task17

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课程名称：Embedded System

实验时间：2015-3-27 实验地点：曹西-501 指导老师： 翁恺

一、实验目的和要求

做一个 BT 下载机，能下载 BT 和 emule 的资源，要有远程控制方式（web 或专用端口）

二、主要仪器设备

硬件

Acadia 或 RPi 或 WRTnode 板一块；（本实验采用树莓派二代）
5V/1A 电源一个；
microUSB 线一根；
USB-TTL 串口线一根（FT232RL 芯片或 PL2303 芯片）；
PC 一台；
以太网线一根
Micro SD 一张/两张
U 盘 一个

软件

PC 上的 USB-TTL 串口线配套的驱动程序；
PC 上的串口终端软件，如 minicom、picocom、putty 等；
PC 上的 SSH 软件，如 putty 等。

三、操作方法与实验步骤

首先下载软件 transmission：

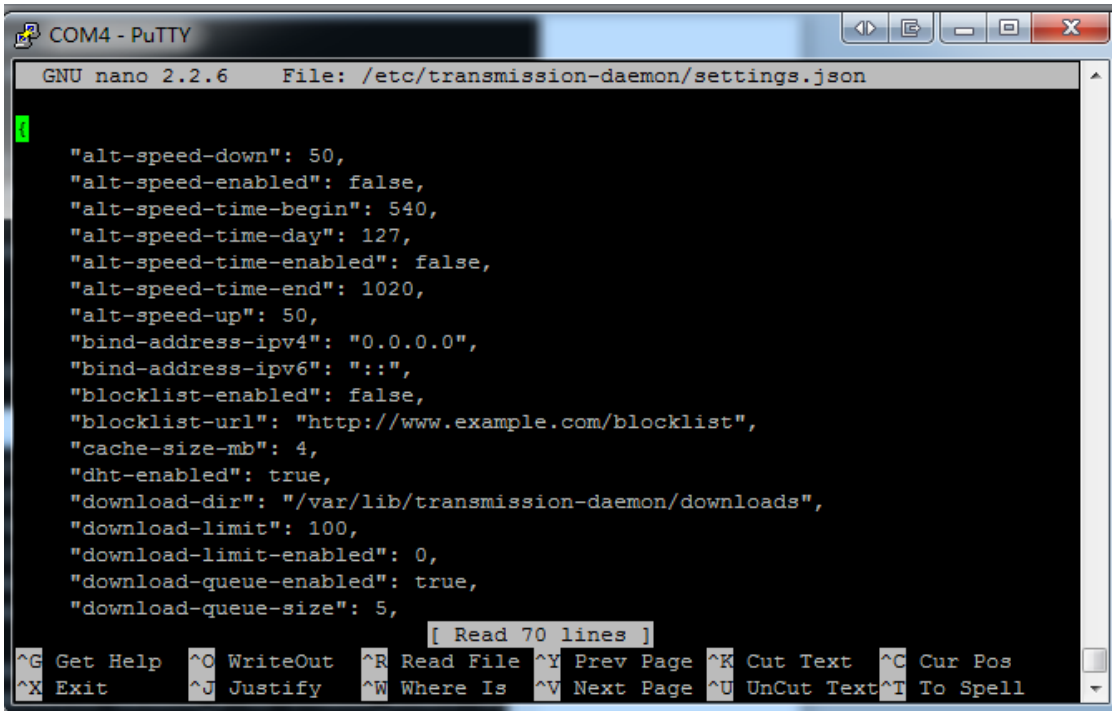
```
root@raspberrypi:/# sudo apt-get install transmission-daemon
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  libminiupnpc5 libnatpmp1 minissdpd transmission-cli transmission-common
Suggested packages:
  natpmp-utils transmission-gtk
The following NEW packages will be installed:
  libminiupnpc5 libnatpmp1 minissdpd transmission-cli transmission-common
  transmission-daemon
0 upgraded, 6 newly installed, 0 to remove and 25 not upgraded.
Need to get 1,600 kB of archives.
After this operation, 3,643 kB of additional disk space will be used.
Do you want to continue [Y/n]? y
Get:1 http://mirrordirector.raspbian.org/raspbian/ wheezy/main libminiupnpc5 arm
hf 1.5-2 [30.5 kB]
```

```
(Reading database ... 77266 files and directories currently installed.)
Unpacking libminiupnpc5 (from .../libminiupnpc5_1.5-2_armhf.deb) ...
Selecting previously unselected package libnatpmp1.
Unpacking libnatpmp1 (from .../libnatpmp1_20110808-3_armhf.deb) ...
Selecting previously unselected package transmission-common.
Unpacking transmission-common (from .../transmission-common_2.52-3+nmu2_all.deb)
 ...
Selecting previously unselected package transmission-daemon.
Unpacking transmission-daemon (from .../transmission-daemon_2.52-3+nmu2_armhf.de
b) ...
Selecting previously unselected package minissdpd.
Unpacking minissdpd (from .../minissdpd_1.1.20120121-1_armhf.deb) ...
Selecting previously unselected package transmission-cli.
Unpacking transmission-cli (from .../transmission-cli_2.52-3+nmu2_armhf.deb) ...
Processing triggers for hicolor-icon-theme ...
Processing triggers for man-db ...
Setting up libminiupnpc5 (1.5-2) ...
Setting up libnatpmp1 (20110808-3) ...
Setting up transmission-common (2.52-3+nmu2) ...
Setting up transmission-daemon (2.52-3+nmu2) ...
Starting bittorrent daemon: transmission-daemon.
Setting up minissdpd (1.1.20120121-1) ...
Setting up transmission-cli (2.52-3+nmu2) ...
```

