Rational PurifyPlus for Linux

INSTALLATION GUIDE

VERSION: 2002 RELEASE 2 - SR1

PART NUMBER: 800-026004-000

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U.S. Patent Nos.5,193,180 and 5,335,344 and 5,535,329 and 5,835,701. Additional patents pending.

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Preface

Welcome to Rational PurifyPlus for Linux. This installation guide contains information to help you install PurifyPlus for Linux, including the steps you need to take both before and after installation.

PurifyPlus for Linux is a complete solution for runtime analysis on Linux platforms: it delivers memory leak detection, memory and performance profiling as well as code coverage and runtime tracing.

Audience

This guide is intended for Rational software users who are installing PurifyPlus for Linux, such as system administrators, application developers, quality assurance managers, and quality assurance testers. To install and use PurifyPlus for Linux, you should be familiar with the Linux platform and its conventions.

Contacting Rational Technical Publications

To send feedback about documentation for Rational products, please send e-mail to our technical publications department at techpubs@rational.com.

Contacting Rational Technical Support

When contacting Rational Technical Support, please be prepared to supply the following information:

- About you:
  - Name, title, e-mail address, telephone number
- About your company:
  - Company name and company address

- About the product:
  - Product name and version number (see **Help > About menu**)
  - What components of the product you are using
- About your development environment:
  - Operating system and version number (for example, Linux SuSE 7.2)
  - Target compiler, operating system and microprocessor.
- About your problem:
  - Your service request number (if you are calling about a previously reported problem)
  - A summary description of the problem, related errors, and how it was made to occur
  - Please state how critical your problem is
  - Any files that can be helpful for the technical support to reproduce the problem (project, workspace, test scripts, source files). Formats accepted are .zip and compressed tar (.tar.Z or .tar.gz)

If your organization has a designated, on-site support person, please try to contact that person before contacting Rational Technical Support.

You can obtain technical assistance by sending e-mail to just one of the e-mail addresses cited below. E-mail is acknowledged immediately and is usually answered within one working day of its arrival at Rational. When sending an e-mail, place **`PurifyPlus for Linux`** in the subject line, and include a description of your problem in the body of your message.

Note: When sending e-mail concerning a previously-reported problem, please include in the subject field: "[**SR#**<*number*>]", where <*number*> is the service request number of the issue. For example:

```
Re:[SR#12176528] New data on Rational PurifyPlus for Linux install
issue
```

Sometimes Rational technical support engineers will ask you to fax information to help them diagnose problems. You can also report a technical problem by fax if you prefer. Please mark faxes "**Attention: Technical Support**" and add your fax number to the information requested above.

Your Location	**Address**	**Telephone**	**E-mail**
North America	Rational Software, 18880 Homestead Road, Cupertino, CA 95014	(800) 433-5444	support@rational.com
Europe, Middle East, Africa	Rational Software, Beechavenue 30, 1119 PV Schiphol-Rijk, The Netherlands	+31 (0) 20-454-6200	support@europe.rational.com
Asia Pacific	Rational Software Corporation Pty Ltd, Level 13, Tower A, Zenith Centre, 821 Pacific Highway, Chatswood NSW 2067, Australia	+61 2-9419-0111	support@apac.rational.com

Before Installing Rational PurifyPlus for Linux

1

This chapter tells you what you need to know before installing Rational PurifyPlus for Linux and is organized as follows:

- Hardware and Software Requirements
- Licensing

Hardware and Software Requirements

Make sure that your computer conforms to the following minimum requirements for each product or component you plan to install.

Table 1 Hardware and Software Requirements

Rational Component	Minimum Requirements
PurifyPlus for Linux	200 MB free disk space (minimum installation) 256 MB RAM minimum. One of the following operating systems: ▪ Red Hat Linux 7.0 and 7.2, or ▪ SuSE Linux 7.2 and 7.3

Note: Windows, Solaris, AIX, and HP are not supported platforms. However, other products from the Rational PurifyPlus family run on other platforms. For further information, see http://www.rational.com/.

Before you install PurifyPlus for Linux, be sure to do the following:

- Make sure that all computers have TCP/IP installed. Install any updates to your network software that you have not installed. Verify that computers are communicating with each other. If you have any problems, see your network administrator.

Licensing

When you purchase PurifyPlus for Linux, you purchase a specific number of licenses to use the product. Rational Software issues you a license key for the product that corresponds to the type and number of licenses you purchased.

PurifyPlus for Linux comes with a temporary license to get you started. You then request a permanent or TLA license key from Rational Software at http://www.rational.com/accountlink and install it to ensure continued use of the product. The startup license key and other licensing information is available from the License Key Certificate included in the product packaging.

