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Getting Started with Deployment Console to Deploy Clients per PXE using MAC Address Identification

Quick Guide

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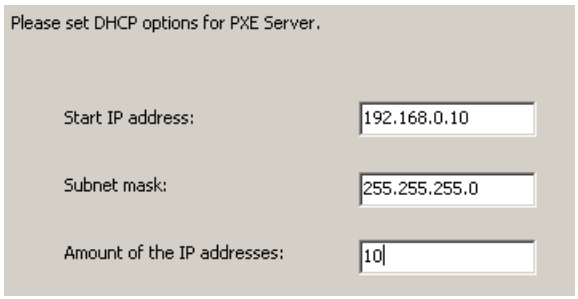
Introduction

This document is designed to help you quickly get started in deploying images with Paragon's Deployment Console™. It should be noted that there are several ways of deploying images with the Deployment Console like creating a bootable CD for the clients to be deployed using the Boot Media Builder™ (supplied with the installation package) but for the purposes of this document it will primarily focus in on deploying the clients per PXE network booting and the clients network card MAC address. Also for the purposes of this document, it is assumed that the deployment network is isolated and there are no DHCP servers available.

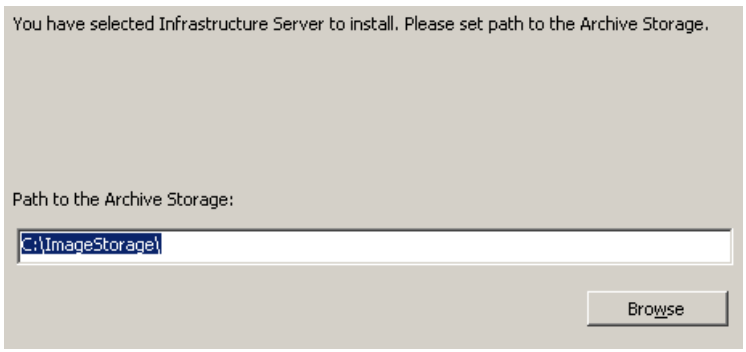
Installing the Deployment Console components on the server

The first thing that you will need to do is to install the Deployment Console on a computer with a fixed IP address for example, 192.168.0.1 net-mask 255.255.255.0. This will be the computer that will act as the server for all components. The following will now walk through the install process step by step.

1. Begin by running the supplied installation package.
2. When prompted what to install, enable the PXE Server component and click **Next**
3. When prompted if you want to install a DHCP server, click **Yes** to install a DHCP server and then click **Next**.
4. Now you will be prompted for the range of IP addresses for your DHCP server. Here you will need to adjust this to fit your network. For example, like in the image below.



5. Now you will need to select a folder where you will place your backup images. This is the folder that the Infrastructure server will use as a centralized storage point. If you do not already have a folder to use for your image storage you can go ahead now and create this folder using the Microsoft Explorer. In this example a folder named C**:\ImageStorage** will be created and used for this purpose.



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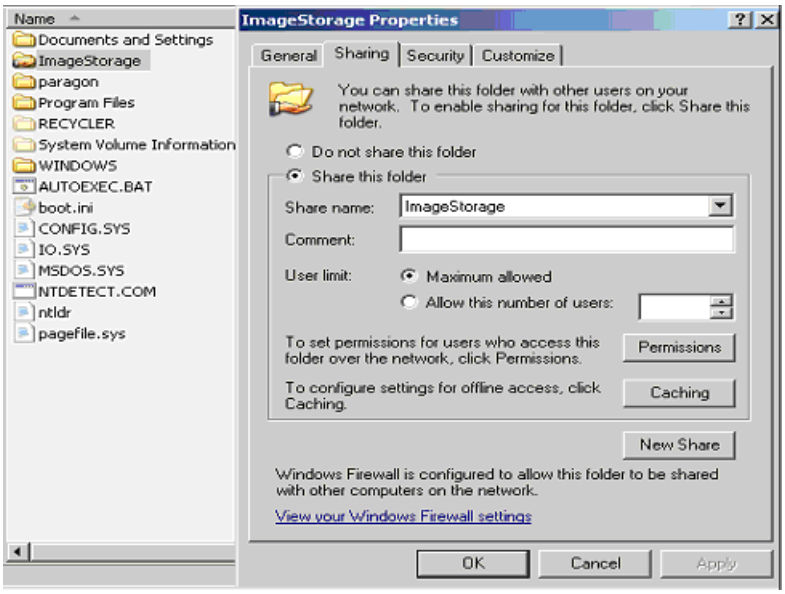
6. Now you will click next to install the components and when prompted restart the computer to complete the installation.

7. When the system comes back up you should have two windows open, one for the Infrastructure server and one for the DHCP/PXE server. You should leave these windows open in order for the Deployment Console to function properly. When the windows are open the system is running, you can now continue on to the next section of introducing the client to the Deployment Console in order to deploy using the clients network card hardware MAC address.

Creating a master image for deployment

Naturally before you can start deploying your clients you will need a backup image to deploy. Although there are many different ways to create your images, for example booting a Recovery CD™ and imaging to an external hard drive or a CD/DVD, this section will focus in primarily on creating your master image by booting your master client per PXE network boot to the Paragon Infrastructure Server (which was installed in the previous section) and loading the client Deployment Console™ options which include Paragon Hard Disk Manager™ for imaging and saving your image to a network share. The following will now cover this in detail.

1. Begin by creating a network share which will be used for saving your master image to. In this example, the same folder and server that was created when installing the Deployment Console components (**C:\ImageStorage**) will also be used for this purpose. It should be noted that this network share is needed only for storing the images to, it is not necessary to share this folder for the Infrastructure server to deploy the images from.



2. Once the network share is created you can now boot the client PC up and enter into the boot menu in order to select the network card as the boot device. On many systems this is the **ESC** key or **F12** when the system is booting up but this depends on the BIOS of your system. Below is an example of a boot menu.

