

New DG OP/SYS Format with Cursor for Z-80 System

A new format of TV Storage Dump and keyboard program is included on the front end of this software system. You will notice the new wording of options 3 and 4, and that 5 and 6 are missing.

Pressing option 3 (octal program) will initially result in the familiar register display. However, subsequent operations are somewhat different.

Press the Space Bar. You will notice the page of octal bytes is one line shorter. The major difference is an arrow at the top left pointing to byte 000000 presently. This pointer indicates the byte where programming might take place if desired (since 000000 is in read only memory, no change is possible.) This pointer may be preset by entering the page (H) and byte (L) similar the H&L presetting operation of the older DG OP System's keyboard programming system. Try entering H070 and then L123. Notice where the pointer has now moved to. Since this is RAM area in a 16K or greater system, the observed byte may be changed by entering the desired data. e.g. 321 could be entered from the keyboard. Notice the bottom line "scratchpad effect." The actual data is not entered at the indicated address until after the final entry. Emergency abort may be done by pressing the "reset key" on the system prior to the final entry, with no affect on memory.

The cursor may be incrementally moved around the screen. The Digital Group keyboard with cursor control keys allows the user to move the pointer in the direction indicated by the cursor keys. Keyboards different from this one can move the pointer about if a control H, control J, control K, or control L is entered.

The system will return to the Op Sys by pressing an R or r on the keyboard. Option 4 (Hex Program) is similar to Option 3 except that the display is in Hex.

Command Summary

Space - New memory display page
H 000 (HH) - Preset page (octal or hex)
L 000 (HH) - Preset byte (octal or hex)
R - Return to Op Sys
H CTRL - Move pointer backward
J CTRL - Move pointer down
K CTRL - Move pointer up
L CTRL - Move pointer forward
000 (HH) - Insert (octal or hex)code at indicated byte

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003346 0100 *****
003346 0110 * POINTER OCTAL/HEX
003346 0120 * DUMP AND PROGRAM
003346 0130 *****
003346 0140 *
003346 0150 * REPLACES BYTES:
003346 0160 * 003340-004377
003346 0170 * 001233-001240
003346 0180 * MOVE BYTES FROM
003346 0190 * 005225... TO
003346 0200 * 005124...
003346 0210 *
003346 0220 *****
003346 061 000 002 0230 BEGIN LD SP,002000
003351 041 000 000 0240 LD HL,000000
003354 345 0250 PUSH HL
003355 315 250 001 0260 KEY CALL 001250 → KEYBOARD
003360 346 337 0270 AND 337
003362 127 0280 LD D,A
003363 376 200 0290 PTEST CP 200 *SPACE FOR NEW PAGE
003365 040 003 0300 JR NZ,PTST
003367 321 0310 POP DE *GET RID OF OLD HL
003370 030 114 0320 JR DCONV
003372 341 0330 RTEST POP HL
003373 376 322 0340 CP 322 *R RETURN TO OP SYS
003375 312 000 005 0350 JP 2,005000 - 003375
004000 376 310 0360 HTEST CP 310 *H
004002 040 005 0370 JR NZ,LTEST
004004 315 233 001 0380 CALL HROUT
004007 147 0390 LD H,A
004010 030 074 0400 JR DCONV
004012 376 314 0410 LTEST CP 314 *L
004014 240 005 0420 JR NZ,STST
004016 315 233 001 0430 CALL HROUT
004021 157 0440 LD L,A
004022 030 062 0450 JR DCONV
004024 376 214 0460 *RIGHT ARROW OR CONTROL L FOR SPACE RIGHT
004024 040 003 0470 STEST CP 214
004026 040 003 0480 JR NZ,BTEST
004030 043 0490 INC HL
004031 030 053 0500 JR DCONV
004033 376 210 0510 *LEFT ARROW OR CONTROL H FOR BACKSPACE
004033 040 003 0520 PTEST CP 210
004035 040 003 0530 JR NZ,UATEST
004037 053 0540 DEC HL
004040 030 044 0550 JR DCONV
004042 247 0560 UTEST AND A *CLEAR CARRY
004043 221 005 000 0570 LD DE,000006
004046 376 213 0580 * UP ARROW OR CONTROL K FOR LINE UP
004046 040 004 0590 CP 213
004050 055 122 0600 JR NZ,DTEST
004052 030 030 0610 SEC HL,DE
004054 030 020 0620 JR DCONV
004056 376 212 0630 * DOWN ARROW, LINE FEED, OR CONTROL J FOR LF
004056 040 074 0640 DTEST CP 212
004060 355 132 0650 JR NZ,NTEST
004062 030 020 0660 ADC HL,DE
004064 030 020 0670 JR DCONV

