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# Cgminer 与 Cpuminer 安装说明

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版本	V1.0
日期	2014-02-27
撰写人	Gridseed

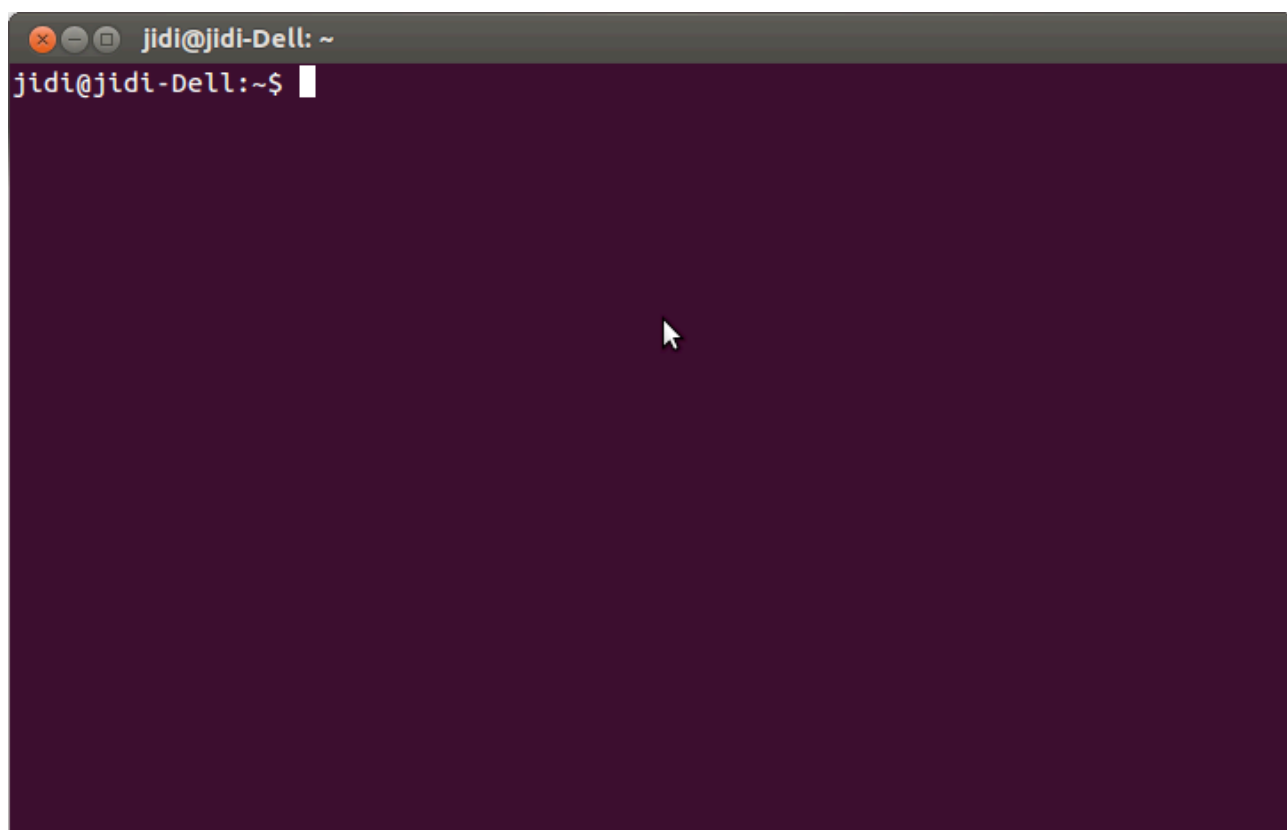
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# Cgminer 与 Cpuminer 安装说明

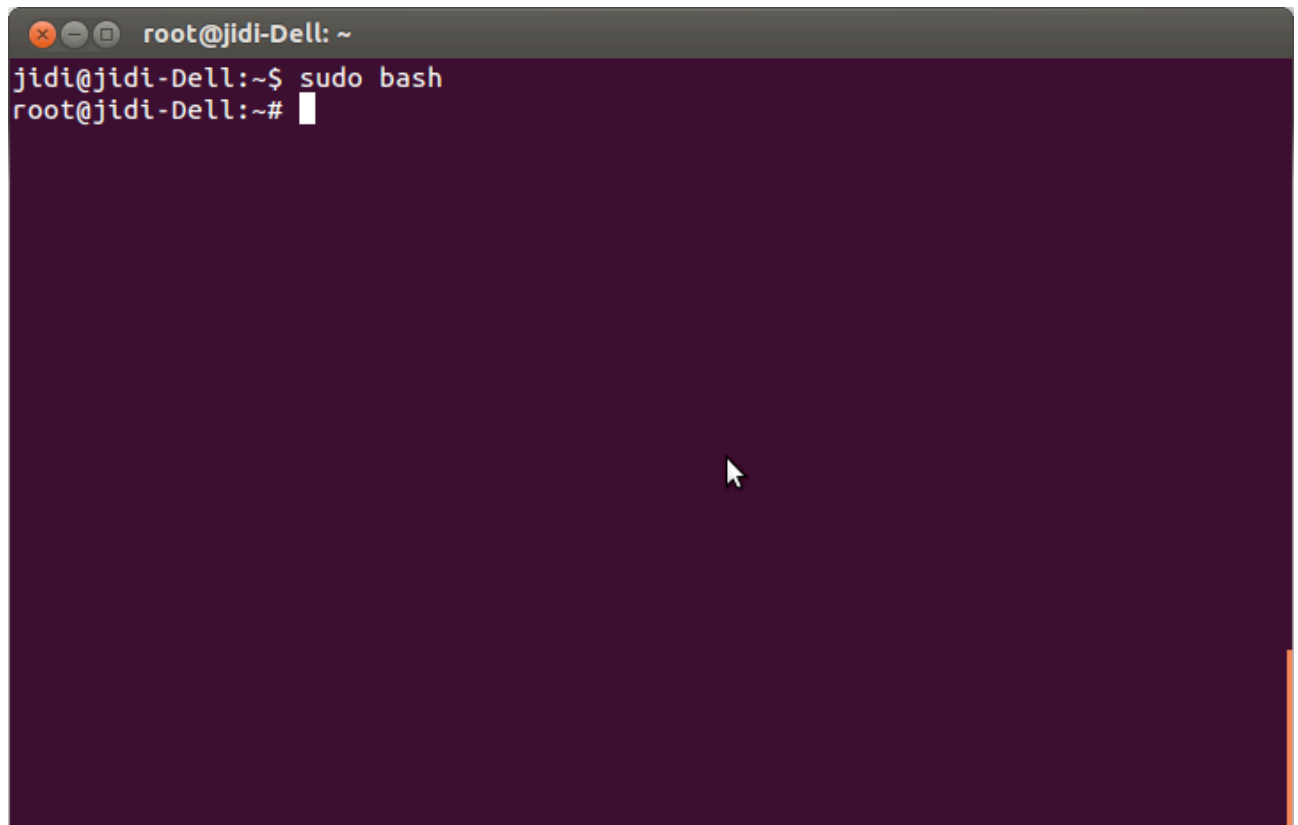
本操作指南是在 [Ubuntu](http://www.ubuntu.org.cn/download/desktop/zh-CN) 12.04 版本下安装实现，[Ubuntu](http://www.ubuntu.org.cn/download/desktop/zh-CN) 操作系统的安装请参看：  
<http://www.ubuntu.org.cn/download/desktop/zh-CN>

