Rational. Focal Point
Release 6.4

Installation Guide

Before using this information, be sure to read the general information under Appendix "Notices", on page 57

Table of contents

Chapter 6: Upgrading to Rational Focal Point 6.4 on UNIX   41

Chapter 7: Backing up   45

Chapter 8: Troubleshooting   49

Chapter 9: Single Sign-On   51

Chapter 10: Contacting IBM Rational Software Support   53

Notices   57

1 *About this manual*

Welcome to version 6.4 of IBM® Rational® Focal Point, the most comprehensive solution on the market for Decision Support, Portfolio Management and Product Management.

This manual contains information on installing and setting up Rational Focal Point.

Typographical conventions

The following typographical conventions are used in this manual:

Typeface or Symbol	Meaning
Bold	Book titles, important items, and items that you can select, including buttons and menus. For example: Click **Yes** to continue.
Italic	Book titles
Courier	Commands, files, and directories; computer output. For example: Edit your .properties file.
>	A menu choice. For example: Select **File > Open**. This means select the File menu, then select the Open command from it.

Related documentation

You'll find a PDF version of this manual :

- on the IBM® Rational® Solutions for Enterprise Lifecycle Management DVD
- in the Rational Software Information Center

2   *Before you install*

This chapter contains the following topics:

- Licensing options
- Prerequisites

Licensing options

You must have a software license to run Rational Focal Point. Obtain your Rational Focal Point license before you install the software.

For more information about licensing, see the *IBM® Rational® Solutions Licensing Guide*, which is available from the IBM® Rational® Solutions for Enterprise Lifecycle Management DVD, and from the IBM Rational Focal Point Support website at http://www.ibm.com/software/awdtools/focalpoint/support.

If you are upgrading

If you are upgrading from Rational Focal Point 5.4 or 5.4 01 you must request a new license file from IBM Rational Focal Point Support.

Prerequisites

Before you start installing, make sure that the following prerequisites are fulfilled:

- Check that you meet the system requirements for installing and running Rational Focal Point. Details of system requirements can be found in the readme file and on the IBM Rational Focal Point Support website.

- If you want to install the database on a separate partition, make sure that there is enough disk space for the database and its backup files to grow. Normally, a clean installation (with an empty database) needs 250 MB to be reserved for Rational Focal Point, Java, the application server, and the database server. The size of disk space needed for the database depends on what it will contain.

- Make sure that you have IBM® Rational® License Server TL 1.4 or 1.5 installed.

- If you set up a clustered environment, make sure that the system time on the different servers is synchronized and differ less than one second.

If you are upgrading

- Create a backup of the database, in case something should go wrong.

- Make a note of any **custom** business rules you are using. When the installation of Rational Focal Point 6.4 is completed, you need to request the custom business rules you use from IBM Rational Focal Point Support for compatibility reasons. Only the common business rules are included in the installation. The common business rules are: ChoiceAttributeText, LinkByText, LinkInfo, LinkListAttributeSum, ListAttributeSum, MailImport, MatrixWriter, SetChoice, TextLog, and TrafficLight.

- Make a backup of any report images you are using.

3 *Installing Rational Focal Point on Windows*

This chapter contains the following topics:

- Before you start
- Installing Java
- Installing the application server
- Installing the database
- Configuring the database
- Configuring Oracle
- Configuring DB2
- Installing Rational Focal Point
- Starting Rational Focal Point for the first time

Before you start

Before you start installing, read the Licensing options and Prerequisites in Chapter 2, "Before you install".

You must install the following components before you can install Rational Focal Point:

- Java™ Runtime Environment (JRE) 6
- An application server, either IBM Websphere Application Server Community Edition 2.1 or Apache® Tomcat™ 5.5
- A database, either PostgreSQL®, DB2, or Oracle®

You can download Java Runtime Environment (JRE) 6 from:

http://java.sun.com/javase/downloads/index.jsp.

