



380 C-Compiler

INTRODUCTION

The 380 C-Compiler is an optimized ANSI C- C-Compiler. The 380 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.

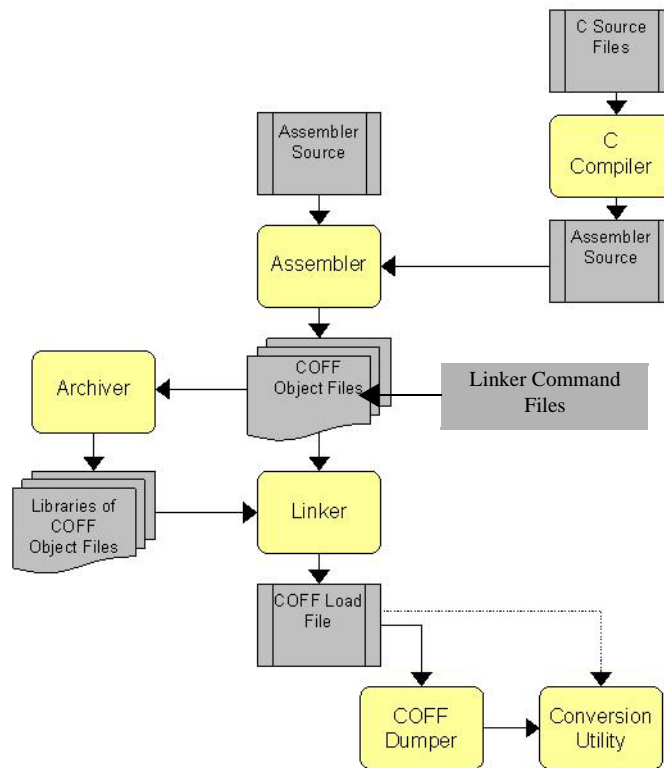


FIGURE 1. DEVELOPMENT FLOW



SOFTWARE FEATURES

- Highly Optimized ANSI C Cross-Compiler
- 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
- 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



SOFTWARE SPECIFICATIONS

SOFTWARE:

- 380 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 380

OPERATING ENVIRONMENT:

- ZiLOG Developer Studio 3.5 and higher or command line

TECHNICAL SUPPORT:

E-mail: www.zilog.com



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

DISCLAIMER

© 2003 by ZiLOG, Inc. All rights reserved. No part of this document may be copied or reproduced in any form or by any means without the prior written consent of ZiLOG, Inc. The information in this document is subject to change without notice. Devices sold by ZiLOG, Inc. are covered by warranty and patent indemnification provisions appearing in ZiLOG, Inc. Terms and Conditions of Sale only.

ZiLOG, Inc. makes no warranty, express, statutory, implied or by description, regarding the information set forth herein or regarding the freedom of the described devices from intellectual property infringement. ZiLOG, Inc. makes no warranty of merchantability or fitness for any purpose.

The software described herein is provided on an as-is basis and without warranty. ZiLOG accepts no liability for incidental or consequential damages arising from use of the software.

ZiLOG, Inc. shall not be responsible for any errors that may appear in this document. ZiLOG, Inc. makes no commitment to update or keep current the information contained in this document.

ZiLOG's products are not authorized for use as critical components in life support devices or systems unless a specific written agreement pertaining to such intended use is executed between the customer and ZiLOG prior to use. Life support devices or systems are those which are intended for surgical implantation into the body, or which sustains life whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

ZiLOG, Inc.
532 Race Street
San Jose, CA 95126-3432
Telephone: (408) 558-8500
FAX: (408) 558-8300
Internet: <http://www.zilog.com>