

HP 75

Quick Reference Guide



Image Format Specifiers

A	letter	R	comma radix
C	comma	S	sign
D	digit | blank	X	blank
E	exponent	Z	digit, 0 fill
K	compact form	*	digit, * fill
M	sign | blank	()	field brackets
P	period	/	line separator

Syntax Guide

%	not after THEN	fn	file name
&	TIME mode commands	ln	line number
<>	repeatable [,]	ne	numeric expression
[]	optional	se	string expression
|	select one	vn	variable name
dn	device name ':dn'	stmt	statement
fd	[fn][dn][[:]CARD[/pw]]:PCRD[/pw]|KEYS|APPT]		

HPILCMDS LEX File

SENDIO dn,se<[,se]>,se<[,se]>
 ENTIO\$(dn,se<[,se]>)
 SEND?

High Level Frame Format

AADn, AAU, AEPn, AESn, AMPn, CL+, DCL, DDLn, DDTn,
 EDN, GET, GTL, IAA, IEP, IMP, IFC, LLO, LDP, LADn,
 LAD#, NRD, NRE, NOP, PPD, PPEn, PPU, REN, SADn, SDC,
 SAI, SDA, SDI, SST, TADn, TAD#, TCT, TL+, UNL, UNT, ZES

Low Level Frame Data Format

CD:hh, RD:hh, DA:hh, EN:hh, ID:hh, DS:hh, ES:hh, IS:hh, TR:hh
 Comman**D**, Rea**D**y, **D**Ata, **E**Nd, **I**Dentify, **D**ata w/Srq, **E**nd w/Srq,
Identify w/Srq, **T**erminato**R**

Statements A-M

&	ADJUST	
	ALARM ON|OFF	AL.
	ASSIGN# file TO fn,[BASIC|TEXT]|*	AS.#
	ASSIGN IO [<dn>]	AS. .
	AUTO [from[,increment]]	A.
	BEEP [ON|OFF|hertz[,seconds]]	BE.
	BYE	B.
	CALL fn	
	CAT [ALL|fd]	C. .
	CLEAR LOOP|VARS|<dn>	CL. | CL..
	CONT [ln]	
	COPY [fd] to fd	CO.
%	DATA <ne|se>	DA.
	DEFAULT ON|OFF	DEFA.
%	DEF FNvn[\$][(<vn[\$]>)] [=ne|se]	
	DEF KEY key,keydefinition[;]	D..
	DELAY seconds	DE.
	DELETE [start[,end]]	DELE.
%	DIM <vn[dim1[,dim2]]|vn\$([size])>	
	DISP [USING fmt|ln ;] [<ne|se [,!;>]]	DI.
	DISPLAY IS <dn>|*	DI..
	EDIT [fn|KEYS][[,]TEXT|BASIC] E.|E.BA.|E.T.	
	END	
%	END DEF	END D.
	ENDLINE [enddefinition]	EN.
&	EXACT	
	FETCH [pattern][[,]ln]	F.
	FETCH KEY key	
%	FOR vn=first TO last [STEP inc]	
	GOSUB ln	GOS.
	GOTO ln	G.
%	IF cond THEN ln|stmt ELSE ln|stmt	
%	IMAGE fmt	IM.
	INITIALIZE dn[,directorysize]	INI.
	INPUT ['prompt'[,initial];] <vn[\$]>	I.
%	INTEGER <vn[(dim1[,dim2])]>	INT.
	[LET] [FN]vn[\$]=ne|se	
	LIST [fn|KEYS][,start[,end]]	L.
	LIST IO	L..
	LOCK password	
	MARGIN column	MA.
	MERGE fn[,start[,end]]	M.

Statements N-W

	NAME fn	N.
%	NEXT vn	NE.
	OFF ERROR	OF.E.
	OFF IO	
	OFF TIMER# timernumber	OF.T.#
%	ON ERROR statement	O..
	ON index GOSUB|GOTO <ln>	
%	ON TIMER# timernumber,seconds stmt	O.T.
	OPTION ANGLE DEGREES|RADIANS OP.A.D.|OP.A.R.	
%	OPTION BASE 0|1	OP..
	PACK dn	PA.
	PLIST [fn|KEYS][,start[,end]]	PL.
	POP	P.
	PRINT [USING fmt|ln ;] [<ne|se[,!;>]]	PRI.
	PRINT# file [,ln]; [<ne|se>]	PRI.#
	PRINTER IS <dn>|*	PRI..
	PROTECT	PR.
	PURGE fd	PU.
	PUT key	
	PWIDTH numchars	PW.
	RANDOMIZE [seed]	RA.
	READ[# file[,ln];] <vn>	R.#
%	REAL <vn[(dim1[,dim2])>	RE.
	REM|! remark	
	RENAME [fd] TO fd	REN.
	RENUMBER [from[,increment[,start[,end]]]]	RENU.
&	RESET	
	RESTORE [# file][[,]ln]|IO RES.|RES.#|RES..	
	RETURN	RET.
	RUN [fn][[,]ln]	
%	SHORT <vn[(dim1[,dim2])>	SH.
&	SET	
	STANDBY ON|OFF	S.
&	STATS	
	STOP	
	TRACE FLOW|OFF|VARS T..|TR.O.|TR.V.	
	TRANSFORM [fn] INTO BASIC|TEXT|LIF1	TR.
	UNPROTECT	U.
	WAIT seconds	WA.
	WIDTH characters	W.

