

Topic: PXE Boot Configurations
Component(s) Affected: PowerQuest PXE Server
Date: March 28, 2003

OVERVIEW / ENVIRONMENT

This document outlines the steps required for adding a boot option to your PXE Server. It assumes a PXE server is installed, and the administrator has an operational understanding of building Boot Disks to Virtual Floppy Images.

DETAILED DESCRIPTION

Follow these instructions to add boot options to a PXE server.

1. Build an appropriate Virtual Boot Floppy for the task you wish to complete (e.g., PowerCast Client Disk, Stand Alone Boot Disk, BIOS Flash disk, etc.).
2. Create a directory in the following path for the new configuration:

```
C:\Program Files\PowerQuest\ControlCenter ST\PXESERVER\BOOTIMAG\X86PC\UNDI
```

Note: The new directory needs a simple name (i.e., containing no spaces). For instance, an appropriate simple name for a directory for a PowerCast Client disk would be `pcastclient`.

3. Once the directory has been created, copy the `*.vfd` file created in Step 1 to the new directory.
4. Change the file suffix from `.vfd` to `.1` and click **Yes** when the system displays the **Rename** warning message.
5. Go to the following directory and copy the `ControlCenter.0` file into the directory created in Step 2:

```
C:\Program Files\PowerQuest\ControlCenter ST\PXESERVER\BOOTIMAG\X86PC\UNDI\ControlCenter
```

6. Rename the `ControlCenter.0` file to the same name as the `vfd` file copied to the directory in Step 3, changing the `*.1` to `*.0`. When you are finished, the directory should contain two files as shown in *Figure 1*.

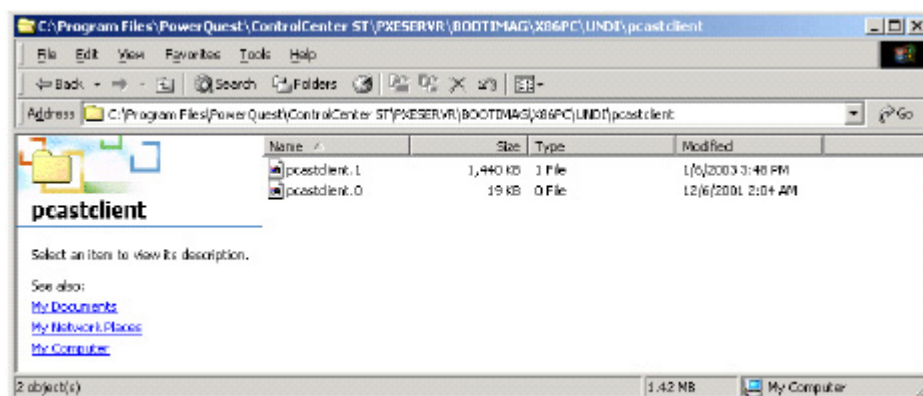


Figure 1 Files in Sample Pcastclient Directory

7. Open the PXE Server program by going to the Program Menu's PowerQuest ControlCenter ST for DeployCenter 5.0 listing.
8. When the PXE Configuration Utility program opens, expand the server listing, proxyDHCP Server, Client Boot Menu directories, and click on the **X86PC (UNDI)** module (see *Figure 2*). Right-click on **X486PC (UNDI)** and select **Add boot server to this menu**.

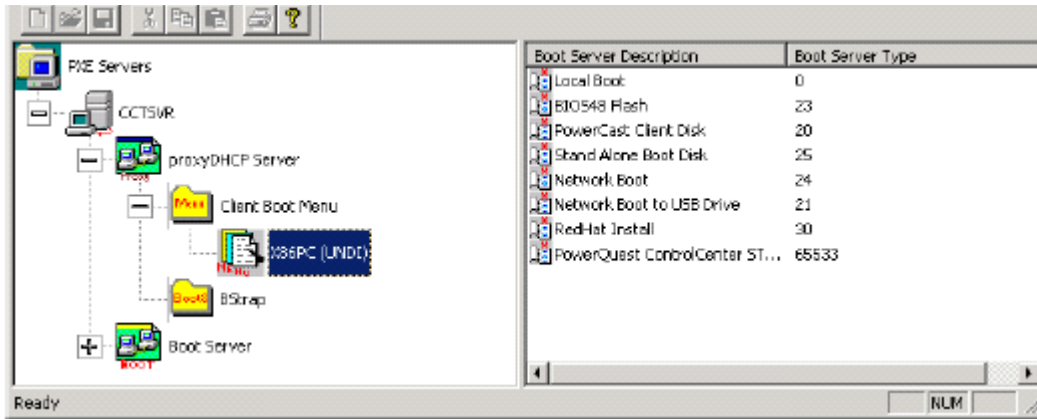


Figure 2 X86PC (UNDI)

9. When the **Client Boot Menu** dialog box is displayed, enter an integer for **Type** that is not listed in the left-hand **Available Boot Server Types** window, and enter it into the **Boot Server Type** field. In *Figure 3*, 35 is used. In the **Description** field, enter a user-friendly description for the operation being built. In the example, **PowerCast Client Boot** was chosen. This becomes the menu listing for the task when booting to PXE from a client system. This description does not have to match the two files created in earlier steps. Click **OK** to close the window.

