



Installation Guide

IBM Rational DOORS
Rational DOORS Installation Guide
Release 9.2

Rational DOORS
Rational DOORS Integration Products

Before using this information, be sure to read the general information under the "Notices" chapter on page 107.

This edition applies to **IBM Rational DOORS, VERSION 9.2**, and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this manual

Welcome to the IBM® Rational® DOORS® product family, a powerful set of tools that help you capture, track, and manage your user requirements.

This document contains information about installing and setting up your Rational DOORS products.

For information about	See
What is new in Rational DOORS	The Rational DOORS readme file
How to set up licenses to use Rational DOORS	<i>Rational License Server TL Licensing Guide</i>
How to use Rational DOORS	<i>Getting Started with Rational DOORS</i> <i>Using Rational DOORS</i>
How to use the Rational DOORS integrations	<i>Using Rational DOORS for ClearCase Interface</i> <i>Using Rational DOORS for ClearQuest Interface</i> <i>Using Rational DOORS for HP Quality Center Interface</i> <i>Using Rational DOORS for Rational Rose Interface</i> <i>Using Rational DOORS for Serena PVCS Version Manager Interface</i>
How to set up and manage Rational DOORS	<i>Managing Rational DOORS</i>
How to write requirements	<i>Get It Right the First Time</i>
The DXL programming language	<i>DXL Reference Manual</i>
How to integrate Rational DOORS with other applications	<i>Rational DOORS API Manual</i>

These documents are on the Rational Information Center at <http://publib.boulder.ibm.com/infocenter/rsdp/v1r0m0/index.jsp>.

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Introduction

- What is Rational DOORS?
- What types of Rational DOORS installation can I have?
- What are the licensing options?
- What next?

What is Rational DOORS?

The Rational DOORS product family is a package of requirements management tools designed to help enterprises effectively manage projects from the concepts phase right through to completion.

The products in the Rational DOORS family allow everyone in your organization to participate in and contribute to the requirements management process.

Product name	Description
IBM Rational DOORS	At the heart of the family is Rational DOORS, an application that runs on Windows [®] and UNIX [®] systems. With its own built-in database, Rational DOORS provides a rich set of features to help you capture and manage requirements.
IBM Rational DOORS Web Access	Rational DOORS Web Access is a web client that allows you to access modules in your Rational DOORS database.

Product name	Description
IBM® Rational® DOORS® Analyst Add On	<p>Rational DOORS Analyst Add On is a modeling environment available inside Rational DOORS. Rational DOORS Analyst Add On enables users to augment and visualize requirements using diagrams, symbols, and pictures based on the standardized, visual modeling language UML 2.0, which are embedded directly within your Rational DOORS modules.</p> <p>Rational DOORS Analyst Add On is a natural extension to the rich capabilities already available in Rational DOORS. With its powerful, yet easy-to-learn visual modeling features, Rational DOORS Analyst Add On provides complete freedom of expression when defining requirements. With Rational DOORS Analyst Add On you can easily augment your requirements descriptions with pictures, diagrams and models, to give extra life to and simplify understanding of requirements.</p>
IBM® Rational® DOORS® for ClearCase® Interface	<p>Rational DOORS for ClearCase Interface is one of the Rational DOORS integration products. It lets you transfer data between Rational DOORS and ClearCase®, so you can synchronize configuration management regimes and establish traceability between information managed in Rational DOORS and versions managed by ClearCase.</p>
IBM® Rational® DOORS® for ClearQuest® Interface	<p>Rational DOORS for ClearQuest Interface is one of the Rational DOORS integration products. It lets you transfer data between Rational DOORS and ClearQuest®. The integration tracks a CR through its entire lifecycle providing status information about Rational DOORS artifacts impacted by their implementation such as requirements and tests</p>
IBM® Rational® DOORS® for HP Quality Center Interface	<p>Rational DOORS for HP Quality Center Interface is one of the Rational DOORS integration products. It lets you transfer data between Rational DOORS and Quality Center, and allows you to add traceability to the testing process.</p>

Product name	Description
IBM® Rational® DOORS® for Rational Quality Manager® Interface	Rational DOORS for Rational Quality Manager Interface is one of the Rational DOORS integration products. It lets you transfer data between Rational DOORS and Rational Quality Manager®, so you can add traceability to the testing process.
IBM® Rational® DOORS® for Rational Rose® Interface	Rational DOORS for Rational Rose Interface is one of the Rational DOORS integration products. It lets you transfer data between Rational DOORS and Rational Rose®, so you can add traceability to your software design process.
IBM® Rational® DOORS® for Serena PVCS Version Manager Interface	Rational DOORS for Serena PVCS Version Manager Interface is one of the Rational DOORS integration products. It lets you transfer data between Rational DOORS and Serena PVCS Version Manager. It allows complete life cycle traceability from requirements through to configuration management.

What types of Rational DOORS installation can I have?

There are three types of Rational DOORS installations:

Setup type	Description
Rational DOORS Client	Installs Rational DOORS client application files on a local machine. The client can either access a database on the local machine, or on a networked machine. In the course of the installation, you can choose to install the Rational DOORS for Rational Quality Manager Interface. You can set up licensing for local or remote access.
Rational DOORS Server	Installs the Rational DOORS database server on a local machine. In the course of the installation, you can choose to install the Rational DOORS server interface services. You can set up licensing for local or remote access.

Setup type	Description
Rational DOORS Example Data	Installs the Rational DOORS example database on a local machine. Users can familiarize themselves with Rational DOORS without accessing production data or installing a local Rational DOORS database server.

What are the licensing options?

You must have either a software or hardware license to run any of the Rational DOORS products.

Unless you are running Rational DOORS 8.2 or Rational DOORS 8.3, and have a valid maintenance agreement, you must request a new software license for Rational DOORS 9.2. Software licenses for all versions of Rational DOORS 8.1 and earlier are not compatible with Rational DOORS 9.2.

Rainbow dongles are no longer supported by Rational DOORS. Customers who have previously used Rainbow dongles to run Rational DOORS must contact their local Support department. Other existing hardware licenses do not need to be replaced.

For more information about licensing, see the *Rational License Server TL Licensing Guide*, which is available from the **Rational Lifecycle Solutions DVD**, and from our Web site at <http://www.ibm.com/software/awdtools/doors/support/doc.html>.

What next?

The following table describes the different Rational DOORS installation options that are covered in this manual.

If you are installing Rational DOORS 9.2 on	Go to
A Windows machine that does not have a previous version of Rational DOORS installed	“New installation of Rational DOORS on Windows,” on page 9
A Windows machine that is currently running a version 5,6,7 or 8 of Rational DOORS	“Upgrading from version 5, 6, 7 or 8,” on page 27

If you are installing Rational DOORS 9.2 on	Go to
A Windows machine that is currently running 9.0 or 9.1 of Rational DOORS	“Upgrading from version 9.0 and later,” on page 23
A UNIX machine	“Installing the Rational DOORS server on UNIX,” on page 37
A Citrix machine	“Installing and using Rational DOORS on Citrix,” on page 35

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New installation of Rational DOORS on Windows

This chapter describes how to install and set up Rational DOORS 9.2 on a machine that does not have a previous version of Rational DOORS installed. If you want to upgrade your current version of Rational DOORS, follow the instructions in either “Upgrading from version 9.0 and later,” on page 23 or “Upgrading from version 5, 6, 7 or 8,” on page 27.

This chapter contains the following:

- Installing the Rational DOORS database server
- Installing the Rational DOORS client
- Installing Rational DOORS for Rational Quality Manager Interface
- Silent installation
- Starting Rational DOORS
- RDS, the Rational DOORS database and UUIDs
- Installing the Rational DOORS Example Data
- Uninstalling Rational DOORS

Installing the Rational DOORS database server

Follow these steps to install the Rational DOORS database server.

Note If you are installing both the Rational DOORS client and the Rational DOORS database server on the same machine, install the Rational DOORS client first. The Rational DOORS database server and the Rational DOORS client share components. If you install the server before the client, you might need to restart your machine during the client installation. For information about the client installation, see “Installing the Rational DOORS client,” on page 12. When you have installed the Rational DOORS client, follow the steps to install the Rational DOORS database server.

1. Check that you meet the system requirements. Details of system requirements are on our Web site at <http://www-01.ibm.com/software/awdtools/doors/sysreqs/>.

2. Make sure the IBM® Rational® License Server TL is installed on your system. For information about installing the Rational License Server TL, see the *Rational License Server TL Licensing Guide*, which is available from the **Rational Lifecycle Solutions DVD**, and from our Web site at <http://publib.boulder.ibm.com/infocenter/rsdp/v1r0m0/index.jsp>.
3. Make sure that you are logged on to your computer as the local Administrator, and not a user with Administrator privileges.
4. Shut down all other applications. In particular, shut down Microsoft® Office applications, including the Microsoft Office toolbar.
5. You can either install from the Rational Solutions DVD or from Rational DOORS software downloaded from the Rational Web site.

If you are installing from DVD, put the **Rational Lifecycle Solutions DVD** into your DVD-ROM drive, browse to the Rational DOORS server software and click to install. The Rational DOORS database server installer runs, and the **Welcome** screen is displayed.

If you downloaded the Rational DOORS database server software from the Web site, navigate to the file you downloaded, and double-click it. The Rational DOORS database server installer runs, and the **Welcome** screen is displayed.

6. Click **Next**.
The **License Agreement** screen is displayed.
7. If you accept the terms of the license agreement, select the **I accept...** option and click **Next**.
If you do not have a Rational DOORS client installed on your machine, the **Destination Folder** screen is displayed. If you have a Rational DOORS client installed, the **Setup Type** screen is displayed. Go to step 9.
8. Enter the path to the folder you want to use for your Rational DOORS installation, or leave the default.

If you want to change the directory:

- a. Click the **Change** button.
- b. Browse to the directory you want to install to.
- c. Click **OK**.

The **Setup Type** screen is displayed.

9. Select either the **Custom** setup type or the **Typical** setup type, and click **Next**.

The **Custom** setup type installs the Rational DOORS database server and the Rational DOORS server interface services. These allow Rational DOORS to interface with selected other products, for example Rational Requirements Composer. For information about using the **Custom** setup type to install, see “Installing the Rational DOORS server interface services on Windows,” on page 41.

Note This method of integrating with other products is not used for integrations like Rational DOORS for ClearCase Interface, Rational DOORS for ClearQuest Interface, and so on. For information about installing these integrations, see the appropriate chapter in this guide.

The **Typical** setup type installs the Rational DOORS database server.

The **DOORS Database Server Settings** screen is displayed.

10. Enter the Port Number and the Data Directory.
 - a. In **Port Number**, type the port number to be used by your Rational DOORS database server. Do not use a number lower than 1000. The default port used by Rational DOORS is 36677.
 - b. In **Data Directory**, type the path to the directory you want to use for your Rational DOORS database. This directory must be on the local machine and is where your data and user information are stored. Rational DOORS does not support mapped drives for data.
 - c. Click **Next**.

Note If the port you specified is already being used by another application, a message is displayed. Click **OK**, type a different port number and click **Next**.

The **Ready to Install the Program** screen is displayed.

The settings you defined in the previous steps are displayed. Use the **Back** button if you want to change any of your settings.

11. Click **Install**.
12. When all the files are installed, the **Finish** screen is displayed. Click **Finish** to complete the installation.

Installing the Rational DOORS client

If you are installing both the Rational DOORS client and the Rational DOORS database server on the same machine, install the Rational DOORS client first.

1. Ensure that you have a Rational DOORS 9.2 license. For more information about licensing, see the *Rational License Server TL Licensing Guide*, which is available from the **Rational Lifecycle Solutions DVD**, and from our Web site at <http://publib.boulder.ibm.com/infocenter/rsdp/v1r0m0/index.jsp>.
2. Check that you meet the system requirements. Details of system requirements are on our Web site at <http://www-01.ibm.com/software/awdtools/doors/sysreqs/>.
3. Make sure the Rational License Server TL is installed on your system. For information about installing the Rational License Server TL, see the *Rational License Server TL Licensing Guide*.
4. Make sure that you are logged on to your computer as the local Administrator, and not a user with Administrator privileges.

If you cannot log on to your computer as the local Administrator, see “Installing Rational DOORS as a non-admin user,” on page 99.

5. Shut down all other applications. In particular, shut down Microsoft Office applications, including the Microsoft Office toolbar.
6. You can either install from the Rational Solutions DVD or from Rational DOORS software downloaded from the Rational Web site.

If you are installing from DVD:

- a. Put the **Rational Lifecycle Solutions DVD** into your DVD-ROM drive, browse to **Rational Lifecycle Solutions Clients**, and click to install.

The **Rational Lifecycle Solutions Setup** runs, and the **Welcome** screen is displayed.

- b. Click **Next**.

The **License Agreement** screen is displayed.

- c. If you accept the terms of the license agreement, select the **I accept...** option and click **Next**.

The **Select Products** screen is displayed.

- d. If you only want to install Rational DOORS, clear all the other options and click **Next**. Go to step 9.

For information about installing products other than Rational DOORS, see the appropriate installation manual, which is available from the **Rational Lifecycle Solutions DVD**.

If you downloaded the Rational DOORS client software from the Web site, navigate to the file you downloaded, and double-click it.

The **Welcome** screen is displayed.

7. Click **Next**.

The **License Agreement** screen is displayed.

8. If you accept the terms of the license agreement, select the **I accept...** option and click **Next**.

9. The **Destination Folder** screen is displayed.

Enter the path to the folder you want to use for your Rational DOORS installation, or leave the default.

The default installation folder is

C:\Program Files\IBM\Rational\DOORS\9.2.

If you want to change the directory:

- a. Click the **Change** button.
- b. Browse to the directory you want to install to.
- c. Click **OK**.

10. Click **Next**.

The **Setup Type** screen is displayed.

11. Select either the **Custom** setup type or the **Typical** setup type.

The **Custom** setup type installs the Rational DOORS client, the Rational DOORS for Rational Quality Manager Interface client, and the Rational DOORS for Rational Quality Manager Interface server. For information about using the **Custom** setup type, see “Installing Rational DOORS for Rational Quality Manager Interface,” on page 14.

The **Typical** setup type installs the Rational DOORS client.

12. Click **Next**.

The **DOORS Database Settings** screen is displayed.

13. Type the port number the Rational DOORS database server is using in the **Database Port** field, and the name of the Rational DOORS database server machine in the **Database Host** field.

14. Click **Next**.

The **License Information** screen is displayed.

15. If you do not have details of your license, select **Supply license information later**.

If you know the location of your Rational DOORS license, type the information in the appropriate field.

- License Server

If you are using a floating license, enter the location of the license server in the form *port@host*, for example 19353@licenseserver.

- Local License File

If you have a node-locked license, copy it to a folder on your machine and type the path to the file.

Note If you are installing as a non-admin user you must supply license information about this screen.

16. Click **Next**.

The **Ready to Install the Program** screen is displayed.

The settings you defined in the previous steps are displayed. Use the **Back** button if you want to change any of your settings.

If you want to create a desktop shortcut, select the check box.

17. Click **Install**.

18. When all the files are copied, the **Finish** screen is displayed.

Installing Rational DOORS for Rational Quality Manager Interface

Rational DOORS for Rational Quality Manager Interface is installed using the **Custom Setup** screen, which is part of the Rational DOORS client installation. You can use the **Custom Setup** screen to install the Rational DOORS client, and the Rational DOORS for Rational Quality Manager Interface.

