



BLUEMAN MANUAL

Version 0.5.1

2009-03-06

Declaration

This manual is for blueman0.5 release version which runs on Ubuntu8.04 LTS operation system.

1 Basic Operations

1.1 Install drivers and applications

Before we can use Blueman, we should run "INSTALL_3DSP.sh" script to install 3DSP bluetooth device drivers, bluetooth management (Blueman) utility and all applications needed. After the script is run, your computer should be restarted. And a green icon will be shown in the panel which is as follow.

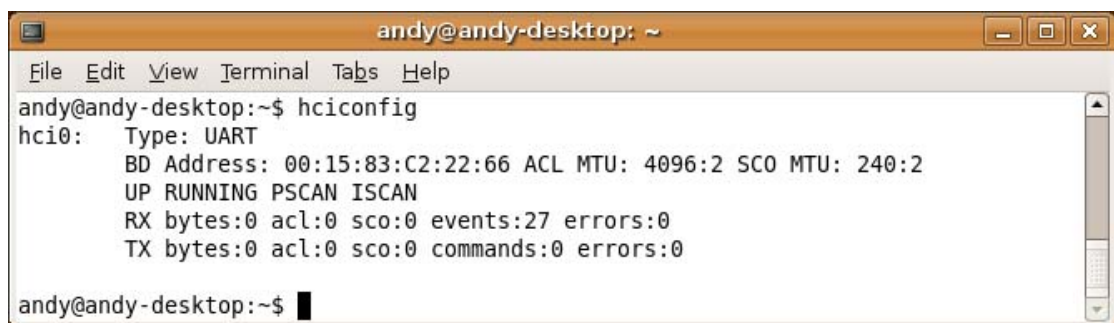


Click the green icon, the follow items will be shown:

- 1) Coexist Start 3DSP devices (Both WLAN device and Bluetooth device)
- 2) Unplug Stop 3DSP devices (Both WLAN device and Bluetooth device)
- 3) About
- 4) Exit
- 5)

Warm Tips:

IF 3DSP bluetooth devices are installed successfully, the similar information will be shown as follows when "hciconfig" command is run.

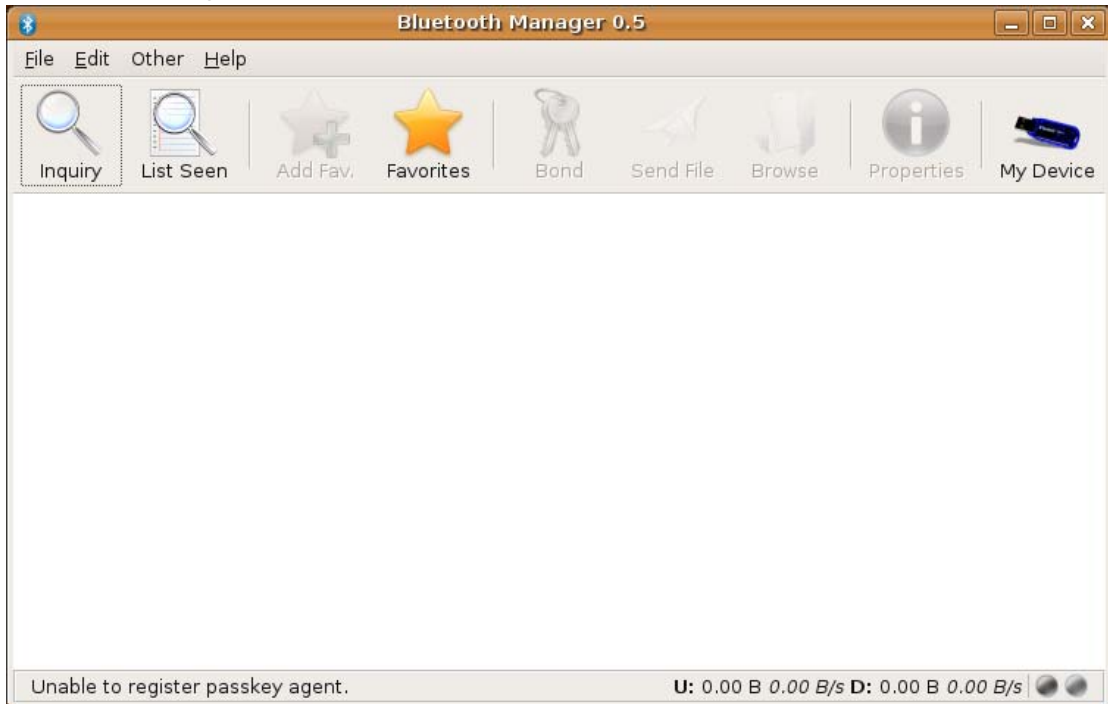


```
andy@andy-desktop: ~  
File Edit View Terminal Tabs Help  
andy@andy-desktop:~$ hciconfig  
hci0: Type: UART  
BD Address: 00:15:83:C2:22:66 ACL MTU: 4096:2 SCO MTU: 240:2  
UP RUNNING PSCAN ISCAN  
RX bytes:0 acl:0 sco:0 events:27 errors:0  
TX bytes:0 acl:0 sco:0 commands:0 errors:0  
andy@andy-desktop:~$
```

1.2 Open Blueman

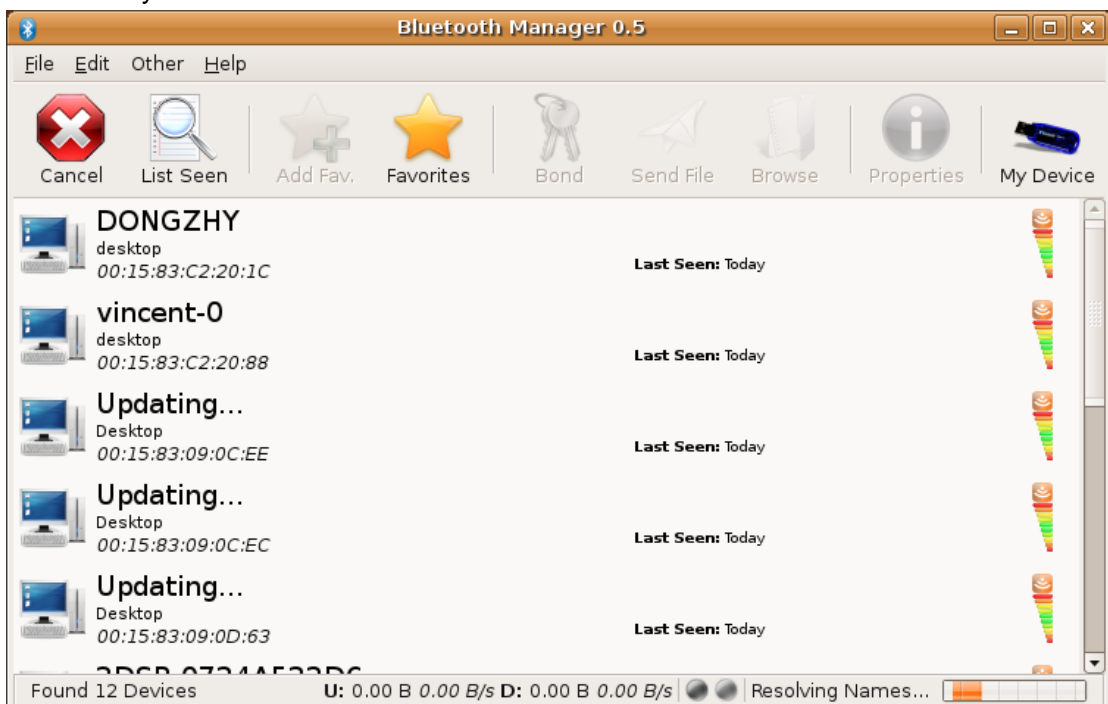
After bluetooth device drivers and applications is installed successfully, blueman can be opened by click Ubuntu system menu: Application → Accessories → Blueman

Bluetooth Manager. Blueman main window is as follow:



1.3 Inquiry Devices

Click the “Inquire” button in the Blueman main window, device inquiry will be done immediately. The result is as follow:



1.4 Local Device's Information

Click the "My Device" button, the local bluetooth device information will be shown as follow:

