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DECUS NO.	FOCAL8-135
TITLE	MODV-CHOICE
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COMPANY	Digital Equipment Corporation Parsippany, New Jersey
DATE	October 21, 1970
SOURCE LANGUAGE	PALD and FOCAL

MODV

For Use With 8K FOCAL '69

(DEC-Ø8-AJAE-PB)

General Information

The one binary tape that is supplied contains facilities for generating either one of two versions as specified below.

1. General - Software protects the upper page (76ØØ-7777) of field one.
2. N.B.L. - Does not software protect the last page (76ØØ-7777) of field one.

Both versions perform identically with the exception of the above feature.

What MODV does

Automatically stores variables in field one along with the text which is normally stored there under 8K FOCAL.

There is no user function necessary like there was with FNEW FOR DATA ARRAYS.

Note: An additional feature that I've added along with the variable storage is to suppress echo on input from keyboard or low speed reader.

Input Buffer overflow seems to be a common place on lo speed input. One method of solution is to suppress the echo on input.

In order to suppress echo - set bit Ø of switch register to a 1

In order to echo input characters set bit Ø of switch register to a Ø.

This does not restrict use of High Speed Reader input.

Loading Procedure

MODV is used as an overlay just like the 8K and 4 word overlays.

Loading Procedure (Con't.)

1. Load 4K FOCAL + Init.
2. Do Initial Dialogue.
3. Load 8K Focal Overlay.
4. Load MODV overlay.
5. Start at 2000.
6. Respond to Dialogue.

A good procedure with the above is to use the Binary Loader in Field 1.

To save on Disc with Disc Monitor.

1. Build Disc Monitor.
2. Binary loader in Field 1 for Loading FOCAL and Overlays.
3. Load 4K FOCAL & Init using Binary Loader.
4. Do Initial Dialogue.
5. Load 8K Overlay.
6. Load MODV overlay.
7. Load Address 0200 and start.
8. Respond to MODV Dialogue.
9. In response to Asterisk, answer L }
10. What you get is
 - (a) 0100 (Field 1)
 - (b) 0126 (Field 1)
 - (c) See Note 1 (Field 1)
 - (d) ----- (Field 0)

Differences Peculiar to MODV

1. If you ask for a symbol or variable Dump (Type \$ \) , you will get the dump in a descending order; last variable entered will be typed out first.
2. Error Code for "Storage is filled by variables" is changed to ?13.:6 from ?06.54.
3. Erase and erase ALL functions are SEPARATE.
 - a. Erase - Erases Variables Only.
 - b. Erase All - Erases Text Only.

Programming Notes:

1. If there is a necessity to software protect more in field 1 than just the last page, the recommended procedure is to change location four in field 0 (commented as "Upper Variable Boundary w/N.B.L. vers.") to reflect the last location in field 1 not protected and then in the MODV dialogue answer NO to the question about software protection, thereby selecting the N.B.L. Version.
2. There are three places where one could put additional assembly language subroutines.
 - a. At the top of field 1, and protect it as stated in the above paragraph.
 - b. At the top of the Push down list in field 0. Modify location BOTTOM (*35) to reflect first location below subroutine. This is the method stated in the Advanced Focal Manual.
 - c. In field 0, immediately following the routines the author has added. This would be at location HDLR. The user would also have to modify location END (*134) to reflect the new end of subroutines (or lowest Loc. available for PDL).

4 Word Overlay

In order to use the 4 word overlay with MODV, the following steps must be taken.