To install the Rational DOORS client, follow the steps in “Installing the Rational DOORS client,” on page 12. The procedure is the same, whether you install the Rational DOORS client using the **Typical** setup type or the **Custom** setup type.

Rational DOORS for Rational Quality Manager Interface is made up of two separate components:

- The Rational DOORS for Rational Quality Manager Interface client

- The Rational DOORS for Rational Quality Manager Interface server

You can install one or other of the components or both. When you make your selection, click **Next** on the **Custom Setup** screen, and your choice is installed along with the Rational DOORS client.

Caution If you are upgrading your version of Rational DOORS for Rational Quality Manager Interface, you must enter *exactly* the same details that you entered for the previous version. For example, you must enter the same details in the **RQMI Server Port Number** field as were entered when the previous version of the software was installed.

The Rational DOORS for Rational Quality Manager Interface client

To install the Rational DOORS for Rational Quality Manager Interface client:

1. Follow step 1 to step 10 in “Installing the Rational DOORS client,” on page 12.
2. On the The **Setup Type** screen select the **Custom** setup type.
The **Custom Setup** screen is displayed.
3. Select **DOORS Rational Quality Manager Interface**, and click **Next**.
The **DOORS Database Server Settings** screen is displayed.
4. Type the port number the Rational DOORS database server is using in the **Database Port** field, and the name of the Rational DOORS database server machine in the **Database Host** field, and then click **Next**.
The **Rational Quality Manager Interface** screen is displayed.
5. Enter the Rational Quality Manager Server details:

Field name	Details
RQMI Server Port Number	Type the port number the Rational DOORS for Rational Quality Manager Interface server.
RQM Server	Type the name of the Rational Quality Manager server machine.

6. Click **Next**.
The **License Information** screen is displayed.

7. If you do not have details of your license, select **Supply license information later**.

If you know the location of your Rational DOORS license, type the information in the appropriate field.

- License Server

If you are using a floating license, enter the location of the license server in the form *port@host*, for example 19353@licenseserver.

- Local License File

If you have a node-locked license, copy it to a folder on your machine and type the path to the file.

Note If you are installing as a non-admin user you must supply license information about this screen.

8. Click **Next**.

The **Ready to Install the Program** screen is displayed.

The settings you defined in the previous steps are displayed. Use the **Back** button if you want to change any of your settings.

If you want to create a desktop shortcut, select the check box.

9. Click **Install**.

10. When all the files are copied, the **Finish** screen is displayed.

The Rational DOORS client is installed and the Rational DOORS for Rational Quality Manager Interface Client files are installed in the `\DOORS\9.2\RQMInterface\Client\` directory.

The Rational DOORS for Rational Quality Manager Interface server

To install the Rational DOORS for Rational Quality Manager Interface server:

1. Follow step 1 to step 10 in “Installing the Rational DOORS client,” on page 12.
2. On the **The Setup Type** screen select the **Custom** setup type, and click **Next**.

The **Custom Setup** screen is displayed, with **DOORS** already selected.

3. Select **Rational Quality Manager Interface Server**, click the icon, and select an installation option.

4. Click **Next**.

The **DOORS Database Server Settings** screen is displayed.

5. Type the port number the Rational DOORS database server is using in the **Database Port** field, and the name of the Rational DOORS database server machine in the **Database Host** field, and then click **Next**.

The **Rational Quality Manager Interface** screen is displayed.

6. Enter the following details:

Field name	Details
RQMI Server Port Number	Type the port number the Rational DOORS for Rational Quality Manager Interface server.
RQM Server	Type the name of the Rational Quality Manager server machine.
RQM User	Type the user name of the Rational Quality Manager user.
RQM Password	Type the password of the Rational Quality Manager user.
RQM Port	Type the port number the machine where Rational Quality Manager is installed.

7. Click **Next**.

The **Rational Quality Manager Interface DOORS User** screen is displayed.

8. Enter the following details:

Field name	Details
DOORS User	Type the user name of the Rational DOORS user.
DOORS User Password	Type the password of the Rational DOORS user.

9. Click **Next**.

The **License Information** screen is displayed.

10. If you do not have details of your license, select **Supply license information later**.

If you know the location of your Rational DOORS license, type the information in the appropriate field.

- License Server

If you are using a floating license, enter the location of the license server in the form *port@host*, for example 19353@licenseserver.

- Local License File

If you have a node-locked license, copy it to a folder on your machine and type the path to the file.

Note If you are installing as a non-admin user you must supply license information about this screen.

11. Click **Next**.

The **Ready to Install the Program** screen is displayed.

The settings you defined in the previous steps are displayed. Use the **Back** button if you want to change any of your settings.

If you want to create a desktop shortcut, select the check box.

12. Click **Install**.

13. When all the files are copied, the **Finish** screen is displayed.

The Rational DOORS client is installed and the Rational DOORS for Rational Quality Manager Interface Server files are installed in the `\DOORS\9.2\RQMInterface\Server\` directory.

For more information about Rational DOORS for Rational Quality Manager Interface, see its own documentation set.

Silent installation

Silent installation is supported with Rational DOORS 9.2. This means that rather than having to install Rational DOORS from scratch, choosing the same options time and time again, you can create an installer that records your preferred settings once and then allows you to install in a more cost efficient and timely manner.

To run a silent installation, run each product installer from the command line. For the Rational DOORS database server, enter a command in the following format:

```
C:\doors_server\setup.exe /s /v"/1*v  
"C:\doors_server\install.log" /qn  
PORTNUMBER="36677"  
DATABASEDIR="C:\Program Files\IBM\Rational\DOORS\9.2\data\  
INSTALLDIR="C:\Program Files\IBM\Rational\DOORS\9.2\""
```

For the Rational DOORS client, enter a command in the following format:

```
setup.exe /s /v"/1*v  
"C:\doors_client\install.log" /qn  
INSTALLDIR="C:\Program Files\IBM\Rational\DOORS\  
CLIENTDATA="36677@server_machine"  
TLLICENSESERVER="19353@license_server"  
LAPAGREE="Yes"
```

Note If you are running silent installation on Windows Vista, you need to make sure that User Account Control is switched off.

When you script Rational product installations, you must do so in the following order:

First, any of Rational DOORS, Rational Synergy, Rational Change, and Rational Tau. Next, Rational DOORS Analyst Add On. Finally, all other products and integrations.

If there is an error, a silent installation program does not display any dialog boxes. Instead, status information for the silent installation is recorded in a log file called **install.log** created in the command lines. You can specify any name and location you want.

Starting Rational DOORS

For installations that point to an empty data folder

1. Click **Start > All Programs > IBM Rational > IBM Rational DOORS 9.2**.

A Rational DOORS report is displayed.

2. Click **OK**.

The Change Password dialog box is displayed.

3. Type the password you want to use for the Administrator user into the **New password** and **Confirm new password** fields. The password must be at least six characters long.

4. Click **OK**.

Note Make a note of this password. If you forget it, you have to contact Support.

5. The DOORS Explorer, and the Welcome Screen are displayed.
6. Click **Close** to dismiss the Welcome Screen.
7. Create a user account.

As the Administrator account is for use in emergencies only, you need to create a user account to use next time you log on to Rational DOORS:

- a. Click **Tools > Manage Users**.
 - b. On the **Users** tab, click **New**.
 - c. Type a user name in the **Username** box.
 - d. Click the **Database Manager** user type.
 - e. Click **OK**.
 - f. Click **OK**.
8. Exit Rational DOORS (click **File > Exit**).

Do not remain logged on as the Administrator user.

For installations that point to existing Rational DOORS data

1. Click **Start > All Programs > IBM Rational > IBM Rational DOORS 9.2**.

Rational DOORS is loaded and the Rational DOORS login screen is displayed.

2. Type your Rational DOORS user name and password and click **OK**. If you do not have a Rational DOORS user name, contact your Rational DOORS administrator.
3. The Database Explorer is displayed.

RDS, the Rational DOORS database and UUIDs

When you use the Rational Directory Server (RDS), two files are created in the data subfolder (for example, C:\Program Files\IBM\Rational\DOORS\9.2\data\):

- tds_valid_id.txt
- tds_registered.txt

These files are used to associate the database with a Universally Unique Identifier (UUID).

tds_valid_id.txt

This file indicates that the repository identifier stored in the database is a valid UUID obtained from RDS. As long as this file is present, the database cannot be registered with a different UUID.

If you want to deploy a copy of a database as a new database with a different UUID, you need to delete this file. If you want to retain the current UUID, you must not delete this file.

tds_registered.txt

This file indicates that the repository identifier stored in the database is a valid UUID that is recognized by the currently configured RDS. If this file is present, the database server does not run unless the UUID is found in the RDS registry.

If you want to redeploy a database with its existing UUID on a new RDS server, you need to delete this file. You must also make sure that the *tds_valid_id.txt* file is not deleted.

Installing the Rational DOORS Example Data

An example database that is already populated with data is also supplied.

The example database is used to give new Rational DOORS users the opportunity to familiarize themselves with Rational DOORS without having to access any of your production data or the need to install a local Rational DOORS database server.

To install the Example Data:

1. Ensure that you have the Rational DOORS client already installed on your machine.
2. If you have the training database for a previous version of Rational DOORS installed on your machine, remove it.
3. Shut down all other applications. In particular, shut down Microsoft Office applications, including the Microsoft Office toolbar.
4. Download the Rational DOORS Example Data software from the Web site, navigate to the file you downloaded, and double-click it.

The **Welcome** screen is displayed.

5. Click **Next**.

The **License Agreement** screen is displayed.

6. If you accept the terms of the license agreement, select the **I accept...** option and click **Next**.

The **Ready to Install the Program** screen is displayed.

7. Click **Install**.

When all the files are copied, the **Finish** screen is displayed.

8. Click **Finish**.
9. Run the example database to make sure that it has installed correctly.

Click **Start > All Programs > IBM Rational > IBM Rational DOORS 9.2 Example Data**.

Uninstalling Rational DOORS

Use **Add or Remove Programs** in the Windows Control Panel to remove version 9.2 of the Rational DOORS database server, the Rational DOORS client, or the Rational DOORS Example Data.

Note When you uninstall the Rational DOORS Example Data on Windows Vista, a warning dialog is displayed. Click **Automatically close application**. The software is uninstalled as normal.

4

Upgrading from version 9.0 and later

This chapter describes how to upgrade to Rational DOORS 9.2 from version 9.0 and 9.1.

- Information for users upgrading to Rational DOORS 9.2 from 9.0 and 9.1
- What happens to my integrations?
- Migrating data to Rational DOORS 9.2
- Installing Rational DOORS
- Checking your installation

Information for users upgrading to Rational DOORS 9.2 from 9.0 and 9.1

In all cases, Rational DOORS 9.2 is installed into a new directory named `\IBM\Rational\DOORS\9.2` by default, and after successful installation version 9.0 or 9.1 is removed.

You cannot install Rational DOORS 9.2 into the same directory as your current installation.

The **Start > All Program > IBM Rational** menu displays **IBM Rational DOORS 9.2** after the successful installation of Rational DOORS 9.2.

Data migration

Either:

- Install Rational DOORS 9.2, then copy your version 9.0 or 9.1 data to the 9.2 data folder
- Enter the path to your version 9.0 or 9.1 data folder in the Database Settings screen when you install the Rational DOORS 9.2 database server.

Licensing

You do not need a new software license for Rational DOORS 9.2 if you are already running version 9.0 or 9.1, and have a valid maintenance agreement.

Compatibility between version 9.0 and Rational DOORS 9.2

- Version 9.0 clients can connect to a Rational DOORS 9.2 database server.

- Rational DOORS 9.2 clients can connect to a version 9.0 database server.
- Rational DOORS 9.2 can read version 9.0 data.
- Version 9.0 clients can read Rational DOORS 9.2 project or module archives and partitions.

Compatibility between version 9.1 and Rational DOORS 9.2

- Version 9.1 clients can connect to a Rational DOORS 9.2 database server.
- Rational DOORS 9.2 clients can connect to a version 9.1 database server.
- Rational DOORS 9.2 can read version 9.1 data.
- Version 9.1 clients can read Rational DOORS 9.2 project or module archives and partitions.

What happens to my integrations?

When you upgrade from version 9.0 or 9.1 to 9.2, and you want to run your integrations with Rational DOORS 9.2, you need to reinstall them.

If you upgrade your Quality Center Integration to run with Rational DOORS 9.2, you can no longer use or create data connections to 8.3 databases.

Migrating data to Rational DOORS 9.2

For safety, it is critical that you make a backup of your Rational DOORS data before attempting to migrate. Follow these steps:

1. Stop the Rational DOORS database server and copy the Rational DOORS data directory to the directory that your Rational DOORS 9.2 database server is using.
2. Start the Rational DOORS 9.2 database server.

To initiate the migration, the Rational DOORS Administrator must log on from a Rational DOORS 9.2 client and confirm that the data is to be migrated. No-one can use Rational DOORS until migration is completed. The Rational DOORS client can be on the Rational DOORS database server machine, or on a different machine.

If the Administrator does not successfully log on, or does not confirm that migration is required, the migration is not performed.

3. Select **Start > Program Files > IBM Rational > IBM Rational DOORS 9.2**.

The login screen is displayed.

Note If the login screen is not displayed, you have not copied your existing data to the correct directory. If you chose to migrate your data using archive and restore, the dialog is not displayed.

4. Type the Administrator password. No other Rational DOORS user can log on to the unmigrated database.

If you do not know your Administrator password, contact your local Support department

After successful login, a confirmation dialog is displayed.

5. Click **Confirm** to begin the migration.

Note The migration might only take a few seconds to complete, depending on the size of your data.

When the migration is complete, the Database Explorer is displayed.

If you have a dbadmin password, you need to perform these additional steps:

- a. Log off and stop the Rational DOORS database server.
- b. Reset the dbadmin password:

Open a DOS command prompt, navigate to the bin directory and enter a command in the following format:

```
doorsd -R <newpassword> -s <datadirectory>
```

- c. Restart the Rational DOORS database server.

You can now access the data and other Rational DOORS users can log on to Rational DOORS 9.2.

Installing Rational DOORS

For information about installing Rational DOORS, see the appropriate chapter.

- “New installation of Rational DOORS on Windows,” on page 9
- “Installing the Rational DOORS server on UNIX,” on page 37

Checking your installation

For installations that point to an empty data folder

1. Click **Start > Programs > IBM Rational > IBM Rational DOORS 9.2.**

A report is displayed.

2. Click **OK**.

The Change Password dialog box is displayed.

3. Type the password you want to use for the Administrator user into the **New password** and **Confirm new password** fields. The password must be at least six characters long.

4. Click **OK**.

Note Make a note of this password. If you forget it, you have to contact Support.

5. The Database Explorer and the Tip of the Day are displayed.
6. Click **OK** to dismiss the **Tip of the Day** screen.
7. Create a user account.

As the Administrator account is for use in emergencies only, you need to create a user account to use next time you log on to Rational DOORS:

- a. Click **Tools > Manage Users**
 - b. On the **Users** tab, click **New**
 - c. Type a user name in the **Username** box
 - d. Click the **Database Manager** user type
 - e. Click **OK**
8. Exit Rational DOORS (click **File > Exit**).

Do not remain logged on as an Administrator user

For installations that point to existing v9 data

1. Click **Start > Programs > IBM Rational > IBM Rational DOORS 9.2**.
Rational DOORS is loaded and the login screen is displayed.
2. Type your user name and password and click **OK**. If you do not have a user name, contact your Rational DOORS administrator.
3. The Database Explorer is displayed.