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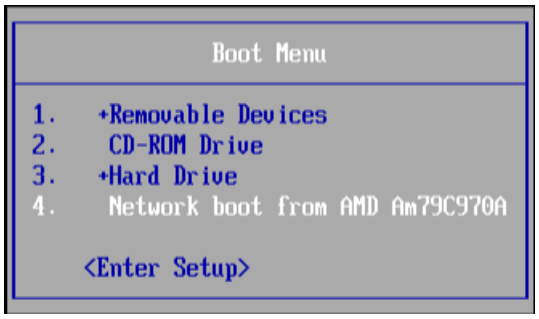
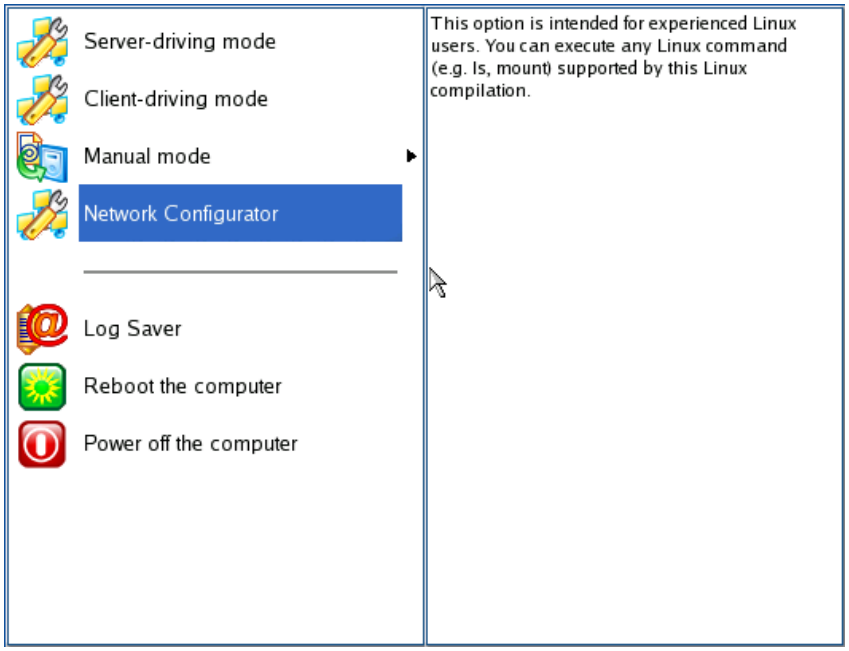


3. Once you have selected the network boot device the system should then boot up connecting to the Deployment Console's DHCP and then loading the boot image from the PXE server.

4. When the client is finally started you should then have a window like the one below with listing the client options. At this point you should select the Network Configurator™ so that you can connect to the share you created in the previous steps.



5. Once you have entered into the Network Configurator you can then select **Next** and then **Next** again to select the default **config file**. At this point you should now be at the Autodetection of Network Devices dialog box as shown below and your network adapter should be displayed. If this is the case you can now click on Configure Selected to configure your IP address as shown below.

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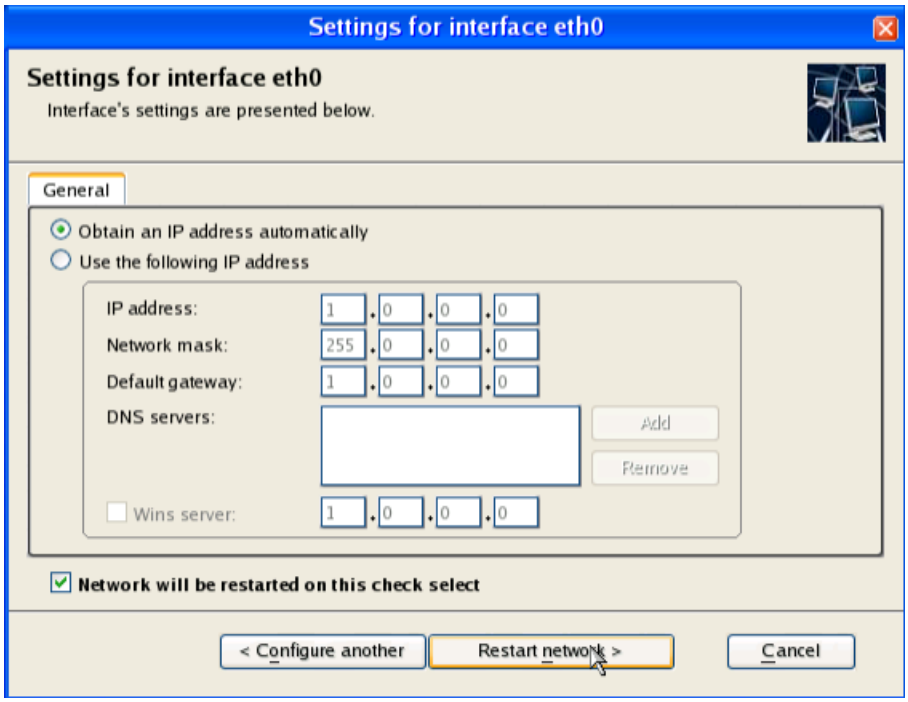
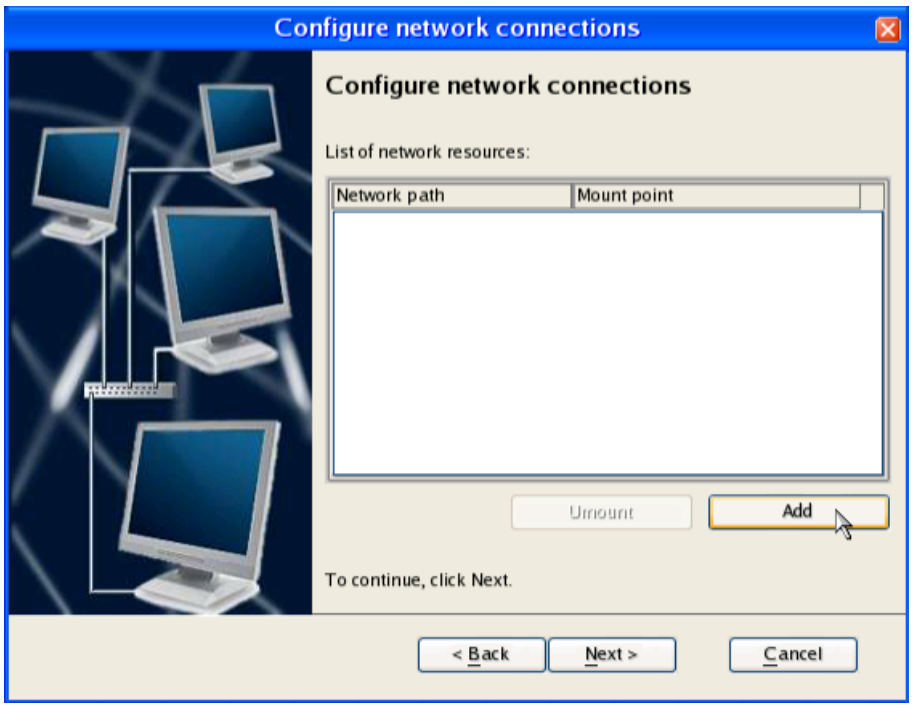


6. For the purpose of this example you should leave the settings at the default by choosing to obtain the IP address automatically since you have already installed a DHCP when installing the Deployment Console components. At this point you can then click Restart Network which will bring you to a page like the one below allowing you to add your network share.



7. Now you can then click Add to browse your network and choose the network share created earlier. First you will need to supply your username and password required to attach to the network share and then you can click on the Network Path button to choose your computer and share that you need to connect to. The below images show this step by step.

