
Linux 下 boost.python3 库编译说明

1. 环境准备

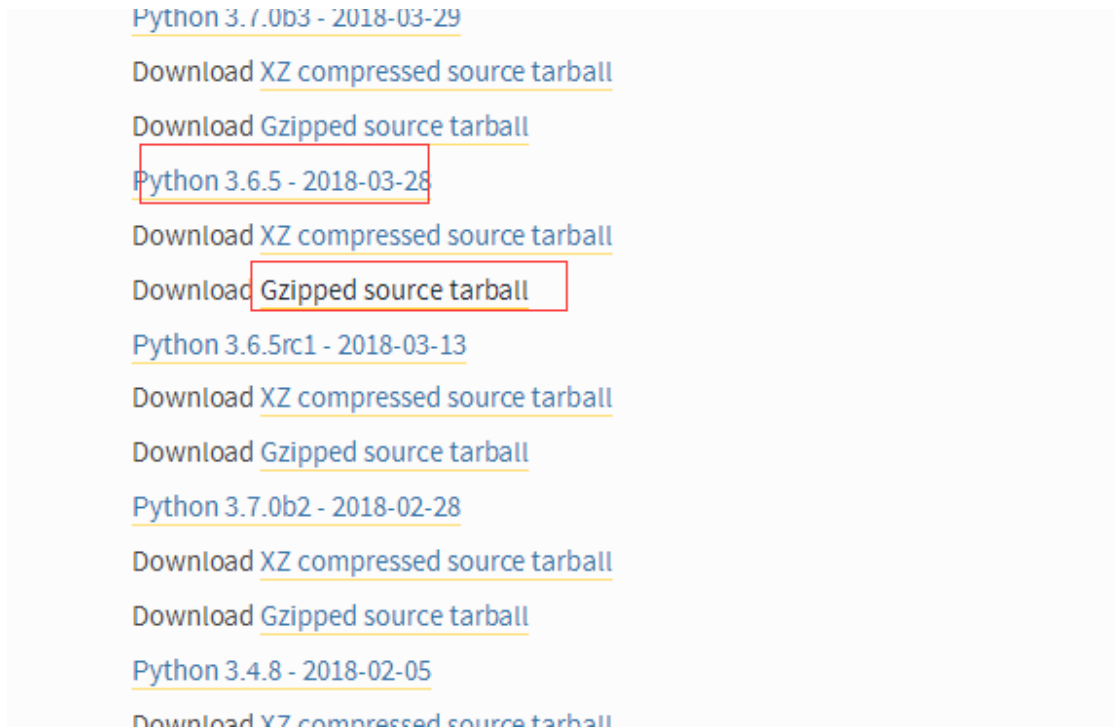
Linux

python3.6.5(tar.gz)

gcc (4.8.5 版本)

boost 1.66.0 (tar.gz)

1) <https://www.python.org/downloads/source/> 下载 python3, (可选其他版本)



存放/home/likunliang/目录下(可选), 解压 `tar -xvf Python-3.6.5.tar.gz`,
`cd /home/likunliang/Python-3.6.5` 编译 `./configure`

`--prefix=/usr/local/python3` 安装先 `make` 然后再 `make install` 。创建
版本软连接, 如有 `python2` 等其他版本, 可先修改旧版本的软连接 `mv`
`/usr/bin/python /usr/bin/python_bak` , 创建新的软连接

In `-s /usr/local/python3/bin/python3 /usr/bin/python` 检查 `python` 的版本 `python`
`-V` 显示: `python-3.6.5` 软连接创建成功 。

2) 进入官网 <http://www.boost.org/>，选择最新的版本，这里是 1.66.0 版本

下载完成之后，解压

VERSION 1.66.0

VERSION 1.66.0

December 18th, 2017 13:58 GMT

[Documentation](#)

DOWNLOADS

Platform	File	SHA256 Hash
unix	boost_1_66_0.tar.bz2	5721818253e6a0989583192f96782c4a98eb6204965316df9f5ad75819225ca9
	boost_1_66_0.tar.gz	bd0df411efd9a585e5a2212275f8762079fed8842264954675a4fddc46cfcf60
windows	boost_1_66_0.7z	596389389c005814ecb2a6b64c31dccc2c3e6fbc5a802b4dfada999ae5844628
	boost_1_66_0.zip	e1c55ebb00886c1a96528e4024be98a38b815115f62ecfe878fcf587ba715aad