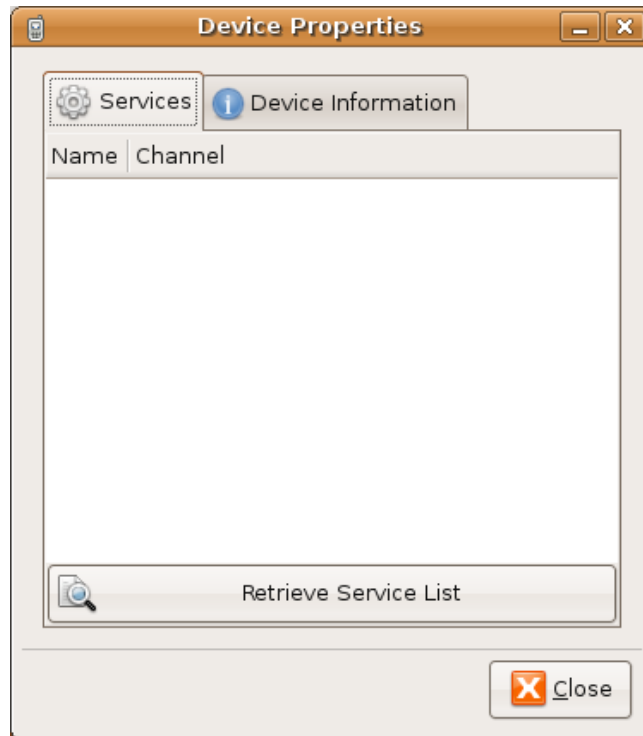


- 1) Settings tab: Modify bluetooth device name, visible, connectable etc. parameters.
- 2) Information tab: Show the following information of local device:

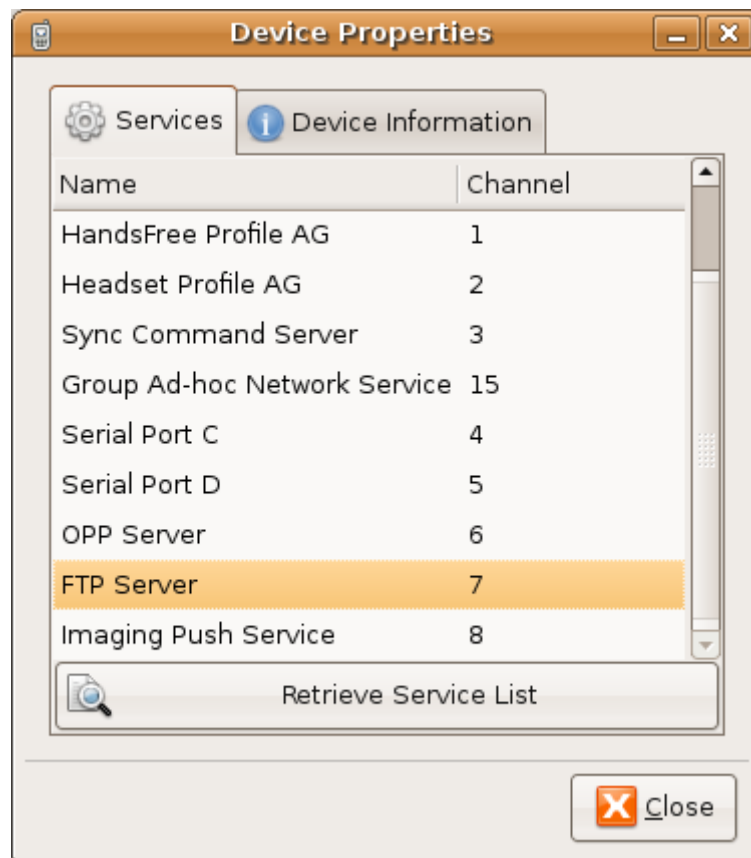


1.5 Remote Device's Information

Choose one device from the inquiry result, and then click "Properties" button on the blueman main window. The "Device Properties" window will be opened as follow.



Click “Retrieve Service List” button, the supported services will be shown as follow:



Click “Device information”, the detail device information of remote device will be shown as follow:



1.6 Bond:

Choose target bluetooth device, click the “Bond” button on the Ubuntu main window, a small dialog window will pop up immediately to ask for a passkey. After the same passkey is entered in the remote bluetooth device, the bond operation completes. If the bond operation is successful, a “lock” icon will occur as follow.



After bond operation, the “Bond” button changes to “Unbond” automatically. Click

“Unbond” button, the “lock” icon disappears immediately.

Tip:

For example, if bluetooth device “Andy” is bonded, no passkey is needed when device “andy” connects the service of local device. If bluetooth device “Andy” is not bonded, passkey is required when device “andy” tries to connect the service of local device.

2 File Transfer Services

2.1 Services' Configuration

The configuration window for file transfer and all other services of local device locates at “Edit → Service” menu, as following “Service” window:



Service: Service Name

Status: Service status, red indicates close status, green indicates open status

Autostart: Start service automatically or not



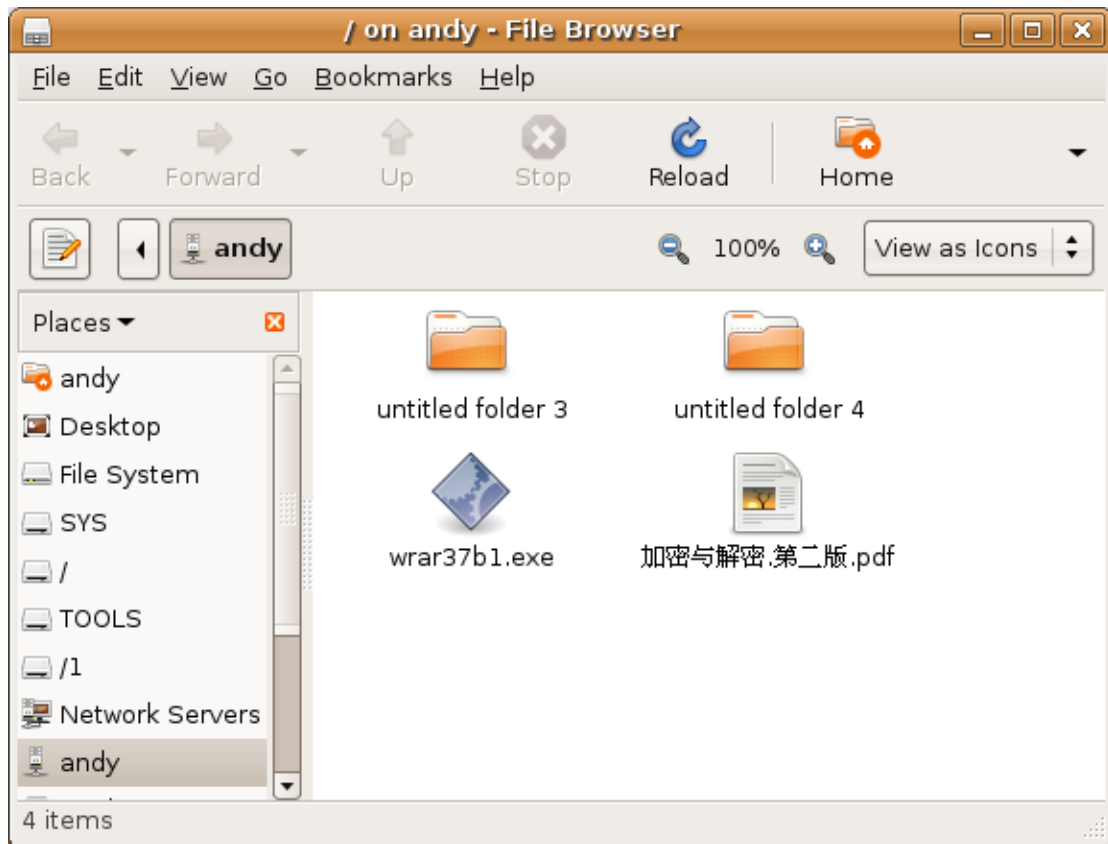
(Configure) : Open the detailed configuration window of specific service

2.2 FTP Service

1. Connect FTP Service of Remote Device

Choose the target device from the inquiry result, then click the “Browse” button on the Blueman main window, the FTP share folder, i.e. “File Browser” window, of remote device will be opened. Files can be got from or sent to the target bluetooth device. The “File

Browser" Window is as follow:



A "andy" folder will be created on desktop of Ubuntu when you connect the FTP service of bluetooth device "andy". The "andy" folder still exists when the "File Browser" window is closed. And the link between the two devices is live. If you want to open the share folder of the device "andy", you just need to double click the "andy" folder on the desktop of Ubuntu.

If you want to disconnect the link of FTP service, you need to close "File Browser" window



first, and then use right click the "andy" folder, choose "Unmount Volume".