Some Special Keys

CTL FET
 SHIFT I/R
 SHIFT CTL CLR
 CTL LOCK

recall last command
 prepare display of next key (unassigned)
 system reset
 activate numeric keyboard

*This Quick Reference Guide was partially modeled after
 Raan Young's label as printed in
 Computer Journal of PPC V2N4, 1983
 Martin Hepperle, April 2017*

Functions

ABS(ne)	LOG(ne)
ACOS(ne)	LOG10(ne)
ANGLE(ne,ne)	MAX(ne,ne)
ASIN(ne)	MEM
ATN(ne)	MIN(ne,ne)
CAT\$(ne)	MOD(ne,ne)
CEIL(ne)	NUM(se)
CHR\$(ne)	PI
COS(ne)	POS(se,se)
COT(ne)	RAD(ne)
CSC(ne)	RES
DATE	RMD(ne,ne)
DATE\$	RND
DEG(ne)	SEC(ne)
EPS	SGN(ne)
ERRL	SIN(ne)
ERRN	SQR(ne)
EXP(ne)	STR\$(ne)
FLOOR(ne)	TAB(ne)
FP(ne)	TAN(ne)
INF	TIME
INT(ne)	TIME\$
IP(ne)	UPRC\$(se)
KEY\$	VAL(ne)
LEN(se)	VER\$

Operators (from high to low precedence)

()	FNvn	^	NOT
*	/	\	DIV
+	-		
=	<	>	#
	AND		OR
			EXOR
			>=
			<=

Escape Codes

ESC C	cursor right	*
ESC D	cursor left	*
ESC E	clear all	*
ESC G	cursor return	
ESC H	cursor home	*
ESC J	clear from cursor	*
ESC K	clear to end of line	
ESC O	delete character with carry	
ESC P	delete character	
ESC <	cursor OFF	*
ESC >	cursor ON	*
ESC %Cr	cursor to column C and row r	*

* also applicable to video interface HP 82163

Character Codes and Keys

code	character	keys	code	character	keys
0	␣	CTL spc	64	␣	SHIFT +
1	␣	CTLA	65	␣	SHIFT A
2	␣	CTL B	66	␣	SHIFT B
3	␣	CTL C	67	␣	SHIFT C
4	␣	CTL D	68	␣	SHIFT D
5	␣	CTL E	69	␣	SHIFT E
6	␣	CTL F	70	␣	SHIFT F
7	␣	CTL G	71	␣	SHIFT G
8	␣	CTL H	72	␣	SHIFT H
9	␣	CTL I	73	␣	SHIFT I
10	␣	CTL J	74	␣	SHIFT J
11	␣	CTL K	75	␣	SHIFT K
12	␣	CTL L	76	␣	SHIFT L
13	␣	CTL M	77	␣	SHIFT M
14	␣	CTL N	78	␣	SHIFT N
15	␣	CTL O	79	␣	SHIFT O
16	␣	CTL P	80	␣	SHIFT P
17	␣	CTL Q	81	␣	SHIFT Q
18	␣	CTL R	82	␣	SHIFT R
19	␣	CTL S	83	␣	SHIFT S
20	␣	CTL T	84	␣	SHIFT T
21	␣	CTL U	85	␣	SHIFT U
22	␣	CTL V	86	␣	SHIFT V
23	␣	CTL W	87	␣	SHIFT W
24	␣	CTL X	88	␣	SHIFT X
25	␣	CTL Y	89	␣	SHIFT Y
26	␣	CTL Z	90	␣	SHIFT Z
27	ESC	CTL BACK	91	␣	SHIFT 0
28	␣	CTL +	92	␣	CTL /
29	␣	CTL =	93	␣	SHIFT -
30	␣	CTL ;	94	␣	SHIFT *
31	␣	CTL 8	95	␣	CTL -
32		space bar	96	␣	CTL 7
33	!	SHIFT 1	97	a	A
34	"	SHIFT 2	98	b	B
35	#	SHIFT 3	99	c	C
36	\$	SHIFT 4	100	d	D
37	%	SHIFT 5	101	e	E
38	&	SHIFT 6	102	f	F
39	'	SHIFT 7	103	g	G
40	(	SHIFT 8	104	h	H
41	)	SHIFT 9	105	i	I
42	*	*	106	j	J
43	+	+	107	k	K
44	,	,	108	l	L
45	-	-	109	m	M
46	.	.	110	n	N
47	/	/	111	o	O
48	0	0	112	p	P
49	1	1	113	q	Q
50	2	2	114	r	R
51	3	3	115	s	S
52	4	4	116	t	T
53	5	5	117	u	U
54	6	6	118	v	V
55	7	7	119	w	W
56	8	8	120	x	X
57	9	9	121	y	Y
58	:	SHIFT ;	122	z	Z
59	;	;	123	[	CTL ,
60	<	SHIFT ,	124	]	SHIFT =
61	=	0	125	~	CTL .
62	>	SHIFT :	126	~	CTL *
63	?	SHIFT /	127	␣	CTL 9