## 一) 准备安装 Cgminer 与 Cpuminer

### 1. 打开终端(按快捷键 ctrl+alt+t)



2.切换到 Root 环境(sudo bash)，第一次输入需要登录用户密码，如下图：

A terminal window with a dark purple background. The title bar shows 'root@jidi-Dell: ~'. The prompt is 'jidi@jidi-Dell:~\$'. The user has entered 'sudo bash' and the prompt has changed to 'root@jidi-Dell:~#'. A mouse cursor is visible in the center of the terminal area.

```
root@jidi-Dell: ~
jidi@jidi-Dell:~$ sudo bash
root@jidi-Dell:~#
```

3.安装前的准备建立/opt 目录，在/opt 目录下建立 cgminer,cpuminer 目录；

```
mkdir -p /opt/cgminer
mkdir -p /opt.cpuminer
```

进入 opt 目录，并查看是否已经建立，如下图：

```
cd /opt
ls /opt
```

```
root@jidi-Dell: /opt
root@jidi-Dell: /opt
root@jidi-Dell: /opt# ls
cgminer                                cpuminer                                google
cgminer-3.8.5-usb.20140212.tar.bz2    cpuminer-usb-dual.20140115.tgz          README
root@jidi-Dell: /opt#
```

4.下载 cgminer-3.8.5-usb.20140212.tar.bz2、cpuminer-usb-dual.20140115.tgz 到/opt 目录；

5.下载 cgminer 和 cpuminer 安装依赖包 curl,jansson；

```
cd /opt
```

```
wget http://curl.haxx.se/download/curl-7.34.0.tar.bz2
```

```
wget http://www.digip.org/jansson/releases/jansson-2.5.tar.bz2
```

```
root@jidi-Dell: /opt
正在连接 curl.haxx.se (curl.haxx.se)|80.67.6.50|:80... 已连接。
已发出 HTTP 请求, 正在等待回应... 200 OK
长度: 2770438 (2.6M) [application/x-bzip2]
正在保存至: "curl-7.34.0.tar.bz2"

100%[=====>] 2,770,438    622K/s   用时 4.4s
2014-02-27 15:19:26 (622 KB/s) - 已保存 "curl-7.34.0.tar.bz2" [2770438/2770438])

root@jidi-Dell:/opt# wget http://www.digip.org/jansson/releases/jansson-2.5.tar.
bz2
--2014-02-27 15:19:38--  http://www.digip.org/jansson/releases/jansson-2.5.tar.b
z2
正在解析主机 www.digip.org (www.digip.org)... 217.30.184.170
正在连接 www.digip.org (www.digip.org)|217.30.184.170|:80... 已连接。
已发出 HTTP 请求, 正在等待回应... 200 OK
长度: 312937 (306K) [application/x-bzip2]
正在保存至: "jansson-2.5.tar.bz2"

100%[=====>] 312,937    70.7K/s   用时 4.3s
2014-02-27 15:19:58 (70.7 KB/s) - 已保存 "jansson-2.5.tar.bz2" [312937/312937])

root@jidi-Dell:/opt#
```

如上面提示下载进度为 100%,这样两个包下载完成。安装 curl 软件, 命令如下:

```
tar vxvf curl-7.34.0.tar.bz2
```

```
cd curl-7.34.0/
```

```
./configure
```

```
make
```

```
make install
```

```
root@jidi-Dell: /opt/curl-7.34.0
l_multi_add_handle.3 curl_multi_cleanup.3 curl_multi_fdset.3 curl_multi_info_rea
d.3 curl_multi_init.3 curl_multi_perform.3 curl_multi_remove_handle.3 curl_share
_cleanup.3 curl_share_init.3 curl_share_setopt.3 libcurl.3 libcurl-easy.3 libcur
l-multi.3 libcurl-share.3 libcurl-errors.3 curl_easy_strerror.3 curl_multi_strerror.3 curl_share_strerror.3 curl_global_init_mem.3 '/usr/local/share/man/man3'
/usr/bin/install -c -m 644 libcurl-tutorial.3 curl_easy_reset.3 curl_easy_escap
e.3 curl_easy_unescape.3 curl_multi_setopt.3 curl_multi_socket.3 curl_multi_time
out.3 curl_formget.3 curl_multi_assign.3 curl_easy_pause.3 curl_easy_recv.3 curl
_easy_send.3 curl_multi_socket_action.3 curl_multi_wait.3 '/usr/local/share/man/
man3'
make[6]:正在离开目录 `/opt/curl-7.34.0/docs/libcurl'
make[5]:正在离开目录 `/opt/curl-7.34.0/docs/libcurl'
make[5]:正在进入目录 `/opt/curl-7.34.0/docs'
make[6]:正在进入目录 `/opt/curl-7.34.0/docs'
make[6]:没有什么可以做的为 `install-exec-am'。
/bin/mkdir -p '/usr/local/share/man/man1'
/usr/bin/install -c -m 644 curl.1 curl-config.1 '/usr/local/share/man/man1'
make[6]:正在离开目录 `/opt/curl-7.34.0/docs'
make[5]:正在离开目录 `/opt/curl-7.34.0/docs'
make[4]:正在离开目录 `/opt/curl-7.34.0/docs'
make[3]:正在离开目录 `/opt/curl-7.34.0'
make[2]:正在离开目录 `/opt/curl-7.34.0'
make[1]:正在离开目录 `/opt/curl-7.34.0'
root@jidi-Dell:/opt/curl-7.34.0#
```

