Rational Unified Process® Builder

Process Manager's Guide

VERSION: 2002.05.00

PART NUMBER: 800-025091-000

WINDOWS 98 SE/ME, NT, 2000, XP

Rational®
the **software development** company

FLEXlm and GLOBEtrotter are trademarks or registered trademarks of GLOBEtrotter Software, Inc. Licensee shall not incorporate any GLOBEtrotter software (FLEXlm libraries and utilities) into any product or application the primary purpose of which is software license management.

Portions Copyright ©1992-2001, Summit Software Company. All rights reserved.

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

Purify is licensed under Sun Microsystems, Inc., U.S. Patent No. 5,404,499.

GOVERNMENT RIGHTS LEGEND
Use, duplication, or disclosure by the U.S. Government is subject to restrictions set forth in the applicable Rational Software Corporation license agreement and as provided in DFARS 277.7202-1(a) and 277.7202-3(a) (1995), DFARS 252.227-7013(c)(1)(ii) (Oct. 1988), FAR 12.212(a) (1995), FAR 52.227-19, or FAR 227-14, as applicable.

WARRANTY DISCLAIMER
This document and its associated software may be used as stated in the underlying license agreement. Rational Software Corporation expressly disclaims all other warranties, express or implied, with respect to the media and software product and its documentation, including without limitation, the warranties of merchantability or fitness for a particular purpose or arising from a course of dealing, usage, or trade practice.

Contents

Preface

This document describes how to use the RUP Builder, which is a part of the Rational Unified Process® or RUP® product and is available for Windows installations only. Using previously built plug-ins, RUP Builder allows process managers to customize RUP processes to meet the individual needs of various software development projects and organizations.

Audience

This guide is intended for all readers involved in managing their process assets, including process managers, project leaders, and analysts.

Other Resources

You can view online Help whenever you need assistance by doing the following:

- From any RUP Builder display, click the **Help** icon on the toolbar or select the **Help** menu item.

This manual is available in both printed and PDF formats. The PDF version is available on the Rational Suites® Documentation CD.

For information on developing process plug-ins using Rational Process Workbench™ (RPW), refer to the RUP Resource Center (www.rational.net/rupcenter/). The paper is titled *Creating Process Plug-ins Using Rational Process Workbench*.

For information about working with RPW, see the Rational Process Workbench manuals titled *Getting Started* and *Process Developer's Guide*.

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

If you have questions about installing, using, or maintaining this product, contact Rational Technical Support as follows:

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
Europe, Middle East, Africa	+31 (0)20 4546 200 Netherlands	+31 (0)20 4546 202 Netherlands	support@europe.rational.com
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 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)

Introducing the RUP Builder

1

Contents

This chapter is organized as follows:

Overview

RUP Builder is one key component of the process toolkit provided by Rational Software. This toolkit includes process content, which is combined with tools to enable RUP to be customized and deployed to a particular project team. RUP Builder enables process managers to configure their process to their specification using a predefined set of process plug-ins, which can then be deployed to the project team.

Using RUP Builder, process managers can create a precise process for a project team, thereby improving that team's understanding and effective use of that process. The **base process** is the unalterable foundation for any configuration. The **plug-ins** applied to the base process may be provided by Rational Software or may be specialized plug-ins provided by third parties.

When you are planning a project, you usually want an instance of a process to follow; a process that specifically meets the particular needs of your project. RUP Builder lets you tailor the RUP to meet the specific needs of your development organization by creating a process plug-in that changes the underlying process model.

Figure 1 illustrates a usage model for how RUP Builder can be used.

```
                          ┌──────────────┐
                          │   Open       │
                          │  RUP Builder │
                          └──────┬───────┘
                                 │
                          ┌──────┴───────┐
                          │   Open       │
                          │  Repository  │
                          └──────┬───────┘
                                 │
                          ┌──────┴───────┐
                          │ Load plug-ins│
                          └──────┬───────┘
                                 │
                               ╱ ╲
                              ╱Work╲
  ┌───────────────┐   No     ╱ with  ╲
  │ Create your   │◄────────╱predefined╲
  │ custom        │         ╲configuration?╱
  │ configuration │          ╲         ╱
  └───────┬───────┘           ╲       ╱
          │                    ╲     ╱
          │                      │ Yes
          ▼                      ▼
  ┌───────────────┐     ┌───────────────┐
  │ Publish custom│     │ Publish predefined│
  │ configuration │     │ configuration │
  └───────────────┘     └───────────────┘
```
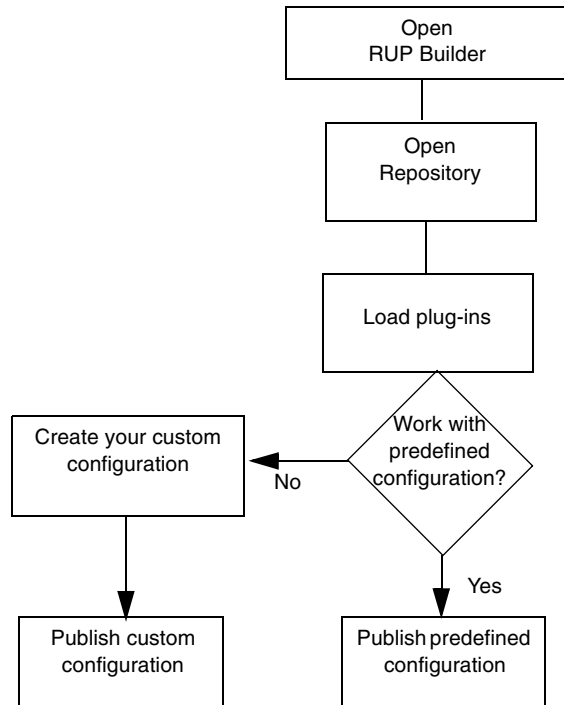
RUP Builder Basic Concepts

RUP Builder is a *process customization* application. Using a simple building block paradigm, it provides a means to define process configurations to include different combinations of *process plug-ins*.

Each process plug-in adds process descriptions for a specific area of concern or interest. Any standard, default RUP installation, which also includes RUP Builder, contains a base RUP Repository that holds a predefined set of RUP plug-ins. Using RUP Builder, this set can be augmented to include separately delivered, third-party process plug-ins.