1. Load binaries as stated under Loading Procedure with caution that MODV must be loaded last.
(Focal, 8K, 4 WD., MODV)

2. Toggle changes after everything is loaded

Location	Old Contents	New Contents
1464	1120	1271
1470	7000	7410
1471	7000	7772 (-6)

3. Start at Location 200 and Answer Dialogue.

AVF:mc

```

/          *****
/          *      M O D V      *
/          *      C H O I C E  *
/          *****
/
/
/ MODIFICATIONS TO FOCAL '69 TO ENABLE
/ VARIABLES AND TEXT TO RESIDE IN
/ THE UPPER 4K.
/ APRIL 30, 1970          - ARNOLD V. FISH
/ DIGITAL EQUIPMENT CORPORATION
/
/ COMBINED VERS. - ALLOWS CHOICE OF PROTECTING OR
/                   NOT PROTECTING LAST PAGE OF FIELD 1
/
/
ADDR=40
FLT XR2=15
FLT XR=14
CNTR=57
M5=120
PT1=30
DXRT=172
BUFR=60
ERROR3=4566
DPT1=171
PD2=534
XRT=11
PLLXR=13
T2=71
P7600=104
/
/
*4
0004  7775  N7775,  7775  / UPPER VARIABLE BOUNDARY W/N.B.L. VERS.
*5
0005  7765  P13,    -13   / SAFETY MARGIN FOR STACK CROSSOVERS
*31
0031  7600  LASTV,  7600  / LOC. OF NEXT VAR. TO BE STORED.
*134
0134  3374  END,    HDLF   / LOWEST LOC. AVAILABLE FOR PDL
*175
0175  6311  TPT1,  PT1T   / ROUT. TO STORE 1 WD. IN FLD 1 VIA PT1.
*200
0200  6212          CIF 10 / JMP TO MODV DIALOGUE
0201  5602          JMP I .+1
0202  3200          START  / FLD. 1 START
*515
0515  1134          TAD END
*545
0545  4746          JMS I .+1      / CHECK WHICH FIELD
0546  3271          PFCK
0547  0534          PD2
0550  7000          NOP          / DUMMY
*1440
1440  1031          TAD LASTV
*1443
1443  7041          CIA          / CHECK FOR END OF
1444  1104          TAD P7600   / VARIABLE STACK.

```


1445	7650		SNA CLA	
		*1447		
1447	4571		JMS I DPT1	
		*1461		
1461	5662	GS2,	JMP I .+1	
1462	3345		NEC1	
1463	1031		TAD LASTV	/ SFT PT1 PTR. BACK
1464	1120		TAD M5	/ 5 LOC. FOR
1465	3031		DCA LASTV	/ VARIABLE STORAGE.
1466	1031		TAD LASTV	
1467	3030		DCA PT1	
1470	7000		NOP	
1471	7000		NOP	
		*1473		
1473	4575		JMS I TPT1	
		*1476		
1476	4575		JMS I TPT1	
		*1507		
1507	4572		JMS I DXRT	
		*1553		
1553	5762	XRAN,	JMP I 1562	/ TO CLEAR FLAC
		*1560		
1560	5761		JMP I 1561	/ TO DO DELETED INSTR.
		*1561		
1561	3364		LEAV	/ COMPLETE ROUT. AND RESTORE ENTRY
1562	3355		ENT	/ CLEAR FLAC AND RESTORE
				/ ENTRY FUNCTION (FINT)
		*2163		
2163	5764		JMP I .+1	/ GO TO ECHO CHKING ROUT.
2164	3330		ECHO	
		*2237		
2237	1104	ERVX,	TAD P7600	/ ERASE FUNCT. - (ALL VARS.)
2240	3031		DCA LASTV	/ RESET VAR. PTR. TO START.
		*2205		
2205	5237		JMP ERVX	/ EXECUTE E FUNCT.
		*2543		
2543	1031		TAD LASTV	/ CHECK FOR VAR. OVERFLOW
2544	1005		TAD P13	
2545	7141		CIA CLL	
		*3052		
3052	1031	TDUMP,	TAD LASTV	/ SET PTR. FOR VAR. DUMP
		*3054		
3054	1104		TAD P7600	/ CHK. FOR LAST VAR.
		*3061		
3061	4571		JMS I DPT1	
		*3075		
3075	4571		JMS I DPT1	
		*3140		
3140	0000	CHKPT1,	0	/ CHK. FLOAT PT. PACKAGE
3141	2340		ISZ CHKPT1	
3142	1761		TAD I N6400	/ NON FLD. 1 STORAGE
3143	3363		DCA TEMP	
3144	1763		TAD I TEMP	
3145	0362		AND N777	
3146	1364		TAD M430	/ IS THE FLT. PT. CALL
3147	7640		SZA CLA	/ AN 'I PT1' ?
3150	5356		JMP OUT	/ NO
3151	1765		TAD I N30	/ YES - CHK CONTENTS OF PT1
3152	1366		TAD M2030	/ IS IT A FLD 1
3153	7650		SNA CLA	/ VARIABLE CALL ?

