

Rational Process Workbench™

Getting Started

VERSION: 2002.05.00

PART NUMBER: 800-025092-000

WINDOWS 98 SE, ME, NT, 2000, XP

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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

This manual provides an introduction to the Rational Process Workbench (RPW) and instructions for installing this tool for use with Microsoft Windows 98 SE, ME, Windows NT, Windows 2000, and XP operating systems.

RPW enables organizations to create custom process Web sites, based on the Rational Unified Process. It's tightly integrated with the familiar Unified Modeling Language (UML) modeling and is supported by Rational Rose.

Audience

This document is of interest to process engineers, managers, and system administrators responsible for installing RPW. It's assumed that process engineers working with this tool have a good working knowledge of Rational Rose.

Other Resources

Online Help is available for RPW. You can view online Help whenever you need assistance by doing the following:

From any RPW display, press the **F1** key, and select an option from the **Help** menu.

This manual is available in both printed and PDF formats. See the Rational® Suite Documentation CD for the PDF file.

For information on developing process plug-ins using RPW, refer to the RUP Resource Center (www.rational.com/products/rup/resource_center). The RPW Tutorial is also located on the RUP Resource Center.

Rational Process Workbench Documentation

The Rational Process Workbench Getting Started manual includes these chapters:

- Chapter 1: Using Rational Process Workbench—describes the basic concepts and uses of RPW.
- Chapter 2: Installing Rational Process Workbench—documents the system requirements, including hardware, required and optional supporting software, and complete installation instructions.
- Glossary—defines terms specific to RPW.

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Your Location	Telephone	Facsimile	E-mail
The Americas	(800) 433-5444 (toll free) (408) 863-4000 Cupertino, CA	(781) 676-2460 Lexington, MA	support@rational.com
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Asia Pacific	+61 2 9419 0111 Australia	+61 2 9419 0123 Australia	support@apac.rational.com
World Wide Web	www.rational.com		

Note: When you contact Rational Technical Support, please be prepared to supply the following information:

- Your name, telephone number, and company name
- Your computer's make and model

- Your operating system and version number
- Product release number and serial number
- Your case ID number (if you are following up on a previously-reported problem)

Contents

This chapter describes how you get started using RPW, and introduces both this product and its underlying key concepts.

This chapter is organized as follows:

- *Introduction* on page 13
- *Key Concepts* on page 14

Introduction

RPW supports **process modeling**, based on the Rational Unified Process® or RUP® product, facilitating process customization and automating the creation of tailored process Web sites. Through process modeling, you create a design representation at a higher level of abstraction than the process text itself. This elevation of representation creates a space where process may be modeled, discussed, reviewed, and publicized without writing the process text. This is appealing for the same reasons it's appealing to describe a software solution in design space before commencing into coding of the same solution: you arrive at a better quality solution faster.

RPW creates an environment for defining and authoring processes. Within this environment, process engineers define processes and author their corresponding textual contents in a controlled manner. A working knowledge of Rational Rose® is assumed.

The main elements in this environment are *process models*, *component models*, *Process Content Libraries*, and *presentation Web sites*. A process model *defines* a process and its accompanying Process Content Library provides the text that *describes* this process. Based on a component model, RPW *generates* a presentation Web site using text and graphics from the Process Content Library. As the presentation Web site is generated, RPW inserts navigation tables and additional graphics based on the process model, and generates the navigation tree browser. The end result of process generation is a fully functional process Web site.

In this way the RPW environment creates a complete **process engineer's workbench** where you:

- customize the RUP® to the specific needs of your development organization, possibly in several steps
- create process variants to support different, concurrent development types within your organization
- author process text

Key Concepts

In process modeling, you create models of software engineering processes to define, describe, and communicate their nature. You create these models with Rose as the modeling tool, using a subset of Rose's UML modeling support to develop these models.

Process models are expressed in terms of several concepts that are part of the natural language used to describe processes. RPW bases its operation on RUP's underlying metamodel. This is the model that defines concepts—like Role, Activity, Artifact, and Tool—and defines how they relate to one another. Any process may be developed using RPW as long as it conforms with this metamodel.