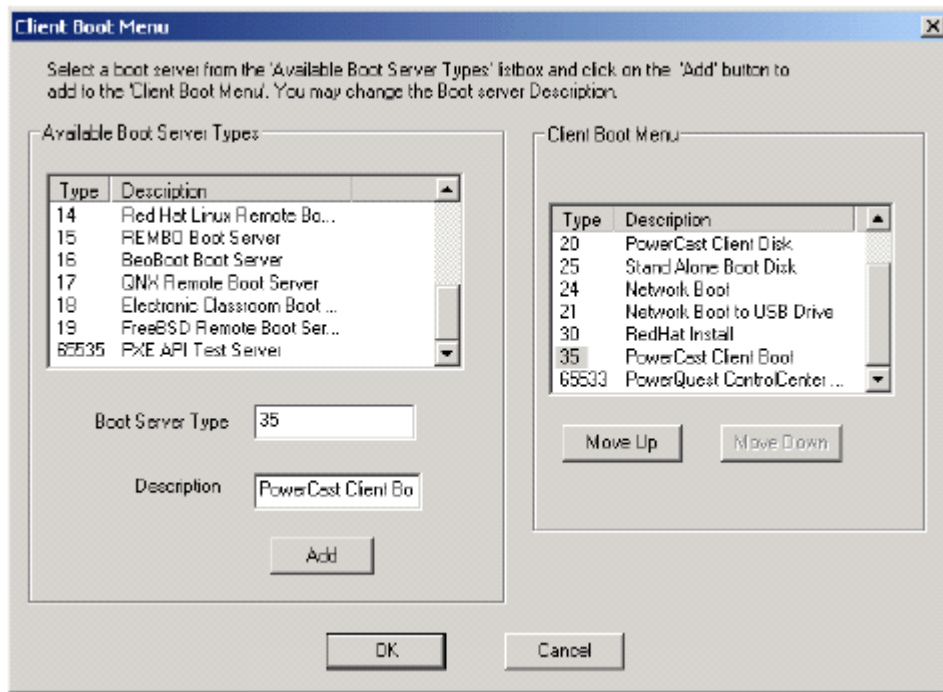


Figure 3 Boot Menu Example

10. The **Boot Server Description** and **Boot Server Type** entered in Step 9 should now be listed in the right-hand window of the Configuration Utility, circled in red in *Figure 4*.

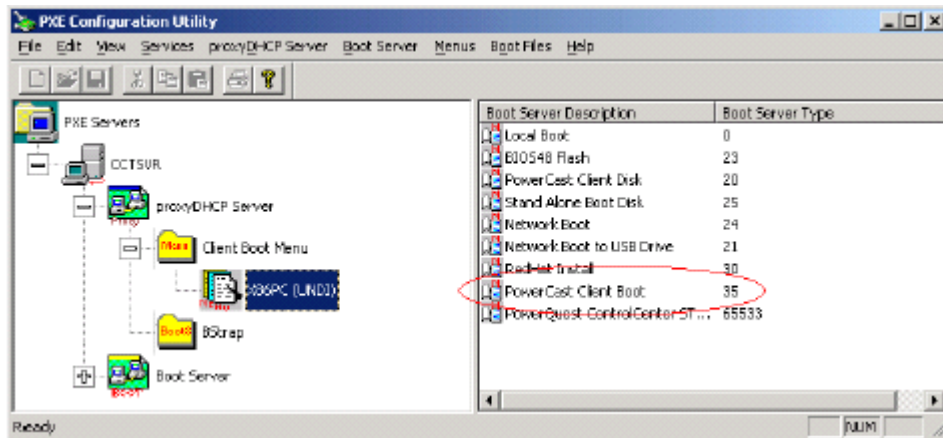


Figure 4 Configuration Utility Menu

11. Next, right-click on the **Boot Server** listing in the Configuration Utility window, and select **Add/Remove Boot Server Type**. When the dialogue window appears, enter the Boot Server Type used in Step 9 in the **Boot Server Type (integer)** field. This integer is what ties all of the configurations together within PXE, so be sure to use the same integer for any given configuration throughout the build. For the example shown in *Figure 5*, 35 is used accordingly. Next, enter the name of the files and directory created in Step 4. Click the **Install New Boot Server** button to install configurations. When finished, click **OK**.