5

Upgrading from version 5, 6, 7 or 8

This chapter discusses what you need to consider when you are upgrading to Rational DOORS 9.2 from version 5, 6, 7 or 8.

It contains information about update paths, licensing, and migrating your data.

The installation procedure is the same whether you are upgrading to Rational DOORS 9.2 or installing it from scratch. For information about the installation procedure, follow the appropriate links in the text.

- Migration paths
- Does Rational DOORS 9.2 overwrite version 8 or 7?
- What do I do with my existing Rational DOORS data?
- How does licensing change?
- What happens to my integrations?
- Can I install and set up in phases?
- What do the new installation options mean?
- Upgrading and migrating data
- Installing Rational DOORS

Migration paths

This section answers the following questions:

- Can I migrate directly from version 5?
- Can I migrate directly from version 6?
- Can I migrate directly from version 7?
- Can I migrate directly from version 8?

Can I migrate directly from version 5?

You cannot migrate data directly to Rational DOORS 9.2 from version 5. Data must first be migrated to version 6.0 SR1 format. It can then be migrated to Rational DOORS 9.2. You do not have to upgrade all of your version 5 clients to version 6.0 SR1. Only the version 5 database needs to be migrated.

Migrate your data in the following way:

1. Install a version 6.0 SR1 Complete Server Installation, accepting the default data directory.
2. Copy your version 5 database to this default directory.
3. Run version 6.0 SR1.
4. Log on as Administrator.
5. Click **Confirm** to migrate your data.

Caution You must complete the data migration from version 5 to version 6.0 SR1 by running the Module Migrator DXL. This DXL can be obtained by contacting Support. If you are migrating a large database, you can run the module migrator DXL on more than one Rational DOORS client, as long as each client is running on a different machine. This DXL allows you to migrate different sections of the data at the same time. Do not run more than on Rational DOORS client on any one machine at the same time when running the Module Migrator DXL.

When you have completed the data migration from version 5 to version 6.0 SR1, you can migrate the data from version 6.0 SR1 to Rational DOORS 9.2. For information, see “Upgrading and migrating data,” on page 32.

Can I migrate directly from version 6?

You can migrate data directly to Rational DOORS 9.2 from version 6.0 SR1 and later.

Can I migrate directly from version 7?

You can migrate data directly to Rational DOORS 9.2 from version 7.

Can I migrate directly from version 8?

You can migrate data directly to Rational DOORS 9.2 from version 8.

Does Rational DOORS 9.2 overwrite version 8 or 7?

Rational DOORS 9.2 does not overwrite version 8 or 7. The following defaults apply when you install Rational DOORS 9.2 on Windows:

- Rational DOORS 9.2 is installed to a new directory named
 \IBM\Rational\DOORS\9.2.

- A new label, **IBM Rational DOORS 9.2**, is added to the **Start > All Programs > IBM Rational DOORS** menu.
- The Rational DOORS database server service is called **DOORS DB Server 9.2**.

Note You can install multiple database server services on your PC with Rational DOORS 9.2. For more information see the *Managing Rational DOORS* manual, which is available from the **Rational Lifecycle Solutions DVD** and from the Web site at www.ibm.com/software/awdtools/doors/support/doc.html.

- The Rational DOORS database server port number defaults to 36677, which was also the default for previous versions. If you want to be able to run your existing database server and a Rational DOORS 9.2 database server from your machine, make sure that the 9.2 database server runs on a different port.
- By default, the Rational DOORS 9.2 database server points to an empty data directory in the Rational DOORS 9.2 directory. Do not change this default path; it gives you more control over how and when you migrate your existing data. For information about the options available, see “What do I do with my existing Rational DOORS data?” on page 29.
- The Rational DOORS 9.2 client installs to a new directory. By default, this directory is `C:\Program Files\IBM\Rational\DOORS\9.2`. Your previous version is not overwritten, and you can run version 7 or 8 and Rational DOORS 9.2 in parallel on the same machine.

These defaults do not apply to UNIX. For information about upgrading to on UNIX, see “Installing the Rational DOORS database server,” on page 37.

What do I do with my existing Rational DOORS data?

Caution Make a copy of your data directory before installing Rational DOORS 9.2, or migrating any data to Rational DOORS 9.2. Once you have migrated your data to Rational DOORS 9.2 format, you cannot reverse the migration.

You have four options for migrating existing data to Rational DOORS 9.2:

- Stop the current DOORS database server, copy the Rational DOORS data directory to the directory that your Rational DOORS 9.2 database server is

using, then restart the Rational DOORS database server. Run a Rational DOORS 9.2 client and log on as the Administrator user.

This option gives you the maximum amount of control over when you migrate your data. You can install your Rational DOORS database server, and all the Rational DOORS clients, pointing them all to the empty data directory. None of your Rational DOORS 9.2 clients can access your data and migrate it until you are ready to do so. When you are ready to migrate your data, you can copy it to the empty directory and run a Rational DOORS client against it. When you log on as the Administrator user, your data is migrated to Rational DOORS 9.2.

- Point the Rational DOORS 9.2 database server at the Rational DOORS data directory when you install Rational DOORS 9.2, then run a Rational DOORS client and log on as Administrator.

Make sure that you have:

- a. Made a copy of the Rational DOORS data directory.
- b. Ensured that the data is ready to migrate.

Bear in mind that any Rational DOORS client using the Rational DOORS 9.2 database server who has access to the Administrator password could migrate the data.

- Archive the projects you want to migrate, then restore them to Rational DOORS 9.2.

Only use this option for initial testing of Rational DOORS 9.2. Using archive and restore as a means of migrating data is time consuming. It also results in the loss of access controls and cross-project links.

- Make a copy of your current Rational DOORS data directory. Access the copied data directory from a version 7 or 8 client, and delete the projects and folders that you do not want to migrate to Rational DOORS 9.2.

This option allows you to implement a phased migration of your Rational DOORS data. However, after the initial data migration the remaining Rational DOORS data must be migrated to Rational DOORS 9.2 using archive and restore. Using this method to migrate data is time consuming. If you archive and restore data from the same master database that was migrated, access controls and cross-project links are preserved.

How does licensing change?

The action you need to take depends on the version you are running, and whether you have a valid maintenance agreement:

- If you are running version 8.2 or 8.3, and you have a valid maintenance agreement, you do not need a new license to install and run Rational DOORS 9.2.
- If you are running version 8.2 or 8.3, and do not have a valid maintenance agreement, a message is displayed:

```
The FEATURE name DOORS with version 2009.0601 cannot be found.  
License server does not support this version of the feature
```

If this message is displayed, you need to obtain a new license.
- If you are running a version earlier than 8.2, you need a new license to run Rational DOORS. You also need to install either version 1.3, 1.4 or 1.5 of the Rational License Server TL.

When version 8.2 was released, we upgraded the version of FLEXnet to v11.5, and we changed all Rational DOORS licenses to use the Telelogic vendor daemon instead of the Rational DOORS daemon. This daemon allowed you to merge all of your Telelogic licenses into one license key. The default port number used for licensing was changed to 19353; the previous port used for licensing was 7192.

Rainbow dongles are no longer supported with Rational DOORS. Customers who have previously used Rainbow dongles must contact their local Support department. Other existing hardware licenses do not need to be replaced.

For more information about licensing, see the *Rational License Server TL Licensing Guide*, which is available from the **Rational Lifecycle Solutions DVD** and from our Web site at <http://publib.boulder.ibm.com/infocenter/rsdp/v1r0m0/index.jsp>.

What happens to my integrations?

When you upgrade, you need to upgrade your integrations too. New versions of all the integrations are being released, and are available from:

- The Rational DOORS Add Ons CD
- The Rational DOORS for HP Quality Center Interface CD
- The Rational DOORS for Serena PVCS Version Manager Interface CD
- The Rational Web site

Can I install and set up in phases?

As Rational DOORS 9.2 does not overwrite previous installations, you can install your Rational DOORS database server and all your Rational DOORS

clients alongside the versions you are currently using. You can choose when to migrate your data. If you want some users to start using the new Rational DOORS version while others continue using the old one, they can do so as long as you have made sure that the Rational DOORS 9.2 database server is using a different port than your existing database server.

What do the new installation options mean?

The installation options changed after version 8.0.

v9/v8	v7.1	v6.0 SR1
DOORS Client Installation	DOORS Standard End User	DOORS Client Installation
DOORS Database Server Installation	DOORS/ERS Complete Server Installation	DOORS Complete Server Installation
	DOORS Laptop/Non-networked PC	DOORS Complete Server Installation
	Workstation Client	DOORS Remote Access Client

Upgrading and migrating data

- Version 7 and version 8 clients cannot connect to a Rational DOORS 9.2 database server.
- Rational DOORS 9.2 clients cannot connect to version 7 or version 8 database servers.
- Rational DOORS 9.2 can read version 5, version 6.0 SR1, version 7 or version 8 project and module archives.
- Version 7 and version 8 clients cannot read Rational DOORS 9.2 project or module archives, or partitions.
- Rational DOORS 9.2 clients cannot read version 7 or version 8 partitions. Partitions must be rejoined or recovered before you migrate data to Rational DOORS 9.2.
- CPS review cycles do not have to be completed before you migrate your data to Rational DOORS 9.2.

If a version 7 or version 8 client tries to connect to the Rational DOORS 9.2 server, it is not allowed to connect and a message is displayed:

Cannot connect to server. The network is busy.

Migrating data to Rational DOORS 9.2

For safety, it is critical that you make a backup of your Rational DOORS data before attempting to migrate. Follow these steps:

1. Stop the Rational DOORS database server and copy the Rational DOORS data directory to the directory that your Rational DOORS 9.2 database server is using.
2. Start the Rational DOORS 9.2 database server.

To initiate the migration, the Rational DOORS Administrator must log on from a Rational DOORS 9.2 client and confirm that the data is to be migrated. No-one can use Rational DOORS until migration is completed. The Rational DOORS client can be on the Rational DOORS database server machine, or on a different machine.

If the Administrator does not successfully log on, or does not confirm that migration is required, the migration is not performed.

3. Select **Start > Program Files > IBM Rational > IBM Rational DOORS 9.2**.

The login screen is displayed.

Note If the login screen is not displayed, you have not copied your existing data to the correct directory. If you chose to migrate your data using archive and restore, the dialog is not displayed.

4. Type the Administrator password. No other Rational DOORS user can log on to the unmigrated database.

If you do not know your Administrator password, contact your local Support department

After successful login, a confirmation dialog is displayed.

5. Click **Confirm** to begin the migration.

Note The migration might only take a few seconds to complete, depending on the size of your data.

When the migration is complete, the Database Explorer is displayed.

If you have a dbadmin password, you need to perform these additional steps:

a. Log off and stop the Rational DOORS database server.

b. Reset the dbadmin password:

Open a DOS command prompt, navigate to the bin directory and enter a command in the following format:

```
doorsd -R <newpassword> -s <datadirectory>
```

c. Restart the Rational DOORS database server.

You can now access the data and other Rational DOORS users can log on to Rational DOORS 9.2.

Installing Rational DOORS

For information about installing Rational DOORS, see the appropriate chapter.

- “New installation of Rational DOORS on Windows,” on page 9
- “Installing the Rational DOORS server on UNIX,” on page 37

6

Installing and using Rational DOORS on Citrix

This chapter describes how to install Rational DOORS on Citrix. It contains the following:

- Supported platforms
- Installation guidelines
- Environment specifications
- Configuring external links

Supported platforms

Rational DOORS 9.2 is supported on:

- Citrix XenApp 5.0 (Advanced) on Windows 2003 Server Standard and Enterprise Edition (32 bit and 64 bit), using the Citrix ICA client v 10.00.52110 on Windows XP.

Although it might be possible for Rational DOORS 9.2 to work with other versions of Citrix on other supported Rational DOORS platforms, they have not been tested and are not supported.

Installation guidelines

Terminal services must be activated on the host machine, then Citrix can be installed. These steps must take place before any applications are installed. At installation of Citrix, it is useful to rename the drives (for example, change the drives from A: C: and D: to M: N: and O:). Making this change allows the Citrix clients to map their local drives (through redirection) to the drive letters of A: C: and D:. Also, increase the swap file to 2.5 times the amount of memory available. Also increase the registry file size appropriately to accommodate the multiple **current_user_keys** required.

To install Rational DOORS 9.2 on Citrix you must be in “install mode”.

Configure Rational DOORS 9.2 to display in “Seamless mode”. You might experience problems if you display in “Desktop mode”.

As a result of product performance enhancements, the Rational DOORS 9.2 client only displays colors correctly for text highlighting when using the 16 bit color depth resolution in the Citrix ICA client.

Environment specifications

For the best performance, install the Rational DOORS database server on a different machine to the Citrix server. To optimize performance, place both machines as geographically close to one another as possible. The Rational DOORS license server can be located on either machine, or a separate machine.

For information on Rational DOORS Integrations and the Citrix environment, see the integration's own user documentation.

Configuring external links

You need to configure Rational DOORS to allow external links to access locations in Rational DOORS through Citrix.

To configure external links:

1. On the Citrix server, publish `protocolhandler.exe` to accept parameters:

```
C:\Program Files\IBM\Rational\DOORS\9.2\bin\protocolhandler.exe
%*
```

2. On the desktop where the Citrix Rational DOORS client is accessed, copy the following to a `.reg` file and run it to add it to the registry:

```
Windows Registry Editor Version 5.00
[HKEY_CLASSES_ROOT\doors]
@="URL:DOORS protocol"
"URL Protocol"=""

[HKEY_CLASSES_ROOT\doors\Default Icon]
@=""

[HKEY_CLASSES_ROOT\doors\shell]
[HKEY_CLASSES_ROOT\doors\shell\open]
[HKEY_CLASSES_ROOT\doors\shell\open\command]
@="\"C:\\Program Files\\Citrix\\ICA Client\\pn.exe\" /
pn:DOORS_CITRIX /app:protocolhandler /param:\"-r 120 -url %1\""
```

- `DOORS_CITRIX` is the application set name containing the `protocolhandler` and the Rational DOORS applications.
- `protocolhandler` is the application name as published in the Citrix server.
- `-r 120 -url %1` are the parameters that are passed to the `protocolhandler` application in the Citrix server. When you click a URL, `%1` is replaced by the URL string.

When you click an external link, it opens.

7

Installing the Rational DOORS server on UNIX

This chapter describes how to install and set up version 9.2 of Rational DOORS on UNIX computers. It contains the following:

- Understanding UNIX installations
- Installing the Rational DOORS database server

Understanding UNIX installations

The **Rational Lifecycle Solutions DVD** contains the files for installing Rational DOORS servers on UNIX. These files can also be downloaded from our Web site at <http://www.ibm.com/software/awdtools/doors>.

The following files are available.

- **solaris_server.zip**
- **hpux_server.zip**
- **linux_server.zip**

Installing the Rational DOORS database server

To use the UNIX versions of the Rational DOORS server in a traditional client-server configuration, install the Rational DOORS database server first on the server machine and then install Rational DOORS on Windows client machines but ensure that they are connecting to the database server on the port serving the Rational DOORS data.

If you are upgrading from a previous version of Rational DOORS, read the chapter entitled “Upgrading from version 5, 6, 7 or 8,” on page 27.

To install the Rational DOORS database server:

1. Check that you meet the system requirements. Details of system requirements are on our Web site at <http://www-01.ibm.com/software/awdtools/doors/sysreqs/>.
2. If you are installing Rational DOORS for the first time, go to Step 4.
3. If you are reinstalling, stop the Rational DOORS database server.
 - a. Change your working directory to `$DOORSHOME/bin`.

