

## System Requirements

### 2500AD Software System Requirements

#### *System Requirements*

For MSDOS systems, the minimum system requirement is 512k of available memory, minus the amount used by the operating system. Unix systems require at least 1 megabyte of memory.

For MSDOS systems, up to 20,000 lines of source code have been assembled with 512k of memory, and 30,000 line programs have been assembled with 640k of memory without running out of space.

The Linker assumes 20 files may be open at once. On MSDOS systems there is a file called CONFIG.SYS that is on the system disk. The default value is 5 files, therefore, this must be changed to at least 20. Since the Linker will open and close files when the number exceeds 20, raising the number higher than 20 will have no effect on the Linker. However, if any memory resident programs open files, the number should be increased by the number of files used by the memory resident programs

## **2500 A.D. 8080 To Z80 Source Code Converter instructions**

### *8080 To Z80 Source Code Converter*

The 2500 A.D. 8080 to Z80 Source Code Converter will convert standard Intel 8080 source code to Zilog source code, which can be subsequently assembled on the 2500 A.D. Z80 Cross Assembler. Since the 8080 source buffer, Z80 source buffer and symbol table buffer overflow to disk, the size of any file that can be converted is limited only by the available disk storage space.

It should be noted that this only runs under Msdos and Zeus.

#### **To run the Converter type : CONY**

The Converter will respond with the following prompt.

**INPUT FILENAME ? :**

After the user enters the 8080 source code filename the Converter will ask for the Z80 output filename as shown below.

**OUTPUT FILENAME ? :**

The Converter will display the 8080 source line, followed by the Z80 equivalent at the terminal. Any source lines which the Converter does not recognize are assumed to be macros. Although only macros will normally fall into this class, it may be possible to actually define macros in the Z80 file to handle some of the non-standard Z80 instruction extensions added to existing 8080 assemblers.

Part of the conversion process includes building a symbol table. This table is deleted at the end of a normal converter run, but if for some reason the conversion is aborted, a file of the name **SYMBOL.CON** may be left on the disk and should be deleted by the operator.

The Converter recognizes two types of comment lines. The first is a single line with a semi-colon in column 1. For large comment blocks, some assemblers have a special assembler directive. The Converter will recognize a comment block as follows:

**.COMMENT X**

where **X** can be any character. The Converter will treat everything from the first **X** to the second **X** as a comment block.

## ASCII CHART

	<u>Character</u>	<u>Binary</u>	<u>Octal</u>	<u>Decimal</u>	<u>Hex</u>
NUL	00000000	000	000	00	
SOH	00000001	001	001	01	
STX	00000010	002	002	02	
ETX	00000011	003	003	03	
EOT	00000100	004	004	04	
ENQ	00000101	005	005	05	
ACK	00000110	006	006	06	
BEL	00000111	007	007	07	
BS	00001000	010	008	08	
HT	00001001	011	009	09	
LF	00001010	012	010	0A	
VT	00001011	013	011	0B	
FF	00001100	014	012	0C	
CR	00001101	015	013	0D	
SO	00001110	016	014	0E	
SI	00001111	017	015	0F	
DLE	00010000	020	016	10	
DC1	00010001	021	017	11	
DC2	00010010	022	018	12	
DC3	00010011	023	019	13	
DC4	00010100	024	020	14	
NAK	00010101	025	021	15	
SYN	00010110	026	022	16	
ETB	00010111	027	023	17	
CAN	00011000	030	024	18	
EM	00011001	031	025	19	
SUB	00011010	032	026	1A	
ESC	00011011	033	027	1B	
FS	00011100	034	028	1C	
GS	00011101	035	029	1D	
RS	00011110	036	030	1E	
US	00011111	037	031	1F	
SP	00100000	040	032	20	
!	00100001	041	033	21	
	00100010	042	034	22	
#	00100011	043	035	23	
\$	00100100	044	036	24	
%	00100101	045	037	25	
&	00100110	046	038	26	
	00100111	047	039	27	
(	00101000	050	040	28	
)	00101001	051	041	29	

Ascii Chart

Ascii Chart

		<u>Character</u>	<u>Octal</u>	<u>Decimal</u>	<u>Hex</u>
.	00101010	052	042	2A	
+	00101011	053	043	28	
	00101100	054	044	2C	
-	00101101	055	045	2D	
	00101110	056	046	2E	
I	00101111	057	047	2F	
0	00110000	060	048	30	
1	00110001	061	049	31	
2	00110010	062	050	32	
3	00110011	063	051	33	
4	00110100	064	052	34	
5	00110101	065	053	35	
6	00110110	066	054	36	
7	00110111	067	055	37	
8	00111000	070	056	38	
9	00111001	071	057	39	
	00111010	072	058	3A	
;	00111011	073	059	3B	
<	00111100	074	060	3C	
=	00111101	075	061	3D	
>	00111110	076	062	3E	
?	00111111	OM	063	3F	
@	01000000	100	064	40	
A	01000001	101	065	41	
B	01000010	102	066	42	
C	01000011	103	067	43	
D	01000100	104	068	44	
E	01000101	105	069	45	
F	01000110	106	070	46	
G	01000111	107	071	47	
H	01001000	110	072	48	
I	01001001	111	073	49	
J	01001010	112	074	4A	
K	01001011	113	075	4B	
L	01001100	114	076	4C	
M	01001101	115	077	4D	
N	01001110	116	078	4E	
O	01001111	117	079	4F	
P	01010000	120	080	50	
Q	01010001	121	081	51	
R	01010010	122	082	52	
S	01010011	123	083	53	
T	01010100	124	084	54	

