2 Installation Support

In most cases, you won't need the information contained here. It is provided for special cases that might arise.

For information about supported platforms, memory usage, and other requirements, visit the Technical Support area of the OPNET website at (www.opnet.com/support).

Solaris and Linux Installation Support

Most sites should follow the installation procedure described on the Solaris or Linux Installation sheet. This procedure uses the installation program to configure your workstation automatically and install
SP Guru Transport Planner. However, if your workstation has an unusual or incorrect configuration, the installation program may fail. If so, you can use the information here to solve the problem.

Solaris and Linux Installation Troubleshooting

This section provides solutions for problems that may occur during Solaris and Linux installations. Each problem has a discussion section that explains what is happening and a solution section that explains how to solve the problem. If your problem is not described here, contact Technical Support.

Problem Attempts to run programs that use SP Guru Transport Planner libraries result in "No such file or directory" errors.

Discussion The PATH environment variable must be set to include the correct SP Guru Transport Planner executable directory. Either the variable does not include the SP Guru Transport Planner executable directory or it is set for the directory of an earlier release.

Solution Make sure each user has the correct environment path, as follows:

Procedure 2-1 Checking the Environment Path

1. Log in to the user's account.
2. Open the user's shell startup file (`.cshrc` in the C shell).
3. Add the following directory to the user's PATH variable.

   ```
   <install_dir>/<release>/sys/unix/bin
   ```

End of Procedure 2-1

Windows Installation Support

Most sites should follow the installation procedure described on the Windows Installation sheet. This procedure uses the `setup` program to automatically configure your computer and install SP Guru Transport Planner. However, if your computer has an unusual or incorrect configuration, the installation program may fail. If so, you can use the information here to solve the problem.

WARNING—Changing file systems on Windows platforms, such as from FAT to NTFS, will invalidate the license file. To maintain the validity of your licenses during a file system change, you should first de-register your licenses, then change the file system, and finally re-register your licenses. See Deregistering Licenses on page AG-2-16 and License Operations on page AG-3-11 for information on how to deregister and re-register licenses.

Windows Services

When you install SP Guru Transport Planner, certain Windows services are installed and started. The administrator for the machine on which SP Guru Transport Planner is running must have privileges to manage these services. Note that not all of the services listed below apply to every product. See the description for more information.

Table 2-1 Windows Services Installed with SP Guru Transport Planner

Service	Description
OPNET License Server	License Server Only: Issues licenses to OPNET analysis software applications. Control it with the OPNET License Manager. For more information, see License Server on page AG-3-16.
End of Table 2-1	

Windows Installation Troubleshooting

This section provides solutions for problems that may occur during Windows installations or operation. Each problem has a discussion section that explains what is happening and a solution section that explains how to solve the problem. If your problem is not listed here, contact technical support.

Problem SP Guru Transport Planner obtains a license from the OPNET License Server through a Windows XP firewall. Both machines are in the same classful network, however SP Guru Transport Planner fails to obtain a license.

Discussion The Windows XP firewall blocks SP Guru Transport Planner licensing traffic.

Solution Add the *op_license_server.exe* filename to the exceptions list for the Windows XP firewall. For more information, consult your Windows system administrator.

Problem Trying to run an OPNET analysis software licensed program results in the message: The licensing system depends on the following nonexistent service: Tcpip.

Discussion There is a problem with the TCP/IP software.

Solution Try installing TCP/IP again (as described in Procedure 2-2 or Procedure 2-3), then repeat the step that failed. If the problem persists, contact technical support.

Problem The Windows `setup` program reports that TCP/IP is not installed.

Discussion The licensing system requires that the Windows TCP/IP software be installed. The TCP/IP software, in turn, requires the presence of an installed network adapter driver.

Solution Use the following procedures to install and configure the necessary software:

1) Procedure 2-2 Installing TCP/IP for a Network Connection (Windows NT 4.0) on page AG-2-5

   or

   Procedure 2-3 Installing TCP/IP for a Network Connection (Windows 2000) on page AG-2-6

2) Procedure 2-4 Verifying that a Network Adapter Driver is Installed on page AG-2-7

3) Procedure 2-6 Configuring TCP/IP on page AG-2-8

To install TCP/IP for a network connection on a Windows NT 4.0 computer:

Procedure 2-2 Installing TCP/IP for a Network Connection (Windows NT 4.0)

1 Verify that you are logged on as a user with administrator's privileges.

2 Insert your Windows CD-ROM into the CD-ROM drive of the install workstation. If a Windows CD-ROM window opens, close it.