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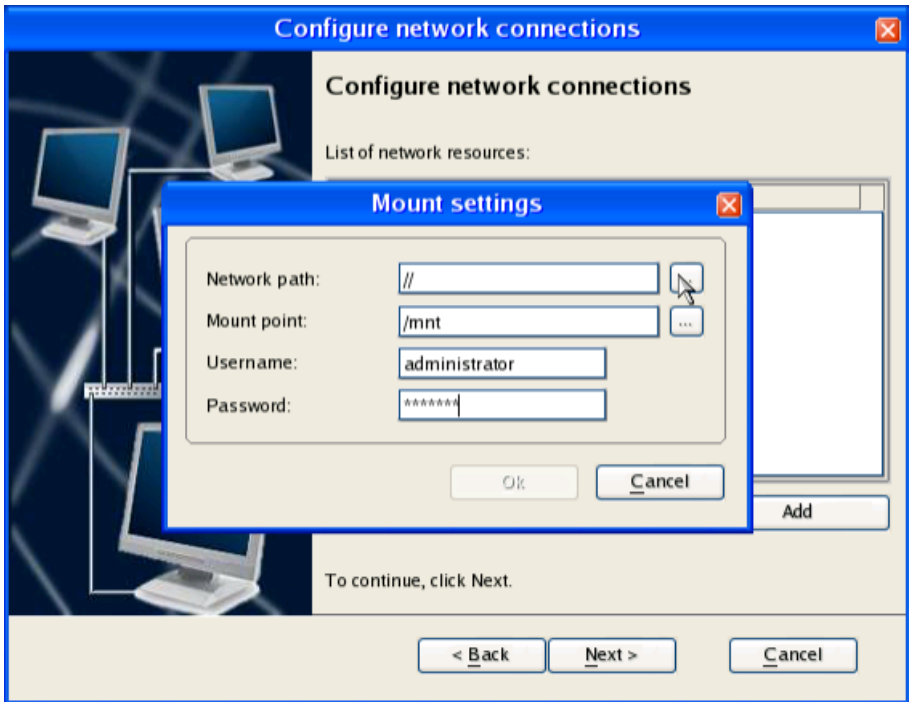

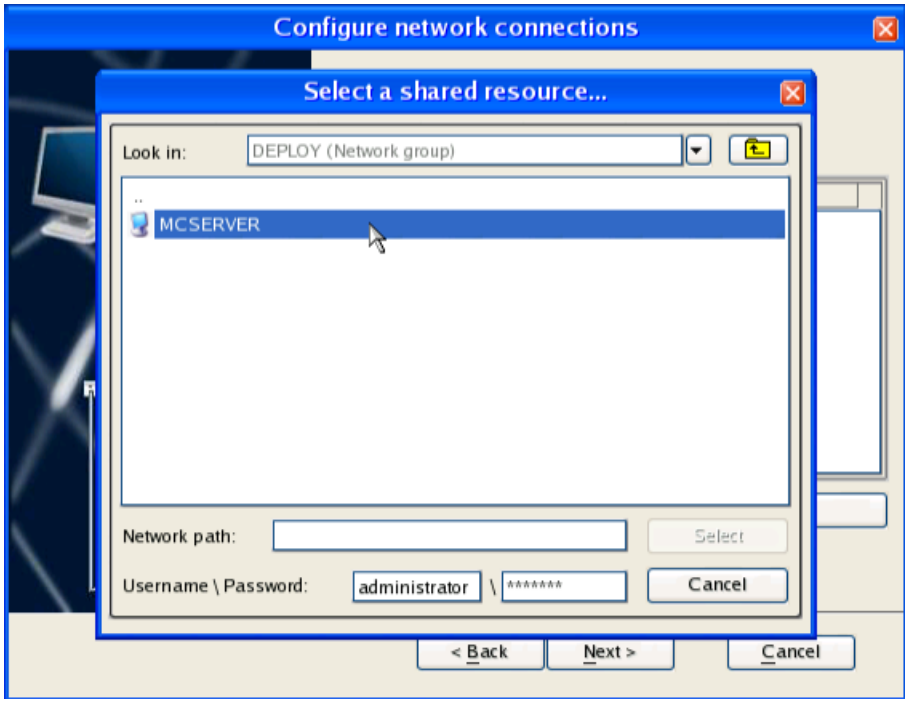

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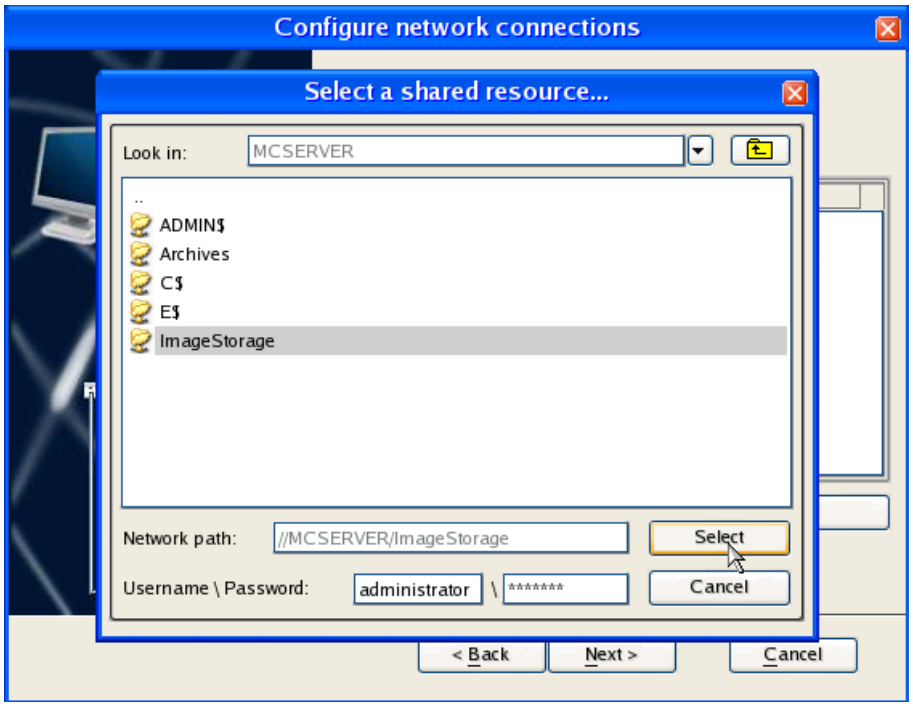
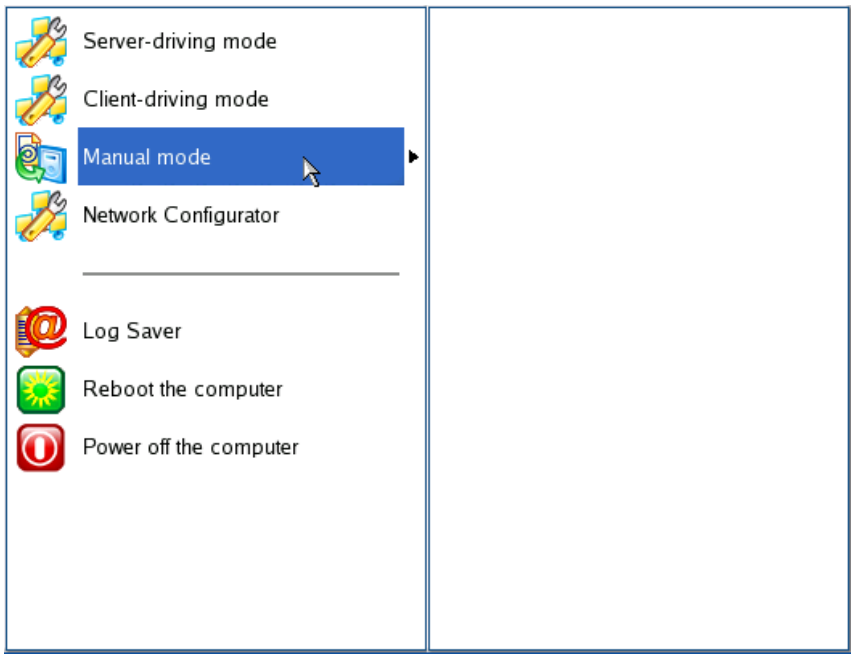


8. At this point you can now select your network share and then click on **Next** and then **Finish** to complete the operation of connecting your network share.

