO NXPTR AND LXPTR
56 QEMPTY EQU QPNT+1 ADDRESS TO TELL DRIVER THAT IT
57 * HAS TO MORE FILES TO OUTPUT
58 * ADDRESS TO TELL DRIVER TO START
59 * FILE
60 *****
2486 FCBDEF
65 *
66 *****
67 *
68 FILE CONTROL BLOCK DEFINITIONS
69 *
70 *
71 ACCWORD EQU 0 ACCOUNTING WORD (MUST BE 0)
72 LP EQU 1 LOAD POINT BLOCK
73 COREP EQU 2 CORE POINTER IF NON-ZERO
74 * IF BIT23 = 1, CORE BLOCK HAS
75 * BEEN WRITTEN INTO
76 CBP EQU COREP+1 BLOCK NUMBER OF THE CURRENT BLOC
77 CPP EQU 4 CURRENT POSITION POINTER
78 * (REL. POSIT. WITHIN BLOCK CBP)
79 * BIT23 SEZ READ-ONLY

```

00000
00001
00002

00003

00004

00005

00006
00007
00010
00011
00012

00013
00014
00015
00016
00016

00017
00020
00021
00022

00023
00024

00025

00000
00001
00002

00003
00004

	80	.*		
	81	.*		
	82	.*		
	83	.*		
	84	.*		
	85	.*		
	86	.*		
	87	.*		
00005	88	BLKR	EQU	5
	89	.*		
00006	90	EPP	EQU	6
	91	.*		
	92	.*		
	93	.*		
	94	.*		
	95	.*		
	96	.*		
00007	97	TFL	EQU	7

```

BIT22 SEZ AT LOAD POINT *
BIT21 SEZ END OF DATA *
BIT20 SEZ FILE MARK JUST READ *
BIT18 SEZ BINARY RECORD PROCESSE *
BIT17 SEZ ABNORMAL/UNAVAILABLE *
BIT16 SEZ ADDRESS ERROR *
BIT15 SEZ SAVED FILE *
NUMBER OF BLOCKS BEYOND *
THE CURRENT BLOCK *
END POSITION POINTER *
BIT22 SEZ THE FILE HAS CHANGED *
BIT21 SEZ POSITIONER READY *
BIT20 SEZ DESTRUCTIVE READ *
FILE DIRECTORY *
BITS 15-18 CONTAIN THE HT *
BITS 00-14 CONTAIN END POSITION *
TOTAL LENGTH IN BLOCKS *
    
```

```

2488 MACRO ,CC
2489 NAME ONUM
2490 ENI @CC(1)-1,X3
2491 SHAQ -24
2492 DVA D10
2493 SQCH OUTBUFF,X1
2494 INI -1,X1
2495 IJD *-4,X3
2496 END
    