3 Open the Windows Control Panel and double-click the Network icon.

➥ The Network (Network Settings) dialog box opens.

4 In the Network (Network Settings) dialog box, click on the Protocols tab. Then click the Add… (Add Software) button.

➥ The Select Network Protocol (Add Network Software) dialog box opens.

5 Select TCP/IP Protocol (TCP/IP Protocol and related components) from the list of available software and click OK.

➥ The TCP/IP Setup dialog box opens.

6 If the install workstation is not on a network, answer No to the question about using a DHCP server. If the install workstation is on a network, consult your system administrator for the correct response.

➥ The Windows Setup dialog box opens, showing the path to the software on the CD-ROM.

7 Verify that the path is `<CD-ROM_drive>:\i386`, where `<CD-ROM_drive>` is the letter of the install workstation CD-ROM drive. Change the path if necessary.

8 Click Continue.

➥ The TCP/IP software is installed from the CD-ROM.

9 Click OK, then Close to close the Windows Setup dialog box and return to the TCP/IP Setup dialog box.

10 Click on the IP Address tab and enter the IP number, subnet mask, and default gateway. (If you do not know these, ask your system administrator.)

11 Click on the DNS tab and enter the host name, domain name and DNS service search order. (The latter value is the IP address of your DNS server.)

12 Click OK to reboot your computer.

End of Procedure 2-2

To install TCP/IP for a network connection on a Windows 2000 computer:

Procedure 2-3 Installing TCP/IP for a Network Connection (Windows 2000)

1 Verify that you are logged on as an administrator or a member of the administrator's group.

2 Insert your Windows 2000 CD-ROM into the CD-ROM drive of the install workstation. If a Windows CD-ROM window opens, close it.

3 From the Windows Start menu, choose Settings > Network and Dial-up Connections.

➥ The Network and Dialup Connections dialog box appears.

4 Double-click on the network connection for which you want install TCP/IP, then click Properties.

5 Click the General tab for a LAN connection, or the Networking tab for all other connection types.

6 If Internet Protocol (TCP/IP) does not appear in the list of installed components, perform the following steps:

6.1 Click Install, then Protocol, then Add.

➥ The Select Network Protocol dialog appears.

6.2 Select Internet Protocol (TCP/IP) from the protocols list, then click OK.

➥ Internet Protocol (TCP/IP) now appears in the list of supported protocols for the selected connection.

7 Double-click on the Internet Protocol (TCP/IP) list item to open the Internet Protocol (TCP/IP) Properties dialog box.

8 Specify your machine's IP address.

If your network is run on a DHCP server, choose Obtain IP address automatically.

If your network is not run on an DHCP server:

8.1 Click Use the following IP address... and enter the IP address, subnet mask, default gateway, preferred DNS server, and alternate DNS server.

9 Click Advanced... to open the Advanced TCP/IP Settings dialog box, then click the DNS tab.

10 Enter the DNS suffix in the DNS suffix for this connection field.

11 Click OK to close the Advanced TCP/IP Settings dialog box and return to the Internet Protocol (TCP/IP) Properties dialog box.

12 Click OK to close the Internet Protocol (TCP/IP) Properties dialog box.

End of Procedure 2-3

Confirm that a network adapter driver is installed. If not, install a dummy driver. To verify that a network adapter driver is installed, perform the following procedure.

Procedure 2-4 Verifying that a Network Adapter Driver is Installed

1 If it is not already available, open the Network dialog box.

2 Click the Adapters tab to see if there is at least one adapter in the Network Adapters list.

- If there is at least one adapter in the list, continue with Procedure 2-6 Configuring TCP/IP on page AG-2-8.
- If there are no adapters in the list, you must install a "dummy" driver. Continue with Procedure 2-5.

