



DECUS

PROGRAM LIBRARY

DECUS NO.	8-315
TITLE	BLOCK-MODIFY
AUTHOR	Rudi Stange
COMPANY	Digital Equipment GmbH. Munich, Germany
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SOURCE LANGUAGE	PAL-D



This program allows examination and modification of specified Disk (DECtape) block contents. Input and Output is compact and space saving.

BLOCK-MODIFICATION-PROGRAM

Write-up: Example

```
.BLKM
BLOCK:270
6000 7040 6003 3314 7001 1200 3316 7326
1316 3202 1175 0277 7440 5300 1174 3171
1571 0377 1375 3335 1571 2171 7510 5317
2171 7600 1571 7040 7640 5220 1175 7006
0277 7650 5266 2171 4716 0215 0212 0252
0317 0320 0324 0255 0000 6031 5255 6036
6046 3571 1571 1275 7650 5631 5577 3315
1340 7440 5326 1213 5600 7575 0077 0200
7040 0175 3175 1172 3313 2174 2174 1314
3316 4774 1003 0000 5400 3200 6001 0276
7041 3204 1276 3315 3313 1376 3336 1204
3203 1314 1231 3337 4602 0003 0000 0000
0000 5600 1231 3201 1737 0315 1203 7650
5371 2337 2313 2201 5344 1315 7040 7500
5267 3315 1203 7106 7006 7006 0315 3203
5331 1313 3571 5230 7642 0003 0200 0700
```

BLOCK 270
PRINT OUT
LOC. 0-177

EACH LINE GOES FROM
FROM 0-7 STARTING
WITH 0, 10, 20, ..., 170.

CHANGE?Y

0=1234; 1=1; 0002=22; 3=3

4=0; 5=0

6=0

/MODIFICATION REQUEST ANSWERED WITH YES
/MODIFICATIONS ARE SPECIFIED

W

/WRITE IS SPECIFIED TO WRITE OUT MODIFICATIONS

BLOCK:270

/CHECK IF MODIFICATIONS ARE EXECUTED

```
1234 0001 0022 0003 0000 0000 0000 7326 /OK
1316 3202 1175 0277 7440 5300 1174 3171
1571 0377 1375 3335 1571 2171 7510 5317
2171 7600 1571 7040 7640 5220 1175 7006
0277 7650 5266 2171 4716 0215 0212 0252
0317 0320 0324 0255 0000 6031 5255 6036
6046 3571 1571 1275 7650 5631 5577 3315
1340 7440 5326 1213 5600 7575 0077 0200
7040 0175 3175 1172 3313 2174 2174 1314
3316 4774 1003 0000 5400 3200 6001 0276
7041 3204 1276
```

/↑ P WAS GIVEN HERE

CHANGE?N

/MOD. REQUEST IS ANSWERED WITH NO

BLOCK:312

/ANOTHER BLOCK IS SPECIFIED

```
2324 0122 2454 7711 0314 0140 0314 1477
1577 1261 1477 1577 1277 1124 1423 7715
7712 7711 1401 2377 1577 1277 1104 0301
4016 2515 7715 7712 7711
```

/↑ C WAS GIVEN HERE

/TYPES OUT CONTENTS OF SPECIFIED BLOCK OF
/DISK MONITOR. TERMINATE BLOCK NO. WITH CR
/ ↑ P WILL SKIP TO WRITE THIS BLOCK OUT
/AFTER CHANGES MADE (IF ANY). ↑ C ANY TIME RETURNS
/TO MONITOR. ANSWER CHANGE? WITH Y (YES) OR N (NO)
/IF NO, NEXT BLOCK WILL BE TYPED OUT. IF YES,
/GIVE BLOCK LOC REL TO ZERO, AN EQUAL SIGN,
/THE NEW CONTENT IN OCTAL AND CR OR SEMICOLON
/WHEN ALL CHANGES ARE MADE TYPE W(WRITE) TO
/WRITE THE BLOCK OUT. RUBOUT REPEATS FROM LAST
/CR OR SEMICOLON.

