

以安装json库为例进行说明：

1 指令安装json-c库：

```
sudo apt-get install libjson-c-dev
```

2 下载json-c库的压缩包的位置：

```
/var/cache/apt/archives
```

3 json-c库压缩包的信息：

```
:/var/cache/apt/archives $ dpkg -c libjson-c-dev_0.11-3ubuntu1.2_i386.deb
```

```
drwxr-xr-x root/root      0 2014-06-04 03:41 ./
drwxr-xr-x root/root      0 2014-06-04 03:40 ./usr/
drwxr-xr-x root/root      0 2014-06-04 03:40 ./usr/lib/
drwxr-xr-x root/root      0 2014-06-04 03:40 ./usr/lib/i386-linux-gnu/
drwxr-xr-x root/root      0 2014-06-04 03:40 ./usr/lib/i386-linux-gnu/pkgconfig/
-rw-r--r-- root/root    238 2014-06-04 03:40 ./usr/lib/i386-linux-gnu/pkgconfig/json-c.pc
-rw-r--r-- root/root   51146 2014-06-04 03:40 ./usr/lib/i386-linux-gnu/libjson-c.a
drwxr-xr-x root/root      0 2014-06-04 03:40 ./usr/share/
drwxr-xr-x root/root      0 2014-06-04 03:40 ./usr/share/doc/
drwxr-xr-x root/root      0 2014-06-04 03:41 ./usr/share/doc/libjson-c-dev/
-rw-r--r-- root/root    1927 2013-08-27 18:50 ./usr/share/doc/libjson-c-dev/copyright
drwxr-xr-x root/root      0 2014-06-04 03:40 ./usr/include/
drwxr-xr-x root/root      0 2014-06-04 03:40 ./usr/include/json-c/
-rw-r--r-- root/root    2194 2014-06-04 03:40 ./usr/include/json-c/printbuf.h
-rw-r--r-- root/root     580 2014-06-04 03:40 ./usr/include/json-c/json_inttypes.h
-rw-r--r-- root/root     407 2014-06-04 03:40 ./usr/include/json-c/random_seed.h
-rw-r--r-- root/root     990 2014-06-04 03:40 ./usr/include/json-c/json_object_private.h
-rw-r--r-- root/root    6761 2014-06-04 03:40 ./usr/include/json-c/linkhash.h
-rw-r--r-- root/root     684 2014-06-04 03:40 ./usr/include/json-c/json_c_version.h
-rw-r--r-- root/root    1089 2014-06-04 03:40 ./usr/include/json-c/arraylist.h
-rw-r--r-- root/root    1034 2014-06-04 03:40 ./usr/include/json-c/json_util.h
-rw-r--r-- root/root   19749 2014-06-04 03:40 ./usr/include/json-c/json_object.h
-rw-r--r-- root/root    1869 2014-06-04 03:40 ./usr/include/json-c/debug.h
-rw-r--r-- root/root     693 2014-06-04 03:40 ./usr/include/json-c/bits.h
-rw-r--r-- root/root    7019 2014-06-04 03:40 ./usr/include/json-c/json_tokener.h
-rw-r--r-- root/root     163 2014-06-04 03:40 ./usr/include/json-c/json_config.h
-rw-r--r-- root/root    8187 2014-06-04 03:40 ./usr/include/json-c/json_object_iterator.h
-rw-r--r-- root/root     699 2014-06-04 03:40 ./usr/include/json-c/json.h
lrwxrwxrwx root/root      0 2014-06-04 03:40 ./usr/lib/i386-linux-gnu/libjson-c.so -> /lib/i386-linux-gnu/libjson-c.so.2.0.0
lrwxrwxrwx root/root      0 2014-06-04 03:41 ./usr/share/doc/libjson-c-dev/changelog.Debian.gz -> ../libjson-c2/changelog.Debian.gz
```

4 通过步骤3，就知道 编译时需要的头文件 和 链接时需要的库文件 的存放的位置了。

头文件：/usr/include/

库文件：/usr/lib/i386-linux-gnu/

5 通过写测试程序也可以知道库文件的位置：

```
#include <json-c/json.h>
```

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    struct json_object* msg = NULL;
```

```
    msg = json_object_new_object();
```

```
    if (msg)
```

```
    {
```

```
        json_object_object_add(msg, "firstName", json_object_new_string("chzh"));
```

```
        json_object_object_add(msg, "lastName", json_object_new_string("deng"));
```