上面安装完成后没有出现报错，说明 curl 安装成功。安装 jansson 软件，命令如下：

```
cd /opt
tar vxvf jansson-2.5.tar.bz2
cd jansson-2.5/

./configure
make
make install
```

```
root@jidi-Dell: /opt/jansson-2.5
make[4]:正在离开目录 `/opt/jansson-2.5/test/suites/api'
make[3]:正在离开目录 `/opt/jansson-2.5/test/suites/api'
make[3]:正在进入目录 `/opt/jansson-2.5/test/suites'
make[4]:正在进入目录 `/opt/jansson-2.5/test/suites'
make[4]:没有什么可以做的为 `install-exec-am'。
make[4]:没有什么可以做的为 `install-data-am'。
make[4]:正在离开目录 `/opt/jansson-2.5/test/suites'
make[3]:正在离开目录 `/opt/jansson-2.5/test/suites'
make[2]:正在离开目录 `/opt/jansson-2.5/test/suites'
make[2]:正在进入目录 `/opt/jansson-2.5/test'
make[3]:正在进入目录 `/opt/jansson-2.5/test'
make[3]:没有什么可以做的为 `install-exec-am'。
make[3]:没有什么可以做的为 `install-data-am'。
make[3]:正在离开目录 `/opt/jansson-2.5/test'
make[2]:正在离开目录 `/opt/jansson-2.5/test'
make[1]:正在离开目录 `/opt/jansson-2.5/test'
make[1]:正在进入目录 `/opt/jansson-2.5'
make[2]:正在进入目录 `/opt/jansson-2.5'
make[2]:没有什么可以做的为 `install-exec-am'。
/bin/mkdir -p '/usr/local/lib/pkgconfig'
/usr/bin/install -c -m 644 jansson.pc '/usr/local/lib/pkgconfig'
make[2]:正在离开目录 `/opt/jansson-2.5'
make[1]:正在离开目录 `/opt/jansson-2.5'
root@jidi-Dell:/opt/jansson-2.5#
```

执行完上述命令后，没有出现报错说明软件安装成功。

注意 :Jansson 默认不会将 so 文件链接到 /usr/bin 目录下 ,这样会导致编译的时候报错 ,

我们提前做一下,执行下面的命令 :

```
ln -s /usr/local/lib/libjansson.* /usr/lib/
```

```
root@jidi-Dell: /opt/jansson-2.5
make[4]:正在离开目录 `/opt/jansson-2.5/test/suites/api'
make[3]:正在离开目录 `/opt/jansson-2.5/test/suites/api'
make[3]:正在进入目录 `/opt/jansson-2.5/test/suites'
make[4]:正在进入目录 `/opt/jansson-2.5/test/suites'
make[4]:没有什么可以做的为 `install-exec-am'。
make[4]:没有什么可以做的为 `install-data-am'。
make[4]:正在离开目录 `/opt/jansson-2.5/test/suites'
make[3]:正在离开目录 `/opt/jansson-2.5/test/suites'
make[2]:正在离开目录 `/opt/jansson-2.5/test/suites'
make[2]:正在进入目录 `/opt/jansson-2.5/test'
make[3]:正在进入目录 `/opt/jansson-2.5/test'
make[3]:没有什么可以做的为 `install-exec-am'。
make[3]:没有什么可以做的为 `install-data-am'。
make[3]:正在离开目录 `/opt/jansson-2.5/test'
make[2]:正在离开目录 `/opt/jansson-2.5/test'
make[1]:正在离开目录 `/opt/jansson-2.5/test'
make[1]:正在进入目录 `/opt/jansson-2.5'
make[2]:正在进入目录 `/opt/jansson-2.5'
make[2]:没有什么可以做的为 `install-exec-am'。
/bin/mkdir -p '/usr/local/lib/pkgconfig'
/usr/bin/install -c -m 644 jansson.pc '/usr/local/lib/pkgconfig'
make[2]:正在离开目录 `/opt/jansson-2.5'
make[1]:正在离开目录 `/opt/jansson-2.5'
root@jidi-Dell:/opt/jansson-2.5# ln -s /usr/local/lib/libjansson.* /usr/lib/
```

到此前期的准备工作已经完成，可以开始安装 cgminer 核 cpuminer 了,具体请见（二）安装 cgminer ；

## 二)安装 cgminer

### 1.安装 cgminer

a.解压 cgminer-3.8.5-usb.20140212.tar.bz2 到/opt/cgminer 目录 ；

```
tar jvfx cgminer-3.8.5-usb.20140212.tar.bz2 -C ./cgminer/
cd /opt/cgminer
./configure
make
```



```
root@jidi-Dell: /opt
root@jidi-Dell:/opt# clear

root@jidi-Dell:/opt# tar jvfx cgminer-3.8.5-usb.20140212.tar.bz2 -C ./cgminer/
./
./uthash.h
./warn-on-use.h
./cgminer.c
./run.sh
./elist.h
./configure
./aclocal.m4
./ccan/
./ccan/compiler/
./ccan/compiler/compiler.h
./ccan/Makefile.am
./ccan/Makefile.in
./ccan/opt/
./ccan/opt/private.h
./ccan/opt/opt.c
./ccan/opt/opt.h
./ccan/opt/usage.c
./ccan/opt/parse.c
./ccan/opt/helpers.c
./ccan/typesafe_cb/
```