The ultimate goal of using RUP Builder is to publish a process Web site and make it available to your development organization. This function is completely integrated in RUP Builder and generating a ready-to-use customized process Web site is a straightforward operation.

The RUP Builder provides you with a workspace where you can define your particular process configurations and from where you can publish your process configurations into fully functioning process Web sites. The RUP Builder operates on a file called the *Process Repository*, which basically consists of the set of plug-in files that you have decided to load, along with any process configurations you have defined over those plug-ins.

Repository

A repository is comprised of the base process, the plug-ins that have been installed, and any configurations that have been created.

Configurations

Typically, an organization wants an instance of process that it will follow; a process that specifically meets the needs of this organization's projects. The RUP framework, which includes RUP Classic (the base RUP framework, and the business modeling and real-time plug-ins) can be configured to produce a process instance that reflects the requirements of specific projects. In other words, you can configure specific processes for each project.

After a process configuration is created, it's deployed or delivered to the project team for use on a specific project by publishing it to a Web site.

By publishing a configuration, the process manager can deploy that process to a specific project team. You can either publish a predefined RUP configuration, or you can create and publish a custom configuration.

Configurations can only be published if they are non-conflicting; that is, if the combination of plug-ins selected do not conflict with each other. Examples may be for a particular technology; for example, Microsoft and IBM plug-ins would be in conflict.

Process Plug-ins

These are fractions of process that are applicable to your organization, but are not covered to the preferred level of detail in the basic RUP framework. This includes examples of such plug-ins for vertical markets or specific technologies.

Currently, these plug-ins are available:

- from Rational Software:
  - Business Modeling
  - RealTime

- from third parties:
  - BEA WebLogic Server
  - HP Bluestone
  - IBM WebSphere
  - Microsoft WinDNA
  - J2EE
- from RUP Resource Center on the Rational Developer Network
  - Microsoft .NET
  - UX modeling

Intended use

RUP Builder is used to customize RUP processes to meet the needs of individual software development projects and organizations.

RUP Builder automates the process engineering activity of customizing the RUP process framework, based on pre-built process plug-ins and the subsequent publishing and generation of the resulting process Web site to make it appropriate for a given project.

Process manager is the role associated with using RUP Builder. Although RUP Builder is meant to simplify the activities involved in process customization, some fundamental understanding of the underlying process engineering principles involved is assumed.

The generated process is still a process, not a project instance of a process. This process will still need to be instantiated for the project in terms of the project Web site or development case.

The process configuration paradigm

RUP Builder supports a simple "building block" process configuration paradigm. Using the RUP Builder process, managers specify their process configurations by selecting combinations of process plug-ins to be superimposed on the RUP process foundation. As new plug-ins become available, both from Rational and from third-parties, process managers bring them in simply by loading them into the RUP Builder workspace where they become configurable.

Using RUP Builder

2

Contents

This chapter is organized as follows:

- *Getting Started* on page 13
- *RUP Builder Main Display* on page 15

Getting Started

The information provided here is a small part of the standard Rational Suite install process, which includes space checks, license agreements, and installation conflict resolution.

When you've finished installing RUP Builder, you can create, select, and deploy a configuration.

Installing RUP Builder

RUP Builder is installed as part of the Rational® Suite or RUP Windows install. The standard installation is not described here. For information on this topic, please see the *Rational Suite Installation Guide* or the *Rational Unified Process Installation Guide, Windows* for specific instructions.

Starting RUP Builder

RUP Builder is started from the Windows **Start** menu and operates as a standalone Windows application. The Repository Open dialog displays.
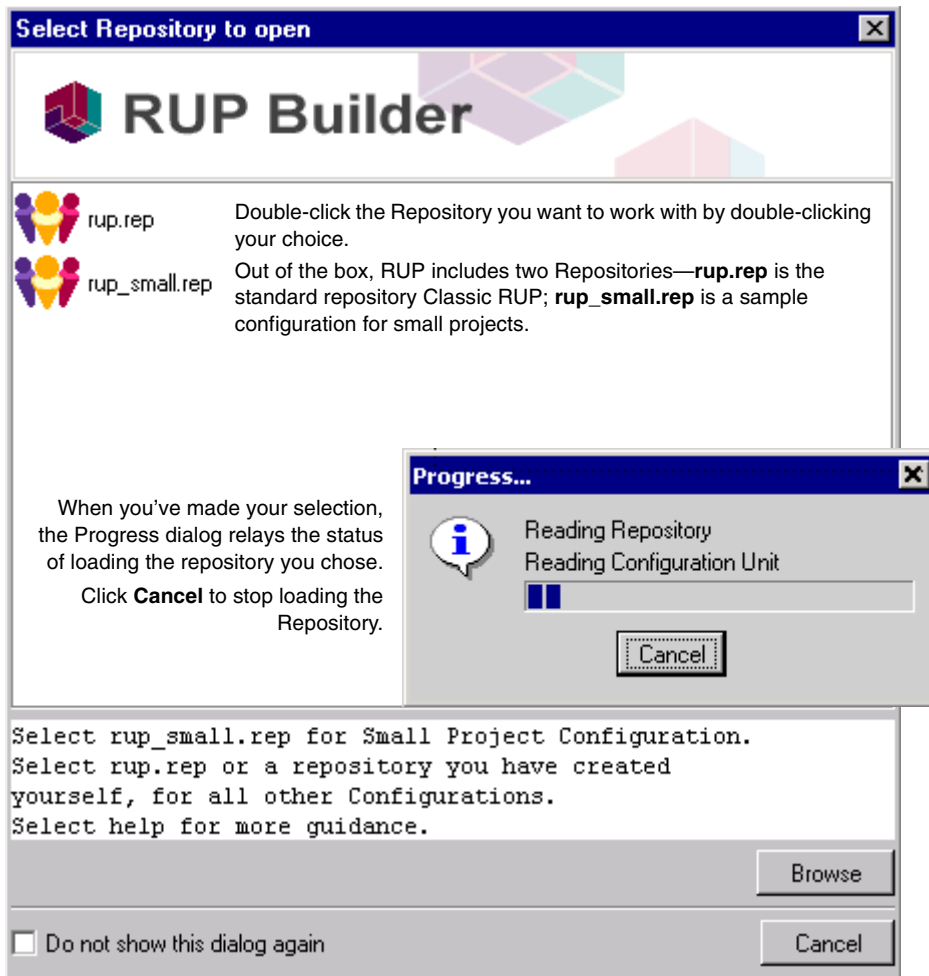
Two repositories are preinstalled with RUP Builder:

- rup.rep provides Classic RUP and all process plug-ins

- rup_small.rep provides a sample configuration for small projects

RUP Builder Main Display

After loading the Repository, the main display is opened.
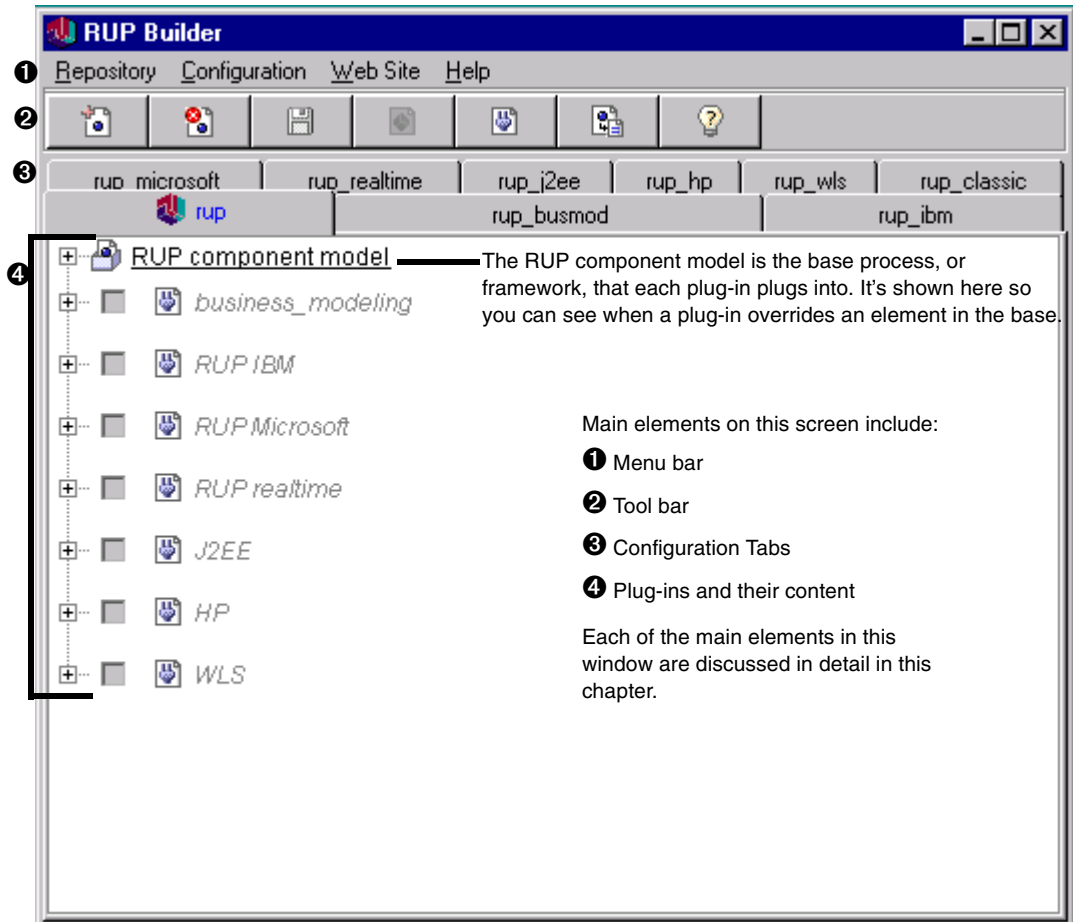
From the main display in RUP Builder, you can select or change an existing configuration, or add a new configuration.

There are a number of ways you can use the main elements, with either left or right mouse clicks:

- make your selections from the menu bar
- click the appropriate items on the tool bar
- click on the Configuration Tabs

Expand the view to show the components that make up a plug-in.

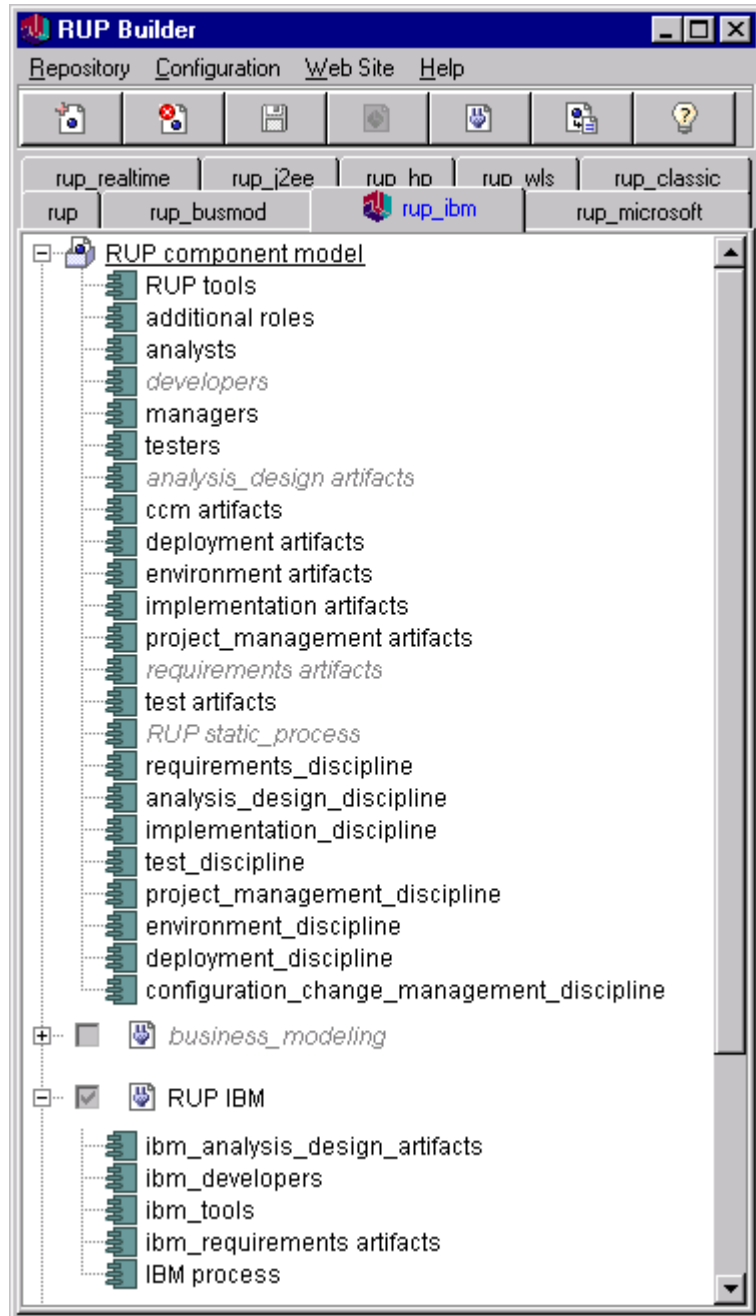You can input the details of the various plug-ins in the expanded view. It also indicates which components are active in the presented configuration.