9. Now that you have attached your share and you now have a network place to store your backup image for deployment you can now begin to create your image by selecting **Manual Mode** and then **Hard Disk Manager**.



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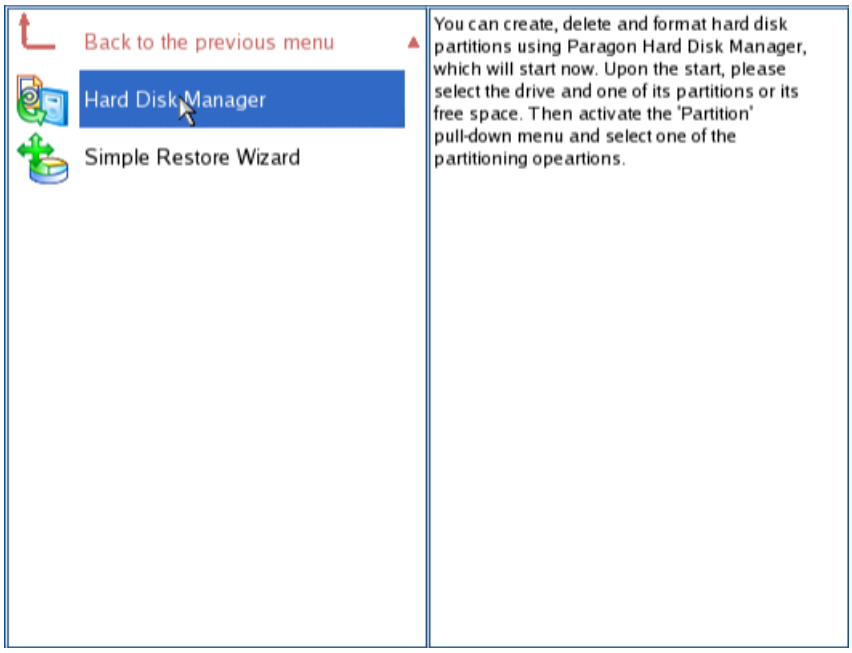
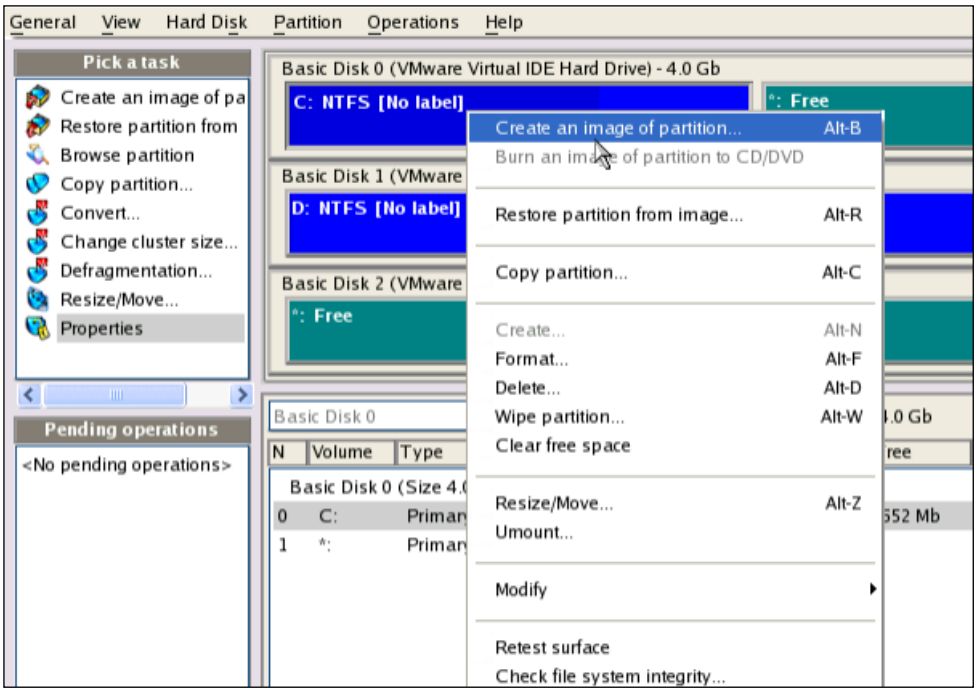


10. Now once you are in the Hard Disk Manager you can now begin to create an image to the network share created earlier. For the purposes of this example an image of hard disk 0 partition 0 will be created for deployment. To create an image of the partition click on the partition you would like to image and then right mouse click to choose the option **Create an image of partition**.



11. Once you have selected the **Create an image of partition** option you can now select the backup destination by clicking on the **Archive Name** button as shown below.

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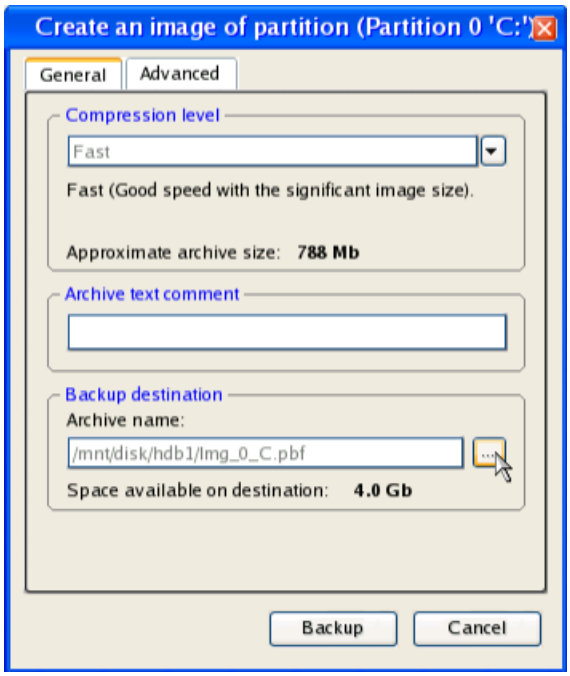
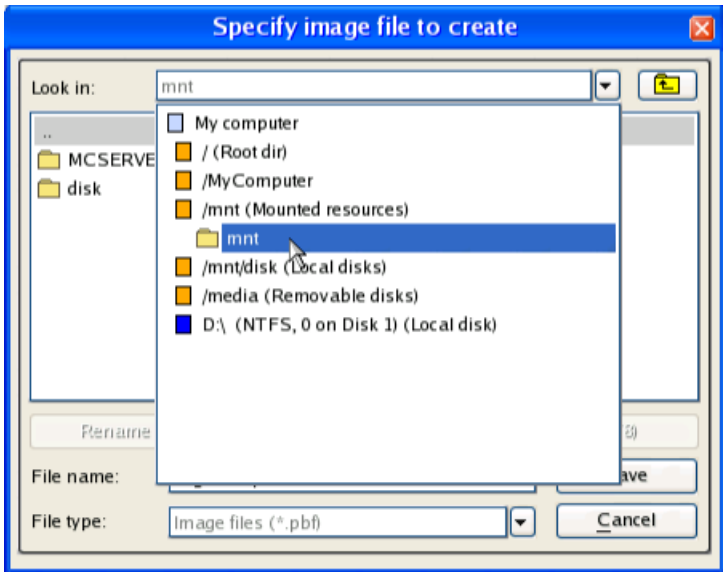