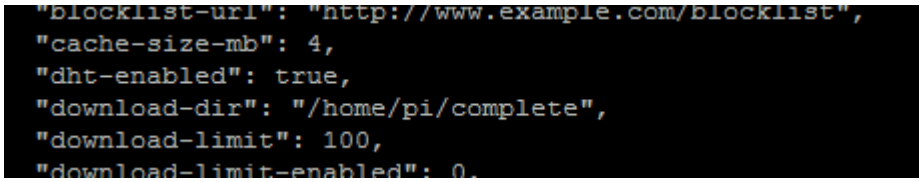
下载成功后为 BT 下载建立两个文件夹分别存放已完成和下载中的文件，并且修改这两个目录的权限：

```
root@raspberrypi:/# mkdir -p /home/pi/incomplete
root@raspberrypi:/# mkdir /home/pi/complete
root@raspberrypi:/# chmod 770 /home/pi/incomplete
root@raspberrypi:/# chmod 770 /home/pi/complete
root@raspberrypi:/#
```

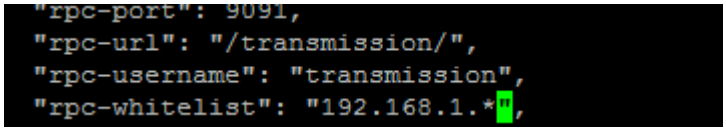
接下来修改 transmission 的配置文件：



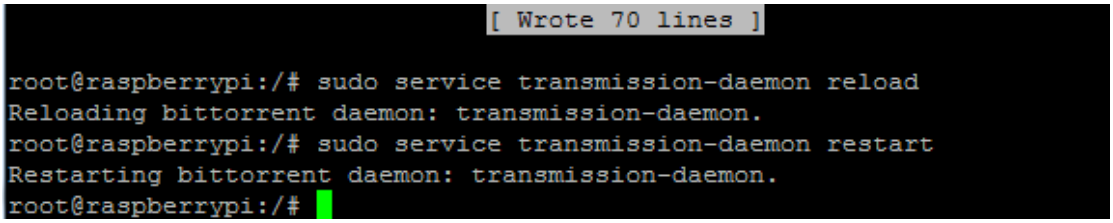
下载地址修改：



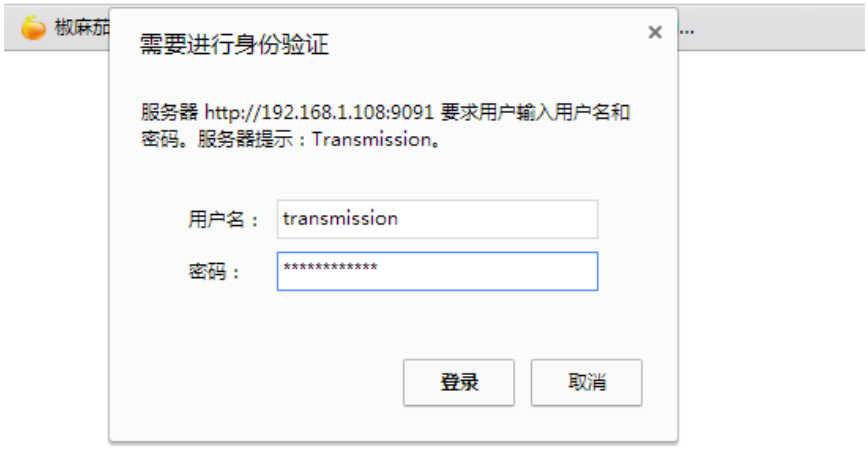
白名单修改：

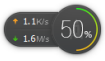


修改完毕之后重新启动服务：



成功之后在自己的 PC 的浏览器输入 http://192.168.1.108:9091/即可进入 BT 下载机，如下图所示，默认用户名和密码是 tramsmission。





支持 BT 下载机构建完成。

工作截图：

可以进行下载控制。

至此实验结束。

四、实验结果与分析

实验成功，截图见第三部分。

五、讨论、心得

这次试验比较简单，没有遇到太大的问题。