The anatomy of plug-ins, and the base process, is straightforward and each is defined by a set of components.

Selecting a plug-in activates its components, which in turn deactivates or replaces certain components in the base process, depending on how they were modeled originally.

We've selected the RUP IBM plug-in, therefore its content overrides a number of the process elements shown in gray under the RUP component model.

RUP Builder uses those process elements—disciplines, developers, analysis_design artifacts, requirements artifacts, and RUP static_process—from the plug-in.

RUP Builder

Repository   Configuration   Web Site   Help

rup_realtime | rup_j2ee | rup_hp | rup_wls | rup_classic
rup | rup_busmod | rup_ibm | rup_microsoft

- RUP component model
  - RUP tools
  - additional roles
  - analysts
  - *developers*
  - managers
  - testers
  - *analysis_design artifacts*
  - ccm artifacts
  - deployment artifacts
  - environment artifacts
  - implementation artifacts
  - project_management artifacts
  - *requirements artifacts*
  - test artifacts
  - *RUP static_process*
  - requirements_discipline
  - analysis_design_discipline
  - implementation_discipline
  - test_discipline
  - project_management_discipline
  - environment_discipline
  - deployment_discipline
  - configuration_change_management_discipline
- *business_modeling*
- RUP IBM
  - ibm_analysis_design_artifacts
  - ibm_developers
  - ibm_tools
  - ibm_requirements artifacts
  - IBM process

Configurations

A configuration is defined as a collection of process plug-ins and a particular base process that fulfil an intended purpose; for example, the Microsoft Process is a configuration that includes RUP Classic and the Microsoft WinDNA plug-in.

Available plug-ins

Table 1 indicates the available plug-ins and shows what other plug-ins each works with.

Table 1   Available Plug-ins

Plug-in Name	Works with the base RUP framework and
Business Modeling	RealTime IBM WebSphere Microsoft WinDNA J2EE HP WLS
RealTime	Business Modeling
IBM WebSphere	Business Modeling
Microsoft WinDNA	Business Modeling
J2EE	Business Modeling
HP Bluestone	dependent on J2EE, works with Business Modeling
BEA WebLogic Server (WLS)	dependent on J2EE, works with Business Modeling

Menu Bar

Repository

When you install RUP, you install both RUP Classic and RUP Builder.

RUP Classic is the prepublished Web site comprised of the base RUP framework and two plug-ins—*business modeling* and *realtime*.

RUP Builder lets you select a particular process configuration, or create a new one, from the provided plug-ins. A process configuration may then be published as a Web site.

The initial Repository includes the base framework, called the **RUP component model** and the predefined configurations that are delivered with the RUP and installed from the Rational Suite Installation CD.