12. Now you can navigate under the Mounted Resources folder (**/mnt**) to your server and the network share which you have created (**c:\ImageStorage**). This is also demonstrated step by step below.



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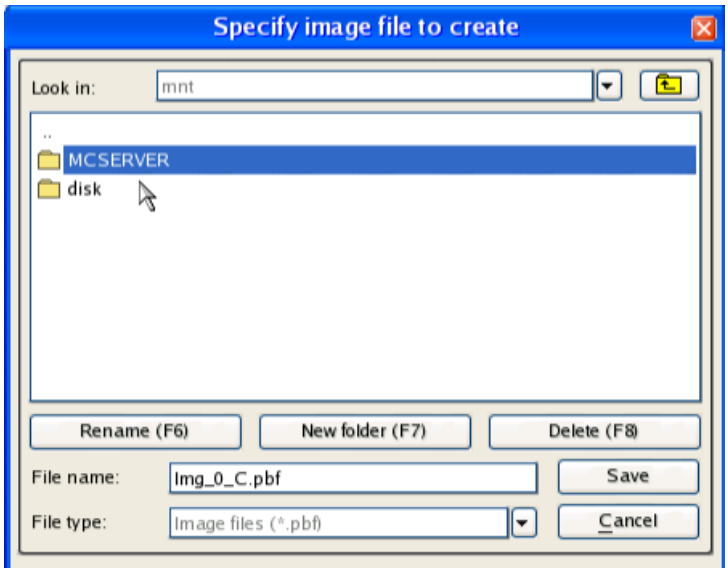

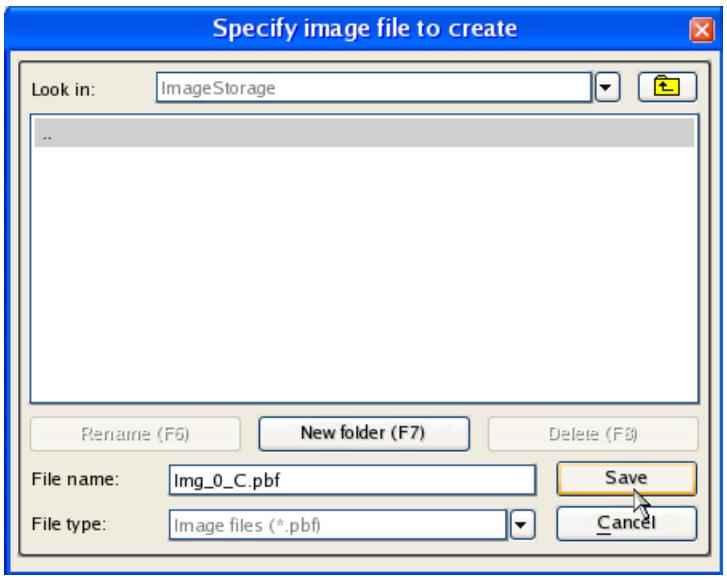

13. Finally you can now save this new backup image to this share and then click on **Backup** and then **Apply** to start the backup operation.

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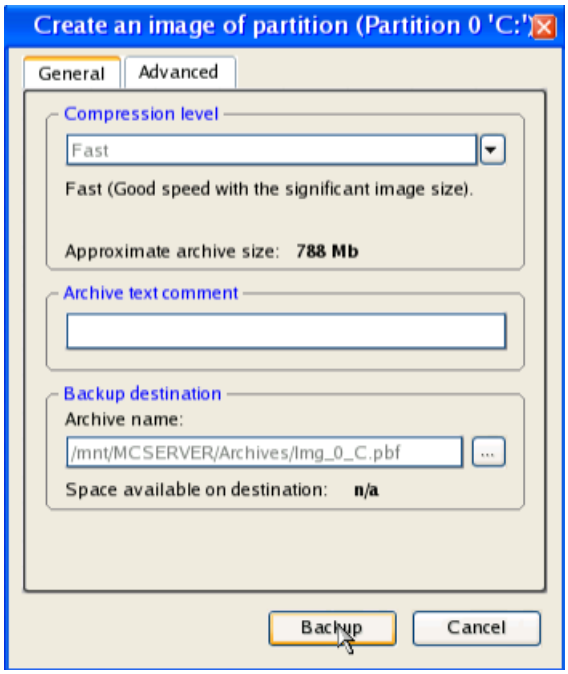

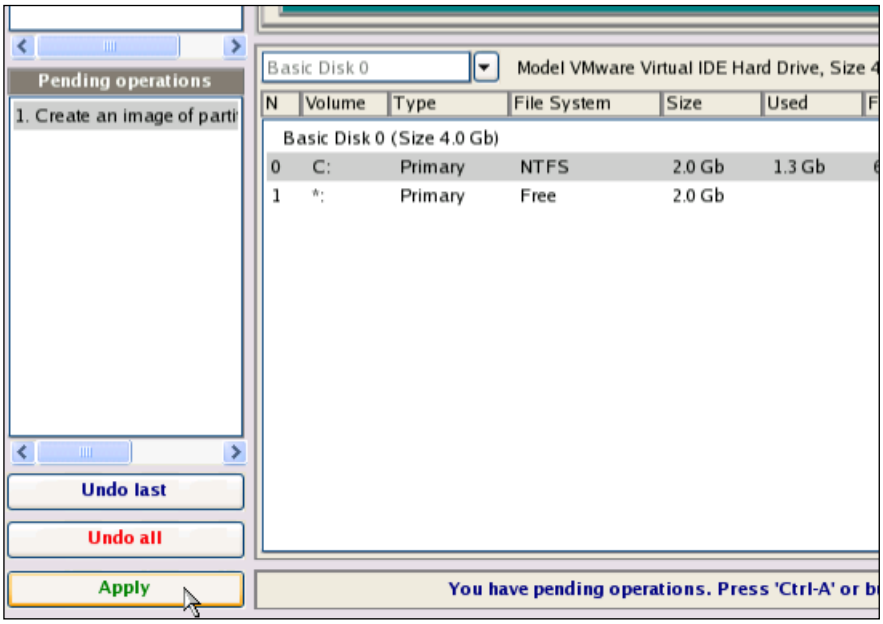

14. That's it. Once the backup is completed you are now ready to continue on to the next section of deploying this image per PXE.

