如何安装高版本GCC

付振新

如何安装高版本GCC

- Yum安装
  - 版本太老
- SCL安装
  - 额外执行scl enable命令
- 源码安装
  - 编译成本高

SCL安装与激活

- yum install centos-release-scl # 安装scl
- yum install devtoolset-8 # 安装gcc8
- scl enable devtoolset-8 bash #激活对应的gcc环境
- yum search devtoolset # 查看可安装版本
  - devtoolset-7/8/9/10/11

```
(base) [root@localhost ~]# ls /opt/rh/devtoolset-8/root/
bin  boot  dev  etc  home  lib  lib64  media  mnt  opt  proc  root  run  sbin  srv  sys  tmp  usr  var
```

SCL

- /opt/rh/devtoolset-8/enable # 环境变量
- source /opt/rh/devtoolset-8/enable # 也可直接激活环境变量？

```
(base) [root@localhost devtoolset-8]# cat /opt/rh/devtoolset-8/enable
# General environment variables
export PATH=/opt/rh/devtoolset-8/root/usr/bin${PATH:+:${PATH}}
export MANPATH=/opt/rh/devtoolset-8/root/usr/share/man:${MANPATH}
export INFOPATH=/opt/rh/devtoolset-8/root/usr/share/info${INFOPATH:+:${INFOPATH}}
export PCP_DIR=/opt/rh/devtoolset-8/root
# Some perl Ext::MakeMaker versions install things under /usr/lib/perl5
# even though the system otherwise would go to /usr/lib64/perl5.
export PERL5LIB=/opt/rh/devtoolset-8/root//usr/lib64/perl5/vendor_perl:/opt/rh/devtoolset-8/root/usr/lib/perl5:/opt/rh/devtoolset-8/root//usr/sh
are/perl5/vendor_perl${PERL5LIB:+:${PERL5LIB}}
# bz847911 workaround:
# we need to evaluate rpm's installed run-time % { _libdir }, not rpmbuild time
# or else /etc/ld.so.conf.d files?
rpmlibdir=$(rpm --eval "%{_libdir}")
# bz1017604: On 64-bit hosts, we should include also the 32-bit library path.
if [ "$rpmlibdir" != "${rpmlibdir/lib64/}" ]; then
  rpmlibdir32=":/opt/rh/devtoolset-8/root${rpmlibdir/lib64/lib}"
fi
export LD_LIBRARY_PATH=/opt/rh/devtoolset-8/root$rpmlibdir$rpmlibdir32${LD_LIBRARY_PATH:+:${LD_LIBRARY_PATH}}
export LD_LIBRARY_PATH=/opt/rh/devtoolset-8/root$rpmlibdir$rpmlibdir32:/opt/rh/devtoolset-8/root$rpmlibdir/dyninst$rpmlibdir32/dyninst${LD_LIBRA
RY_PATH:+:${LD_LIBRARY_PATH}}
# duplicate python site.py logic for sitepackages
pythonvers=2.7
export PYTHONPATH=/opt/rh/devtoolset-8/root/usr/lib64/python$pythonvers/site-packages:/opt/rh/devtoolset-8/root/usr/lib/python$pythonvers/site-p
ackages${PYTHONPATH:+:${PYTHONPATH}}
export PKG_CONFIG_PATH=/opt/rh/devtoolset-8/root/usr/lib64/pkgconfig${PKG_CONFIG_PATH:+:${PKG_CONFIG_PATH}}
```

SCL

- 不局限于安装GCC
- https://wiki.centos.org/SpecialInterestGroup/SCLo/CollectionsList

Software Collections from RHSCL

This is a list of Software Collections from RHSCL 2.3 and their rebuild status inside SCLo SIG. These use the "rh" distinction in koji tags and are maintained by the RHSCL maintainers.

component	collection name	CentOS version	status	depends on	comment
DevAssistant 0.9.3	devassist09	6, 7	announced		**End of life** since Oct 2016
Developer Toolset 3.1	devtoolset-3	6, 7	announced (eclipse missing on centos6)	rh-java-common maven30	**End of life** since Oct 2016
Developer Toolset 4.0	devtoolset-4	6, 7	being build with external deps	rh-java-common maven30	**End of life** since Oct 2017
Developer Toolset 6.0	devtoolset-6	6, 7			
Git 1.9.4	git19	6, 7	announced		**End of life** since Oct 2016
Apache httpd 2.4.12	httpd24	6, 7	announced		
MariaDB 5.5.37	mariadb55	6, 7	announced		**End of life** since Oct 2016
Maven 3.0.5	maven30	6, 7	published	rh-java-common	only deps for other SCLs, no need to announce - **End of life** since Oct 2016
MongoDB 2.4.9	mongodb24	6, 7	announced	v8314 rh-java-common maven30	**End of life** since Oct 2016
MySQL 5.5.37	mysql55	6, 7	announced		**End of life** since Oct 2016
nginx 1.4.4	nginx14	6, 7	built		nginx14 SCL was never considered GA quality, so there are no plans to release it - **End of life** since Oct 2014
nginx 1.6.2	nginx16	6, 7	announced		**End of life** since Oct 2016
Node.js 0.10	nodejs010	6, 7	announced	v8314	**End of life** since Oct 2016
Perl 5.16.3	perl516	6, 7	announced		**End of life** since Oct 2016
PHP 5.4.40	php54	6, 7	announced	httpd24	**End of life** since Oct 2016
PHP 5.5.21	php55	6, 7	announced	httpd24	**End of life** since Oct 2016

源码安装

- tar xzf gcc-8.*.*/.tar.gz
- cd gcc-8.*.*/
- ./contrib/download_prerequisites
- cd ..
- mkdik install_dest
- cd install_dest
- ../gcc-8.*.*/configure --prefix=*** –enable-languages=c,c++,fortran,go
- make
- make install
- 32Core; less than half an hour

谢谢！