As mentioned earlier in *Chapter 1*, there are two Repositories installed from the Rational Suite Installation CD: The standard RUP Repository, which allows you to add future plug-ins, and an example Small Project configuration.
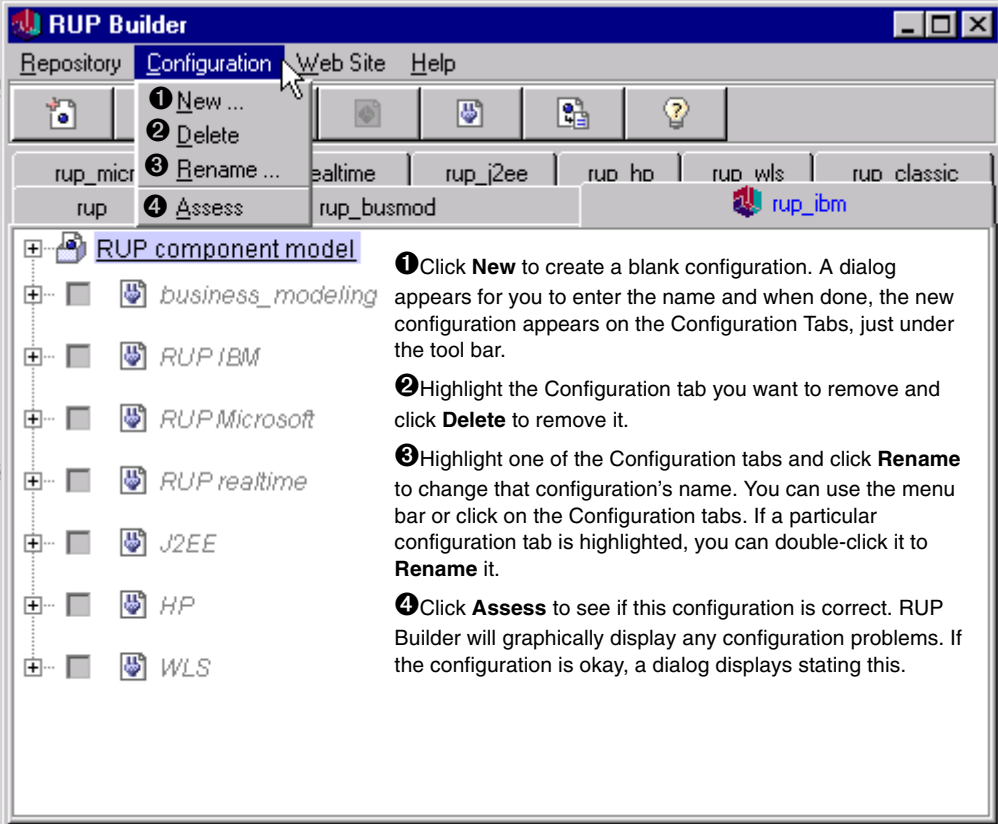
The **Repository** functionality is shown and explained here.
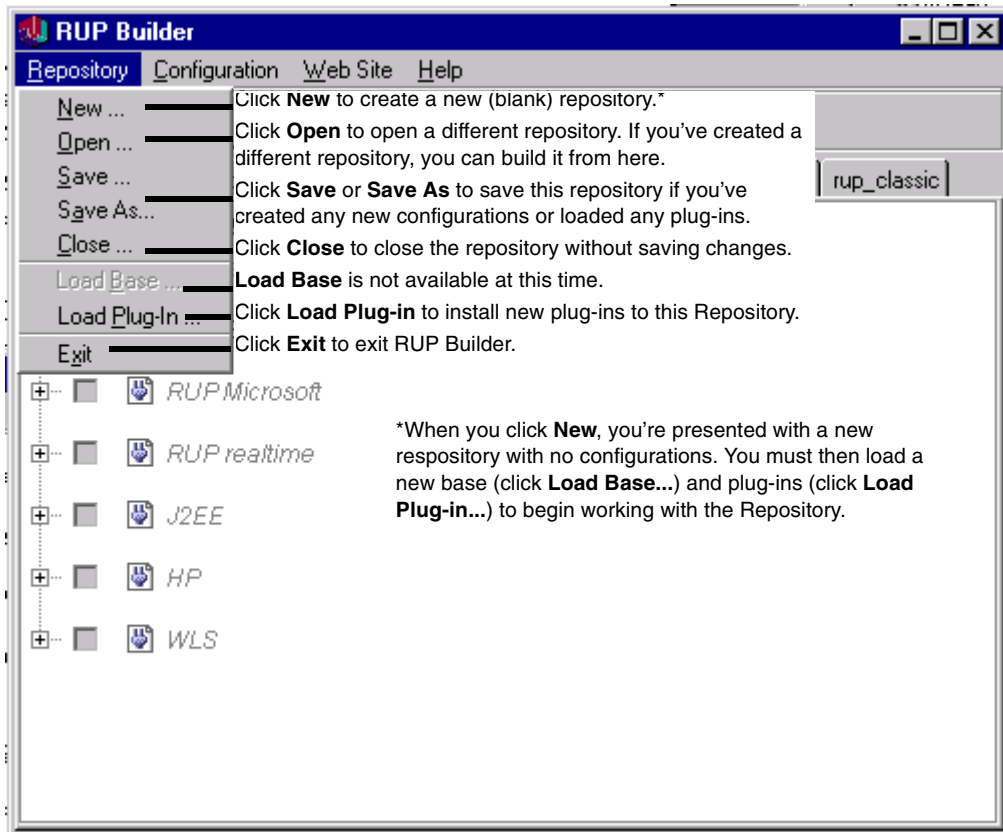
As you navigate the **Repository** menu, dialogs are displayed to lead you through the process.

Configuration

The **Configuration** functionality is shown and explained here. The configurations are displayed on the left-hand side of the pane.,

❶Click **New** to create a blank configuration. A dialog appears for you to enter the name and when done, the new configuration appears on the Configuration Tabs, just under the tool bar.

❷Highlight the Configuration tab you want to remove and click **Delete** to remove it.

❸Highlight one of the Configuration tabs and click **Rename** to change that configuration's name. You can use the menu bar or click on the Configuration tabs. If a particular configuration tab is highlighted, you can double-click it to **Rename** it.

❹Click **Assess** to see if this configuration is correct. RUP Builder will graphically display any configuration problems. If the configuration is okay, a dialog displays stating this.

Web Site

The **Web Site** functionality is shown here.

Select **Publish this configuration** to publish the Web site for the selected configuration. This checks the closure of the site for completeness and general errors, and publishes the Web site.

Select **View Published Web Site** to do just that.

Click **Publish this configuration** to display the Publish Output Directory dialog shown here.