```

04241	14604367	P		2498	DEVICE	EQU	*		
04242	44001634	P		2499		ENA	BX3SVE	ADDRESS FOR RESTART	
04243	14300001	P		2500		SWA	NEXT	SAVE IT	
04244	20000644	P		2501		ENI	1,X3	LOOK AT ADDRESS WORD OF MACRO	
04245	44004371	P		2502		LDA	BLOCKSL	GET TABLE LENGTH	
04246	14200010	P		2503		SWA	BLOCKSC	STORE IN CHECK INSTRUCTION	
04247	20204376	P		2504		ENI	DHEADL-1,X2	LENGTH OF HEADER LINE	
04250	40200000	P		2505		LDA	DHEAD,X2		
04251	02604247	P		2506		STA	OUTBUFF,X2		
04252	14100144	P		2507		IJD	*-2,X2	MOVE HEADER IN	
				2508		ENI	100,X1	START OF INFORMATION LINES	
04253	55400000	P		2509	DVLP	ROS			
04254	20400641	P		2510		LDA,I	BLOCKS	ADDRESS OF MACRO FOR DEVICE	
04255	53600000	P		2511		TAI	X2	MACRO ADDRESS TO X2	
04256	20200017	P		2512		LDA	IDENT,X2+MAC	GET MACRO IDENT	
04257	55000000	P		2513		RIS			
04260	47304367	P		2514		STI	BX3SVE,X3	SAVE MACRO TABLE POINTER	
04261	13000006	P		2515		SHAQ	6		
04262	43400000	P	00000 0	2516		SQCH	OUTBUFF,X1	PUT IDENT IN OUTPUT LINE	
04263	13000006	P		2517		SHAQ	6		
04264	43400001	P	00000 1	2518		SQCH	OUTBUFF+1,X1		
04265	13000006	P		2519		SHAQ	6		
04266	43400002	P	00000 2	2520		SQCH	OUTBUFF+2,X1		
04267	13000006	P		2521		SHAQ	6		
04270	43400003	P	00000 3	2522		SQCH	OUTBUFF+3,X1		
04271	15100006	P		2523		INI	6,X1		
04272	55400000	P		2524		ROS			
04273	20200016	P		2525		LDA	FORMSWRD,X2+MAC	GET FORMS INFO	
04274	55000000	P		2526		RIS			
04275	35000673	P		2527		SSA	BIT18	SET BOTTEM	
04276	14300004	P		2528		ENI	4,X3	CODE FOR FORMS REMOVAL	
04277	03304301	P		2529		AZJ,LT	*+2	JUMP IF SIGN BIT ON	
04300	13700004	P		2530		SCAQ	4,X3	FIND NEST BIT DOWN	
04301	20304407	P		2531		LDA	FORMCOND,X3	GET MESSAGE	
04302	14300003	P		2532		ENI	4-1,X3		
04303	13000006	P		2533		SHAQ	6		
04304	43400000	P	00000 0	2534		SQCH	OUTBUFF,X1	STORE MESSAGE IN LINE	
04305	15100001	P		2535		INI	1,X1	MOVE TO NEXT CHAR	
04306	02704303	P		2536		IJD	*-3,X3		
04307	15100007	P		2537		INI	2+5,X1		
04310	55400000	P		2538		ROS			
04311	20200001	P		2539		LDA	BLF,X2+MAC	GET COUNT OF BLOCKS IN THIS FILE	
04312	17677777	P		2540		ANA	77777B		
04313	55000000	P		2541		RIS			
04314	14300004	P		2542		ONUM	5	5 CHARACTERS. X3=0	
04322	14600000	P		2543		ENA	0	ZERO FILE BLOCK ACCUM	
04323	55600000	P		2544		AEU			
04324	55400000	P		2545		ROS			
04325	20200023	P		2546		LDA	QPNT,X2+MAC	GET POINTER TO THE QUEUE	
04326	53600000	P		2547		TAI	X2	ACTUAL QUEUE POINTER IN X2	
04327	01004337	P		2548		UJP	CHKCNT	SEE IF SHOULD COUNT	
04330	53600000	P		2549	GNTLP	TAI	X2		
04331	21200002	P		2550		LQ	2,X2	GET THIS FILE LENGTH	
04332	17777777	P		2551		ANQ	77777B		
04333	55200000	P		2552		EUA		GET ACCUM FILE LENGTH	
04334	53040000	P		2553		AQA		ADD TO ACCUM	
04335	55600000	P		2554		AEU		SAVE ACCUM	
04336	15300001	P		2555		INI	1,X3	COUNT THIS FILE	
04337	20200000	P		2556	CHKCNT	LDA	0,X2	GET NEXT POINTER	
04340	17677777	P		2557		ANA	77777B	CHECK ADDRESS FEILD ONLY	
04341	03104330	P		2558		AZJ,NE	CNTLP	JUMP IF NOT LAST BLOCK	
04342	55000000	P		2559		RIS			
04343	53300000	P		2560		TIA	X3	NO. OF FILES TO A	
04344	15100013	P		2561		INI	5+3+3,X1	SPACEING	
04345	14300002	P		2562		ONUM	3	CONVERT TO 3 COTAL DIGITS	
04353	15100014	P		2563		INI	3+3+6,X1	SPACEING	
04354	55200000	P		2564		EUA		GET TOTAL FILE COUNT	

04355	14300005	2566		ONUM	6	OUTPUT 6 DIGITS
04353	15100030	2567		INI	1+6+17,X1	MOVE TO NEXT LINE
04354	05101750	2568		ISG	SCREENLC,X1	SKIP IF SCREEN FULL
04355	01004367 P	2569		UJP	*+2	NOPE
04356	01001271 P	2570		UJP	WRITEOUT	WRITE OUT FULL SCREEN
04357	14300000	2571	BX3SVE	ENI	IMPURE,X3	
04370	15300002	2572		INI	2,X3	INC MACRO POINTER
04371	05300000	2573	BLOCKSC	ISG	IMPURE,X3	SKIP FI ALL DEVICES CHECKED
04372	01004253 P	2574		UJP	DVLP	CHECK THE NEXT DEVICE
04373	14604241 P	2575		ENA	DEVICE	
04374	44001634 P	2576		SWA	NEXT	FIX FOR NEXT CALL
04375	01001271 P	2577		UJP	WRITEOUT	
		2578				
04376	31242545	2579	DHEAD	BCD	9,IDENT F W	BLF T F T BLK
	00011	2580	DHEADL	EQU	*-DHEAD	
		2581				
	04407 P	2582	FORMCOND	EQU	*	
04407	60606060	2583		BCD	1,	
04410	51247060	2584		BCD	1,ROY	WAITING FOR OPR READY
04411	66213163	2585		BCD	1,WAIT	WAITING FOR FORMS
04412	26465144	2586		BCD	1,FORM	HAS FORMS AND IS OUTPUTTING
04413	51446525	2587		BCD	1,RMVE	WAITING FOR OORMS REMOVAL

04414	54100414	P		2589	LIST	EQU	*		
04415	22401747	P	00371 3	2590		LBI	SAVE X1, X1		GET DELIMITER +1 POINTER
04416	04600073	P		2591		LACH	INBUFF-1, X1		GET DELIMITER
04417	01001271	P		2592		ASE	COMMA		SKIP IF COMMA
04420	00702051	P		2593		UJP	WRITEOUT		
04421	01001246	P		2594		RTJ	FETCHITM		GO GET DEVICE NAME
04422	01001246	P		2595		UJP	INERROR		NOTHING RETURN
04423	00704555	P		2596		UJP	INERROR		NUMBER RETURN
04424	01004546	P		2597		RTJ	QFIND		GO FIND QUEUE ADDRESS
04425	44004752	P		2598		UJP	LEEXIT		MACRO NOT FOUND
04426	53600000	P		2599		SWA	CURGPT		SAVE CURRENT QPNT
04427	14700000	P		2600		TAI	X2		THE ACTUAL QUEUE BEGINNING IN X2
04430	41000743	P		2601	BGNSTRNG	ENQ	0		
04431	47004514	P		2602		STQ	LSEQNO		ZERO LINE SEQUENCE NO.
04432	14100000	P		2603		STI	NEWNEXT, 0		START IN COLUMN 1
04433	01004526	P		2604		ENI	0, X1		POINT OUTPUT POINTER TO FIRST CHR
04434	55000000	P		2605	LISTLP1	UJP	CHKNXT		GO SEE IF WE SHOULD BOTHER
04435	20000743	P		2606		RIS			
04436	15600001	P		2607		LDA	LSEQNO		GET CURRENT SEQUENCE NO.
04437	40000743	P		2608		INA	1		
04440	13077747	P		2609		STA	LSEQNO		
04441	51000706	P		2610		SHAQ	-24		
04442	43400002	P	00000 2	2611		DVA	D10		
04443	13077747	P		2612		SQCH	OUTBUFF+2, X1		
04444	51000706	P		2613		SHAQ	-24		
04445	43400001	P	00000 1	2614		DVA	D10		
04446	13000030	P		2615		SQCH	OUTBUFF+1, X1		
04447	43400000	P	00000 0	2616		SHAQ	24		
04450	55400000	P		2617		SQCH	OUTBUFF, X1		
04451	25200002	P		2618		ROS			
04452	55000000	P		2619		LDAQ	2, X2		GET LENGTH AND JOB NO.
04453	41000661	P		2620		RIS			
04454	14300004	P		2621		STQ	TEMP		SAVE JOB NUMBER
04455	15100010	P		2622		ENI	4, X3		
04456	17677777	P		2623		INI	8, X1		POINT TO LAST LENGTH DIGIT
04457	13077747	P		2624		ANA	77777B		
04460	51000706	P		2625		SHAQ	-24		
04461	43400000	P	00000 0	2626		DVA	D10		
04462	15177776	P		2627		SQCH	OUTBUFF, X1		SAVE PART OF NO.
04463	02704457	P		2628		INI	-1, X1		
04464	15100014	P		2629		IJD	*-4, X3		LOOP TILL DONE
04465	24000665	P		2630		INI	12, X1		POSITION FOR JOB NO.
04466	37000676	P		2631		LCA	BIT23		PREPARE FOR AND OF BIT 23
04467	37000661	P		2632		LPA	NBIT22		REMOVE BIT 22 ALSO
04470	14300005	P		2633		LPA	TEMP		GET JOB NO. - BIT 23
04471	13077747	P		2634		ENI	5, X3		
04472	51000706	P		2635		SHAQ	-24		
04473	43400000	P	00000 0	2636		DVA	D10		
04474	15177776	P		2637		SQCH	OUTBUFF, X1		PUT PART OF LENGTH IN LINE
04475	02704471	P		2638		INI	-1, X1		
04476	24000676	P		2639		IJD	*-4, X3		LOOP TILL LENGTH ENTERED
04477	37000661	P		2640		LCA	NBIT22		ONLY 22 SET NOW
04500	14700061	P		2641		LPA	TEMP		
04501	03004503	P		2642		ENQ	61B		###
04502	14700020	P		2643		AZJ, EQ	*+2		JUMP IF BIT 22 NOT SET. I.E. NO
04503	43400000	P	00000 0	2644		ENQ	20B		FORMS IN FILE ###
04504	14700012	P		2645		SQCH	OUTBUFF, X1		
04505	20000661	P		2646		ENQ	COLLON		
04506	05400000	P		2647		LDA	TEMP		
04507	14700040	P		2648		ASG, S	0		
04510	43777771	P	77776 1	2649		ENQ	H#-#		PLACE DASH IF ABORTED
04511	15100051	P		2650		SQCH	OUTBUFF-6, X1		
04512	05101750	P		2651		INI	TVLINEL-9, X1		POSITION FOR NEXT LINE
04513	01004526	P		2652		ISG	SCREENLC, X1		SKIP IF SCREEN FULL
04514	14600000	P		2653		UJP	CHKNXT		GET NEXT SCREEN ENTRY
04515	05600042	P		2654	NEWNEXT	ENQ	IMPURE		GET LAST VALUE OF RESET
04516	01004523	P		2655		ASG	17+17		SKIP IF THREE COLUMNS DONE
04517	47004514	P		2656		UJP	LISTCONT		PREPARE FOR NEXT COLUMN
04520	14604537	P		2657		STI	NEWNEXT, 0		NEXT POSITION ON SCREEN
04521	44001634	P		2658		ENQ	MORELIST		
04522	01001271	P		2659		SWA	NEXT		DO THIS ON NEXT SEND
04523	15600021	P		2660		UJP	WRITEOUT		GO WRITE OUT SCREEN
04524	44004514	P		2661	LISTCONT	INA	17		POSITION FOR NEXT COLUMN
04525	53500000	P		2662		SWA	NEWNEXT		
04526	55400000	P		2663		TAI	X1		NOW TO INDEX
04527	20200000	P		2664	CHKNXT	ROS			
04530	17577777	P		2665		LDA	0, X2		CHECK NEXT POINTER
04531	53600000	P		2666		ANA	77777B		AND TO ADDRESS ONLY
				2667		TAI	X2		NEW POINTER

04532	03104434	P	2668	AZJ,NE	LISTLP1	JUMP IF MORE TO DO
04533	55000000		2669	RIS		
04534	14604550	P	2670	ENA	NLIST	
04535	44001634	P	2671	SWA	NEXT	FIX FOR NEXT SEND
04536	01001271	P	2672	UJP	WRITEOUT	GO EMPTY SCREEN
			2673			
04537	20000743	P	2674	MORELIST LDA	LSEQNO	GET NUMBER OF ELEMENTS DONE
04540	15600001		2675	INA	1	
04541	00704747	P	2676	RTJ	QFOLL	
04542	01004550	P	2677	UJP	NLIST	END FOUND - MAKE NEW LIST
04543	53600000		2678	TAI	X2	GET INDEX READY
04544	14100000		2679	ENI	0,X1	ZERO OUTPUT LINE POINTER
04545	01004434	P	2680	UJP	LISTLP1	GO CONTINUE LIST
			2681			
04546	55000000		2682	LEEXIT RIS		
04547	01001271	P	2683	UJP	WRITEOUT	
			2684			
04550	55000000		2685	NLIST RIS		
04551	54204752	P	2686	LDI	CURQNT,X2	GET CURRENT QUEUE POINTER
04552	01004427	P	2687	UJP	BGNSTRNG	GO MAKE LIST
			2688			
			2689			
04553	14300000		2690	QFINDEX ENI	0,X3	ERROR RETURN
04554	55000000		2691	QFINDE RIS		
04555	01300000		2692	QFIND UJP	IMPURE,X3	
04556	54100644	P	2693	LDI	BLOCKSL,X1	LENGTH OF MACRO TABLE
04557	14577777		2694	ENQ,S	77777B	MASK
04560	55400000		2695	ROS		LOOK IN THE MONITOR
04561	06200000		2696	BLOCKMEQ MEQ	IMPURE,2	SEARCH FOR DEVICE
04562	01004553	P	2697	UJP	QFINDEX	
04563	53100000		2698	TIA	X1	POINTER TO MACRO -1
04564	53700000		2699	TAI	X3	DUMP INTO X3
04565	15300001		2700	INI	1,X3	POINT TO MACRO ADDRESS
04566	20400641	P	2701	LDA,I	BLOCKS	GET MACRO ADDRESS
04567	53600000		2702	TAI	X2	MACRO ADDRESS TO X2
04570	20200023		2703	LDA	QPNT,X2+MAC	GET POINTER TO THE QUEUE
04571	14300001		2704	ENI	1,X3	
04572	01004554	P	2705	UJP	QFINDE	GOOD RETURN

04573	04573	P		2707	MOVE	EQU	*	SAY A DEVICE MOVE
04574	47004712	P		2708		STI	BORDCK,0	INPUT BUFFER POINTER
04574	54100416	P		2709		LDI	SAVEX1,X1	GET DELIMITER
04575	22401747	P	00371 3	2710		LACH	INBUFF-1,X1	SKIP IF COMMA FOUND
04576	04600073	P		2711		ASE	COMMA	ERROR
04577	01001271	P		2712		UJP	WRITEOUT	MAKE DECIMAL SINCE ≠ 0
04600	44002117	P		2713		SWA	FRCHK	GET DEVICE NAME
04601	00702051	P		2714		RTJ	FETCHITM	NOTHING RETURNED - ERROR
04602	01004736	P		2715		UJP	SERROR	STRING ERROR - NUMBER FOUND
04603	01004736	P		2716		UJP	SERROR	GO FIND MACRO QUEUE
04604	00704555	P		2717		RTJ	QFIND	NOT FOUND - ERROR
04605	01004736	P		2718		UJP	SERROR	SAVE QUEUE BEGINNING
04606	44004752	P		2719		SWA	CURQPT	ADD 1 FOR LAST BLOCK POINTER
04607	15600001	P		2720		INA	1	SAVE ENDING QUEUE POINTER
04610	44004722	P		2721		SWA	ENDQPT	
	04611	P		2722	MOVER	EQU	*	
04611	54100416	P		2723		LDI	SAVEX1,X1	RESTORE LINE POINTER
04612	22401747	P	00371 3	2724		LACH	INBUFF-1,X1	GET DELIMITER
04613	04600073	P		2725		ASE	COMMA	SEE IF A COMMA
04614	01004736	P		2726		UJP	SERROR	NOPE - ERROR
04615	00702051	P		2727		RTJ	FETCHITM	GET FIRST NO.
04616	01004736	P		2728		UJP	SERROR	NOTHING RETURNED - ERROR
04617	01004621	P		2729		UJP	*+2	NUMBER RETURN
04620	01004736	P		2730		UJP	SERROR	SYMBOL RETURNED -ERROR
04621	05600001	P		2731		ASG	0+1	SKIP IF GREATER THAN 0
04622	01004736	P		2732		UJP	SERROR	STRING ERROR
04623	40000744	P		2733		STA	MVEA	SAVE FIRST PARAMETER
04624	22401747	P	00371 3	2734		LACH	INBUFF-1,X1	CHECK FOR COMMA
04625	04600073	P		2735		ASE	COMMA	
04626	01004736	P		2736		UJP	SERROR	
04627	00702051	P		2737		RTJ	FETCHITM	GET SECOND NUMBER
04630	01004633	P		2738		UJP	FETSKP01	
04631	01004634	P		2739		UJP	FETSKP	NON-ZERO NUMBER RETURNED
04632	01004736	P		2740		UJP	SERROR	
04633	20000744	P		2741	FETSKP01	LDA	MVEA	ALLOW MOVE,IDENT,A,,C
J4634	40000745	P		2742	FETSKP	STA	MVEB	SAVE SECOND NO.
04635	22401747	P	00371 3	2743		LACH	INBUFF-1,X1	
04636	04600073	P		2744		ASE	COMMA	
04637	01004736	P		2745		UJP	SERROR	
04640	00702051	P		2746		RTJ	FETCHITM	GET THIRD NUMBER
04641	01004736	P		2747		UJP	SERROR	NOTHING RETURNED - ERROR
04642	01004644	P		2748		UJP	*+2	NUMBER RETURN
04643	01004736	P		2749		UJP	SERROR	SYMBOL RETURN - ERROR
04644	40000746	P		2750		STA	MVEC	SAVE IT.
				2751				
04645	20000745	P		2752		LDA	MVEB	CHECK THE NUMBERS OUT
04646	21000744	P		2753		LDQ	MVEA	(A.LE.B)^(C.GT.B.OR.A.LT.C) OK
04647	03704736	P		2754		AQJ,LT	SERROR	STRING ERROR
04650	20000746	P		2755		LDA	MVEC	
04651	03704655	P		2756		AQJ,LT	MVOK	
04652	21000745	P		2757		LDQ	MVEB	
04653	03704736	P		2758		AQJ,LT	SERROR	
04654	03404736	P		2759		AQJ,EQ	SERROR	B EQUAL TO C
				2760				
	04655	P		2761	MVOK	EQU	*	
04655	14477776	P		2762		ENA,S	-1	MAKE A (A-1)
04656	34000744	P		2763		RAD	MVEA	
04657	14100002	P		2764		ENI	2,X1	
04660	20100744	P		2765		LDA	MVEA,X1	GET THE PARAMETERS
J4661	00704747	P		2766		RTJ	QFOLL	FIND LOCATION
04662	01004736	P		2767		UJP	SERROR	
04663	40100744	P		2768		STA	MVEA,X1	STORE LOCATION
04664	02504660	P		2769		IJD	*-4,X1	
				2770				
04665	55400000	P		2771		ROS		
04666	20400744	P		2772		LDA,I	MVEA	(A-1) TO TEMP
J4667	55600000	P		2773		AEU		
04670	20400745	P		2774		LDA,I	MVEB	B TO (A-1)
04671	40400744	P		2775		STA,I	MVEA	
04672	55000000	P		2776		RIS		
04673	36000745	P		2777		SCA	MVEB	
04674	21000744	P		2778		LDQ	MVEA	
04675	55400000	P		2779		ROS		
04676	05600001	P		2780		ASG	1	SKIP IF B NOT END OF LIST
04677	41400744	P		2781		STQ,I	MVEA	POINT A AT ITSELF
04700	20400746	P		2782		LDA,I	MVEC	C TO B
04701	40400745	P		2783		STA,I	MVEB	
04702	55000000	P		2784		RIS		
04703	36000746	P		2785		SCA	MVEC	SEE IF C IS LAST BLOCK

04704	21000745	P	2786	LDQ	MVEB	
04705	55400000		2737	ROS		
04706	05600001		2738	ASG	1	SKIP IF C IS NOT LAST BLOCK
04707	41400745	P	2739	STQ,I	MVEB	POINT NEW ENDING BLOCK AT ITSELF
04710	55200000		2790	EUA		TEMP TO C
04711	40400746	P	2791	STA,I	MVEC	
04712	04000000		2792	ISE	IMPURE,0	SKIP IF A DEVICE MOVE
04713	01005563	P	2793	UJP	NOMOV	A BATCH MOVE
04714	21404722	P	2794	LDQ,I	ENDQPT	GET ENDING POINTER
04715	55000000		2795	RIS		
04716	20000746	P	2796	LDA	MVEC	GET POSITION OF C
04717	03504727	P	2797	AQJ,NE	NOTCL	C IS NOT LAST BLOCK
04720	20000745	P	2798	LDA	MVEB	
04721	55400000		2799	ROS		PREPARE TO UPDATE LAST BLOCK PTR
04722	44000000		2800	SWA	IMPURE	STORE NEW ENDING BLOCK ADDRESS
04723	55000000		2801	RIS		
04724	14604550	P	2802	ENA	NLIST	FOR NEXT SEND HIT
04725	44001634	P	2803	SWA	NEXT	
04726	01004550	P	2804	UJP	NLIST	
04727	20000745	P	2805	LDA	MVEB	SEE IF B IS THE LAST
04730	03504724	P	2806	AQJ,NE	MVEXIT	NEITHER -- GOODBYE
04731	20000744	P	2807	LDA	MVEA	SEE IF C EQUALS (A-1)
04732	31000746	P	2808	SBA	MVEC	
04733	03004724	P	2809	AZJ,EQ	MVEXIT	YES, DONT BOTHER CHANGING ADDRESS
04734	20000744	P	2810	LDA	MVEA	
04735	01004721	P	2811	UJP	UPDATEPT	UPDATE LAST BLOCK POINTER
			2812			
04736	14100002		2813	SERROR	ENI	SMESL-1,X1
04737	20104766	P	2814	LDA	SMES,X1	
04740	40100000	P	2815	STA	OUTBUFF,X1	
04741	02504737	P	2816	IJD	*-2,X1	
04742	14002164	P	2817	ENA	FREETERM	
04743	44001634	P	2818	SWA	NEXT	
04744	01001271	P	2819	UJP	WRITEOUT	
			2820			
04745	14200000		2821	QFOLLEX1	0,X2	ERROR RETURN
04746	55000000		2822	QFOLLEX		
04747	01200000		2823	QFOLL	IMPURE,X2	
04750	55400000		2824	ROS		
04751	53700000		2825	TAI	X3	
04752	14600000		2826	CURQPNT	IMPURE	
04753	01004763	P	2827	UJP	QFOLLEL	JUMP TO END OF LOOP
04754	53600000		2828	QFOLLBGN	X2	
04755	13077747		2829	SHAQ	-24	SAVE ADDRESS
04756	20200000		2830	LDA	0,X2	GET NEXT POINTER
04757	17677777		2831	ANA	77777B	AND TO ADDRESS ONLY
04760	03004745	P	2832	AZJ,EQ	QFOLLEX1	ERROR STRING END FOUND
04761	17777777		2833	ANQ	77777B	AND OFF BULLSHIT
04762	03404745	P	2834	AQJ,EQ	QFOLLEX1	JUMP IF POINTS TO ITSELF
04763	02704754	P	2835	IJD	QFOLLBGN,X3	LOOP TILL LOCATED
04764	14200001		2836	ENI	1,X2	GOOD RETURN
04765	01004746	P	2837	UJP	QFOLLEX	
			2838			
04766	62635131		2839	SMES	BCD	3,STRING ERROR
	00003		2840	SMESL	EQU	*-SMES

```

04771 44002117 P 02150 3 2842
04772 22010643 P 2843
04773 04600073 P 2844
04774 01001246 P 2845
04775 54100416 P 2846
04776 00702051 P 2847
04777 01001246 P 2848
05000 01005002 P 2849
05001 00705011 P 2850
05002 21000611 P 2851
05003 12000001 P 2852
05004 03601246 P 2853
05005 30000622 P 2854
05006 44004752 P 2855
05007 44004712 P 2856
05010 01004611 P 2857
                2858
    
```

```

BMOVE EQU *
        SWA FRCHK
        LACH TERMCHR
        ASE COMMA
        UJP INERROR
        LDI SAVEX1,X1
        RTJ FETCHITM
        UJP INERROR
        UJP *+2
        RTJ BQNFIND
        LDQ NBATCHQ
        SHA 1
        AQJ,GE INERROR
        ADA BATCHQ
        SWA CURCPNT
        SWA BORDCK
        UJP MOVER
    
```

```

A#0 SEZZ DECIMAL CONVERSION
SKIP IF TERMINATING CHARACTER OK
NOPE - ERROR MESSAGE
RESTORE INPUT POINTER
GO GET QUEUE NUMBER FOR MOVE
NOTHING RETURNED RETURN - ERROR
NUMBER RETURNED - OK
IF SYMBOL CHECK IF BATCH Q NAME
GET BATCH QUEUE MAX COUNT
MULTIPLY ENTERED NO. BY 2
ENTERED NO. TO LARGE
POINTER TO APPROPRIATE QUEUE IN A
SAVE THIS
SAY A BATCH MOVE. A#0
GO JUGGLE LIST
    
```

```

05011 01000000
05012 13000030
05013 36000653 P
05014 03101246 P
05015 13000030
05016 54100712 P
05017 14577777
05020 06100713 P
05021 01001246 P
05022 53100000
05023 01005011 P
                2860
                2861
                2862
                2863
                2864
                2865
                2866
                2867
                2868
                2869
                2870
                2871
                2872
                2873
    
```

```

* ROUTINE TO TAKE NAME OF A BATCH QUEUE AND FIND ITS
* COORESPONDING NUMBER
BQNFIND UJP IMPURE
        SHAQ 24
        SCA BLANKS
        AZJ,NE INERROR
        SHAQ 24
        LDI BQNAMEL,X1
        ENQ,S 77777B
        MEQ BQNAME,X1
        UJP INERROR
        TIA X1
        UJP BQNFIND
    
