Installing the Cisco WAN Modeling Tools

This chapter provides instructions for installing the following Cisco WAN Modeling Tools:

- the Network Modeling Tool (NMT)
- the Configuration Extraction Tool (CET)
- the Third-Party Interface (TPI) Conversion Plug-in
- the SpreadSheet Interface (SSI) Conversion Plug-in

This chapter contains the following sections:

Note Check the Cisco WAN Modeling Tools Release Notes for changes in the installation process.

System Requirements

NMT, CET, TPI, and SSI run on Solaris 2.6 or later. NMT runs under many configurations, including SPARC IPX, LX, 5, 10, 20, and Ultra. Hardware requirements depend on the size of the model you are creating. A typical setup includes:

- Minimum 16 MB of memory
- CD ROM
- 535-MB SCSI disk or larger

The PC version of NMT runs on Windows 98, Windows 99,Windows 2000, and Windows NT.

Installing the NMT

This section explains how to install the Cisco WAN Modeling Tools software and link it to your project directories. This procedure also installs any subapplications (CET, TPI, and SSI) that came with your copy of the NMT software. If you want to install only the subapplications, refer to the "Installing a Cisco WAN Modeling Tools Sub-application" section later in this chapter.

The NMT Product provides both a UNIX and PC version of the NMT tool. To install the NMT on a UNIX platform, see the "Installing the NMT on a UNIX Platform" section that follows. To install the NMT on a PC platform, see the "Installing the NMT on a PC Platform" section later in this chapter. The differences between UNIX and PC version of the NMT are as follows:

- The PC version of NMT uses F5 for choice list, UNIX version uses HELP or F12.
- The PC version of NMT has no support to launch the MAP command.

Note CNF files from either platform can be read by the other. For example, CNF files from a PC version of NMT can be read by a UNIX version of NMT, and vice-versa.

Installing the NMT on a UNIX Platform

To run NMT on Unix platforms, you need to install the software first. Install the software once for each release platform. Once the software is installed, you need to create a working directory from which you will launch NMT.

Load the NMT Software

Use the following procedure to create a dedicated subdirectory that will store the NMT software. The installation process creates a subdirectory name and a release number. For example, `/usr/users/NMT/120`.

Note Multiple NMT feature releases can co-exist on the UNIX platform. If a maintenance upgrade is done, the upgraded NMT release replaces the previous release.

To create the software installation directory, perform the following steps.

Step 1 Log into the account that will own the NMT software.

Step 2 Create a dedicated directory where the NMT releases are stored.

Step 3 Verify that you are in the correct directory by entering the following command:

pwd

The path with the release number is the same path you will use when you create a working directory.

Step 4 If you are installing from a cd on a Solaris platform, perform the following steps:

a. Enter the following command:

volcheck

b. Enter the following command:

Note cp /cdrom/nmt120/install/150.tar.Z

If this step fails because the file is not found, substitute nmt120#1 for nmt120.

c. Enter the following command:

uncompress 120.tar

d. Enter the following command:

tar xf 120.tar

This creates the 120 directory containing all the software.

Creating a Working Directory

Use the following procedure to link the NMT software to working or project directories.

Note You need to perform this procedure only once. Once you have created a working directory, you can launch the NMT from the working directory.

Step 1 Log into the account that will own the working NMT directory.

Note The account that owns the working directory can be the same account that owns the software directory, or it can be a different account.

Step 2 Create the working directory name:

mkdir *project_name*

Step 3 Move to the subdirectory you just created:

cd *project_name*

Step 4 Make sure you are running in c shell. If you are not, enter the following command:

csh

Step 5 Link the project directory to the NMT release:

a. Set the environment variable NMTHOME to the path of the software directory and release. For example:

setenv NMTHOME ***/usr/users/NMT/120***

b. Execute the following command:

$NMTHOME/nmtlink

The NMT files are linked or copied to the project_name directory. This links NMT and all the plug-ins (including TPI, SSI, and CET). To link in NMT without the plug-ins, enter the following command:

$NMTHOME/nmtlink -nmt

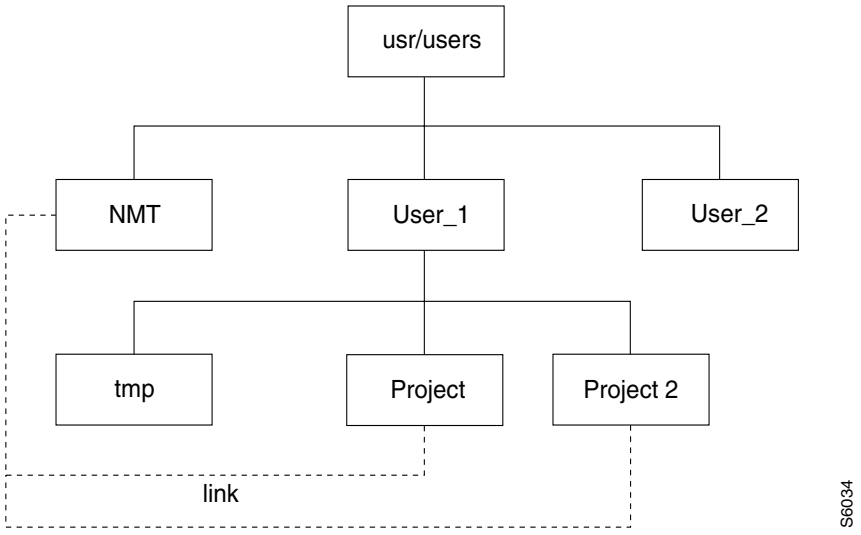
Note Cisco recommends that you do not link NMT without the plug-ins.

Note NMTcreates a directory under your home path called tmp. If you want NMT to use a different directory than tmp for scratch work, you can specify it with the full path by using the environment variable NMTTMP.)

Note Cisco recommends that you periodically remove old files from the tmp/scratch work directory. NMT must not be running when you remove files from this directory.

Figure 2-1 depicts the relationship between the NMT software, user, and project accounts.

Figure 2-1 Example of suggested NMT Directory Structure



Installing the NMT on a PC Platform

To install NMT on the PC, follow these steps:

Step 1 Run the provided nmt installing exe file, which is a self extracting ZIP file. The file is called 'nmt_inst.exe' and is in the PC directory. You can either run it directly from your CD drive on the PC, or transfer it from your UNIX installation to your PC and then run it.

Step 2 The zip file will unzip in c:\nmt by default. It is recommend you keep this as the NMT installation directory. If you accept this selection, move to step 3. If you wish to change the installation directory, use one of the procedures that follow.

To change the installation directory on a Windows 2000 system, follow these steps:

a. Enter the **cd** command to get to the Advanced directory, as shown in the following example:

```
My Computers/Control Panel/System/Advanced.
```

b. Click "Environment Variables."

c. Click "New" and add the environment variable with the name NMTHOME, and set the value to the directory you specified when installing the compressed file.

To change the installation directory on earlier windows systems:

a. Add the lines in the file autoexec.add to the end of your autoexec.bat file. The autoexec.add file is in the c:\nmt default directory, and the autoexec.bat is found in the c: main directory.

b. Change the drive and directory of NMTHOME to the path you entered for the unzip command.

c. Reboot your machine before running NMT.

Step 3 Install the shortcut.

a. Open Explorer, go to \nmt\install and then to the sub directory of the operating system on your PC.

b. Drag and drop the Cisco WAN Modeling Tool shortcut to the background windows screen.

To create a short cut from scratch, follow these steps:

a. Use Explorer to drag and drop the file c:\nmt\install\nmt.exe to the background.

b. Right mouse click on the icon for properties.

c. Set start in to the recommended C:\nmt†ata, which will be the default directory for storying your NMT files.

If you want to store your NMT data elsewhere, you can reset this. Select change icon, and then browse. Select the file c:\nmt•in\nmt_icon.exe and pick the icon on the left.

Step 4 Click the Cisco WAN Modeling Tool icon to start NMT. Alternatively, you can start NMT by running c:\nmt\nmt.exe.

Upgrading the NMT Software

NMT feature releases have unique sub directory names. The installation of a new feature release requires the creation or alteration of the working directories. Maintenance releases, however, use the same software directory you created in the previous section. The working directories automatically use the upgrade through UNIX links to the software.

Use the following procedure to perform a maintenance upgrade of NMT software on a UNIX system.

Step 1 Enter the **cd** <*directory*> command to log onto the same account that was used to initially install the software, as shown in the following example:

```
cd /usr/users/NMT
```

Step 2 Copy the compressed tar file to the same directory in which the release was initially installed.

A full maintenance release has the name structure 150.0.tar.Z, which is a complete upgrade for 150.0.tar.Z.

Step 3 Enter the **uncompress** <*filename*> command to uncompress the file, as shown in the following example.

```
uncompress 150.0.tar
```

Step 4 Enter the **tar xf** <*filename*> UNIX command to untar the file as shown in the following example:

```
tar xf 150.0.tar
```

Starting the NMT

Use the following steps to run the NMT and any NMT UNIX commands.

Note Always enter the commands in the NMT working directory.

Step 1 If you are on a Cisco StrataView platform, while logged in as Cisco Wan Manager (CWM) and in the svplus directory, enter the **xhost +** command to grant xwindows permission. (This can be done from the console window or an xterm window.)

```
xhost +
```

Note You may want to add the **xhost +** command to the svplus.login file.