```
    }
```

```
    printf("---%s-----\n", json_object_get_string(msg));
```

```
    json_object_put(msg);
```

```
    return 0;
```

```
}
```

编译及链接：**gcc json_str.c -o json_str -ljson-c**

查看链接了哪些动态库：

```
~/github/example/C/module/app_json $ ldd json_str
```

```
linux-gate.so.1 => (0xb7765000)
```

```
libjson-c.so.2 => /lib/i386-linux-gnu/libjson-c.so.2 (0xb7740000)
```

```
libc.so.6 => /lib/i386-linux-gnu/libc.so.6 (0xb758f000)
```

```
/lib/ld-linux.so.2 (0xb7767000)
```

6 ubuntu系统是怎么知道动态库存放的位置或路径的？

在/etc/ld.so.conf中添加路径：

比如在/etc/ld.so.conf.d/i686-linux-gnu.conf中添加/lib/i386-linux-gnu的路径；

执行sudo /sbin/ldconfig命令生效，缓存到/etc/ld.so.cache 以供使用

7 手动安装一个Debian软件包的指令

1、dpkg -i <package.deb>

安装一个 Debian 软件包，如你手动下载的文件。

2、dpkg -c <package.deb>

列出 <package.deb> 的内容。

8 查看lighttpd软件安装的位置：

```
:/var/cache/apt/archives $ dpkg -c lighttpd_1.4.33-1+nmu2ubuntu2_i386.deb
```