Character	Binary	Decimal	Octal	Hex
U	01010101	125	085	55
V	01010110	126	086	56
W	01010111	127	087	57
X	01011000	130	088	58
Y	01011001	131	089	59
Z	01011010	132	090	5A
[	01011011	133	091	5B
\	01011100	134	092	5C
]	01011101	135	093	5D
^	01011110	136	094	5E
_	01011111	137	095	5F
7	<b>01100000</b>	140	096	60
a	01100001	141	097	61
b	01100010	142	098	62
c	01100011	143	099	63
d	01100100	144	100	64
e	01100101	145	101	65
f	01100110	146	102	66
g	01100111	147	103	67
h	01101000	150	104	68
i	01101001	151	105	69
j	01101010	152	106	6A
k	01101011	153	107	6B
l	01101100	154	108	6C
m	01101101	155	109	6D
n	01101110	156	110	6E
o	01101111	157	111	6F
p	01110000	160	112	70
q	01110001	161	113	71
r	01110010	162	114	72
s	01110011	163	115	73
t	01110100	164	116	74
u	01110101	165	117	75
v	01110110	166	118	76
w	01110111	167	119	77
x	01111000	170	120	78
y	01111001	171	121	79
z	01111010	172	122	7A
{	01111011	173	123	7B
	01111100	174	124	7C
}	01111101	175	125	7D
DEL	01111110	176	126	7E
	01111111	177	127	7F

*Abbreviations for Control Characters*

NUL	null, or all zeros
SOH	start of heading
STX	start of text
ETX	end of text
EOT	end of transmission
ENQ	enquiry
ACK	acknowledge
BEL	bell
BS	backspace
HT	horizontal tabulation
LF	line feed
VT	vertical tabulation
FF	form feed
CR	carriage return
SO	shift out
SI	shift in
DLE	data link escape
DC1	device control 1
DC2	device control 2
DC3	device control 3
DC4	device control 4
NAK	negative acknowledge
SYN	synchronous idle
ETB	end of transmission block
CAN	cancel
EM	end of medium
SUB	substitute
ESC	escape
FS	file separator
GS	group separator
RS	record separator
US	unit separator
SP	space
DEL	delete

# 2500 A.D. Z80 Cross Assembler

## *INDEX*

NOTE: Page D-1 is missing from Scan

EXIT 3 - 9  
HELP, H 3-10  
NEW, N 3-12  
QUIT 3-12  
REP, R 3-13  
STAT, S 3-14  
TOP, BOT 3-15  
Linker Address Relocation 2 - 10, 2 - 11  
Linker Description 2 - 1  
Linker Examples 2- 12, 2 - 19  
Linker Operating Instructions  
  Command Line Mode 2 - 7, 2-8  
  Data File Mode 2 - 5, 2 - 6  
  Prompt Mode 2 - 3  
Linker Options 2 - 9  
LIST ON/OFF 1 -36  
LLCHAR 1 -22  
Local Labels 1-13  
LONG 1-19  
LONGW 1-19  
Low Byte 1-14  
LWORD1-18,1-19

## M

MACDELIM 1 - 23  
MACEND 1-22  
MACEXIT 1 - 23  
MACLIST ON/OFF 1 -36  
MACRO 1-22  
Macro Examples 1 -49, 1 -51  
Macros 1 -46  
Microtek Symbol Table 2- 26  
Mnemonic Definitions 1 -48  
MODULE 1 - 27  
Motorola S19 Format 2-30  
Motorola S28 Format 2- 32



Motorola S37 Format 2- 34 Packed Files 3 - 1  
PAG, PAGE, EJECT 1 -38  
PASS1 ON/OFF 1 - 38  
Program Comments 1 -12  
Program Counter 1 - 13  
Prompt Mode 1 -2, 1.- 3  
PW, PL 1-37

RADIX 1 -26  
RECSIZE 1 -40  
Recursion 1 - 52  
RELATIVE  
    See also Absolute Versus Relative  
RMB 1-19  
Run Time Commands - Unix,Msdos & VMS  
    1-11

SECTION 1 -25  
SPACES ON/OFF 1 - 27  
Storage Control 1 - 17, 1 -21  
String Concatenation 1 -47  
STTL, SUBTITLE 1 -39  
SYMBOLS 1 -40  
System Defaults 1 - 9  
    Assembler, Linker & Librarian 1 - 9  
System Requirements A - 1

TITLE, HEADING 1 -38  
TOP 1-37  
TWOCHAR ON/OFF 1-27

Upper/Lower Case 1 - 14

Number Base Designations 1 -12

## **0**

OPTIONS 1 -40  
ORIGIN 1-17

## **V**

Value Concatenation 1 -47  
Var 1-22

