

NOTE: the Port control properties available in the Topology view (Figure 5-7)are the raw SNMP OID's and have been made available to enable selection of the desired control Groups. For example, the High Pass Filter Group in Figure 5-9 below contains the raw BiQuad filter parameters (a, b, c, k), which are unusable from an audio perspective. However, the Forms view will show the 'real world' audio variables (see Figure 5-10) derived from the BiQuad filters.

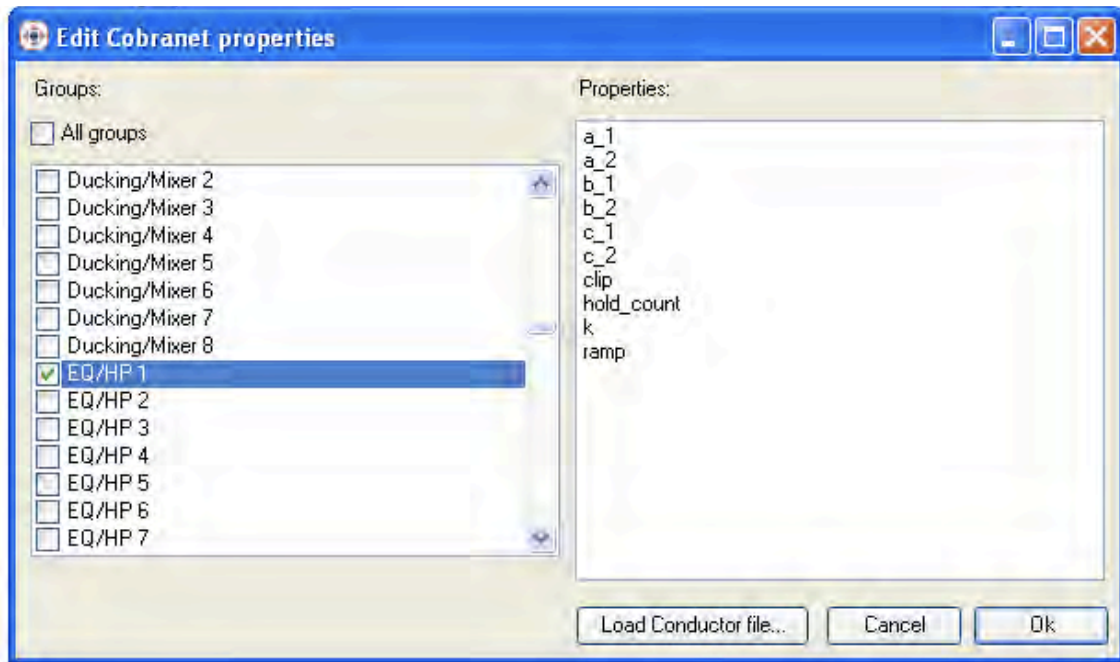


Figure 5-9 : Raw SNMP filter variables

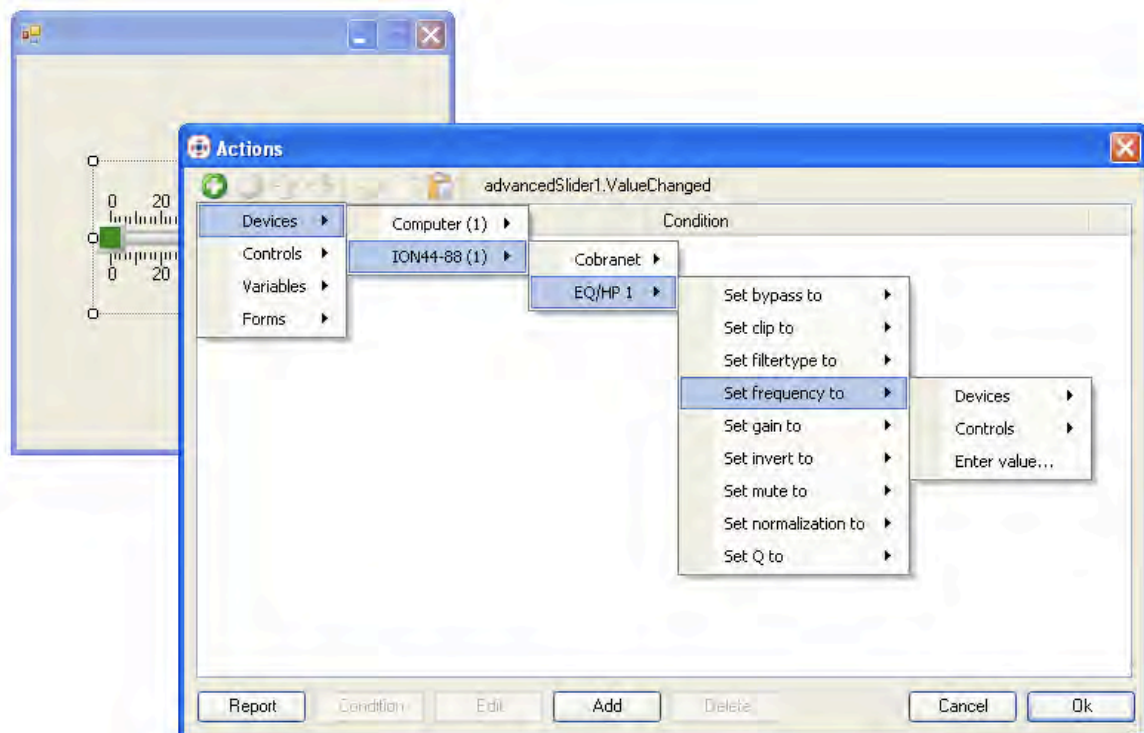


Figure 5-10: 'Interpreted' SNMP values

6 Firmware upgrading

6.1 CobraNet™ Firmware

The CobraNet™ firmware is upgraded using the CobraNet™ port and the Cirrus Logic CobraNet™ Discovery application (CNDISCO). CNDISCO is a free download from the Cirrus Logic website. The current revision is 3.4.5.

<http://www.cobranet.info/dispatch/forms/sup/boardreg/breg/BregController.jpf>

After loading the CNDISCO application, Advanced features will need to be enabled. Enabling advanced features in CNDISCO allows you to put any version of firmware on any hardware-compatible CobraNet™ module you wish. CNDISCO needs to have the particular firmware version of a device in its firmware directory in order to properly identify the device for compatible firmware upgrades. Should the situation arise where you know the device is a specific model but CNDISCO says there are no compatible firmware upgrades, using the advanced feature, you'll be able to update the firmware anyway.