b.进入/opt/cgminer 目录，编译安装 cgminer

```
./configure --enable-gridseed
```

```
root@jidi-Dell: /opt/cgminer
BFL.ASICs.....: Disabled
BitForce.FPGAs.....: Disabled
BitFury.ASICs.....: Disabled
GridSeed.ASICs.....: Enabled
ST3210.MCU.....: Disabled
LED.Control.....: Disabled
Hashfast.ASICs.....: Disabled
Icarus.ASICs/FPGAs...: Disabled
Klondike.ASICs.....: Disabled
KnC.ASICs.....: Disabled
ModMiner.FPGAs.....: Disabled

Compilation.....: make (or gmake)
CPPFLAGS.....:
CFLAGS.....: -g -O2
LDFLAGS.....: -lpthread
LDADD.....: -ldl -L/usr/local/lib -lcurl  compat/jansson-2.5/src/.
libs/libjansson.a -lpthread  -lm compat/libusb-1.0/libusb/.libs/libusb-1.0.a -
ludev -lrt

Installation.....: make install (as root if needed, with 'su' or 'sudo')
prefix.....: /usr/local

root@jidi-Dell:/opt/cgminer#
```

如上面的输出结果则编译成功，然后执行 make，安装 cgminer

```
make
```

```
root@jidi-Dell: /opt/cgminer
al *'
cgminer.c:353:3: 警告: 传递'cgtimer_sub'的第 2 个参数时在不兼容的指针类型间转换
[默认启用]
./util.h:120:6: 附注: 需要类型'struct cgtimer_t *', 但实参的类型为'struct timev
al *'
cgminer.c:353:3: 警告: 传递'cgtimer_sub'的第 3 个参数时在不兼容的指针类型间转换
[默认启用]
./util.h:120:6: 附注: 需要类型'struct cgtimer_t *', 但实参的类型为'struct timev
al *'
cgminer.c:360:10: 警告: 忽略声明有 warn_unused_result 属性的'system'的返回值 [-
Wunused-result]
CC      cgminer-util.o
CC      cgminer-sha2.o
CC      cgminer-api.o
api.c: 在函数'message'中:
api.c:1332:7: 警告: 格式字符串不是一个字面字符串而且没有待格式化的实参 [-Wforma
t-security]
CC      cgminer-logging.o
CC      cgminer-usbutils.o
CC      cgminer-driver-gridseed.o
CCLD    cgminer
make[2]:正在离开目录 `/opt/cgminer'
make[1]:正在离开目录 `/opt/cgminer'
root@jidi-Dell:/opt/cgminer#
```

( 如上所示, 则安装成功 )

到此位置 cgminer 已经安装好, 插上框机后, 执行下面的命令

```
./cgminer
--gridseed-options=baud=115200,freq=750,chips=5,modules=1,usefifo=0,btc=11
--hotplug=0 -o stratum+tcp://stratum.f2pool.com:25 -u bittest111.111 -p 123456
```

```
root@jidi-Dell: /opt/cgminer
config.guess hexdump.c
root@jidi-Dell:/opt/cgminer# ./cgminer --gridseed-options=baud=115200,freq=750,chi
hips=5,modules=1,usefifo=0,btc=11 --hotplug=0 -o stratum+tcp://stratum.f2pool.co
m:25 -u bittest111.1 -p 123456
[2014-02-27 17:07:10] Started cgminer 3.8.5
[2014-02-27 17:07:10] GridSeed options: 'baud=115200,freq=750,hips=5,modules=1
,usefifo=0,btc=11'
[2014-02-27 17:07:10] System resetting
[2014-02-27 17:07:11] Device found, firmware version 0x13011401, driver version
v3.8.5.20140210.02.am3352
[2014-02-27 17:07:11] Create LTC proxy on 3350/UDP for 2:6(0)

[2014-02-27 17:07:11] GridSeed: send thread running, GridSeed_Send/0

[2014-02-27 17:07:11] GridSeed device opened on 2:6
[2014-02-27 17:07:11] Probing for an alive pool
[2014-02-27 17:07:11] GridSeed: rcv thread running, GridSeed_Recv/0

[2014-02-27 17:07:11] Pool 0 difficulty changed to 256
[2014-02-27 17:07:11] Network diff set to 3.13G
[2014-02-27 17:07:32] Accepted d7292b66 Diff 305/256 GSD 0
[2014-02-27 17:08:16] Stratum from pool 0 detected new block

[2014-02-27 17:08:35] Accepted 2c3d8161 Diff 1.48K/256 GSD 0

[2014-02-27 17:09:29] Pool 0 difficulty changed to 192
[2014-02-27 17:10:45] Accepted 010e6def Diff 242/192 GSD 0
```

技术贴 CG335 Ubuntu 配置 cgminer 高级比特 用cgminer监控CPU Ubuntu 用cgminer 收到 2封新邮件 矿工管理 - F2Pool PTSPool - 比特股

www.f2pool.com/user/worker

F2Pool BETA 我的首页 矿工管理 付款记录 帮助 转至 PTS 矿池 bittest111

### 矿工管理

全部 BTC LTC

矿工	币种	20分钟平均速度	接受数	拒绝数	拒绝率	最近提交时间	
bittest111.1	BTC	4581.4 Mhash/s	6	0	0.0%	2014-02-27 17:15	
bittest111.111	BTC	1832.5 Mhash/s	2	0	0.0%	2014-02-27 17:19	
bittest111.bt1	BTC	32985.9 Mhash/s	7275	8	0.1%	2014-02-27 17:19	
bittest111.k1	LTC	573.2 Khash/s	10147	6	0.1%	2014-02-27 17:20	
bittest111.k2	LTC	258.7 Khash/s	9771	2	0.0%	2014-02-27 17:20	
bittest111.k3	LTC	188.7 Khash/s	5026	5	0.1%	2014-02-27 17:20	
bittest111.k4	LTC	244.7 Khash/s	4608	5	0.1%	2014-02-27 17:20	
bittest111.k5	LTC	251.7 Khash/s	5116	4	0.1%	2014-02-27 17:20	

请选择...