Character Codes and Keys

code	character	keys	code	character	keys
128	␣	† ATTN	192	␣	† CTL ATTN
129	␣	† TIME	193	␣	† CTL TIME
130	␣	† APPT	194	␣	† CTL APPT
131	␣	† EDIT	195	␣	† CTL EDIT
132	␣	† ↑	196	␣	† CTL ↑
133	␣	† ↓	197	␣	† CTL ↓
134	␣	† ←	198	␣	† CTL ←
135	␣	† →	199	␣	† CTL →
136	␣	† I/R	200	␣	† CTL I/R
137	␣	† FET	201	␣	† CTL FET
138	␣	† DEL	202	␣	† CTL DEL
139	␣	† CLR	203	␣	† CTL CLR
140	␣	† LOCK	204	␣	† CTL LOCK
141	␣	† RUN	205	␣	† CTL RUN
142	␣	† TAB	206	␣	† CTL TAB
143	␣		207	␣	
144	␣		208	␣	
145	␣		209	␣	
146	␣		210	␣	
147	␣		211	␣	
148	␣		212	␣	
149	␣		213	␣	
150	␣		214	␣	
151	␣		215	␣	
152	␣		216	␣	
153	␣		217	␣	
154	␣		218	␣	
155	ESC		219	␣	
156	␣		220	␣	
157	␣		221	␣	
158	␣		222	␣	
159	␣		223	␣	
160	␣	† SHIFT ATTN	224	␣	† SHIFT CTL ATTN
161	␣	† SHIFT TIME	225	␣	† SHIFT CTL TIME
162	␣	† SHIFT APPT	226	␣	† SHIFT CTL APPT
163	␣	† SHIFT EDIT	227	␣	† SHIFT CTL EDIT
164	␣	† SHIFT ↑	228	␣	† SHIFT CTL ↑
165	␣	† SHIFT ↓	229	␣	† SHIFT CTL ↓
166	␣	† SHIFT ←	230	␣	† SHIFT CTL ←
167	␣	† SHIFT →	231	␣	† SHIFT CTL →
168	␣	† SHIFT I/R	232	␣	† SHIFT CTL I/R
169	␣	† SHIFT FET	233	␣	† SHIFT CTL FET
170	␣	† SHIFT DEL	234	␣	† SHIFT CTL DEL
171	␣	† SHIFT CLR	235	␣	
172	␣	† SHIFT LOCK	236	␣	† SHIFT CTL LOCK
173	␣	† SHIFT RUN	237	␣	† SHIFT CTL RUN
174	␣	† SHIFT TAB	238	␣	† SHIFT CTL TAB
175	␣		239	␣	
176	␣	† CTL 0	240	␣	
177	␣	† CTL 1	241	␣	
178	␣	† CTL 2	242	␣	
179	␣	† CTL 3	243	␣	
180	␣	† CTL 4	244	␣	
181	␣	† CTL 5	245	␣	
182	␣	† CTL 6	246	␣	
183	␣		247	␣	
184	␣		248	␣	
185	␣		249	␣	
186	␣		250	␣	
187	␣		251	␣	
188	␣		252	␣	
189	␣		253	␣	
190	␣		254	␣	BYE (when assigned to a key)
191	␣		255	␣	† SHIFT CTL CLR