End of Procedure 2-4

To install a network adapter driver, do the following procedure.

Procedure 2-5 Installing a Network Adapter Driver

1. In the Network (Network Settings) dialog box, click the Add… (Add Adapter) button.

   ➥ The Select Network Adapter (Add Network Adapter) dialog box opens.

2. Select MS Loopback Adapter from the list of available drivers.

3. Click OK (Continue) button.

   ➥ The MS Loopback Adapter Card Setup dialog box opens.

4. Click OK.

   ➥ The standard 802.3 frame type is selected.

5. If prompted, enter the path to the software:

   ```
   <CD-ROM_drive>:\i386
   ```

   ➥ The software is installed from the CD-ROM.

End of Procedure 2-5

To configure TCP/IP to work with OPNET analysis software, use the following procedure.

Procedure 2-6 Configuring TCP/IP

Note—This procedure may result in numerous error messages about various network services. You can ignore these messages.

1. In the Network dialog box, click the Protocols tab.

2. Click the Properties… (Configure) button.

   ➥ The Microsoft TCP/IP Properties (TCP/IP Configuration) dialog box opens.

3. Enter the following configuration information for the workstation. Your network administrator can provide appropriate values for your network.

   IP Address—Enter the network address of the install workstation. If the workstation is not connected to a network, you can enter any value (1.1.1.1, for example).

4. Subnet Mask—Enter a value appropriate for the install workstation, if one is not entered automatically. (With the example IP Address in step 3a, the Subnet Mask would be 255.0.0.0.)

5. Default Gateway—Enter the address of the gateway used by the install workstation. Again, if the workstation is not connected to a network, you can enter any value (use 1.1.1.1 again).

6 Click OK.

7 If an alert dialog about adapter cards with an empty primary WINS address appears, you can generally continue by clicking Yes. If a problem occurs, consult your network administrator.

8 Close the Network (Network Settings) dialog box. Restart the install workstation if a dialog box suggesting this appears.

End of Procedure 2-6

The necessary TCP/IP software is now ready for use with the Floating License System.

Update Installation Procedures

You must do an *update system installation* to install SP Guru Transport Planner on a server workstation where an earlier release of SP Guru Transport Planner is installed. A server workstation with SP Guru Transport Planner already installed normally has a directory called the installation directory. This directory has a subdirectory for each installed release of SP Guru Transport Planner.

The update installation will add a new release subdirectory to ...\<install_dir> that corresponds to the new release. The new release will continue to use the existing license file and OPNET analysis software execution permits will remain usable after installation.

Updating from Releases 3.0–5.1

If you are updating from release 3.0, 3.5, 4.0, 5.0, or 5.1, you must perform the following steps before installing the new release. These procedures are platform-dependent.

To update from the previous Windows release, do the following procedure:

Procedure 2-7 Updating from a Previous Release (Windows)

1 Open the Control Panel (Start > Settings > Control Panel).

2 Double-click the System icon.

3 Click on the Environment tab, then remove the following system variables, as follows:

3.1 Click on the fl_sup_port system variable (if it exists) and click Delete.

3.2 Click on the op_license_server.fl_sup_port system variable (if it exists) and click Delete.

3.3 Click on the Path system variable. Remove any reference to an old OPNET analysis software path (such as `C:\OPNET\5.1.D\sys\pc_intel_win32\bin`) from the existing value of the Path variable, then click Set.

3.4 Click on the Lib system variable. Remove any reference to an old OPNET analysis software library path (such as `C:\OPNET\5.1.D\sys\pc_intel_win32\lib`) from the existing value of the Lib variable, then click Set.

3.5 Click on the Include system variable. Remove any reference to an old OPNET analysis software include path (such as `C:\OPNET\5.1.D\sys\include`) from the existing value of the Include variable, and click on Set.

3.6 Remove all OPNET analysis software-related paths—not just the most current one—from the Path, Lib, and Include variables. For example, make sure you delete any paths to installations of OPNET analysis software version 4.0, 3.5, or 3.0.