You can download Apache Tomcat from:

http://archive.apache.org/dist/tomcat/tomcat-5/.

You can download Websphere Application Server Community Edition 2.1.1.1 from:

http://www.ibm.com/developerworks/downloads/ws/wasce/

You can download PostgreSQL 8.X.X from:

http://www.postgresql.org/ftp/binary/.

Installing Java

Download Java Runtime Environment (JRE) 6 as described in "Before you start," on page 5 and follow the on-screen instructions to install the software, using the default settings.

Installing the application server

1. Make sure you have administrative access to the server.

2. Double click the application server that you downloaded during the preparations, either **apache-tomcat-5.5.x.exe** or **wasce-setup-2.1.x.x-win.exe**.

3. Follow the installation instructions of the selected application server.

Installing the database

Rational Focal Point can use a PostgreSQL, DB2 or Oracle database. In this document, the PostgreSQL installation is described in detail, for installation of Oracle and DB2, please refer to the installation documentation for each database.

To install the PostgreSQL database:

1. Make sure you have Administrator access to the server.

2. If you are installing from DVD, put the IBM® Rational® Solutions for Enterprise Lifecycle Management DVD into your DVD-ROM drive, browse to the Rational Focal Point software and click to install the PostgreSQL database.

   A security warning dialog box is displayed. Click **Run** to install PostgreSQL. Go to step 4.

3. If you downloaded **focalpoint_server.zip** from the website, download PostgreSQL 8.X.X from:
   http://www.postgresql.org/ftp/binary/.
   A security warning dialog box is displayed when opening the file. Click **Run** to install the PostgreSQL database.

4. The **Welcome** screen is displayed. Select the language you want to use and click **Start**.

5. The following OpenSSL message may be displayed:
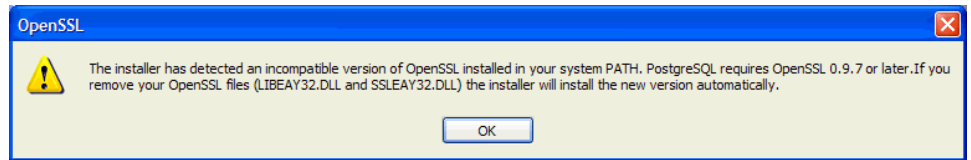
If it is, search for the files specified and rename them. For example, rename `libeay32.dll` to `libeay32.dll.old`, then click **OK** in the message, and **Next** on the **Welcome** screen, which is displayed again.

The **PostgreSQL Installation Notes** screen is displayed.

6. Read the information provided, then click **Next**.

The **Installation Options** screen is displayed.

Leave the default installation options, and enter the path to the folder you want to use for your PostgreSQL installation, or leave the default.

7. Click **Next**.

The **Service Configuration** screen is displayed.
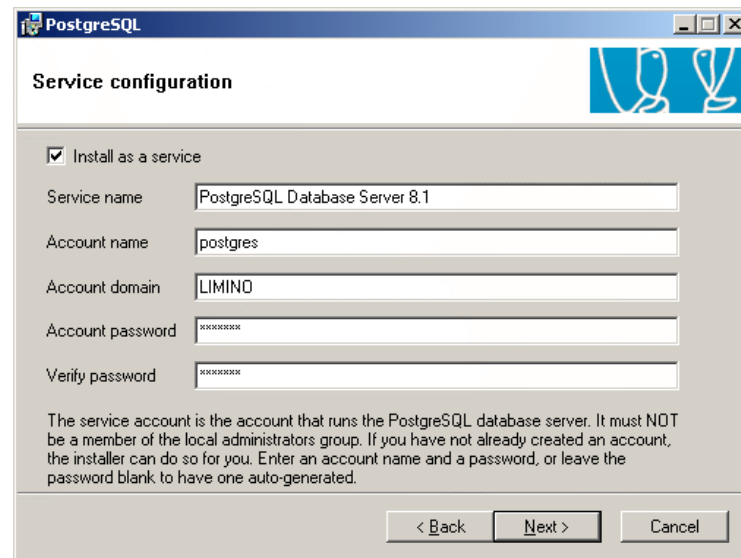
By default, the service name is **PostgreSQL Database Server 8.X**, the account name is **postgres**, and the account domain is the name of the computer you are installing on.