3154	5356		JMP OUT	/ NO
3155	2367		ISZ VARFLG	/ YES - SET FLD 1 VAR. FLG
3156	1440	OU1,	TAD I ADDR	/ STORE AS NORMAL
3157	3040		DCA ADDR	
3160	5740		JMP I CHKPT1	/ RETURN
3161	6400	N6400,	6400	
3162	0777	N777,	777	
3163	0000	TEMP,	0	
3164	7350	M430,	-430	
3165	0030	N30,	30	
3166	5750	M2030,	-2030	
3167	0000	VARFLG,	0	/ FLD 1 VAR. FLG
			*3200	
3200	0000	GETR,	0	
3201	2200		ISZ GETR	
3202	1622		TAD I VRFLG	
3203	7650		SNA CLA	/ IS IT A FLD 1 GET ?
3204	5214		JMP RET	/ NO
3205	6211	FD1,	CDF 10	/ CHG TO FLD 1
3206	1415		TAD I FLT XR2	/ GET WORD1, 2, 3
3207	6201	FD0,	CDF	
3210	3414		DCA I FLT XR	/ TEMP STORE
3211	2057		ISZ CNTR	/ DONE 3 ?
3212	5205		JMP .-5	/ NO
3213	5220		JMP RET+4	/ YES
3214	1415	RET,	TAD I FLT XR2	/ NORMAL GET
3215	3414		DCA I FLT XR	
3216	2057		ISZ CNTR	/ DONE 3 ?
3217	5214		JMP .-3	
3220	3622		DCA I VRFLG	/ RESET FLD FLG TO 0
3221	5600		JMP I GETR	/ RETURN
3222	3167	VRFLG,	VARFLG	
3223	0000	GTPTR,	0	
3224	2223		ISZ GTPTR	
3225	1622		TAD I VRFLG	
3226	7650		SNA CLA	
3227	5246		JMP REGEXT	/ NON FLD 1 STORAGE
3230	1014		TAD FLT XR	/ DOES PTR. CONTAIN
3231	1270		TAD M43	/ ADDRESS OF FLAC, THEREFORE
3232	7640		SZA CLA	/ IS IT A 'GET' VAR. FROM FLD 1
3233	4253		JMS RXMEM	/ YES
3234	4262		JMS R2XMEM	/ NO
3235	6201	FLD1,	CDF	/ FLD 1 GET
3236	1414		TAD I FLT XR	/ OR PUT ROUTINE
3237	6201	FLD2,	CDF	
3240	3415		DCA I FLT XR2	
3241	6201		CDF 0	/ RESET FLD FOR EXIT
3242	2057		ISZ CNTR	/ DONE 3 ?
3243	5235		JMP .-6	
3244	3622		DCA I VRFLG	
3245	5623		JMP I GTPTR	
3246	1414	REGEXT,	TAD I FLT XR	/ NON FLD 1 VAR.
3247	3415		DCA I FLT XR2	
3250	2057		ISZ CNTR	/ DONE 3 ?
3251	5246		JMP .-3	
3252	5623		JMP I GTPTR	
3253	0000	RXMEM,	0	/ SET UP FLD 1 'GET'
3254	2253		ISZ RXMEM	
3255	1205		TAD FD1	/ GET A CDF 10
3256	3235		DCA FLD1	