```

```

ERROR IF > 4 CHARS
RESTORE A
LOOK FOR THE NAME
NOT FOUND
NUMBER TO A
AND RETURN
    
```

05024 22010643 P
 05025 04600073 P
 05026 01001246 P
 05027 54100416 P
 05030 47002117 P
 05031 00701734 P
 05032 01001246 P
 05033 20000742 P
 05034 21000633 P
 05035 03601246 P
 05036 53700000
 05037 55400000
 05040 20400636 P
 05041 55000000
 05042 04600000
 05043 01004125 P
 05044 01001246 P

02150 3

2875
 2876
 2877
 2878
 2879
 2880
 2881
 2882
 2883
 2884
 2885
 2886
 2887
 2888
 2889
 2890
 2891
 2892

PSADMP

EQU
 LACH
 ASE
 UJP
 LDI
 STI
 RTJ
 UJP
 LDA
 LDQ
 AQJ,GE
 TAI
 ROS
 LDA,I
 RIS
 ASE
 UJP
 UJP

*
 TERMCHR
 COMMA
 INERROR
 SAVEX1,X1
 FRCHK,0
 EXPEVAL
 INERROR
 EXP
 USERMAX
 INERROR
 X3
 PSABLK
 U
 DUMPME
 INERROR

GET DELIMITER
 SEE IF COMMA FOLLOWS THE COMMAND
 RESTORE INPUT BUFFER POINTER
 SAY OCTAL CONVERSION
 GO GET TERMINAL NUMBER
 ERRONIOUS NUMBER
 GET THE TERMINAL NUMBER
 GET THE MAXIMUM POSSIBLE USER NUM
 NUMBER TO LARGE
 TERMINAL NUMBER TO X3
 GET PSA ADDRESS
 SKIP IF NOT LOGGED IN

05045	44002117	P		2894	MULTI	EQU	*		
05046	22010643	P	02150 3	2895		SWA	FRCHK	SET DECIMAL RADIX	
05047	04600073	P		2896		LACH	TERMCHR	GET ENDING CHARACTER	
05050	01001246	P		2897		ASE	COMMA		
05051	54100416	P		2898		UJP	INERROR	NO COMMA - ERROR	
05052	00702051	P		2899		LDI	SAVEX1,X1	GET INPUT BUFFER POINTER	
05053	01001246	P		2900		RTJ	FETCHITM	GO GET INFO	
05054	01005056	P		2901		UJP	INERROR	NOTHING RETURNED - ERROR	
05055	00705011	P		2902		UJP	*+2	NUMBER RETURNED	
05056	12000001	P		2903		RTJ	BQNFIND	SYMBOL - SEE IF Q NAME	
05057	21000611	P		2904		SHA	1	NOW LOCATION AFTER QTABLE IN A	
05060	03601246	P		2905		LDQ	NBATCHQ	GET COUNT OF BATCH QUEUES	
05061	40000661	P		2906		AQJ,GE	INERROR	INPUT NUMBER TO LARGE	
05062	13077747	P		2907		STA	TEMP	SAVE FOR A WHILE	
05063	00701176	P		2908		SHAQ	-24		
05064	54200661	P		2909		RTJ	RBJCNT	GO COUNT BATCH JOBS FROM THIS QUE	
05065	55400000	P		2910		LDI	TEMP,X2	GET THIS QUEUES POINTER	
05066	30400614	P		2911		ROS			
05067	55000000	P		2912		ADA,I	QTABLE	ADD THE MULTI FACTOR	
05070	15600001	P		2913		RIS			
05071	40000661	P		2914		INA	1	ADJUST VALUE	
05072	54100416	P		2915		STA	TEMP	SAVE POSSIBLE JOB COUNT	
05073	00702051	P		2916		LDI	SAVEX1,X1	RESTORE LINE POINTER	
05074	01001246	P		2917		RTJ	FETCHITM	GET THE NEXT NUMBER	
05075	01005077	P		2918		UJP	INERROR	NOTHING RETURN	
05076	01001246	P		2919		UJP	*+2	NUMBER RETURN	
05077	05600020	P		2920		UJP	INERROR	SYMBOL RETURN-ERROR	
05100	01005102	P		2921		ASG	16	SKIP IF NUMBER TO BIG	
05101	01001246	P		2922		UJP	*+2	NUMBER OK	
05102	31000661	P		2923		UJP	INERROR	INPUT ERROR - MUST BE	
05103	55400000	P		2924		SBA	TEMP	WHAT WE CAN DO SUBTRACTED FROM WH	
05104	34400614	P		2925		ROS		WANT ADDED TO QTABLE MAKES ADJUST	
05105	55000000	P		2926		RAD,I	QTABLE	ADJUST QTABLE	
05106	14605110	P		2927		RIS			
05107	44001634	P		2928		ENA	BC	ADDRESS OF BATCH CHECK ROUTINE	
				2929		SWA	NEXT	DO A BATCH CHECK ON NEXT SEND	
				2930		UJP	BC	DO ONE NOW	

05110	20000611	P		2932	BC	EQU	*		GET COUNT OF BATCH QUEUES
05111	44005204	P		2933		LDA	NBATCHQ		SAVE IN A CHECK INSTRUCTION
05112	14300000	P		2934		SWA	QCCHK		START WITH QUEUE #0#
	05113	P		2935		ENI	0,X3		
05113	14100010	P		2936	QDMPLP	EQU	*		
05114	20105261	P		2937		ENI	BCHDL-1,X1		MOVE HEADING INTO LINE
05115	40100000	P		2938		LDA	BCHDL,X1		
05116	02505114	P		2939		STA	OUTBUFF,X1		
05117	14100144	P		2940		LJU	*-2,X1		SKIP 1 LINE
				2941		ENI	100,X1		
				2942					
				2943					
05120	53300000			2944	QLP	TIA	X3		GET CURRENT QUEUE
05121	12077776			2945		SHA	-1		
05122	53600000			2946		TAI	X2		
05123	20200713	P		2947		LDA	BQNAME,X2		GET NAME OF QUEUE
05124	14200003			2948		ENI	4-1,X2		
05125	13000006			2949		SHAQ	6		
05126	43400000	P	00000 0	2950		SQCH	OUTBUFF,X1		PLACE NAME INTO OUTPUT LINE
05127	15100001			2951		INI	1,X1		
05130	02605125	P		2952		IJD	*-3,X2		
05131	53300000			2953		TIA	X3		GET QUEUE NUMBER AGAIN
05132	13077746			2954		SHAQ	-25		DIVIDE BY 2
05133	51000706	P		2955		DVA	D10		
05134	43400002	P	00000 2	2956		SQCH	OUTBUFF+2,X1		PUT IN OUTPUT BUFFER
05135	13077747			2957		SHAQ	-24		
05136	43400001	P	00000 1	2958		SQCH	OUTBUFF+1,X1		HIGH ORDER DIGIT
05137	55400000			2959		ROS			
05140	25400622	P		2960		LDAQ,I	BATCHQ		GET QUEUE POINTER AND MULTI COUNT
05141	55000000			2961		RIS			
05142	41000661	P		2962		STQ	TEMP		SAVE MULTI PROGRAM COUNTER
05143	14700000			2963		ENQ	0		COUNTER TO ZERO
05144	55400000			2964		ROS			
05145	01005150	P		2965		UJP	BCLP		
05146	15700001			2966	BCLPBG	INQ	1		COUNT ACTUAL WAITING FILES
05147	20200000			2967		LOA	0,X2		GET POINTER TO NEXT CONTROL BLOCK
05150	53600000			2968	BCLP	TAI	X2		
05151	12000006			2969		SHA	23-17		CHECK INDIRECT BIT
05152	03305146	P		2970		AZJ,LT	BCLPBG		GOOD POINTER, CONTINUE COUNTING
05153	55000000			2971		RIS			
05154	14600000			2972		ENA	0		LEADING ZEROS
05155	14200002			2973		ENI	3-1,X2		3 DIGIT NUMBER
05156	15100012			2974		INI	10,X1		POSITION OUTPUT INDEX
05157	00701143	P		2975		RTJ	DECBCD		GO CONVERT NUMBER
05160	53300000			2976		TIA	X3		CURRENT QUEUE TO A
05161	13077747			2977		SHAQ	-24		NOW TO Q
05162	00701176	P		2978		RTJ	RBJCNT		GO COUNT RUNNING BATCH JOBS FROM
05163	40000662	P		2979		STA	TEMP+1		SAVE IN ANOTHER TEMP
05164	13077747			2980		SHAQ	-24		
05165	51000706	P		2981		DVA	D10		
05166	43400011	P	00002 1	2982		SQCH	OUTBUFF+9,X1		
05167	13077747			2983		SHAQ	-24		
05170	43400010	P	00002 0	2984		SQCH	OUTBUFF+8,X1		
05171	20000661	P		2985		LDA	TEMP		COMPUTE MULTI PROGRAMING FACTOR
05172	30000662	P		2986		ADA	TEMP+1		
05173	15600001			2987		INA	1		ADJUST RESULT
05174	13077747			2988		SHAQ	-24		
05175	51000706	P		2989		DVA	D10		
05176	43400024	P	00005 0	2990		SQCH	OUTBUFF+20,X1		
05177	13077747			2991		SHAQ	-24		
05200	04700000			2992		QSE	0		SKIP IF HIGH ORDER DIGIT IS ZERO
05201	43400023	P	00004 3	2993		SQCH	OUTBUFF+19,X1		SAVE HIGH ORDER DIGIT
05202	15100044			2994		INI	36,X1		POSITION TO STAT OF NEXT LINE
05203	15300002			2995		INI	2,X3		LOOK AT NEXT BATCH QUEUE
05204	05300000			2996	QCCHK	ISG	IMPURE,X3		SKIP IF DONE WITH ALL QUEUES
05205	01005211	P		2997		UJP	CHKSC		CHECK FOR SCREEN FULL
05206	14605110	P		2998		ENA	BC		
05207	44001634	P		2999		SWA	NEXT		SEE THAT WE START AGAIN RIGHT
05210	01001271	P		3000		UJP	WRITEOUT		WHEN YOUR DONE YOUR DONE
				3001					
				3002	CHKSC	EQU	*		
05211	05101750	P		3003		ISG	SCREENLC,X1		SKIP IF SCREEN FULL OF Q INFO
05212	01005120	P		3004		UJP	QLP		NOPE, CONTINUE DUMPING Q INFO
05213	40305217	P		3005		STA	BCX3SV,X3		SAVE CURRENT QUEUE INFO
05214	14605217	P		3006		ENA	*+3		
05215	44001634	P		3007		SWA	NEXT		FIX FOR DUMP CONTINUATION
05216	01001271	P		3008		UJP	WRITEOUT		WRITE OUT THIS SCREEN
05217	14300000			3009	BCX3SV	ENI	IMPURE,X3		RESTORE CURRENT Q POINTER
05220	01005113	P		3010		UJP	QDMPLP		CONTINUE WITH LIST

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*****
*
*      BS
*
* THIS COMMAND WILL WRITE OUT PSA INFO FOR ALL BATCH JOBS RUNNING
*
*****
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3019

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05221      05221 P
05222 14100062 P
05223 20000603 P
05224 40000661 P
05225 30000606 P
05226 44005243 P
05227 14200000 P
05228 23425350 P
05229 43400000 P
05230 15100001 P
05231 10200063 P
05232 01005227 P
05233 15100060 P
05234 54200661 P
05235 53200000 P
05236 47205242 P
05237 00705307 P
05238 01005242 P
05239 14200000 P
05240 10200000 P
05241 01005250 P
05242 14605221 P
05243 44001634 P
05244 01001271 P
05245 05101750 P
05246 01005236 P
05247 47200661 P
05248 14605256 P
05249 44001634 P
05250 01001271 P
05251      05256 P
05252 14100062 P
05253 54200661 P
05254 01005226 P
05255 60506425 P
05256 00011 P
05272 63514460 P
05273 00015 P

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BSTAT EQU *
      ENI 50,X1
      LDA BATCHNUM
      STA TEMP
      ADA NBATPSA
      SWA BSTCK2
      ENI 0,X2
      LQCH BSMES,X2
      SQCH OUTBUFF,X1
      INI 1,X1
      ISI 4*BSMESL-1,X2
      UJP *-4
      INI 100-4*BSMESL,X1
      LDI TEMP,X2
      TIA X2
      STI *+3,X2
      RTJ PSAST
      UJP *+1
      ENI IMPURE,X2
      ISI IMPURE,X2
      UJP *+4
      ENA BSTAT
      SWA NEXT
      UJP WRITEOUT
      ISG SCREENLC,X1
      UJP BOSTL
      STI TEMP,X2
      ENA BSTCNT
      SWA NEXT
      UJP WRITEOUT

BSTENT EQU *
      ENI 50,X1
      LDA BATCHNUM
      STA TEMP
      ADA NBATPSA
      SWA BSTCK2
      ENI 0,X2
      LQCH BSMES,X2
      SQCH OUTBUFF,X1
      INI 1,X1
      ISI 4*BSMESL-1,X2
      UJP *-4
      INI 100-4*BSMESL,X1
      LDI TEMP,X2
      TIA X2
      STI *+3,X2
      RTJ PSAST
      UJP *+1
      ENI IMPURE,X2
      ISI IMPURE,X2
      UJP *+4
      ENA BSTAT
      SWA NEXT
      UJP WRITEOUT

BOSTL EQU *
      ENI 50,X1
      LDA BATCHNUM
      STA TEMP
      ADA NBATPSA
      SWA BSTCK2
      ENI 0,X2
      LQCH BSMES,X2
      SQCH OUTBUFF,X1
      INI 1,X1
      ISI 4*BSMESL-1,X2
      UJP *-4
      INI 100-4*BSMESL,X1
      LDI TEMP,X2
      TIA X2
      STI *+3,X2
      RTJ PSAST
      UJP *+1
      ENI IMPURE,X2
      ISI IMPURE,X2
      UJP *+4
      ENA BSTAT
      SWA NEXT
      UJP WRITEOUT

BSTCK2 EQU *
      ENI 50,X1
      LDA BATCHNUM
      STA TEMP
      ADA NBATPSA
      SWA BSTCK2
      ENI 0,X2
      LQCH BSMES,X2
      SQCH OUTBUFF,X1
      INI 1,X1
      ISI 4*BSMESL-1,X2
      UJP *-4
      INI 100-4*BSMESL,X1
      LDI TEMP,X2
      TIA X2
      STI *+3,X2
      RTJ PSAST
      UJP *+1
      ENI IMPURE,X2
      ISI IMPURE,X2
      UJP *+4
      ENA BSTAT
      SWA NEXT
      UJP WRITEOUT

BSTCNT EQU *
      ENI 50,X1
      LDA BATCHNUM
      STA TEMP
      ADA NBATPSA
      SWA BSTCK2
      ENI 0,X2
      LQCH BSMES,X2
      SQCH OUTBUFF,X1
      INI 1,X1
      ISI 4*BSMESL-1,X2
      UJP *-4
      INI 100-4*BSMESL,X1
      LDI TEMP,X2
      TIA X2
      STI *+3,X2
      RTJ PSAST
      UJP *+1
      ENI IMPURE,X2
      ISI IMPURE,X2
      UJP *+4
      ENA BSTAT
      SWA NEXT
      UJP WRITEOUT

BCHD TEXT / QUEUE WAITING RUNNING MULTI/
BCHDL EQU *-BCHD
BSMES TEXT /TRM Q LP TP TIME T L BLKS B L IOBOUND/
BSMESL EQU *-BSMES

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START IN ROW 2
GET LOW ORDER BATCH TERM
SAVE IT FOR A BIT
HIGHEST +1 NOW IN A
SAVE IN CHECK INSTRUCTION

SKIP WHEN ALL MOVED
CONTINUE MV

FIX X2
CURRENT TERMINAL IO A
SAVE X2 SO WONT BE HIG
DUMP APPROPRIATE PSA STATUS
NOT LOGGED ON RETURN. NO PROBLEM
RESTORE X2
ARE WE DONE

DO THIS COMMAND OVER AGAIN

GO WRITE OUT THE SCREEN
SKIP IF SCREEN FULL
CONTINUE WITH STATUS LISTS
SAVE TERMINAL POINTER

FIX FOR NEXT CALL.
GO WRITE OUT FULL SCREEN

START ON LINE 2
RESTORE TERMINAL POINTER
MOVE HEADING AND CONTINUE

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05307	01000000		3061	PSAST	UJP	IMPURE	
05310	53700000		3062		TAI	X3	SAVE TERMINAL NUMBER IN X3
05311	55400000		3063		ROS		
05312	21400636	P	3064		LDQ,I	PSABLK	GET PSA ADDRESS
05313	55000000		3065		RIS		
05314	05700001		3066		QSG	1	SKIP IF LOGGED IN
05315	01005307	P	3067		UJP	PSAST	NOT LOGGED IN, RETURN P+1
05316	41000662	P	3068		STQ	TEMP+1	SAVE THE PSA LOCATION
05317	12000017		3069		SHA	24-9	MOVE TO UPPER 9 BITS
05320	14200002		3070		ENI	2,X2	
05321	13000003		3071		SHAQ	3	
05322	17700007		3072		ANQ	7B	
05323	43400000	P	3073	00000 0	SQCH	OUTBUFF,X1	
05324	15100001		3074		INI	1,X1	
05325	02605321	P	3075		IJD	*-4,X2	OUTPUT TERMINAL NUMBER
05326	54300662	P	3076		LDI	TEMP+1,X3	GET PSA ADDRESS
05327	21000672	P	3077		LDQ	BIT19	
05330	55400000		3078		ROS		
05331	27400501	P	3079		LDL,I	SYSCODE,PSA	SEE IF A BATCH JOB
05332	03005460	P	3080		AZJ,EQ	NSCH	NOT A BATCH JOB
05333	20400476	P	3081		LDA,I	SELECT,PSA	GET BATCH Q NUMBER
05334	55000000		3082		RIS		
05335	12077754		3083		SHA	6-24-1	GET Q NUM IN LOWER 5 BITS
05336	17600037		3084		ANA	37B	
05337	53600000		3085		TAI	X2	
05340	20200713	P	3086		LDA	BQNAME,X2	GET NAME OF QUEUE
05341	14200003		3087		ENI	4-1,X2	
05342	13000006		3088		SHAQ	6	
05343	43400001	P	3089	00000 1	SQCH	OUTBUFF+1,X1	PLACE NAME IN OUT LINE
05344	15100001		3090		INI	1,X1	
05345	02605342	P	3091		IJD	*-3,X2	
	05346	P	3092	PSAST10	EQU	*	
05346	53530060		3093		TIM	RF60,X1	SAVE CURRENT POSITION
05347	54100572	P	3094		LDI	SENDTABL,X1	
05350	21000740	P	3095		LDQ	LPHT	