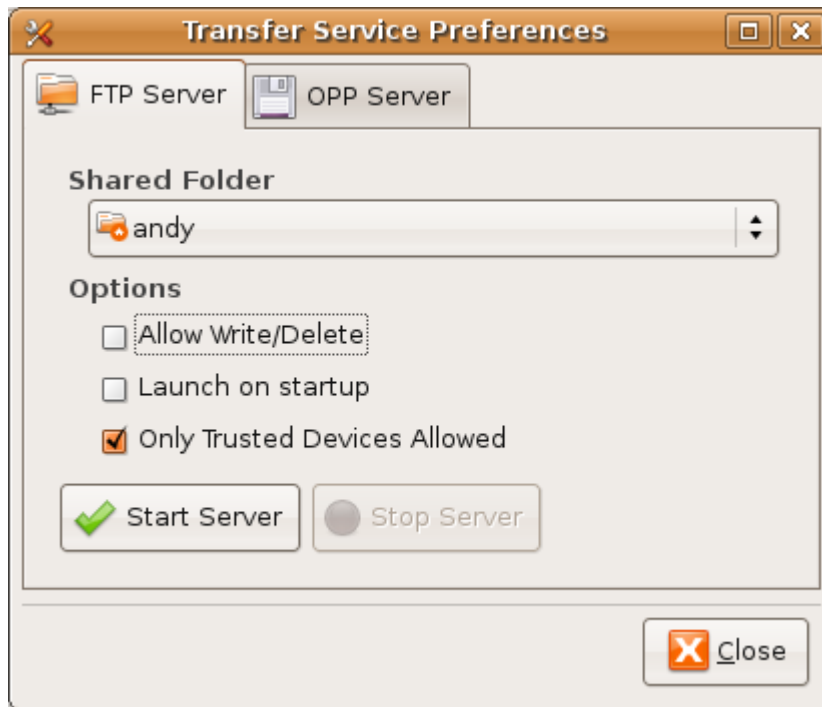
Tip: Now the function can not be used: Send files to remote device from FTP "browser".

2. Start Local FTP Service

Close Blueman, click the system menu of Ubuntu: System→Preferences→Bluetooth, the "Bluetooth Preferences" window is opened. Then click "General" button, check the "Receive file from remote devices" and "Share files from public folder".

Open Blueman, click the status button of "Transfer" service in the "Service" window, then

click the Configure button, the “Transfer Service Preference” window is opened as follow.



Click the “Start Server” button, the local FTP service will be started immediately

Shared Folder: The location of the local device FTP share folder

Allow Write/Delete: Enable/disable the writeable privilege of the share folder

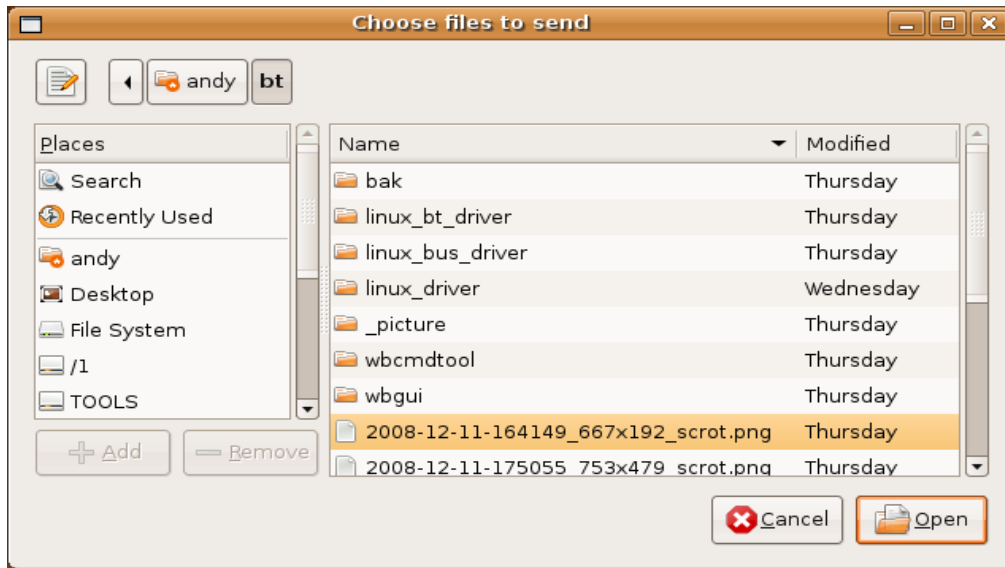
Launch on startup: Start FTP server automatically or not

Only Trusted Devices Allowed: Trusted device access only

2.3 OPP Service

1 Send Files by OPP Service

Choose target bluetooth device from the inquiry result, click the “Send File” button on the blueman main window, choose the file you want to send, then click “Open” button, the file will be sent to remote target bluetooth device immediately.



2 Start Local OPP Service

Local OPP server needs to be started when you want to send files from remote bluetooth device to local device by OPP service. Please follow the steps to start local OPP server: Click the “Status” button of “Transfer” service in the “Service” Window, click the “Configure” button to open “Transfer Service Preference” window, then click “OPP Server” tab which is show as follow:



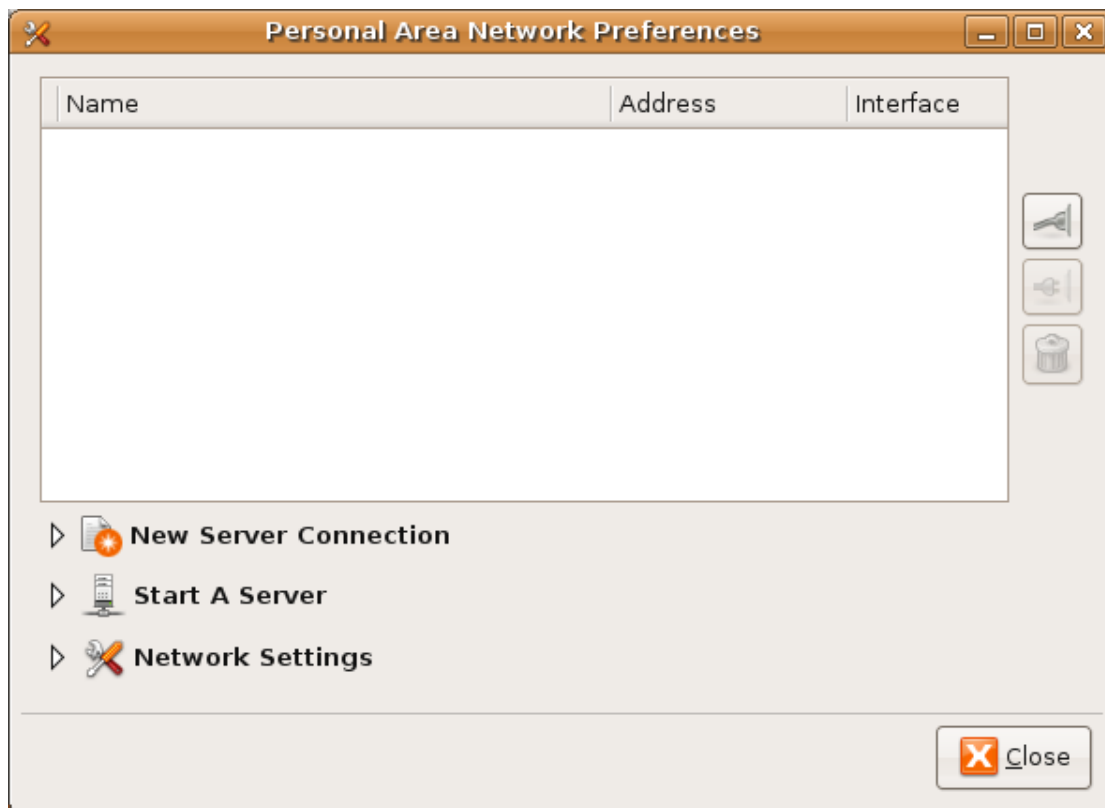
- Storage Folder: The location of the local device OPP share folder
- Allow Write/Delete: Open or close the writeable privilege of the share folder
- Launch on startup: Start OPP server automatically or not
- Only Trusted Devices Allowed: Trusted device access only.
- Tip:** After “Start Server” is clicked, you need to restart blueman.