The term Artifact defines the products produced by the process, the term Activity describes the tasks that produce these products, and the term Role describes the agents that perform these Activities. For Activities, we also specify the Artifacts that they produce, modify, and reference.

In addition to the three core concepts just described, there's a further set of terms that enables you to describe other elements of process, such as the Tools, which are used to develop the Artifacts, and Tool Mentors, which are used to guide how the Tool is used.

Using this language, you can now create a model to describe the static properties of a process.

UML stereotypes are used to specify the different process modeling concepts. Using stereotypes you “dress up” the neutral UML elements, like class and operation, to carry the more specialized meanings of the process modeling concepts.

Figure 1 shows how the fundamental modeling concepts are modeled and how using stereotypes visually identifies their kinds.

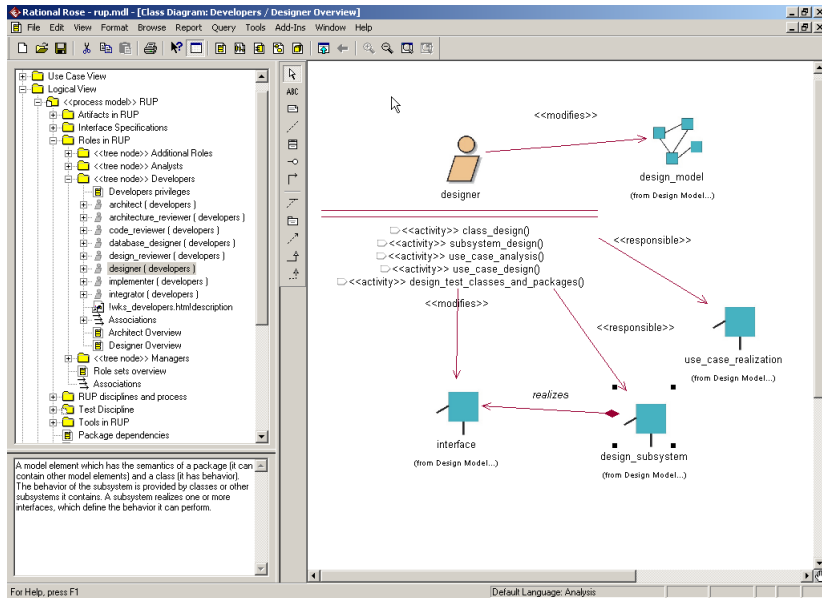


Figure 1 Fundamental modeling concepts

Your process model is complete when you specify the dynamic behavior of your process—specifically how these static elements collaborate during the course of the process—in UML activity diagrams.

The dynamic aspect of process is concerned with specifying how the Activities, performed by Roles, collaborate during the course of a project. This specification is given at two levels of detail:

- at the level of Discipline workflows
- at the more detailed level of Workflow Details

UML activity diagrams are used for both levels of specification:

- Discipline workflows are expressed in terms of their collaborating Workflow Details
- Workflow Details are expressed in terms of collaborating Activities

Figure 2 illustrates an activity diagram for a Workflow Detail.