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3) boost 的编译

a) 将 boost_1_66_0.tar.gz 解压至/home/likunliang/目录下，cd

/home/likunliang/boost_1_66_0

b) ./bootstrap.sh --with-python=/usr/local/python3

c) ./b2 --toolset=gcc-4.8.5 --with-python

include="/usr/local/python3/include/python3.6m/"

--with-thread --with-date_time --with-chrono

(说明：--with-python 里面的 python 需要是 python3 版本，通过 include 参数指定自定义版本的 python 包含路径)

在 boost 目录下会生成 stage 文件夹，里面的 lib 就是 C++ 所需的 python3 的 lib 文件。至此 boost.python3 库编译完成。

```
gcc.archive bin.v2/libs/date_time/build/gcc-gnu-4.8.5/release/link-static/threadapi-pthread/threading-multi/libboost_date_time.a
common.copy stage/lib/libboost_date_time.a
gcc.compile.c++ bin.v2/libs/system/build/gcc-gnu-4.8.5/release/link-static/threadapi-pthread/threading-multi/error_code.o
gcc.archive bin.v2/libs/system/build/gcc-gnu-4.8.5/release/link-static/threadapi-pthread/threading-multi/libboost_system.a
common.copy stage/lib/libboost_system.a
gcc.compile.c++ bin.v2/libs/thread/build/gcc-gnu-4.8.5/release/link-static/threadapi-pthread/threading-multi/pthread/thread.o
gcc.compile.c++ bin.v2/libs/thread/build/gcc-gnu-4.8.5/release/link-static/threadapi-pthread/threading-multi/pthread/once.o
gcc.compile.c++ bin.v2/libs/thread/build/gcc-gnu-4.8.5/release/link-static/threadapi-pthread/threading-multi/future.o
gcc.archive bin.v2/libs/thread/build/gcc-gnu-4.8.5/release/link-static/threadapi-pthread/threading-multi/libboost_thread.a
common.copy stage/lib/libboost_thread.a
...updated 57 targets...
```

The Boost C++ Libraries were successfully built!

The following directory should be added to compiler include paths:

```
/home/likunliang/boost_1_66_0_python3
```

The following directory should be added to linker library paths:

```
/home/likunliang/boost_1_66_0_python3/stage/lib
```

```
[root@XTP boost_1_66_0_python3]# cd stage/lib/
```

```
[root@XTP lib]# ll
```

```
total 1756
```

```
-rw-r--r-- 1 root root 148690 May 23 22:13 libboost_date_time.a
```

```
[root@XTP lib]#
```

```
[root@XTP lib]# pwd
```

```
/home/likunliang/boost_1_66_0_python3/stage/lib
```

```
[root@XTP lib]# ll
```

```
total 1756
```

```
-rw-r--r-- 1 root root 148690 May 23 22:13 libboost_date_time.a
```

```
lrwxrwxrwx 1 root root 28 May 23 22:13 libboost_date_time.so -> libboost_date_time.so.1.66.0
```

```
-rw-r--r-- 1 root root 94405 May 23 22:13 libboost_date_time.so.1.66.0
```

```
-rw-r--r-- 1 root root 605484 May 23 22:11 libboost_python3.a
```

```
lrwxrwxrwx 1 root root 26 May 23 22:10 libboost_python3.so -> libboost_python3.so.1.66.0
```

```
-rw-r--r-- 1 root root 365634 May 23 22:10 libboost_python3.so.1.66.0
```

```
-rw-r--r-- 1 root root 61110 May 23 22:13 libboost_system.a
```

```
lrwxrwxrwx 1 root root 25 May 23 22:13 libboost_system.so -> libboost_system.so.1.66.0
```

```
-rw-r--r-- 1 root root 20654 May 23 22:13 libboost_system.so.1.66.0
```

```
-rw-r--r-- 1 root root 296456 May 23 22:13 libboost_thread.a
```

```
lrwxrwxrwx 1 root root 25 May 23 22:13 libboost_thread.so -> libboost_thread.so.1.66.0
```

```
-rw-r--r-- 1 root root 187707 May 23 22:13 libboost_thread.so.1.66.0
```

```
[root@XTP lib]#
```