- b. Enter the following command:

```
dbadmin -data port@computer -killserver [-password password]
```

See the following table for what each parameter means.

Where	Is
<i>port</i>	The port the server is using (by default, 36677).
<i>computer</i>	The name of the computer the server is running on.
<i>password</i>	The server password (omit the <code>-password</code> switch if the password is currently blank).

4. Log on as `root`. The installation must be performed using the `root` account.
5. If you are installing Rational DOORS for the first time, create a non-privileged user account to own the Rational DOORS data and application files.

Create an account called **doors**. We call this user the **Rational DOORS owner**.

6. Set up the directory you want to install Rational DOORS in (the Rational DOORS home directory):
 - a. Create the Rational DOORS home directory.
 - b. Use the `chown` command to set the owner of the new directory to the Rational DOORS owner.
 - c. Set the `$DOORSHOME` environment variable to point to the new directory.
7. You can either install from the Rational Solutions DVD or from Rational DOORS software downloaded from the Rational Web site.

If you downloaded the software from the Web, uncompress the archive to a temporary location on your computer, and go to Step 8.

If you are installing Rational DOORS from DVD:

- a. Put the **Rational Lifecycle Solutions DVD** into your DVD-ROM drive.
- b. Mount it.

The following table describes how to mount your DVD-ROM drive:

Platform	Example command
Solaris	<code>mount -r -F hsfs /dev/sr0 /cdrom</code>
HP-UX	<code>mount -r -F cdfs /dev/dsk/c0t2d0 /cdrom</code>
Linux [®]	<code>mount /dev/cdrom</code>

Note On Solaris and Linux, if the volume manager is configured, it automatically mounts the DVD-ROM.

- c. Navigate to the Rational DOORS UNIX server directory on the DVD, and uncompress the server archive file you need to a temporary location on your computer.
8. Run the installation script, giving the full path including the disk device. For example, if you extracted the archive to `/mydisk/temp`, enter:

```
/mydisk/temp/doors_9/unix/bin/instdoor.sh
```

9. Follow the instructions on your screen to install Rational DOORS.
10. Answer the prompts on the screen:

- a. Enter path to DVD-ROM device or Rational DOORS distribution:

```
[/cdrom]
```

- b. Enter `y` at the second prompt, to install the Rational DOORS database server:

```
Install package DOORS_SERVER [y]: y
```

- c. Enter the path to the Rational DOORS home directory you created in Step 6.

- d. Enter `n` or `y` at the prompt:

```
Install DOORS SERVER Interface Services [n]:
```

If you enter `y`, the Rational DOORS server interface services, which allow Rational DOORS to interface with selected other products, for example Rational Requirements Composer, are installed. If you enter `y`, go to either “Installing the Rational DOORS server interface services on Solaris,” on page 61 or “Installing the Rational DOORS server interface services on Linux,” on page 71 to continue this procedure.

If you enter `n`, the Rational DOORS server interface services are not installed.

- e. Enter the name of the Rational DOORS owner (by default, doors).
 - f. Confirm that you want to install the server.
 - g. The installation script then confirms all the installation options and installs the files. Press **ENTER** when the installation finishes.
11. Edit the startup file of the Rational DOORS owner.

The following table shows the lines you must add or edit:

Startup file	Code
Bourne or K shell .profile	DOORSHOME=doors-home-path SERVERDATA=datapath PATH=\$DOORSHOME/bin:\$PATH PORTNUMBER=database-server-port-number export DOORSHOME SERVERDATA PATH PORTNUMBER DOORSDATA
C shell .login	setenv DOORSHOME doors-home-path setenv SERVERDATA datapath set path=(\$DOORSHOME/bin \$path) setenv PORTNUMBER database-server-port-number

12. Start the Rational DOORS database server:
- a. Log on as the Rational DOORS owner user.
 - b. Change your working directory to \$DOORSHOME/bin.
 - c. Enter the following command:

```
./doorsd &
```

Note If you use the Korn shell and do not use “doorsd &” in a system startup script, execute the following command instead:

```
“nohup doorsd &”
```

8

Installing the Rational DOORS server interface services on Windows

This chapter describes how install and set up the Rational DOORS server interface services component on Windows.

This chapter contains the following:

- Introduction
- The interface services components
- Installing the interface services components
- Setting up the components
- Running multiple Interoperation Servers
- Starting the system
- Configuring interface services
- Shutting down the system
- Running interface services and Rational DOORS Web Access on the same machine
- Uninstalling the interface services

Introduction

When you select the **Custom** setup type on the **Setup Type** screen of the Database Server Installation, you install both the Rational DOORS database server and the Rational DOORS server interface services (interface services), which allows Rational DOORS to interface with selected integration products.

If you only want to install the Rational DOORS database server, follow the steps in “Installing the Rational DOORS database server,” on page 9.

The interface services components

Installing the interface services involves the installation of a number of discrete components. These components are copied to your machine.

Component	Description
Interface services server	An adaptation of Apache Tomcat. Tomcat is an application server that executes Java® servlets and renders web pages that include JavaServer Pages code. You need to run the adapted version of Tomcat that is supplied by Rational as one of the Rational DOORS interface services bundled components.
Interface services broker	An adaptation of Apache ActiveMQ. ActiveMQ is an open source message broker that implements the Java Message Service (JMS). The broker is supplied by Rational as one of the Rational DOORS interface services bundled components.
Rational DOORS database server	The data you are accessing is stored in your Rational DOORS database server.
Interoperation Server	A Rational DOORS client that is run using the <code>-interop</code> command-line parameter.

Installing the interface services components

You must install several components to run the interface services. Follow the instruction in these topics to install the components:

- Installing the Rational DOORS database server
- Installing the Interoperation Server
- Installing the interface services server and the interface services broker

Installing the Rational DOORS database server

You need to install the database server using the **Custom** setup type on the **Setup Type** screen.

To install the Rational DOORS database server using the **Custom** setup type:

1. Follow step 1 to step 8 in “Installing the Rational DOORS database server,” on page 9.
2. On the **Setup Type** screen select the **Custom** setup type.
The **Custom Setup** screen is displayed.
3. Click the **DOORS server interface services** icon, and select an installation option.
4. Click **Next**.

The **DOORS Database Server Settings** screen is displayed.

5. Enter the Port Number and the Data Directory.
 - a. In **Port Number**, type the port number to be used by your Rational DOORS database server. Do not use a number lower than 1000. The default port used by Rational DOORS is 36677.
 - b. In **Data Directory**, type the path to the directory you want to use for your Rational DOORS database. This directory must be on the local machine and is where your data and user information is stored. Rational DOORS does not support mapped drives for data.
 - c. Click **Next**.

Note If the port you specified is already being used by another application, a message is displayed. Click **OK**, type a different port number and click **Next**.

The **Ready to Install the Program** screen is displayed.

The settings you defined in the previous steps are displayed. Use the **Back** button if you want to change any of your settings.

6. Click **Install**.
7. When all the files are installed, the **Finish** screen is displayed. Click **Finish** to complete the installation.

Installing the Interoperation Server

The Interoperation Server is the current Rational DOORS client. Installing the Interoperation Server is a simple matter of installing a Rational DOORS client.

To install the Interoperation Server:

1. Choose the machine you want to run the Interoperation Server on.
2. Install the Interoperation Server by performing a normal Rational DOORS Client installation. Make sure that you enter the details for the correct Rational DOORS database server. For information about installing the client, see “Installing the Rational DOORS client,” on page 12.

Installing the interface services server and the interface services broker

To install the interface services server and the interface services broker:

- Extract `interfaces\festival-win32.zip` to your chosen folder, then set up your components, by following the instructions in the next section.

Setting up the components

You need to enable the components to communicate correctly with one another.

You need to set up:

- The interface services server to communicate with the interface services broker, the license server, and the appropriate Rational DOORS database repository
- The Rational DOORS database server to communicate with the broker

The interface services broker does not need to know the location of any of the other components.

Optionally, you can also set up multiple Interoperation Servers.

Identifying the database Universal Resource Name

The database Universal Resource Name (URN) is used once you start up interface services. You need to locate it now, and make a note of it for later use.

1. If it is not already running, start the Rational DOORS database server.
2. Start the Rational DOORS client and log on to the database.
3. In either the Database Explorer or a module window, click **Tools > Edit DXL**.
4. Type the following DXL script into the DXL input pane:

```
print getDatabaseIdentifier()
```

5. Click **Run** to run the program. A 16 digit hexadecimal number is output, for example 38f5c98719f27b6d. This forms part of the database URN. In this example, the database URN is: urn:telelogic:ers-38f5c98719f27b6d:.
6. Make a note for later use.

Setting up the interface services server

You need to set up the interface services server to communicate with the interface services broker, the license server and the appropriate Rational DOORS database repository.

The interface services server is configured using the ...\\server\\festival directory. The festival directory contains two subdirectories:

- config

This directory contains `festival.xml`, the core configuration file within the interface services. The `festival.xml` file:

- Can be configured so that the interface services server communicates with the interface services broker and the license server
- Contains the URN of the Repository, which must match the URN you identified in “Identifying the database Universal Resource Name,” on page 44 or the RDS Repository ID

Note Do not modify any other files in the config directory unless you receive the guidance of Rational support.

- custom

This directory contains a subdirectory containing a file called `readme.htm`, which you can use to configure the Welcome screen.

Example of festival.xml

The `festival.xml` file is the core configuration file within the interface services.

```
<!-- Brokers we know about -->
  <f:endpoints>
    <f:broker
      name="GENERALESERVICES"
      url="tcp://
127.0.0.1:61616?wireFormat.tcpNoDelayEnabled=true"
      user name=""
      password="" />
```

```
        <f:broker
            name="DCSERVICES"
            url="tcp://
127.0.0.1:61616?wireFormat.tcpNoDelayEnabled=true"
            user name=""
            password="" />

        <f:broker
            name="RMSERVICES"
            url="tcp://
127.0.0.1:61616?wireFormat.tcpNoDelayEnabled=true"
            user name=""
            password="" />
    </f:endpoints>

    <!-- Mapping from Repository IDs to the broker we use to reach
the repository -->
    <f:mappings>
        <f:repository-mapping
            enabled="true"
            endpoint="RMSERVICES"
            name="DOORS ERS Repository"
            repositoryUrn="urn:telelogic:ers-46dd5d7806b96973:"
        />
    </f:mappings>

    <!-- Configurable system properties -->
    <f:properties>
        <f:property name="licence.server.location"
value="19353@localhost" />
        <f:property name="display.redirector.urls"
value="false" />
        <f:property name="published.url.prefix"
value="http://MYHOSTNAME:8080/doors/redirector/" />
    </f:properties>

    </f:lsc>
</f:configuration>
```

Modifying festival.xml

The festival.xml file is the core configuration file within interface services. You need to modify entries for `f:broker`, `f:repository-mapping` and `f:properties`:

1. In the example, there are three entries that describe where the interface services broker is. Edit these entries to point to the url of the machine where you installed the interface services broker with the default port (61616). If

the interface services broker is on the same machine as the interface services server, you do not have to edit these entries.

2. The `f:repository-mapping` defines the URN of the repository.
 - a. The name attribute is the name displayed on the interface services logon page. You can change this attribute. The default is `DOORS_ERS_Repository`.
 - b. The `repositoryUrn` attribute needs to match the URN of the Rational DOORS database server you identified in “Identifying the database Universal Resource Name,” on page 44. You must change this attribute.
3. The `f:properties` entry defines the location of the license server. The `property name` attribute is `licence.server.location` with the value `19353@localhost`, which is the port number and machine name of the license server. Edit this value to point to the location of your license server. This location is added to the list of license locations held on your system.

Setting up the Rational DOORS database server

You need to set up the Rational DOORS database server to communicate with the interface services broker.

You set up the communication by adding Data Change Notifications (DCN) parameters to the command line. DCNs are messages that contain information about changes made to Rational DOORS data.

To set up the Rational DOORS database server you need to run `dbadmin`, located in the `\IBM\Rational\DOORS\9.2\bin` directory on the Rational DOORS client machine.

Run `dbadmin`, in a command line in the following format:

```
dbadmin -data 36677@myserver -dcnEnable -dcnBrokerUri
"tcp://myBroker:61616" -dcnChannelName "dcn"
```

The parameters that are used are:

Parameter	Description
<code>-data 36677@myserver</code>	Identifies the Rational DOORS database server, where <code>36677</code> is the default port number the database server is using and <code>myserver</code> is the name of the machine where the database server is installed.

Parameter	Description
-dcnEnable	Enables the DCNs.
-dcnBrokerUri "tcp://myBroker:61616"	Locates the interface services broker, where <i>myBroker</i> is the machine hosting the broker and <i>61616</i> is the default port that the broker uses.
-dcnChannelName "dcn"	Sets up the DCN channel. The channel name is always dcn.

Note You need to restart the Rational DOORS database server for this command to take effect.

Useful DCN commands

Use these commands to check the DCN service status and turn the service off and on.

- You can check the DCN service status using the `-dcnInfo` parameter:

```
dbadmin -data 36677@myserver -dcnInfo
```
- You can turn the DCN service off using `-dcnDisable` and turn it on using `-dcnEnable`:

```
dbadmin -data 36677@myserver -dcnDisable
dbadmin -data 36677@myserver -dcnEnable
```

You need to restart the Rational DOORS database server for these commands to take effect.

Running multiple Interoperation Servers

Setting up your system to run multiple Interoperation Servers can improve performance and increase the availability of the system.

Performance is improved because more modules can be cached, allowing quicker access to your data. Interface services have routing logic to perform basic load balancing across the Interoperation Servers.

Availability is improved because the system can continue to work if one of the Interoperation Servers fails. While one Interoperation Server is down, users can continue to access the database using the others.

To run multiple Interoperation Servers, start up multiple instances of the Interoperation Server.

All the Interoperation Servers must:

- Connect to the same interface services broker
- Use same Rational DOORS database server

The Interoperation Servers can be on different machines. For information, see step 3 in “Starting the system,” on page 49.

Starting the system

To start the system, you must start the processes in the following order:

1. Start the interface services broker by running `broker.start.bat`. This file is in the directory where you extracted `festival-win32.zip` on the machine hosting the interface services broker.
2. Start the Rational DOORS database server as a service on the machine hosting the database.
3. Run the Interoperation Server on the machine hosting it with its command-line attributes in the following format:

```
doors.exe -interop -data port@myserver -brokerHost myBroker  
-brokerPort
```

where:

- `port` is the port number the Rational DOORS database server is using and `myserver` is the name of the machine where the Rational DOORS database server is installed
 - `myBroker` is the name of the machine hosting the broker
 - `brokerport` is the port that the broker is using, by default 61616
4. Start the interface services server by running `server.start.bat`. This file is in the directory where you extracted `festival-win32.zip` on the machine hosting the server. It might be slow to start the first time it is run because it has to unpack some files.

When you run 1, 3 and 4, there is a “dos box” console for each process. Do not close these windows.

Configuring interface services

You can configure the interface services server and broker ports, HTTPS, and the Redirector Service:

- Configuring the interface services server port
- Configuring the interface services broker port
- Configuring HTTPS
- Configuring the Redirector Service
- A note on information security

Configuring the interface services server port

The main way of configuring the interface services server is to edit the `server.xml` file in the `conf` subdirectory.

1. Open the file.
2. Navigate to the following line:

```
<!-- Define a non-SSL HTTP/1.1 Connector on port 8080 -->
```

3. Change the port number in this line:

```
<Connector port="8080"
```

This is the port that the server listens on for HTTP requests.