Step 2 Enter your user name and enter your password to log in to your user home directory. For example, /usr/users/*my_name.*

Step 3 Enter the **cd** command to move to one of your project directories:

```
cd project_name
```

Step 4 Enter the **nmt** command to start NMT:

```
nmt
```

Note Use the **nmt -d** command to start the program if you need to modify system parameters to ranges outside the scope of the current product line. This option adds two additional selections to the Execute menu: Internal Set for Switches/Links and Network Internal Setting.

Removing NMT

The **nmtrel** command removes all NMT subcomponents from the program.

Installing a Cisco WAN Modeling Tools Sub-application

This section provides instructions for installing the following Cisco WAN Modeling Tools sub-applications:

- the Configuration Extraction Tool (CET)
- the Third Party Interface (TPI)
- the SpreadSheet Interface (SSI)

To install the sub-applications on a UNIX platform, see the "Installing the Cisco WAN Modeling Tools sub-applications on a UNIX Platform" section that follows. To install the SSI on a PC platform, see the "Installing the SSI on a PC Platform" section, later in this chapter.

Note This procedure is necessary only if you used the **-NMT** option with NMTlink.

The procedures in the sections that follow are for accessing, loading, and linking the applications to project directories.

Installing the Cisco WAN Modeling Tools sub-applications on a UNIX Platform

Use the following procedure to install a Cisco WAN Modeling Tools sub-application on a UNIX Platform.

Step 1 Go to a working directory where you have run nmtlink.

Step 2 Set up a UNIX environment variable for CET, TPI, or SSI.

```
setenv [nmt_path]
nmt_path is the path to the version of the NMT software you are using.
```

Step 3 Link the project directory to the NMT release:

```
For CET: $CETHOME/cetlink
For TPI: $TPIHOME/tpilink
For SSI: $SSIHOME/ssilink
```

Installing the SSI on a PC Platform

Install the Spread Sheet Interface on the PC regardless of whether you use the PC or UNIX version of NMT.

To install SSI on a PC, complete the following steps:

Step 1 Transfer the following files to your PC:

- SSI—NMT Excel macro file. This macro converts DBF formatted NMT tables into an Excel spreadsheet, and vice-versa.
- SSIDOSKT.TAR—Archive file of SSI DOS utilities tar.exe; DOS version of UNIX tar command. These optional utilities support the transferring and uncompacting of data.

Note Use binary mode when transferring SSI and SSIDOSKT.TAR to your PC.

Step 2 Copy the file SSI to the XLStart subdirectory of your Excel 5.0 (or higher) installation. It can be installed in any Windows environment.

Note In most PC Environments, Excel will be in the directory c:\program files\Microsoft Office\Office\XLstart.

Step 3 Copy the file to the xlstart subdirectory of the Excel product.

This Macro gives you the **NMT_Load**, **NMT_Unload** and **NMT_PrettySheet** commands.

Note You do not need to do Step 4 and Step 5 if you are not going to use the tar file for your NMT data.

Step 4 If you are going to use the tar file for your NMT data, copy tar.exe and SSIDOSKT.TAR to a DOS working directory.

Step 5 Enter the command '**tar xvf SSIDOSKT.TAR** to un-archive the data.

Removing Sub-applications

This section provides instructions for removing the following sub-applications on a UNIX platform:

- the Configuration Extraction Tool (CET)
- the Third Party Interface (TPI)
- the SpreadSheet Interface (SSI)

Remove individual applications by running the following commands:

- **cetrel** removes CET from your ID.
- **tpirel** removes TPI from your ID.
- **ssirel** removes SSI from your ID.

Note Enter the **nmtrel** command to remove all applications from your ID.

Troubleshooting NMT Installation

The table below describes a common NMT Installation problems and what can be done about them.

Symptom	The command nmt fails, returns message: `xterm not found.`
Probable Causes	Unix is not configured for xterm.
Solution	Have a UNIX administrator provide xterm support for your account.

Symptom	Cannot write cnf files or reports. Cannot update the map.
Probable Causes	No write permission.
Solution	Make sure your account has write permission to your working directory.

Symptom	NMT fails and displays the following error message: `Error: Cannot open display <IP-ADDRESS:00>`
Probable Causes	No remote display permission. Site is unreachable.
Solution	Check network connectivity. If you are using a dial-up line, remote GUI display may be impossible.

Symptom	NMT displays the following error message:
	`Xlib: Connection to <IP-ADDRESS:00> refused by server.`
	`Xlib: Client is not authorized to connect to server.`
	`ERROR, cannot open display <IP-ADDRESS:00>.`

Probable Causes	You are running NMT remotely, and the server is not granting you permission.
Solution	Enter the **XHost +** command the console on the displaying platform.

Symptom	NMT displays the following error message:
	`Xterm X+ error: Can't open display`
	`<IP-ADDRESS:00>`

Probable Causes	IP address is unreachable.
Solution	check address and network connectivity.