05351	55400000		3096		ROS		
05352	20400526	P	3097		LDA,I	UTAPEMAX,PSA	GET DESTINATION LP
05353	12000014		3098		SHA	12	
05354	17607777		3099		ANA	7777B	MASK IT OUT
05355	03005466	P	3100		AZJ,EQ	PSAST60	IF ZERO, ASSUME SITE
05356	53040000		3101		AQA		ADD HARDWARE TYPE
05357	14577777		3102		ENQ,S	77777B	
05360	06200000		3103	PSAST01	MEQ	IMPURE,2	LOOK FOR THIS DESTINATION
05361	01005463	P	3104		UJP	PSAST50	LET THEM EAT STARS
05362	20400567	P	3105		LDA,I	SENDTAB	GET NAME OF DEVICE
05363	55000000		3106		RIS		
	05364	P	3107	PSAST05	EQU	*	
05364	53130060		3108		TMI	RF60,X1	RESTORE POSITION POINTER
05365	14200003		3109		ENI	4-1,X2	
05366	13000006		3110		SHAQ	6	
05367	43400002	P	3111	00000 2	SQCH	OUTBUFF+2,X1	OUTPUT NAME ONT OT HE SCREEN
05370	15100001		3112		INI	1,X1	
05371	02605366	P	3113		IJD	*-3,X2	
05372	55400000		3114		ROS		
05373	21400526	P	3115		LDQ,I	UTAPEMAX,PSA	GET TAPES RESERVED
05374	55000000		3116		RIS		
05375	12477771		3117		SHQ	-6	
05376	17700077		3118		ANQ	77B	
05377	04500000		3119		QSE,S	0	SKIP IF NO TAPES RESERVED
05400	43400003	P	3120	00000 3	SQCH	OUTBUFF+3,X1	PLACE RESERVED ON SCREEN
05401	15100012		3121		INI	10,X1	MOVE TO TIME FIELD
05402	55400000		3122		ROS		
05403	20400512	P	3123		LDA,I	TOTALTIM,PSA	GET TIME USED BY JOB
05404	55000000		3124		RIS		
05405	13077747		3125		SHAQ	-24	
05406	51000707	P	3126		DVA	D1000	CONVERT TO SECONDS
05407	13000030		3127		SHAQ	24	
05410	14200003		3128		ENI	4-1,X2	4 DIGIT NUMBER
05411	14600001		3129		ENA	1	NO LEADING ZEROS
05412	00701143	P	3130		RTJ	DECBCD	CONVER TO DECIMAL
05413	15100006		3131		INI	6,X1	POSITION OUTPUT INDEX
05414	55400000		3132		ROS		
05415	20400507	P	3133		LDA,I	TRUNTIME,PSA	FIND MAX ALLOWED TIME MILI-SECOND
05416	55000000		3134		RIS		
05417	13077747		3135		SHAQ	-24	
05420	51000707	P	3136		DVA	D1000	
05421	14200003		3137		ENI	4-1,X2	4 DIGIT NUMBER
05422	13077747		3138		SHAQ	-24	
05423	14600001		3139		ENA	1	NO LEADING ZEROS

05424	00701143	P		3140	RTJ	DECBCD	CONVERT TO DECIMAL
05425	15100006			3141	INI	6,X1	
05426	55400000			3142	ROS		
05427	21400515	P		3143	LDQ,I	TFBLKS,PSA	
05430	55000000			3144	RIS		
05431	14200003			3145	ENI	4-1,X2	
05432	14600001			3146	ENA	1	
05433	00701143	P		3147	RTJ	DECBCD	
05434	15100007			3148	INI	7,X1	
05435	55400000			3149	ROS		
05436	21400470	P		3150	LDQ,I	MFBLKS,PSA	
05437	55000000			3151	RIS		
05440	14200004			3152	ENI	5-1,X2	
05441	14600001			3153	ENA	1	
05442	00701143	P		3154	RTJ	DECBCD	
05443	15100002			3155	INI	2,X1	
05444	55400000			3156	ROS		
05445	20400457	P		3157	LDA,I	IOBOUND,PSA	
05446	55000000			3158	RIS		
05447	14200007			3159	ENI	7,X2	
05450	13000003			3160	SHAQ	3	
05451	17700007			3161	ANQ	7B	
05452	43400000	P	00000 0	3162	SQCH	OUTBUFF,X1	
05453	15100001			3163	INI	1,X1	
05454	02605450	P		3164	IJD	*-4,X2	
05455	14600001			3165	ENA	1	
05456	34005307	P		3166	RAD	PSAST	FIX RETURN FOR P+2
05457	01005307	P		3167	UJP	PSAST	RETURN
	05460	P		3168			
05460	55000000			3169	N8CH EQU	*	
05461	15100004			3170	RIS		
05462	01005346	P		3171	INI	4,X1	SKIP IVER BATCH NAME FIELD
	05463	P		3172	UJP	PSAST10	
05463	55000000			3173			
05464	20000656	P		3174	PSAST50 EQU	*	
05465	01005364	P		3175	RIS		
	05466	P		3176	LDA	STARS	
05466	55000000			3177	UJP	PSAST05	
05467	20000655	P		3178			
05470	01005364	P		3179	PSAST60 EQU	*	
				3180	RIS		
				3181	LDA	BCDSITE	
				3182	UJP	PSAST05	

05471	44002117	P		3184	BLIST	EQU	*	DECIMAL CONVERSION
05472	22010643	P	02150 3	3185		SWA	FRCHK	GET TERMINATING CHARACTER
05473	04600073	P		3186		LACH	TERMCHR	SKIP IF APPROPRIATE
05474	01001246	P		3187		ASE	COMMA	NOT COMMA - ERROR
05475	54100416	P		3188		UJP	INERRGR	RESTORE INPUT POINTER
05476	00702051	P		3189		LDI	SAVE X1,X1	GO GET QUEUE OF INTEREST
05477	01001246	P		3190		RTJ	FETCHIM	NOTHING RETURNED ERROR
05500	01005502	P		3191		UJP	INERROR	NUMBER RETURNED
05501	00705011	P		3192		UJP	*+2	IF SYMBOL SEE IF NAME OF Q
05502	21000611	P		3193		RTJ	BQNFIND	GET THE NUMBER OF BATCH QUEUES
05503	12000001	P		3194		LDQ	NBATCHQ	
05504	03601246	P		3195		SHA	1	BAD QUEUE NUMBER
05505	53700000	P		3196		AQJ,GE	INERROR	
05506	20000622	P		3197		TAI	X3	GET BEGINNING OF BATCH QUEUES
05507	53740000	P		3198		LDA	BATCHQ	ACTUAL START IN X3
05510	47304752	P		3199		IAI	X3	SAVE IN FOLLOW SUB-PROGRAM
05511	14100002	P		3200		STI	CURQNT,X3	START AT SCREEN TOP
05512	14600000	P		3201	BGNBL	ENI	2,X1	
05513	40000743	P		3202		ENA	0	SAY WE ARE ON ZERO FILE
05514	01005533	P		3203		STA	LSEQNO	GET CURRENT SEQUENCE NUMBER
05515	21000743	P		3204	BLSTRT	UJP	BLEND	
05516	15700001	P		3205		LDQ	LSEQNO	
05517	41000743	P		3206		INQ	1	SAVE NEW VALUE
05520	14200002	P		3207		STQ	LSEQNO	3 DIGIT SEQUENCE NUMBER
05521	14600000	P		3208		ENI	3-1,X2	SAY LEADING ZEROS
05522	00701143	P		3209		ENA	0	PUT IN OUTPUT BUFFER. A≠0 HERE
05523	14700012	P		3210		RTJ	DECBCD	#: #
05524	43400001	P	00000 1	3211		ENQ	COLLN	PUT IN BUFFER
05525	15100007	P		3212		SQCH	OUTBUFF+1,X1	POSITION FOR JOB NO. CONVERSION
05526	55400000	P		3213		INI	7,X1	
05527	25300003	P		3214		ROS		X3 POINTS TO CONTROL BLOCK WITH I
05530	55000000	P		3215		LDAQ	CBP,X3	
05531	00701205	P		3216		RIS		PUT IN OUTPUT BUFFER
05532	15100065	P		3217		RTJ	PACKACT	MOVE TO NEXT LINE
05533	55400000	P		3218		INI	53,X1	
05534	20300000	P		3219	BLEND	ROS		
05535	53700000	P		3220		LDA	0,X3	LOOK AT POINTER TO NEXT BLOCK
05536	55000000	P		3221		TAI	X3	PUT INTO AN INDEX INCASE GOOD ADD
05537	12000006	P		3222		RIS		
05540	03205560	P		3223		SHA	23-17	LOOK AT THE INDIRECT BIT
05541	05101750	P		3224		AZJ,GE	BLEXT	BAD ADDRESS. EXIT
05542	01005515	P		3225		ISG	SCREENLC,X1	SEE IF THE SCREEN IS FULL
05543	15176050	P		3226		UJP	BLSTRT	NOPE, CONTINUE LISTING
05544	05100063	P		3227		INI	-SCREENLC+17,X1	TRY NEXT COLUMN
05545	01005515	P		3228		ISG	17+17+17,X1	SKIP IF ALL COLUMNS USED
05546	14605551	P		3229		UJP	BLSTRT	CONTINUE IN NEXT COLUMN
05547	44001634	P		3230		ENA	*+3	
05550	01001271	P		3231		SWA	NEXT	FIX TO CONTINUE LIST ON NEXT SEND
05551	20000743	P		3232		UJP	WRITEOUT	WRITE OUT FULL SCREEN
05552	15600001	P		3233		LDA	LSEQNO	GET COUNT OF LISTED SO FAR
05553	00704747	P		3234		INA	1	WE WANT TO START HERE
05554	01005560	P		3235		RTJ	QFOLL	GO FOLLOW LIST TO THIS POINT
05555	53700000	P		3236		UJP	BLEXT	BATCH QUEUE LENGTH HAS CHANGED
05556	14100002	P		3237		TAI	X3	FIX THE INDEX
05557	01005515	P		3238		ENI	2,X1	START NEW SCREEN
05560	14605563	P		3239	BLEXT	UJP	BLSTRT	CONTINUE LIST
05561	44001634	P		3240		ENA	*+3	START ANEW ON NEXT SEND
05562	01001271	P		3241		SWA	NEXT	
05563	55000000	P		3242		UJP	WRITEOUT	WRITE OUT SCREEN
05564	54304752	P		3243	NOMOV	RIS		
05565	01005511	P		3244		LDI	CURQNT,X3	GET CURRENT BATCH QUEUE
				3245		UJP	BGNBL	GO START LIST

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05566 55400000 P
05567 20400465 P
05570 14700000
05571 41400465 P
05572 55000000
05573 34005606 P
      05574 P
05574 14602164 P
05575 44001634 P
05576 01001271 P
      05577 P
05577 20005606 P
05600 14700000
05601 41005606 P
05602 55400000
05603 34400465 P
05604 55000000
05605 01005574 P
05606 00000000

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*****
*
* THE FOLLOWING TWO ROUTINES ARE TO SHUT THE CONSOLE UP
* WHEN IT IS COMPLAINING ABOUT SOMETHING THAT NEEDS OPERATOR
* INTERVENTION
*
*****

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QUIET EQU * SHUT UP THE CONSOLE
      ROS
      LDA,I SCREAM LOAD THE COUNT
      ENQ 0
      STQ,I SCREAM
      RIS
QUIET02 RAD SCREAMTM SAVE THE VALUE
      EQU *
      ENA FREETERM DONT REPEAT QUIET
      SWA NEXT
      UJP WRITEOUT

RESTORE EQU * RESTORE THE NOISE
      LDA SCREAMTM
      ENQ 0
      STQ SCREAMTM
      ROS
      RAD,I SCREAM
      RIS
      UJP QUIET02

SCREAMTM VFD A24/IMPURE

      IF GET NE 1, GOTO .SKIP40

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05607	14000000	P	3235	GATHER	EQU	* IMPURE	
05610	20001362	P	3286		NOP	STATGET	
05611	21005641	P	3287		LDA	GATH10+1	
05612	03405655	P	3288		LDQ	GATH30	JUMP IF ALREADY BEING DONE
05613	25001140	P	3289		AQJ, EQ	GATH30	
05614	14100003	P	3290		LDAQ	STATNAME	
05615	71401142	P	3291		ENI	EQUIP, X1	TRY TO EQUIP STATISTIC LUN
05616	02505653	P	3292		XREQ, I	STATLUN	JUMP IF CANNOT
05617	03305651	P	3293		IJD	GATH20, X1	JUMP IF FILE PROTECTED
05620	12000006	P	3294		AZJ, LT	GATH18	
05621	03305651	P	3295		SHA	23-AUBIT	DON'T GATHER IF FILE A/U
05622	14700004	P	3296		AZJ, LT	GATH18	
05623	72401142	P	3297		ENQ	REWIND	REWIND THE BEGGER
05624	01005627	P	3298		CNTL, I	STATLUN	CHECK FOR EOD FIRST
05625	14700010	P	3299		UJP	*+3	
05626	72401142	P	3300		ENQ	FWSF	PASS THE FILE MARKS
05627	12000002	P	3301		CNTL, I	STATLUN	
05630	03205625	P	3302		SHA	23-EODBIT	GO UNTIL EOD FOUND
05631	20005641	P	3303		AZJ, GE	*-3	SET CODE TO HAPPEN
05632	40001362	P	3304		LDA	GATH10+1	
05633	14110000	P	3305		STA	STATGET	INITIALIZE BUFFER POSITION
05634	53530062	P	3306		ENI	OBUF, X1	
	05635	P	3307		TIM	RF62, X1	
05635	25005643	P	3308	GATH04	EQU	* OKWORD	
	05636	P	3309		LDAQ		
05636	45000133	P	3310	GATH05	EQU	* OUTBUFF+91	PLACE MESSAGE IN BUFFER
05637	01002164	P	3311		STAQ	FREETERM	ADD A FREETERM FOR COLOR
	05640	P	3312		UJP		
05641	01001520	P	3313	GATH10	UJP	NSTATGET	
05642	14000000	P	3314		NOP	0	
05643	01005653	P	3315		UJP	GATH20	
05644	60464260	P	3316		BCD	2, OK	
05645	23214514	P	3317	OKWORD	BCD	2, CAN'T	
05647	24463145	P	3318	CANTWD	BCD	2, DOING IT	
	05651	P	3319	DOINGIT	BCD		
	05652	P	3320				
05651	14100002	P	3321	GATH18	EQU	* UNEQUIP, X1	
05652	71401142	P	3322		ENI	STATLUN	UNEQUIP IT FOR GOOD MEASURE
	05653	P	3323		XREQ, I		
05653	25005645	P	3324	GATH20	EQU	* CANTWD	PLACE [CAN'T] ON THE SCREEN
05654	01005636	P	3325		LDAQ	GATH05	
	05655	P	3326		UJP		
05655	25005647	P	3327	GATH30	EQU	* DOINGIT	PLACE [DOING IT] ON THE SCREEN
05656	01005636	P	3328		LDAQ	GATH05	
	05657	P	3329		UJP		
05657	20001362	P	3330	UNGATHER	EQU	* STATGET	
05660	21005640	P	3331		LDA	GATH10	
05661	03405677	P	3332		LDQ	UGATH20	
05662	53020062	P	3333		AQJ, EQ	RF62	GET BUFFER POSITION
05663	15467777	P	3334		TMA	-OBUF	MAKE WORD COUNT
05664	03005670	P	3335		INA, S	UGATH10	JUMP IF NO LENGTH
05665	13077747	P	3336		AZJ, EQ	-24	
05666	14810000	P	3337		SHAQ	OBUF	
05667	76401142	P	3338		ENI	STATLUN	WRITE IT OUT
	05670	P	3339		WRITE, I		
05670	14700002	P	3340	UGATH10	EQU	* WFM	END WITH A FILE MARK
05671	72401142	P	3341		ENQ	STATLUN	UNEQUIP THE THING
05672	14100002	P	3342		CNTL, I	UNEQUIP, X1	
05673	71401142	P	3343		ENI	STATLUN	MAKE GATHERING STOP HAPPENING
05674	20005640	P	3344		XREQ, I	GATH10	TELL HIM ITS OK
05675	40001362	P	3345		LDA	STATGET	
05676	01005635	P	3346		STA	GATH04	
	05677	P	3347		UJP		
05677	25005701	P	3348	UGATH20	EQU	* DONEM	TELL HIM ITS DONE ALREADY
05700	01005636	P	3349		LDAQ	GATH05	
	05701	P	3350		UJP		
05701	24464525	P	3351	DONEM	BCD	2, DONE	
			3352	*.SKIP40			
			3353				
			3354				
			3355				
			3356				

05703	25000005	P		3358	OWNER	EQU	*		
05704	14100003	P		3359		LDAQ	PUBFNAME		PUBLIC FILE CONTAINER NAME
05705	71000012			3360		ENI	EQUIP,X1		EQUIP CODE TO X1
05706	02501634	P		3361		XREQ	10		EQUIP LUN 10 TO SAVED FILE
05707	54100416	P		3362		IJD	NEXT,X1		ILLEGAL COMMAND IF SOMETHING BAD
05710	22401747	P	00371	3363		LDI	SAVE,X1,X1		GET CHARACTER POINTER
05711	04600073	P		3364		LACH	INBUFF-1,X1		GET DELIMITER CHARACTER.
05712	01005776	P		3365		ASE	COMMA		SKIP IF COMMA.
05713	14200000			3366		UJP	OWNEXT		ERROR - UNEQUIP FILE BLANK SCREEN
05714	25000653	P		3367		ENI	0,X2		
05715	45002144	P		3368		LDAQ	BLANKS		
05716	22401750	P	00372	3369	OFLOOP	STAQ	ITEM		BLANK FILL PACK BUFFER
05717	04600037	P		3370		LACH	INBUFF,X1		GET CHARACTER
05720	01005722	P		3371		ASE	37B		SKIP IF SEND MARK
05721	01005726	P		3372		UJP	*+2		NO SEND MARK
05722	42410620	P	02144	3373		UJP	OWNCON		EXIT ON SEND MARK
05723	15100001			3374		SACH	ITEM,X2		
05724	10200007	P		3375		INI	1,X1		
05725	01005716	P		3376		ISI	7,X2		SKIP IF DONE WITH NAME
	05725	P		3377	OWNCON	UJP	OFLOOP		CONTINUE GET CHARACTERS
05726	14700000			3378		EQU	*		
05727	72000012			3379		ENQ	STATUS		
05730	55600000			3380		CNTL	10		CHECK STATUS OF INPUT FILE
05731	55200000			3381	OWNRR	AEU			SAVE IT
05732	12000002			3382		EUA			GET STATUS, AND
05733	03305772	P		3383		SHA	23-EODBIT		CHECK FOR END OF DATA
05734	14606473	P		3384		AZJ,LT	NOTFND		END OF DATA ON INPUT FILE