3.7 After you verify the changes, click OK to close the System Properties dialog box.

4 Run the `setup` program from the CD to install the new version of OPNET analysis software.

End of Procedure 2-7

To update from the previous Solaris or Linux release, do the following procedure:

Procedure 2-8 Updating from a Previous Release (Solaris or Linux)

Note—If you are prompted during installation to shut down license servers running on this host, answer Yes. If you did not shut down the license servers during installation, do the following steps:

1 Shut down the floating license supervisor by typing the following command at the command prompt:

```
op_license_util -license_server_kill -license_server <hostname>
-license_port <port>
```

2 You can now install the new release. This process is described in the Solaris or Linux Installation Instructions that come with the software.

End of Procedure 2-8

Running Previous Releases

If you have installed the latest version of the software, you can still run earlier releases by creating batch files to set the appropriate system variables (Windows) or by updating your PATH (Solaris and Linux), as described in the following procedures.

To run a previous Windows release, do the following procedure:

Procedure 2-9 Running Previous Releases of OPNET analysis software (Windows)

1 Use a batch file to set the opnet_dir, Lib, Path, and Include system variables (a batch file is any file with a `.bat` extension).

For example, the following batch file could be used to set up an environment for version 11.0:

```
@echo off
set opnet_dir = c:\OPNET
set path = c:\opnet\11.0.A\sys\pc_intel_win32\bin;%path%
set lib = c:\opnet\11.0.A\sys\pc_intel_win32\lib;%lib%
set include = c:\opnet\11.0.A\sys\include;%include%
echo OPNET 11.0.A environment has been set up
```

When you want to run version 11.0, first run the above batch file in a command window (by typing the name of the batch file, including the extension), then issue the standard OPNET analysis software start-up commands from the same window (such as ...>spgtranplan).

Note—The latest version of the license server (`op_license_server`) should be running on your machine, regardless of the OPNET analysis software version you are running. For example, if you run both a current release and a previous release, you should be running the current release license server. If you selected the “serve licenses from this computer” option during the license configuration portion of the installation, the new license server was automatically installed in place of any existing servers.

End of Procedure 2-9

To run a previous Solaris or Linux release, do the following procedure:

Procedure 2-10 Running Previous Releases of OPNET analysis software (Solaris or Linux)

1 Reset your PATH variable for the release directory of the OPNET analysis software version you want to run.

For example, to run version 12.0, you would reset your PATH as follows:

```
set path=(<install_dir>/12.0.A/sys/unix/bin $path)
```

Note—The latest version of the license server (`op_license_server`) should be running on your machine, regardless of the OPNET analysis software version you are running. For example, if you run both a *current* release and a *previous* release, you should be running the *current* release license server. If you selected the “serve licenses from this computer” option during the license configuration portion of the installation, the new license server was automatically installed in place of any existing servers.

End of Procedure 2-10

Removing SP Guru Transport Planner System Software from Your Workstation

Typically, you want to free up the disk space used by an old release when it is no longer needed.

Note—If you are removing release 10.0, make sure you have converted your license file to a format that is compatible with releases beginning with 11.0 or greater. See the installation information packaged with the CD or the Technical Support area of the OPNET website for instructions.

To remove system software from a Windows workstation, do the following procedure:

Procedure 2-11 Removing System Software from a Windows Workstation

1. Log in as Administrator to the machine where SP Guru Transport Planner software is located.
2. Use the Add/Remove Programs utility in the Windows Control Panel.
3. Select each item that you want to remove, and then click on the Add/Remove button.
4. If you do not want to keep your SP Guru Transport Planner models and other data, delete the contents of directories `<user_home>/<op_admin>` and `<user_home>/<op_models>` and remove the directories.

End of Procedure 2-11

To remove system software from a Solaris or Linux workstation, do the following procedure:

Procedure 2-12 Removing System Software from a Solaris or Linux Workstation

1. Log in as root to the machine where SP Guru Transport Planner software is located.
2. Stop the OPNET License Server using the steps described in Procedure 3-10 on page AG-3-22.
3. Delete the `<release>` containing the SP Guru Transport Planner 12.0 software.

   Note—For more information on `<release>`, see Terminology on page AG-1-2.
4. Delete the /etc/rc3.d/S999_opnet_lic_server file that is described in Procedure 3-9 on page AG-3-21.

