



Rational Rose
RealTime
Install Guide

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Contents

Chapter 1	Introduction	1
	Welcome	1
	Release Notes	1
	Getting Started	1
	Install Guide Updates	1
Chapter 2	Installing Rose RealTime on Unix	3
	Installation Instructions	3
	Setting Up a User Workstation	5
	Environment Variables	5
	Additional Settings	6
Chapter 3	Installing Rose RealTime on Windows NT	7
	Testing your environment	8
Chapter 4	License Key Information	11
	Installing a Startup License	11
	Installing a Startup License on Windows NT	12
	Installing a Startup License on Unix	13
	Obtaining a Permanent License	14
	Obtaining a Permanent License on Windows NT	14
	Obtaining a Permanent License on Unix	17
	Obtaining a Temporary License	20
	Obtaining a Temporary License on Windows NT	20

	Obtaining a Temporary License on Unix	23
	Troubleshooting	25
	WindowsNT	25
	Unix	26
Chapter 5	Licensing	29
	How Licenses Work	29
	The License Manager	30
	License Manager for Unix	31
	Running the LMGRD from a Command Prompt	31
	Example	32
	Administration commands	32
	License Manager for NT	33
	Controlling LMGRD with the Windows Control Panel	33
	Running the LMGRD from a Command Prompt	33
	The License File	33
	Format	34
	Feature Name	36
	Options	36
	Integration With Ration Suites Licensing	37
	Obtaining Licenses	37
Chapter 6	Uninstalling Rational Rose RealTime	39
	Unix	39
	Windows NT	39



Chapter 1

Introduction

Welcome

Welcome to Rational Rose RealTime 6.01.

This guide provides the necessary information to install Rational Rose RealTime in your environment.

Note: Please follow the license key procedures captured in this document—do not use the procedure as documented on the envelope or license certificate.

Release Notes

See the *Release Notes* for information on system requirements, known limitations, documentation updates, and troubleshooting information.

Getting Started

See the *Getting Started Guide* for instructions on getting started with Rational Rose RealTime.

Install Guide Updates

For the latest documentation updates, please refer to the Rational Rose RealTime website:

www.rational.com/products/rosert



Chapter 2

Installing Rose RealTime on Unix

The procedure for installing Rose RealTime in Unix is described in the following sections. Note that unless specified otherwise, your system administrator will generally carry out these steps.

For environments where there is more than one user of Rose RealTime, we strongly recommend that the main Rose RealTime files be installed on a centralized file server.

A minimum of 150 MB of disk space is recommended to install Rose RealTime.

Installation Instructions

1. Place the Rose RealTime CD in the CD-ROM drive.
2. Mount the CD-ROM device.

You are usually required to be a system administrator (root or super-user) to be able to do this. See the instructions for your particular CD-ROM drive and operating system for details.

HP-UX:

```
mount -rt cdfs /dev/dsk/c201d511 /cdrom
```

Solaris:

```
mount -rF hsfs /dev/sr1 /cdrom
```

where

```
/dev/sr1
```

is the CD-ROM device.

Note: *In Solaris the CD-ROM may be automatically mounted.*

3. From a shell window, change directory to the mounted CD-ROM device.

For example:

```
cd /cdrom
```

4. Run the setup script.

```
./setup.sh
```

On HP-UX, it may be necessary to use the following command (including the quotes):

```
sh './SETUP.SH;1'
```

5. Enter an Installation Key.

Locate the Welcome letter that you received with your Rose RealTime software media shipment. You will be required to enter these keys to install the appropriate Rose RealTime software packages.

```
"Enter an installation key:" enter-urkey-frmth-welcm-  
lettr<ENTER>
```

6. Review and accept the terms of the license agreement.

The license agreement is displayed and you are prompted to accept or reject the license agreement. You must accept it to continue:

```
"Enter Y<ENTER> to Accept, R<ENTER> to Read again, or  
Q<ENTER> to Quit:" Y<ENTER>
```

7. Specify the platforms to be supported by the Rose RealTime installation.

Select all platforms to be supported by this installation. The default is no and in the example, only SUN5 was selected by typing "Y<ENTER>" at the SUN5 prompt.

```
"Which platforms would you like to be supported?  
HP10          Y/N [n]?  
SUN5          Y/N [n]? Y<ENTER>  
Platforms to be supported:  
SUN5"
```

8. Confirm the platform settings.

You are asked to confirm the platforms selected.

```
Type M <ENTER> to modify platform settings or Y<ENTER> to  
accept platform settings:" Y<ENTER>
```

9. Specify the installation directory.

The script prompts you for a directory that it will copy the Rose RealTime files into. The directory name must be specified as an absolute path name. A `roseRT` sub-directory will be created in the directory that you specify. You must have write permissions for the installation directory. If the directory does not exist, you will be asked if you would like to create it.

```
"Enter absolute installation directory path:" /testing<ENTER>
```

10. Confirm the Rose RealTime Packages to Install.

You are asked to confirm the packages and installation directory.

The following 7 packages are selected for installation in the directory `"/home/tester/stevep/RoseRT"`:

(I: Package already installed if 'Y')

Package description	Size in kB	I
RoseRT Platform Independent Code	364	N
TargetRTS Common Code (excluding source)	704	N
Solaris TargetRTS libraries	10853	N
Generic On-line Documentation and HELP	13817	N
C++ On-line Documentation and HELP	3	N
ObjectTime Unix Platform Independent Code	1387	N
Solaris Toolset binaries	96153	N
=====		
Selected size:	123281 kB	
Free disk space:	2035300 kB	
Type M<ENTER> to Modify installation directory path, or Y<ENTER> to Begin installing the selected packages: Y		

11. Obtain License Keys.

See "License Key Information" on page 11.