3 Personal Area Network Service

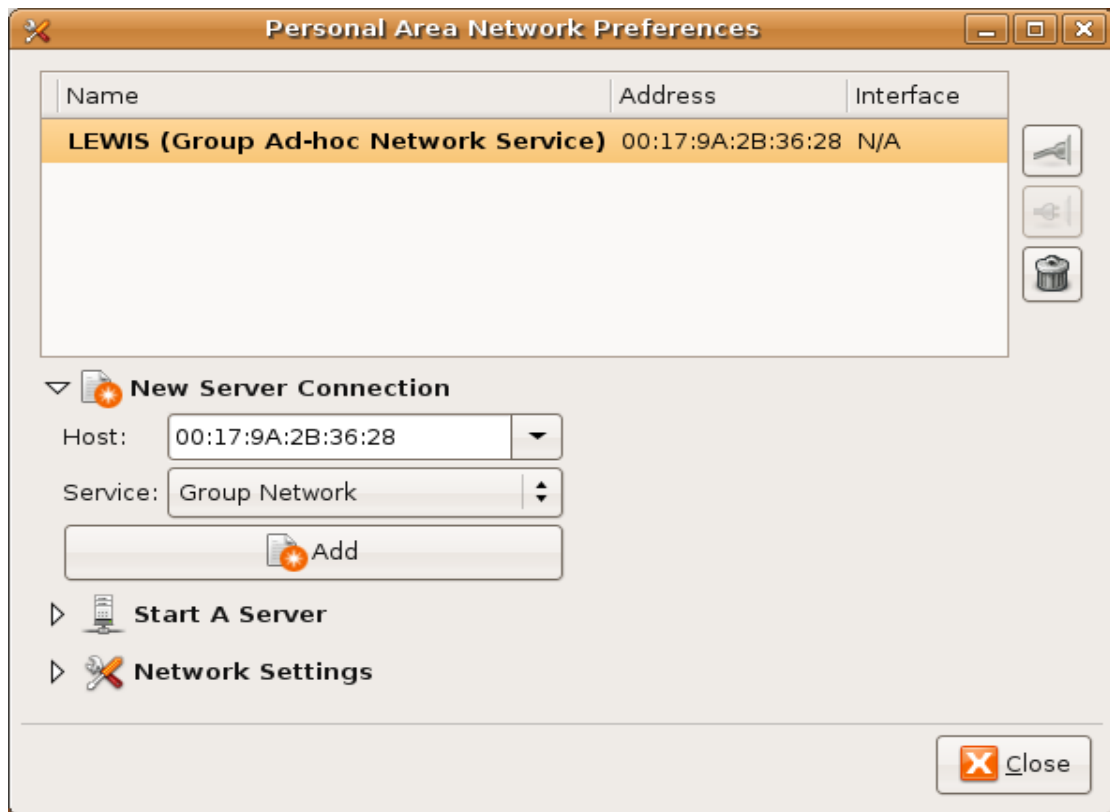
3.1 Group Network (GN) Service


1 Connect Remote GN Service

- 1) inquiry remote device, check whether the GN service of remote device is started
- 2) Open “Service” window, click the “Status” button of “Network” service, then click the “Configure” button of “Network” service to open the “Personal Area Network Preferences” window which is as follow:




- 3) Click “New server Connection”, choose the target bluetooth device that you want to connect from the “Host” list, and choose “Group Network” from the “Service” list.
- 4) Click “Add” button, then passkey will be required for if target device is not bonded. If device is added successfully, the result is as follow:



- 5) Choose the new added device, and then click Connect button , the Ethernet interface bnepx (x=0,1,2...) appears when connecting is successful.



6) The TCP/IP link can be used after the network parameters are configured in Ubuntu system menu: System → Administration→Network.

7) Click the disconnect  button to disconnect the GN link. And the bnepx interface will disappear immediately.

2 Start Local GN Service

Click “Start A Server”, then click “Group Network” in the “Personal Area Network Service” window, the local GN service is started.



Tip: If local GN service can not be connected, please check whether the “pand --device hci0 --master --role GN --listen” task is started by running the command “ps ax | grep pand”. If not exist, please start the task by running the command “sudo pand --device hci0 --master --role GN --listen”.

3.2 Network Access Point Service

1. Connect Remote NAP Service

It is the same as the “connect remote GN service”, please refer to section 3.1.

2. Open Local NAP Service

It is the same as the “Open Local GN Service”, please refer to section 3.1.

Tip: If local NAP service can not be connected, please check whether the “pand --device hci0 --master --role NAP --listen” task is started by running the command “ps ax | grep pand”. If not, please start the task by running the command “sudo pand --device hci0 --master --role PAN --listen”.

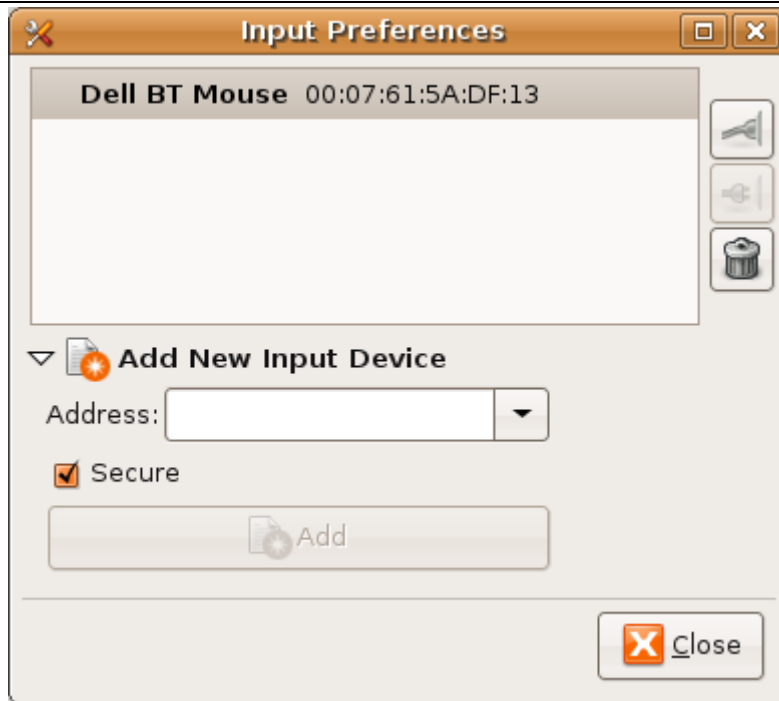
4 Mouse And Keyboard


4.1 Mouse

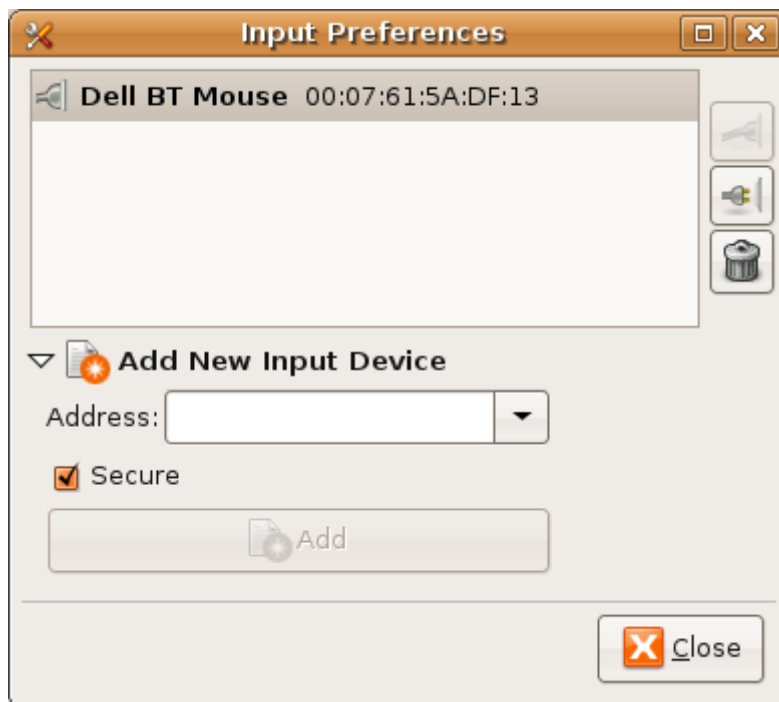
1. Put mouse device in the StandBy(inquiry scan) state, then inquire the device in blueman.
2. Open “Service” Window, click the configure button of Input service, and then click “Add New Input Device” button to choose the target mouse device.




3. Click “Add” button, mouse device will be added.



Click  Connect button to connect mouse device.