Working with RUP Builder

3

Contents

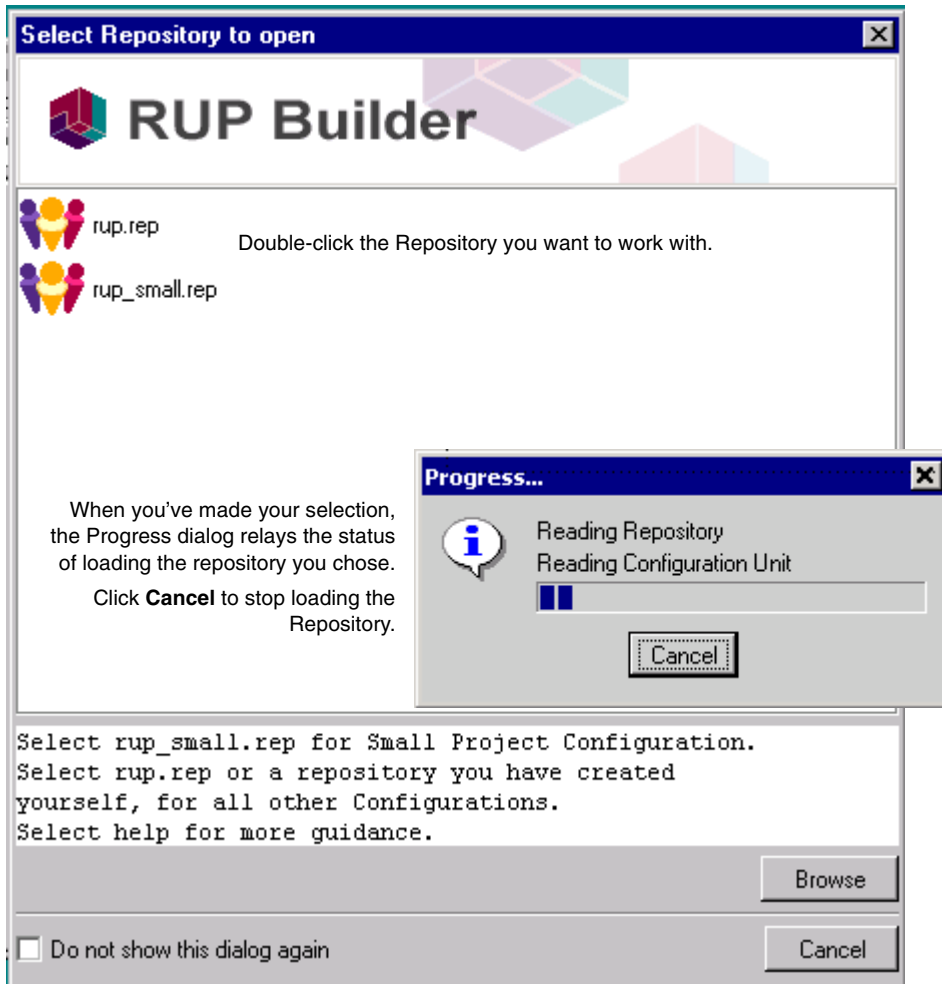This chapter is organized as follows:

RUP Builder supports two system uses: the ability to design a configuration based on process plug-ins and the ability to deploy (publish) that configuration as a Web site. Before you can publish a process configuration, you first have to create one.

After a process configuration is created, it can be deployed or delivered to the project team for use on a specific project by publishing it to a Web site.

By publishing a configuration, the process manager can deploy that process to a specific project team. You can either publish a predefined RUP configuration, or you can create and publish a custom configuration.

Opening a Process Repository

A process repository holds the base process where you configure plug-ins. There are two repositories from which to select: the Standard Repository and the Example Small Projects Repository.

Select Repository to open

RUP Builder

rup.rep   Double-click the Repository you want to work with.

rup_small.rep

When you've made your selection, the Progress dialog relays the status of loading the repository you chose.

Click **Cancel** to stop loading the Repository.

Progress...

Reading Repository
Reading Configuration Unit

Cancel

```
Select rup_small.rep for Small Project Configuration.
Select rup.rep or a repository you have created
yourself, for all other Configurations.
Select help for more guidance.
```

Browse

☐ Do not show this dialog again   Cancel

To open a different process repository, select another repository by clicking **Repository > Open** on the menu bar of the main display.

For introductory information on the **Repository** file menu item, see Chapter 2, under the headings *File Menus, Repository.*

1 Open an existing *Process Repository* file. Initially, this is the RUP Process *Repository file* that comes bundled with RUP Builder. Over time, you will load new plug-in files, which will expand this repository.

RUP Builder's main display presents you with a two-dimensional view of your repository, showing the currently loaded plug-ins and the configurations you have defined over them. The configurations, or plug-ins are presented using tabs, showing one tab for each individual process configuration, as displayed here.
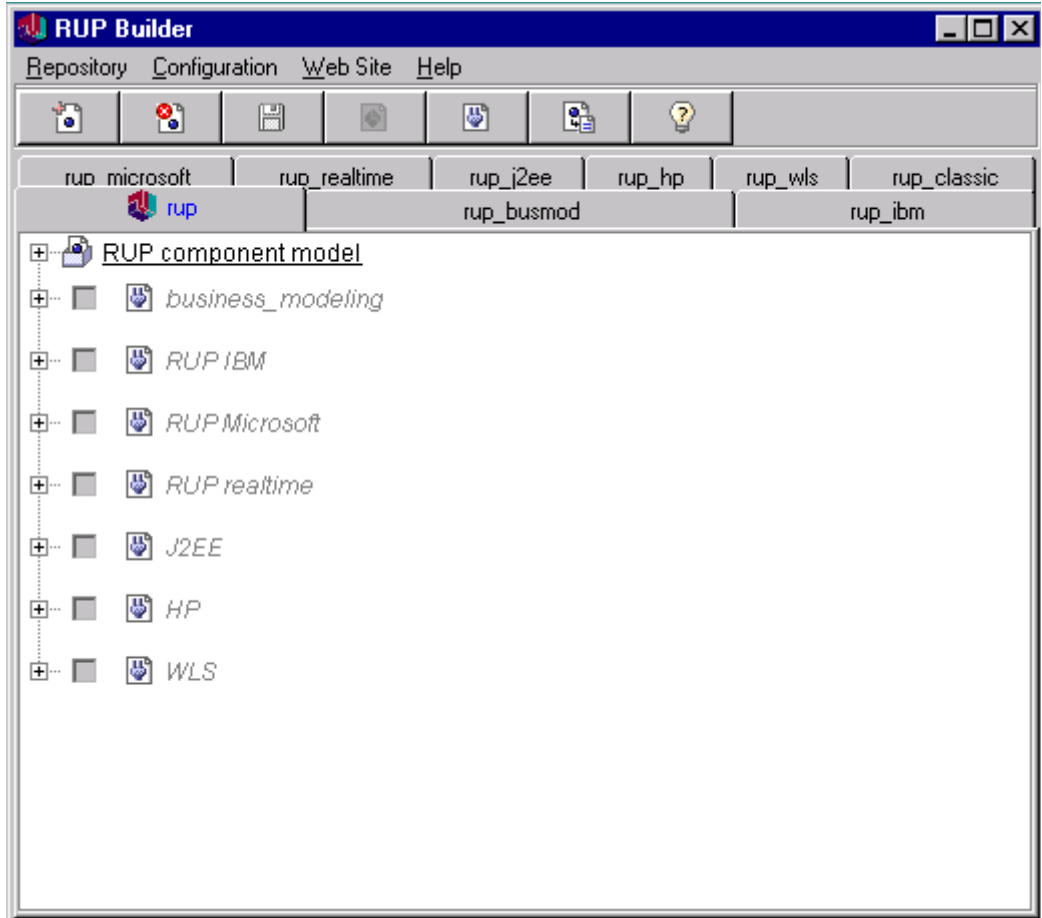
Loading Plug-ins

A collection of plug-ins are installed with RUP Builder and more plug-ins will become available in the future.