How to enable the advanced feature: Firstly, open cndisco.ini in Notepad. Its usually in a directory like this: C:\Program Files\Peak Audio\CobraNet Discovery. Then find the Configuration section. It usually looks something like this:

```
[Configuration]
Adapter Index=[10] [10] Broadcom NetXtreme 57xx Gigabit Controller
Firmware Location=C:\Program Files\Peak Audio\CobraNet Discovery\firmware
```

Start a new line after one of the lines in that section and type in Advanced Feature=1. It should look something like this when you're done:

```
[Configuration]
Adapter Index=[10] [10] Broadcom NetXtreme 57xx Gigabit Controller
Firmware Location=C:\Program Files\Peak Audio\CobraNet Discovery\firmware
Advanced Feature=1
```

Save the file and exit Notepad. The advanced feature is now enabled.

Now when you update the firmware you'll see a check box in the "Select Firmware Version" dialog box marked "Show All Firmware Versions". Check the box and you'll be able to choose from all the firmware versions stored in the firmware directory.

Now save the MTS CobraNet™ binary file "MTS_2_11_6.bin" to the Firmware folder and use CNDISCO to upload the firmware. Please ensure that you ONLY use the MTS binary, otherwise it will be lacking the amplifier specific controls needed for the correct operation of the product..

6.2 ION Firmware

The MTS firmware is uploaded using a free TFTP (trivial file transfer protocol) tool such as TFTP32 from the url www.tftpd32.jounin.net/

