

application  
note

remote NOS  
image deployment



This document describes how to implement remote NOS image deployment.  
It is distributed together with:

- pdf files with all details required for the setup of an unattended remote NOS installation and remote NOS image deployment;
- a zip file with copies of the disks needed for the installation.

All these information are available:

1/ within the Toptools Remote Control Card (TT\_RCC) sales kit,  
which can be ordered from your Technical Sales Representative.

2/ on the HP web site: <http://www.hp.com/go/netservers>

# 1. prepare a server (nt4/w2k) for image creation

## for nt4:

- Install NT4 from the Microsoft CD (without the HP Utility Partition).
- During installation, the wizard requests information about hardware including the number of processors. Select "multi-processor installation" by default.  
NB: the Navigator CD automatically detects the number of processors present on the main machine.

## When the installation has finished:

- Install the SNMP services with these basic settings:
  - Contact: Administrator
  - Location: Public
  - Trap community name: Public
  - IP address of your trap destinations
- Install SP4 or SP5
- Launch the Internet wizard connection.
- Check the screen setting.
- Launch the explorer and configure the folder options as required (show all files option)
- Change the system configuration: double click on "My computer"
  - Performance: change the virtual memory in both boxes (128MB)
  - Startup / Shutdown: set the system startup at 5 seconds.
- Create a folder called C:\Masters\ that contains (recommended):
  - i386
  - Service Pack (SP4, SP5 and SP6a)
  - Acrobat Reader
  - IE5
- In the start menu, click on Run and then type regedit.exe:
  - Search D:\
  - Clicking F3, look for Source Path
  - When you see Source Path with D:\, replace D: by C:\Masters\
  - When you see Source Path with i386, type C:\Masters\i386

refer to software scripts:  
\\Unattended  
install\nt4srv or  
\w2ksrv and \Masters

## for w2k:

- Install the SNMP service with these basic settings:
  - Contact: Administrator
  - Location: Public
  - Trap community name: Public
  - IP address of your trap destinations
- Launch the wizard connection.
- Check the screen setting.
- Launch the explorer and configure the folder options as required (show all files option)

## 2. creating image files

Image files may be created locally or via a LAN connection.

### locally:

refer to software  
scripts: \\Disk 0

- You need a FAT partition on the same disk or another (at least 400MB, for the image of a basic installation)
- Create a disk to boot under DOS and set up the SCSI connection of the disk(s) (see sample in Disk 0 files). You can copy the PQDI programs to this disk if you have not already done so.
- On the source machine (from which you wish to create an image), boot on the bootable disk just created and launch PQDI
- Select "Create Image", follow the steps.
- Before launching the creation, select the advanced options, and deselect the option "check errors".
- Launch the creation.

### via the lan:

refer to software  
scripts: \\Disk 1

- Check the connectivity between the machines (ping) and the type of LAN card you use. On the disk sample, there is the driver of the HP D5013A (e100b.nif & e100b.dos). If you have a different card, you will need to use the appropriate drivers.
- On the "file" server (e.g. e800-TTDM), create a shared **folder** named C:\images\.  
The image file will be located here. The PQDI programs (from the "images" folder on the CD-ROM) should also be placed in this folder.
- Create a disk to boot under DOS and to install the TCP/IP stacks (see sample in disk 1 files).
- On the disk, edit the file:
  - \* Autoexec.bat
    - Put the name of the server you want to reach - Set SrvName=e800-TTDM.
    - Check that the correct **shared** file is there:  
\\images\ - net use l: \\%SrvName%\images
  - \* \net\protocol.ini
    - Check the name of your card driver - drivename=e100b\$ - You must retain the \$ - For the network setting, please fill in these lines according to your network This information will only be used during image creation  
DefaultGateway0=  
SubNetMask0=255 255 255 0  
IPAddress0=192 168 100 96
    - If you use a DHCP server, please change 1 to 0 (DisableDHCP=1) and leave the IP address blank
  - \* \net\system.ini
    - Check the name of the driver of your card - netcard=e100b.dos
    - Complete these lines - username=administrator - and - workgroup=HP-LABS
- On the machine you would like to copy, power off and then boot using the disk you have just configured.
- Under DOS, type l: then PQDI
- Select the **"Create"** icon. Locate the image file on the "file" server within the "images" folder you have just created.
- Before launching the creation, select the advanced options and deselect the "check errors" option.
- Launch the creation.