Once you have completed this edit, save the file, and restart the interface services server.

Note Take care when changing the `server.xml` file, as incorrect edits can lead to a complete loss of system functionality. Make a backup of the file before you edit it.

Configuring the interface services broker port

You configure the interface services broker by editing the `activemq.xml` file in the `conf` subdirectory of the machine hosting the broker and the `festival.xml` file on the machine hosting the interface services server.

In the `activemq.xml` file, there are entries for `<transportConnectors>` followed by multiple `<transportConnect ...` elements. Each defines a protocol and port that the broker listens on.

Open `activemq.xml` and change the URI attribute in the `openwire` element, which defaults to port 61616:

```
<transportConnector name="openwire" uri="tcp://  
localhost:61616"/>
```

Once you have completed this edit, save the `activemq.xml` file.

Finally, on the machine hosting the interface services server, open the `festival.xml` file and modify the three broker ports (in bold in the following example):

```
<!-- Brokers we know about -->
<f:endpoints>
  <f:broker
    name="GENERALSERVICES"
    url="tcp://127.0.0.1:61616?wireFormat.tcpNoDelayEnabled=true"
    user name=""
    password="" />

  <f:broker
    name="DCSERVICES"
    url="tcp://127.0.0.1:61616?wireFormat.tcpNoDelayEnabled=true"
    user name=""
    password="" />

  <f:broker
    name="RMSERVICES"
    url="tcp://127.0.0.1:61616?wireFormat.tcpNoDelayEnabled=true"
    user name=""
    password="" />
</f:endpoints>
```

Once you have completed this edit, save the `festival.xml` file, and restart all the interface services components.

Note Take care when changing the `activemq.xml` file and the `festival.xml` file, as incorrect edits can lead to a complete loss of system functionality. Back up the files before you edit them.

Configuring HTTPS

The interface services support the use of HTTPS communication between the web browser and the interface services server.

To configure HTTPS you need a certificate. You can make one manually for testing purposes or you can purchase one from a trusted certificate authority.

You also need to have keystore containing the server certificate. You can create and manage a keystore using the standard java keytool facilities as documented on the Sun Web site.

You need to define a new connector to allow HTTPS. This is defined in the `Connector` element in the `server.xml` file in the server's `conf` subdirectory.

Open the file and make the changes in **bold**:

```
<!-- Delete this line from the file
```

```
<Connector port="8443" maxHttpHeaderSize="8192"
maxThreads="150" inSpareThreads="25"
MaxSpareThreads="75" enableLookups="false"
disableUploadTimeout="true" acceptCount="100"
scheme="https" secure="true" clientAuth="false"
sslProtocol="TLS"
keystoreFile="c:\Server\keystore.ks"
keystorePass="password"
keystorePass="password"algorithm="IbmX509"
/>
--> Delete this line from the file
```

By default, this `Connector` element is commented out. Deleting the line immediately preceding it and immediately after it makes the element active.

The changes to the file

- Set the server to use HTTPS on port 8443
- Use the keystore entries to identify the keystore that contains the server certificate

Once you have completed this edit, save the file, and restart the interface services server.

Note Take care when changing the `server.xml` file, as incorrect edits can lead to a complete loss of system functionality. Make a backup of the file before you edit it.

For more information about configuring HTTPS and for other methods of configuration, see the Tomcat user documentation.

Configuring the Redirector Service

You have to configure the Rational DOORS Redirector Service, the interface services server and the Rational DOORS Database Server.

1. Navigate to the directory where you extracted `festival-win32.zip`.
2. Open `server\festival\config\doorsRedirector.properties` in a text editor.
3. Set the `doors.url.prefix` value to match the database server that is serving the interface services in the form `doors://host:port/`, where `host` is the name of the Rational DOORS Database Server machine and `port` is the port number it uses (typically 36677).

Note Do not delete the `/` at the end of this value.

4. Set the `dwa.url.prefix` value to match the interface services server, in the form `http://host:port/dwa/`, where *host* is the name of the interface services server machine, and *port* is the port number it uses (typically 8080).

Note Do not delete the / at the end of this value.

5. Optionally:
 - Disable forwarding from the redirector service to the interface services s by setting `<entry key="dwa.enable">false</entry>`
 - Disable forwarding from the redirector service to Rational DOORS by setting `<entry key="doors.enable">false</entry>`

6. Save and close the file.

7. Open `server\festival\config\festival.xml` in a text editor.

8. Find the line beginning `<f:property name="published.url.prefix"`.

9. Change *MYHOSTNAME* to the name of the machine where the Redirector Service is installed, then save and close the file.

Note Do not delete the / at the end of this value.

10. Start `doorsd` then configure the Rational DOORS Database Server so that generated URLs refer to the Redirector Service. In the bin directory of the database server installation, run the command:

```
dbadmin -data port@host -urlPrefix http://yourdwaserver:port/doors/redirector
```

where *yourdwaserver* is the name of the interface services server machine, and *port* is the port number it uses (typically 8080).

11. Restart the interface services components.

A note on information security

The default deployment of the interface services uses insecure communication protocols throughout the stack.

Though the system supports the use of HTTPS to protect communications between the browser and the interface services server, there is currently no support for secure communication between different server-side components.

Running interface services and Rational DOORS Web Access on the same machine

You can configure the interface services server and broker ports, HTTPS, and the Redirector Service:

- Configuring the interface services server port
- Configuring the interface services broker port
- Configuring HTTPS
- Configuring the Redirector Service
- A note on information security

Configuring the interface services server port

The main way of configuring the interface services server is to edit the `server.xml` file in the `conf` subdirectory.

1. Open the file.
2. Navigate to the following line:

```
<!-- Define a non-SSL HTTP/1.1 Connector on port 8080 -->
```

3. Change the port number in this line:

```
<Connector port="8080"
```

This is the port that the server listens on for HTTP requests.

Once you have completed this edit, save the file, and restart the interface services server.

Note Take care when changing the `server.xml` file, as incorrect edits can lead to a complete loss of system functionality. Make a backup of the file before you edit it.

Configuring the interface services broker port

You configure the interface services broker by editing the `activemq.xml` file in the `conf` subdirectory of the machine hosting the broker and the `festival.xml` file on the machine hosting the interface services server.

In the `activemq.xml` file, there are entries for `<transportConnectors>` followed by multiple `<transportConnect ...` elements. Each defines a protocol and port that the broker listens on.

Open `activemq.xml` and change the URI attribute in the `openwire` element, which defaults to port 61616:

```
<transportConnector name="openwire" uri="tcp://
localhost:61616"/>
```

Once you have completed this edit, save the `activemq.xml` file.

Finally, on the machine hosting the interface services server, open the `festival.xml` file and modify the three broker ports (in bold in the following example):

```
<!-- Brokers we know about -->
<f:endpoints>
  <f:broker
    name="GENERSERVICES"
    url="tcp://127.0.0.1:61616?wireFormat.tcpNoDelayEnabled=true"
    user name=""
    password="" />

  <f:broker
    name="DCSERVICES"
    url="tcp://127.0.0.1:61616?wireFormat.tcpNoDelayEnabled=true"
    user name=""
    password="" />

  <f:broker
    name="RMSERVICES"
    url="tcp://127.0.0.1:61616?wireFormat.tcpNoDelayEnabled=true"
    user name=""
    password="" />
</f:endpoints>
```

Once you have completed this edit, save the `festival.xml` file, and restart all the interface services components.

Note Take care when changing the `activemq.xml` file and the `festival.xml` file, as incorrect edits can lead to a complete loss of system functionality. Back up the files before you edit them.

Configuring HTTPS

The interface services support the use of HTTPS communication between the web browser and the interface services server.

To configure HTTPS you need a certificate. You can make one manually for testing purposes or you can purchase one from a trusted certificate authority.

You also need to have keystore containing the server certificate. You can create and manage a keystore using the standard java keytool facilities as documented on the Sun Web site.

You need to define a new connector to allow HTTPS. This is defined in the Connector element in the `server.xml` file in the server's `conf` subdirectory.

Open the file and make the changes in **bold**:

```
<!-- Delete this line from the file
<Connector port="8443" maxHttpHeaderSize="8192"
maxThreads="150" inSpareThreads="25"
MaxSpareThreads="75" enableLookups="false"
disableUploadTimeout="true" acceptCount="100"
scheme="https" secure="true" clientAuth="false"
sslProtocol="TLS"
keystoreFile="c:\Server\keystore.ks"
keystorePass="password"
keystorePass="password"algorithm="IbmX509"
/>
--> Delete this line from the file
```

By default, this Connector element is commented out. Deleting the line immediately preceding it and immediately after it makes the element active.

The changes to the file

- Set the server to use HTTPS on port 8443
- Use the keystore entries to identify the keystore that contains the server certificate.

Once you have completed this edit, save the file, and restart the interface services server.

Note Take care when changing the `server.xml` file, as incorrect edits can lead to a complete loss of system functionality. Make a backup of the file before you edit it.

For more information about configuring HTTPS and for other methods of configuration, see the Tomcat user documentation.

Configuring the Redirector Service

You have to configure the Rational DOORS Redirector Service, the interface services server and the Rational DOORS Database Server.

1. Navigate to the directory where you extracted `festival-win32.zip`.
2. Open `server\festival\config\doorsRedirector.properties` in a text editor.
3. Set the `doors.url.prefix` value to match the database server that is serving the interface services in the form `doors://host:port/`, where

host is the name of the Rational DOORS Database Server machine and *port* is the port number it uses (typically 36677).

Note Do not delete the / at the end of this value.

4. Set the `dwa.url.prefix` value to match the interface services server, in the form `http://host:port/dwa/`, where *host* is the name of the interface services server machine, and *port* is the port number it uses (typically 8080).

Note Do not delete the / at the end of this value.

5. Optionally:

- Disable forwarding from the redirector service to the interface services s by setting `<entry key="dwa.enable">false</entry>`
- Disable forwarding from the redirector service to Rational DOORS by setting `<entry key="doors.enable">false</entry>`

6. Save and close the file.

7. Open `server\festival\config\festival.xml` in a text editor.

8. Find the line beginning `<f:property name="published.url.prefix"`.

9. Change *MYHOSTNAME* to the name of the machine where the Redirector Service is installed, then save and close the file.

Note Do not delete the / at the end of this value.

10. Start `doorsd` then configure the Rational DOORS Database Server so that generated URLs refer to the Redirector Service. In the bin directory of the database server installation, run the command:

```
dbadmin -data port@host -urlPrefix http://yourdwaserver:port/doors/redirector
```

where *yourdwaserver* is the name of the interface services server machine, and *port* is the port number it uses (typically 8080).

11. Restart the interface services components.

A note on information security

The default deployment of the interface services uses insecure communication protocols throughout the stack.

Though the system supports the use of HTTPS to protect communications between the browser and the interface services server, there is currently no support for secure communication between different server-side components.

Shutting down the system

To shut down the system you must stop the following processes:

1. Stop the interface services server by running `server.shutdown.bat`. This file is in the directory where you extracted `festival-win32.zip` on the machine hosting the interface services server.
 - Stop the Interoperation Server using the “close window” option.
 - Stop the Rational DOORS database server using the Windows Control Panel.
 - Stop the interface services broker by running `broker.shutdown.bat`. This file is in the directory where you extracted `festival-win32.zip` on the machine hosting the interface services broker. The process might take some time to end (15-30 seconds), and might report a number of socket warnings while shutting down.

Running interface services and Rational DOORS Web Access on the same machine

Note This section assumes you have already installed and configured the interface services, the Interoperation Server, the Rational DOORS client, the Rational DOORS database server, and Rational DOORS Web Access.

There are extra tasks you need to complete if you plan to run the interface services and Rational DOORS Web Access on the same machine.

You need to reset the interface services server port, and then start and stop some of the interface services and the Rational DOORS Web Access components to pick up the new values:

- Resetting the interface services server port
- Starting and stopping components

Resetting the interface services server port

You need to reset the port number in the `server.xml` file in the `conf` subdirectory:

1. Navigate to the file.
2. Open the file.
3. Change the Shutdown and Start port numbers.

4. To change the Shutdown port number, change the port number in the following line:

```
<Server port="8005" shutdown="SHUTDOWN">
```

5. To change the Start port number, navigate to the following line:

```
<!-- Define a non-SSL HTTP/1.1 Connector on port 8080 -->
```

6. Change the port number in the next line:

```
<Connector port="8080"
```

7. Save the file.

Starting and stopping components

You need to start and stop the following components:

- The Rational DOORS Web Access broker
- The Interoperation Server
- The Rational DOORS Web Access server
- The interface services server

Starting and stopping the Rational DOORS Web Access broker

1. Start the Rational DOORS Web Access broker by running `broker.start.bat`. This file is in the directory where you extracted `festival-win32.zip` when you installed the Rational DOORS Web Access.
2. Stop the Rational DOORS Web Access broker by running `broker.shutdown.bat`. This file is in the same directory as `broker.start.bat`.

Starting and stopping the Interoperation Server

1. Start the Interoperation Server by running it with its command-line attributes in the following format:

```
doors.exe -interop -data port@myserver -brokerHost myBroker  
-brokerPort
```

where:

- *port* is the port number the Rational DOORS database server is using and *myserver* is the name of the machine where the Rational DOORS database server is installed
- *myBroker* is the name of the machine hosting the broker

- *brokerport* is the port that the broker is using, by default 61616.
2. Stop the Interoperation Server using the “close window” option.

Starting and stopping the Rational DOORS Web Access server

1. Start the Rational DOORS Web Access server by running `server.start.bat`. This file is in the directory where you extracted `festival-win32.zip` when you installed the Rational DOORS Web Access.
2. Stop the Rational DOORS Web Access server by running `server.shutdown.bat`. This file is in the same directory as `server.start.bat`.

Starting and stopping the interface services server

1. Start the interface services server by running `server.start.bat`. This file is in the directory where you extracted `festival-win32.zip` when you installed the interface services.
2. Stop the interface services server by running `server.shutdown.bat`. This file is in the same directory as `server.start.bat`.

Uninstalling the interface services

Follow these instructions to uninstall the interface services from your system.

- Uninstall the interface services server by deleting the festival directory
- Uninstall the interface services broker by deleting the festival directory
- Uninstall the Interoperation Server and the Rational DOORS database server using **Add and Remove Programs** in the Windows Control Panel

9

Installing the Rational DOORS server interface services on Solaris

This chapter contains the following:

- Introduction
- The interface services components
- Installing the Rational DOORS database server
- Installing the Interoperation Server
- Installing the interface services server and broker
- Starting the system
- Shutting down the system
- Running interface services and Rational DOORS Web Access on the same machine
- Uninstalling interface services

Introduction

During the installation of the Rational DOORS database server, there is a prompt asking you whether you want to install the Rational DOORS server interface services. When you enter *y*, you install both the Rational DOORS database server and the Rational DOORS server interface services (interface services), which allows Rational DOORS to interface with selected integration products.

This chapter describes how install and set up the interface services on Solaris.

If you only want to install the Rational DOORS database server, ignore this chapter and follow the steps in “Installing the Rational DOORS database server”, on page 37.

The interface services components

Installing the interface services involves the installation of a number of discrete components. These components are copied to your machine.

Component	Description
Interface services server	An adaptation of Apache Tomcat. Tomcat is an application server that executes Java servlets and renders web pages that include JavaServer Pages code. You need to run the adapted version of Tomcat that is supplied by Rational as one of the Rational DOORS interface services bundled components.
Interface services broker	An adaptation of Apache ActiveMQ. ActiveMQ is an open source message broker that implements the Java Message Service (JMS) The broker is supplied by Rational as one of the Rational DOORS interface services bundled components.
Rational DOORS database server	The data you are accessing is stored in your Rational DOORS database server.
Interoperation Server	A Rational DOORS client that is run using the <code>-interop</code> command-line parameter.