*200

0200	6032		KCC	
0201	6046		TL5	
0202	4777	START,	JMS I (BEG	
0203	4334		JMS ASK	
0204	0303		303	/C
0205	0310		310	/H
0206	0301		301	/A
0207	0316		316	/N
0210	0307		307	/G
0211	0305		305	/E
0212	0277		277	/?
0213	0000		0	/END
0214	4776		JMS I (LISN	/GET ANSWER
0215	4260		JMS TEST1	
0216	1343		TAD TEM1	
0217	3344	ON3,	DCA LOC	/GET ADDRESS
0220	4776		JMS I (LISN	/OF LOC IN BLOCK
0221	4260		JMS TEST1	/REL TO ZERO
0222	1344		TAD LOC	
0223	7104		RAL CLL	
0224	7006		RTL	
0225	1343		TAD TEM1	
0226	5217		JMP ON3	
0227	4776	ON4,	JMS I (LISN	/GET NEW CONTENT
0230	4260		JMS TEST1	/FOR THAT ADDRESS
0231	1343		TAD TEM1	
0232	3744	ON5,	DCA I LOC	
0233	4776		JMS I (LISN	
0234	4260		JMS TEST1	
0235	1744		TAD I LOC	
0236	7104		RAL CLL	
0237	7006		RTL	
0240	1343		TAD TEM1	
0241	5232		JMP ON5	
0242	5214		JMP ON3-3	

0243	7600	WRITE,	7600	/CLA GROUPE 2
0244	1775		TAD I (BLOCK	/ASSEMBLE
0245	3253		DCA BLKW	/BLOCK# ETC.
0246	3254		DCA COREW	
0247	1774		TAD I (CORE+I	
0250	3255		DCA COREW+I	
0251	4773		JMS I (7642	/WRITE THE
0252	0005		5	/BLOCK OUT
0253	7402	BLKW,	HLT	
0254	0400	COREW,	400	
0255	0000		0	/LINK
0256	7402		HLT	/ERROR
0257	5202		JMP START	
0260	7402	TESTI,	HLT	
0261	3343		DCA TEMI	
0262	1343		TAD TEMI	
0263	1372		TAD (-203	/↑ C ?
0264	7650		SNA CLA	
0265	5643		JMP I WRITE	
0266	1343		TAD TEMI	
0267	4771		JMS I (TYPE	
0270	1343		TAD TEMI	
0271	1370		TAD (-331	/Y ?
0272	7650		SNA CLA	
0273	5330		JMP YES	
0274	1343		TAD TEMI	
0275	1367		TAD (-316	/N ?
0276	7650		SNA CLA	
0277	5332		JMP NO	
0300	1343		TAD TEMI	
0301	1366		TAD (-327	/W ?
0302	7650		SNA CLA	
0303	5243		JMP WRITE	
0304	1343		TAD TEMI	
0305	1365		TAD (-377	/RUBOUT ?
0306	7650		SNA CLA	
0307	5330		JMP YES	
0310	1343		TAD TEMI	
0311	1364		TAD (-275	/= ?
0312	7650		SNA CLA	
0313	5227		JMP ON4	
0314	1343		TAD TEMI	
0315	1363		TAD (-215	/CR ?
0316	7650		SNA CLA	
0317	5330		JMP YES	
0320	1343		TAD TEMI	
0321	1362		TAD (-273	/; ?
0322	7650		SNA CLA	
0323	5214		JMP ON3-3	

0324	1343		TAD TEM1	
0325	0361		AND (7	
0326	3343		DCA TEM1	
0327	5660		JMP I TEST1	
0330	4760	YES,	JMS I (CRLF	/MAKE THE CHANGE
0331	5214		JMP ON3-3	
0332	4760	NO,	JMS I (CRLF	/NO CHANGE
0333	5202		JMP START	/TYPE OUT NEXT BLOCK SPECIFIED
0334	7402	ASK,	HLT	/TYPE QUESTION
0335	1734		TAD I ASK	
0336	2334		ISZ ASK	
0337	7450		SNA	/END OF TYPEOUT ?
0340	5734		JMP I ASK	/YES
0341	4771		JMS I (TYPE	
0342	5335		JMP ASK+1	/NO, GO ON
0343	7402	TEM1,	HLT	
0344	7402	LOC,	HLT	
0360	0507			
0361	0007			
0362	7505			
0363	7563			
0364	7503			
0365	7401			
0366	7451			
0367	7462			
0370	7447			
0371	0522			
0372	7575			
0373	7642			
0374	0436			
0375	0434			
0376	0515			
0377	0400			
		*400		
0400	7402	BEG,	HLT	
0401	3235		DCA CORE	
0402	3234		DCA BLOCK	
0403	1377		TAD (-10	
0404	3355		DCA LINE	
0405	4307		JMS CRLF	
0406	4776		JMS I (ASK	
0407	0302		302	/B
0410	0314		314	/L
0411	0321		321	/O
0412	0303		303	/C
0413	0313		313	/K