Setting Up a User Workstation

Environment Variables

Rose RealTime requires a number of environment variables to be set. Set the environment variable `$ROSERT_HOME` to the new installation directory. Add `$ROSERT_HOME/bin` to your path.

These lines can be added to your shell initialization file, so that they are available every time you log on.

Bourne shell (sh or ksh):

```
ROSSERT_HOME=/disk/apps/Rational/RoseRT
export ROSSERT_HOME //for hpux10 host replace sun5 with hpux10
ROSSERT_HOST=sun5
export ROSSERT_HOST
PATH=$PATH:$ROSSERT_HOME/bin
export PATH
```

C shell (csh):

```
setenv ROSSERT_HOME /disk/apps/Rational/RoseRT
setenv ROSSERT_HOST sun5 //for hpux10 host replace sun5 with
//hpux10
set path=($path $ROSSERT_HOME/bin)
```

Either logout and then login again, or perform the rest of the upgrade from a new command shell.

Additional Settings

See the *Rose RealTime User's Guide* for additional environment variables and startup options.



Chapter 3

Installing Rose RealTime on Windows NT

Before installing Rose RealTime, ensure that you have a supported system configuration. The system requirements are listed in Chapter 2, Platform and Toolchain Requirements, of the *Rational Rose RealTime Release Notes*. An InstallShield wizard setup program is provided to facilitate installing Rational Rose RealTime on Windows NT. You must have administrator privileges to install this software.

A minimum of 65 MB of disk space is required to install Rose RealTime.

To install Rational Rose RealTime, follow these steps:

1. Load the Rational Rose RealTime CD into your CD-ROM drive.
If the system is configured with the autorun feature enabled, the setup program will run automatically and you may continue with step 3.
2. Run Setup.
Use the Windows Explorer to open a window displaying the contents of the CD-ROM drive. For example, double-click “My Computer” and then double-click the icon for the Rose RealTime CD. Double-click the Setup.exe icon to run Setup.
Note that the .exe file name extension may not be visible.
The Setup dialog appears, followed by the Welcome dialog.
3. Click Next to view the License Agreement.
You must accept the license agreement to proceed.
If you do not agree with the terms of the license agreement, the installation should be aborted. All software and documentation should be returned to Rational Software.

If you accept the terms and conditions of the license agreement, click Yes.

4. Enter your name and the name of your company, and click Next.
5. Enter your installation key and click Next.

Your install key can be found in the Welcome letter that you received with your product shipment.

6. The products to be installed are displayed—these are based on the Installation keys. Click Next.
7. Choose the Destination folder and click Next.
8. The default Destination folder where the software will be installed is:

C:\Program Files\Rational\Rose RealTime\6.0

Use the Browse button to change the default destination folder.

Note: Avoid spaces in directory names if you are integrating with Tornado, OSE or VRTX. See *Known Problems and Limitations in the Release Notes for more information.*

9. Choose the Program folder name and click Next. The default Program folder name is Rational Rose RealTime 6.0. This is the folder where Rose RealTime will appear under Start > Programs.
10. An information summary is provided. To edit settings, click Back. To continue, click Next.

Installation begins.

11. When the installation is finished, the Setup Complete dialog appears letting you choose whether to restart your computer. We strongly recommend you click Yes, I want to restart my computer now.
12. Click Finish.
13. Install License Key. See “License Key Information” on page 11.

Testing your environment

Note: *If you just want to construct UML models and not execute them, you needn't read the remainder of this chapter.*

You must have Microsoft Visual C++ 5.0 or 6.0 installed on your system and configured to be run from the DOS prompt to make use of the code generation and execution capabilities of Rose RealTime.

The following instructions will help you to determine whether you have Visual C++ properly installed and configured on your system.

To perform testing on your environment, proceed as follows:

1. Open a Windows NT command prompt from the Windows Start menu as follows:

Start > Programs > Command Prompt.

2. Type `nmake` then hit Enter.
3. Type `cl` then hit Enter.

If your environment is correct, then these two applications should report errors similar to the ones below:

Command Prompt

Microsoft ® Windows NT ™

© Copyright 1985-1996 Microsoft Corp.

C:\>nmake

Microsoft ® Program Maintenance Utility Version 6.00.8168.0

Copyright © Microsoft Corp 1988-1998. All rights reserved.

NMAKE = fatal error B1864: MAKEFILE not found and no target specified
Stop.

C:\>cl

Microsoft ® 32-bit C/C++ Optimizing Compiler Version 12.00.8168 for 80x86

Copyright © Microsoft Corp 1984-1998. All rights reserved.

Usage = cl { option... } filename... { /link linkoption... }

If your environment is NOT properly configured, then you will see an error similar to this one:

Command Prompt

C:\> nmake

The name specified is not recognized as an internal or external command, operable program or batch file.

Note: *If you get this error message, your compiler environment setup is improperly installed. Please contact your System Administrator to verify.*



Chapter 4

License Key Information

Rational Rose RealTime, like most Rational software, is a licensed product. This means that you cannot run the product without a license key. The license key is listed on your Rational Startup License Key Certificate, included in this shipment.