### 3. creating a bootable cd rom in order to push an image locally

You will need a CD writer with suitable software. We used the Easy CD Creator software from Adaptec(r) with the HP CD-RW.

[http://www.hpcdwriter.com/products/fs\\_products.asp](http://www.hpcdwriter.com/products/fs_products.asp)

#### On the machine with the CD writer:

refer to software scripts:  
\\Disk 2

- Create a disk to boot under DOS, which launches PQDI automatically using the correct image file (see sample in disk 2 files).  
To complete the set up of this disk, check this point in:
  - \* Autoexec.bat
    - Enter the correct image file name \*.PQI - I:\ PQDI.exe /nrb /i24 /ifc /nbs /img=I:\LC2K\_W2K.PQI /cmd=I:\script
- Launch your software to create the CD ROM.
- Within CD Creator, copy the files from the folder images to the CD ROM to be created.
- Select the option "bootable CD" and insert the disk you have just created.
- Start the CD ROM creation.

### 4. creating a \*.dsk file from the navigator cd.

- Go to the copydisk.exe utility, located on the HP Netserver Navigator CD under TTRC

To create a disk image (\*.dsk) of your disk and to copy it to the directory, the steps are as follows:

- Open an MS DOS window
- Launch copydisk.exe using this syntax:

\* Copydisk sourcedrive *destinationpath*

where "*sourcedrive*" is a floppy drive on your PC that you would like to convert to a \*.dsk file (example: A:\) and "*destinationpath*" is the destination drive.

### 5. configuring a TFTP server to communicate with the TT\_RCC

To start the supplied TFTP server, the program "tftpserv.exe" must be executed on the server in a DOS window or by using the Run command from the Windows Start menu. Proceed as follows:

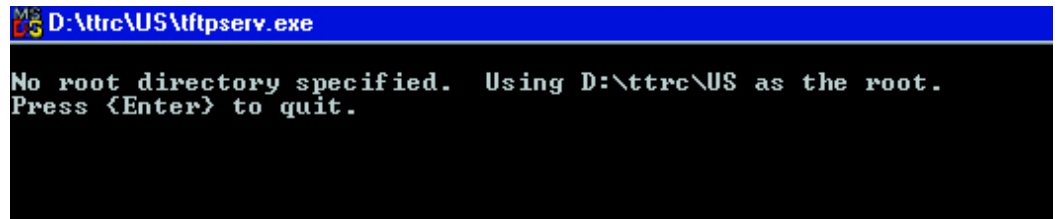
tftpserv.exe [root]

where [root] indicates the base directory from which a client can retrieve files. If the root is not specified, the current working directory is used as the base directory.

If you have already installed **the Toptools Device Manager** on one of your machines, it will automatically become a TFTP server. The directory from which a client can retrieve files is:  
\\program files\hptt\data\packages\

A TFTP client can request files within the base directory or its subdirectories but does not have access to lower directories. The server software enables the base directory to act only as a file source, not as a file destination.