You must install these components to run the interface services. Follow the instruction in these topics to install the components.

Installing the Rational DOORS database server

To install the Rational DOORS database server:

1. Follow step 1 to step 9 in “Installing the Rational DOORS database server”, on page 37.
2. Answer the prompts on the screen:
 - a. Enter path to DVD-ROM device or Rational DOORS distribution:

[/cdrom]

- b. Enter `y` at the second prompt, to install the Rational DOORS database server:

```
Install package DOORS_SERVER [y]: y
```

- c. Enter the path to the Rational DOORS home directory you created in Step 6 of “Installing the Rational DOORS database server”, on page 37.

- d. Enter `y` at the prompt:

```
Install DOORS_SERVER Interface Services [n]: y
```

This copies the `festival-sol.zip` file, which contains the interface services server and broker, to your machine. You extract the file and install them later.

- e. Enter the name of the Rational DOORS owner (by default, `doors`).
- f. Confirm that you want to install the server.
- g. The installation script then confirms all the installation options and installs the files. Press **ENTER** when the installation finishes.

3. Edit the startup file of the Rational DOORS owner.

The following table shows the lines you must add or edit:

Startup file	Code
Bourne or K shell .profile	<pre>DOORSHOME=doors-home-path SERVERDATA=datapath PATH=\$DOORSHOME/bin:\$PATH PORTNUMBER=database-server-port-number export DOORSHOME SERVERDATA PATH PORTNUMBER DOORSDATA</pre>
C shell .login	<pre>setenv DOORSHOME doors-home-path setenv SERVERDATA datapath set path=(\$DOORSHOME/bin \$path) setenv PORTNUMBER database-server-port-number</pre>

4. Start the Rational DOORS database server:

- a. Log on as the Rational DOORS owner user.
- b. Change your working directory to `$DOORSHOME/bin`.
- c. Enter the following command:

```
./doorsd &
```

Note If you use the Korn shell and do not use “doorsd &” in a system startup script, execute the following command instead:

```
“nohup doorsd &”
```

Installing the Interoperation Server

To run the interface services on a Solaris system, you must install an Interoperation Server.

To install the Interoperation Server:

1. Copy **solaris.zip** to the machine you want to run the Interoperation Server on and log on as **root**.
2. Create a home directory for the installation.
3. Create a non-privileged account to own the Interoperation Server files. You could call this user **doors**.

4. Navigate to the directory containing **solaris.zip** and extract it:

```
unzip solaris.zip
```

5. Navigate to the directory containing the installers and run the installers:

```
cd unix/bin
```

6. Run the installers:

```
./instdoor.sh
```

You use this file to install the Interoperation Server.

7. Answer the prompts on the screen:
 - a. Enter path to CD-ROM device or Rational DOORS distribution.
 - b. Accept the installation of the Interoperation Server.
 - c. Enter the path to the home directory you created in Step 2.
 - d. Enter **y** to confirm that you want to install the interface services. This copies the **festival-sol.zip** file, which contains the interface services server and broker, to your machine. You extract the file and install them later.
 - e. Enter the name of the Rational DOORS owner you set up in Step 3.
 - f. Confirm the type of installation. Select both the **Common** installation and the **Solaris** installation.

8. The installation script then confirms all the installation options and installs the files.
9. When the installation finishes, press **ENTER**. Any updates that are required for the account profile that you created to own the Interoperation Server files are displayed in the output.

Installing the interface services server and broker

To install the interface services server and the interface services broker:

1. Copy the `festival-sol.zip`, which is in the `interfaces` directory of the server installation area, to the machine or machines you want to install interface services server and broker on. If you want to install the server and broker on different machines, repeat the following instructions on each machine.
2. Decide which directory you want to install on, and extract `festival-sol.zip` to install it.
3. Set the appropriate permissions on the files in the directory structure and install the JRE by running the `configure-festival.sh` script.
 - a. Navigate to the `festival` directory.
 - b. Run the script:

```
bash configure-festival.sh
```

Note The script reports that it is installing JRE. JRE is localized to the current directory and does not affect any other Java installations on the system.

You are now ready to set up the components to communicate with one another. For instructions, see “Setting up the components”, on page 44.

Note The instructions in the section entitled “Setting up the components”, on page 44 are the same for Windows, Solaris, and Linux with one exception. When you set up the Rational DOORS database server you need to run `dbadmin`. On Solaris and Linux, `dbadmin` is located in the `$DOORSHOME/bin` directory.

If you want to run multiple Interoperation Servers, see “Running multiple Interoperation Servers”, on page 48.

Starting the system

To start the system you must start the processes in the following order:

1. Log on as the user who owns the Rational DOORS files. This is the user you created when you installed the Interoperation Server.
2. Start the broker by running `broker.start.sh`, which is in the `festival` directory on the machine hosting the broker.
3. Set the following environment variables on the machine hosting the Rational DOORS database server.

```
DOORSHOME=doors-home-path
SERVERDATA=path_to_data_directory
PATH=$DOORSHOME/bin:$PATH
PORTNUMBER=database-server-port-number
export DOORSHOME SERVERDATA PATH PORTNUMBER DOORSDATA
```

Note This `DOORSHOME` variable relates to where the Rational DOORS database server is installed.

4. Start the Rational DOORS database server:
 - a. Log on as the user that owns the Rational DOORS files.
 - b. Change your working directory to `$DOORSHOME/bin`.
 - c. Enter the following command:

```
./doorsd &
```
5. Set the following environment variables on the machine hosting the Interoperation Server:

```
DOORSHOME=doors-home-path
DOORSDATA=36677@myserver
PATH=$DOORSHOME/bin:$PATH
export DOORSHOME PATH DOORSDATA
```

Note If the installation directory for the database server and the Interoperation Server are different, then the required profile updates are in conflict. This `DOORSHOME` variable relates to where the Interoperation Server is installed. This might be different from the `DOORSHOME` variable used in Step 3.

- d. Navigate to `$DOORSHOME/bin` and run the Interoperation Server with its command-line attributes in the following format:

```
./doors9 -interop -data port@myserver -brokerHost
myBroker -brokerPort brokerport &
```

where:

- *port* is the port number the Rational DOORS database server is using and *myserver* is the name of the machine where the Rational DOORS database server is installed
 - *myBroker* is the name of the machine hosting the broker
 - *brokerport* is the port that the broker is using, by default 61616
6. Start the interface services server by running `server.start.sh`, which is in the `festival` directory on the machine hosting the server.

Shutting down the system

To shut down the system stop the following processes:

1. Stop the interface services server by running `server.shutdown.sh` script. This script is in the `festival` directory. The process might take some time to end (15-30 seconds), and might report a number of socket warnings while shutting down.
2. Stop the Interoperation Server by killing the process.
3. Stop the Rational DOORS database server using the following command from `$DOORSHOME/bin`:

```
dbadmin -data port@computer -killserver [-password password]
```
4. Stop the interface services broker by running the `broker.shutdown.sh` script in the `festival` directory: The process might take some time to end (15-30 seconds), and might report a number of socket warnings while shutting down.

Running interface services and Rational DOORS Web Access on the same machine

Note This section assumes you have already installed and configured the interface services, the Interoperation Server, the Rational DOORS client, the Rational DOORS database server, and Rational DOORS Web Access.

There are extra tasks you need to complete if you plan to run the interface services and Rational DOORS Web Access on the same machine.

You need to reset the interface services server port, and then start and stop some of the interface services and the Rational DOORS Web Access components to pick up the new values:

- Resetting the interface services server port
- Starting and stopping components

Resetting the interface services server port

You need to reset the port number in the `server.xml` file in the `conf` subdirectory:

1. Navigate to the file.
2. Open the file.
3. Change the Shutdown and Start port numbers.
4. To change the Shutdown port number, change the port number in the following line:

```
<Server port="8005" shutdown="SHUTDOWN">
```

5. To change the Start port number, navigate to the following line:

```
<!-- Define a non-SSL HTTP/1.1 Connector on port 8080 -->
```

6. Change the port number in the next line:

```
<Connector port="8080"
```

7. Save the file.

Starting and stopping components

You need to start and stop the following components:

- The Rational DOORS Web Access broker
- The Interoperation Server
- The Rational DOORS Web Access server
- The interface services server

Starting and stopping the Rational DOORS Web Access broker

1. Start the Rational DOORS Web Access broker by running `broker.start.sh`. This file is in the directory where you extracted `festival-sol.zip` when you installed the Rational DOORS Web Access.
2. Stop the Rational DOORS Web Access broker by running `broker.shutdown.sh`. This file is in the same directory as `broker.start.sh`.

Starting and stopping the Interoperation Server

1. Start the Interoperation Server by running it with its command-line attributes in the following format:

```
./doors9 -interop -data port@myserver -brokerHost  
myBroker -brokerPort brokerport &
```

where:

- *port* is the port number the Rational DOORS database server is using and *myserver* is the name of the machine where the Rational DOORS database server is installed
 - *myBroker* is the name of the machine hosting the broker
 - *brokerport* is the port that the broker is using, by default 61616
2. Stop the Interoperation Server by killing the process

Starting and stopping the Rational DOORS Web Access server

1. Start the Rational DOORS Web Access server by running `server.start.sh`. This file is in the directory where you extracted `festival-sol.zip` when you installed the Rational DOORS Web Access.
2. Stop the Rational DOORS Web Access server by running `server.shutdown.sh`. This file is in the same directory as `server.start.sh`.

Starting and stopping the interface services server

1. Start the interface services server by running `server.start.sh`. This file is in the directory where you extracted `festival-sol.zip` when you installed the interface services.
2. Stop the interface services server by running `server.shutdown.sh`. This file is in the same directory as `server.start.sh`.

Uninstalling interface services

To remove interface services from your system:

- Uninstall the interface services server and broker by deleting the `festival` directory
- Uninstall the Interoperation Server and the Rational DOORS database server by deleting `$DOORSHOME`

10

Installing the Rational DOORS server interface services on Linux

This chapter contains the following:

- Introduction
- The interface services components
- Installing the Rational DOORS database server
- Installing the Interoperation Server
- Installing the interface services server and broker
- Starting the system
- Shutting down the system
- Running interface services and Rational DOORS Web Access on the same machine
- Uninstalling interface services

Introduction

During the installation of the Rational DOORS database server, there is a prompt asking you whether you want to install the Rational DOORS server interface services. When you enter *y*, you install both the Rational DOORS database server and the Rational DOORS server interface services (interface services), which allows Rational DOORS to interface with selected integration products.

This chapter describes how install and set up the interface services on Linux.

If you only want to install the Rational DOORS database server, ignore this chapter and follow the steps in “Installing the Rational DOORS database server”, on page 37.

The interface services components

Installing the interface services involves the installation of a number of discrete components. These components are copied to your machine.

Component	Description
Interface services server	An adaptation of Apache Tomcat. Tomcat is an application server that executes Java servlets and renders web pages that include JavaServer Pages code. You need to run the adapted version of Tomcat that is supplied by Rational as one of the Rational DOORS interface services bundled components.
Interface services broker	An adaptation of Apache ActiveMQ. ActiveMQ is an open source message broker that implements the Java Message Service (JMS) The broker is supplied by Rational as one of the Rational DOORS interface services bundled components.
Rational DOORS database server	The data you are accessing is stored in your Rational DOORS database server.
Interoperation Server	A Rational DOORS client that is run using the <code>-interop</code> command-line parameter.

You must install these components to run the interface services. Follow the instruction in the these topics to install the components.

Installing the Rational DOORS database server

To install the Rational DOORS database server:

1. Follow step 1 to step 9 in “Installing the Rational DOORS database server”, on page 37.
2. Answer the prompts on the screen:
 - a. Enter path to DVD-ROM device or Rational DOORS distribution:

[/cdrom]

- b. Enter `y` at the second prompt, to install the Rational DOORS database server:

```
Install package DOORS_SERVER [y]: y
```

- c. Enter the path to the Rational DOORS home directory you created in Step 6 of “Installing the Rational DOORS database server”, on page 37.

- d. Enter `y` at the prompt:

```
Install DOORS SERVER Interface Services [n]: y
```

This copies the `festival-linux.zip` file, which contains the interface services server and broker, to your machine. You extract the file and install them later.

- e. Enter the name of the Rational DOORS owner (by default, `doors`).
- f. Confirm that you want to install the server.
- g. The installation script then confirms all the installation options and installs the files. Press **ENTER** when the installation finishes.

3. Edit the startup file of the Rational DOORS owner.

The following table shows the lines you must add or edit:

Startup file	Code
Bourne or K shell .profile	<pre>DOORSHOME=doors-home-path SERVERDATA=datapath PATH=\$DOORSHOME/bin:\$PATH PORTNUMBER=database-server-port-number export DOORSHOME SERVERDATA PATH PORTNUMBER DOORSDATA</pre>
C shell .login	<pre>setenv DOORSHOME doors-home-path setenv SERVERDATA datapath set path=(\$DOORSHOME/bin \$path) setenv PORTNUMBER database-server-port-number</pre>

4. Start the Rational DOORS database server:

- a. Log on as the Rational DOORS owner user.
- b. Change your working directory to `$DOORSHOME/bin`.
- c. Enter the following command:

```
./doorsd &
```

Note If you use the Korn shell and do not use “doorsd &” in a system startup script, execute the following command instead:

```
“nohup doorsd &”
```

Installing the Interoperation Server

To run the interface services on a Linux system, you must install an Interoperation Server.

To install the Interoperation Server:

1. Copy **linux.zip** to the machine you want to run the Interoperation Server on and log on as **root**.
2. Create a home directory for the installation.
3. Create a non-privileged account to own the Interoperation Server files. You could call this user **doors**.

4. Navigate to the directory containing **linux.zip** and extract it:

```
unzip linux.zip
```

5. Navigate to the directory containing the installers and run the installers:

```
cd unix/bin
```

6. Run the installers:

```
./instdoor.sh
```

You use this file to install the Interoperation Server.

7. Answer the prompts on the screen:
 - a. Enter path to CD-ROM device or Rational DOORS distribution.
 - b. Accept the installation of the Interoperation Server.
 - c. Enter the path to the Rational DOORS home directory you created in Step 2.
 - d. Enter **y** to confirm that you want to install the interface services. This copies the **festival-linux.zip** file, which contains the interface services server and broker, to your machine. You extract the file and install them later.
 - e. Enter the name of the Rational DOORS owner you set up in Step 3.

Starting the system

To start the system you must start the processes in the following order:

1. Log on as the user who owns the Rational DOORS files. This is the user you created when you installed the Interoperation Server.
2. Start the broker by running `broker.start.sh`, which is in the `festival` directory on the machine hosting the broker.
3. Set the following environment variables on the machine hosting the Rational DOORS database server.

```
DOORSHOME=doors-home-path
SERVERDATA=path_to_data_directory
PATH=$DOORSHOME/bin:$PATH
PORTNUMBER=database-server-port-number
export DOORSHOME SERVERDATA PATH PORTNUMBER DOORSDATA
```

Note This `DOORSHOME` variable relates to where the Rational DOORS database server is installed.

