

VBISAM Installation Guide for GnuCOBOL

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Linux

- for most heavy distros with gcc <= 5.x and gettext, perl, wget
- tested in Knoppix 7.6 and Linux Mint 10

(1) Required files (type in a search engine to find them)

- mpir-2.7.2.tar.bz2 (*) -- or gmp-6.*.*.tar.bz2 if you know which version to use
- ncurses-6.0.tar.gz (*)
- gnucobol-2.2-rc.tar.gz (*) -- only this version has been tested
- vbisam-2.0.1.tar.gz (*) -- the version included here works best
- m4-1.4.17.tar.gz (*) [type m4 --version to see if you need it]
- help2man-1.47.4.tar.xz (*) [type help2man --version to see if you need it]
- sample test program ("hi.cob")

(2) Set-up

- Create the folder "cob" (or other name) in your home directory.
- Collect the (*) files in "cob".

(3) Installation

If your system can't find M4 with the command `m4 --version`, then install it:

- `cd ~/cob`
- `tar xvzf m4-1.4.17.tar.gz`
- `cd m4-1.4.17`
- `./configure --prefix=/usr/local`
- `make`
- `make check`
- `sudo make install`

If your system can't find help2man with the command `help2man --version`, then install it:

- `cd ~/cob`
 - `tar xvf help2man-1.47.4.tar.xz`
 - `cd help2man-1.47.4`
 - `./configure --prefix=/usr/local` [checks for perl and gettext]
 - `make`
 - `sudo make install`
-
- `cd ~/cob`
 - `tar xvjf mpir-2.7.2.tar.bz2`
 - `cd mpir-2.7.2`
 - `./configure --prefix=/usr/local --disable-static \`
`--enable-shared --enable-gmpcompat`
 - `make`
 - `make check`
 - `sudo make install`

or if you know exactly which gmp version you need, do this instead of mpir:

- `cd ~/cob`
- `tar xvjf gmp-6.1.2.tar.bz2` [version shown only as an example]
- `cd gmp-6.1.2`
- `./configure --prefix=/usr/local`
- `make`
- `make check`
- `sudo make install`

- `cd ~/cob`
 - `tar xvzf ncurses-6.0.tar.gz`
 - `cd ncurses-6.0`
 - `./configure --prefix=/usr/local`
 - `make`
 - `sudo make install`
-
- `cd ~/cob`
 - `tar xvzf vbisam-2.0.1.tar.gz`
 - `cd vbisam-2.0.1`
 - `sh ./configure --prefix=/usr/local CC="gcc -std=gnu99"`
 - `make`
 - `sudo make install`
-
- `cd ~/cob`
 - `tar xvzf gnucobol-2.2-rc.tar.gz`
 - `cd gnucobol-2.2-rc`
 - `export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/usr/local/lib`
 - `autom4te --version`
 - `touch tests/testsuite` (do only if *autom4te* is not installed)
 - `./configure --prefix=/usr/local --with-vbisam \`
`CPPFLAGS=-I/usr/local/include LDFLAGS=-L/usr/local/lib`
 - `make`
 - `make check`
 - `make test`
 - `sudo make install`
 - `sudo ldconfig`

(4) Run the compiler

- `cd ~/cob`
- Edit and save "hi.cob".
- `cobc -x hi.cob`
- `./hi`

MinGW

- tested in Win2000 (VirtualBox) and Win7 x64
- not tested in Win8 and higher

(1) Required files (type in a search engine to find them)

- mpir-2.7.2.tar.bz2 (*)
- PDCurses-3.4.tar.gz (*)
- gnucobol-2.2-rc.tar.gz (*) -- only this version has been tested
- vbisam-2.0.1.tar.gz (*) -- the version included here works best
- tdm-gcc-webdl.exe
- msys+7za+wget+svn+git+mercurial+cvs-rev13.7z
- sample test program ("hi.cob")

(2) Set-up

- Create the folder C:\dev\mingw
- Run tdm-gcc-webdl.exe.
- Select MinGW/TDM (32-bit).
- Select the install directory C:\dev\mingw
- Select the mirror "Sourceforge default".
- Select the type of install "MinGW stable, C/C++".
- Make sure that gcc is also selected. Install tdm-gcc to directory C:\dev\mingw
- Unpack msys+7za+wget+svn+git+mercurial+cvs-rev13.7z and move the msys folder inside to C:\dev\mingw
- `cd c:\dev\mingw\msys` (in the MS-DOS cmd shell)
- `msys` (then close the msys terminal)
- Open the file `c:\dev\mingw\msys\etc\fstab` and edit to read:
`c:/dev/mingw /mingw` (save and close)

(3) Installation

- Copy the required COBOL build files (*) to c:\dev\mingw\msys
- `cd c:\dev\mingw\msys` (in the MS-DOS cmd shell)
- `msys`
- `gcc -v` (check the 'C' compiler version -- gcc 4.8.1 has been tested)
- `cd /mingw/msys`
- `tar xvjf mpir-2.7.2.tar.bz2`
- `cd mpir-2.7.2`
- `./configure --prefix=/mingw --disable-static \`
`--enable-shared --enable-gmpcompat`
- `make`
- `make check`
- `make install`
- `cd /mingw/msys`
- `tar xvzf PDCurses-3.4.tar.gz`
- `cd PDCurses-3.4/win32`
- `make -f gccwin32.mak DLL=Y`
- `cp pdcurses.dll /mingw/bin/.`
- `cp pdcurses.a /mingw/lib/libpdcurses.a`
- `cd ..`
- `cp *.h /mingw/include/.`
- `cp curses.h /mingw/include/pdcurses.h`