Note: *Your Startup License keys will expire on the date as indicated on the Startup License key Certificate. Submit your permanent license key request as soon as possible. For detailed information on licensing, see “Licensing” on page 29*

The License Key Certificate contains a startup key required for product use. A startup key allows you to start running the software and continue running it for a limited period of time. You must request a permanent license before the startup one expires. See “Obtaining a Permanent License” on page 14.

The product you purchased has either a nodelocked (client-based) or a floating (server-based) license. Both types of licenses can run with either startup or permanent license keys.

Installing a Startup License

The startup license keys are time-limited and allow you to start using Rose RealTime immediately.

Note: *You must follow the instructions below to activate the startup license key. **The instructions on the envelope and the Startup License Certificate are not valid for your Rose RealTime startup license.** The startup key is valid for about eight weeks after the product shipment date.*

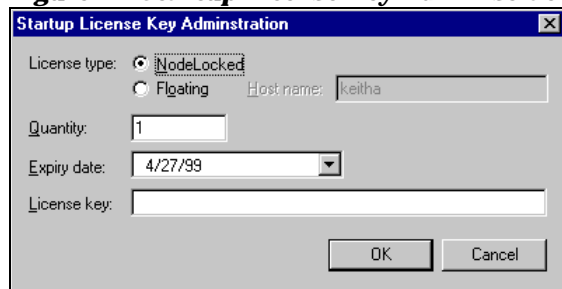
Installing a Startup License on Windows NT

To install a startup license on Windows NT, follows these steps:

1. Select Start > Programs > Rational Rose RealTime 6.0 > Rational Rose RealTime Startup License Key Administrator.

The Startup License Key Administration form appears (see Figure 1).

Figure 1 Startup License Key Administration form



2. Locate the Startup License Key certificate that accompanied your product shipment, which is in an envelope. Your company's name is printed on the certificate and shows through the envelope window.
3. Based on the license type (floating or nodelocked) indicated on this certificate, copy the appropriate information into the Startup License Key Administration form and click OK.

Note: A floating license requires you to start the license server. See "Licensing" on page 29.

Your startup license is created. Remember that your Startup license will expire on the date you entered in the form.

Now you are ready to start Rose RealTime.

To get a guided introduction to the primary tools and concepts for constructing and executing real-time models in Rational Rose RealTime:

1. Start Rational Rose RealTime.
2. Select Help > Help Topics.
3. Click Tour Rose RealTime.

To start building and running a model, click Quickstart Tutorial.

Installing a Startup License on Unix

To install a startup license on Unix, follow these steps:

1. Go to the \$ROBERT_HOME/bin directory.
2. Type **RoseRT -startuplicense**.

The Startup License Key Administration form appears (see Figure 2.)

Figure 2 Startup License Key Administration form

3. Locate the Startup License Key certificate that accompanied your product shipment, which is in an envelope. Your company's name is printed on the certificate and shows through the envelope window.
4. Based on the license type and product name indicated on this certificate, copy the appropriate information into the Startup License Key Administration form and click OK.

Note: A floating license requires you to start the license server. See "Licensing" on page 29.

Your startup license is created. Remember that your Startup license will expire on the date you entered in the form.

Now you are ready to start Rose RealTime.

To get a guided introduction to the primary tools and concepts for constructing and executing real-time models in Rational Rose RealTime:

1. Start Rational Rose RealTime.
2. Select Help > Help Topics.
3. Click Tour Rose RealTime.

To start building and running a model, click Quickstart Tutorial.

Obtaining a Permanent License

Obtaining a Permanent License on Windows NT

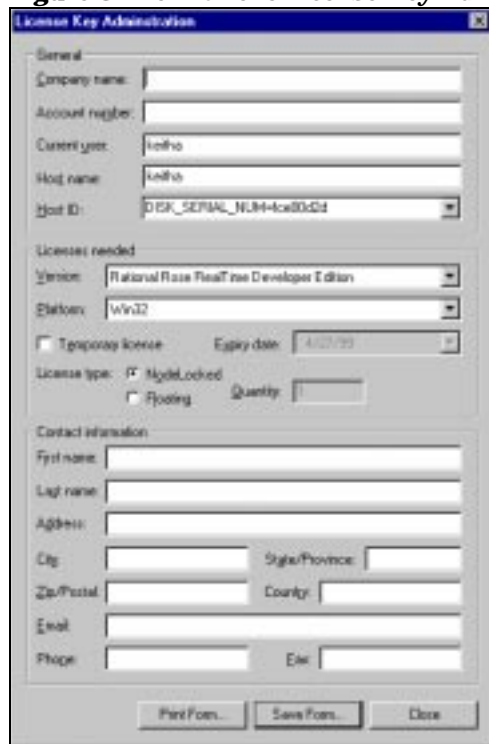
On the License Key Certificate you will find an availability date for your permanent key. This is the date on which your keys will be made available to allow you to request your permanent keys through the Rose RealTime license administrator.

To obtain a permanent license, follow these steps:

1. Select Start > Programs > Rational Rose RealTime 6.0 > Rational Rose RealTime Permanent License Key Administrator.

The Permanent License Key Administration form appears (see Figure 3).