4. Start the Rational DOORS database server:
 - a. Log on as the user that owns the Rational DOORS files.
 - b. Change your working directory to `$DOORSHOME/bin`.
 - c. Enter the following command:

```
./doorsd &
```
5. Set the following environment variables on the machine hosting the Interoperation Server:

```
DOORSHOME=doors-home-path
DOORSDATA=36677@myserver
PATH=$DOORSHOME/bin:$PATH
export DOORSHOME PATH DOORSDATA
```

Note If the installation directory for the database server and the Interoperation Server are different, the required profile updates are in conflict. This `DOORSHOME` variable relates to where the Interoperation Server is installed. This might be different from the `DOORSHOME` variable used in Step 3.

- d. Navigate to `$DOORSHOME/bin` and run the Interoperation Server with its command-line attributes in the following format:

```
./doors9 -interop -data port@myserver -brokerHost
myBroker -brokerPort brokerport &
```

where:

- *port* is the port number the Rational DOORS database server is using and *myserver* is the name of the machine where the Rational DOORS database server is installed
 - *myBroker* is the name of the machine hosting the broker
 - *brokerport* is the port that the broker is using, by default 61616
6. Start the interface services server by running `server.start.sh`, which is in the `festival` directory on the machine hosting the server.

Shutting down the system

To shut down the system stop the following processes:

1. Stop the interface services server by running `server.shutdown.sh` script. This script is in the `festival` directory. The process might take some time to end (15-30 seconds), and might report a number of socket warnings while shutting down.
2. Stop the Interoperation Server by killing the process.
3. Stop the Rational DOORS database server using the following command from `$DOORSHOME/bin`:

```
dbadmin -data port@computer -killserver [-password password]
```
4. Stop the interface services broker by running the `broker.shutdown.sh` script in the `festival` directory: The process might take some time to end (15-30 seconds), and might report a number of socket warnings while shutting down.

Running interface services and Rational DOORS Web Access on the same machine

Note This section assumes you have already installed and configured the interface services, the Interoperation Server, the Rational DOORS client, the Rational DOORS database server, and Rational DOORS Web Access.

There are extra tasks you need to complete if you plan to run the interface services and Rational DOORS Web Access on the same machine.

You need to reset the interface services server port, and then start and stop some of the interface services and the Rational DOORS Web Access components to pick up the new values:

- Resetting the interface services server port
- Starting and stopping components

Resetting the interface services server port

You need to reset the port number in the `server.xml` file in the `conf` subdirectory:

1. Navigate to the file.
2. Open the file.
3. Change the Shutdown and Start port numbers.
4. To change the Shutdown port number, change the port number in the following line:

```
<Server port="8005" shutdown="SHUTDOWN">
```

5. To change the Start port number, navigate to the following line:

```
<!-- Define a non-SSL HTTP/1.1 Connector on port 8080 -->
```

6. Change the port number in the next line:

```
<Connector port="8080"
```

7. Save the file.

Starting and stopping components

You need to start and stop the following components:

- The Rational DOORS Web Access broker
- The Interoperation Server
- The Rational DOORS Web Access server
- The interface services server

Starting and stopping the Rational DOORS Web Access broker

1. Start the Rational DOORS Web Access broker by running `broker.start.sh`. This file is in the directory where you extracted `festival-linux.zip` when you installed the Rational DOORS Web Access.
2. Stop the Rational DOORS Web Access broker by running `broker.shutdown.sh`. This file is in the same directory as `broker.start.sh`.

Starting and stopping the Interoperation Server

1. Start the Interoperation Server by running it with its command-line attributes in the following format:

```
./doors9 -interop -data port@myserver -brokerHost  
myBroker -brokerPort brokerport &
```

where:

- *port* is the port number the Rational DOORS database server is using and *myserver* is the name of the machine where the Rational DOORS database server is installed
 - *myBroker* is the name of the machine hosting the broker
 - *brokerport* is the port that the broker is using, by default 61616
2. Stop the Interoperation Server by killing the process

Starting and stopping the Rational DOORS Web Access server

1. Start the Rational DOORS Web Access server by running `server.start.sh`. This file is in the directory where you extracted `festival-linux.zip` when you installed the Rational DOORS Web Access.
2. Stop the Rational DOORS Web Access server by running `server.shutdown.sh`. This file is in the same directory as `server.start.sh`.

Starting and stopping the interface services server

1. Start the interface services server by running `server.start.sh`. This file is in the directory where you extracted `festival-linux.zip` when you installed the interface services.
2. Stop the interface services server by running `server.shutdown.sh`. This file is in the same directory as `server.start.sh`.

Uninstalling interface services

To remove interface services from your system:

- Uninstall the interface services server and broker by deleting the `festival` directory
- Uninstall the Interoperation Server and the Rational DOORS database server by deleting `$(DOORSHOME)`

11

Installing Rational DOORS for HP Quality Center Interface

This chapter contains information about how to install and configure version 3.4 of Rational DOORS for HP Quality Center Interface to integrate with Rational DOORS 9.2. It contains the following:

- Understanding the installation options
- Upgrading from previous versions of the integration
- Installing the Integration Server
- Installing an Integration Client
- Installing the Administration Console
- Upgrading version 3.1 data
- Uninstalling the Integration

Understanding the installation options

The Integration installer has two installation options:

- Integration Client

You install an integration client on each Rational DOORS client that needs to use the integration. This option allows the Rational DOORS user to access the integration options available in the Rational DOORS client.

- Integration Server

This option installs both the Integration Server and the Integration Client.

Upgrading from previous versions of the integration

The following sections describe what you must do to upgrade to version 3.4 from a previous version.

- Upgrade from version 1.8
- Upgrade from version 3.0
- Upgrade from version 3.1
- Upgrade from version 3.2 and 3.3

Upgrade from version 1.8

1. Migrate your data.
You must synchronize your data before you uninstall version 1.8.
2. Uninstall version 1.8 using **Add or Remove Programs** from the Windows Control Panel.
3. Install version 3.1.
You do not have to configure or run version 3.1 after you install it, but you must install it before you install version 3.4.
4. Install version 3.4 and migrate 3.1 data to 3.4.
For information about migrating data from version 3.1 to 3.4, see “Upgrading version 3.1 data,” on page 88.

Upgrade from version 3.0

On machines with version 3.0 of TestDirector Integration installed, install version 3.1, then install version 3.4 and migrate 3.1 data to 3.4.

For information about migrating data from version 3.1 to 3.4, see “Upgrading version 3.1 data,” on page 88.

Upgrade from version 3.1

You can upgrade direct to version 3.4 from version 3.1.

On machines with version 3.1 of TestDirector Integration installed, install version 3.4, then migrate 3.1 data to 3.4.

For information about migrating data from version 3.1 to 3.4, see “Upgrading version 3.1 data,” on page 88.

Upgrade from version 3.2 and 3.3

Rational DOORS for HP Quality Center Interface includes a migration tool that allows you to upgrade and migrate from version 3.2 and 3.3.

Installing the Integration Server

If you are upgrading the Integration Server, see “Upgrading from previous versions of the integration,” on page 81 for information about how to upgrade to 3.4.

Run the installer

To install the Integration Server:

1. Check that you meet the system requirements. Details of system requirements can be found in the Rational DOORS for HP Quality Center Interface readme file, which is available from our Web site at <http://publib.boulder.ibm.com/infocenter/rsdp/v1r0m0/index.jsp>.
2. If you are running version 3.2 or 3.3, uninstall it.
3. Make sure that you are logged on to your computer as a user with Administrator privileges.
4. Shut down all other applications. In particular, shut down Microsoft Office applications, including the Microsoft Office toolbar.
5. Check that the default Web site in the Internet Services Manager is started. If it is not, right-click and select **Start**.
6. Using Windows Explorer, double-click **setup.exe**.

The **Welcome** screen is displayed.

If the **Modify/Repair/Remove** dialog box is displayed, exit the installer and modify the installation using **Add or Remove Programs** in the Windows Control Panel.

Note If the .NET Framework v2.0 is not detected by the installer, a browser window is opened at Microsoft's .NET Framework download page. You must install the .NET Framework before you continue. You might need to reboot your machine.

7. Click **Next**.
The **License Agreement** screen is displayed.
8. Select the **I accept** option and click **Next**.
The **Choose Destination Location** screen is displayed.
9. Enter the path to the folder you want to install to, or leave the default.
10. Click **Next**.
The **Setup Type** screen is displayed.
11. Select **Server** and click **Next**.

Note This option installs both the Integration Client and the Integration Server.

The **Integration Server TCP Port** screen is displayed.

12. Enter the TCP port on which the Internet Information Service is serving the default Web site.

To find out the port number:

- a. On the desktop, right-click on **My Computer** and select **Manage**.
The **Computer Management** window is displayed.
- b. Navigate **Services and Applications > Internet Information Service (IIS) Manager > Web Sites**.
- c. Right-click **Default Web Site** and select **Properties**.

The TCP Port is displayed in the Web Site Identification panel.

13. Click **Next**.

The **Enter Domain \Groupname** screen is displayed.

14. Enter the fully qualified group name that is authorized to access the Administration Console. *Domain* is the name of the machine you are installing the Integration Server on and *Groupname* is the name of a group with the necessary privileges (for example, `QCI_Server\QCI_Admin_Console_Users`).

If you need to create the group, use the **Computer Management** window.

15. Click **Next**.

The **Ready to Install the Program** screen is displayed.

16. Click **Install**.

The necessary files are installed on the machine.

Note If you do not have IIS installed, an error is displayed. You must click **Abort**, install IIS, then reinstall the Integration Server.

17. Click **Finish**.

The install wizard closes.

Run the configuration tool

Before you proceed, you need to configure the Integration Server.

To configure the Integration Server:

1. If it is still open, shut down the Computer Manager.

2. From the Start menu select **IBM Rational > IBM Rational Lifecycle Solution Tools > IBM Rational DOORS Quality Center Integration 3.4 Tools > Set Access Permissions**.

The **Rational DOORS for HP Quality Center Interface Configuration Tool** dialog box is displayed.

3. In **Username** enter a user.

By default, a local machine user called IWSUSER is used in this tool. However, you can specify a domain user instead. The tool cannot create a domain user, but if one exists it can be used.

- If you want to specify or create IWSUSER, enter **<machinename>\IWSUSER**.
 - If a user named IWSUSER already exists, leave the check box clear.
 - If a user named IWSUSER does not exist, select the check box.
- If you want to specify a domain user, enter **<domainname>\<username>**, and leave the check box clear.

4. Enter a password in the **Password** and **Confirm Password** boxes.

- If IWSUSER exists, enter the user's existing password.
- If IWSUSER does not exist, enter a new password.

This password uses the Windows 2003 password rules that are in force on your system.

5. Click **Next**.

The **Gathering the virtual folder structure** dialog box is displayed.

6. Enter the name of the Web site that is hosting the services, or leave the default.

7. Enter the path to the location of the virtual folder for Tivoli Directory Integrator Services and the SOQ Services, or leave the defaults.

8. Click **Next**.

The **Applying configuration** dialog box is displayed.

A warning dialog box is also displayed.

9. Click **Yes**. When all the categories have been successfully configured, click **Next**.

A summary screen is displayed.

You can use the **Copy** button to copy the summary text.

10. Click **Next**.

The **Testing Services** dialog box is displayed.

You can use the **Copy** button to copy the results text.

11. Select **Run Tests** to test the availability of the services.
12. If necessary, add the IWSUSER to the group you created in step 14 of “Run the installer,” on page 83.
13. Navigate to Quality Center and log on to download ActiveX components.
14. Click Finish.

Installing an Integration Client

Once the Integration Server has been installed, you can install the Integration Client on the Rational DOORS and Quality Center client machines that you want to access the integration.

To install the Integration Client:

1. Check that you meet the system requirements. Details of system requirements can be found in the Rational DOORS for HP Quality Center Interface readme file, which is available from our Web site at <http://publib.boulder.ibm.com/infocenter/rsdp/v1r0m0/index.jsp>.
2. Make sure that you are logged on to your computer as a user with Administrator privileges.
3. Shut down all other applications. In particular, shut down Microsoft Office applications.
4. Using Windows Explorer, double-click **setup.exe**.

The **Welcome** screen is displayed.

If the **Modify/Repair/Remove** dialog box is displayed, exit the installer and modify the installation using **Add or Remove Programs** in the Windows Control Panel.

5. Click **Next**.

The **License Agreement** screen is displayed.

6. Select the **I accept** option and click **Next**.

The **Choose Destination Location** screen is displayed.

7. Enter the path to the folder you want to install to, or leave the default and click **Next**.

The **Setup Type** screen is displayed.

8. Select **Client** and click **Next**.

The **Specify the Location of Integration Server** screen is displayed.

9. In **IP address**, enter the fully qualified domain name or IP address of the machine on which the Integration Server is installed.
10. In **TCP Port**, enter the TCP Port on which the Integration Administration Service is serving the Default Web site on the Integration Server machine. This TCP Port was entered in Step 12 of Installing the Integration Server.
11. Click **Next**.

The **Ready to Install the Program** screen is displayed.

12. Click **Install**.

A progress bar is displayed as the files are installed.

13. Click **Finish**.

Installing the Administration Console

To install the Administration Console:

1. Make sure that you have both the .NET Framework v2.0 and v3.0 installed.
2. Open your Internet browser and type `http://<integrationserver>/AdminToolInstall`.

The Administration Console installation welcome page is displayed.

3. If you need to install the .NET Framework, do so now.

Note The .NET Framework is installed in the background. Make sure that it is installed before you proceed. The .NET icon is displayed in the notification area on the taskbar.

4. Run the Administration Console installer.

Click **setup**.

5. If you want to install the Administration Console from the local machine, select **Save**, then double-click the **setup.exe** file. If you want to install the Administration Console from the network, select **Run**.

The **Welcome** screen is displayed.

6. Click **Next**.

The **License Agreement** screen is displayed.

7. Accept the terms of the agreement and click **Yes**.
The **Choose Destination Location** screen is displayed.
8. Enter the path to the folder you want to install to, or leave the default and click **Next**.
The **Ready to Install the Program** screen is displayed.
9. Click **Install**.
A progress bar is displayed as the files are installed.
10. Click **Finish**.
11. Start the Administration Console.
From the Start menu select **IBM Rational > IBM Rational Lifecycle Solution Tools > IBM Rational DOORS Quality Center Integration 3.4 Tools > Administration Tool**.

Upgrading version 3.1 data

To upgrade version 3.1 data to version 3.4:

1. Shut down Web Services.
2. Run the Migration tool.
From the Start menu select **IBM Rational > IBM Rational Lifecycle Solution Tools > IBM Rational DOORS Quality Center Integration 3.4 Tools > Migrate 3.1 Data to 3.4**.
3. Select the 3.1 folder
Enter the location of the 3.1 data. By default this data is in
`c:\inetpub\wwwroot\doorstdintegrationwebservices`.
4. Select the 3.4 folder.
Enter the location of the 3.4 data. By default this data is in
`c:\inetpub\wwwroot\DOORSTDIServices\`.
5. Click **Perform Migration**.
The migration is performed.
6. Restart Web Services to pick up the migrated data.

Uninstalling the Integration

Use **Add or Remove Programs** in the Windows Control Panel to remove version 3.4 of Rational DOORS for HP Quality Center Interface and the Administration Console.