0414	0272		272	/:
0415	0000		0	/END OF MESSAGE
0416	4315	GET,	JMS LISN	/GET BLOCK NO.
0417	4330		JMS TEST	/↑C RUBOUT, CR ?
0420	1357		TAD TEMP	
0421	3234	ON2,	DCA BLOCK	
0422	4315		JMS LISN	
0423	4330		JMS TEST	
0424	1234		TAD BLOCK	
0425	7104		RAL CLL	
0426	7006		RTL	/ASSEMBLE BLK. NO.
0427	1357		TAD TEMP	
0430	5221		JMP ON2	
0431	4307	ON1,	JMS CRLF	/CR HAS TERMINATED
0432	4760		JMS I SYSIO	/READ BLOCK
0433	0003		3	
0434	0000	BLOCK,	0	
0435	0000	CORE,	00	
0436	7402		HLT	/LINK
0437	7402		HLT	/ERR RETURN
0440	1635		TAD I CORE	/GET FIRST WORD
0441	2235		ISZ CORE	
0442	7104		RAL CLL	
0443	7004	PRINT,	RAL	/DISASSEMBLE FOR PRINT
0444	7006		RTL	
0445	3357		DCA TEMP	
0446	1357		TAD TEMP	
0447	0375		AND (7	
0450	1374		TAD (260	/1 CHARACTER READY TO PRINT
0451	4322		JMS TYPE	
0452	1357		TAD TEMP	
0453	2354		ISZ DIGIT	
0454	5243		JMP PRINT	/PRINT NEXT CHARACTER
0455	7300		CLA CLL	
0456	1373		TAD (240	/AFTER ONE LOCATION
0457	4322		JMS TYPE	/PRINT SPACE
0460	1372		TAD (-4	
0461	3354		DCA DIGIT	
0462	6031		KSF	/ASK FOR ↑C
0463	5273		JMP ON	
0464	6036		KRB	
0465	1371		TAD (-203	/↑C ?
0466	7450		SNA	
0467	5726		JMP I MONRET	/YES
0470	1370		TAD (-15	/↑P ?
0471	7650		SNA CLA	
0472	5305		JMP OFF	

0473	2355	ON,	ISZ LINE	/NO, GO ON
0474	5240		JMP PRINT-3	
0475	1377		TAD (-10	
0476	3355		DCA LINE	/10 LOC PER LINE
0477	4307		JMS CRLF	
0500	2356		ISZ END	
0501	5240		JMP PRINT-3	
0502	1367		TAD (-20	
0503	3356		DCA END	/20 LINES PER BLOCK
0504	5600		JMP I BEG	
0505	4307	OFF,	JMS CRLF	
0506	5600		JMP I BEG	
0507	7402	CRLF,	HLT	
0510	1366		TAD (215	
0511	4322		JMS TYPE	
0512	1365		TAD (212	
0513	4322		JMS TYPE	
0514	5707		JMP I CRLF	
0515	7402	LISN,	HLT	
0516	6031		KSF	
0517	5316		JMP .-1	
0520	6036		KRB	
0521	5715		JMP I LISN	
0522	7402	TYPE,	HLT	
0523	6041		TSF	
0524	5323		JMP .-1	
0525	6046		TLS	
0526	7600	MONRET,	7600	/CLA GROUPE 2
0527	5722		JMP I TYPE	
0530	7402	TEST,	HLT	
0531	3357		DCA TEMP	
0532	1357		TAD TEMP	
0533	1371		TAD (-203	/TC ?
0534	7650		SNA CLA	
0535	5726		JMP I MONRET	
0536	1357		TAD TEMP	
0537	1364		TAD (-377	/RUBOUT ?
0540	7650		SNA CLA	
0541	5600		JMP I BEG	

0542	1357	TAD TEMP	
0543	1363	TAD (-215	
0544	7650	SNA CLA	/CR ?
0545	5231	JMP ONI	
0546	1357	TAD TEMP	
0547	4322	JMS TYPE	/ECHO CHARACTER
0550	1357	TAD TEMP	
0551	0375	AND (7)	/1 OCT. DIGIT ONLY
0552	3357	DCA TEMP	
0553	5730	JMP I TEST	

0554	7774	DIGIT,	-4
0555	7770	LINE,	-10
0556	7760	END,	-20
0557	7402	TEMP,	HLT
0560	7642	SYSIO,	7642

0563	7563
0564	7401
0565	0212
0566	0215
0567	7760
0570	7763
0571	7575
0572	7774
0573	0240
0574	0260
0575	0007
0576	0334
0577	7770

SYMBOL TABLE

ASK	0334
BEG	0400
BLKW	0253
BLOCK	0434
CORE	0435
COREW	0254
CRLF	0507
DIGIT	0554
END	0556
GET	0416
LINE	0555
LISN	0515
LOC	0344
MONRET	0526
NO	0332
OFF	0505
ON	0473
ON1	0431
ON2	0421
ON3	0217
ON4	0227
ON5	0232
PRINT	0443
START	0202
SYSIO	0560
TEMP	0557
TEM1	0343
TEST	0530
TEST1	0260
TYPE	0522
WRITE	0243
YES	0330