Figure 3 Permanent License Key Administration form



The screenshot shows a Windows-style dialog box titled "License Key Administration". It is divided into several sections:

- General:** Contains text boxes for "Company name", "Account number", "Current user" (with "knhfo" entered), "Host name" (with "knhfo" entered), and a dropdown for "Host ID" (with "DISK_SERIAL_NUM-4c80d4" selected).
- Licenses needed:** Contains dropdowns for "Version" (with "Rational Rose RealTime Developer Edition" selected) and "Platform" (with "Win32" selected). It also has a checkbox for "Temporary license" (unchecked), an "Expiry date" dropdown (with "4/21/99" selected), and a "License type" section with radio buttons for "Hybrid/locked" (selected) and "Floating", plus a "Quantity" text box.
- Contact information:** Contains text boxes for "First name", "Last name", "Address", "City", "State/Province", "Zip/Postal", "Country", "Email", "Phone", and "Fax".

At the bottom of the dialog are three buttons: "Print Form...", "Save Form", and "Close".

2. Completely fill in the form—making sure you **do not** click the Temporary license checkbox—and click Save Form...

You may optionally use the workstation disk id (DISK_SERIAL_NUM) or the network address of the network interface card installed on your system to identify your workstation.

If your workstation is configured with two network adaptors, you may select either address to identify your platform for licensing purposes.

- For nodelocked licenses, make sure you click NodeLocked as the License type.
- For Floating licenses, you will be required to enter server information for the platform which will be running as the Rose RealTime license server. In order to include this information in the request for the permanent license, you can install Rose RealTime on the server and run the license administrator following the standard instructions, or alternatively run the license utility to provide you with the necessary information.
 - On Windows NT — from a workstation with Rose RealTime installed on it, copy the file %ROBERT_HOME%\bin\win32\lmttools onto the server. Run the lmttools utility on the server and record the hostid of the license server which will be included in the license request. Either enter that information in the Host ID field of the license administrator if you are running the administrator locally, or copy the information into the license file request and send the email as per the instructions.
 - You must install a copy of the **license.dat** file locally on each workstation that will be running Rose RealTime. Place the file in the %ROBERT_HOME%\license\license.dat directory. As well, you must run the license daemon on the license server. See “License Manager for NT” on page 33.

3. Copy the contents of the file saved in Step 2 into the body of a standard email.

Note: Do not add any information to this text. Include only the contents of the file saved in Step 2.

4. Email the request to auto-licensing@rational.com.

Note: Do not attach the file to the email. It will not be accepted by the automated license key generation utility.

You will receive a new license.txt file via email.

Note: *Do not follow the instructions in the email.*

5. Backup your existing %ROBERT_HOME%\license\license.dat file and save the newly received text file as license.dat.

Note: *You have to change the file extension from .txt to .dat.*

6. Restart you local toolset session as appropriate.

Obtaining a Permanent License on Unix

To obtain a permanent license, follow these steps:

1. Go to the \$ROSE_HOME/bin directory.
2. Type **RoseRT -license**.

The Startup License Key Administration form appears (see Figure 4).

Figure 4 Startup License Key Administration form

The screenshot shows a window titled "License Key Administration" with a blue title bar. The window is divided into three main sections. The "General" section has fields for "Company name", "Account register", "Current year" (set to 1998), "Host name" (set to localhost), and "Host ID" (set to DISK_SERIAL_NUM+localhost). The "Licenses needed" section has a "Version" dropdown (set to Rational Rose RealTime Developer Edition) and a "Station" dropdown (set to Win32). There are checkboxes for "Temporary license" (unchecked) and "License type" (Fixed/locked checked, Floating unchecked). The "Contact information" section has fields for "First name", "Last name", "Address", "City", "State/Province", "Zip/Postal", "Country", "E-mail", and "Phone". At the bottom of the window are three buttons: "Print Form...", "Save Form...", and "Close".

3. Completely fill in the form—making sure you **do not** click the Temporary license checkbox—and click Save Form...

You may optionally use the workstation disk id (DISK_SERIAL_NUM) or the network address of the network interface card installed on your system to identify your workstation.

If your workstation is configured with two network adaptors, you may select either address to identify your platform for licensing purposes.

- For nodelocked licenses, make sure you click NodeLocked as the License type.
 - For Floating licenses, you will be required to enter server information for the platform which will be running as the Rose RealTime license server. In order to include this information in the request for the permanent license, you can install Rose RealTime on the server and run the license administrator following the standard instructions, or alternatively run the license utility to provide you with the necessary information.
 - On UNIX — from a workstation with Rose RealTime installed on it, copy the file `$ROSERT_HOME/bin/<arch>/lmhostid` onto the server (where `<arch>` is `sun5` or `hpux10`, depending upon what architecture Rose RealTime was installed on). Run the `lmhostid` utility on the server and record the `hostid` for the license server which will be included in the license request. Either enter that information in the Host ID field of the license administrator if you are running the administrator locally, or copy the information into the license file request and send the email as per the instructions.
 - You must install a copy of the **license.dat** file locally on each workstation that will be running Rose RealTime. Place the file in the **`$ROSERT_HOME/license/license.dat`** directory. As well, you must run the license daemon on the license server. See “License Manager for Unix” on page 31.
4. Copy the contents of the file saved in Step 3 into the body of a standard email.

Note: Do not add any information to this text. Include only the contents of the file saved in Step 3.

5. Email the request to `auto-licensing@rational.com`.

Note: Do not attach the file to the email. It will not be accepted by the automated license key generation utility.

You will receive a new `license.txt` file via email.

Note: Do not follow the instructions in the email.