Introducing the clients to the Deployment Console

Introducing the clients to the console is as easy as booting the client PC per PXE network boot. The following will now cover this.

1. Boot the client PC up and enter into the boot menu in order to select the network card as the boot device. On many systems this is the **ESC** key or **F12** when the system is booting up but this depends on the BIOS of your system. Below is an example of a boot menu.

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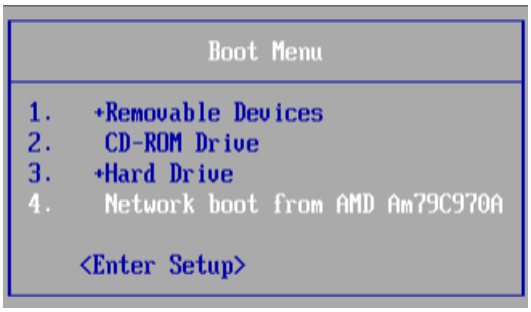
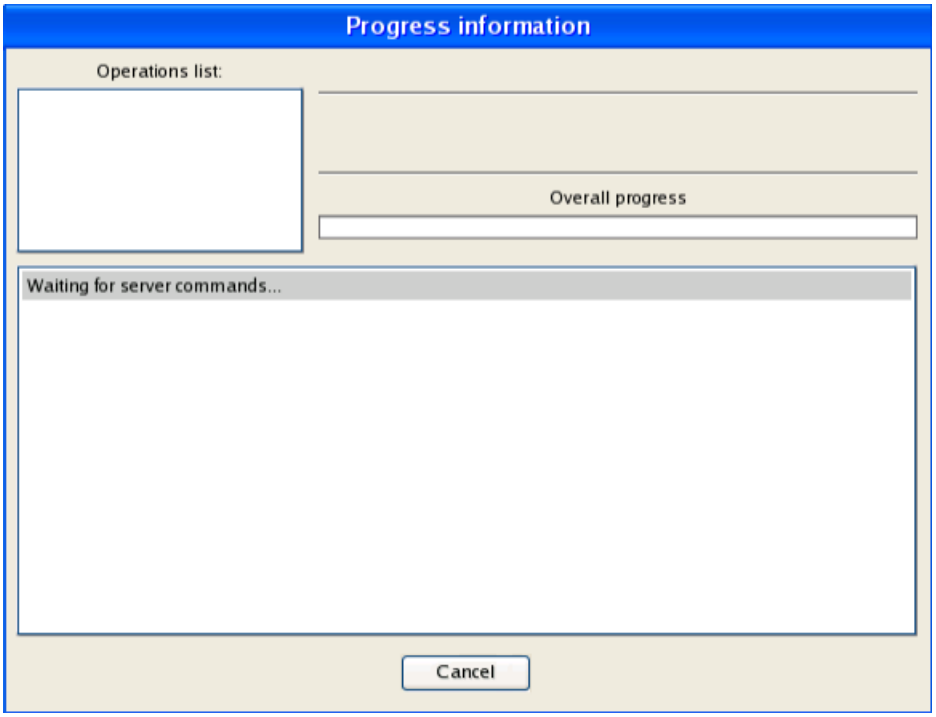


2. Once you have selected the network boot device the system should then boot up connecting to the Deployment Console's DHCP and then loading the boot image from the PXE server.

3. When the client is finally started you should then have a window like the one below saying that the computer is waiting for server commands.



4. When that is complete and the client is waiting we can now go back to the Deployment Server to create a session to deploy the client per its MAC address.

Creating a session to deploy the clients per their MAC address

Once the clients are up and waiting for server commands it will now be possible to create a session or template for deploying these clients using their MAC address. Although it is also possible to create a template for the deployment so that is can be used in the future this document will only focus in on creating a one time session for the clients to be deployed. The following will now demonstrate this.

1. First start by opening up the Deployment Console from the start menu. The path from the start menu is as follows: **Start\Program Files\Paragon Deployment Manager\Deployment Console\Deployment Console**.

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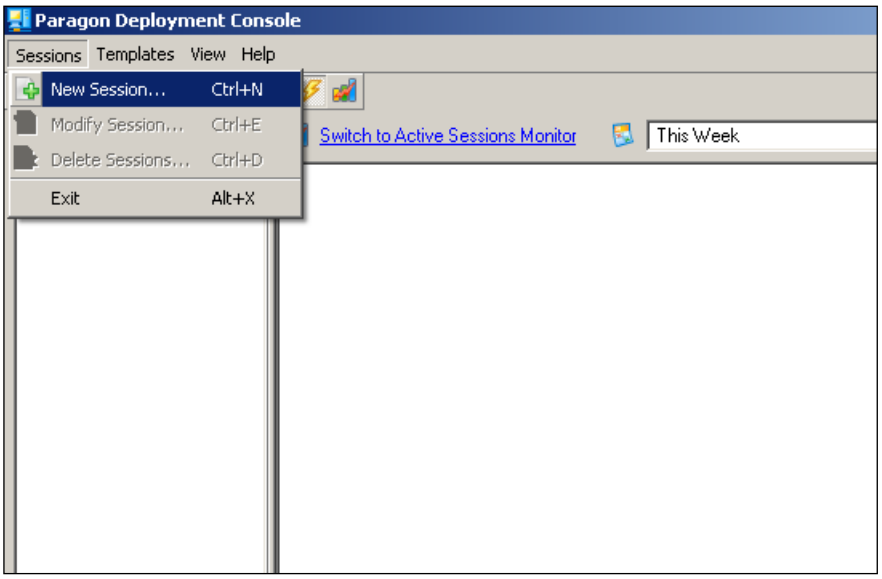
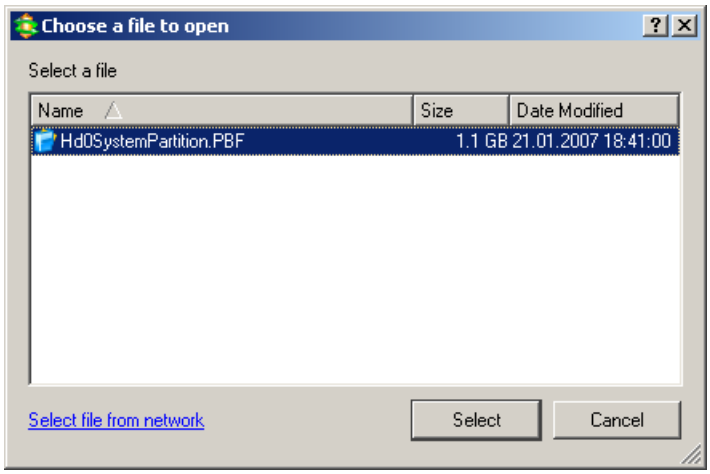
2. Once the Deployment Console is up and running you can now create a new session for deploying the client as viewed from below.