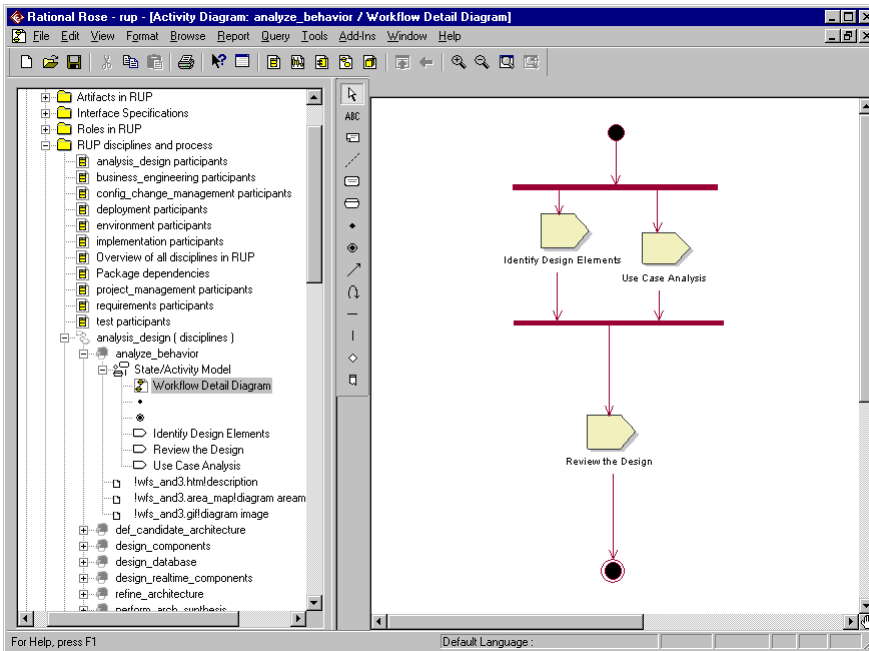


Figure 2 Activity diagram for a Workflow Detail

A process closure, shown in Figure 3, identifies the subset of process elements that support its collaborations. RPW uses UML components for this purpose, which are modeled in Rose's component view. A **process component** is assigned to realize a set of process elements defined in the logical view. A process' closure is specified as a set of process components, whose collective set of realized process elements constitute the elements of the process.

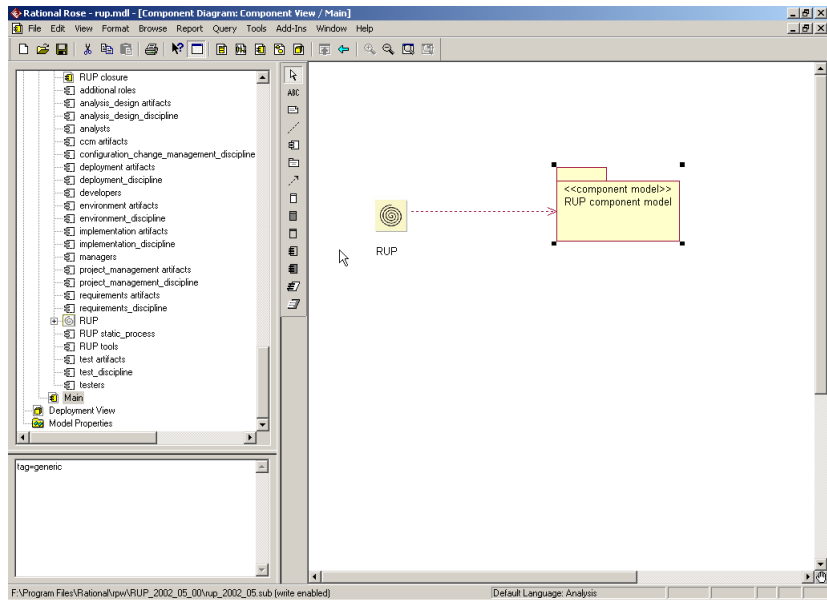


Figure 3 An example of a process closure

In summary, when a process is modeled you do the following:

- define the elements of the process
- specify how these elements collaborate during the course of the process
- specify the set of process elements that will be included in a particular process

Installing the Rational Process Workbench

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Contents

This chapter describes how to install the RPW tool and is organized as follows:

- *Hardware Requirements* on page 19
- *Software Requirements* on page 19
- *Installing the Rational Process Workbench Tool* on page 20

Hardware Requirements

The requirements for the RPW are listed below. For additional information, please see the `readme.txt`.

- System requirements to match the version of Rational Rose being used
- 120 MB minimum disk space

Software Requirements

Prior to installing the RPW, the following prerequisites must be met:

- One of these Microsoft Windows operating systems must be installed:
 - 98 SE, ME, or 2000
 - NT 4.0 SP6
 - XP
- Required supporting software:
 - Install Rose v.2001.03.00 or higher
 - HTML editor for content editing

- Optional supporting software, such as those listed below, could also be installed:
 - Rational ClearCase for configuration management
 - CorelDRAW 9.0 or higher for graphics enhancement

Installing the Rational Process Workbench Tool

Prerequisites

Before you begin the installation process, these prerequisites must be in place:

- Ensure all required and any optional supporting software is installed, as instructed.
- If you have previously installed RPW, uninstall it prior to re-installing this newer version.
- If you have installed a beta version of RPW, uninstall it now.