6. Backup your existing \$ROSERT_HOME/license/license.dat file and save the newly received text file as license.dat.

Note: *You have to change the file extension from .txt to .dat.*

7. Restart you local toolset session as appropriate.

Obtaining a Temporary License

In some situations—such as, if you are evaluating Rose RealTime—you may need to obtain a temporary license. If you need to obtain a temporary license, follow the procedure below.

Obtaining a Temporary License on Windows NT

To obtain a temporary license, follow these steps:

1. Select Start > Programs > Rational Rose RealTime 6.0 > Rational Rose RealTime Permanent License Key Administrator.

The Permanent License Key Administration form appears (see Figure 5).

Figure 5 Permanent License Key Administration form



The screenshot shows a Windows-style dialog box titled "License Key Administration". It is divided into several sections:

- General:** Includes text boxes for "Company name:", "Account number:", "Current user:" (containing "knhfo"), "Host name:" (containing "knhfo"), and a dropdown for "Host ID:" (containing "DISK_SERIAL_NUM-4ce80d04").
- Licenses needed:** Includes a dropdown for "Version:" (containing "Rational Rose RealTime Developer Edition"), a dropdown for "Platform:" (containing "Win32"), a checked checkbox for "Temporary license" with an "Expiry date:" dropdown (containing "4/27/99"), and radio buttons for "MyIdLocked" (selected) and "Floating" with a "Quantity:" text box.
- Contact information:** Includes text boxes for "First name:", "Last name:", "Address:", "City:", "State/Province:", "Zip/Postal:", "Country:", "Email:", "Phone:", and "Fax:".

At the bottom of the dialog are three buttons: "Print Form...", "Save Form...", and "Close".

2. Completely fill in the form—making sure you click the Temporary license checkbox—and click Save Form...

You may optionally use the workstation disk id (DISK_SERIAL_NUM) or the network address of the network interface card installed on your system to identify your workstation.

If your workstation is configured with two network adaptors, you may select either address to identify your platform for licensing purposes.

- For nodelocked licenses, make sure you click NodeLocked as the License type.
 - For Floating licenses, you will be required to enter server information for the platform which will be running as the Rose RealTime license server. In order to include this information in the request for the permanent license, you can install Rose RealTime on the server and run the license administrator following the standard instructions, or alternatively run the license utility to provide you with the necessary information.
 - On Windows NT — from a workstation with Rose RealTime installed on it, copy the file %ROBERT_HOME%\bin\win32\lmttools onto the server. Run the lmttools utility on the server and record the hostid of the license server which will be included in the license request. Either enter that information in the Host ID field of the license administrator if you are running the administrator locally, or copy the information into the license file request and send the email as per the instructions.
 - You must install a copy of the **license.dat** file locally on each workstation that will be running Rose RealTime. Place the file in the %ROBERT_HOME%\license\license.dat directory. As well, you must run the license daemon on the license server. See “License Manager for NT” on page 33.
3. Copy the contents of the file saved in Step 2 into the body of a standard email.

Note: Do not add any information to this text. Include only the contents of the file saved in Step 2.

4. Email the request to auto-licensing@rational.com.

Note: Do not attach the file to the email. It will not be accepted by the automated license key generation utility.

You will receive a new license.txt file via email.

Note: Do not follow the instructions in the email.

5. Backup your existing %ROCERT_HOME%\license\license.dat file and save the newly received text file as license.dat.

Note: *You have to change the file extension from .txt to .dat.*

6. Restart you local toolset session as appropriate.

Obtaining a Temporary License on Unix

To obtain a temporary license, follow these steps:

1. Go to the \$ROSERT_HOME/bin directory.
2. Type **RoseRT -license**.

The Permanent License Key Administration form appears (see Figure 6).

Figure 6 Permanent License Key Administration form



The screenshot shows a window titled "License Key Administration" with the following fields and options:

- General:**
 - Company name: [text box]
 - Account register: [text box]
 - Current year: [text box, value: 1998]
 - Host name: [text box, value: 192.168.1.100]
 - Host ID: [dropdown menu, value: DISK_SERIAL_NUM=10000000]
- Licenses needed:**
 - Version: [dropdown menu, value: Rational Rose RealTime Developer Edition]
 - Station: [dropdown menu, value: Win32]
 - Temporary license (checked), Expiry date: [dropdown menu, value: 4/27/99]
 - License type: MyIdLocked, Floating, Quantity: [text box]
- Contact information:**
 - First name: [text box]
 - Last name: [text box]
 - Address: [text box]
 - City: [text box], State/Province: [text box]
 - Zip/Postal: [text box], Country: [text box]
 - E-mail: [text box]
 - Phone: [text box], Fax: [text box]

Buttons at the bottom: "Print Form...", "Save Form...", "Close".

3. Completely fill in the form—making sure you click the Temporary license checkbox—and click Save Form...

You may optionally use the workstation disk id (DISK_SERIAL_NUM) or the network address of the network interface card installed on your system to identify your workstation.

If your workstation is configured with two network adaptors, you may select either address to identify your platform for licensing purposes.