You can use an existing account by typing an existing account name and password, or create a new one by entering an account name and password that does not currently exist. If you use an existing account, make sure it is not a member of the local administrator group.

8. Enter an **Account name** and a password in the **Account password** and **Verify password** boxes.

   Caution The password must be long enough and must contain a combination of lower and upper case characters and numerals. Do **not** let the installer create a password for you.

9. Click **Next**.

10. If you entered an account name and password that does not currently exist, a query message is displayed. Click **Yes** to create the account.

    The account is created, and a success message is displayed.

11. Click **OK**.

    The **Initialize database cluster** screen is displayed.

   a. Select **Accept connections on all addresses, not just localhost**.

    b.   Select **UTF-8** from the **Encoding** list. Since Rational Focal Point has support for Unicode characters, the database must be configured for a unicode character set, such as UTF-8.

    c.   Enter a **Superuser name** and **Password**.

       This is not the user name and password you entered when you created the Windows service in step 8 above. You must provide a different password than the one you provided for the service.

       Keep a note of this user name and password. You will need it when you install the Rational Focal Point application.

12. Click **Next**.

    The **Enable procedural languages** screen is displayed.

13. Click **Next**.

    The **Enable contrib modules** screen is displayed.

14. Click **Next**.

    The **Ready to install** screen is displayed.

15. Click **Next**.

    The **Installing** screen is displayed while the necessary files are installed. When all the files have been installed, the **Installation complete** screen is displayed.

16. Click **Finish**.

Configuring the database

Configuring the PostgreSQL database

1. Click **Start Menu** > **All Programs** > **PostgreSQL 8.X** > **pgAdmin III**.

2. Right-click on the database name, select **Connect** and enter the password for the database. This is the password you provided on the **Initialize database clusters** screen when you installed the PostgreSQL database.

3. Expand the database tree in the left hand pane, right-click on the **Databases** icon and select **New Database**.

The **New Database** dialog box is displayed.
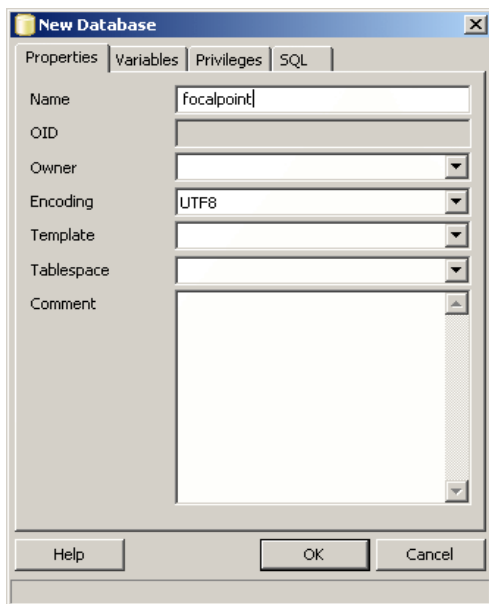
4. Type **focalpoint** in the **Name** field and click **OK**.

5. Close **pgAdmin III**.

6. Stop the PostgreSQL Database Server service:

    a. Click **Start Menu > Control Panel**.

    b. Double-click the **Administrative Tools** icon.

    c. Double-click the **Services** icon.

    d. Right-click **PostgreSQL Database Server 8.X** and select **Stop**.