3. Choose **New Session** and then select **Next**. You will then be prompted to select your image you wish to deploy. This is the image you have copied to the **Server Storage** folder which was created before the Deployment Console install. This is also the folder that was selected as the **Server Storage** folder from the Deployment Manager installation (for example, **C:\ImageStorage**). Here you can select **Browse** and a window like the one below should show up with your image to select.



4. Once you have selected your image, you can then give your session a name and then click **Next**.

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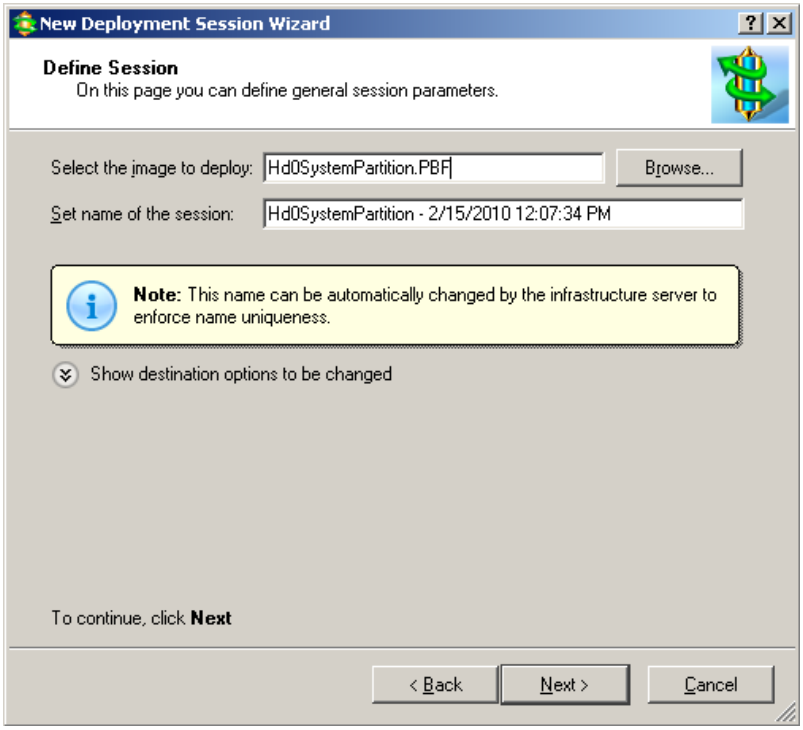
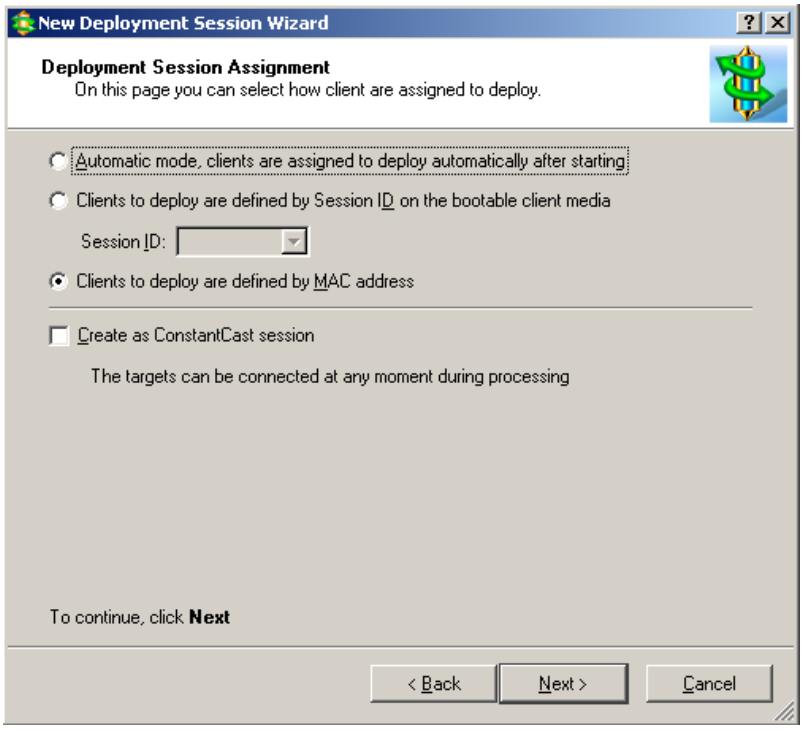


5. Once you have clicked next you will now be asked how you would like to deploy the clients. Here you will choose **Clients to deploy are defined by MAC address** and then click **Next**.



6. Now you will be asked to define targets to deploy by selecting their MAC address from the left pane and adding them to the right pane for deployment. If there is more than one client waiting for server commands than they will also show up in this window. For the purposes of this document there is only one client to deploy in this example. Now you can choose these clients and then click **Next**.

