OpenCobol2.0安装

OpenCobol现在被纳入GUN，又叫做GNU cobol，可以提供在PC下的cobol编译运行环境。

下载OpenCobol 2.0

http://opencobol.org/

解压，安装参考README

./configure

make check

sudo make install

提示找不到几个头文件，安装依赖库：

libgmp10-dev, libdb-dev, libncurses5-dev

注：

libgmp10-dev ：Gun-mp 高精度数学库

libdb-dev ：伯克利db

libncurses5-dev ：字符终端处理

安装确认：

cobc -V

cobcrun -V

GnuCOBOL

https://www.gnu.org/software/gnucobol/

https://sourceforge.net/projects/open-cobol

https://savannah.gnu.org/projects/gnucobol

GnuCOBOL is a free (like both in "free speech" and in "free beer")

COBOL compiler, formerly known as OpenCOBOL.

It implements a substantial part of the COBOL 85, COBOL 2002 and COBOL 2014

standards, as well as many extensions included in other COBOL compilers.

GnuCOBOL translates COBOL into C and compiles the translated code

using the native C compiler on various platforms, including Unix/Linux,

Mac OS X, and Microsoft Windows.

This package contains the following subdirectories:

cobc COBOL compiler

libcob COBOL run-time library

bin COBOL driver program

build\_aux Helper scripts

lib Helper routines for missing OS functionality

config Configuration files

po International messages

doc 'info' and 'pdf' files

tests Test suite (GnuCOBOL and framework for COBOL85)

extras useful COBOL programs

All programs except those in lib and libcob are distributed under

the GNU General Public License. See COPYING for details.

Programs in lib and libcob are distributed under the GNU Lesser

General Public License. See COPYING.LESSER for details.

For any copyright year range specified as YYYY-ZZZZ in this package,

that the range specifies every single year in that closed interval.

Although many have participated, most development thanks go to

Roger While

Keisuke Nishida

See AUTHORS for the author of each file.

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Requirements

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NOTE

For all the following packages (required or optional),

BOTH runtime AND development components are necessary.

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NOTE

All the following packages are normally part of a Linux

distribution. Cygwin distribution also has these as installable

packages, other operating systems also may have repositories for

these - eg. MAC OS, CentOS and others all have package repositories.

ALWAYS install the distribution packages when available !!

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GnuCOBOL REQUIRES one of the following external libraries to be installed

for implementation of decimal arithmetic:

BOTH runtime AND development components required.

o GNU MP (libgmp) 4.1.2 or later

http://gmplib.org

OR

o MPIR (libgmp - MPIR gmp-compat) 1.3.1 or later

(preferred when compiling on Windows with other compilers than GCC)

http://mpir.org

GNU MP and MPIR are distributed under GNU Lesser General Public License.

NOTE

Please ALWAYS use the distro package whenever possible !!

See NOTE above.

GnuCOBOL MAY require the following external libraries to be installed:

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NOTE - libltdl is NOT needed when installing on Linux,

SUN Solaris, MAC OS, CentOS or Windows

(including Cygwin, MingW and native windows).

It is also NOT needed with later versions of AIX and HP-UX.

(AIX >= 5.1 and HP-UX >= 11.1 are known to NOT require this).

(Check if you have the "dlopen" function).

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o GNU Libtool (libltdl)

http://www.gnu.org/software/libtool/libtool.html

libltdl is used to implement dynamic CALL statements.

GNU Libtool is distributed under GNU Lesser General Public License.

The following libraries ARE required WHEN :

1) Indexed-Sequential file I/O (ISAM) is used

BOTH runtime AND development components required.

One of the following:

o Berkeley DB (libdb) 4.1 or later

http://www.oracle.com/

http://www.oracle.com/technology/products/berkeley-db/db/index.html

Berkeley DB is distributed under Oracles own open-source license.

