



# **COBOL-IT® Compiler Suite Enterprise Edition**

**Quick Start  
Version 3.10**



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# Acknowledgment

This documentation is derived from COBOL-IT Source code, parts of which are derived from OpenCOBOL.

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## Compiler, Runtime, and Debugger Topics

### Introduction

This document describes how to install and how to use the **COBOL-IT Compiler Suite**.

This file contains part of the initial OpenCOBOL manual.

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### COBOL-IT Compiler Suite

`cobc`, `cobcrun` and `cobcdb`, Copyright (C) 2008-2018 COBOL-IT

The executable components in the COBOL-IT Compiler Suite, `cobc` and `cobcrun` are based on OpenCOBOL, originally developed by Keisuke Nishida and maintained since 2007 by Roger While.

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The executable component in the COBOL-IT runtime system, `libcobit` is based on the `libcob` library originally developed by Keisuke Nishida and maintained since 2007 by Roger While.

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## Installing COBOL-IT

The COBOL-IT compiler `cobc` requires that a “C” Compiler be installed on the host platform.

For a complete port list, including “C” Compilers that have been tested and are supported, see Port List with Supported “C” Compilers.

### Installing the binary distributions (Linux/Unix)

The COBOL-IT Linux/Unix 32-bit binary distributions are intended to be installed in `/opt/cobol-it`. The COBOL-IT Linux/Unix 64-bit binary distributions are intended to be installed in `/opt/cobol-it-64`. They are provided as **gzipped** tar files.

An example with a 32-bit Linux binary distribution:

As a root user, download the binaries that are compatible with your platform. From the folder in which the COBOL-IT binary is located:

Unzip/unpack the file:

```
# tar xzpf cobol-it-3.10.11-enterprise-32-i786-pc-linux-gnu.tar.gz  
-C /opt/
```

This will unpack the distribution in `/opt/cobol-it`.

Copy the `citlicense.xml` to `/opt/cobol-it`.

Run the `cobol-it-setup` script to set all needed environment variables :

```
$ source /opt/cobol-it/bin/cobol-it-setup.sh or  
$ . /opt/cobol-it/bin/cobol-it-setup.sh
```

### Installing the binary distributions (Windows)

Click on the Windows-Setup executable to launch the setup. The Windows setup requires that you indicate which version of Visual Studio you have installed on your machine. If COBOL-IT does not detect the “C” compiler selected during installation on your Windows machine, it will return an error message.

After the setup is complete you will have a Quick Launch Shortcut, which will cause the `setenv_cobolit.bat` file to be executed when you open your command shell. `Setenv_cobolit.bat` sets all the environment variables needed to begin using the COBOL-IT Compiler Suite.

### Citlicense.xml

By default, the `citlicense.xml` should be located in the installation directory.

Windows 32	C:\COBOL\COBOL-IT
Windows 64	C:\COBOL\COBOL-IT64
UNIX/Linux 32	/opt/cobol-it
UNIX/Linux 64	/opt/cobol-it-64

## Compile and run hello.cbl

COBOL-IT creates compiles to a shared object format by default. Compiler with `cobc` and run with `cobcrun`.

```
>cobc hello.cbl
>cobcrun hello
```

## Copy files

The COBOL-IT compiler can be directed to search for copy files in directories using the `-I <dir>` compiler flag. Default copy file extensions are `.cpy`, `.cob`, `.cbl` and `[no extension]`. If you have any other copy file extension, you should use the `-ext [ extension ]` compiler flag.

```
-ext <extension>    Add file extension to list of default extensions
-I <directory>      Add <directory> to copy/include search path
```

```
>cobc -I ./copy hello.cbl
```

## CALL'ed programs

When you compile your source code, you probably will want to create the compiled objects in a separate directory, and run them from this separate directory. To create compiled objects in a separate directory, use the `-o` compiler flag.

```
>cobc -o ./object hello.cbl
```

To run shared objects from a separate directory, set the `COB_LIBRARY_PATH` environment variable. The `COB_LIBRARY_PATH` is the directory used by the runtime to locate share objects.

```
>export COB_LIBRARY_PATH=./object
```

## Data files

Locate your data files using the `COB_FILE_PATH` runtime environment variable. The `COB_FILE_PATH` is the path to the data files used by the application.

```
>export COB_FILE_PATH=./data
```

## Runtime error messages

Capture runtime error messages using the `COB_ERROR_FILE` runtime environment variable. The `COB_ERROR_FILE` is the file to which all runtime error messages are written that would otherwise be written to `stderr`.

```
>export COB_ERROR_FILE=coberr.txt
```

For details about all compiler flags and runtime environment variable, see the [Compiler & Runtime Reference Manual](#).

## Using the COBOL-IT Debugger

The COBOL-IT Debugger (cobcdb) runs shared object files that have been created by the COBOL-IT Compiler (cobc) and that have been compiled with the `-g` compiler flag. Run the COBOL-IT debugger from the command line with the command `>cobcdb [program-name]`.

For example:

```
C:\COBOL\CobolIT\samples>cobcdb hello
```

Step through the code with the “step” command.

```
(cobcdb)
```

**Step**

Terminate the debugging session with the “stop” command

```
(cobcdb)
```

**Stop**

For details about all of the COBOL-IT Debugger options and parameters, see the COBOL-IT Compiler and Runtime Reference Manual.

## COBOL-IT E-Learning

For more information, please visit <http://www.cobol-it.com/resources.html> for access to COBOL-IT’s E-Learning modules. Please contact your sales representative at [sales@cobol-it.com](mailto:sales@cobol-it.com) for information about how you can access the full set of COBOL-IT Documentation and Software.





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