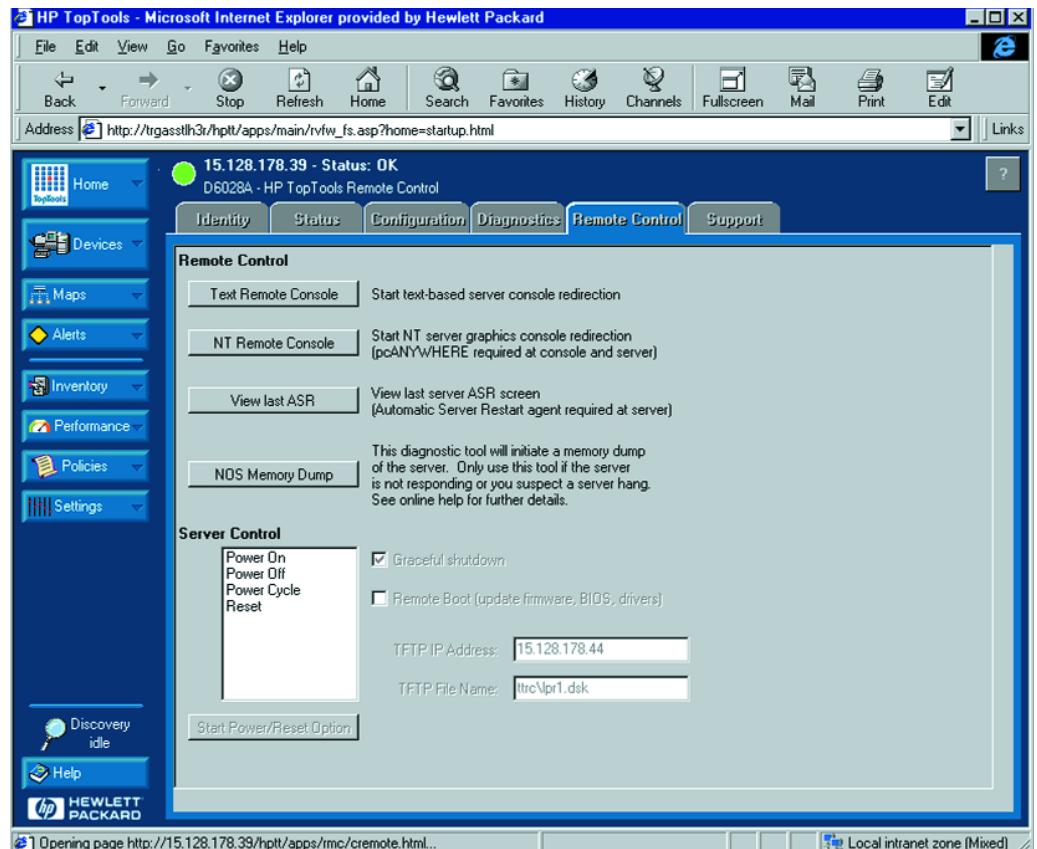
- Insert the Navigator CD into the client.
- Click **Exit** to close the *Disk Library* or Netserver Navigator screen.
- Create a c:\tftp directory, using Explorer.
- Using *Explorer* to view the *CDROM:\ttc\us* directory.
- Copy the following file into the root of the C drive:  
tftpserv.exe (the executable program)
- From the C:\ directory, double-click on tftpserv.exe. A DOS command prompt window will appear and the TFTP server on your NT client workstation is launched.



- Minimize or move the window, but do not press Enter to quit or close it.

## 6. configuring the TFTP information from the TT\_RCC

- From the HP TT\_RCC software interface, click the **Remote Control** tab.
- If prompted, logon as **ADMIN** using the password **ADMIN**.
- Click **Power on or Power cycle / Remote Boot**
- Enter the IP address of the TFTP server = for example: 192.168.100.1
- Enter the name of the \*.dsk file you want to load via the TT\_RCC



## 7. pushing an image from a TFTP server

- Follow the steps in section 2.
- Create a \*.dsk file (step 4) from the disk you have created in section 4.
- Configure a TFTP server (step 5).
- Locate the \*.dsk file within the TFTP file of your TFTP server.
- Configure the TT\_RCC with the IP address of the TFTP server and the TFTP file name (step 6).
- To start the push, click the **“Start”** button and confirm by clicking on **“yes”**.
- You can click on the button **“Text remote console”** to see what has happened on the server under text mode only.



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