```
drwxr-xr-x root/root      0 2014-01-29 01:24 ./
```

drwxr-xr-x root/root	0	2014-01-29 01:24	./lib/
drwxr-xr-x root/root	0	2014-01-29 01:24	./lib/systemd/
drwxr-xr-x root/root	0	2014-01-29 01:24	./lib/systemd/system/
-rw-r--r-- root/root	234	2014-01-29 01:08	./lib/systemd/system/lighttpd.service
drwxr-xr-x root/root	0	2014-01-29 01:24	./usr/
drwxr-xr-x root/root	0	2014-01-29 01:24	./usr/lib/
drwxr-xr-x root/root	0	2014-01-29 01:24	./usr/lib/cgi-bin/
drwxr-xr-x root/root	0	2014-01-29 01:24	./usr/lib/tmpfiles.d/
-rw-r--r-- root/root	45	2014-01-29 01:08	./usr/lib/tmpfiles.d/lighttpd.tmpfile.conf
drwxr-xr-x root/root	0	2014-01-29 01:24	./usr/lib/lighttpd/
-rw-r--r-- root/root	22088	2014-01-29 01:24	./usr/lib/lighttpd/mod_proxy.so
-rw-r--r-- root/root	30692	2014-01-29 01:24	./usr/lib/lighttpd/mod_auth.so
-rw-r--r-- root/root	18204	2014-01-29 01:24	./usr/lib/lighttpd/mod_dirlisting.so
-rw-r--r-- root/root	26356	2014-01-29 01:24	./usr/lib/lighttpd/mod_ssi.so
-rw-r--r-- root/root	13884	2014-01-29 01:24	./usr/lib/lighttpd/mod_rewrite.so
-rw-r--r-- root/root	38844	2014-01-29 01:24	./usr/lib/lighttpd/mod_scgi.so
-rw-r--r-- root/root	18044	2014-01-29 01:24	./usr/lib/lighttpd/mod_compress.so
-rw-r--r-- root/root	9596	2014-01-29 01:24	./usr/lib/lighttpd/mod_alias.so
-rw-r--r-- root/root	9724	2014-01-29 01:24	./usr/lib/lighttpd/mod_simple_vhost.so
-rw-r--r-- root/root	22124	2014-01-29 01:24	./usr/lib/lighttpd/mod_cgi.so
-rw-r--r-- root/root	9628	2014-01-29 01:24	./usr/lib/lighttpd/mod_expire.so
-rw-r--r-- root/root	5488	2014-01-29 01:24	./usr/lib/lighttpd/mod_access.so
-rw-r--r-- root/root	9648	2014-01-29 01:24	./usr/lib/lighttpd/mod_extforward.so
-rw-r--r-- root/root	9640	2014-01-29 01:24	./usr/lib/lighttpd/mod_evhost.so
-rw-r--r-- root/root	17980	2014-01-29 01:24	./usr/lib/lighttpd/mod_status.so
-rw-r--r-- root/root	9756	2014-01-29 01:24	./usr/lib/lighttpd/mod_secdownload.so
-rw-r--r-- root/root	9624	2014-01-29 01:24	./usr/lib/lighttpd/mod_redirect.so
-rw-r--r-- root/root	51228	2014-01-29 01:24	./usr/lib/lighttpd/mod_fastcgi.so
-rw-r--r-- root/root	9788	2014-01-29 01:24	./usr/lib/lighttpd/mod_userdir.so
-rw-r--r-- root/root	9592	2014-01-29 01:24	./usr/lib/lighttpd/mod_setenv.so
-rw-r--r-- root/root	13772	2014-01-29 01:24	./usr/lib/lighttpd/mod_staticfile.so
-rw-r--r-- root/root	9640	2014-01-29 01:24	./usr/lib/lighttpd/mod_flv_streaming.so
-rw-r--r-- root/root	13764	2014-01-29 01:24	./usr/lib/lighttpd/mod_rrdtool.so
-rw-r--r-- root/root	18012	2014-01-29 01:24	./usr/lib/lighttpd/mod_accesslog.so
-rw-r--r-- root/root	5480	2014-01-29 01:24	./usr/lib/lighttpd/mod_evasive.so
-rw-r--r-- root/root	9608	2014-01-29 01:24	./usr/lib/lighttpd/mod_indexfile.so
-rw-r--r-- root/root	9756	2014-01-29 01:24	./usr/lib/lighttpd/mod_usertrack.so
drwxr-xr-x root/root	0	2014-01-29 01:24	./usr/share/
drwxr-xr-x root/root	0	2014-01-29 01:24	./usr/share/lintian/
drwxr-xr-x root/root	0	2014-01-29 01:24	./usr/share/lintian/overrides/
-rw-r--r-- root/root	350	2014-01-29 01:08	./usr/share/lintian/overrides/lighttpd
drwxr-xr-x root/root	0	2014-01-29 01:24	./usr/share/doc/
drwxr-xr-x root/root	0	2014-01-29 01:24	./usr/share/doc/lighttpd/
-rw-r--r-- root/root	3620	2011-06-13 20:43	./usr/share/doc/lighttpd/README
-rw-r--r-- root/root	20756	2013-08-31 02:46	./usr/share/doc/lighttpd/NEWS.gz
-rw-r--r-- root/root	1108	2014-01-29 01:08	./usr/share/doc/lighttpd/NEWS.Debian.gz

-rw-r--r--	root/root	4386	2014-01-29 01:08	./usr/share/doc/lighttpd/copyright
-rw-r--r--	root/root	1885	2014-01-29 01:25	./usr/share/doc/lighttpd/changelog.Debian.gz
drwxr-xr-x	root/root	0	2014-01-29 01:24	./usr/share/man/
drwxr-xr-x	root/root	0	2014-01-29 01:24	./usr/share/man/man1/
-rw-r--r--	root/root	1136	2014-01-29 01:24	./usr/share/man/man1/lighty-enable-mod.1.gz
drwxr-xr-x	root/root	0	2014-01-29 01:24	./usr/share/man/man8/
-rw-r--r--	root/root	936	2014-01-29 01:24	./usr/share/man/man8/lighttpd.8.gz
drwxr-xr-x	root/root	0	2014-01-29 01:24	./usr/share/lighttpd/
-rwxr-xr-x	root/root	241	2014-01-29 01:08	./usr/share/lighttpd/include-conf-enabled.pl
-rwxr-xr-x	root/root	247	2014-01-29 01:08	./usr/share/lighttpd/use-ipv6.pl
-rwxr-xr-x	root/root	461	2014-01-29 01:08	./usr/share/lighttpd/create-mime.assign.pl
