

## COMET Reference Card

Comet (C) Edwin Blink

<b>ARROW KEYS</b>	movement of the cursor the arrow points to
<b>CAPS</b>	toggle caps lock
<b>DELETE</b>	backspace
<b>SYM DELETE</b>	characters after the cursor are moved left by one position
<b>CTRL DELETE</b>	delete a complete line
<b>INV</b>	insert a character
<b>EDIT</b>	clear the current line
<b>SYMBOL EDIT</b>	restore the current line
<b>TAB</b>	tabulate to the right
<b>SYM TAB</b>	tabulate to the left
<b>SYMBOL N</b>	find next item
<b>SYMBOL E</b>	insert the instruction EX AF,AF'
<b>SYMBOL I</b>	toggle insert mode
<b>SYMBOL C</b>	enter command/calculator mode
<b>SYMBOL S</b>	swap location

<b>F3</b>	insert blankline	<b>F7</b>	first source page
<b>F2</b>	insert blockmarker	<b>F4</b>	page up
<b>F9</b>	")" close bracket	<b>F1</b>	page down
<b>F8</b>	(" open bracket	<b>F0</b>	last source page
<b>F6</b>	"&" hexadecimal sign	<b>F5</b>	"%" binary sign

## COMMANDS

<b>A</b>	assemble	<b>B</b>	go to basic
<b>C</b>	copy block of source	<b>D</b>	directory
<b>E</b>	erase file	<b>F</b>	find next item
<b>FB</b>	find block marker	<b>FE</b>	find error
<b>F word</b>	find word in label field or operand field		
<b>F label:</b>	find label in label field	<b>G</b>	go to menu
<b>I</b>	view initial control string		
<b>I num1,..,num15</b>	define initial control string num1 number of control bytes (num2 to num15)		
<b>L</b>	load source	<b>M</b>	merge source
<b>N</b>	new source	<b>O</b>	save objectcode
<b>P</b>	print block of source or complete source		
<b>P;</b>	as above but remark markers (semicolons) are printed as a space	<b>Q</b>	quit, re-block
<b>R</b>	relocate block of source	<b>S</b>	save source
<b>T num1,..,num15</b>	send data to printer (max. 15 bytes)		
<b>U</b>	undo (delete) block	<b>V</b>	view labels
<b>V 1 or 2</b>	view all labels in 1 or 2 columns		
<b>V symbol</b>	view all labels starting with 'symbol'		
<b>V 1 or 2,label</b>	same as above but in 1 or 2 columns		
<b>V symbol:</b>	view label 'symbol' only		
<b>V *</b>	same as above but to the printer		
<b>V *1 to 5, label</b>	" " "	<b>V *symbol:</b>	" " "
<b>W</b>	view workspace		
<b>W p1,o1,p2,o2</b>	define workspace (start, end <i>page</i> , start, end <i>offset</i> )		
<b>X address</b>	execute code at 'address' and return to editor		
<b>X page,address</b>	as above, HIMEM set to 'page', 'address' from 0 to 65535		
<b>Z</b>	remove swap markers from sourcefile		

## SOURCE ERRORS

<b>Bad source statement</b>	source statement was entered incorrectly
<b>Bad expression</b>	numeric expression is incorrect or a label is too long
<b>Number out of range</b>	number must be smaller than 256 or 65536
<b>Label not found</b>	label is not defined
<b>Multiple label</b>	label is used more than once
<b>Displacement out of range</b>	index or displacement of DJNZ (JR) is too large
<b>File not found</b>	
<b>Wrong file type</b>	the file is not a code/screen file
<b>Invalid device</b>	(disk only)
<b>Disk error</b>	error during a disk operation
<b>File too large</b>	include file bigger than 24 Kbytes
<b>Include in include</b>	includes are allowed inside a include file

## CALCULATOR

All calculations have the *same priority!*

<b>negative</b>	-1 = 255 or 65535	<b>hexadec.</b>	&1F = 31
<b>decimal</b>	99	<b>char.</b>	"A" = 65
<b>binary</b>	%1100 = 12	<b>addition</b>	8 + 88 = 96
<b>quote</b>	"" = 34	<b>division</b>	96 / 16 = 6
<b>subtraction</b>	48 - 16 = 32	<b>modulus</b>	98 \ 9 = 8
<b>multiplication</b>	12 * 24 = 288		

**high byte of a label** label / 256    **low byte** label \ 256

## LABELS

**label** field 15 chars    **opcode** field 5 chars,    **operand** 47 chars

Labels *up to 14 characters long*, followed with a ":", must start with a alpha character, other characters *except*

a spacedollar	sign '\$'	percent '%'
ampersand '&'	brackets '()'	minus '-'
plus '+'	asterix '*'	slash '/'
back slash '\'	comma ','	accent ''
double point ':'	semicollon ';'	quote '''

## ASSEMBLER DIRECTIVES

<b>ORG address</b>	set origin at 'address'
The assembled source code will be made to run at this address (32768 as default).	
<b>DUMP address</b>	The code of the source will be assembled at this address (from 16384 to 65535).
<b>DUMP page,offset</b>	same as above but 'page' from 0 to 31, offset is the address within a page (from 0 to 16383).
<b>DEFB num,..,num</b> or <b>DB</b>	define bytes (0-255) To include data followed after the directive.
<b>DEFM "string"</b> or <b>DM</b>	define message To include text in ASCII form.
<b>DEFS number</b> or <b>DS</b>	define storage To create a gap of 'number' bytes (from 1 to 16383).
<b>DEFW num,..,num</b> or <b>DW</b>	define word (0-65535) like DEFB, for numbers from 0 - 65535
<b>EQU number</b>	equal or equate Can be used after a label to give a value to a label.
<b>LIST ON/OFF</b>	To print a part or the complete source during assembling.
<b>MDAT "file name"</b>	(disk only) merge a code (or screen\$) file Merge a file into the objectcode (no limit of the length)
<b>INC "file name"</b>	(disk only) Allows a source file which is on the disk to be assembled at the position the directive was put in the source file which is in memory (less than 24K, no INcludes are allowed inside a INclude file).

The instructions ADD A,.., ADC A,.. and SBC A,.. may be entered as ADD .., ADC .. or SBC .. (.= B,C, D,E,H,L,(HL),A, etc.) Undocumented instructions are not implemented (except SLL).

To give a label the current instruction address (without an instruction following), use „label:“ or „label: EQU \$“.

## EDITOR ERRORS

<b>Out of memory</b>	not enough memory to insert a line
<b>Not understood</b>	parameters are incorrect
<b>Invalid block</b>	block empty, undefined or too large
<b>Inside block</b>	the editor can not copy or relocate a block inside the block
<b>Number out of range</b>	number bigger than 255 or 65535
<b>String too long</b>	more than 14 chars or more then 15 numbers are used
<b>Not found</b>	item not found
<b>Invalid Workspace</b>	start bigger than end or memory pages are allready used

## ASSEMBLER ERRORS

<b>Assembly aborted</b>	something has gone wrong
<b>Out of symbol space</b>	not enough memory to define label
<b>Check source for errors</b>	errors during assembling
<b>Escape pressed</b>	assembling was aborted
<b>Out of memory</b>	there is not enough memory left

press **SYMBOL N** to find errors (don't remove the error line)