使用采矿软件连接至 stratum+tcp://stratum.f2pool.com BTC 端口 3333 LTC 端口 8888 以 "bittest111" 或 "bittest111" 矿工名并任意密码开始采矿即可自动创建矿工。矿工名须由数字或小写字母组成，最长15个字符。除非您连接了8888端口，否则新建的矿工默认为BTC矿工。如果您需要其它币种，请注意在本页更改。如果您收到大量 "H-not-zero" 或 "high-hash" 的错误信息，请检查币种是否匹配。如果您无法连接至3333或8888端口，也可以尝试25端口。

(如上图所示，采矿机开始采矿了)

---

备注：下面几个参数供大家参考

Freq——框机采矿频率

Chips——芯片数量

Btc——控制 btc 运算力大小，当 btc 为 0 时只进行 ltc 采矿

Hotplug——扫描 usb 设备，值为 0 时不进行扫描

-u——制定矿工

-p——制定密码，随便指定一个就可以

## 2.安装 cpuminer ( 与安装 cgminer 类似 )

a.解压 cpuminer-usb-dual.20140115.tgz;

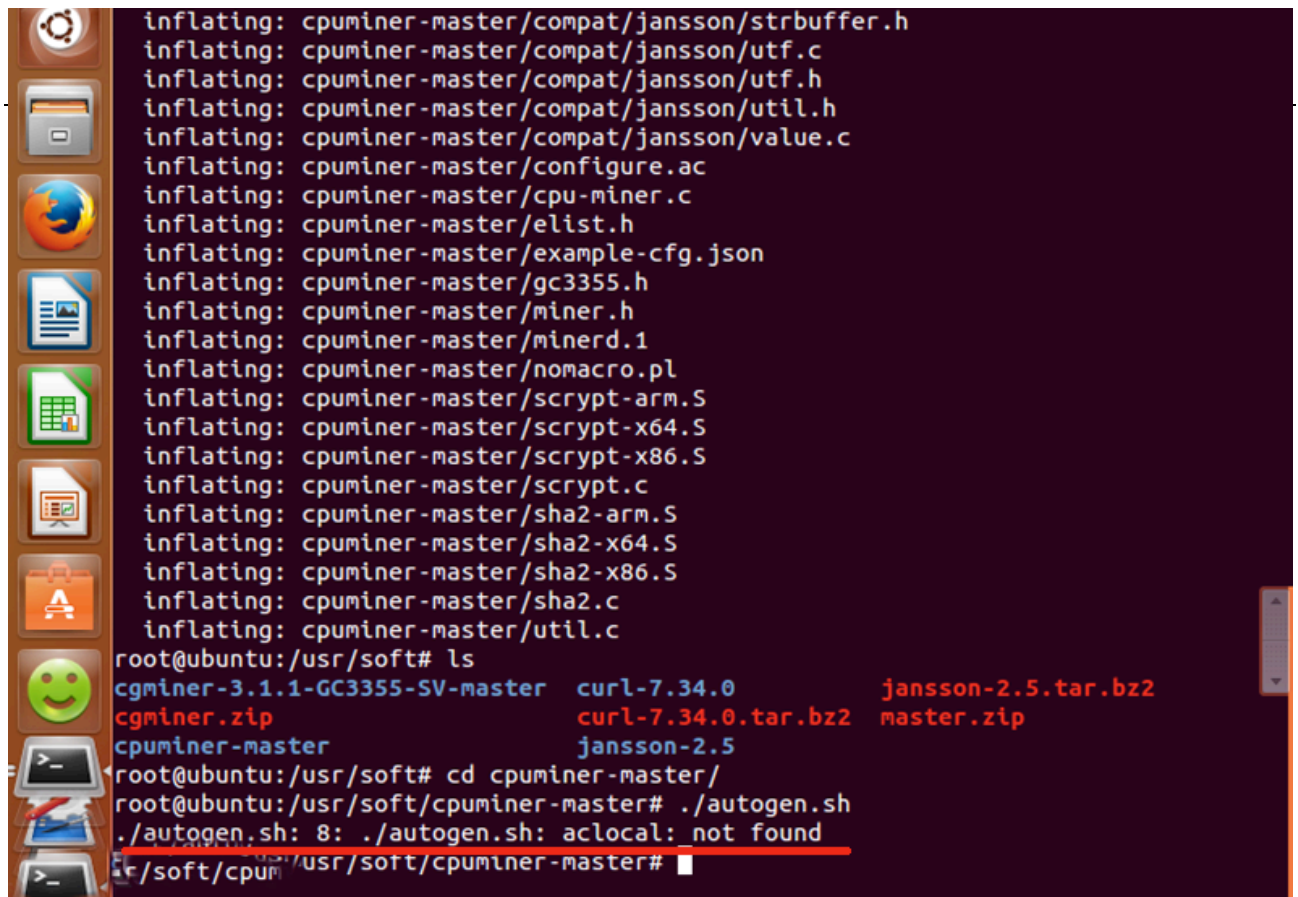
```
cd /opt/
```

```
tar vxf cpuminer-usb-dual.20140115.tgz -C /opt/cpuminer
```

```
ls /opt/cpuminer
```

```
root@jidi-Dell: /opt/cpuminer
root@jidi-Dell:/opt/cpuminer# ls /opt/cpuminer
aclocal.m4      config.sub      example-cfg.json  miner.h         scrypt-x64.S
AUTHORS         configure       gc3355.h          missing         scrypt-x86.S
autogen.sh      configure.ac    INSTALL          NEWS           sha2-arm.S
ChangeLog       COPYING        install-sh       nomacro.pl     sha2.c
compat          cpu-miner.c    LICENSE          README         sha2-x64.S
compat.h        cpuminer-config.h.in  Makefile.am      run.sh         sha2-x86.S
compile         depcomp        Makefile.in      scrypt-arm.S   util.c
config.guess    elist.h        minerd.1         scrypt.c
```