5 If you do not wish to keep your models and other data, delete the contents of directories <user_home>/<op_admin> and <user_home>/<op_models> and remove the directories.

End of Procedure 2-12

Relocating SP Guru Transport Planner System Software

For any of a variety of reasons, you may want to relocate your SP Guru Transport Planner system files. This may involve moving the files to another drive on the same computer or onto another computer. This section describes the following procedures:

- Relocating System Software to Another Drive or Directory
- Relocating System Software to Another Computer

WARNING—SP Guru Transport Planner is unavailable during these procedures. To minimize disruption, do the relocation operation during a low-use period and warn users in advance.

Relocating System Software to Another Drive or Directory

Moving files within the same computer is a rather simple process, detailed in Procedure 2-13. There is no need to deregister and reregister the license file in this procedure, because the license file is always installed on the primary drive of your computer.

Procedure 2-13 Relocating System Software within the Same Computer

1 Log in to the machine where the SP Guru Transport Planner system software is located.

1.1 On Windows, log in as Administrator.

1.2 On Solaris or Linux, log in as root.

2 Uninstall the system software from the original location:

Windows: Follow Procedure 2-11.

Solaris or Linux: Follow Procedure 2-12.

3 Reinstall SP Guru Transport Planner in the new location, using the CDs or installers that were used for the previous installation. Follow the installation procedures outlined on the Installation instructions. If you no longer have the installers or installation instructions, you may obtain them from the OPNET Support Center: http://www.opnet.com/support.

4 Create a new preference file.

Note—The first time a user runs the software in its new installation, a new preference file must be created..

4.1 Open a Console.

Windows:

- Open an OPNET analysis software Console, using Start > Programs > SP Guru Transport Planner 12.0 > Console 12.0.

Solaris or Linux:

- Log in as the user of SP Guru Transport Planner.

4.2 Create the new preference file by issuing the command:

spgtranplan -new_env_db

End of Procedure 2-13

For more information, see License Files on page AG-3-3.

Relocating System Software to Another Computer

If you want to move SP Guru Transport Planner system files from one computer to another, the simplest method is to uninstall the system software from the old location and reinstall it in the new location using the original installation CDs.

- To do this for a system on which both the license file and the software are installed, perform the following procedures in order: Procedure 2-14 and Procedure 2-15. Then add licenses as described in License Operations on page AG-3-11.
- To do this for a system that is referencing an external license server, follow only Procedure 2-15.

To deregister licenses, perform the following procedure:

Procedure 2-14 Deregistering Licenses

1 (Windows only) Log in to the machine where the SP Guru Transport Planner system software is located.

2 Launch the License Manager:

Windows:

Select License Manager (Start > Programs > SP Guru Transport Planner 12.0 > License Manager).

Solaris or Linux:

Enter the following command:

```
op_license_manager
```

➥ The License Manager opens in one window. The SP Guru Transport Planner program opens in another window, but has limited functionality.

3 Revoke any licenses that are still in use by selecting the licenses and clicking on the Revoke License button.

4 In the License Manager treeview, choose the server where the SP Guru Transport Planner system software is located (it should be the machine you are logged into).

5 Deregister the licenses in that server's license file:

5.1 Expand the license file icon.

5.2 Select and deregister all of the licenses in the license file by clicking on the Deregister License button and following the on-screen prompts.

6 Exit SP Guru Transport Planner.

End of Procedure 2-14

To relocate the system software, perform the following procedure:

Procedure 2-15 Relocating System Software to Another Computer

1 Log in to the machine where the SP Guru Transport Planner system software is located.

1.1 On Windows, log in as Administrator.

1.2 On Solaris or Linux, log in as root.

2 Uninstall the system software from the original location:

Windows: Follow Procedure 2-11.

Solaris or Linux: Follow Procedure 2-12.

3 Reinstall SP Guru Transport Planner in the new location, using the CDs or installers that were used for the previous installation. Follow the installation procedures outlined on the Installation instructions. If you no longer have the installers or installation instructions, you may obtain them from the OPNET Support Center: http://www.opnet.com/support.

End of Procedure 2-15

To reregister licenses after moving the system software, refer to License Operations on page AG-3-11.