- `cd /mingw/msys`
 - `tar xvzf vbisam-2.0.1.tar.gz`
 - `cd vbisam-2.0.1`
 - `sh ./configure --prefix=/mingw CC="gcc -std=gnu99"`
 - `make`
 - `make install`
-
- `cd /mingw/msys`
 - `tar xvzf gnucobol-2.2-rc.tar.gz`
 - `cd gnucobol-2.2-rc`
 - `export LD_LIBRARY_PATH=/mingw/lib:$LD_LIBRARY_PATH`
 - `autom4te --version`
 - `touch tests/testsuite` (do only if *autom4te* is not installed)
 - `./configure --prefix=/mingw --with-vbisam --disable-rpath \`
`CPPFLAGS=-I/mingw/include LDFLAGS=-L/mingw/lib`
 (use `--disable-rpath` only if you get error message "missing -R option")
 - `make`
 - `make check`
 - `make test`
 - `make install`

Close msys and create the new folder C:\GnuCOBOL. Then

- copy C:\dev\MinGW\bin to C:\GnuCOBOL\bin
- copy C:\dev\MinGW\include to C:\GnuCOBOL\include
- copy C:\dev\MinGW\lib to C:\GnuCOBOL\lib
- copy C:\dev\MinGW\libexec to C:\GnuCOBOL\libexec
- copy C:\dev\MinGW\share\gnu-cobol\config to C:\GnuCOBOL\config
- copy C:\dev\MinGW\share\gnu-cobol\copy to C:\GnuCOBOL\copy

In the MS-DOS cmd shell,

```
cd c:\gnucobol
```

Edit and save the file "init.cmd":

```
set PATH=C:\GnuCOBOL\bin;%PATH%
set COB_CONFIG_DIR=C:\GnuCOBOL\config
set COB_COPY_DIR=C:\GnuCOBOL\copy
set COB_LIBRARY_PATH=C:\GnuCOBOL\lib
```

(4) Run the compiler

- cd c:\gnucobol
- init
- Edit and save "hi.cob".
- cobc -x hi.cob
- hi

Cygwin

- for Win7 and higher
- fully tested in Win7 x64, Win10 x64 test did not include VBISAM
- occupies about 700 MB of disk space

(1) Required files (type in a search engine to find them)

- gnucobol-2.2-rc.tar.gz (*) -- only this version has been tested
- vbisam-2.0.1.tar.gz (*) -- the version included here works best
- setup-x86_64.exe for Cygwin64 (64-bit) or setup-x86.exe for Cygwin (32-bit)
- sample test program ("hi.cob")

(2) Set-up

- Create the folder "C:\dev\Cygwin64" in your home directory.
- Run "setup-x86_64.exe" to install Cygwin64 in this directory.
- For 32-bit, change Cygwin64 to Cygwin throughout this document

Mark for Installation:

- Base: ncurses
- Devel: gcc-core
- Devel: gcc-g++
- Devel: gdb
- Devel: gettext-devel
- Devel: help2man
- Devel: libtool
- Devel: make
- Editors: nano
- Interpreters: m4

- Interpreters: perl
- Libs, Math: libgmp-devel
- Libs: libncurses-devel
- Libs: libncursesw10
- Perl, Utils: ddir
- Shells: rxvt-unicode
- Text: gettext
- Web: wget

Click 'Next' a couple of times to complete the install of Cygwin.

(3) Installation

- Copy the required COBOL build files (*) to c:\dev\Cygwin64
- `cd c:\dev\Cygwin64` (in the MS-DOS cmd shell)
- `cygwin`
- `gcc -v` (check the 'C' compiler version -- gcc 5.4.0 has been tested)
- `cd /`
- `tar xvzf vbisam-2.0.1.tar.gz`
- `cd vbisam-2.0.1`
- `sh ./configure --prefix=/usr/local CC="gcc -std=gnu99"`
- `make`
- `make install`

- `cd /`
- `tar xvzf gnuccobol-2.2-rc.tar.gz`
- `cd gnuccobol-2.2-rc`
- `export LD_LIBRARY_PATH=/usr/local/lib:$LD_LIBRARY_PATH`
- `touch tests/testsuite`
- `./configure --prefix=/usr/local --with-vbism --disable-rpath \`
`CPPFLAGS=-I/usr/local/include LDFLAGS=-L/usr/local/lib`
- `make`
- `make check`
- `make test`
- `make install`

Close Cygwin.

Rename the folder C:\dev\Cygwin64 to C:\dev\GnuCOBOL.

Copy the entire GnuCOBOL folder to the Desktop and move it to C:\.

In the C:\GnuCOBOL folder, edit the file Cygwin.bat:

Change `chdir C:\dev\Cygwin64\bin` to `chdir C:\GnuCOBOL\bin` and save the change.

(4) Run the compiler

- `cd c:\gnuccobol` (in the MS-DOS command shell)
- `cygwin`
- `cd /` (in Cygwin64)
- `nano hi.cob` (Edit and save "hi.cob")
- `cobc -x hi.cob`
- `./hi`