05735	14700620			3385		ENA	BIGBUF		ADDRESS OF INPUT BUFFER
05736	74000012			3386		ENQ	BIGBUFL		LENGTH OF INPUT BUFFER
05737	55600000			3387		READ	10		READ IN A BLOCK OF DATA
05740	12000003			3388		AEU			SAVE STATUS TILL LATER
05741	03305772	P		3389		SHA	23-EOFBIT		CHECK FOR END OF FILE
05742	16577777	P		3390		AZJ,LT	NOTFND		END OF FILE READ
05743	15700620			3391		XOQ,S	77777B		
05744	05700001			3392		INQ	BIGBUFL		LENGTH OF RECORD READ IN Q
05745	01005772	P		3393		QSG	0+1		SKIP IF SOMETHING READ
05746	13000030			3394		UJP	NOTFND		ZERO WORDS READ.
05747	53600000			3395		SHAQ	24		LENGTH TO A
05750	25206467	P		3396		TAI	X2		AND TO X2
05751	33002144	P		3397		LDAQ	BIGBUF-4,X2		GET LAST BLOCK ENTRY
05752	03305731	P		3398		SBAQ	ITEM		SUBTRACT VALUE LOOKING FOR
05753	20002144	P		3399	OWNCSRCH	AZJ,LT	OWNRR		FILE IS SMALLER. READ NEXT BLOCK
05754	14577777			3400		LDA	ITEM		FIRST OF FILE NAME TO A
05755	07406473	P		3401		ENQ,S	77777B		MASK TO Q
05756	01005772	P		3402		MTH	BIGBUF,4		LOOK FOR NAME IN THIS GROUP
05757	31206473	P		3403		UJP	NOTFND		NOT FOUND IN BLOCK
05760	03105772	P		3404		SBA	BIGBUF,X2		SEE IF EQUAL.
05761	20206474	P		3405		AZJ,NE	NOTFND		NOT EQUAL SO NON-EXISTANT
05762	21002145	P		3406		LDA	BIGBUF+1,X2		LOOK AT SECOND PART OF NAME
05763	03505753	P		3407		LDQ	ITEM+1		GET WHAT WE ARE LOOKING FOR
				3408		AQJ,NE	OWNCSRCH		CONTINUE SEARCH
05764	25002144	P		3409	OWNFND	LDAQ	ITEM		GET PUBLIC FILE NAME
05765	45000004	P		3410		STAQ	OUTBUFF+4		PUT IT IN OUTPUT BUFFER
05766	14100007			3411		ENI	0+7,X1		RELATIVE POINTER FOR PAC ROUTINE
05767	25206475	P		3412		LDAQ	BIGBUF+2,X2		GET USER AND ACCOUNT NO.
05770	00701205	P		3413		RTJ	PACKACT		GO PUT IN OUTPUT BUFFER
05771	01005776	P		3414		UJP	OWNEXT		EXIT
				3415					
05772	14100003			3416					
05773	20106001	P		3417	NOTFND	ENI	FNTFMESL-1,X1		LENGTH OF ERROR MESSAGE
05774	40100000	P		3418		LDA	FNTFMES,X1		GET MESSAGE
05775	02505773	P		3419		STA	OUTBUFF,X1		STORE IN OUTPUT BUFFER
05776	14100002			3420		IJD	*-2,X1		LOOP TILL MOVED
05777	71000012			3421	OWNEXT	ENI	UNEQUIP,X1		
06000	01001271	P		3422		XREQ	10		UNEQUIP INPUT FILE
				3423		UJP	WRITEOUT		GO WRITE OUT SCREEN
				3424					
06001	26314325			3425	FNTFMES	BCD	4,FILE NOT FOUND		
	00004			3426	FNTFMESL	EQU	*-FNTFMES		
06005	53263143			3427	PUBFNAME	BCD	2,\$FILE400		

Address	Code	Op	Op2	Op3	Op4	Label	Opname	Opcode	Comment
06007	22010543	P	02150	3	3429	MESSAGE	EQU	*	CHECK TERMINATING CHARACTER FOR C
06010	04600073	P			3430		LACH	TERMCHR	SKIP IF COMMA TERMINATING CHARACT
06011	01001246	P			3431		ASE	COMMA	
06012	54100416	P			3432		UJP	INERROR	
06013	00706432	P			3433		LDI	SAVE,X1,X1	RESTORE INPUT BUFFER POINTER
06014	00706471	P			3434		RTJ	GJOBNO	GO DECODE THE JOB NUMBER INPUT
06015	14000000	P			3435		RTJ	UDIGET	SEE IF IT EXISTS IN USER DIRECTOR
06016	00706454	P			3436		NOP	0	TEMPORARY FIX - REMOVE LATER
06017	14100003	P			3437		RTJ	CHPHJNO	GO CHANGE PHANTOMS JOB NUMBER
06020	25000657	P			3438		ENI	EQUIP,X1	EQUIP CODE TO X1
06021	71000001	P			3439		LDAQ	SPMESS	BCD # MESSAGE# FILE NAME
06022	04100002	P			3440		XREQ	1	TRY TO EQUIP THE MESSAGE FILE
06023	01006034	P			3441		ISE	2,X1	SKIP ONLY IF NAME NOT FOUND
06024	25000652	P			3442		UJP	MFCHK	CHECK FURTHER
06025	14100003	P			3443		LDAQ	BCDFILE	NAME NOT FOUND ERROR
06026	71000001	P			3444		ENI	EQUIP,X1	
06027	25000657	P			3445		XREQ	1	EQUIP,1=FILE
06030	14100001	P			3446		LDAQ	SPMESS	
06031	71000001	P			3447		ENI	SAVE,X1	
06032	02506143	P			3448		XREQ	1	SAVE,1= MESSAGE
06033	01006041	P			3449		IJD	MESEXT,X1	TROUBLE, - SPLIT
06034	02506143	P			3450	MFCHK	UJP	MWRITE	
06035	14100004	P			3451		IJD	MESEXT,X1	TROUBLE, SPLIT
06036	25000657	P			3452		ENI	RFP,X1	
06037	71000001	P			3453		LDAQ	SPMESS	
06040	02506143	P			3454		XREQ	1	RFP, MESSAGE
06041	14600075	P			3455		IJD	MESEXT,X1	SPLIT IF TROUBLE
06042	42000000	P	00000	0	3456	MWRITE	ENA	BLOTCH	GET BLOTCH
06043	42001747	P	00371	3	3457		SACH	OUTBUFF	BEGINNING
06044	14600000	P			3458		SACH	OUTBUFF+SCREENLC-1	AND END OF SCREEN
06045	14700372	P			3459		ENA	OUTBUFF	
06046	76000144	P			3460		ENQ	SCREENL	
06047	14600000	P			3461		WRITE	100	WRITE OUT EMPTY SCREEN FOR INPUT
06050	14700372	P			3462		ENA	OUTBUFF	
06051	74000144	P			3463		ENQ	SCREENL	
06052	22000000	P	00000	0	3464		READ	100	READ MESSAGE TYPED IN
06053	04600037	P			3465		LACH	OUTBUFF	GET SCREENS FIRST CHARACTER
06054	01006100	P			3466		ASE	TVSEND	SKIP IF A SEND MARK
06055	14700002	P			3467		UJP	NXTSCRN	DO THIS SCREEN - NOT END
06056	72000001	P			3468		ENQ	WFM	
06057	54100416	P			3469		CNTL	1	WRITE FILE MARK ON MESSAGE UNIT
06060	22401750	P	00372	0	3470		LDI	SAVE,X1,X1	
06061	04600020	P			3471		LACH	INBUFF,X1	LOOK AT NEXT CHARACTER
06062	01006065	P			3472		ASE	208	SEE IF A PLUS SIGN
06063	14100005	P			3473		UJP	*+3	NOPE - SPLIT
06064	71000001	P			3474		ENI	FP,X1	
06065	14100371	P			3475		XREQ	1	FILE PROTECT THE MESSAGE FILE
06066	20000653	P			3476		ENI	SCREENL-1,X1	
06067	40100000	P			3477		LDA	BLANKS	
06070	02506067	P			3478		STA	OUTBUFF,X1	
					3479		IJD	*-1,X1	
					3480				
06071	14100002	P			3481	MESEXT3	ENI	UNEQUIP,X1	
06072	71000001	P			3482		XREQ	1	UNEQUIP THE MESSAGE FILE
06073	25000661	P			3483		LDAQ	TEMP	GET PHANTOMS JOB NO.
06074	55400000	P			3484		ROS		
06075	45400435	P			3485		STIAQ,I	ACCNUM,PSA	RESTORE IT
06076	55000000	P			3486		RIS		
06077	01001634	P			3487		UJP	NEXT	GOOD-BYE
					3488				
06100	14100000	P			3489	NXTSCRN	EQU	*	
06101	14200000	P			3490		ENI	0,X1	
06102	22400000	P	00000	0	3491	NEXTLINE	ENI	0,X2	
06103	04600036	P			3492	MNEXTCHR	LACH	OUTBUFF,X1	GET CHARACTER
06104	01006123	P			3493		ASE	TVCR	SKIP IF A CARRIAGE RETURN
06105	14600060	P			3494		UJP	NOCR	NOPE
06106	42432354	P	06473	0	3495	LINEEND	ENA	60B	BLANK FILL
06107	42432355	P	06473	1	3496		SACH	BIGBUF,X2	
06110	42432356	P	06473	2	3497		SACH	BIGBUF+1,X2	
06111	53200000	P			3498		SACH	BIGBUF+2,X2	
06112	15600003	P			3499		TIA	X2	
06113	13077745	P			3500		INA	3	
06114	14606473	P			3501		SHAQ	-26	4 CHARACTERS/WORD
06115	04700000	P			3502		ENA	BIGBUF	
06116	76000001	P			3503		QSE	0	DONT WRITE OUT NOTHING
06117	04000000	P			3504	TEXTE	WRITE	1	WRITE OUT LINE ON MESSAGE FILE
06120	01006135	P			3505		ISE	IMPURE,0	SKIP IF NO SEND
06121	15100001	P			3506		UJP	NEWSC	
					3507		INI	1,X1	LOOK AT NEXT CHAR.

06122	01006101	P		3508		UJP	NEXTLINE	
06123	04600037			3509	NOCR	ASE	TVSEND	SKIP IF SEND CHARACTER
06124	01006127	P		3510		UJP	NOSEND	
	06125	P		3511	SENDZ	EQU	*	
06125	44006117	P		3512		SWA	TEXTE	SET TEXT END FLAG
06126	01006105	P		3513		UJP	LINEEND	
				3514				
06127	42432354	P	06473 0	3515	NOSEND	SACH	BIGBUF,X2	SAVE CHARACTER
06130	15200001			3516		INI	1,X2	
06131	10101747			3517		ISI	SCREENLC-1,X1	SEE IF ALL SCREEN READ
06132	01006102	P		3518		UJP	MNEXTCHR	
06133	14600001			3519		ENA	1	
06134	01006125	P		3520		UJP	SENDZ	SAY END OF SCREEN
				3521				
06135	20000653	P		3522	NEWSO	LDA	BLANKS	
06136	14100371			3523		ENI	SCREENL-1,X1	
06137	40100000	P		3524		STA	OUTBUFF,X1	
06140	02506137	P		3525		IJD	*-1,X1	BLANK FILL ALL OUTBUFF
06141	47006117	P		3526		STI	TEXTE,0	SAY NO SEND CONFRONTED
06142	01006041	P		3527		UJP	MWRITE	WRITE AND READ NEXT SCREEN
				3528				
	06143	P		3529	MESEXT	EQU	*	
06143	14100002			3530		ENI	FTMESL-1,X1	
06144	20106150	P		3531		LDA	FTMES,X1	
06145	40100000	P		3532		STA	OUTBUFF,X1	
06146	02506144	P		3533		IJD	*-2,X1	OUTPUT FILE TROUBLE MESSAGE
06147	01006071	P		3534		UJP	MESEXT3	EXIT
				3535				
06150	26314325			3536	FTMES	BCD	3,FILE TROUBLE	
	00003			3537	FTMESL	EQU	*-FTMES	

06153	22010643	P	02150 3	3539	DMESSAGE EQU	*	
06154	04600073	P		3540	LACH	TERMCHR	
06155	01001246	P		3541	ASE	COMMA	CHECK FOR A COMMA
06156	54100416	P		3542	UJP	INERROR	
06157	00706432	P		3543	LDI	SAVEX1,X1	GET POINTER TO JOB NO.
06160	00706471	P		3544	RTJ	GJCBNO	GO GET THE JOB NUMBER
06161	14000000	P		3545	RTJ	UDIGET	SEE IF ACTUALLY EXISTS
06162	00706454	P		3546	NOP	0	TEMP FIX - REMOVE LATER
06163	25000657	P		3547	RTJ	CHPHJNO	CHANGE PHANTOMS JOB NUMBER
06164	14100003	P		3548	LDAQ	SPMESS	BCD FOR SPACE MESSAGE # MESSAGE#
06165	71000001	P		3549	ENI	EQUIP,X1	EQUIP CODE TO X1
06166	02506143	P		3550	XREQ	1	TRY TO EQUIP # MESSAGE# TO LUN 1
06167	14100004	P		3551	IJD	MESEXT,X1	JUMP IF ANY PROBLEMS
06170	25000657	P		3552	ENI	RFP,X1	
06171	71000001	P		3553	LDAQ	SPMESS	
06172	14100000	P		3554	XREQ	1	TRY TO REMOVE FILE PROTECT
06173	25000657	P		3555	ENI	DELETE,X1	
06174	71000001	P		3556	LDAQ	SPMESS	
06175	14100002	P		3557	XREQ	1	TRY TO DELETE THE FILE
06176	71000001	P		3558	ENI	UNEQUIP,X1	
06177	25000661	P		3559	XREQ	1	TRY TO UNEQUIP THE FILE
06200	55400000	P		3560	LDAQ	TEMP	GET PHANTOMS PREVIOUS JOB NUMBER
06201	45400435	P		3561	ROS		
06202	55000000	P		3562	STAQ,I	ACCNUM,PSA	RESTORE PHANTOMS JOB NUMBER
06203	20000651	P		3563	RIS		
06204	40000000	P		3564	LDA	BCDDONE	
06205	01001271	P		3565	STA	OUTBUFF	SAY THE DEED WAS DONE FOR OPERATO
				3566	UJP	WRITEOUT	GO WRITE OUT THE SCREEN

06206	14100000	P	3568	FREESTOR	EQU	*		
			3569		ENI	0,X1		
			3570					
06207	55000000	P	3571	FRSC01	EQU	*		
06210	47106263	P	3572		RIS			
06211	55400000	P	3573		STI	FRSCEND,X1		S
06212	20400462	P	3574		ROS			
06213	55000000	P	3575		LDA,I	FRONT		DOES THIS SIZE EXIST
06214	03006370	P	3576		RIS			
06215	14603777	P	3577		AZJ,EQ	FRSCENDX		JUMP IF NOT
06216	12177765	P	3578		ENA	3777B		
06217	44006273	P	3579		SHA	-10,X1		FORM THE MASK FOR ADDRESS CHECKIN
06220	14600001	P	3580		SWA	FRSC24		
06221	12100000	P	3581		ENA	1		
06222	44006277	P	3582		SHA	0,X1		FORM THE INCREMENT FOR ADDRESS
			3583		SWA	FRSC26		CHECKING
			3584					
06223	15100000	P	3585	FRSC04	INI	IMPURE,X1		
06224	47106264	P	3586		STI	FRSC19,X1		SAVE THE FRPNT POINTER
06225	55400000	P	3587		ROS			
06226	01006231	P	3588		UJP	FRSC08		
06227	20100000	P	3589	FRSC06	LDA	0,X1		LOAD THE NEXT POINTER
06230	53500000	P	3590		TAI	X1		
			3591	FRSC08	EQU	*		
06231	20100000	P	3592		LDA	0,X1		GET THE NEXT BLOCK ADDRESS
06232	17677777	P	3593		ANA	7777B		SAVE JUST THE ADDRESS PART
06233	40100000	P	3594		STA	0,X1		
06234	03006263	P	3595		AZJ,EQ	FRSCEND		
06235	53700000	P	3596		TAI	X3		
06236	13000030	P	3597		SHAQ	24		BLOCK ADDRESS TO (0)
			3598	FRSC10	EQU	*		
06237	20300000	P	3599		LDA	0,X3		
06240	17677777	P	3600	FRSC12	ANA	7777B		SCRAP ANY TRASH
06241	03006227	P	3601		AZJ,EQ	FRSC06		JUMP IF THE END OF THE CHAIN
06242	05600000	P	3602	FRSCASG	ASG	IMPURE		SKIP IF ON AN ARRAY PAGE
06243	01006260	P	3603		UJP	FRSCQSGA		
06244	05700000	P	3604	FRSCQSG	QSG	IMPURE		SKIP IF REFERENCE BLOCK IS ON AN
06245	01006251	P	3605		UJP	FRSCMOVE		ARRAY PAGE
06246	03706251	P	3606	FRSCAQJ	AQJ,LT	FRSCMOVE		JUMP IF WE WANT TO MOVE
06247	53700000	P	3607	FRSCTAI3	TAI	X3		
06250	01006237	P	3608		UJP	FRSC10		LOOK AT THE NEXT BLOCK
			3609	FRSCMOVE	EQU	*		
06251	40100000	P	3610		STA	0,X1		MOVE THE BLOCKS AND ALL ASSOCIATE
06252	53600000	P	3611		TAI	X2		
06253	20200000	P	3612		LDA	0,X2		
06254	41200000	P	3613		STQ	0,X2		
06255	40300000	P	3614		STA	0,X3		
06256	21100000	P	3615		LDQ	0,X1		
06257	01006240	P	3616		UJP	FRSC12		
			3617					
			3618					
06260	05700000	P	3619	FRSCQSGA	QSG	IMPURE		
06261	01006246	P	3620		UJP	FRSCAQJ		
06262	01006247	P	3621		UJP	FRSCTAI3		
			3622					
06263	14100000	P	3623	FRSCEND	ENI	IMPURE,X1		
06264	14300000	P	3624	FRSC19	ENI	IMPURE,X3		ENTER POINTER TO FRPNT
06265	01006270	P	3625		UJP	FRSC22		
06266	20300000	P	3626	FRSC20	LDA	0,X3		GET THE NEXT ELEMENT
06267	53700000	P	3627		TAI	X3		
			3628	FRSC22	EQU	*		
06270	20300000	P	3629		LDA	0,X3		
06271	03006366	P	3630		AZJ,EQ	FRSCENDY		JUMP IF THE END OF THE CHAIN
06272	53600000	P	3631		TAI	X2		SAVE THE ADDRESS
06273	17600000	P	3632	FRSC24	ANA	IMPURE		IS THIS A GOOD ADDRESS
06274	03106266	P	3633		AZJ,NE	FRSC20		
06275	20300000	P	3634		LDA	0,X3		COMPUTE THE NEXT ADDRESS
06276	03006366	P	3635		AZJ,EQ	FRSCENDY		JUMP IF DONE
06277	15600000	P	3636	FRSC26	INA	IMPURE		
06300	36200000	P	3637		SCA	0,X2		IS IT THE RIGHT ONE
06301	04600000	P	3638		ASE	0		
06302	01006266	P	3639		UJP	FRSC20		JUMP IF NO GOOD
06303	20200000	P	3640		LDA	0,X2		REMOVE THE BLOCKS
06304	53600000	P	3641		TAI	X2		
06305	20200000	P	3642		LDA	0,X2		
06306	21300000	P	3643		LDQ	0,X3		
06307	40300000	P	3644		STA	0,X3		
06310	14477775	P	3645		ENA,S	-2		
06311	34400462	P	3646		RAD,I	FRONT		FIX THE COUNT