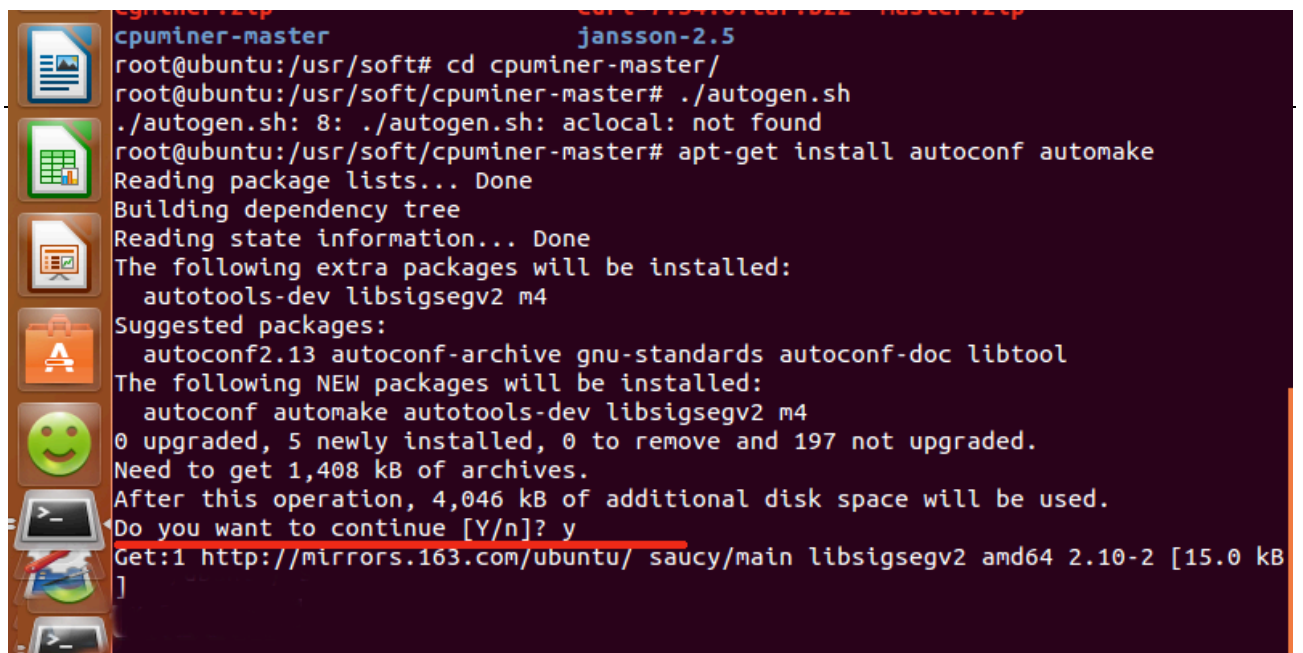
(如上图解压完成。)



```
inflating: cpuminer-master/compat/jansson/strbuffer.h
inflating: cpuminer-master/compat/jansson/utf.c
inflating: cpuminer-master/compat/jansson/utf.h
inflating: cpuminer-master/compat/jansson/util.h
inflating: cpuminer-master/compat/jansson/value.c
inflating: cpuminer-master/configure.ac
inflating: cpuminer-master/cpu-miner.c
inflating: cpuminer-master/elist.h
inflating: cpuminer-master/example-cfg.json
inflating: cpuminer-master/gc3355.h
inflating: cpuminer-master/miner.h
inflating: cpuminer-master/minerd.1
inflating: cpuminer-master/nomacro.pl
inflating: cpuminer-master/scrypt-arm.S
inflating: cpuminer-master/scrypt-x64.S
inflating: cpuminer-master/scrypt-x86.S
inflating: cpuminer-master/scrypt.c
inflating: cpuminer-master/sha2-arm.S
inflating: cpuminer-master/sha2-x64.S
inflating: cpuminer-master/sha2-x86.S
inflating: cpuminer-master/sha2.c
inflating: cpuminer-master/util.c
root@ubuntu:/usr/soft# ls
cgminer-3.1.1-GC3355-SV-master  curl-7.34.0  jansson-2.5.tar.bz2
cgminer.zip                    curl-7.34.0.tar.bz2  master.zip
cpuminer-master                jansson-2.5
root@ubuntu:/usr/soft# cd cpuminer-master/
root@ubuntu:/usr/soft/cpuminer-master# ./autogen.sh
./autogen.sh: 8: ./autogen.sh: aclocal: not found
root@ubuntu:/usr/soft/cpuminer-master#
```

出现上面错误，我们需要安装 autoconf 和 automake 这两个依赖包，命令如下：

```
apt-get install autoconf automake
```