1 From the menu bar on the main display, select **Repository > Load Plug-in** to install a new process plug-in.

2 The system displays the Load process extension dialog from which you can select the plug-in you want to download.

3 The selected plug-in appears in the tree view and in the Configuration tabs.

Working with Predefined Configurations

If you'll be working with the predefined configurations, follow these steps.

Using a Predefined Configuration

1 From the menu bar on the main display, choose **Configuration** to show a list of available plug-ins. Click the Configuration tab for the plug-in of your choice.

Publishing a Predefined Configuration

1 The system displays predefined configurations. From the menu bar, select **Web Site > Publish this configuration**.

2 RUP Builder displays a dialog that asks where you want to publish to. Browse to your location of choice and click **OK**. Any errors are displayed in an Error Log window, which can be saved.

Working with Custom Configurations

If you decide you want to work with custom configurations, this is where you'll start.

## Creating Customized Process Configurations

1 From the menu bar on the main display, click **Configuration**, then click **New** to create a new configuration.

2 Enter the name of the configuration.

3 The configuration must be built on the base RUP framework, because this provides a framework that process plug-ins can be plugged into. A list of process plug-ins that can be selected for a configuration are stored in the repository and new plug-ins can be installed there as well.

4 Select the process plug-ins required for the configuration by clicking the particular ones you want.

5 The system displays a process representation with this plug-in installed. This shows the elements that have been overridden or changed by the plug-in. If the plug-in isn't compatible with this installation, this will show on the process representation.
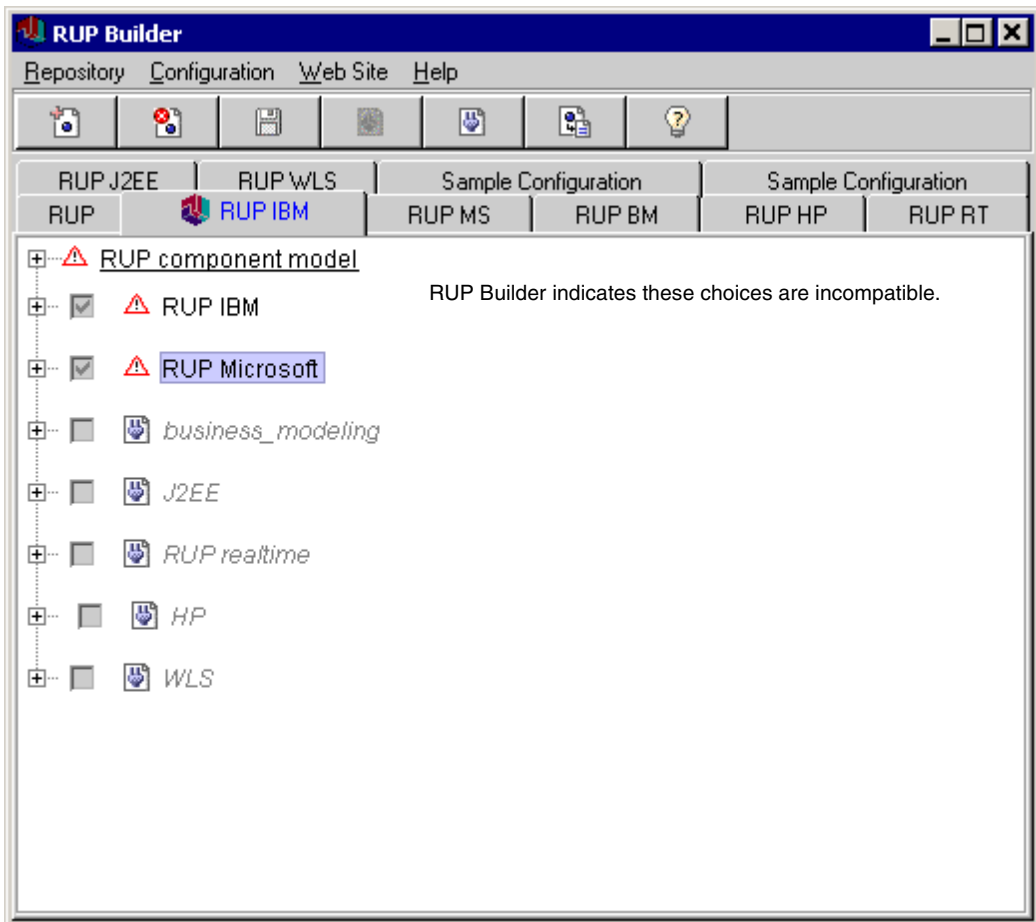
The plug-in presentation is a tree presentation and expanding a plug-in reveals its constituent components. As you select new plug-ins to be included in your configuration, notice that RUP Builder will deselect components that are replaced by other components in the particular configuration.