```

06312 04100012
06313 01000355 P
06314 13000015
06315 17600017
06316 53600000
06317 14600001
06320 12200000
06321 35400454 P
06322 40400454 P
06323 14600023
06324 54300006
06325 44000006
06326 14100004
06327 55000000
06330 25106347 P
06331 55400000
06332 45100023
06333 10500000
06334 02506327 P
06335 14700774
06336 14106340 P
06337 00000000
06340 13000026
06341 53600000
06342 14600000
06343 40400630 P
06344 47300006
06345 55000000
06346 01001271 P
    
```

```

3647
3648
3649
3650
3651
3652
3653
3654
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3668
3669
3670
3671
3672
3673
3674
3675
3676
    
```

```

ISE 10,X1
UJP FRSC30
SHAQ 13
ANA 170
TAI X2
ENA 1
SHA 0,X2
SSA,I MEMARRAY
STA,I MEMARRAY
ENA 00023B
LDI 00006B,X3
SWA 00006B
ENI MEM23L-2,X1
RIS
LDAQ MEM23,X1
ROS
STAQ 00023B,X1
ISD 0,X1
IJD *-5,X1
ENQ 0774B
ENI *-2,X1
HLT
SHAQ 24-2
TAI X2
ENA 0
STA,I PAGETABL
STI 00006B,X3
RIS
UJP WRITEOUT
    
```

```

SKIP IF WE HAVE 2 HALF PAGES
PAGE NUMBER TO A
JUST THE PAGE NUMBER

SET THE BIT IN THE SYSTEM

CHANGE THE INTERRUPT LOCATION
SAVE THE CONTENTS OF WORD 6
SO WE CAN EXECUTE THE APF
MOVE THE STUFF INTO 23

SET PAGE FILE TO NON EXISTANT

PAGE NUMBER TO A
PAGE NUMBER TO X2

LET THE SYSTEM USE THE PAGE
RESTORE WORD 6
    
```

```

3678
3679
3680
    
```

```

*****
*
* THE FOLLOWING CODE RUNS IN MONITOR STATE
*
*****
    
```

```

06347 77654000
06350 13000030
06351 77644000
06352 77630000
06353 77634000
06354 01100000
      00006

06355 15100001
06356 20406223 P
06357 41406223 P
06360 13000030
06361 53600000
06362 41200000
06363 14600001
06364 34400462 P
06365 02506270 P

06366 55000000
06367 54106263 P
06370 10100012
06371 01006207 P
06372 01001271 P
    
```

```

3682
3683
3684
3685
3686
3687
3688
3689
3690
3691
3692
3693
3694
3695
3696
3697
3698
3699
3700
3701
3702
3703
3704
3705
3706
3707
    
```

```

MEM23 PFA 0,X2
      SHAQ 24
      APF 0,X2
CRA
ACR
UJP 0,X1
MEM23L EQU *-MEM23

FRSC30 INI 1,X1
      LDA,I FRSC04
      STQ,I FRSC04
      SHAQ 24
      TAI X2
      STQ 0,X2
      ENA 1
      RAD,I FRCNT
      IJD FRSC22,X1