- For nodelocked licenses, make sure you click NodeLocked as the License type.
 - For Floating licenses, you will be required to enter server information for the platform which will be running as the Rose RealTime license server. In order to include this information in the request for the permanent license, you can install Rose RealTime on the server and run the license administrator following the standard instructions, or alternatively run the license utility to provide you with the necessary information.
 - On UNIX — from a workstation with Rose RealTime installed on it, copy the file `$ROSERT_HOME/bin/<arch>/lmhostid` onto the server (where `<arch>` is `sun5` or `hpux10`, depending upon what architecture Rose RealTime was installed on). Run the `lmhostid` utility on the server and record the `hostid` for the license server which will be included in the license request. Either enter that information in the Host ID field of the license administrator if you are running the administrator locally, or copy the information into the license file request and send the email as per the instructions.
 - You must install a copy of the **license.dat** file locally on each workstation that will be running Rose RealTime. Place the file in the **`$ROSERT_HOME/license/license.dat`** directory. As well, you must run the license daemon on the license server. See “License Manager for Unix” on page 31.
4. Copy the contents of the file saved in Step 3 into the body of a standard email.

Note: Do not add any information to this text. Include only the contents of the file saved in Step 3.

5. Email the request to `auto-licensing@rational.com`.

Note: Do not attach the file to the email. It will not be accepted by the automated license key generation utility.

You will receive a new `license.txt` file via email.

Note: Do not follow the instructions in the email.

6. Backup your existing \$ROSERT_HOME/license/license.dat file and save the newly received text file as license.dat.

Note: You have to change the file extension from .txt to .dat.

7. Restart you local toolset session as appropriate.

Troubleshooting

WindowsNT

Problem 1

If a FLEXlm License Manager dialog appears indicating that “Your application was unable to obtain a license because...”,

1. Select Cancel.

You will get a Rose RealTime message stating “Unable to obtain a license”.

2. Select OK.
3. Verify the location (%**ROSERT_HOME%****license****license.dat**) of the **license.dat** file and the spelling of the file name.
4. If both the name and location are correct, verify that the install process has set the **ROSERT_LICENSE_FILE** environment variable to the location of the file. This variable points to the **license.dat** file, not just the directory in which it is located.

To verify that the environment variable is correctly set:

- a. Click Start > Settings > Control Panel.
- b. Select System.
- c. From the **System Properties** dialog, select the Environment tab.
- d. Click **ROSERT_LICENSE_FILE**, and its path appears in the Value field.
- e. Check to verify the path is correct.

If the environment variable is not set or set incorrectly, add or modify as appropriate.

Problem 2

If you receive an “Unable to obtain a license message” message after the splash screen is displayed, check the expiration date of your license.

Problem 3

If after installing Rational Rose RealTime, you are having problems running the Rational Suites License Administrator, please delete the registry key:

HKEY_LOCAL_MACHINE\SOFTWARE\FLEXIm License Manager\rational_LICENSE_FILE.

Licensing Tips

- The License Server runs on a Windows NT 4.0 platform. It will not run on Windows 95 or Windows 98.
- If you need to move licenses from one machine to another, please contact **Rational Licensing Support**. Refer to “Technical Support” on page 21 of the *Rational Rose RealTime Release Notes* for the telephone number, fax number, and email address of the Licensing Support office nearest you.
- Please run the License Administrator and issue your request for permanent keys immediately after you complete the installation. The startup license keys will expire on the date as specified on the Rational Startup License Key Certificate. Note the date the permanent keys will be available from the Rational licensing server.

Unix

Problem 1

If a FLEXIm License Manager dialog appears indicating that “Your application was unable to obtain a license because...”,

1. Select Cancel.
You will get a Rose RealTime message stating “Unable to obtain a license”.
2. Select OK.
3. Verify the location (**\$ROSERT_HOME/license/license.dat**) of the **license.dat** file and the spelling of the file name.
4. If both the name and location are correct, verify that the install process has set the **ROSERT_LICENSE_FILE** environment variable to the location of the file. This variable points to the **license.dat** file, not just the directory in which it is located.
To verify that the environment variable is correctly set, type **echo \$ROSERT_LICENSE_FILE** at a command prompt.

If the environment variable is not set or set incorrectly, add or modify as appropriate.

Problem 2

If you receive an “Unable to obtain a license message” message after the splash screen is displayed, check the expiration date of your license.

Problem 3

If you have received a floating license file and are unable to obtain a license, verify that the license daemon is running. See the Licensing chapter in *Getting Started with Rational Rose RealTime*.



Chapter 5

Licensing

The following topics are covered in this chapter:

- How Licenses Work
- The License Manager
- License for Unix
- License Manager for NT
- The License File
- Obtaining Licenses

When you buy Rose RealTime, you purchase some number of fixed and/or floating licenses. A fixed license allows you to use Rose RealTime on a specific workstation. Floating licenses allow anyone on your network to use Rose RealTime as long as a floating license is available. Thus, the number of licenses that you purchase determines the maximum number of users who can use Rose RealTime simultaneously.

For example, if you purchased five licenses and three users are currently using Rose RealTime, then two more users can use Rose RealTime.

How Licenses Work

Licenses are controlled by a license manager FLEXlm (software delivered as part of Rose RealTime) that runs on a license server (one of your workstations or a dedicated machine depending on configuration and license types purchased). The license manager monitors license access.

When you start Rose RealTime, you are initially unlicensed. If a license is available, the license manager gives you a license. You retain the license as long as you are using Rose RealTime. When you exit Rose RealTime, your license is returned to the license manager and becomes available for another user.

If no license is available, you are unable to use Rose RealTime until a license is returned by another user. An “Unable to obtain a license” message is displayed.