3257	1207		TAD FD0	/ GET A CDF 0
3260	3237		DCA FLD2	
3261	5653		JMP I RXMEM	
3262	0000	R2XMEM,	0	/ SET UP FOR A FLD 1 'PUT'
3263	1205		TAD FD1	
3264	3237		DCA FLD2	
3265	1207		TAD FD0	
3266	3235		DCA FLD1	
3267	5662		JMP I R2XMEM	
3270	7735	M43,	-43	
3271	0000	PFCK,	0	/ CHK FOR VAR. STORAGE (WHICH FLD ?)
3272	2271		ISZ PFCK	
3273	1671		TAD I PFCK	/ GET 1ST ARG. (ADDRESS)
3274	3325		DCA TSTR	
3275	2271		ISZ PFCK	
3276	1725		TAD I TSTR	/ GET CONTENTS OF ARG. (ADDRESS)
3277	1324		TAD M1721	
3300	7640		SZA CLA / WAS THE JMS FROM LOC. 1720	
3301	5317		JMP LOMXIT	/ NO - THEREFORE FLD 0 RETRIEVAL
3302	1011		TAD XRT / YES - CHK OTHER CONDINTIONS	
3303	1326		TAD M2027	
3304	7650		SNA CLA / IS PTR TO LOCS. 2030-2032 ?	
3305	5317		JMP LOMXIT	/ YES - FLD 0 VAR.
3306	1011		TAD XRT / NO - CHK ANOTHER COND.	
3307	1327		TAD M2406	
3310	7650		SNA CLA	/ IS PTR TO LOCS. 2407-2411 ?
3311	5317		JMP LOMXIT	/ YES - FLD 0 VAR.
3312	4572		JMS I DXRT	/ NO - MUST BE FLD 1 RETRIEVAL.
3313	3413		DCA I PDLXR	
3314	2071		ISZ T2	/ DONE 3 ?
3315	5312		JMP .-3	
3316	5671		JMP I PFCK	/ EXIT
3317	1411	LOMXIT,	TAD I XRT	/ FLD 0 RETRIEVAL
3320	3413		DCA I PDLXR	
3321	2071		ISZ T2	/ DONE 3 ?
3322	5317		JMP LOMXIT	
3323	5671		JMP I PFCK	/ RETURN
3324	6057	M1721,	-1721	
3325	0000	TSTR,	0	
3326	5751	M2027,	-2027	
3327	5372	M2406,	-2406	
3330	3342	ECHO,	DCA SAVAC	/ AC(0)=1, SUPPRESSES ECHO
3331	7604		LAS	/ CHECK SW. REG. FOR BIT 0=1
3332	7004		RAL	
3333	7200		CLA	
3334	1342		TAD SAVAC	/ RESTORE AC
3335	7420		SNL	/ ECHO ?
3336	4743		JMS I OKEKO	/ YES
3337	1744		TAD I LCHIN	/ NO
3340	3342		DCA SAVAC	
3341	5742		JMP I SAVAC	
3342	0000	SAVAC,	0	
3343	2465	OKEKO,	2465	
3344	2155	LCHIN,	2155	
3345	1031	NEC1,	TAD LASTV	/ CHK FOR STORAGE OVERFLOW
3346	1005		TAD P13	/ 13 WORDS OR LESS
3347	7141		CIA CLL / BETWEEN TEXT AND	
3350	1060		TAD BUFR	/ VARIABLE BUFFERS.
3351	7630		SZL CLA	
3352	4566		ERRO	/ STORAGE WAS FILLED