FRSCENDY RIS
      LDI FRSCEND,X1
FRSCENDX ISI 10,X1
      UJP FRSC01
      UJP WRITEOUT
    
```

```

LOAD THE CURRENT CONTENTS
SET TO NON-EXISTANT
RETURN TO PROGRAM STATE
EXIT BACK TO PHANTOM

POINT TO THE NEXT BLOCK SIZE
PUT THE BLOCK IN THE CHAIN

FIX THE COUNT
THIS WILL ALWAYS JUMP

LOAD THE BLOCK SIZE
SKIP IF WERE ARE DONE
    
```

```

3710
3711
3712
*****
*          RELOAD   THIS CODE WILL RELOAD THE PHANTOM
*          *****
3714
3715
3716
3717
3718
3719
3720
3721
3722
3723
3724
3725
3726
3727
RELOAD   EQU          *
          ENA          OUTBUFF        CHECK FOR VALIDITY
          ENQ          LOADCHCL
          READ         100
          ENI          LOADCHCL-1,X1   CHECK THE MESSAGE
          LDA          OUTBUFF,X1
          LDQ          LOADCHEC,X1
          AQJ,NE      FREETERM
          IJD          *-3,X1
          SBJP        SAY TO RELOAD
LOADCHEC BCD          10,THE KING IS A FINK AND SO IS THE QUEEN.;
LOADCHCL EQU          *-LOADCHEC

3729
3730
3731
3732
3733
3734
3735
3736
BADJOBNO ENI          BJNMESL-1,X1
          LDA          BJNMES,X1
          STA          OUTBUFF,X1
          IJD          *-2,X1        MOVE MESSAGE INTO AREA
          UJP          WRITEOUT
BJNMES   BCD          7,JOB-USER PAIR NON-EXISTANT
BJNMESL  EQU          *-BJNMES

3738
3739
3740
3741
3742
3743
3744
3745
3746
3747
3748
3749
3750
3751
3752
3753
3754
3755
GJOBNO   UJP          IMPURE
          SWA          FROCHK        A#0 SEZZ DECIMAL CONVERSION
          RTJ          FEICHITM     GO GET JOB NUMBER
          UJP          INERROR      NOTHING RETURN - ERROR
          UJP          *+2          NUMBER RETURN, OK
          UJP          INERROR      SYMBOL RETURN - ERROR
          STA          JOBNUM       SAVE THE JOB NUMBER
          LACH         TERMCHR
          TAI          X3
          LOAQ         CLASWRD
          SHAQ         B,X3
          AZJ,GE      *+2
          INI          -1,X1        CHECK TO SEE IF A LETTER
          RTJ          FEICHITM     JUMP IF NOT
          UJP          INERROR      LOOK AT THE DELIMETER CHARACTER
          UJP          *+1          GET VALIDITY CODE
          STA          VALCODE      NOTHING RETURN - ERROR
          UJP          GJOBNO       NUMERICAL VALIDITY CODE
          UJP          GJOBNO       SAVE VALIDITY CODE (SYMBOLIC)

3757
3758
3759
3760
3761
3762
3763
3764
3765
3766
3767
3768
3769
CHPHJNO  UJP          IMPURE
          TMA          RF34
          SHA          -9
          TAI          X3          PHANTOMS PSA IN X3
          ROS
          LDAQ,I      ACCNUM,PSA    GET PHANTOMS JOB USER NUMBER
          RIS
          STAQ        TEMP          SAVE IT FOR LATER
          LDAQ        JOBNUM       GET THE JOB NO. FOR PHANTOM
          ROS
          STAQ,I      ACCNUM,PSA    NEW JOB NO FOR PHANTOM
          RIS
          UJP          CHPHJNO      EXIT