PurifyPlus for Linux uses the Rational License Key Administrator to manage product licenses. For more information on license key administration, see the *License Management Guide* online manual.

Requesting your Permanent or TLA License Key

To request a permanent or TLA license key, go to www.rational.com/accountlink and follow the instructions provided there.

Installing Rational PurifyPlus for Linux 2

This chapter explains how to install Rational PurifyPlus for Linux. It includes the following topics:

- Upgrade Information
- Installation Instructions

Note that unless specified otherwise, your system administrator will generally carry out these steps.

For environments where more than one user is using PurifyPlus for Linux, install the main product files on a centralized server.

A minimum of 200MB should be available on each Linux workstation to install the product.

Please read the Release Notes file pplx-rn2002.05.21.htm on the CD-ROM for the latest installation notes before running the installation process.

Upgrade Information

You can install PurifyPlus for Linux alongside a previous version. In this case, any shortcut icons installed in your window environment will need updating.

Installation Instructions

1. Place the PurifyPlus for Linux CD in the CD-ROM drive and mount the CD-ROM.

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

   Note: The CD-ROM may be automatically mounted.

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

   For example:
   ```
   % cd /cdrom
   ```

3 Run the rs_install installation program:

```
% rs_install
```

The `rs_install` program prompts you through the installation process, providing detailed instructions along with default settings. The defaults appear in brackets (for example: **[2]**). To accept the default, press ENTER.

4 After you install your license key, the rs_install program reminds you that you must configure your server to automatically restart the license server when it reboots. The rs_install program gives you instructions for doing this.

For any license-related issues, please refer to the *License Management Guide* manual, provided with the product.

5 Change to the following directory:
<*install_dir*>/releases/PurifyPlusForLinux.2002.05.21
where <install_dir> is the PurifyPlus for Linux installation directory.

6 Check and edit the ppluslinux.sh file (or ppluslinux.csh file), if necessary. This file contains the environment variable settings for PurifyPlus for Linux.

If PurifyPlus for Linux installed successfully, you can move on to *Running Rational PurifyPlus for Linux* on page 11.

Questions and Answers about rs_install

Below are the answers to some common questions about the rs_install program.

- **Can I rerun parts of the installation?** Yes. The rs_install program provides commands that enable you to rerun specific sections of the installation as needed.
- **Do I have to reenter my license server information each time I install a product?** No. You only need to enter this information once. The `rs_install` program saves the information you enter about yourself and about the machine to be used as the license server for your Rational Software product licenses in two text files: an `rs_install.defaults` file that contains information about you and your license server, and a file, that records product-specific information. The `rs_install` program reports the location of these files when you quit the program. The next time you run rs_install, the program uses the saved configuration information.
- **Do I need to install all my licenses on one server?** No. You are not required to use all of your allowed licenses for a single-license server. You can install a product at another site and configure a license server at that site to serve the remaining licenses in your Rational Software account.

- **Which type of product license key should I install?** If you already have your permanent or TLA license key, you can install it right away. You can also request a permanent license key at:
  http://www.rational.com/accountlink

  Otherwise, select the startup or evaluation license to get started using the product.

  Note: To ensure uninterrupted use of your Rational Software product, you should install your permanent or TLA license key as soon as possible.

- **Can I import existing user names from an earlier installation of the product installed with Named User licensing?** Yes. If you installed the product previously under FLEXlm, the user names are imported automatically when you run rs_install. If you installed the product under PureLA License Administrator, rs_install asks you if you want to import the existing users.purela file, and also permits you to edit the imported user names.

- **How do I proceed if I already have other Rational product licenses installed on my server?** You must add the new licenses to your current Rational product license file. To do this, specify the current Rational license file as the license file name instead of using the default.

- **How do I get updates for the rs_install program and for the Rational products?** You can get updates from within the rs_install program, though you must be running the program on a machine that has network access. The rs_install program's Licensing Options screen lets you select an item to download the latest version of rs_install (in which case rs_install replaces itself and restarts using the new version) or get product updates.

Running Rational PurifyPlus for Linux 3

This chapter explains how to start using Rational PurifyPlus for Linux. It includes the following topics:

- Launching PurifyPlus for Linux
- Accessing the Online Documentation
- Troubleshooting

Launching PurifyPlus for Linux

PurifyPlus for Linux can be used either in a graphical environment or in command line batch mode.

When using the product for the first time, the graphical user interface (GUI) provides an easy and comprehensive way to access all runtime analysis features.