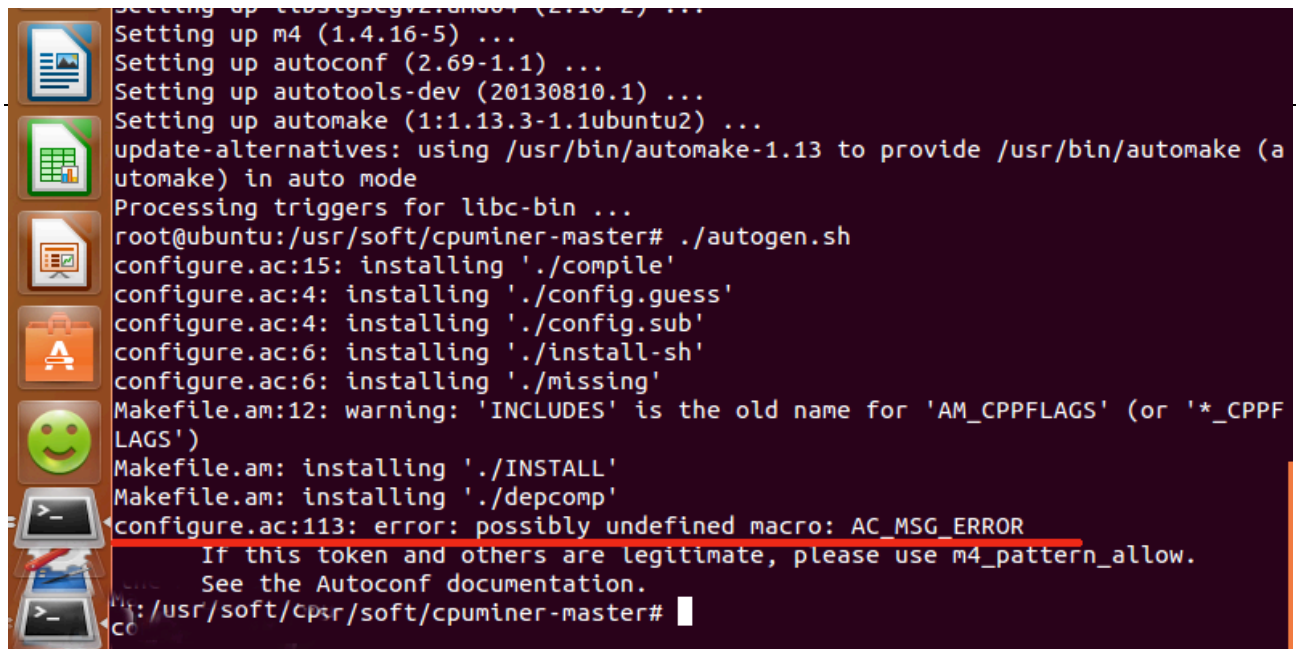
```
cpuminer-master jansson-2.5
root@ubuntu:/usr/soft# cd cpuminer-master/
root@ubuntu:/usr/soft/cpuminer-master# ./autogen.sh
./autogen.sh: 8: ./autogen.sh: aclocal: not found
root@ubuntu:/usr/soft/cpuminer-master# apt-get install autoconf automake
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  autotools-dev libsigsegv2 m4
Suggested packages:
  autoconf2.13 autoconf-archive gnu-standards autoconf-doc libtool
The following NEW packages will be installed:
  autoconf automake autotools-dev libsigsegv2 m4
0 upgraded, 5 newly installed, 0 to remove and 197 not upgraded.
Need to get 1,408 kB of archives.
After this operation, 4,046 kB of additional disk space will be used.
Do you want to continue [Y/n]? y
Get:1 http://mirrors.163.com/ubuntu/ saucy/main libsigsegv2 amd64 2.10-2 [15.0 kB
]
```

按“ y” 据需安装，安装结束后，再次运行 autogen.sh;

```
./autogen.sh
```

再次报错，如下：

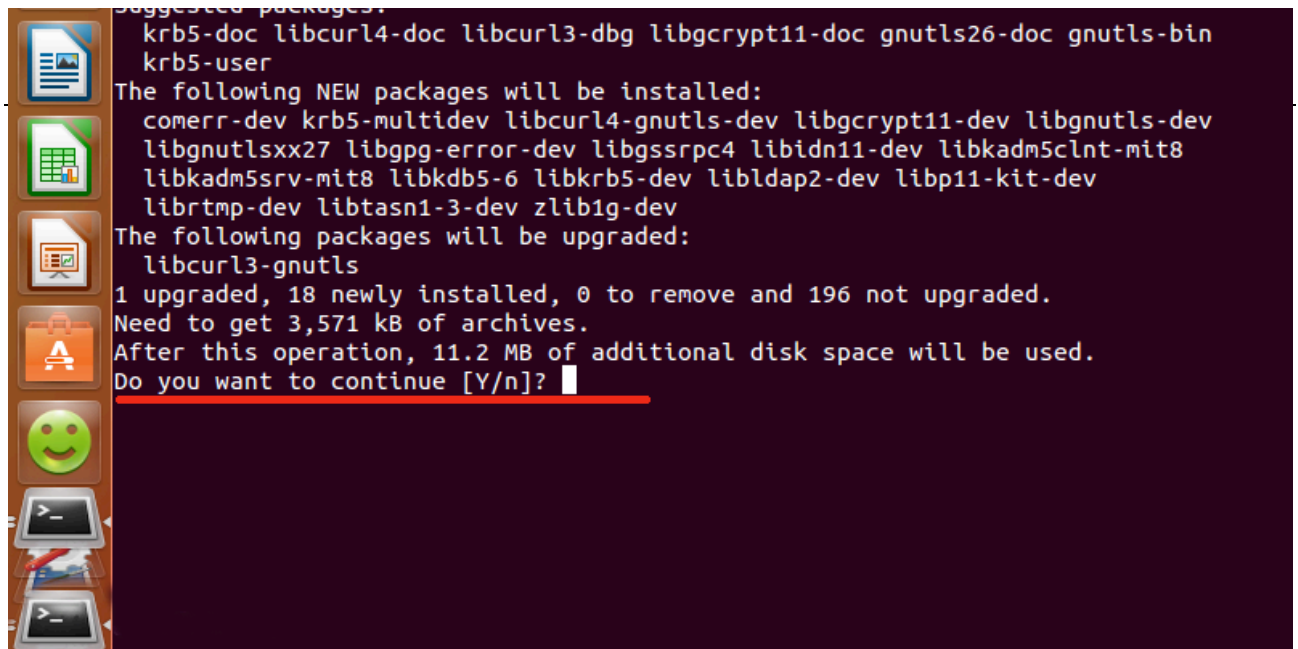




```
Setting up libstdc++6 (4.8.4-2ubuntu1) ...  
Setting up m4 (1.4.16-5) ...  
Setting up autoconf (2.69-1.1) ...  
Setting up autotools-dev (20130810.1) ...  
Setting up automake (1:1.13.3-1.1ubuntu2) ...  
update-alternatives: using /usr/bin/automake-1.13 to provide /usr/bin/automake (a  
utomake) in auto mode  
Processing triggers for libc-bin ...  
root@ubuntu:/usr/soft/cpuminer-master# ./autogen.sh  
configure.ac:15: installing './compile'  
configure.ac:4: installing './config.guess'  
configure.ac:4: installing './config.sub'  
configure.ac:6: installing './install-sh'  
configure.ac:6: installing './missing'  
Makefile.am:12: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPF  
LAGS')  
Makefile.am: installing './INSTALL'  
Makefile.am: installing './depcomp'  
configure.ac:113: error: possibly undefined macro: AC_MSG_ERROR  
If this token and others are legitimate, please use m4_pattern_allow.  
See the Autoconf documentation.  
root@ubuntu:/usr/soft/cpuminer-master#
```