7. Edit the PostgreSQL configuration file:

    a. Navigate to C:\Program Files\PostgreSQL\8.X\data\.

    b. Open the file pg_hba.conf in Notepad and change this line:

    ```
    host      all           all          127.0.0.1/32            md5
    ```

    to:

    ```
    host      all           all          <IPNUMBER>/32           password
    ```

    where *<IPNUMBER>* is the IP number of the Rational Focal Point computer
    where the application server is installed. If Focal Point and PostgreSQL are
    installed on the same server you can use the same IP number. You must
    change md5 to password.

    c. Save and close the file.

8. Allow access for the database port through any existing firewall, or disable the firewall.

9. In the Services window, restart the PostgreSQL service. Right-click **PostgreSQL Database Server 8.1** and select **Start**.

It is good practice to back up your PostgreSQL database regularly. See "Backing up," on page 45.

Configuring Oracle

The following steps assume you have already installed the Oracle RDBMS. For Oracle specific issues please refer to your Oracle documentation.

To configure Oracle for Rational Focal Point:

1. Create a new Oracle instance. Make sure that the parameter NLS_SORT is set to BINARY_CI.

2. Create a database for the schema for Rational Focal Point. Ensure that the database is created with a unicode character set, e.g. AL32UTF8 to enable storing unicode characters as supported in Rational Focal Point.

3. Create a user to hold the schema for focalpoint. For example, CREATE USER focalpoint IDENTIFIED BY focalpoint.

4. Create three tablespaces FP_DATA, FP_INDEX and FP_BIGOBJ.

5. Grant unlimited quota to the focalpoint user on the newly created tablespaces.

6. Run **focalpoint_grant.sql**, (available in focalpoint_server.zip) as system in **sqlplus** with the focalpoint user as the first parameter. For example, @focalpoint_grant.sql focalpoint.

Configuring DB2

The following steps assume that you already have installed IBM® DB2® version 9.5. Refer to the DB2 installation documentation for information on how to install DB2.

To configure DB2 for Rational Focal Point:

1. Edit the file **createFocalDBSchema.sql**, included in focalpoint_server.zip, as needed:

a. If needed, change the Database Name FOCALDB to a database name of your choice.

b. If needed, change the names of the three tablespaces FP_DATA, FP_INDEX and FP_BIGOBJ.

c. For each tablespace, change the path to a suitable local directory. Make sure that the local directory has read and write permissions.

d. Based on the server configuration, select size for each tablespace.

2. Run **createFocalDBSchema.sql** in the Command Editor of DB2, logged in as the DB2 administrator.

Specifying storage parameters for DB2

In **server.xml** there is a section for specifying storage parameters for DB2.

If your tablespace definitions differs from the default names FP_DATA, FP_INDEX and FP_BIGOBJ, update the storage parameters in **server.xml** accordingly:

```
<Environment description="Tablespace for data storage"
            name="focalpoint/dataStorage"
            type="java.lang.String"
            value="IN FP_DATA"/>

<Environment description="Tablespace to be used for indexes"
            name="focalpoint/indexStorage"
            type="java.lang.String"
            value="IN FP_INDEX"/>

<Environment description="Tablespace to be used for storing big
objects"
            name="focalpoint/bigObjStorage"
            type="java.lang.String"
            value="IN FP_BIGOBJ"/>
```

Installing Rational Focal Point

1. Make sure that you have Administrator access on the server.

2. Shut down all Windows programs.

3. Stop the application server, Tomcat or Websphere.

4. If you are installing from DVD, put the **IBM® Rational® Solutions for Enterprise Lifecycle Management DVD** into your DVD-ROM drive,

browse to the Rational Focal Point software and click to run the Rational Focal Point Installer.

A security warning dialog box is displayed. Click **Run** to install Rational Focal Point. Go to Step 6.

5. If you downloaded the **focalpoint_server.zip**, extract the files from the zip and double click **FocalPointServer.exe**.

A security warning dialog box is displayed. Click **Run** to install Rational Focal Point.

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 **I accept** and click **Next**.

The **Server Selection** screen is displayed.

8. Select which application server that Rational Focal Point should run on and click **Next.**

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

9. Conditional: If you have installed WASCE as application server,

1.Browse to the WASCE installation directory and click **Next**.