4. Click  Disconnect button, the connection will be disconnected.

5. After mouse device is disconnected, if you click any key of mouse device, the connection will be recreated automatically. At the same time, the “Authorization Request” window may pop up is as following:



Authorize: Allow this connection, but authorization will be still needed next time

Reject: Reject this time connection

Set Trusted: Make it trustable, No authorization will be requested next time.

4.2 Keyboard

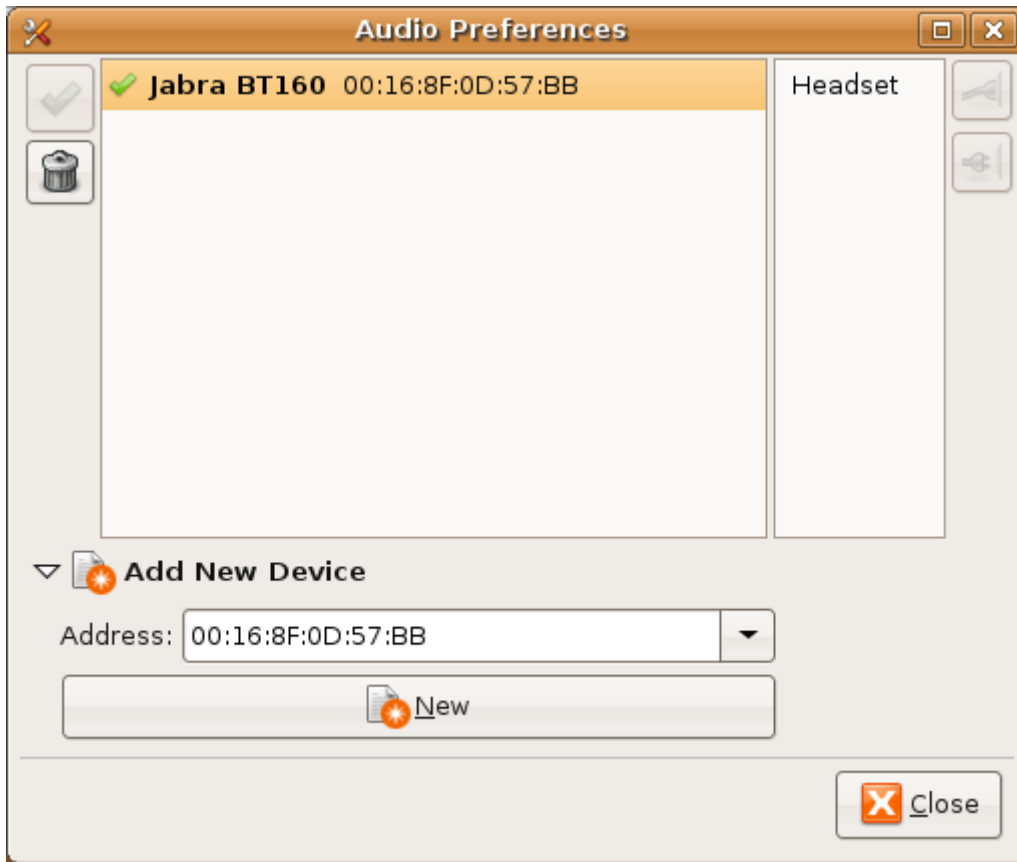
It is the same as Mouse connection.

5 Audio Service

There are many kind of media player software. Here examples are given to show how to connect bluetooth audio device through two media players: MPlayer and Amarok.

5.1 Mplayer

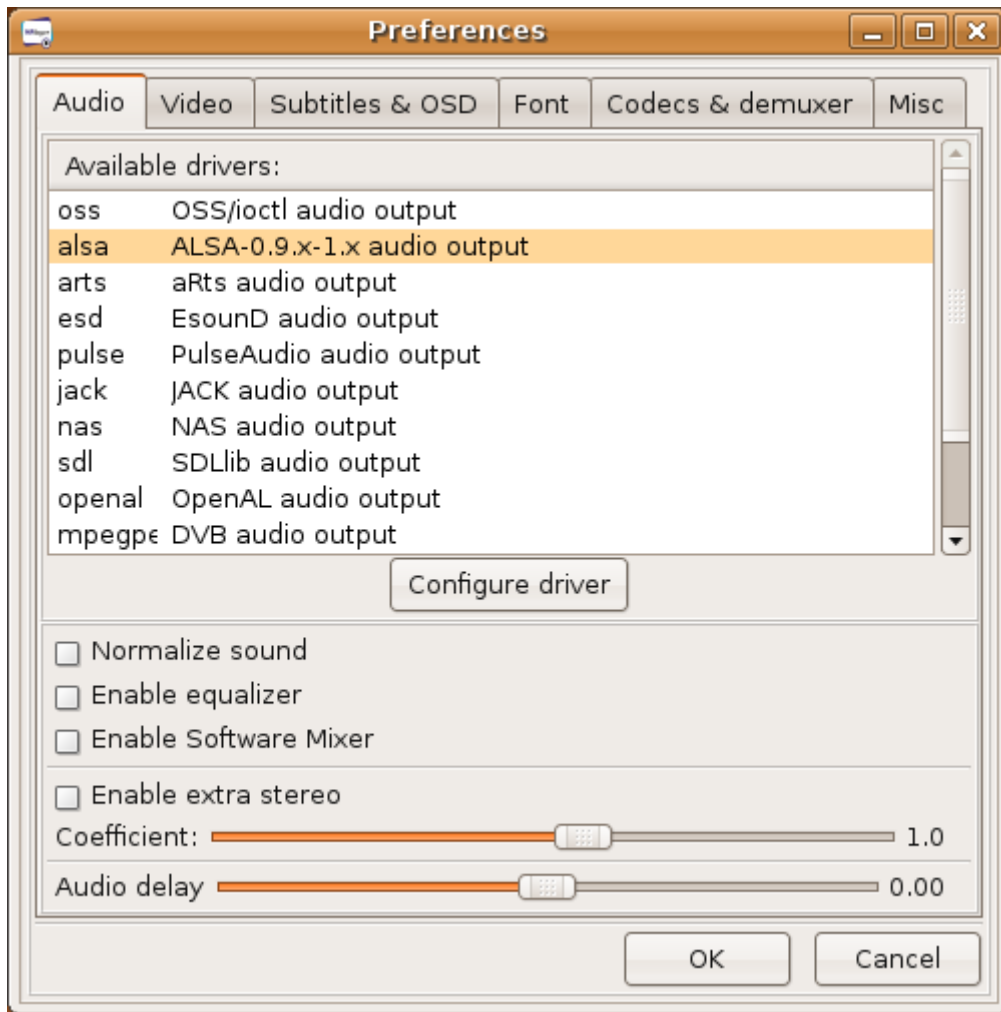
1. Install MPlayer: run the command “sudo apt-get install mplyer” in Ubuntu terminal.
2. Open blueman, inquire target audio bluetooth device, and then bond this device.
3. Open blueman “Service” window, click configure button of audio service, click “Add New Device” button, choose target bluetooth device, click “Add” button. If the add operation is successful, the “Audio Preferences” window will be as follow:



4. Open Mplayer by clicking system menu: Applications→Sound & Video → Mplyer Movie Player, the MPlayer main window is as follow:



5. Right click "MPlayer" main window, choose "Preferences" to open "Preferences" window, and then click "Audio" button which is as follow:



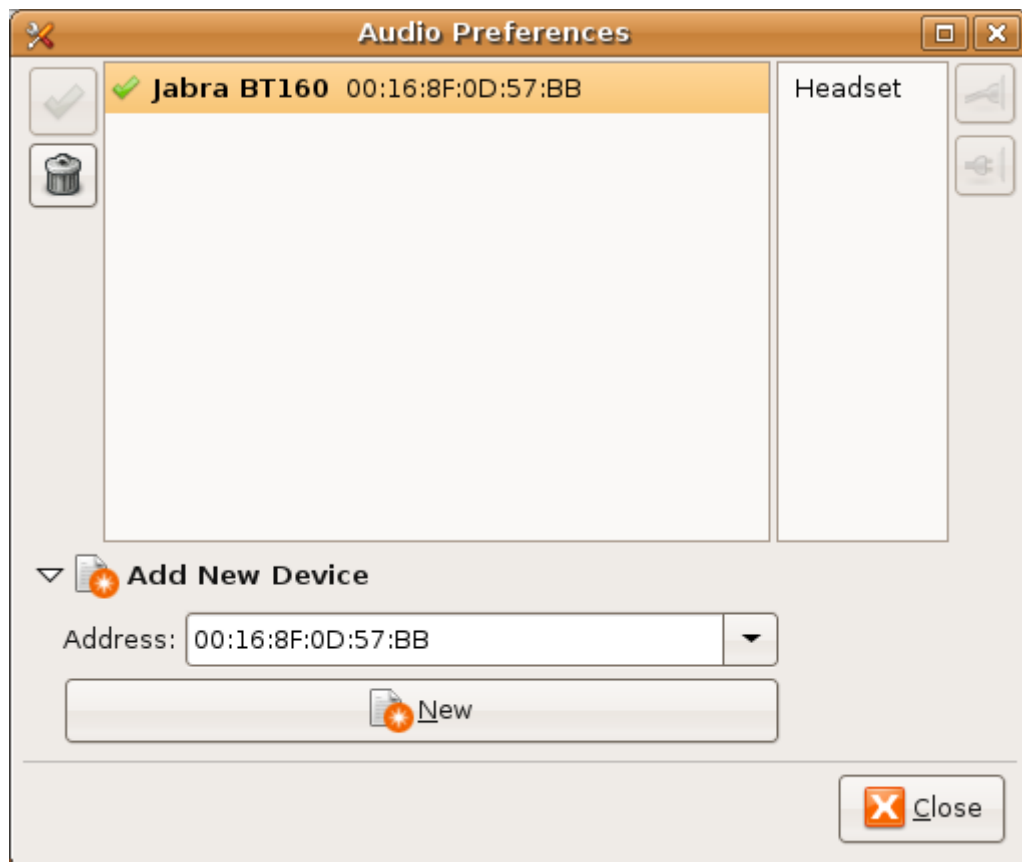
6. Choose “alsa ALSA-0.9.x-1.x audio output” item and then click “Configure driver” button to open “Audio Driver Configuration” window. Modify the value of “Device” to “bluetooth” which is as follow:



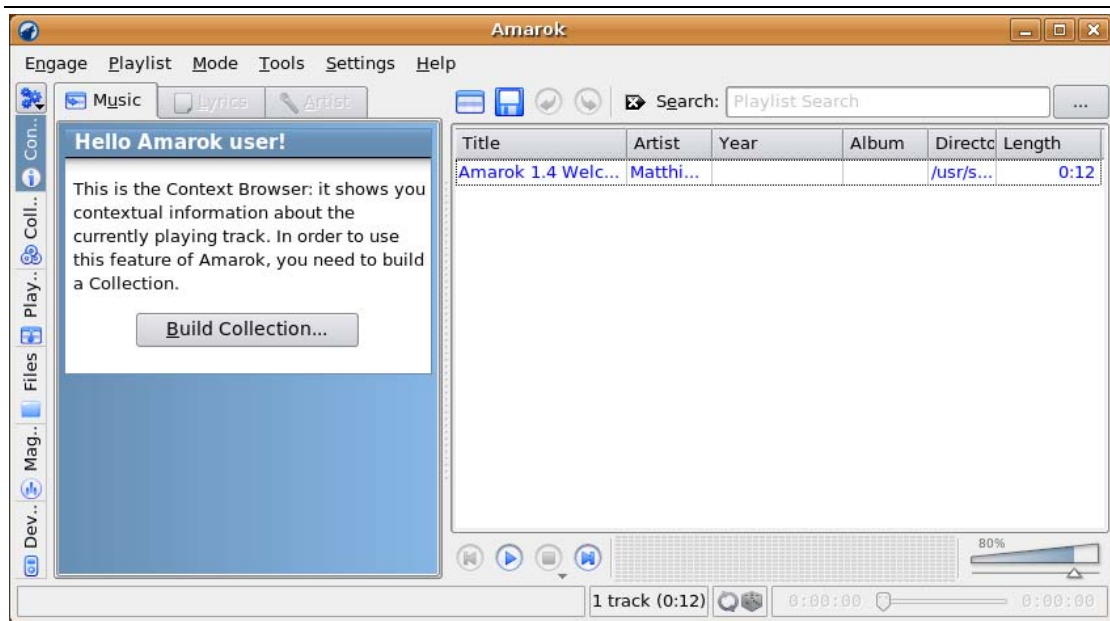
7. Click OK to save and close the window, then restart MPlayer software.
8. Now you can play music through bluetooth: Right click “MPlayer” main window, click “Open... → Player files...”, and then choose the audio files.

5.2 Amarok

1. Install Amarok: running the command “sudo apt-get install Amarok” in Ubuntu terminal.
2. Open blueman, inquire target audio bluetooth device, and then bond this device.
3. Open blueman “Service” window, click configure button of audio service, click “Add New Device” button, choose target bluetooth device, click “Add” button. If the add operation is successful, the “Audio Preferences” window will be as follow:



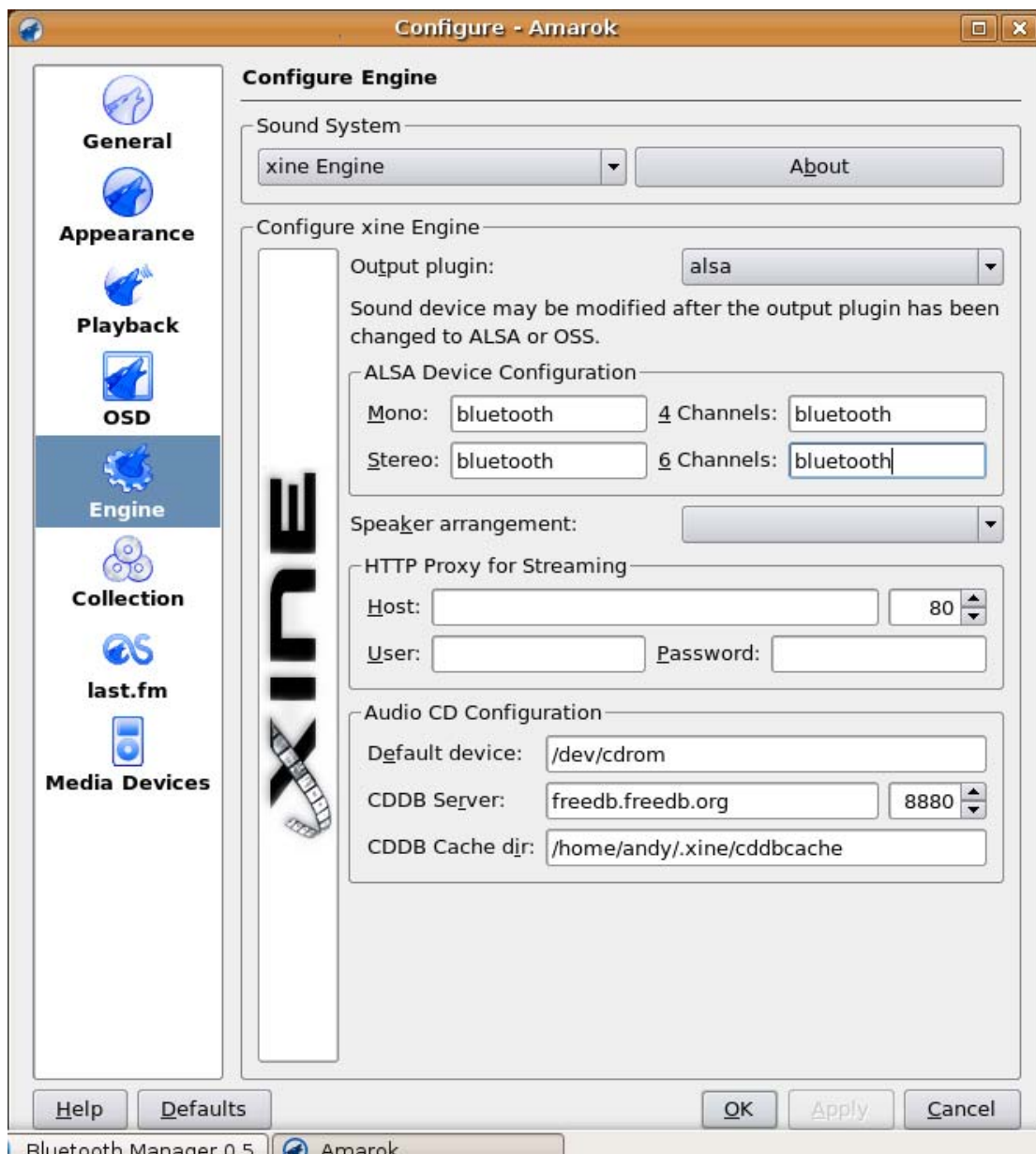
4. Open “Amarok”: Click system menu: Applications→Sound & Video → Amarok. The Main window of “Amarok” is as follow:



5. Click "Amarok" menu: "Settings→ Configure Amarok..." to open the "Configure – Amarok" window which is as follow:



6. "Click Engine" button, modify the value of "Output plugin" to alsa, and click "Apply" button to save and apply settings. Then modify all the values of "ALSA Device Configuration" to bluetooth which is as follow:

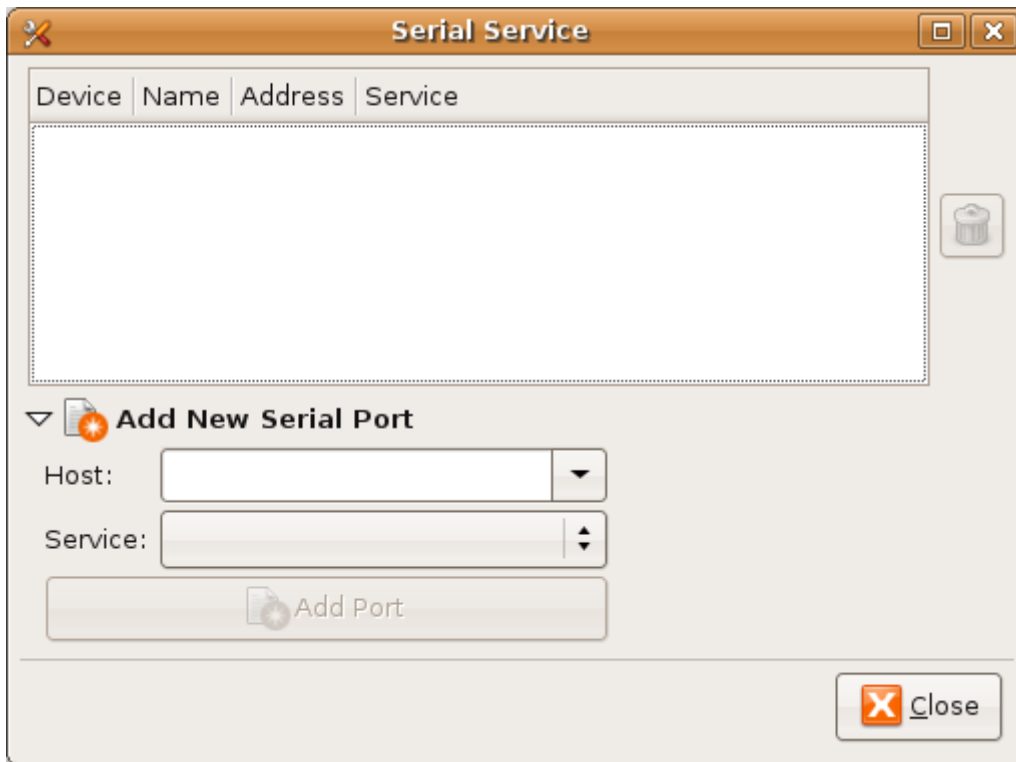


7. Click "OK" button to save and exit configuration window. Music can be played by clicking Amarok menu "Engage→Play Media" and choosing the music file.

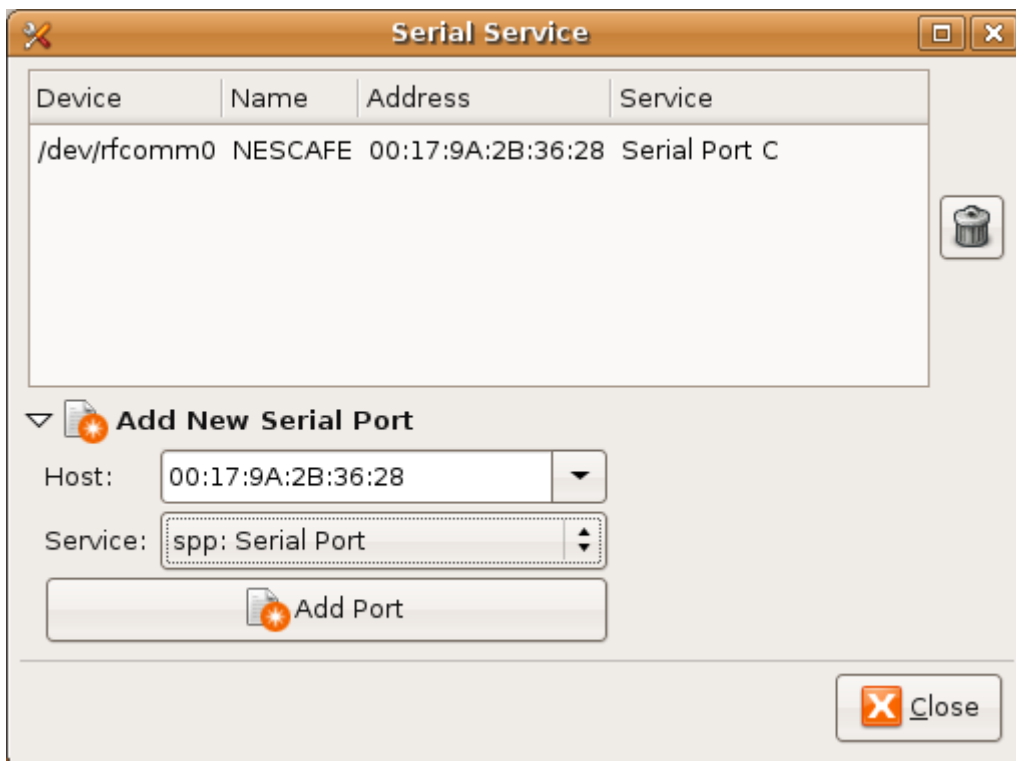
6 Serial Service

6.1 Connect Remote Serial Service

1. Open "Service" window, start "Serial" service, and click configure button of serial service to open "Serial Service" window which is as follow:



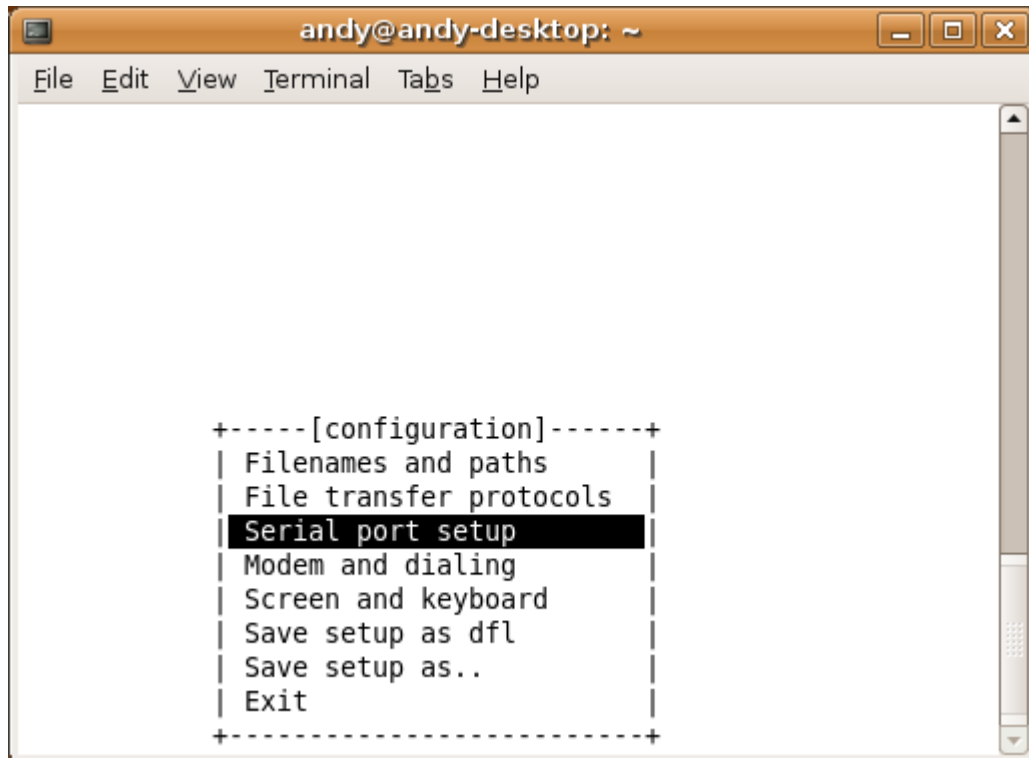
2. Choose target bluetooth device from the “Host” list. And choose “spp: Serial Port” service in the “Service” list. Click “Add Port” to add the service. If add operation is successful, the “Serial Service” window is as follow:



Remember the device’s name: /dev/rfcomm0 in the up figure. It is required in minicom

configuration.