Note: *The inability to obtain a license may also be caused by a corrupted license file, a change to the host id (network card, ip address) or a hard drive replacement when a fixed license is used on NT. See the Install Guide on how to obtain a new license file.*

The License Manager

Rose RealTime uses the Flexible License Manager, FLEXlm, from GLOBEtrotter Software, Inc. Rose RealTime requires FLEXlm 6.0. The license manager includes the following components:

- A vendor daemon named rational that dispenses Rose RealTime licenses.
The rational daemon is used for all of Rational's licensed products. If you have other products from other vendors that also use FLEXlm, they will include their own vendor daemons.
- A license daemon named lmgrd.
The same license daemon is used by all licensed products from all vendors that use FLEXlm. The lmgrd daemon does not process requests on its own, but forwards requests to the appropriate vendor daemon.
- A license file that you maintain.
It specifies your license servers, vendor daemons, and product restrictions. For nodelocked licenses, only the license file is required. In this case, the daemon should not be started.

Once the daemons and license file are in place, all that remains is to start the license daemon, which in turn will start the vendor daemons.

Note: You cannot run two rational daemons on the same host, so even though FLEXlm allows you to run multiple lmgrd daemons, you cannot put Rational products under the control of multiple lmgrd daemons on the same host.

License Manager for Unix

Running the LMGRD from a Command Prompt

From a command prompt execute:

```
lmgrd -c <licenseFileList> -l <logfile>
```

Note: *lmgrd* can be found in `$ROSERT_HOME/bin/<arch>`, where `<arch>` is the host that Rose RealTime is installed on (*sun5* or *hpux10*).

- **licenseFileList** is the path to the license file or a list of license files. If the FLEXlm daemon is only being used to provide Rose RealTime licenses, use `-c $ROSERT_LICENSE_FILE`. Otherwise, include the `$ROSERT_LICENSE_FILE` environment variable in a semicolon (“;”) separated list.
- **logfile** is the path to a log file. `$ROSERT_HOME/license/log` is recommended if *lmgrd* is only providing Rose RealTime licenses.

For convenience, you will probably want to augment a system initialization script on your license server to automatically start the license daemon each time the license server boots.

The names, locations, organization, and contents of system initialization scripts varies from Unix system to Unix system. You might begin by looking at the following files:

- HP-UX: `/sbin/init.d/SlmRational.sh`
- Solaris: `/etc/rc2.d/SlmRational.sh`

To verify that your license manager is operational, you can enter these commands on your license server to see if its daemons are running:

```
% ps axw | grep -v grep | egrep "lmgrd|rational"
```

or

```
% ps -e | grep -v grep | egrep "lmgrd|rational"
```

Example

```
setenv ROSERT_LICENSE_FILE /apps/licenses/rrt6.0/license.dat
lmgrd -c $ROSERT_LICENSE_FILE -l /apps/logs/logRRT
```

or

```
lmgrd -c $ROSERT_LICENSE_FILE;$LM_LICENSE_FILE -l
/apps/logs/current_log
```

Administration commands

The license manager supports several system-administration commands.

Command	Description
lmdiag	Allows you to diagnose problems when you cannot checkout a license.
lmdown	Shuts down license and vendor daemons
lmhostid	Reports license manager host ID of workstation
lmremove	Returns specific licenses to license pool (for example, after a workstation crashes)
lmreread	Rereads license file, starts new vendor daemons
lmstat	Reports status on daemons and feature usage
exinstal	Reports on licenses in license file you specify on the command line.

Note: These commands can be found in `$ROSERT_HOME/bin/<arch>`, where `<arch>` is the host that Rose RealTime is installed on (`sun5` or `hpux10`).

License Manager for NT

Controlling LMGRD with the Windows Control Panel

The FLEXlm control panel, FLEXLM.CPL is an applet that installs into the Control Panel of Windows and is used to control the execution of the FLEXlm manager.

To install the applet:

1. Copy %ROBERT_HOME%\bin\win32\flexlm.cpl to system_drive:\winnt\system32
2. Open the control panel and activate the FLEXlm icon.
3. Select the Setup tab and fill in the License File and Debug Log items. See “License Key Information” on page 11 of the *Rational Rose RealTime Install Guide* for license file information. You may also use this tab to cause lmgrd to start upon power up.
4. Check the Use NT Services checkbox.
5. Start the license manager from the Control tab.

Running the LMGRD from a Command Prompt

From a command prompt execute:

```
lmgrd -app -c <licenseFileList> -l <logfile>
```

- **licenseFileList** is the path to the license file or a list of license files. If the FLEXlm daemon is only being used to provide Rose RealTime licenses, use -c %ROBERT_LICENSE_FILE%. Otherwise, include the %ROBERT_LICENSE_FILE% environment variable in a semicolon (“;”) separated list.
- **logfile** is the path to a log file. %ROBERT_HOME%\license\log is recommended if lmgrd is only providing Rose RealTime licenses.

To start lmgrd at startup the command line may be added to the autoexe.bat file.

The License File

The FLEXlm license files are the same format for Unix and NT.

The default NT Rose RealTime license file is

```
%ROSE_HOME%\license\license.dat
```

The default Unix Rose RealTime license file is

```
$(ROSE_HOME)/license/license.dat
```

When users start Rose RealTime, the startup script automatically defines the environment variable `ROSE_LICENSE_FILE` for them.

However, as you install Rational products, you can merge the Rational license data into another license file that you have already set up for another product, as long as you change the `ROSE_LICENSE_FILE` environment variable to point to the new file.