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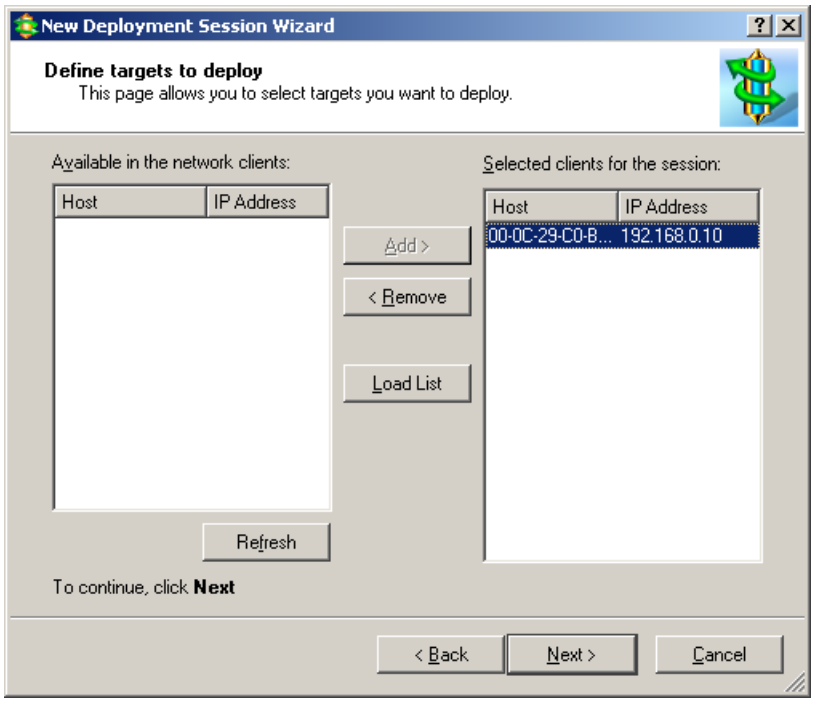
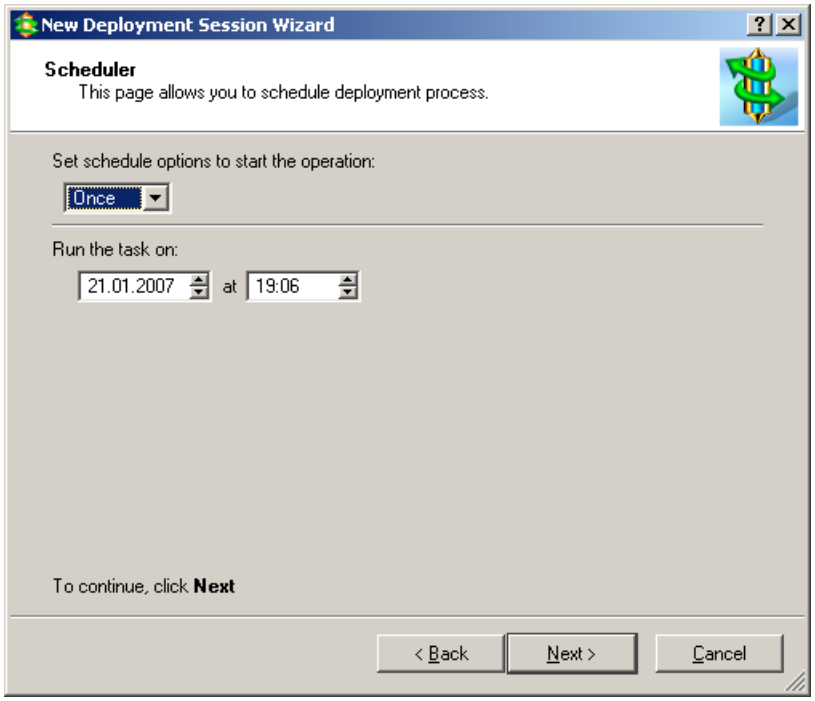


7. Once your clients are chosen and you have clicked **Next** you will then be asked for **Session Parameters**. Here you can leave everything at the default settings for the purpose of this test and then click **Next**.

8. Now you will be asked for **Post-Config Options**. Although it is possible to run commands at the end of the deployment process for the purposes of this document you will leave this empty and click **Next**.

9. The next step is to set up a scheduled job for this session. For now please just select a **Run Once** job leaving the time and date settings at the current time and date and then click **Next**.



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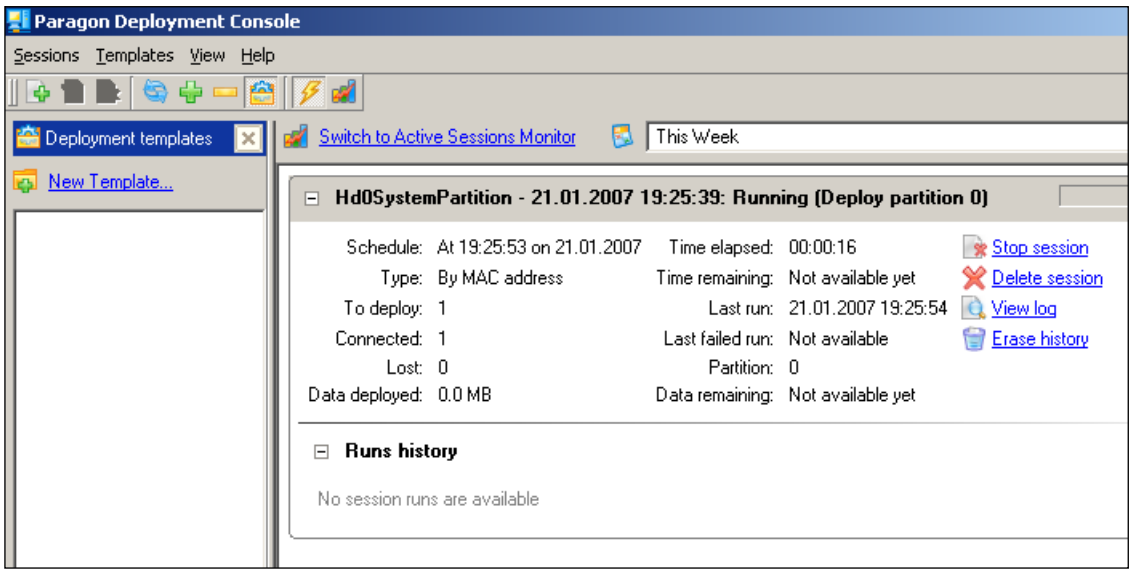
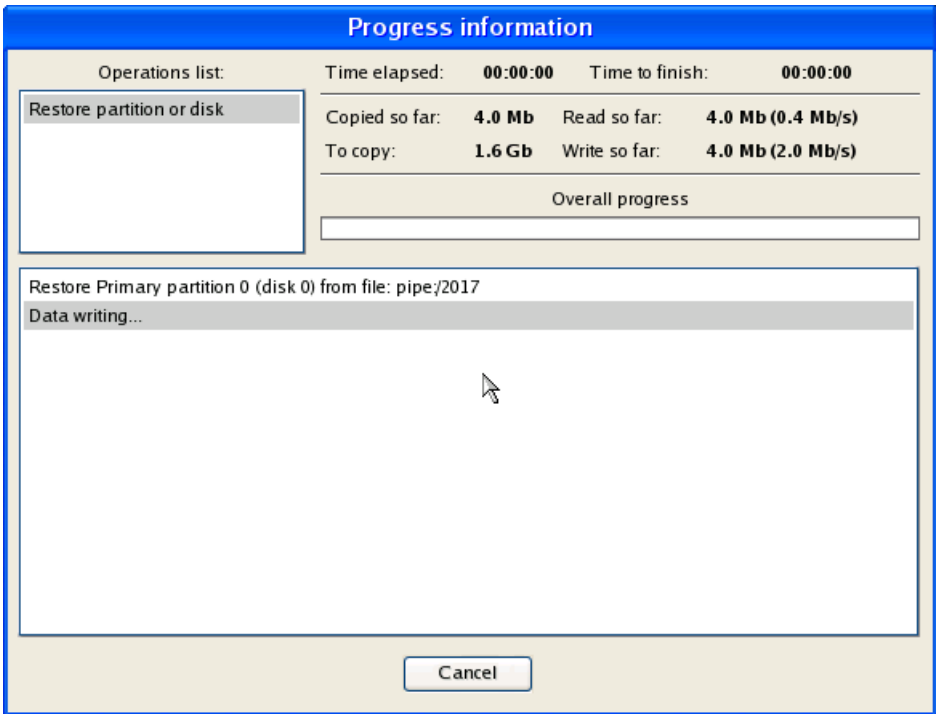
10. That is it! Your job should now start to run and the client should now start to deploy. The first screen below is the Deployment Console and the second screen below is from the client side.

Deployment Console Server Computer:



Client Computer:



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