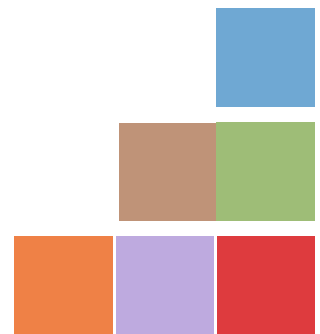




# COBOL-IT® Compiler Suite Enterprise Edition

Quick Start  
Version 4.1





Contents

**ACKNOWLEDGMENT ..... 3**

**COMPILER, RUNTIME, AND DEBUGGER TOPICS ..... 4**

Introduction ..... 4

COBOL-IT License terms..... 4

**Installing COBOL-IT ..... 6**

    Installing the binary distributions (Linux/Unix) ..... 6

    Installing the binary distributions (Windows)..... 6

    Citlicense.xml ..... 6

**Compile and run hello.cbl ..... 7**

    Copy files ..... 7

    CALL'ed programs ..... 7

    Data files ..... 7

    Runtime error messages ..... 7

**Using the COBOL-IT Debugger..... 8**

**COBOL-IT E-Learning..... 8**



# Acknowledgment

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

Copyright (C) 2002-2007 Keisuke Nishida

Copyright (C) 2007 Roger While

Copyright (C) 2008-2020 COBOL-IT

In 2008, COBOL-IT forked its own compiler branch, with the intention of developing a fully featured product and offering professional support to the COBOL user industry.

Permission is granted to make and distribute verbatim copies of this manual provided the copyright notice and this permission notice are preserved on all copies.

Permission is granted to copy and distribute modified versions of this manual under the conditions for verbatim copying, provided that the entire resulting derived work is distributed under the terms of a permission notice identical to this one.

**Copyright 2008-2020 COBOL-IT S.A.R.L. All rights reserved. Reproduction of this document in whole or in part, for any purpose, without COBOL-IT's express written consent is forbidden.**

**Third-Party software components embedded in the SOFTWARE and Services and submitted to specific licenses:**

## **VBISAM**

\* Copyright (C) 2003 Trevor van Bremen

\* Copyright (C) 2008-2020 COBOL-IT

\* License: LGPL

## **GMP (GNU Multiprecision Library)**

\* Copyright 1991, 1996, 1999, 2000, 2007 Free Software Foundation, Inc.

\* License: LGPL

## **GNU LIBICONV**

The libiconv libraries and their header files are under LGPL.

Microsoft and Windows are registered trademarks of the Microsoft Corporation. UNIX is a registered trademark of the Open Group in the United States and other countries. Other brand and

product names are trademarks or registered trademarks of the holders of those trademarks.

**Contact Information:**

COBOL-IT  
231, rue Saint-Honoré - 75001 Paris - FRANCE  
Tel.: +33 1 75 43 05 50  
Fax: +33 1 75 43 05 16  
Email: [contact@cobol-it.com](mailto:contact@cobol-it.com)  
[www.cobol-it.com](http://www.cobol-it.com)

## 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.

Copyright (C) 2002-2007 Keisuke Nishida

Copyright (C) 2007 Roger While

Copyright (C) 2008-2020 COBOL-IT

Permission is granted to make and distribute verbatim copies of this manual provided the copyright notice and this permission notice are preserved on all copies.

Permission is granted to copy and distribute modified versions of this manual under the conditions for verbatim copying, provided that the entire resulting derived work is distributed under the terms of a permission notice identical to this one.

Permission is granted to copy and distribute translations of this manual into another language, under the above conditions for modified versions, except that this permission notice may be stated in a translation approved by the Free Software Foundation.

## COBOL-IT License terms

### COBOL-IT Compiler Suite

`cobc`, `cobcrun` and `cobcdb`, Copyright (C) 2008-2020 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.

Copyright (C) 2002-2007 Keisuke Nishida  
Copyright (C) 2007 Roger While

COBOL-IT forked its own compiler branch (`cobc` and `cobcrun`) in 2008 to develop a fully-featured product and offer professional support to the COBOL user industry.

`cobcdb`, COBOL-IT® Debugger System (`cobcdb`®), Copyright © 2008-2020 COBOL-IT S.A.R.L. All rights reserved. You shall not duplicate or transfer this SOFTWARE, in whole or in part, in whatever media or manner, for any purpose, without COBOL-IT's prior written approval.

## **COBOL-IT Runtime System**

`libcobit`, Copyright (C) 2008-2020 COBOL-IT

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.

Copyright (C) 2002-2007 Keisuke Nishida  
Copyright (C) 2007 Roger While

For more information, please contact us at: [contact@cobol-it.com](mailto:contact@cobol-it.com)

COBOL-IT Corporate Headquarters are located at  
231, rue Saint-Honore  
75001 Paris  
Tel: +33.1.75.43.05  
Email: [contact@cobol-it.com](mailto:contact@cobol-it.com)

COBOL-IT, COBOL-IT Compiler Suite, CitSQL, CitSORT, and COBOL-IT Developer Studio are trademarks or registered trademarks of COBOL-IT.

Eclipse is a trademark of the Eclipse Foundation.

IBM, CICS, DB2, and AIX are registered trademarks of International Business Machines Corporation.

Linux is a registered trademark of Linus Torvalds.

Oracle, Pro\*COBOL, Tuxedo and MySQL are registered trademarks of Oracle Corporation.

Postgres is a registered trademark of PostgreSQL Global Development Group

Syncsort is a registered trademark of Syncsort, Inc.

SQL Server, Windows, Visual Studio, and Visual Studio Express are registered trademarks of Microsoft Corporation.

Java and Solaris are registered trademarks of Sun Microsystems, Inc.

UNIX is a registered trademark of The Open Group

HP is a registered trademark of Hewlett Packard, Inc.

Red Hat is a registered trademark of Red Hat, Inc.

Micro Focus is a registered trademark of Micro Focus (IP) Limited in the United Kingdom, the United States, and other countries.

All other trademarks are the property of their respective owners.

## 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-it4**. The COBOL-IT Linux/Unix 64-bit binary distributions are intended to be installed in **/opt/cobol-it4-64**. 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-4.1.0-20181123-14-enterprise-32-i786-pc-linux-gnu.tar.gz -C /opt
```

This will unpack the distribution in **/opt/cobol-it4**.

Copy your license file to `/opt-cobol-it4` (32-bit Linux/UNIX) .

Copy your license file to `/opt/cobol-it4-64` (64-bit Linux,UNIX).

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

```
$ source /opt/cobol-it4/bin/cobol-it-setup.sh  
$ . /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-it4
UNIX/Linux 64	/opt/cobol-it4-64

## 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)

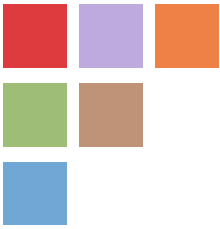
**Stop**

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.





[www.cobol-it.com](http://www.cobol-it.com)

June 2020

