



# Z8/Z8Plus C-Compiler

DS010200-COR0100

DATA SHEET

## INTRODUCTION

The Z8/Z8Plus C-Compiler is an optimized ANSI C- C-Compiler. The Z8/Z8Plus C-Compiler meets ANSI's definition of a "freestanding implementation", with the exception that doubles are 32 bits. In accordance with the definition of a freestanding implementation, the compiler accepts programs which confine the use of the features of the ANSI standard library to the contents of the standard headers <float.h>, <limits.h>, <stdarg.h> and <stddef.h>. This release supports more of the standard library than is required of a freestanding implementation.

The compiler runs on Windows95/98/NT and can be invoked either through the command line or used within the ZDS integrated development environment. There are several language extensions supported in this version, including interrupt functions and memory space accesses.

Figure 1 shows an example of the C-Compiler development flow.

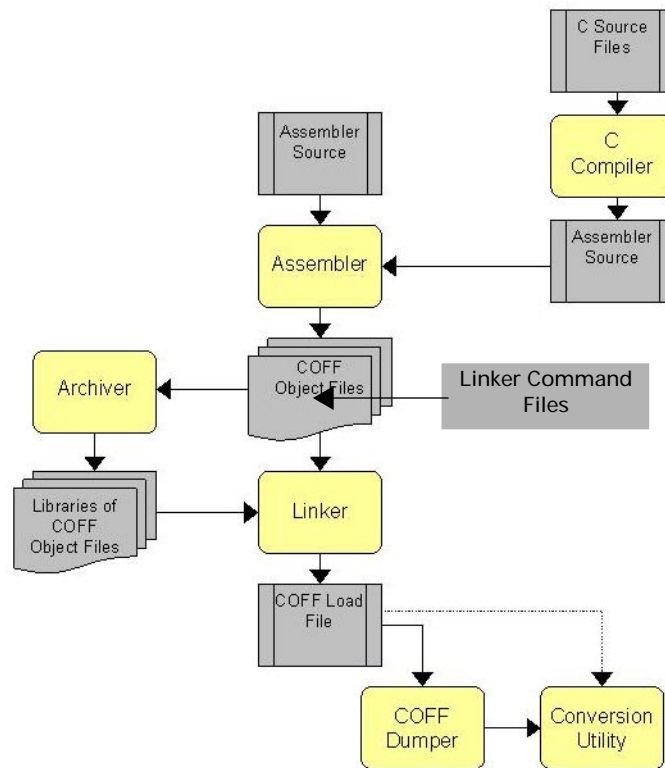


FIGURE 1. DEVELOPMENT FLOW



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## SOFTWARE FEATURES

- Highly Optimized ANSI C Cross-Compiler
- Two programming models small and large.
- ANSI C run time library:
  - String manipulation
  - Character classification and conversion
  - Buffer manipulation
  - Data conversion
- Single precision IEEE floating point support
- Extensions for memory qualifiers
- Extensions for interrupt service routines
- Support for in-line assembly
- Intrinsic functions that are in-line expanded
- Copies initialized data from ROM to RAM
- Can be used within ZDS or individually on command line
- Optimizations:
  - constant folding
  - dead object removal
  - simple jump optimization
  - constant propagation
  - copy propagation
  - dead code elimination
  - common sub expression elimination
  - jump-to-jump optimizations
  - condition evaluation optimizations
  - constant evaluation and expression simplification



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## SOFTWARE SPECIFICATIONS

### SOFTWARE:

- Z8/Z8Plus ANSI C-Compiler

### HOST OPERATING SYSTEM:

- Windows 95/98/NT

### MINIMUM REQUIREMENTS

- IBM PC (or 100-percent compatible) Pentium-based machine
- 75 MHz
- 16 MB Memory
- VGA Video Adapter
- Hard Disk Drive with 12 MB Free Space
- CD-ROM Drive
- Mouse or Pointing device
- Microsoft Windows 95/98/NT

### SUPPORTED ZILOG PROCESSOR FAMILIES:

- ZiLOG Z8, Z8Plus

### OPERATING ENVIRONMENT:

- ZiLOG Developer Studio 3.02 and higher or command line

### TECHNICAL SUPPORT:

E-mail: [csupport@zilog.com](mailto:csupport@zilog.com), [tools@zilog.com](mailto:tools@zilog.com)

Telephone: 1-877-945-6427

(512) 306-4169 (all other countries)

Fax: 512-306-4072



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## DISTRIBUTION CONTENTS

- C-compiler
- Assembler, linker, and archiver executables
- Header files
- Libraries
- Sample
- C-Compiler User Manual in PDF format
- Release document with change logs
- ZDS configuration files

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