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Installing Rational DOORS for ClearCase Interface on Windows

This chapter describes how to install and set up version 2.1.1 of Rational DOORS for ClearCase Interface to integrate with Rational DOORS 9.2. It contains the following:

- Installing Rational DOORS for ClearCase Interface
- Uninstalling Rational DOORS for ClearCase Interface

Installing Rational DOORS for ClearCase Interface

Follow these steps to install Rational DOORS for ClearCase Interface:

1. Check that you meet the system requirements. Details of system requirements can be found in the Rational DOORS for ClearCase Interface readme file, which is available from our Web site at <http://publib.boulder.ibm.com/infocenter/rsdp/v1r0m0/index.jsp>.
2. Make sure that you are logged on to your computer as the local Administrator, and not a user with Administrator privileges.
3. Shut down all other applications. In particular, shut down Rational DOORS and ClearCase.
4. You can either install from the Rational DOORS Add Ons CD or from software downloaded from the Rational Web site.

If you are installing from CD, put the **Rational DOORS Add Ons CD** into your CD-ROM drive, browse to the Rational DOORS for ClearCase Interface software and click to install. The installer runs, and the **Welcome** screen is displayed.

If you downloaded the software from the Web site, navigate to the file you downloaded, and double-click it. The installer runs, and the **Welcome** screen is displayed.

5. Run the installation, following the instructions on screen.
6. When the installation is complete, the setup complete screen is displayed.
7. Click **Finish** to complete setup.

For information about how the integration works, see the *Using Rational DOORS for ClearCase Interface* manual, which is available from our Web site at www.ibm.com/software/awdtools/doors/support/doc.html.

Uninstalling Rational DOORS for ClearCase Interface

Use **Add or Remove Programs** in the Windows Control Panel to remove version 2.1.1 of Rational DOORS for ClearCase Interface.

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Installing Rational DOORS for ClearQuest Interface on Windows

This chapter describes how to install and set up version 2.2.1 of Rational DOORS for ClearQuest Interface to integrate with Rational DOORS 9.2. It contains the following:

- Installing Rational DOORS for ClearQuest Interface
- Uninstalling Rational DOORS for ClearQuest Interface

Installing Rational DOORS for ClearQuest Interface

Follow these steps to install Rational DOORS for ClearQuest Interface:

1. Check that you meet the system requirements. Details of system requirements can be found in the Rational DOORS for ClearQuest Interface readme file, which is available from our Web site at <http://publib.boulder.ibm.com/infocenter/rsdp/v1r0m0/index.jsp>.
2. Make sure that you are logged on to your computer as the local Administrator, and not a user with Administrator privileges.
3. Shut down all other applications. In particular, shut down Rational DOORS and ClearQuest.
4. You can either install from the Rational DOORS Add Ons CD or from software downloaded from the Rational Web site.

If you are installing from CD, put the **Rational DOORS Add Ons CD** into your CD-ROM drive, browse to the Rational DOORS for ClearQuest Interface software and click to install. The installer runs, and the **Welcome** screen is displayed.

If you downloaded the software from the Web site, navigate to the file you downloaded, and double-click it. The installer runs, and the **Welcome** screen is displayed.

5. Run the installation, following the instructions on screen.
6. When the installation is complete, the setup complete screen is displayed.
7. Click **Finish** to complete setup.

For information about how the integration works, see the *Using Rational DOORS for ClearQuest Interface* manual, which is available from our Web site at www.ibm.com/software/awdtools/doors/support/doc.html.

Uninstalling Rational DOORS for ClearQuest Interface

Use **Add or Remove Programs** in the Windows Control Panel to uninstall version 2.2.1 of Rational DOORS for ClearQuest Interface.

14 *Installing Rational DOORS for Rational Rose Interface on Windows*

This chapter describes how to install and set up version 2.10.1 of Rational DOORS for Rational Rose Interface to integrate with Rational DOORS 9.2. It contains the following:

- Installing Rational DOORS for Rational Rose Interface
- Uninstalling Rational DOORS for Rational Rose Interface

Installing Rational DOORS for Rational Rose Interface

Follow these steps to install Rational DOORS for Rational Rose Interface:

1. Check that you meet the system requirements. Details of system requirements can be found in the Rational DOORS for Rational Rose Interface readme file, which is available from our Web site at <http://publib.boulder.ibm.com/infocenter/rsdp/v1r0m0/index.jsp>.
2. Make sure that you are logged on to your computer as the local Administrator, and not a user with Administrator privileges.
3. Shut down all other applications. In particular, shut down Rational DOORS and Rational Rose.
4. You can either install from the Rational DOORS Add Ons CD or from software downloaded from the Rational Web site.

If you are installing from CD, put the **Rational DOORS Add Ons CD** into your CD-ROM drive, browse to the Rational DOORS for Rational Rose Interface software and click to install. The installer runs, and the **Welcome** screen is displayed.

If you downloaded the software from the Web site, navigate to the file you downloaded, and double-click it. The installer runs, and the **Welcome** screen is displayed.

5. Run the installation, following the instructions on screen.
6. When the installation is complete, the setup complete screen is displayed.
7. Click **Finish** to complete setup.

For information about how the integration works, see the *Using Rational DOORS for Rational Rose Interface* manual, which is available from our Web site at www.ibm.com/software/awdtools/doors/support/doc.html.

Uninstalling Rational DOORS for Rational Rose Interface

Use **Add or Remove Programs** in the Windows Control Panel to remove version 2.10.1 of Rational DOORS for Rational Rose Interface.

15 **Installing Rational DOORS for Serena PVCS Version Manager Interface on Windows**

This chapter describes how to install and set up version 1.4.1 of Rational DOORS for Serena PVCS Version Manager Interface to integrate with Rational DOORS 9.2. It contains the following topics:

- Installing Rational DOORS for Serena PVCS Version Manager Interface
- Setting up licences
- Uninstalling Rational DOORS for Serena PVCS Version Manager Interface

Installing Rational DOORS for Serena PVCS Version Manager Interface

Follow these steps to install Rational DOORS for Serena PVCS Version Manager Interface:

1. Check that you meet the system requirements. Details of system requirements can be found in the Rational DOORS for Serena PVCS Version Manager Interface readme file, which is available from our Web site at <http://publib.boulder.ibm.com/infocenter/rsdp/v1r0m0/index.jsp>.
2. Make sure that you are logged on to your computer as the local Administrator, and not a user with Administrator privileges.
3. Shut down all other applications. In particular, shut down Rational DOORS and Serena PVCS Version Manager.
4. You can either install from the Rational DOORS for Serena PVCS Version Manager Interface CD or from software downloaded from the Rational Web site.

If you are installing from CD, put the **Rational DOORS for Serena PVCS Version Manager Interface CD** into your CD-ROM drive, browse to the Rational DOORS for Serena PVCS Version Manager Interface software and click to install. The installer runs, and the **Welcome** screen is displayed.

If you downloaded the software from the Web site, navigate to the file you downloaded, and double-click it. The installer runs, and the **Welcome** screen is displayed.

5. Run the installation, following the instructions on screen.

6. When the installation is complete, the setup complete screen is displayed.
7. Click **Finish** to complete setup.

For information about how the integration works, see the *Using Rational DOORS for Serena PVCS Version Manager Interface* manual, which is available from our Web site at www.ibm.com/software/awdtools/doors/support/doc.html.

Setting up licences

If you are installing Rational DOORS for Serena PVCS Version Manager Interface for the first time or reinstalling or upgrading from an earlier version of the integration, you have to request and setup a new license before you can use it. For information about licensing, see the *Rational License Server TL Licensing Guide*, which is available from the **Rational Lifecycle Solutions DVD**, and from our Web site at <http://publib.boulder.ibm.com/infocenter/rsdp/v1r0m0/index.jsp>.

Uninstalling Rational DOORS for Serena PVCS Version Manager Interface

Use **Add or Remove Programs** in the Windows Control Panel to remove version 1.4.1 of Rational DOORS for Serena PVCS Version Manager Interface.

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Troubleshooting

This chapter contains the following:

- Installing Rational DOORS as a non-admin user
- Problems installing the software
- If you have no Export to Rational DOORS icon in Word
- Using the Rational DOORS API
- Colors
- DISPLAY variables on Solaris
- DISPLAY variables—all UNIX installations
- Dual Boot Machines

Note Go to the support center on our Web site at www.ibm.com/software/awdtools/doors/support/doc.html for the latest information about problems you might encounter when you install and set up Rational DOORS, and how to work around the problems.

Installing Rational DOORS as a non-admin user

When you install the Rational DOORS database server, you must be logged on to the machine as a user with administrator privileges. However, you can install the Rational DOORS client as a non-admin user providing the system administrator has set up the non-admin user with the following options.

- On Windows 2003 systems the user that launches the installation must have been granted the impersonate privilege:
 - a. Click **Start > All Programs > Administrative Tools > Local Security Policy**.
 - b. Expand **Local Policies**, and then click **User Rights Assignment**.
 - c. In the right pane, double-click **Impersonate a client after authentication**.
 - d. In the **Local Security Policy Setting** dialog box, click **Add**.
 - e. In the **Select Users or Group** dialog box, click the user account that you want to add, click **Add**, and then click **OK**.

- f. Click **OK**.
- The **Always install with elevated privileges** policy must be enabled in the group policy for non-admin users who need to install the Rational DOORS client.
- If you are upgrading from a previous version, you must remove it using **Add or Remove Programs** in the Windows Control Panel before you install Rational DOORS 9.2.

Problems installing the software

If you have problems installing any of the products in the Rational DOORS product family, try these solutions before you contact our Support team for help:

- Stop all applications before you install the software.
Shut down all the applications running on your computer.
- Turn off virus protection software.
When virus protection software is running in the background, it can interfere with the installation of any software product because of the way installers extract files when they install them on your computer.
- Make sure that you meet the system requirements for the product you are trying to install. Details of system requirements can be found in the appropriate readme file. The product readme files are available from our Web site at <http://publib.boulder.ibm.com/infocenter/rsdp/v1r0m0/index.jsp>.
- Restart your computer, and then try installing the Rational DOORS product again.

If you have no Export to Rational DOORS icon in Word

If you have no Export to Rational DOORS button, it might be because you have modified the location of your Word startup folder.

You can change or check this folder by clicking **Tools > Options**. On the **File Locations** tab, the Startup entry shows the location of your Word startup folder.

In this case, copy `doors.dot` from the `\lib\word` folder in the Rational DOORS home folder (for example, `c:\program files\IBM\Rational\doors\9.2\lib\word`) to your Word startup folder.

Using the Rational DOORS API

The Rational DOORS API only works with TCP/IP communication. Socket-based communication in UNIX is not supported.

Colors

Display cards that support only 256 colors might result in unusual color effects.

DISPLAY variables on Solaris

A Solaris Rational DOORS client can now run in batch mode without a `DISPLAY` environment variable being set.

If the batch-mode DXL attempts to use the GUI and `DISPLAY` has not been defined, Rational DOORS exits.

If `DISPLAY` has been defined, Rational DOORS attempts to connect to the specified X display, even if the batch-mode DXL does not use a GUI. As a result, `DISPLAY` must refer to a valid X display that you are authorized to connect to.

DISPLAY variables—all UNIX installations

The X display must be specified with the `DISPLAY` environment variable; using the standard `-display` or `-d` options does not work.

Dual Boot Machines

If you have a dual boot machine and Rational DOORS 9.2 is installed on one of the operating systems you cannot install it on the other operating system as well.

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Contacting support

This chapter contains the following topics:

- Contacting IBM Rational Software Support
- Prerequisites
- Submitting problems
- Other information

Contacting IBM Rational Software Support

If the self-help resources have not provided a resolution to your problem, you can contact IBM Rational Software Support for assistance in resolving product issues.

Note If you are a heritage Telelogic customer, you can go to <http://support.telelogic.com/toolbar> and download the IBM Rational Telelogic Software Support browser toolbar. This toolbar helps simplify the transition to the IBM Rational Telelogic product online resources. Also, a single reference site for all IBM Rational Telelogic support resources is located at <http://www.ibm.com/software/rational/support/telelogic/>

Prerequisites

To submit your problem to IBM Rational Software Support, you must have an active Passport Advantage® software maintenance agreement. Passport Advantage is the IBM comprehensive software licensing and software maintenance (product upgrades and technical support) offering. You can enroll online in Passport Advantage from <http://www.ibm.com/software/lotus/passportadvantage/howtoenroll.html>.

- To learn more about Passport Advantage, visit the Passport Advantage FAQs at http://www.ibm.com/software/lotus/passportadvantage/brochures_faqs_quickguides.html.
- For further assistance, contact your IBM representative.

To submit your problem online (from the IBM Web site) to IBM Rational Software Support, you must additionally:

- Be a registered user on the IBM Rational Software Support Web site. For details about registering, go to <http://www-01.ibm.com/software/support/>.
- Be listed as an authorized caller in the service request tool.

Submitting problems

To submit your problem to IBM Rational Software Support:

1. Determine the business impact of your problem. When you report a problem to IBM, you are asked to supply a severity level. Therefore, you need to understand and assess the business impact of the problem that you are reporting.

Use the following table to determine the severity level.

Severity	Description
1	The problem has a <i>critical</i> business impact: You are unable to use the program, resulting in a critical impact on operations. This condition requires an immediate solution.
2	This problem has a <i>significant</i> business impact: The program is usable, but it is severely limited.
3	The problem has <i>some</i> business impact: The program is usable, but less significant features (not critical to operations) are unavailable.
4	The problem has <i>minimal</i> business impact: The problem causes little impact on operations or a reasonable circumvention to the problem was implemented.

2. Describe your problem and gather background information, When describing a problem to IBM, be as specific as possible. Include all relevant background information so that IBM Rational Software Support specialists can help you solve the problem efficiently. To save time, know the answers to these questions:
 - What software versions were you running when the problem occurred?
To determine the exact product name and version, use the option applicable to you:

- Start the IBM Installation Manager and select **File > View Installed Packages**. Expand a package group and select a package to see the package name and version number.
 - Start your product, and click **Help > About** to see the offering name and version number.
 - What is your operating system and version number (including any service packs or patches)?
 - Do you have logs, traces, and messages that are related to the problem symptoms?
 - Can you recreate the problem? If so, what steps do you perform to recreate the problem?
 - Did you make any changes to the system? For example, did you make changes to the hardware, operating system, networking software, or other system components?
 - Are you currently using a workaround for the problem? If so, be prepared to describe the workaround when you report the problem.
3. Submit your problem to IBM Rational Software Support. You can submit your problem to IBM Rational Software Support in the following ways:
- **Online:** Go to the IBM Rational Software Support Web site at <https://www.ibm.com/software/rational/support/> and in the Rational support task navigator, click **Open Service Request**. Select the electronic problem reporting tool, and open a Problem Management Record (PMR), describing the problem accurately in your own words.
For more information about opening a service request, go to <http://www.ibm.com/software/support/help.html>
You can also open an online service request using the IBM Support Assistant. For more information, go to <http://www-01.ibm.com/software/support/isa/faq.html>.
 - **By phone:** For the phone number to call in your country or region, go to the IBM directory of worldwide contacts at <http://www.ibm.com/planetwide/> and click the name of your country or geographic region.
 - **Through your IBM Representative:** If you cannot access IBM Rational Software Support online or by phone, contact your IBM Representative. If necessary, your IBM Representative can open a service request for you. You can find complete contact information for each country at <http://www.ibm.com/planetwide/>.

If the problem you submit is for a software defect or for missing or inaccurate documentation, IBM Rational Software Support creates an Authorized Program Analysis Report (APAR). The APAR describes the problem in detail. Whenever possible, IBM Rational Software Support provides a workaround that you can implement until the APAR is resolved and a fix is delivered. IBM publishes resolved APARs on the IBM Rational Software Support Web site daily, so that other users who experience the same problem can benefit from the same resolution.

Other information

For Rational software product news, events, and other information, visit the IBM Rational Software Web site on <http://www.ibm.com/software/rational/>.

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