3. Run “minicom -s” command in terminal, a text dialog will be given as follow:

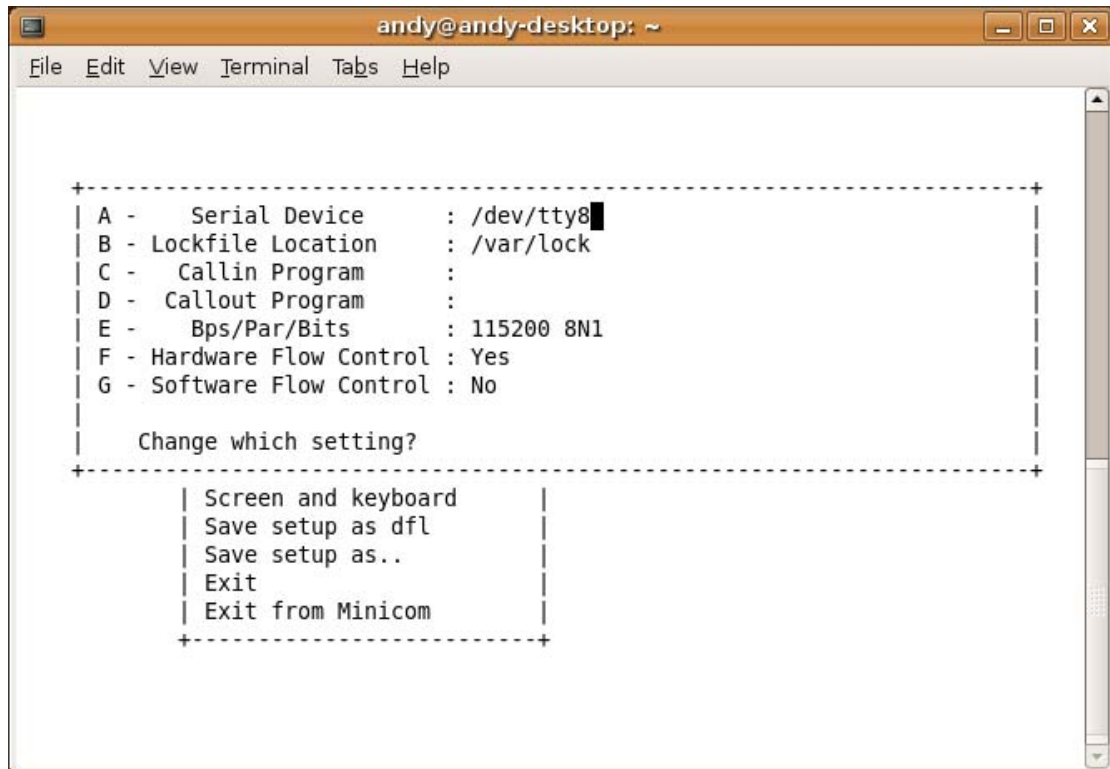


```

andy@andy-desktop: ~
File Edit View Terminal Tabs Help

+-----[configuration]-----+
| Filenames and paths          |
| File transfer protocols      |
| Serial port setup          |
| Modem and dialing            |
| Screen and keyboard          |
| Save setup as dfl             |
| Save setup as..              |
| Exit                         |
+-----+
  
```

4. Choose “Serial port setup” by up and down key in the keyboard. And after “Enter” key in the keyboard is entered, the following dialog is shown.

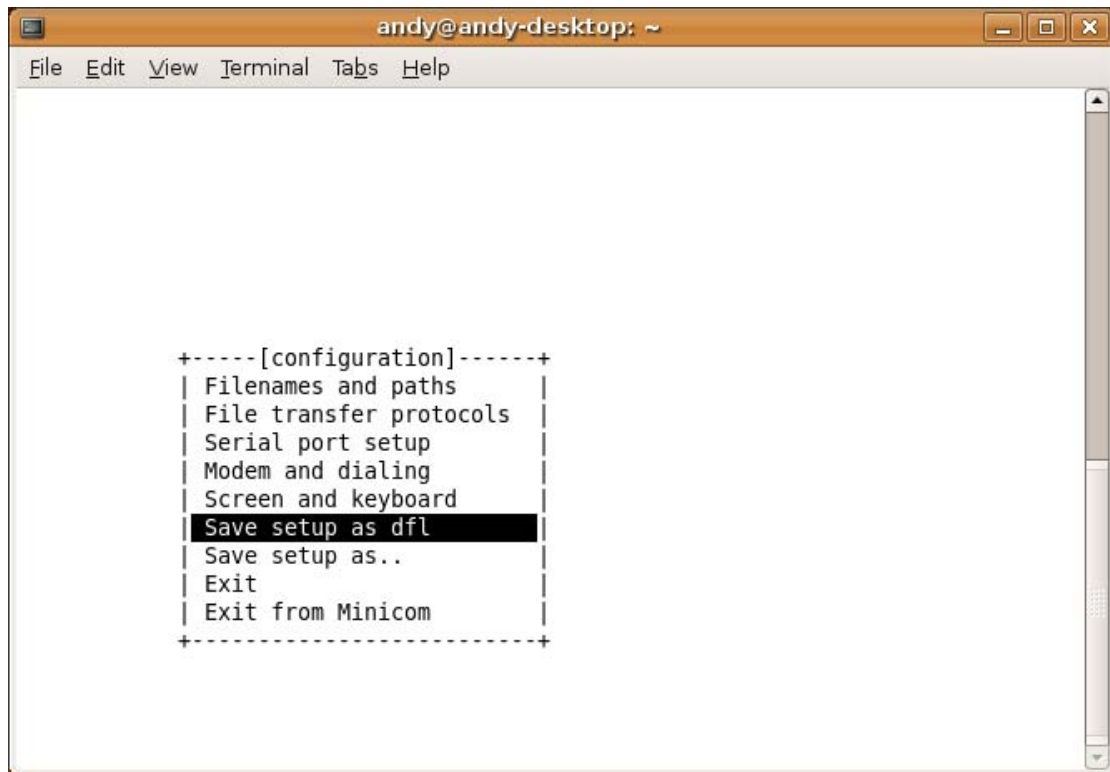


```

andy@andy-desktop: ~
File Edit View Terminal Tabs Help

+-----+
| A - Serial Device      : /dev/tty8 |
| B - Lockfile Location  : /var/lock |
| C - Callin Program     :           |
| D - Callout Program    :           |
| E - Bps/Par/Bits       : 115200 8N1|
| F - Hardware Flow Control : Yes    |
| G - Software Flow Control : No     |
|                         |
| Change which setting? |
+-----+
| Screen and keyboard   |
| Save setup as dfl     |
| Save setup as..       |
| Exit                  |
| Exit from Minicom     |
+-----+
  
```

5. Enter "A", the cursor will jump to "A - Serial Device" automatically. Modify "/dev/tty8" to "/dev/rfcomm0". Click "Enter" key for two times, the dialog will shows as following:



6. Choose "Save setup as dfl" and click "Enter" key. And then choose "Exit" item and "Enter" key is input. The minicom configurations complete.

7. Serial connection will be OK after the serial service application, such as "Windows Super Terminal", is opened and configured.

6.2 Open Local Serial Service

1. The local serial service is opened by default. The task "rfcomm -l hci0 watch rfcomm1 1" will be found if run "ps ax | grep rfcomm" command. If the task does not exist, /dev/rfcomm1 is already used by other application. Then change rfcomm1 to rfcomm2 or others and run the command "rfcomm -i hci0 watch rfcomm2 1" to start it.

2. Open mimicom in the command line. Its configurations are the same to "Connect Remote Serial Service". Change the serial device name accordingly to rfcomm1 or rfcomm2, which is as follow.

```

andy@andy-desktop: ~
File Edit View Terminal Tabs Help

+-----+
| A -   Serial Device       : /dev/rfcomm1 |
| B - Lockfile Location    : /var/lock     |
| C -   Callin Program      :              |
| D -   Callout Program     :              |
| E -   Bps/Par/Bits        : 115200 8N1   |
| F - Hardware Flow Control : Yes          |
| G - Software Flow Control : No          |
|                                         |
| Change which setting? █                |
+-----+
| Screen and keyboard |
| Save setup as dfl   |
| Save setup as..     |
| Exit                |
| Exit from Minicom   |
+-----+
  
```