/ BY VARIABLES - ?13.:6

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3353 5754          JMP I .+1
3354 1463          1463
/
/
/ ZEROES FLAC FOR FRAN()
3355 3044  ENT,    DCA 44
3356 3045          DCA 45
3357 3046          DCA 46
3360 1372          TAD N4407      / RESTORE THE FINT INSTR.
3361 3763          DCA I RST
3362 5763          JMP I RST      / EXECUTE IT.
3363 1553  RST,    1553
3364 3771  LEAV,   DCA I RN
3365 3044          DCA 44
3366 1373          TAD N5762      / RESTORE JMP TO ENTRY
3367 3763          DCA I RST      / FOR NEXT CALL.
3370 5536          JMP I 136      / JMP I EFUN3I
3371 1530  RN,     1530      / RANO
3372 4407  N4407,  4407
3373 5762  N5762,  5762
HDLR=.
*5065
5065 5367          JMP 5167
*5167
5167 1005          TAD P13      / MAKE A POS. 13
5170 7041          CIA
5171 5266          JMP 5066      / RETURN
*6311
6311 0000  PT1T,   0      / FLD 1 'PUT'
6312 6211          CDF 10      / USING PT1 SUBR.
6313 3430          DCA I PT1
6314 6201          CDF 0
6315 5711          JMP I PT1T
*6427
6427 4630          JMS I CKPT1   / CHK FOR FLD DESIGNATION
6430 3140  CKPT1,  CHKPT1
*6455
6455 4656          JMS I GET     / CHK FOR FLD DESIGNATION
6456 3200  GET,    GETR
6457 7410          SKP
6460 7402          HLT      / DUMMY
*6476
6476 4677          JMS I GTPT    / CHK FOR FLD DESIGNATION
6477 3223  GTPT,   GTPTR
6500 7410          SKP
6501 7402          HLT      / DUMMY
*7525
7525 6212          CIF 10     / FOCAL '69 CORRECTION
/ FOR FIELD 1 SAVES (TEXT)
FIELD 1
*104
0104 4015          4015    /SP    M
0105 1704          1704    /0     D
0106 2640          2640    /V     SP
0107 6455          6455    /4     -
0110 6360          6360    /3     0
0111 6760          6760    /7     0

```

CDF=6201
CIF=6202

```
*130
0130 0000 TYPE, 0
0131 6041 TSF
0132 5131 JMP .-1
0133 6046 TLS
0134 7200 CLA
0135 5530 JMP I TYPE
0136 0000 CRLF, 0
0137 1144 TAD CR
0140 4130 JMS TYPE
0141 1145 TAD LF
0142 4130 JMS TYPE
0143 5536 JMP I CRLF
0144 0215 CR, 215
0145 0212 LF, 212
0146 7701 M77, -77
0147 0077 P77, 77