The **Login Information** screen is displayed.

2.Enter your login information for WASCE and click **Next**.

3. Browse to the folder you want to use for your Rational Focal Point installation, or leave the default, and click **Next**.

The **License Information** screen is displayed.

4. If you do not have details of your license, select **I will supply license information later**. This option is not recommended. For more information about licensing, see the *IBM® Rational® Solutions Licensing Guide*.

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

• Rational 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`.

- Client license file

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

5. The **Focal Point Memory Allocation** screen is displayed. The **Maximum Memory** size is automatically set. You can change this later if necessary.

6. Click **Next**.

7. The **Database Settings** screen is displayed.
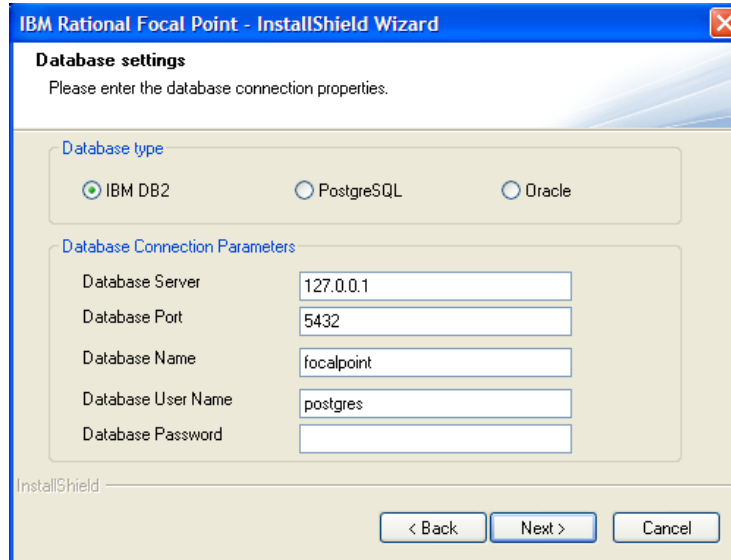
   a. In the **Database Type** frame, select the database you want to use for Rational Focal Point.

   b. In the **Database Connection Parameters** frame, make sure that the database connection parameters are the same as the settings that were made when installing Postgres, DB2 or Oracle, e.g. the database account password. This is critical. For Postgres, see Installing the database, step 11.

8. Click **Next**.

9. Click **Install**. Conditional: If WASCE is installed, a message stating "Please wait for the Websphere Application Server to fully start before proceding..." is displayed. When the procedure is completed, click **OK**.

10. The **InstallShield Wizard Complete** screen is displayed. Select the option **Yes, I want to restart my computer now**.

11. Click **Finish**.

12. **Conditional:** If you are using an Oracle database, you must add the JDBC driver to the <Application server home>\common\lib directory. The JDBC driver is included in the Oracle database installation. You can also download it from Oracle: http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/htdocs /jdbc_10201.html

Starting Rational Focal Point for the first time

1. Start the application server. Rational Focal Point is now runnning.

2. Open a web browser and enter the url to the Rational Focal Point login page, for example http://localhost:8080/fp/servlet/Login

   The Rational Focal Point login page is displayed.

3. Type the login name **admin** and password **focalpoint**.

4. Click **Login**.

5. Click **Preferences** in the upper right corner.

6. Click **Profile/Password Settings** and change the **admin** user's password. If you want to change your user name, click **Users/Manage Users** in the Navigation Bar to the left.

7. To be able to use the client, you must have the latest Java 6 installed. Check which version you have installed by clicking **Start Menu** > **Control Panel** > **Java** > **General** > **About**. If you do not already have it installed, you can download Java support from Sun: Java Runtime Environment (JRE) 6 from http://java.sun.com/javase/downloads/index.jsp.