Conflicts between plug-ins in a particular configuration are rooted in conflicts among their components and, if opened, conflicting components are visually indicated in the display.
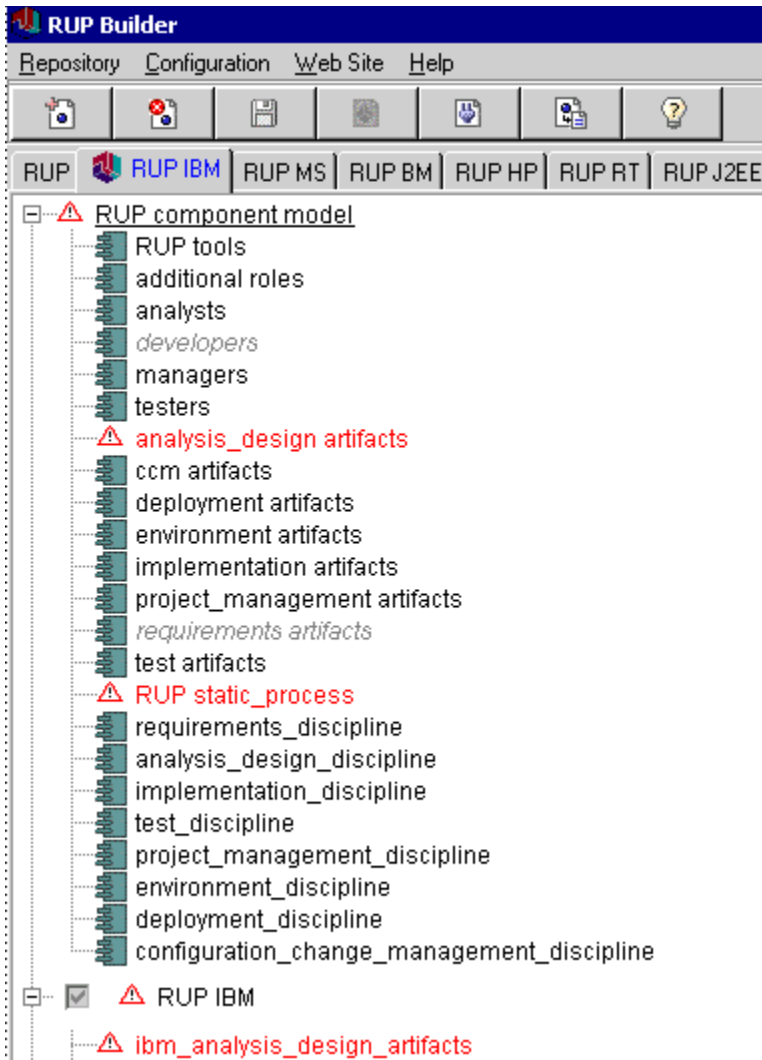
6 When you're satisfied with the configuration, click **Save** to save this configuration to the repository.
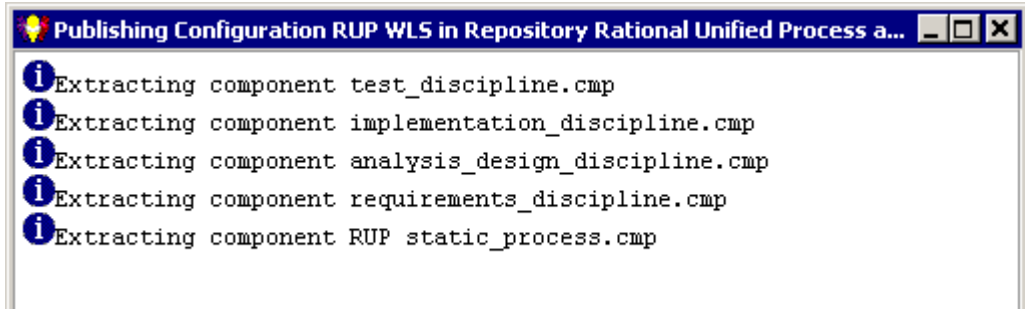
Publishing Custom Configurations

1 On the main display, click the Configuration tab of your chosen configuration, then click **Web Site > Publish this configuration**.

2 A dialog displays where you enter the file location where you want the configuration to be deployed, which can be any empty file location.
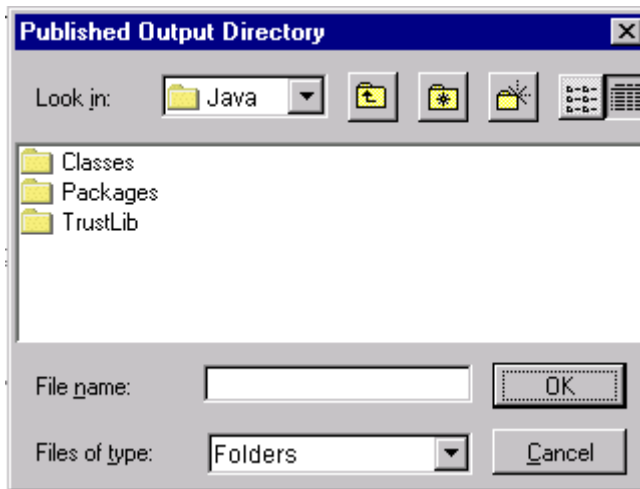
3 This is the Graphics dialog for the publish configuration functions.
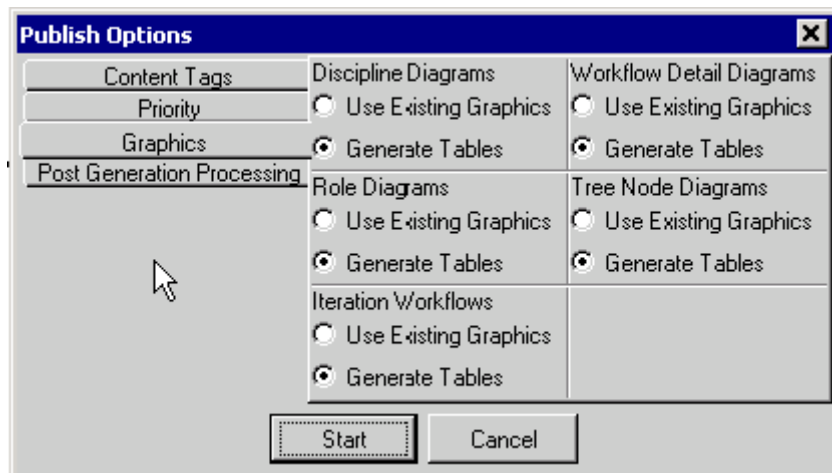
4 The system displays the configuration and any errors encountered. You can save these errors to a text file.

```
Publishing Configuration RUP WLS in Repository Rational Unified Process a...
ℹ Extracting component test_discipline.cmp
ℹ Extracting component implementation_discipline.cmp
ℹ Extracting component analysis_design_discipline.cmp
ℹ Extracting component requirements_discipline.cmp
ℹ Extracting component RUP static_process.cmp
```

Assessing your Configuration

1 From the menu bar on the main display, select **Configuration > Assess**. A dialog displays, listing possible conflicts with the configuration that you selected.