*3200
3200 7300 START, CLA CLL
3201 6211 CDF 10 / SET DF TO PRESENT FLD
3202 6046 TLS / SET FLAG
3203 4136 JMS CRLF
3204 4136 JMS CRLF
3205 1377 TAD (MES1-1
3206 3010 DCA 10
3207 1410 TAD I 10
3210 4336 JMS UNPAC / " YOU ARE NOW USING 8K FOCAL
3211 5207 JMP .-2 / MODV VERSION 04-30-70. "
3212 4136 QUES, JMS CRLF
3213 4136 JMS CRLF
3214 1376 TAD (MES2-1
3215 3010 DCA 10
3216 1410 TAD I 10
3217 4336 JMS UNPAC / "DO YOU WANT TO SOFTWARE
3220 5216 JMP .-2 / PROTECT THE LAST PAGE "
3221 4136 JMS CRLF
3222 1375 TAD (MES3-1
3223 3010 DCA 10
3224 1410 TAD I 10
3225 4336 JMS UNPAC / "OF FIELD 1(7600-7777)
3226 5224 JMP .-2 / (ANS. Y OR N) ? "
3227 6031 KSF
3230 5227 JMP .-1 / WAIT FOR RESPONSE
3231 6036 KRB / READ CHAR.
3232 6046 TLS / ECHO IT.
3233 1302 TAD M331
3234 7450 SNA / IS IT A 'Y' ?
3235 5262 JMP EXIT1 / YES - GEN. VERS.
LEAVE CODE AS IS.
3236 1303 TAD N13 / NO
3237 7640 SZA CLA / IS IT AN 'N' ?
3240 5212 JMP QUES / NO- REPEAT QUESTION.
3241 4136 JMS CRLF / YES - N.B.L. VERS.
3242 4304 JMS SWAP / CHANGE CODE FOR
3243 0030 30 / NON PROTECTED VERS.
3244 7777 -1
3245 3510 SW1-1
3246 4304 JMS SWAP
3247 1443 1443 / ADDR-1 OF CHG LOC.
0000 7777 -1 / END OF PROGRAM
```

3251	3511		SW2-1	/ ADDR-1 OF NEW CODE
3252	4304		JMS SWAP	
3253	2236		2236	
3254	7777		-1	
3255	3512		SW3-1	
3256	4304		JMS SWAP	
3257	3053		3053	
3260	7777		-1	
3261	3513		SW4-1	
3262	4304	EXIT1,	JMS SWAP	/ RESTORE FOCAL CODE
3263	0177		177	/ AT LOC. 200-202
3264	7775		-3	
3265	3514		SW5-1	
3266	4136		JMS CRLF	
3267	4136		JMS CRLF	
3270	1374		TAD (MES4-1	
3271	3010		DCA 10	
3272	1410		TAD I 10	
3273	4336		JMS UNPAC	/ " PROCEED "
3274	5272		JMP .-2	
3275	4136		JMS CRLF	
3276	4136		JMS CRLF	
3277	6203		CIF CDF 0	/ SET DF & IF TO 0
3300	5701		JMP I .+1	/ RESTART FOCAL
3301	0200		200	
3302	7447	M331,	-331	
3303	0013	N13,	13	
3304	0000	SWAP,	0	
3305	1704		TAD I SWAP	/ GET LOC-1 ADDR FOR CHG
3306	3010		DCA 10	
3307	2304		ISZ SWAP	
3310	1704		TAD I SWAP	/ GET NO. OF LOCS. TO CHG
3311	3325		DCA CNT	
3312	2304		ISZ SWAP	
3313	1704		TAD I SWAP	/ GET ADDR-1 OF CHG INFO
3314	3011		DCA 11	
3315	2304		ISZ SWAP	
3316	1411		TAD I 11	/ GET CHG.
3317	6201		CDF 0	
3320	3410		DCA I 10	/ MAKE CHG.
3321	6211		CDF 10	
3322	2325		ISZ CNT	/ ALL DONE ?
3323	5316		JMP .-5	/ NO
3324	5704		JMP I SWAP	/ YES - RETURN
3325	0000	CNT,	0	
3326	0000	EXIT,	0	
3327	1146		TAD M77	
3330	7440		SZA	/ IS IT MESSAGE TERMINATOR ?
3331	5334		JMP .+3	/ NO
3332	2336		ISZ UNPAC	/ YES
3333	5736		JMP I UNPAC	/ QUIT
3334	1147		TAD P77	/ RESTORE CODE
3335	5726		JMP I EXIT	/ RETURN
3336	0000	UNPAC,	0	/ UNPACK AND TYPE ROUTINE
3337	3356		DCA SAVE	
3340	1356		TAD SAVE	
3341	0357		AND N7700	
3342	7112		CLL RTR	
3343	7012		RTR	
3344	7012		RTR	

3345	4326		JMS EXIT
3346	1360		TAD P240
3347	4130		JMS TYPE
3350	1356		TAD SAVE
3351	0361		AND N0077