如果看到上面的错误，还需要安装 libcurl4-gnutls-dev;

```
apt-get install libcurl4-gnutls-dev
```

A terminal window with a dark purple background and a vertical toolbar on the left containing icons for documents, spreadsheets, presentations, a warning sign, a smiley face, and two terminal windows. The terminal text is as follows:

```
suggested packages:  
krb5-doc libcurl4-doc libcurl3-dbg libgcrypt11-doc gnutls26-doc gnutls-bin  
krb5-user  
The following NEW packages will be installed:  
comerr-dev krb5-multidev libcurl4-gnutls-dev libgcrypt11-dev libgnutls-dev  
libgnutlsxx27 libgpg-error-dev libgssrpc4 libidn11-dev libkadm5clnt-mit8  
libkadm5srv-mit8 libkdb5-6 libkrb5-dev libldap2-dev libp11-kit-dev  
librtmp-dev libtasn1-3-dev zlib1g-dev  
The following packages will be upgraded:  
libcurl3-gnutls  
1 upgraded, 18 newly installed, 0 to remove and 196 not upgraded.  
Need to get 3,571 kB of archives.  
After this operation, 11.2 MB of additional disk space will be used.  
Do you want to continue [Y/n]?           
```

按 y 继续安装，安装玩后，再次运行 autogen.sh，通过。

开始编译 cpuminer,如下

```
./configure
```

```
root@jidi-Dell: /opt/cpuminer
checking for syslog.h... yes
checking for sys/sysctl.h... yes
checking whether be32dec is declared... no
checking whether le32dec is declared... no
checking whether be32enc is declared... no
checking whether le32enc is declared... no
checking for size_t... yes
checking for working alloca.h... yes
checking for alloca... yes
checking for getopt_long... yes
checking whether we can compile AVX code... yes
checking whether we can compile XOP code... yes
checking whether we can compile AVX2 code... yes
checking for json_loads in -ljansson... yes
checking for pthread_create in -lpthread... yes
checking for gawk... (cached) mawk
checking for curl-config... /usr/local/bin/curl-config
checking for the version of libcurl... 7.34.0
checking for libcurl >= version 7.15.2... yes
checking whether libcurl is usable... yes
checking for curl_free... yes
configure: creating ./config.status
config.status: creating Makefile
config.status: creating compat/Makefile
config.status: creating compat/jansson/Makefile
config.status: creating cpuminer-config.h
config.status: executing depfiles commands
root@jidi-Dell:/opt/cpuminer#
```

如果没有报错，则输出结果如上

make

```

root@jidi-Dell: /opt/cpuminer
minerd-cpu-miner.o `test -f 'cpu-miner.c' || echo './'`cpu-miner.c
mv -f .deps/minerd-cpu-miner.Tpo .deps/minerd-cpu-miner.Po
gcc -std=gnu99 -DHAVE_CONFIG_H -I. -pthread -fno-strict-aliasing -I/usr/local/inc
lude -g -O2 -MT minerd-util.o -MD -MP -MF .deps/minerd-util.Tpo -c -o minerd-uti
l.o `test -f 'util.c' || echo './'`util.c
mv -f .deps/minerd-util.Tpo .deps/minerd-util.Po
gcc -std=gnu99 -DHAVE_CONFIG_H -I. -pthread -fno-strict-aliasing -I/usr/local/inc
lude -g -O2 -MT minerd-sha2.o -MD -MP -MF .deps/minerd-sha2.Tpo -c -o minerd-sha
2.o `test -f 'sha2.c' || echo './'`sha2.c
mv -f .deps/minerd-sha2.Tpo .deps/minerd-sha2.Po
gcc -std=gnu99 -DHAVE_CONFIG_H -I. -pthread -fno-strict-aliasing -I/usr/local/inc
lude -g -O2 -MT minerd-scrypt.o -MD -MP -MF .deps/minerd-scrypt.Tpo -c -o minerd
-scrypt.o `test -f 'scrypt.c' || echo './'`scrypt.c
mv -f .deps/minerd-scrypt.Tpo .deps/minerd-scrypt.Po
gcc -std=gnu99 -DHAVE_CONFIG_H -I. -pthread -fno-strict-aliasing -I/usr/local/inc
lude -g -O2 -MT minerd-sha2-x64.o -MD -MP -MF .deps/minerd-sha2-x64.Tpo -c -o mi
nerd-sha2-x64.o `test -f 'sha2-x64.S' || echo './'`sha2-x64.S
mv -f .deps/minerd-sha2-x64.Tpo .deps/minerd-sha2-x64.Po
gcc -std=gnu99 -DHAVE_CONFIG_H -I. -pthread -fno-strict-aliasing -I/usr/local/inc
lude -g -O2 -MT minerd-scrypt-x64.o -MD -MP -MF .deps/minerd-scrypt-x64.Tpo -c -
o minerd-scrypt-x64.o `test -f 'scrypt-x64.S' || echo './'`scrypt-x64.S
mv -f .deps/minerd-scrypt-x64.Tpo .deps/minerd-scrypt-x64.Po
gcc -std=gnu99 -g -O2 -pthread -o minerd minerd-cpu-miner.o minerd-util.o minerd
-sha2.o minerd-scrypt.o minerd-sha2-x64.o minerd-scrypt-x64.o -L/usr/local/lib -
lcurl -ljansson -lpthread
make[2]: 正在离开目录 `/opt/cpuminer'
make[1]: 正在离开目录 `/opt/cpuminer'
root@jidi-Dell:/opt/cpuminer#

```

如果没有报错，输出结果如上，到此安装完成。

开始挖莱特币，命令如下：

```
cd /opt/cpuminer
```

```
./minerd -o stratum+tcp://stratum.f2pool.com:8888 -u bittest111.333 -p 123456
```

```
-dual
```