Installation

To install RPW follow these steps:

- 1 Insert the Installation CD into your system's CD drive.
- 2 The Rational Software Setup wizard guides you through the software installation. Click **Next** to proceed to the next screen in Steps 3 through 9.
- 3 On the first screen that displays, select **Next** to continue.
- 4 On the screen titled *Choose Product*, select **Rational Suite Enterprise**.
- 5 RPW requires a Rational Suite Enterprise license. If you haven't installed the required license yet, a dialog appears stating this fact. Select **OK** to continue.
- 6 On the screen titled *License Agreement*, select **Yes, I accept the agreement** after you've read the displayed information and if you agree to accept it.
- 7 On the screen titled *Select Configuration*, select **Custom**.
- 8 On the screen titled *Choose Features*, click on the box next to **Rational Process Workbench**.

Note: RPW requires Rational Rose, so if you've already installed Rose, then you can deselect any and all applications you don't want to install.
- 9 On the screen titled *Update Shared Components*, select **Next**.

10 On the screen titled Confirmation, select **Next** to start the file copying process.

Note: The installation program requires a reboot before finishing. After rebooting, do not start any applications until the installation has finished.

11 When this installation is complete, the RPW files are added to your system at **Start > Program Files > Rational Suite Enterprise > Rational Process Workbench**.

From this location, you can access:

- the *ReadMe* document, which is also found on the Installation CD
- complete RUP model and Process Content Library installation setup
- a link to the Rational Developer Network
- Release Notes, which are also found on the Installation CD

12 Run the Rational License Key Administrator to enter your licence for Rational Suite Enterprise so you can use RPW.

Installing the Process Content Library

Complete these steps to install the Process Content Library.

1 To begin installing the Process Content Library, browse to **Start > Program Files > Rational Suite Enterprise > Rational Process Workbench**. Click **Install RUP Model and Content Library**.

2 The InstallShield Wizard guides you through the software installation. Click **Next** to proceed to the next screen in steps 3 through 5.

3 On the screen titled *License Agreement*, select **Yes** after you've read the displayed information and if you agree to accept it.

4 On the screen titled *Choose Destination Location*, select the location where setup will install the rpw folder with RUP models and content libraries.

Note: Do not install the rpw folder to the root of a drive.

Click **Next** to continue.

5 On the screen titled *Setup Type*, select the type of setup you prefer. Click **Next** to start the file copying process.

6 On the screen titled *InstallShield Wizard Complete*, click **Finish** to finalize the installation.

Glossary

Activity. An activity describes an action that is performed by a role.

Artifact. An artifact describes a product of software engineering.

closure. See *process closure*.

Discipline. Disciplines are process elements that define distinct boundaries within a process. In RPW v.2001A.04.00, the word “workflow” was replaced by “discipline”.

Discipline workflows. Discipline workflows are abstract workflows that describe the overall activity model of a process.

operation. A service that can be requested from an object to effect behavior.

process. A software development process—the steps and guidelines by which to develop a system.

process closure. The process elements included in a process.

Process Content Library. Provides the process model with the accompanying text descriptions.

process model. Captures the design of a process. A process model defines a complete set of process elements and any processes that include these process elements in their specifications.

Role. Describes an agent in software engineering.

stereotypes. A type of modeling element that extends the semantics of the metamodel. Stereotypes must be based on certain existing types or classes in the metamodel. Stereotypes may extend the semantics, but not the structure of pre-existing types and classes.

Tools. A tool element describes the tool mentors for the particular tool used in the software engineering environment. A Tool represents a particular development tool used in an organization.

Tool Mentors. A recipe for how to perform specific process activities or steps using a specific software tool.

Web Site Form. The collection of HTML files and directory structure that constitutes the framework into which published process Web sites are generated.

Workflow. In RPW v.2001A.04.00, the word “workflow” was replaced by “discipline”.

Workflow Detail. A grouping of activities that are performed in close collaboration to accomplish some result.