3352	4326		JMS EXIT
3353	1360		TAD P240
3354	4130		JMS TYPE
3355	5736		JMP I UNPAC
3356	0000	SAVE,	0
3357	7700	N7700,	7700
3360	0240	P240,	240
3361	0077	N0077,	0077
		/	
		/	
3374	3503		
3375	3460		
3376	3430		
3377	3377		

*3400
/
/
/

/ FOLLOWING MESSAGES ARE STORED
TWO CHARACTERS/WORD IN EXCESS
40 WITH MESSAGE TERMINATING
ON A 77.

3400	7157	MES1,	7157
3401	6500	6500	
3402	4162	4162	
3403	4500	4500	
3404	5657	5657	
3405	6700	6700	
3406	6563	6563	
3407	5156	5156	
3410	4700	4700	
3411	3053	3053	
3412	0046	0046	
3413	5743	5743	
3414	4154	4154	
3415	0055	0055	
3416	5744	5744	
3417	6600	6600	
3420	6645	6645	
3421	6263	6263	
3422	5157	5157	
3423	5600	5600	
3424	2024	2024	/0 4
3425	1523	1523	/- 3
3426	2015	2015	/0 -
3427	2720	2720	/7 0
3430	1677	1677	/.
3431	0044	MES2,	0044
3432	5700	5700	
3433	7157	7157	
3434	6500	6500	
3435	6741	6741	
3436	5664	5664	
3437	0064	0064	
3440	5700	5700	
3441	6357	6357	
3442	4664	4664	
3443	6741	6741	

3445	0060	0060	
3446	6257	6257	
3447	6445	6445	
3450	4364	4364	
3451	0064	0064	
3452	5045	5045	
3453	0054	0054	
3454	4163	4163	
3455	6400	6400	
3456	6041	6041	
3457	4745	4745	
3460	7700	7700	
3461	5746	MES3,	5746
3462	0046	0046	
3463	5145	5145	
3464	5444	5444	
3465	0021	0021	
3466	0010	0010	
3467	2726	2726	
3470	2020	2020	
3471	1527	1527	
3472	2727	2727	
3473	2711	2711	
3474	1041	1041	
3475	5663	5663	
3476	1600	1600	
3477	7100	7100	
3500	5762	5762	
3501	0056	0056	
3502	1137	1137	
3503	0077	0077	
3504	6062	MES4,	6062
3505	5743	5743	
3506	4545	4545	
3507	4416	4416	
3510	7700	7700	
3511	7775	SW1,	7775
3512	1004	SW2,	1004
3513	1004	SW3,	1004
3514	1004	SW4,	1004
3515	5576	SW5,	5576
3516	7000		7000
3517	3022		3022

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FOLLOWING CODE IS TO RETURN
BINARY LOADER TO DF=0 FOR
ANY ADDITIONAL OVERLAYS,
IF NECESSARY.

FIELD 0
*0

0000 0000 0000

ADDR 0040
BUFR 0060
CHKPT1 3140
CKPT1 6430
CNT 3325
CNTR 0057

CR	0144
CRLF	0136
DPT1	0171
DXRT	0172
ECHO	3330
END	0134
ENT	3355
ERROR3	4566
ERVX	2237
EXIT	3326
EXIT1	3262
FD0	3207
FD1	3205
FLD1	3235
FLD2	3237
FLTXR	0014
FLTXR2	0015
GET	6456
GETR	3200
GS2	1461
GTPT	6477
GPTR	3223
HDLR	3374
LASTV	0031
LCHIN	3344
LEAV	3364
LF	0145
LOMXIT	3317
MES1	3400
MES2	3431
MES3	3461
MES4	3504
M1721	3324
M2027	3326
M2030	3166
M2406	3327
M331	3302
M43	3270
M430	3164
M5	0120
M77	0146
NEC1	3345
N0077	3361
N13	3303
N30	3165
N4407	3372
N5762	3373
N6400	3161
N7700	3357
N777	3162
N7775	0004
OKEKO	3343
OUT	3156
PDLXR	0013
PD2	0534
PFCK	3271
PT1	0030
PT1T	6311
P13	0005
P240	3360

P7600	0104
P77	0147
QUES	3212
REGEXT	3246
RET	3214
RN	3371
RST	3363
RXMEM	3253
R2XMEM	3262
SAVAC	3342
SAVE	3356
START	3200
SWAP	3304
SW1	3511
SW2	3512
SW3	3513
SW4	3514
SW5	3515
TDUMP	3052
TEMP	3163
TPT1	0175
TSTR	3325
TYPE	0130
T2	0071
UNPAC	3336
VARFLG	3167
VRFLG	3222
XRAN	1553
XRT	0011