8. Rational Focal Point is now ready for use. Do not forget to log out by clicking **Logout** in the upper right corner.

4 *Upgrading to Rational Focal Point 6.4 on Windows*

This chapter contains the following topics:

- Before you start
- Upgrading Focal Point 5.4 to Rational Focal Point 6.4
- Upgrading Focal Point 6.x to Rational Focal Point 6.4

Before you start

Before you start installing read the Licensing options and Prerequisites in Chapter 2, "Before you install".

Note You must request a new license from IBM Rational Focal Point Support. You cannot use your Rational Focal Point 5.4 license with Rational Focal Point 6. This is because we have upgraded the version of FLEXnet and introduced date-versioned licensing

Note If you are upgrading from 5.4 on an installation running on Oracle, or migrating to Oracle, extract **focalpoint_grant.sql** from **focalpoint_server.zip** and run it according to the instructions in "Configuring Oracle," on page 11 before the upgrade.

You must have the following components installed before you can install Rational Focal Point:

- Java Runtime Environment 6
- An application server, either IBM Websphere Application Server Community Edition 2.1 or Apache® Tomcat™ 5.5
- A database, either PostgreSQL®, DB2, or Oracle®

You can download Java Runtime Environment (JRE) 6 from:

http://java.sun.com/javase/downloads/index.jsp.

You can download Apache Tomcat from:

http://archive.apache.org/dist/tomcat/tomcat-5/.

You can download Websphere Application Server Community Edition 2.1.1.1 from:

http://www.ibm.com/developerworks/downloads/ws/wasce/

You can download PostgreSQL 8.x from:

http://www.postgresql.org/ftp/binary/.

Upgrading Focal Point 5.4 to Rational Focal Point 6.4

Preparations

1. Make a backup of the old database before upgrading. See "Backing up and restoring the PostgreSQL database on Windows," on page 39.

2. Back up report images, if any, located at `<INSTALLDIR>\images`. `<INSTALLDIR>` for Focal Point 5.4 is normally `C:\Program Files\Telelogic\Focal Point 5.4\`

3. Make a note of any used **custom** business rule in `<INSTALLDIR>\formulas`. When the installation of Rational Focal Point is finished, you need to request the custom business rules you use from IBM Rational Focal Point support for compatibility reasons. Only the common business rules are included in the installation. The common business rules are: ChoiceAttributeText, LinkByText, LinkInfo, LinkListAttributeSum, ListAttributeSum, MailImport, MatrixWriter, SetChoice, TextLog, and TrafficLight. Incompatible business rules will be ignored.

4. Stop the application service.

Upgrading Focal Point

1. Go to **Start Menu > Control Panel > Add or Remove Program** to uninstall Focal Point 5.4.

2. Install Rational Focal Point 6.4.

   See "Installing Focal Point," on page 12.

   Note When upgrading, Rational Focal Point defaults the application server port to 80. **Conditional:** If you use a port other than port 80 for Tomcat, you will have to edit the file `Apache Software Foundation/Tomcat 5.5/conf/server.xml` after you install Rational

Focal Point. Change the port number in the line
`<Connector port="80".`

3. Start the application server. Rational Focal Point is running.

4. Start Focal Point by opening a web browser and entering the url to the Rational Focal Point login page, for example http://localhost:8080/fp/servlet/Login

5. Log in. **Conditional:** If the upgrade includes database changes, you will be asked to confirm the database update:

> a.Ensure that you have a backup of the database.
>
> b.Click **Yes** to confirm the database update. The database update can take some time depending on the size of the database. When the database has been updated, the updated workspaces will be displayed.
>
> c.Restart Rational Focal Point by stopping and starting the application server.
>
> d.In your web browser, enter the Rational Focal Point login page URL again.

The Rational Focal Point login page is displayed.

Configuring Rational Focal Point

6. When you have received the custom business rules from IBM Rational Focal Point Support, log on to Rational Focal Point and go to **Advanced > Business Rules**. Import the custom business rules files to the database. Instructions are available in the online help.