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004066	366	040	0680	NTST	OR	040	*RESTORE NUMBER
004070	365		0690		PUSH	AF	
004071	006	011	0700		LD	B,011	
004073	315	370	0710	SKIP	CALL	000370	-SPACE
004076	020	373	0720		DJNZ	SKIP	
004100	361		0730		POP	AF	
004101	315	251	0740		CALL	ASCIIS	
004104	167		0750		LD	(HL),A	
004105	043		0760		INC	HL	
004106	345		0770	DCONV	PUSH	HL	
004107	315	346	0780		CALL	000346	*ERASE TV
004112	321		0790		POP	DE	*GET HL INTO DE
004113	325		0800		PUSH	DE	*BACK TO NORMAL
004114	142		0810		LD	H,D	*POINTER ON DISPLAYED PAG
004115	173		0820		LD	A,E	
004116	376	132	0830	PAGE1	CP	132	
004120	060	004	0840		JR	NC,PAGE2	
004122	056	000	0850		LD	L,000	
004124	030	012	0860		JR	PSTART	
004126	376	264	0870	PAGE2	CP	264	
004130	060	004	0880		JR	NC,PAGE3	
004132	056	132	0890		LD	L,132	
004134	030	002	0900		JR	PSTART	
004136	056	264	0910	PAGE3	LD	L,264	
004140	134		0920	PSTART	LD	E,H	
004141	315	106	0930		CALL	002106	*CHARACTER - 37
004144	135		0940		LD	E,L	
004145	315	106	0950		CALL	002106	
004150	315	370	0960		CALL	000370	*SPACE
004153	315	370	0970		CALL	000370	*SPACE
004156	006	006	0980		LD	E,006	
004160	321		0990	BYTE	POP	DE	*PUT STACK HL IN DE
004161	345		1000		PUSH	HL	
004162	325		1010		PUSH	DE	
004163	355	122	1020		SBC	HL,DE	*SEE IF POINTER HERE?
004165	050	005	1030		JR	Z,POINTR	
004167	315	370	1040		CALL	000370	-SPACE
004172	030	005	1050		JR	CONTIN	
004174	076	232	1060	POINTR	LD	A,232	*ARROW
004176	315	372	1070		CALL	000372	-DTC
004201	321		1080	CONTIN	POP	DE	
004202	341		1090		POP	HL	
004203	325		1100		PUSH	DE	
004204	136		1110		LD	E,(HL)	
004205	315	106	1120		CALL	002106	*PRINT BYTE - 7
004210	043		1130		INC	HL	
004211	175		1140		LD	A,L	
004212	376	132	1150		CP	132	
004214	312	355	1160		JP	Z,KEY	
004217	376	264	1170		CP	264	
004221	312	355	1180		JP	Z,KEY	
004224	376	000	1190		CP	000	
004226	040	012	1200		JR	NZ,NBYTE	
004230	006	010	1210		LD	B,010	
004232	315	370	1220	SKIP?	CALL	000370	-SPACE
004235	020	373	1230		DJNZ	SKIP?	
004237	303	355	1240		JP	KEY	
004242	020	314	1250	NBYTE	DJNZ	BYTE	
004244	030	272	1260		JR	PSTART	
004246	315	250	1270	ASCII	CALL	001250	*KEYBOARD # ENTRY
004251	107		1280	ASCIIS	LD	B,A	

004252	072	247	001	1290	LD	A, (001247)	<i>OCTAL/HEX conversion</i>
004255	376	310		1300	HEXCK	CP	'H'
004257	170			1310		LD	A, B
004260	050	044		1320		JR	Z, HEX
004262	315	372	000	1330	OCTAL	CALL	000372 - <i>putc</i>
004265	170			1340		LD	A, B
004266	017			1350		RRCA	
004267	017			1360		RRCA	
004270	346	300		1370		AND	300
004272	117			1380		LD	C, A
004273	315	250	001	1390		CALL	001250 - <i>KEYBOARD</i>
004276	107			1400		LD	B, A
004277	315	372	000	1410		CALL	000372 - <i>putc</i>
004302	170			1420		LD	A, B
004303	007			1430		RLCA	
004304	007			1440		RLCA	
004305	007			1450		RLCA	
004306	346	070		1460		AND	070
004310	201			1470		ADD	C
004311	117			1480		LD	C, A
004312	315	250	001	1490		CALL	001250 - <i>KEYBOARD</i>
004315	107			1500		LD	B, A
004316	315	372	000	1510		CALL	000372 - <i>putc</i>
004321	170			1520		LD	A, F
004322	346	207		1530		AND	007
004324	201			1540		ADD	C
004325	311			1550		RET	
004326	315	370	200	1560	HEX	CALL	000370 - <i>SPACE</i>
004331	170			1570		LD	A, B
004332	315	352	004	1580		CALL	HEXERS
004335	007			1590		RLCA	
4336	007			1600		RLCA	
004337	007			1610		RLCA	
004340	007			1620		RLCA	
004341	107			1630		LD	B, A
004342	315	347	004	1640		CALL	HEXER
004345	200			1650		ADD	B
004346	311			1660		RET	
004347	315	250	001	1670	HEXER	CALL	001250 - <i>KEYBOARD</i>
004352	376	340		1680	HEXERS	CP	340
004354	070	002		1690		JR	C, UCASE
004356	326	040		1700		SUB	040
004360	365			1710	UCASE	PUSH	AF
004361	315	372	000	1720		CALL	000372 - <i>putc</i>
004364	361			1730		POP	AF
004365	376	272		1740		CP	272
004367	070	002		1750		JR	C, NUMBER
004371	326	007		1760		SUB	007
004373	326	260		1770	NUMBER	SJB	260
004375	311			1780		RET	
004376				1790		ORG	001233
001233	315	346	000	1800	HLCUT	CALL	000346 *ERASE TV
001236	172			1810		LD	A, D
001237	315	372	000	1820		CALL	000372 - <i>putc</i>
001242	315	246	004	1830		CALL	ASCII *GET AND. PRINT PAGE/BYTE
001245	311			1840		RET	