Note that if you linked your software with Berkeley DB,

you must distribute the source code of your software along with your

software, or you have to pay royalty to Oracle.

o VBISAM - ISAM file handler (libvbisam) 2.0 or later

http://sourceforge.net/projects/vbisam/

VBISAM is distributed under GNU Lesser General Public License.

o DISAM File handler (libdisam)

http://www.isamcentral.com

DISAM is distributed under the proprietary License

"Byte Designs Ltd. DISAM Software License".

2) SCREEN SECTION and/or extended ACCEPT/DISPLAY is used

BOTH runtime AND development components required.

One of the following:

o Ncurses (ncurses or ncursesw) 5.2 or later

http://www.gnu.org/software/ncurses/ncurses.html

Ncurses is distributed under a BSD style license.

o Unix curses

o PDCurses (pdcurses) for MinGW/native windows ports

http://pdcurses.sourceforge.net

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Installation

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See the INSTALL file for detailed information about how to configure

and install GnuCOBOL.

Special requirements and further installation notes are listed below.

\*\* NOTE \*\*

The default installation path for GnuCOBOL is /usr/local.

The installation path may be changed by specifying --prefix=<dir>

as a parameter to the configure.

Further parameters may be specified to affect

include/library search paths.

Execute ./configure --help for further details.

To generate/install GnuCOBOL :

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Configure and build

./configure

make

Here you may run

make check

to run a series of GnuCOBOL test programs (must do!)

This MUST succeed - If not, please report.

You may optionally perform a series of COBOL85 tests.

make test

It is recommended that you perform these tests.

\*\* NOTE \*\*

The language interpreter "perl" is required to run COBOL85 tests.

If you build in Cygwin/MSYS you must use a Cygwin/MSYS version of perl.

\*\* NOTE \*\*

Running "make test" will try to download the COBOL85

testsuite if it is missing.

For details see tests/cobol85/README.

If you want to run both tests you can run

make checkall

Install

make install

\*\* NOTE \*\*

You generally need super-user privileges to execute "make install"

unless you changed the installation directory with

"./configure --prefix=<dir>" and have full access to <dir>.

\*\* NOTE \*\*

On Linux systems, if you are installing for the

-first- time, you may need to run "ldconfig" (as root).

In fact, it does not hurt if you always do this.

\*\* NOTE \*\*

On some Red Hat (Fedora) installations and

possibly other Linux distros, /usr/local/lib

is NOT automatically searched at runtime.

Edit /etc/ld.so.conf (or the equivalent file) and add

/usr/local/lib to the file.

Rerun "ldconfig".

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If you think you have a problem or just want to log

the output of make, just redirect the output with :

make 1>mymake.log 2>&1

make install 1>myinstall.log 2>&1

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You can get back to a clean installation status by running :

make distclean

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The following is only interesting for advanced use.

A normal user should not have recourse to use these

options.

There are many configure options (see configure --help for a full list),

these are the most important ones:

--with-db Use Berkeley DB >= 4.1 (libdb) (ISAM handler)

This is the default

--without-db Do neither use Berkeley DB nor any other ISAM handler

You will not be able to use indexed I/O

--with-vbisam Use VBISAM (libvbisam) (ISAM handler)

--with-dl Use the system dynamic linker

This is the default

--without-dl Use ltdl for dynamic program loading

--with-patch-level=<n> Set internal patch level to n (default 0)

--with-varseq=<n> Define the default format for variable

length sequential files.

The default may be overridden at run time by

setting the environment variable

COB\_VARSEQ\_FORMAT to 0, 1, 2, or 3.

For values of 0, 1 and 2, four bytes are

written preceding each record. The format of

these four bytes for values of 0, 1, 2 is

as follows :

n = 0 (default)

The first 2 bytes are the record length

in big-endian order. This is compatible

with mainframe. Bytes 3 and 4 are set

to binary 0.

n = 1

The 4 bytes are the record length in

big-endian order.

n = 2

The 4 bytes are the record length in

native machine order (int).

(This was previously the default)

For the value of 3, two bytes are written

preceding each record :

n = 3

The first 2 bytes are the record length

in big-endian order. The record follows

immediately after beginning at byte 3.