To Run the Graphical User Interface

The Linux binaries are located in the following directory:
<*install_dir*>/releases/PurifyPlusForLinux.2002.05.21/bin/<*platform*>/<*os*>/
where:

- <*install_dir*> is the installation directory of the product
- <*platform*> is the platform architecture, such as intel or sparc
- <*os*> is the name of the current operating system

This path is set automatically by the ppluslinuxinit.sh or start_ppluslinux.sh script

The following method is valid only for *sh*, *ksh* or *bash* shells:

1 Run the ppluslinuxinit.sh file to set the environment variables.

In a sh or ksh shell (the period '.' is part of the command):

```
. ppluslinuxinit.sh
```

2 In a shell windows, type the following command to start PurifyPlus for Linux:
studio

To simplify execution of PurifyPlus for Linux, you can add the ppluslinuxinit.sh parameters to your .profile account parameters.

Alternatively, the following script configures the environment and launches PurifyPlus for Linux in *sh*, *csh*, *ksh* or *bash* shells:

<*install_dir*>/releases/PurifyPlusForLinux.2002.05.21/start_ppluslinux.sh

If you use a *csh* shell, you should run the following script:

<*install_dir*>/releases/PurifyPlusForLinux.2002.05.21/start_ppluslinux.csh

License Variable

The environment variable RSU_LICENSE_MAP is used by Rational Products for some advanced licensing features. In some cases, PurifyPlus for Linux generates an error message such as:

```
License manager: RSU Licensing WARNING: Couldn't open map file
from $RSU_LICENSE_MAP: ./NIX
```

If this error occurs, use one of the following work arounds:

Unset the variable manually for the current shell. For bash, this command would be:

```
unset RSU_LICENSE_MAP
```

Alternatively, launch the PurifyPlus for Linux tool from within a script, which might be:

```
#!/bin/bash
if [ -z $RSU_LICENSE_MAP -o -r $RSU_LICENSE_MAP ]
then
   launch_tool
else
   unset RSU_LICENSE_MAP
   launch_tool
fi
```

Accessing the Online Documentation

The entire documentation set for PurifyPlus for Linux is provided as a full-featured online help system:

- If this is the first time you are using PurifyPlus for Linux, take the time to complete the **Online Tutorial**. This provides a quick and practical approach to using the product.
- The **User Guide** provides online help and information about testing and monitoring your software in PurifyPlus for Linux
- The **Reference Manual** provides advanced information about the test script languages used by PurifyPlus for Linux as well as command line usage

These documents were designed to be viewed either in:

- Netscape Navigator 4.5 or later
- or any other Java-enabled web browser

Both environments provide contextual-help from within the application, a full-text search facility, and direct navigation through the *Table of Contents* and *Index* panes on the left-hand side of the Help window.

Browsing the Online Documentation

Before opening the online documentation, ensure that your Web browser has the Java support option enabled.

In your Web browser, locate and open the following file:
<*install_dir*>/doc/index.htm

Where <*install_dir*> points to the PurifyPlus for Linux installation directory.

If necessary, you can bookmark this page in your Web browser.

The documentation is also accessible from the **Help** menu in the PurifyPlus for Linux graphical user interface.

Troubleshooting

If you encounter any problems the software, try the following suggestions before you call Rational Technical Support for help.

Installation Issues

If the installation procedure fails, try any of the following suggestions:

- Stop all applications before you begin the installation.

- Turn off all virus protection software. These programs often run in the background and may interfere with the installation and file decompression process.
- Change to a standard VGA video driver while Rational Setup is running, or disable video features such as virtual screens or screen switching.
- Change to a standard mouse driver or disable special mouse features that perform tasks such as leaving pointer trails or changing pointer sizes.

Software Errors

If PurifyPlus for Linux fails to run, try any of the following suggestions:

- Check that the environment variables such as $TESTRTDIR are correctly set. If not, refer to Chapters 2 and 3 of the Linux installation instructions, or set the environment variables manually. See the *Rational PurifyPlus for Linux Reference Guide* for a list of required environment variables.
- For any license-related issues, please refer to the *License Management Guide* manual provided with PurifyPlus for Linux.

Documentation Problems

If the Online Documentation fails to display correctly:

- Ensure that you have a browser that supports Java and frames, such as Netscape 4 or later. Check that you have enabled Java support in the browser.
- When using an X terminal, ensure that the DISPLAY parameters are correctly set. Try launching the web browser before launching the online Help from the PurifyPlus for Linux application.

Uninstalling Rational PurifyPlus for Linux

4

This chapter explains how to remove Rational PurifyPlus for Linux v2002 Release 2 - SR1 from your computer.

Removing the Product

To remove PurifyPlus for Linux, simply delete the installation directory.