-rw-r--r--	root/root	3568	2014-01-29 01:08	./usr/share/lighttpd/index.html
drwxr-xr-x	root/root	0	2014-01-29 01:24	./usr/sbin/
-rwxr-xr-x	root/root	5600	2014-01-29 01:24	./usr/sbin/lighttpd-angel
-rwxr-xr-x	root/root	4336	2014-01-29 01:08	./usr/sbin/lighty-enable-mod
-rwxr-xr-x	root/root	195792	2014-01-29 01:24	./usr/sbin/lighttpd
drwxr-xr-x	root/root	0	2014-01-29 01:24	./var/
drwxr-xr-x	root/root	0	2014-01-29 01:24	./var/www/
drwxr-xr-x	root/root	0	2014-01-29 01:24	./var/log/
drwxr-x---	www-data/www-data	0	2014-01-29 01:24	./var/log/lighttpd/
drwxr-xr-x	root/root	0	2014-01-29 01:24	./var/cache/
drwxr-xr-x	root/root	0	2014-01-29 01:24	./var/cache/lighttpd/
drwxr-xr-x	www-data/www-data	0	2014-01-29 01:24	./var/cache/lighttpd/uploads/
drwxr-xr-x	www-data/www-data	0	2014-01-29 01:24	./var/cache/lighttpd/compress/
drwxr-xr-x	root/root	0	2014-01-29 01:24	./etc/
drwxr-xr-x	root/root	0	2014-01-29 01:24	./etc/logrotate.d/
-rw-r--r--	root/root	419	2014-01-29 01:24	./etc/logrotate.d/lighttpd
drwxr-xr-x	root/root	0	2014-01-29 01:24	./etc/cron.daily/
-rwxr-xr-x	root/root	338	2014-01-29 01:24	./etc/cron.daily/lighttpd
drwxr-xr-x	root/root	0	2014-01-29 01:24	./etc/ufw/
drwxr-xr-x	root/root	0	2014-01-29 01:24	./etc/ufw/applications.d/
-rw-r--r--	root/root	383	2014-01-29 01:24	./etc/ufw/applications.d/lighttpd
drwxr-xr-x	root/root	0	2014-01-29 01:24	./etc/init.d/
-rwxr-xr-x	root/root	2887	2014-01-29 01:08	./etc/init.d/lighttpd
drwxr-xr-x	root/root	0	2014-01-29 01:24	./etc/lighttpd/
drwxr-xr-x	root/root	0	2014-01-29 01:24	./etc/lighttpd/conf-available/
-rw-r--r--	root/root	508	2014-01-29 01:08	./etc/lighttpd/conf-available/90-debian-doc.conf
-rw-r--r--	root/root	849	2014-01-29 01:08	./etc/lighttpd/conf-available/10-proxy.conf
-rw-r--r--	root/root	843	2014-01-29 01:08	./etc/lighttpd/conf-available/README
-rw-r--r--	root/root	128	2014-01-29 01:08	./etc/lighttpd/conf-available/10-evhost.conf
-rw-r--r--	root/root	104	2014-01-29 01:08	./etc/lighttpd/conf-available/10-expire.conf
-rw-r--r--	root/root	168	2014-01-29 01:08	./etc/lighttpd/conf-available/11-extforward.conf
-rw-r--r--	root/root	450	2014-01-29 01:08	./etc/lighttpd/conf-available/10-userdir.conf
-rw-r--r--	root/root	38	2014-01-29 01:08	./etc/lighttpd/conf-available/10-usertrack.conf
-rw-r--r--	root/root	36	2014-01-29 01:08	./etc/lighttpd/conf-available/10-evasive.conf
-rw-r--r--	root/root	269	2014-01-29 01:08	./etc/lighttpd/conf-available/10-ssl.conf

-rw-r--r-- root/root	839 2014-01-29 01:08 ./etc/lighttpd/conf-available/05-auth.conf
-rw-r--r-- root/root	177 2014-01-29 01:08 ./etc/lighttpd/conf-available/10-fastcgi.conf
-rw-r--r-- root/root	99 2014-01-29 01:08 ./etc/lighttpd/conf-available/10-ssi.conf
-rw-r--r-- root/root	82 2014-01-29 01:08 ./etc/lighttpd/conf-available/10-no-www.conf
-rw-r--r-- root/root	575 2014-01-29 01:08 ./etc/lighttpd/conf-available/15-fastcgi-php.conf
-rw-r--r-- root/root	253 2014-01-29 01:08 ./etc/lighttpd/conf-available/10-rrdtool.conf
-rw-r--r-- root/root	91 2014-01-29 01:08 ./etc/lighttpd/conf-available/10-accesslog.conf
-rw-r--r-- root/root	343 2014-01-29 01:08 ./etc/lighttpd/conf-available/10-cgi.conf
-rw-r--r-- root/root	63 2014-01-29 01:08 ./etc/lighttpd/conf-available/10-dir-listing.conf
-rw-r--r-- root/root	398 2014-01-29 01:08 ./etc/lighttpd/conf-available/10-simple-vhost.conf
-rw-r--r-- root/root	460 2014-01-29 01:08 ./etc/lighttpd/conf-available/10-status.conf
-rw-r--r-- root/root	42 2014-01-29 01:08 ./etc/lighttpd/conf-available/10-flv-streaming.conf
-rw-r--r-- root/root	1065 2014-01-29 01:08 ./etc/lighttpd/lighttpd.conf
drwxr-xr-x root/root	0 2014-01-29 01:24 ./etc/lighttpd/conf-enabled/
lrwxrwxrwx root/root	0 2014-01-29 01:24 ./usr/share/man/man1/lighttpd-disable-mod.1.gz -> lighty-enable-mod.1.gz
lrwxrwxrwx root/root	0 2014-01-29 01:24 ./usr/share/man/man1/lighttpd-enable-mod.1.gz -> lighty-enable-mod.1.gz
lrwxrwxrwx root/root	0 2014-01-29 01:24 ./usr/share/man/man1/lighty-disable-mod.1.gz -> lighty-enable-mod.1.gz
lrwxrwxrwx root/root	0 2014-01-29 01:24 ./usr/sbin/lighttpd-disable-mod -> lighty-enable-mod
lrwxrwxrwx root/root	0 2014-01-29 01:24 ./usr/sbin/lighttpd-enable-mod -> lighty-enable-mod
lrwxrwxrwx root/root	0 2014-01-29 01:24 ./usr/sbin/lighty-disable-mod -> lighty-enable-mod