--enable-debug Add '-g' debug option to make

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Development

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If you wish to hack the GnuCOBOL source or build from version control,

see HACKING.

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安装环境：

ubuntu12.04 32bit

GnuCOBOL

https://www.gnu.org/software/gnucobol/

https://sourceforge.net/projects/open-cobol

https://savannah.gnu.org/projects/gnucobol

GnuCOBOL是免费的(就像“自由言论”和“免费啤酒”一样)

COBOL编译器，以前称为OpenCOBOL。

它实现了COBOL 85、COBOL 2002和COBOL 2014的大部分内容

标准，以及其他COBOL编译器中包含的许多扩展。

GnuCOBOL将COBOL翻译成C并编译翻译后的代码

在各种平台上使用本地C编译器，包括Unix/Linux，

Mac OS X和微软Windows。

这个包包含以下子目录:

cobc COBOL编译器

libcob COBOL运行时库

COBOL驱动程序

build\_aux辅助脚本

缺少操作系统功能的lib助手例程

配置配置文件

阿宝国际消息

doc 'info'和'pdf'文件

测试套件(GnuCOBOL和COBOL85框架)

额外的有用的COBOL程序

除了lib和libcob中的程序之外，所有的程序都是使用

GNU通用公共许可证。详情请参阅复制。

lib和libcob中的程序是在GNU Lesser下发布的

通用公共许可证。看到复制。小细节。

对于这个包中指定为YYYY-ZZZZ的任何版权年份范围，

这个范围指定了封闭区间内的每一年。

虽然许多人参与了，大部分的开发感谢去

罗杰,

圭佑Nishida

有关每个文件的作者，请参阅AUTHORS。

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需求

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\* \* \*

请注意

对于以下所有包(必需的或可选的)，

运行时和开发组件都是必需的。

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请注意

下面所有的包通常都是Linux的一部分

分布。Cygwin发行版也可以安装这些内容

包，其他操作系统也可能有存储库

这些,如。MAC OS, CentOS和其他系统都有软件包存储库。

总是在可用的时候安装发行包!!

\* \* \*

GnuCOBOL需要安装以下外部库之一

为了实现十进制算术:

需要运行时和开发组件。

o GNU MP (libgmp) 4.1.2或更高版本

http://gmplib.org

或

o MPIR (libgmp - MPIR gmp-compat) 1.3.1或更高版本

(在Windows上使用其他编译器而不是GCC编译时首选)

http://mpir.org

GNU MP和MPIR是在GNU Lesser General Public License下发布的。

请注意

请尽可能使用发行版包!!

参见上面的注意。

GnuCOBOL可能需要安装以下外部库:

\* \* \*

注意:在Linux上安装libltdl是不需要的，

SUN Solaris, MAC OS, CentOS或Windows

(包括Cygwin、MingW和本机windows)。

后续版本的AIX和HP-UX也不需要这样做。

(已知AIX &gt;= 5.1和HP-UX &gt;= 11.1不需要这样做)。

(检查你是否有“dlopen”功能)。

\* \* \*

o GNU Libtool (libltdl)

http://www.gnu.org/software/libtool/libtool.html

libltdl用于实现动态调用语句。

GNU Libtool是在GNU Lesser通用公共许可证下发布的。

下列情况需要下列图书馆:

1)使用索引顺序文件I/O (ISAM)

需要运行时和开发组件。

下列其中之一:

o Berkeley DB (libdb) 4.1或更高版本

http://www.oracle.com/

http://www.oracle.com/technology/products/berkeley-db/db/index.html

Berkeley DB是在Oracles自己的开源许可下发布的。

注意，如果你把你的软件与Berkeley DB链接，

您必须发布您的软件的源代码

软件，否则你就得向甲骨文支付版税。

ISAM文件处理程序(libvbisam) 2.0或更高版本

http://sourceforge.net/projects/vbisam/

VBISAM是在GNU Lesser General Public许可证下发布的。

o DISAM文件处理程序

http://www.isamcentral.com

DISAM是在专有许可下发布的

“字节设计有限公司DISAM软件许可证”。

2)使用屏幕分段和/或扩展接受/显示

需要运行时和开发组件。

下列其中之一:

o Ncurses (Ncurses或ncursesw) 5.2或更高版本

http://www.gnu.org/software/ncurses/ncurses.html

Ncurses是在BSD风格的许可下发布的。

o Unix诅咒

用于MinGW/本机windows端口的PDCurses (PDCurses

http://pdcurses.sourceforge.net

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安装

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有关如何配置的详细信息，请参阅安装文件

并安装GnuCOBOL。

特殊要求和进一步的安装注意事项列出如下。

\* \*注意\* \*

GnuCOBOL的默认安装路径是/usr/local。

通过指定—prefix=&lt;dir&gt;

作为配置的参数。

可以指定进一步的参数来影响

包括/库搜索路径。

Execute ./configure——帮助了解更多细节。

生成/安装GnuCOBOL:

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配置和构建

. / configure

使

在这里你可以跑

做检查

运行一系列GnuCOBOL测试程序(必须做!)

这必须成功-如果没有，请报告。

您可以选择执行一系列COBOL85测试。

做测试

建议您执行这些测试。

\* \*注意\* \*

运行COBOL85测试需要语言解释器“perl”。

如果使用Cygwin/MSYS编译，则必须使用Cygwin/MSYS版本的perl。

\* \*注意\* \*

运行“make test”将尝试下载COBOL85

testsuite(如果缺少的话)。

有关详细信息，请参阅tests/cobol85/README。

如果想同时运行两个测试，则可以运行

使checkall

安装

制作安装

\* \*注意\* \*

通常需要超级用户权限才能执行“make install”

除非您更改了安装目录

”。/configure—prefix=&lt;dir&gt;"，并具有对&lt;dir&gt;的完全访问权。

\* \*注意\* \*

在Linux系统上，如果您正在安装

-第一次，您可能需要运行“ldconfig”(作为root用户)。

事实上，如果你一直这样做，也不会感到疼痛。

\* \*注意\* \*

在一些红帽(Fedora)安装和

可能是其他Linux发行版，/usr/local/lib

不会在运行时自动搜索。

编辑/etc/ld.so.conf(或等效文件)并添加

到文件的/usr/local/lib。

重新运行“ldconfig”。

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如果您认为您有问题或只是想登录

make的输出，只需将输出重定向为:

使1祝辞mymake.log 2祝辞& 1

设置安装1&gt;myinstall.log 2&gt;&1

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你可以回到一个干净的安装状态运行:

使distclean

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以下内容仅供高级用户使用。

普通用户不应该使用这些工具

选项。

有许多配置选项(参见configure——help获取完整列表)，

以下是最重要的几点:

使用Berkeley DB &gt;= 4.1 (libdb) (ISAM处理器)

这是默认的

不要使用Berkeley DB或任何其他ISAM处理器

您将不能使用索引I/O

使用VBISAM (libvbisam) (ISAM处理器)

-with-dl使用系统动态链接器

这是默认的

使用ltdl动态加载程序

——with-patch-level = & lt; n&gt;将内部补丁级别设置为n(默认为0)

——with-varseq = & lt; n&gt;定义变量的默认格式

顺序文件长度。

默认值可能在运行时被覆盖

设置环境变量

COB\_VARSEQ\_FORMAT到0、1、2或3。

对于0、1和2的值，四个字节是

写在每条记录之前。的格式

这四个字节的值为0,1,2

如下:

n = 0(默认值)

前两个字节是记录长度

在高位优先顺序。这是兼容的

大型机。设置了字节3和4

二进制0。

n = 1

4字节是记录的长度

高位优先顺序。

n = 2

4字节是记录的长度

本机机器订单(int)。

(这是以前的默认值)

对于值3，将写入两个字节

在每条记录前:

n = 3

前两个字节是记录长度

在高位优先顺序。记录如下

在第3字节开始之后。

添加'-g'调试选项使

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发展

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如果你想破解GnuCOBOL的源代码或者通过版本控制来构建，

看到黑客。