3771
3772
UDIGET   UJP          IMPURE
          UJP          *-1
    
```

06373 06373 P
 06374 14600000 P
 06375 14700012
 06376 74000144
 06377 14100011 P
 06400 20100000 P
 06401 21106404 P
 06402 03502164 P
 06403 02506377 P
 06403 77620000
 06404 63302560
 00012

06416 14100006
 06417 20106423 P
 06420 40100000 P
 06421 02506417 P
 06422 01001271 P
 06423 41462240
 00007

06432 01000000
 06433 44002117 P
 06434 00702051 P
 06435 01001246 P
 06436 01006440 P
 06437 01001246 P
 06440 40000750 P
 06441 22010643 P U2150 3
 06442 53700000
 06443 25002151 P
 06444 13300000
 06445 03206447 P
 06446 15177776
 06447 00702051 P
 06450 01001246 P
 06451 01006452 P
 06452 40000751 P
 06453 01006432 P

06454 01000000
 06455 53020034
 06456 12077766
 06457 53700000
 06460 55400000
 06461 25400435 P
 06462 55000000
 06463 45000661 P
 06464 25000750 P
 06465 55400000
 06466 45400435 P
 06467 55000000
 06470 01006454 P

06471 01000000
 06472 01006471 P

06473	00620	3774	BIGBUF	BSS	400	
	06473 P	3775	BIGBUFL	EQU	*-BIGBUF	
	00042	3776	MAPBUF	EQU	BIGBUF	
		3777	MAPBUFL	EQU	34	
		3778				
	10000 P	3779			IF GET NE 1, GOTO .SKIP50	
		3780			ORGR (*-Z+3777B) AND 74000B	
	10000 P	3781	* STATISTICS		OUTPUT BUFFER	
10000		3782	OBUF	EQU	*	
	10454 P	3783		BSS	300	
10454		3784	ENDOBUF	EQU	*	
		3785		BSS	200	OVERFLOW ROOM
		3786	.SKIP50			
10764	00000000	3787	SYMLENTH	VFD	09/000,A15/IMPURE	
		3788				
	10765 P	3789	SYMTAB	EQU	*	
	00000	3790	NAME	EQU	0	
	00002	3791	VALUE	EQU	2	
	00003	3792	ENTRYL	EQU	3	
		3793		END		PHANTOM

NO LINES WITH ERRORS

Table with columns for labels (e.g., BQNO5, BQNFIND, BSMES), values, and addresses. The table is organized into vertical columns, with the first column containing labels and subsequent columns containing numerical values and addresses. Some values are formatted as MMSSSSP.

FRCHK	02117P	1242	1409	02333P	1997	03230P	2010	03245P	2053	03324P	2395	04121P	2713	04600P
FRONT	00462P	454	2843	04771P	2880	05030P	2895	05045P	3185	05471P	3739	06433P		
FREE	01266P	750	309	00217P	3575	06212P	3646	06311P	3699	06364P				
FREECHK	01540P	974	1284	02164P										
FREEMAX	00055	81	1287	02167P										
FREEMIN	00031	80	631	01112P	995	01560P								
FREESTOR	06206P	3568	631	01112P	976	01541P	983	01547P	988	01554P	993	01557P	1295	02176P
FREETERM	02164P	1283	603	01012P										
			613	01042P	715	01252P	1049	01634P	1059	01643P	1301	02204P	1390	02324P
			2817	04742P	3265	05574P	3312	05637P	3722	06401P				
FRETRM02	02172P	1290	1299	02202P										
FRETRM06	02202P	1299	1293	02174P										
FRETRM10	02213P	1308	1324	02232P										
FRETRM14	02221P	1315	334	00246P										
FRETRM18	02233P	1326	1316	02222P										
FRSC01	06207P	3571	3705	06371P										
FRSC04	06223P	3585	311	00221P	3693	06356P	3694	06357P						
FRSC06	06227P	3589	3601	06241P										
FRSC08	06231P	3591	3588	06226P										
FRSC10	06237P	3598	3608	06250P										
FRSC12	06240P	3600	3616	06257P										
FRSC19	06264P	3624	3586	06224P										
FRSC20	06266P	3626	3633	06274P	3639	06302P								
FRSC22	06270P	3628	3625	06265P	3700	06365P								
FRSC24	06273P	3632	3580	06217P										
FRSC26	06277P	3636	3583	06222P										
FRSC30	06355P	3692	3648	06313P										
FRSCAQJ	06246P	3606	3620	06261P										
FRSCASG	06242P	3602	221	00107P										
FRSCEND	06263P	3623	3573	06210P	3595	06234P	3703	06367P						
FRSCENDX	06370P	3704	3577	06214P										
FRSCENDY	06366P	3702	3630	06271P	3635	06276P								
FRSCMOVE	06251P	3609	3605	06245P	3606	06246P								
FRSCQSG	06244P	3604	222	00110P										
FRSCQSGA	06260P	3619	223	00111P	3603	06243P								
FRSCTA13	06247P	3607	3621	06262P										
FTMES	06150P	3536	3537	06153P	3531	06144P								
FTMESL	00003	3537	3530	06143P										
FWSP	00010	49	214	00101P	3300	05625P								
GATH04	05635P	3308	3349	05676P										
GATH05	05636P	3310	3326	05654P	3330	05656P	3353	05700P						
GATH10	05640P	3314	3288	05611P	3304	05631P	3334	05660P	3347	05674P				
GATH18	05651P	3321	3294	05617P	3296	05621P								
GATH20	05653P	3324	3293	05616P	3316	05642P								
GATH30	05655P	3328	3289	05612P										
GATHER	05607P	3285	610	01034P										
GET	00001	7	441	00441P	561	00700P	609	01032P	838	01362P	3283	05607P	3779	07313P
GETCB	02737P	1769	1443	02370P	1796	02767P								
GETCB02	02754P	1782	1792	02763P										
GETCB05	02756P	1786	1783	02754P										
GETMAC	02770P	1802	1404	02326P	1545	02504P	1669	02637P	1716	02673P	1821	03013P	1827	03021P
GETMAC2	03012P	1820	1803	02771P										
GETMAC4	03022P	1827+2	1812+1	03003P	1815+1	03006P								
GJOBNO	06432P	3738	3434	06013P	3544	06157P	3755	06453P						
HALT	00000	29	198	00063P	206	00071P	405	00346P	1101	01723P	1503	02453P	1774	02744P
			1784	02755P	1901	03070P	1909	03100P	1915	03104P				
			398	00336P	1958	03173P	1964	03201P						
* HARDWARE	00561P	496												
HOUR	00711P	573												
HSBIT	00671P	557	1310	02214P	1311	02215P								
IDENT	00017	49	50	04241P	2513	04256P								
IDLE	00600P	507	846	01371P										
ILLTERM	01260P	720+2	2005+1	03241P	2007+1	03243P								
IMAD	00005	22	24	04241P	1567	02532P								
IMPURE	00000	25	361	00276P	369	00305P	409	00347P	426	00416P	431	00421P	432	00424P
			433	00427P	434	00432P	438	00435P	440	00440P	443	00443P	445	00446P
			447	00451P	450	00454P	452	00457P	454	00462P	456	00465P	458	00470P
			460	00473P	462	00476P	464	00501P	466	00504P	468	00507P	470	00512P
			472	00515P	474	00520P	476	00523P	478	00526P	480	00531P	482	00534P
			484	00537P	486	00542P	488	00545P	490	00550P	492	00553P	494	00556P
			496	00561P	498	00564P	501	00567P	503	00572P	505	00575P	507	00600P
			509	00603P	511	00606P	513	00611P	515	00614P	517	00617P	519	00622P
			521	00625P	523	00630P	525	00633P	527	00636P	529	00641P	531	00644P
			535	00645P	536	00646P	546	00661P	546	00662P	578	00741P	579	00742P
			580	00743P	584	00747P	585	00750P	585	00751P	632	01112P	638	01143P
			645	01153P	650	01157P	664	01174P	665	01175P	666	01176P	674	01205P
			751	01267P	752	01270P	766	01300P	783	01306P	839	01362P	876	01421P
			921	01467P	987	01553P	1003	01564P	1049	01634P	1050	01635P	1111	01734P
			1129	01756P	1202	02051P	1242	02117P	1266	02147P	1277	02157P	1315	02221P
			1336	02237P	1607	02572P	1608	02573P	1769	02737P	1802	02770P	1820	03012P

			1867 03027P	1918 03107P	1956 03171P	1981 03215P	2077 03351P	2095 03372P
			2108 03405P	2114 03413P	2250 03607P	2289 03653P	2301 03666P	2333 03717P
			2334 03720P	2381+14 04026P	2433 04165P	2470 04230P	2473 04232P	2571 04367P
			2573 04371P	2654 04514P	2592 04555P	2696 04561P	2792 04712P	2800 04722P
			2823 04747P	2826 04752P	2863 05011P	2996 05204P	3009 05217P	3038 05242P
			3039 05243P	3061 05307P	3103 05360P	3280 05606P	3286 05607P	3505 06117P
			3585 06223P	3602 06242P	3604 06244P	3619 06260P	3623 06263P	3624 06264P
			3632 06273P	3636 06277P	3738 06432P	3757 06454P	3771 06471P	3787 10764P
			425 00416P	154 00017P	166 00033P	186 00052P	1016 01576P	1166 02013P
INBUFF	00372P	424	1178 02025P	1203 02052P	1223 02075P	1245 02122P	1406 02330P	1805 02773P
			1942 03153P	1999 03232P	2050 03321P	2392 04116P	2591 04415P	2710 04575P
			2724 04612P	2734 04624P	2743 04635P	3364 05710P	3370 05716P	3471 06060P
INBUFFL	00024	425	155 00020P	162 00027P	761 01274P	1017 01577P	1082 01660P	1207 02056P
			1247 02124P					
			1408 02332P	1411 02335P	1413 02337P	1414 02340P	1807 02775P	1809 02777P
			1810 03000P	1944 03155P	1946 03157P	1947 03160P	1949 03162P	1970 03205P
			1983 03217P	2001 03234P	2003 03236P	2005 03240P	2012 03247P	2014 03251P
			2397 04123P	2595 04421P	2596 04422P	2846 04774P	2849 04777P	2854 05004P
			2866 05014P	2871 05021P	2878 05026P	2882 05032P	2885 05035P	2892 05044P
			2898 05050P	2901 05053P	2906 05060P	2918 05074P	2920 05076P	2923 05101P
			3188 05474P	3191 05477P	3196 05504P	3432 06011P	3542 06155P	3741 06435P
			3743 06437P	3752 06450P				
			401 00341P					
INITCL	01660P	1082	1596 02582P	1611 02574P				
INTBIT	00531P	480	866 01407P	2060 03333P	3157 05445P			
IOBOUND	00457P	452	1029 01612P	1032 01615P	1121 01746P	1124 01751P	1200 02047P	1221 02073P
ITEM	02144P	1265	1236 02112P	1950 03163P	3369 05715P	3374 05722P	3398 05751P	3400 05753P
			3407 05762P	3410 05764P				
			586 00752P	3744 06440P	3765 06464P			
JOBNUM	00750P	585						
* KEYU1	00201P	292						
KEYU2	00206P	299	307 00216P					
KEYU4	00214P	305	298 00205P					
KEYJMP	00346P	407	286 00173P					
KEYLOOK	00167P	281	295 00203P					
KEYMEQ	00171P	284	289 00176P					
KEYPNTL	00060P	532	306 00215P					
KEYPOINT	00565P	499	532 00645P	299 00206P	304 00213P			
KEYWORD	00417P	428	533 00645P	284 00171P	288 00175P	291 00200P		
KEYWORDL	00226P	533	294 00202P					
KILL50	02670P	1695	1676 02646P					
KILLC	02636P	1667	595 00762P					
KILLFLAG	00007P	25	26 04241P	1508 02456P	1531 02501P	1678 02650P		
KILLFLG	00003P	1925	1683 02655P					
L100STAT	01306P	783	318 00226P					
LEEXIT	04546P	2682	2598 04424P					
LETNUM	02106P	1232	1226 02100P					
LETNUM01	02105P	1231	1222 02074P					
LINEEND	06105P	3495	3513 06126P					
LIST	04414P	2589	627 01106P					
LISTCONT	04523P	2661	2656 04516P					
LISTLP1	04434P	2606	2668 04532P	2680 04545P				
LNIM	00006P	24	25 04241P					
LOADCHCL	00012P	3727	3717 06374P	3719 06376P				
LOADCHEC	06404P	3726	3727 06416P	3721 06408P				
LOGOUT	00346P	405	407 00347P	170+4 00043P	211 00076P			
LOOKNOT	01564P	1002	960 01524P					
LP	00001P	72	1450 02377P	1461 02412P	1497 02445P			
LPBIT	00026P	55	1525 02475P	1528 02476P				
LPHT	00740P	577	3095 05350P					
LSEQNO	00743P	580	2602 04430P	2607 04435P	2609 04437P	2674 04537P	3203 05513P	3205 05515P
			3207 05517P	3233 05551P				
LUNLIST	00556P	494	1780 02752P					
M1	00000	2381+26	2362+3 03755P					
M10	00245	2381+44	1757+1 02735P					
* M2	00013	2381+28						
M3	00020	2381+30	720+3 01260P					
M4	00041	2381+32	2043+1 03307P					
M5	00060	2381+34	2043+12 03315P					
M6	00115	2381+36	2043+8 03313P					
M7	00147	2381+38	1827+3 03022P					
M8	00173	2381+40	1649+1 02634P					
M9	00225	2381+42	1695+1 02670P					
MAC	00000	26	1416 02342P	1424 02351P	1425 02352P	1440 02365P	1445 02372P	1447 02374P
			1453 02402P	1456 02405P	1481 02430P	1482 02431P	1486 02435P	1489 02440P
			1491 02442P	1508 02456P	1515 02464P	1516 02465P	1517 02466P	1531 02501P
			1551 02510P	1560 02520P	1564 02527P	1567 02532P	1577 02543P	1585 02551P
			1586 02552P	1628 02613P	1631 02615P	1642 02626P	1673 02643P	1678 02650P
			1679 02651P	1723 02701P	1724 02702P	1739 02715P	1742 02717P	1746 02723P
			1748 02725P	1749 02726P	1753 02732P	1823 03015P	1876 03040P	1878 03042P

MACROA	00663P	547	1881 03045P 1416 02342P 1910 03101P	2513 04256P 1440 02365P	2526 04273P 1445 02372P	2540 04311P 1506 02454P	2547 04325P 1736 02715P	2703 04570P 1818 03010P
MAP01	00113P	226	243 00130P	273 00162P				
MAP03	00126P	240	245 00132P					
MAP04	00134P	247	253 00141P					
MAP05	00146P	258	262 00151P					
MAP06	00125P	238	266 00155P					
MAP07	00156P	268	236 00123P					
MAPBUF	06473P	3776	229 00115P	233 00120P	235 00122P	244 00131P	251 00137P	260 00147P
MAPBUFL	00042	3777	227 00113P	232 00117P	241 00126P	241 00126P	241 00126P	241 00126P
MAPEND	00163P	275	270 00157P					
MAXHS	00020	79	1306 02211P					
MEM23	06347P	3683	3689 06355P	3661 06330P				
MEM23L	00006	3689	3659 06326P					
MEMARRAY	00454P	450	2407 04134P	2429 04161P	3654 06321P	3655 06322P		
MESEXT	06143P	3529	3449 06032P	3451 06034P	3455 06040P	3551 06166P		
MESEXT3	06071P	3431	3534 06147P					
MESSAGE	06087P	3429	620 01061P					
MESSSES	04037P	2381+25	2381+26 04037P 2381+38 04070P	2381+28 04041P 2381+40 04075P	2381+30 04043P 2381+42 04104P	2381+32 04047P 2381+44 04110P	2381+34 04053P 2381+16 04027P	2381+36 04062P
MFBLKIM	00473P	460	322 00232P					
MFBLKS	00470P	458	321 00231P	3150 05436P				
MFCHK	06034P	3451	3442 06023P					
MNEXTCHR	06102P	3492	3518 06132P					
MORELIST	04537P	2674	2658 04520P					
MOVE	04573P	2707	628 01111P					
MOVER	04611P	2722	2858 05010P					
MSKU9	00700P	563	868 01411P					
MULTI	05045P	2894	622 01067P					
MVEA	00744P	581	582 00747P	2009 03244P	2016 03253P	2733 04623P	2741 04633P	2753 04646P
			2763 04656P	2765 04660P	2768 04663P	2772 04666P	2775 04671P	2778 04674P
			2781 04677P	2807 04731P	2810 04734P			
MVEB	00745P	582	583 00747P	2742 04634P	2752 04645P	2757 04652P	2774 04670P	2777 04673P
			2783 04701P	2786 04704P	2789 04707P	2798 04720P	2805 04727P	
MVEC	00746P	583	2750 04644P	2755 04650P	2782 04700P	2785 04703P	2791 04711P	2796 04716P
			2808 04732P					
MVEXIT	04724P	2802	2806 04730P	2809 04733P				
MVOK	04655P	2761	2756 04651P					
MWRITE	06041P	3456	3450 06033P	3527 06142P				
NAME	00000	3790	264 00153P	285 00172P	287 00174P			
NAMESPOT	00007P	2123	2204 03534P	2207 03537P	2213 03545P	2219 03553P		
NBATCQ	00611P	513	342 00255P	2852 05002P	2905 05057P	2933 05110P	3194 05502P	
NBATPSA	00606P	511	670 01202P	3024 05224P				
NBCH	05460P	3169	3080 05332P					
NBIT21	00675P	558	1513 02462P					
NBIT22	00676P	559	2632 04466P	2640 04476P				
NBIT2322	00677P	560	677 01207P	874 01417P				
NDMOV	05563P	3243	2793 04713P					
NEWNEXT	04514P	2654	2603 04431P	2657 04517P	2662 04524P			
NEWSC	06135P	3522	3506 06120P					
NEXT	01634P	1049	716 01253P	748 01265P	770 01302P	1040 01624P	1058 01642P	1060 01644P
			1061 01645P	1281 02163P	1300 02203P	1389 02323P	2100 03376P	2112 03411P
			2128+2 03421P	2415 04144P	2500 04242P	2576 04374P	2659 04521P	2671 04535P
			2803 04725P	2818 04743P	2929 05107P	2999 05207P	3007 05215P	3042 05246P
			3048 05254P	3231 05547P	3241 05561P	3266 05575P	3362 05706P	3487 06077P
NEXT01	01621P	1036	1054 01640P					
NEXT10	01634P	1048	1022 01603P	1023 01604P	1028 01611P	1055 01641P		
NEXT20	01635P	1050	1041 01625P	1045 01631P				
NEXTLINE	06101P	3491	3508 06122P					
NEXTOP	01757P	1131	1146 01775P	1150 02000P				
NEXTOP01	01760P	1132	1169 02016P					
NJM	00011	27	28 04241P					
NLIST	04550P	2685	2670 04534P	2677 04542P	2802 04724P	2804 04726P		
NOCR	06123P	3509	3494 06104P					
NOSEND	06127P	3515	3510 06124P					
NOJCL	04727P	2805	2797 04717P					
NOTFLASH	01305P	780	767 01301P					
NOTFND	05772P	3417	3384 05733P	3390 05741P	3394 05745P	3403 05756P	3405 05760P	
NSTATGET	01520P	951	839 01362P	3314 05640P				
NU	00035	59	853 01377P	2220 03554P				
NUMUSERS	00012P	2124	2224 03560P	2225 03561P	2229 03565P			
NXISCRN	06100P	3489	3467 06054P					
OBUF	10000P	3782	943 01512P	945 01514P	947 01516P	3306 05633P	3337 05663P	3340 05666P
OFLOOP	05716P	3370	3377 05725P					
OKWORD	05643P	3317	3309 05635P					
ONLYONCE	01642P	1057	1047 01633P					
OUTA02	03026P	1865	1877 03041P					
OUTA04	03062P	1894	1916 03105P					

ITABLEL	00014	435	2263	03623P										
TVCB	00036	37	3493	06103P										
TVLINEL	00062	34	1297	02200P	1322	02230P	2093	03371P	2449	04205P	2651	04511P		
TVSEND	00037	36	426	00416P	3466	06053P	3509	06123P						
UDBITS	00523P	476	327	00237P	1369	02277P								
UDIGET	06471P	3771	3435	06014P	3545	06160P								
UGATH10	05670P	3342	3338	05664P										
UGATH20	05677P	3351	3335	05661P										
UNEQUIP	00002	19	169	00036P	192	00056P	195	00060P	277	00164P	1500	02450P	1906	03075P
			3322	05651P	3345	05672P	3421	05776P	3481	06071P	3558	06175P		
UNGATHER	05657P	3332	611	01037P										
UPC	03226P	1992	600	01001P										
UPDATEPT	04721P	2799	2811	04735P										
URBEXIT	00021	51	52	04241P										
URBEXITA	00020	50	51	04241P										
URBLOK	00545P	488	1588	02554P										
URBLOKI	00550P	490	1634	02620P										
URBLOKIZ	00553P	492	1644	02630P										
US00	02156P	1276	1388	02322P										
US01	02157P	1277	1348	02250P	1352	02254P	1355	02257P	1360	02266P	1383	02315P	1387	02321P
US01XX	02161P	1279	1274	02155P										
US02	02250P	1347	1279	02161P										
US04	01211P	679	683	01215P										
US06	01227P	694	709	01245P										
US07	01235P	701	687	01221P										
USEBIT	00701P	564	918	01465P										
USEIOBND	03333P	2060	2052	03323P	2055	03326P								
USERLIST	02153P	1271	605	01020P	1280	02162P								
USERMAX	00633P	525	1273	02154P	2007	03242P								
USERMES	03750P	2353	2354	03752P	2228	03564P	2065	03335P	2884	05034P				
USERMESL	00005	2354	2227	03563P	2228	03564P								
UTAPEMAX	00526P	478	1374	02304P	2022	03261P	2042	03305P	3097	05352P	3115	05373P		
UTAPES1	03310P	2043+2	2043+9	03314P	2043+13	03316P								
UTAPES2	03313P	2043+7	2032+1	03274P										
UTAPES3	03315P	2043+11	2034+1	03276P										
UTAPESC	03230P	1996	601	01004P										
VALCODE	00751P	586	3754	06452P										
VALUE	00002	3791	256	00144P	290	00177P	1127	01754P						
VML00	01404P	862	938	01506P										
VML03	01453P	906	898	01444P										
VML05	01426P	881	871	01414P										
VML06	01463P	919	904	01452P	911	01457P								
VML10	01467P	920	897	01443P	902	01450P								
VML20	01506P	937	859	01403P										
VML30	01517P	948	941	01510P										
VMLASTA	01467P	921	890	01436P	925	01472P								
VML00P	01441P	894	922	01470P										
VMM	00446P	445	896	01442P										
VMSIZ	00040	23	889	01435P	926	01473P								
WAIT	00026	14	809	01333P										
* WAITLOOP	01274P	760												
WAITSV	01267P	751	811	01335P	824	01350P	967	01532P						
WFM	00002	45	3343	05670P	3468	06055P								
WORDD02	03607P	2250	2239	03574P										
WORDDUMP	03573P	2237	2264	03624P										
WORDSPOT	00045P	2125	2234	03570P										
WRITEOUT	01271P	756	717	01254P	720+6	01263P	1012	01575P	1302	02205P	1328	02234P	1827+7	03025P
			2101	03377P	2113	03412P	2267	03626P	2329	03716P	2438	04172P	2468	04227P
			2570	04366P	2577	04375P	2593	04417P	2660	04522P	2672	04536P	2683	04547P
			2712	04577P	2819	04744P	3000	05210P	3008	05216P	3043	05247P	3049	05255P
			3232	05550P	3242	05562P	3267	05576P	3423	06000P	3566	06205P	3675	06346P
			3706	06372P	3733	06422P								
X1	00001	9	146	00010P	148	00012P	169	00036P	170+2	00041P	170+4	00043P	173	00044P
			182	00050P	192	00056P	195	00060P	197	00062P	209	00074P	211	00076P
			227	00113P	229	00115P	230	00116P	237	00124P	241	00126P	244	00131P
			250	00136P	251	00137P	259	00146P	260	00147P	277	00164P	283	00170P
			285	00172P	287	00174P	290	00177P	297	00204P	299	00206P	304	00213P
			305	00214P	306	00215P	336	00247P	338	00251P	339	00252P	353	00266P
			454	00462P	496	00561P	501	00567P	521	00625P	535	00645P	639	01144P
			645	01152P	648	01155P	650	01157P	661	01171P	664	01174P	667	01177P
			670	01202P	681	01213P	682	01214P	690	01224P	691	01225P	698	01233P
			702	01236P	706	01242P	707	01243P	711	01246P	712	01247P	713	01250P
			714	01251P	720+3	01260P	761	01274P	763	01276P	764	01277P	809	01333P
			840	01363P	842	01365P	845	01370P	851	01376P	854	01400P	855	01401P
			869	01412P	807	01433P	928	01475P	933	01502P	934	01503P	940	01507P
			942	01511P	947	01516P	949	01517P	961	01525P	962	01526P	964	01530P
			965	01531P	975	01540P	985	01551P	997	01562P	1020	01601P	1024	01605P
			1025	01606P	1030	01613P	1034	01617P	1049	01634P	1052	01637P	1058	01642P
			1082	01660P	1084	01662P	1085	01663P	1099	01721P	1103	01725P	1105	01727P

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261 00150P
370 00306P
515 00614P
678 01210P
720+4 01261P
875 01420P
903 01451P
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1469 02420P
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2142 03437P

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2362+3 03755P
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802 01326P
876 01421P
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938 01506P
1236 02112P
1367 02275P
1475 02425P
1743 02720P
1827+5 03023P
2066 03336P
2103 03400P
2143 03440P

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1166 02013P
1201 02050P
1245 02122P
1297 02200P
1319 02225P
1365 02273P
1386 02320P
1425 02352P
1453 02402P
1491 02442P
1516 02465P
1564 02527P
1600 02566P
1668 02636P
1723 02701P
1746 02723P
1773 02743P
1827+3 03022P
1906 03075P
1954 03167P
2043+12 03315P
2092 03370P
2227 03563P
2256 03614P
2305 03671P
2381+16 04027P
2409 04136P
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