FLEXlm uses this variable to locate the license file.

Format

The license file is a text file that you can edit with any text editor. Your license file will contain lines similar to:

```
SERVER garcon 1874350 1706
DAEMON rational
FEATURE rose.modeler.unix rational 5.000 1-oct-98 6
FBE669014E142A4CF37 " "
```

In general, one or three server lines are followed by one or more vendor daemon lines, which are followed by one or more feature lines. Rose RealTime requires only one of each, but your license file may include data for other products, too.

Each server line contains, in order, the:

- Keyword `SERVER`
- Host name of the license server, from hostname
- License manager host ID of the license server, from `lmhostid`
- TCP port number to use

Each vendor daemon line contains, in order, the:

- Keyword `DAEMON`
- Name of the vendor daemon (always `rational` for Rose RealTime)
- Pathname to the directory that contains the executable code for this daemon
- Pathname to your options files for this daemon (optional - see the "Options" section below)

Each feature line contains, in order, the:

- Keyword FEATURE
- Name of the feature
- Name of the vendor daemon, previously defined on a DAEMON line, that serves this feature (always rational for Rational products)
- Latest (highest numbered) version of this feature that is supported (5.000) for the current release of Rose RealTime)
- Expiration date. This is specified as dd-mmm-yy or as dd-mmm-yyyy, where yy is the last 2 digits of the year and yyyy is the unabbreviated year. You must specify 4 digits for the year 2000 and beyond. You must specify '00' to indicate a license which does not expire.
- Number of licenses
- Encryption code (obtained from Rational for Rose RealTime)
- Vendor string, enclosed in double quotes, contains fixed information when licensing Rose RealTime as fixed
- License manager host ID, supplied only when this feature is bound to a specific host, that is, fixed

Note: *You cannot combine floating and fixed licenses for the same product in a single license file.*

The tokens on each line can be separated by any amount of white space (spaces or tabs). You can edit only four kinds of tokens in the license file:

- Host names on SERVER lines
- TCP port numbers on SERVER lines
- Pathnames to vendor daemons on DAEMON lines
- Pathnames to options files on DAEMON lines

All other tokens are included as input to the encryption algorithm that produces the encryption codes on the FEATURE lines.

Note: *A DEMO FEATURE Line (includes "DEMO" at the end of the FEATURE Line) is a special temporary license which does not require running lmgrd or start_lm. Licensing is activated when the DEMO FEATURE Line is placed in the license file.*

Feature Name

The feature names for Rose RealTime are as follows:

- RoseRealTimeModeler
- RoseRealTimeDeveloper
- RoseRealTimePartner

Note: *RoseRealTime partner keys are made available to Rational RoseLink partners for delivery with custom software.*

Options

You can customize Rose RealTime access by:

1. Creating an options file for the rational daemon.
2. Adding the pathname of the options file as the fourth field on the DAEMON line for the rational daemon.

An options file allows you to:

- Reserve licenses for specified users or groups of users
- Allow or disallow licenses for certain users

For Rose RealTime, lines in the options file have this format:

```
GROUP name list_of_users
RESERVE number rose.modeler.unix
      {USER | HOST | DISPLAY | GROUP} name
INCLUDE rose.modeler.unix
      {USER | HOST | DISPLAY | GROUP} name
EXCLUDE rose.modeler.unix
      {USER | HOST | DISPLAY | GROUP} name
TIMEOUT rose.modeler.unix seconds
```


The following table shows several examples:

Objective	Example line(s) added to your options file:
To make sure a key developer named Ace never has to wait for a license	RESERVE 1 env_base.sun5 USER ace
To allow access from only one workstation named loner	INCLUDE env_base.sun5 HOST loner
To disallow access to three stooges	GROUP stooges <larry curly moe> EXCLUDE env_base.sun5 GROUP stooges

Integration With Ration Suites Licensing

If you are using other Rational products along with Rose RealTime, the license.txt text file that you receive from Rational in response to a license request will contain the keys for all the Rational products. If you are using floating licenses, you will already be using the FLEXlm lmgrd daemon and the rational vendor daemon.

The only assumption that Rose RealTime makes is that the ROSERT_LICENSE_FILE variable points to a valid FLEXlm license file that contains a valid Rose RealTime license. Simply follow the instructions provided; the existence of the additional license keys will not cause any problems.

For floating licenses, keep in mind that only one instance of the rational daemon can be executed at any given time. Your projects license administrator should ensure that only one instance of the rational command exists and/or all paths are set correctly so that only one instance of the rational command is used.

Obtaining Licenses

For information on license keys please refer to the Installation Instructions and License Certificate that accompany the product shipment. If either of these two documents is missing, please contact your local Rational office for replacement information.



Chapter 6

Uninstalling Rational Rose RealTime

Unix

To uninstall Rose RealTime, follow these steps:

1. Save any user data files in another location before removing the installation directory.
2. Remove the installation directory and all of its contents.

Windows NT

To uninstall Rose RealTime, follow these steps:

1. Check the permissions of the `%ROSET_HOME%\license\license.dat` file. If the temporary license file was still on your system and was set to read-only, the license directory must be removed manually.
2. From the Start menu, select Programs > Rational Rose RealTime 6.0 > Uninstall Rational Rose RealTime 6.0.

All directory items and registry settings are removed from your system.

If the temporary license file was still on your system and was set to read-only, the license directory must be removed manually.