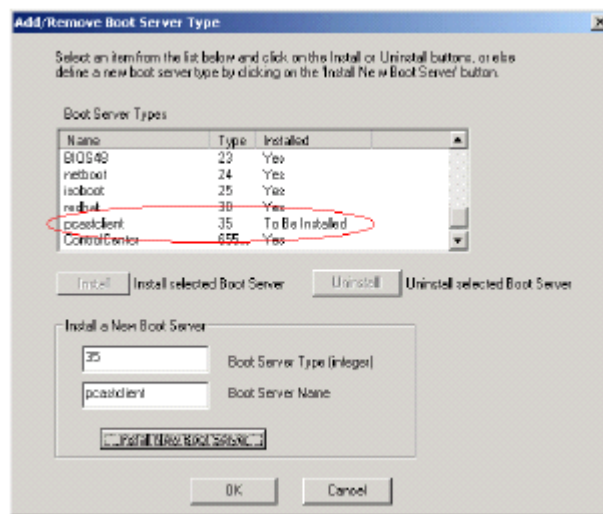


Figure 5 Boot Server 35 Example

12. The Boot Type created in Step 11 should now be listed under **Boot Server** in the Configuration Utility.

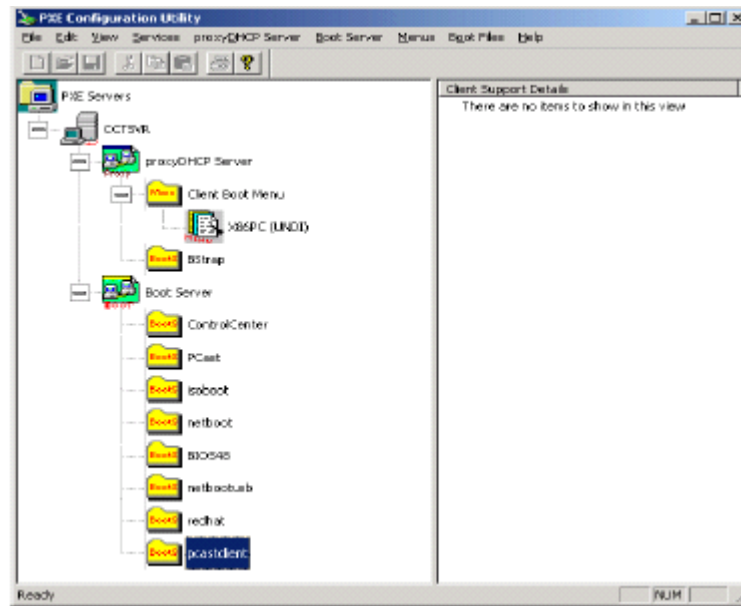


Figure 6 Boot Server in the Configuration Utility

13. Right-click on **Boot Type** in the Configuration Utility, and select **Add Client Support**. In the dialog box that comes up, enter the filenames used (in this case, `pcastclient`) in the **Boot File Base Name** listing. This identifies the files created earlier for the VFD. Change the **Max Layer #** from 0 to 1. Next, click the **Browse** button to identify the **Vendor Options DLL**. In the explorer window, select the `DosUndiOpts.dll` file, then click **Open**. When your window looks similar to *Figure 7* (your Boot File Base Name will more than likely be different), select **OK**.

