

C Compiler/Computer Language Series

Quick Reference Card



Programming Family

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**Personal
Computer
Software**

6135853

Compiler Summary

- 1. At DOS prompt, type CC.
- 2. Respond to prompts or use command line method
- 3. Use (DOS) PATH and SET to assign pathnames to variables

PATH	Executable compiler files
INCLUDE	Include files
TMP	Temporary files
LIB	Linker environment variable to locate library files.

CC Options

Option	Task
<i>/Aletter</i>	Sets program configuration. <i>letter</i> can be S, M, L, or H.
<i>/Didentifier [= [string]]</i>	Defines <i>identifier</i> to <i>preprocessor</i> . Value is string or empty.

CC Options

Option	Task
<i>/E</i>	Preprocesses source file, copying result to standard output and inserting #line directives.
<i>/FA + [filename]</i>	Produces assembly listing.
<i>/FC + [filename]</i>	Produces combined source-assembly listing.
<i>/FPA</i>	Generates floating-point calls and selects alternate math library.
<i>/FPC</i>	Generates floating-point calls and selects emulator (uses 8087/80287 if present).
<i>/FPC87</i>	Generates floating-point calls and selects 8087/80287 library (requires an 8087 or 80287 at run time).
<i>/FPI</i>	Generates in-line 8087/80287 instructions and selects emulator (uses 8087 or 80287 if present).

CC Options

Option	Task
/FP187	Generates in-line 8087/80287 instructions and selects 8087/80287 library (requires 8087 or 80287 at run time).
/GO	Generates 8086/8088 instructions.
/G1	Generates 80168/80188 instructions.
/G2	Generates 80286 instructions.
/GS	Removes calls to stack probe routine.
/GT + [number]	Places data items greater than <i>number</i> bytes in new segment (256 bytes is default).
/HELP	Prints compiler options on console.
/Idirectory	Adds <i>directory</i> to top of list to be searched for includes files.

CC Options

Option	Task
/Ostring	Controls optimization <i>.string</i> consists of one or more of the characters: D Disable optimization A Relax alias checking S Favor code size T Favor execution time X Maximum optimization (equivalent to /OAS/GS)
/S	Performs syntax check only.
/Uidentifier	Removes definition of given predefined identifier.
/Wn	Sets output level (<i>n</i> = 0, 1, 2, or 3) for compiler warning messages.
/ZD	Includes line number information in object file.
/ZE	Enables language extension far , huge , and near .
/ZG	Generates function declarations from function definitions and writes declarations to standard output.

CC Options

Option	Task
/ZL	Removes default library information from object file.
/ZP	Packs structure members.

The LIB Utility

LIB operations, listing, result library name

+	Appends object or library file to given library.
-	Deletes module from library.
- +	Deletes a module and appends object file with the name.
*	Extracts module from library and saves in object file.
- *	Extracts module; saves it in object file; deletes it from library.
,	Uses defaults for remaining prompts.
&	Extends physical line; repeats command prompt.
Ctrl - C	Terminates library session.

Linker Summary

CLINK invokes linker.

CLINK Options

/CPARMAXALLOC:number
Set s the CPARMAXALLOC field at offset 0x0c in the EXE header t *number*.

/DOSSEG Enforces the following loading order:

1. All segments with a class name ending with CODE.
2. All other segments outside of a DGROUP.
3. DGROUP segments in this order:
 - a. Any segments of class BEGDATA
 - b. Any segments not class BEGDATA, BSS, or STACK
 - c. Segments of class BSS
 - d. Segments of class STACK.

/DSALLOCATE
Loads data at high end of data segment. DO NOT USE WITH C PROGRAMS.

/HIGH
Places run file as high as possible in memory. DO NOT USE WITH C PROGRAMS.

Linker Summary

/LINENUMBERS

Includes line numbers and addresses of source statements in input modules.

/MAP

Creates file listing public (global) symbols defined in input modules.

CLINK Options

/NODEFAULTLIBRARYSEARCH

Causes default libraries to be ignored.

/NOGROUPOASSOCIATION

Provides compatibility with previous versions of CLINK. DO NOT USE WITH C PROGRAMS.

/NOIGNORECASE

Causes linker to distinguish between uppercase and lowercase letters.

/OVERLAYINTERRUPT:number

Sets overlay interrupt number to **number**.

PAUSE

Causes CLINK to pause in link session when option is encountered.

CLINK Options

/SEGMENTS:number

Sets number of segments linker allows a program to have; default is 128.

/STACK:number

Sets stack size to **number**, which may be any positive value up to 65,536 bytes. Default for C programs is 2K (2,048 bytes).

The EXEPACK Utility

EXEPACK *executable-file output-file*

Compresses sequences of identical characters, optimizes relocation table, and sends compressed file to output file.

EXEMOD *executable file* [/STACK n] [/MIN] [/MAX n]

/STACK n **n** is a hexadecimal value in bytes.

/MIN n **n** is a hexadecimal value in paragraphs.

/MAX n **n** is a hexadecimal value in paragraphs.

Segment Names/Default Text

Model	Text	Data
Small	<code>__TEXT</code>	<code>__DATA</code>
Medium	<i>modulename</i> <code>__TEXT</code>	<code>__DATA</code>
Large	<i>modulename</i> <code>__TEXT</code>	<code>__DATA</code>
Huge	*****	*****

Pointer and Integer Sizes

Model	Data Pointer	Text Pointer.	Integer
Small	16	16	16
Medium	16	32	16
Large	32	32	16
Huge	32	32	16

Standard Memory Models

Model	Text Segments	Data Segments
Small	1	1
Medium	1 per module	1
Large	1 per module	1 (default) (more as needed)
Huge	1 (default)	(more as needed) 1 default) (more as needed).