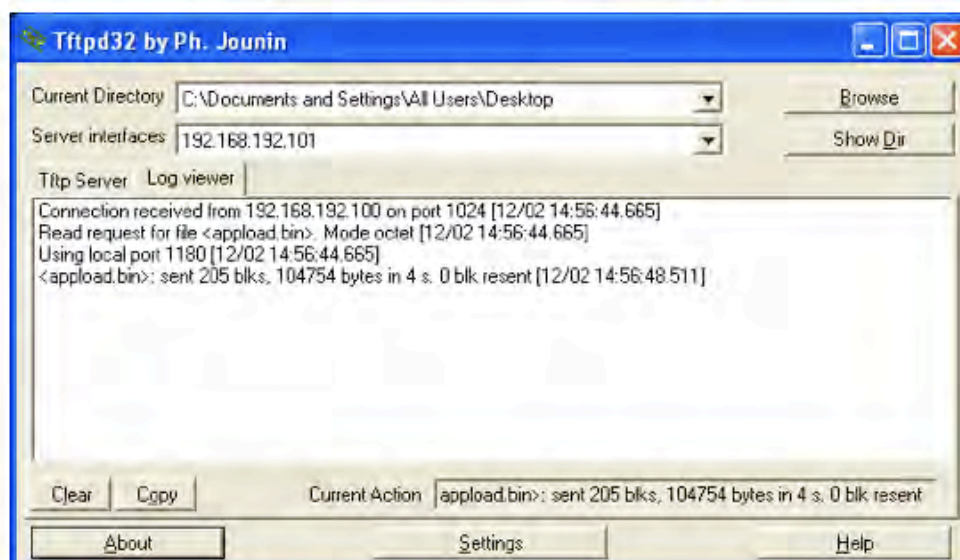
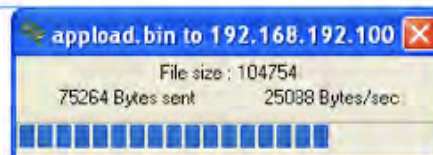
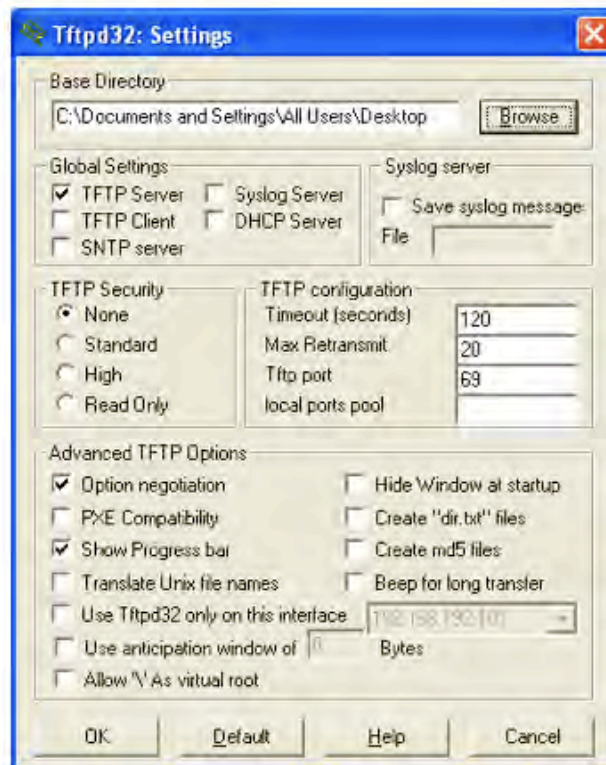


Figure 6-1: TFTP settings

Load instructions are as follows...

- Set laptop IP address to 192.168.192.101
- Confirm Amplifier Ethernet IP address is in the same domain , say 192.168.192.100
- Copy MTS_1_2_1.bin file to desktop directory.
- Copy tftpd32.exe to desktop directory and start application.
- Set the “Current Directory” in the TFTP window to the desktop directory.
- Click on the Settings button. In the Settings window – ensure the following:
 - Base Directory set to desktop directory
 - ONLY TFTP Server checked in Global Settings
 - TFTP Security set to None
 - In TFTP configuration – Timeout = 120, Max Retransmit = 20, and Tftp port = 69
 - In Advanced TFTP Options – Option negotiation and Show Progress bar checked

Power up the ION and wait till see “MTS_1_2_1.bin to 192.168.192.100” window appear on programming computer displaying progress of download. NOTE: if programming doesn’t complete 1st time than may have to cycle power to the amplifier chassis to try again. See Figure 6-1 above for details.

Note: Since the firmware bootloader does not contain a DHCP client, it uses the following algorithm to determine its IP address.

- Check for static IP address. If it exists, initiate TFTP on this address
ELSE...
- Check for last-assigned DHCP address. If it exists, TFTP on this address
ELSE...
- Use default 192.168.192.100

The implication is that new amplifiers without a static IP address or DHCP IP address will all issue a momentary IP address of 192.168.192.100 during the powerup TFTP search. This can cause IP conflict errors if multiple new amplifiers are connected to a Managed switch.

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