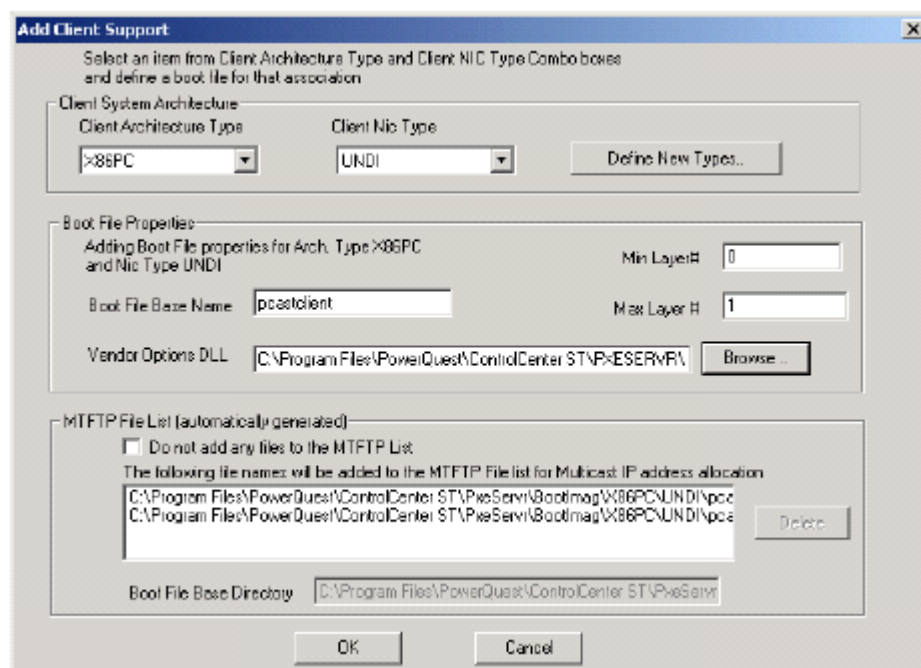


Figure 7 Add Client Support Example

14. Right-click on the **proxyDHCP Server** listing in the PXE Configuration Utility window, and select **Configure proxyDHCP Server**. Select the Client Options tab, then press **Add to Bootserver Discovery List**.

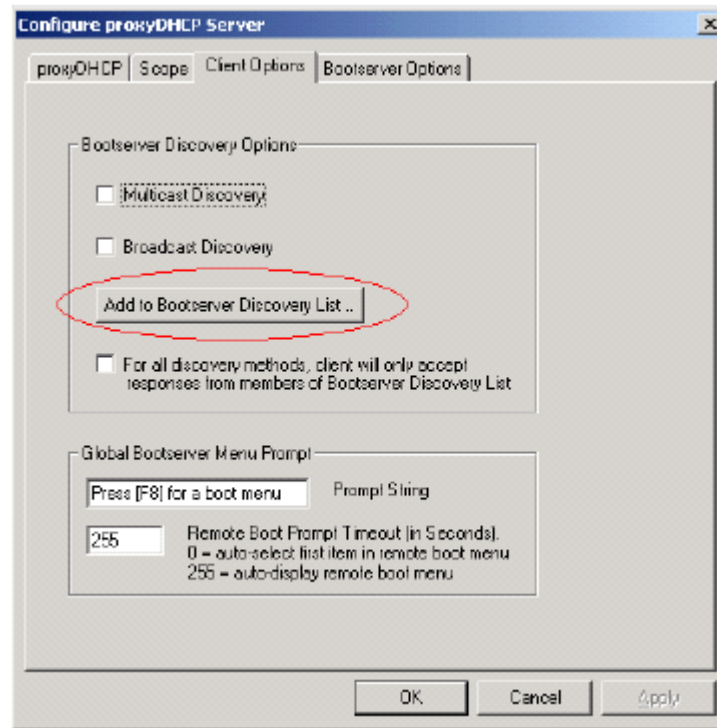


Figure 8 Client Options Tab

15. In the **Define Bootserver Discovery List**, add the integer used in earlier steps (in this case, 35) to the **Bootserver Type** field. In the **IP Address (in dot notation)** field, enter the IP address for the PXE server. Click the **Add to Discovery List** button. This adds the VFD to the discovery list for the PXE server. When finished, click **OK**.

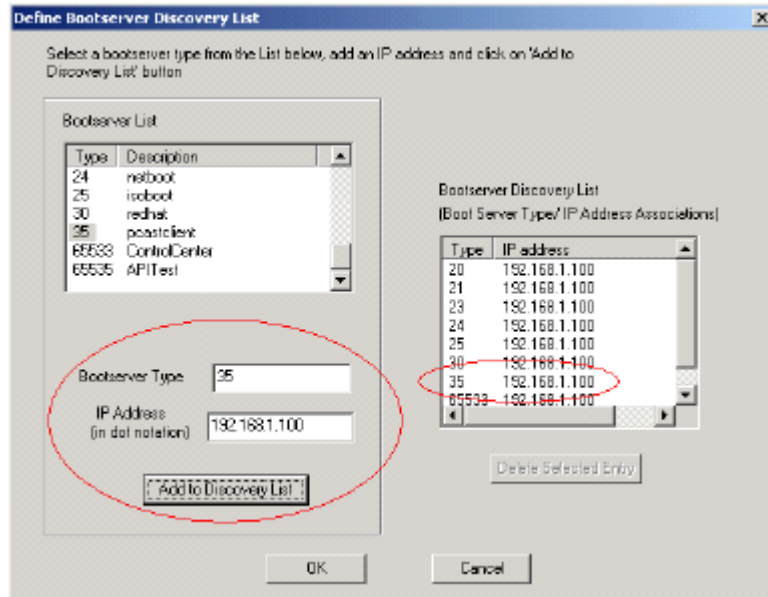


Figure 9 Define Bootserver Discovery List

16. Reboot your system to a network boot and test the new configuration. If any problems are experienced, go back over the instructions to make sure all configurations exist and are correctly listed.

For more information, please contact ClearCube technical support.

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