7. In Rational Focal Point, go to **General > Report Images** to import the backed up images into the database. Instructions are available in the help.

8. If you have any saved baselines in your database, you need to migrate them to the new architecture in Rational Focal Point 6. In Rational Focal Point, go to **Advanced > Migrate Baselines**. Instructions are available in the online help.

Upgrading Focal Point 6.x to Rational Focal Point 6.4

On Windows, Focal Point 6.x is upgraded to Rational Focal Point 6.4 by removing Focal Point 6.x and installing Rational Focal Point 6.4 in the same location.

Preparations:

- Locate the Rational Focal Point installer at the IBM® Rational® Solutions for Enterprise Lifecycle Management DVD, or download Rational Focal Point 6.4 Installer for Windows from the [IBM Rational Focal Point Support Download site](#).

- Make a note of the location of the current Focal Point 6.x installation.

- Keep the Database User Name and Password for the database account used by Focal Point close at hand during the upgrade.

- Ensure that the database is running.

Upgrading:

1. Go to **Start Menu > Control Panel > Add or Remove Program** and follow the instructions to uninstall Focal Point 6.x.

2. Install the new version of Rational Focal Point, following the instructions for "Installing Focal Point," on page 12.

   Note When upgrading, Focal Point defaults the application server port to 80. **Conditional:** If you use a port other than port 80 for Tomcat, you will have to edit the file `Apache Software Foundation/Tomcat 5.5/conf/server.xml` after you install Rational Focal Point. Change the port number in the line `<Connector port="80".`

3. Start the application server.

4. Start Focal Point by opening a web browser and entering the url to the Rational Focal Point login page, for example http://localhost:8080/fp/servlet/Login

5. Login.
   Conditional: If the upgrade includes database changes, you will be asked to confirm the database update:

   a. Ensure that you have a backup of the database.

   b. Click **Yes** to confirm the database update. The database update can take some time depending on the size of the database.

When the database has been updated, the updated workspaces will be displayed.

c. Restart Rational Focal Point by stopping and starting the application server.

d. In your web browser, enter the Rational Focal Point login page URL again.

The Rational Focal Point login page is displayed.

5   *Installing Rational Focal Point on UNIX*

This chapter describes how to set up your UNIX environment for Focal Point. This guide covers installation, upgrade and maintenance of Rational Focal Point on UNIX.

Note This manual assumes the reader is a System Administrator with a technical understanding of the supported operating systems.

- Before you start
- Installing Java
- Installing the application server
- Installing Rational Focal Point
- Installing the database
- Installing Rational Focal Point
- Configuring the application server
- Maintaining Rational Focal Point
- Monitoring Rational Focal Point

Before you start

Before you start installing, read the Licensing options and Prerequisites in Chapter 2, "Before you install".

You can download Java Runtime Environment (JRE) 6 for Solaris from:

http://java.sun.com/javase/downloads/index.jsp.

You can download Java Runtime Environment (JRE) 6 for Linux from:

http://www.ibm.com/developerworks/java/jdk/linux/download.html

You can download Apache Tomcat from:

http://archive.apache.org/dist/tomcat/tomcat-5/

You can download Websphere Application Server Community Edition 2.1.1.1 from:

http://www.ibm.com/developerworks/downloads/ws/wasce/

Before you start installing, also make sure that the following prerequisites are fulfilled:

1. Make sure that you have Administrator access to the servers.

2. If you want to install the database on a separate partition, make sure that there is enough disk space for the log files, the database and its backup files to grow. Usually, a clean installation needs 250 MB to be reserved for Rational Focal Point.

   Monitor the amount of space left on the different partitions on the Rational Focal Point server to make sure that the partition where the database is installed never runs out of space.

   It is good practice to keep the backup directory and the database directory on separate disks. This means that the database is not affected if the database backups fill up the partition where the backup directory is located.

3. On Solaris, the following commands must be accessible during and after install (used by Rational Focal Point scripts and the installer):

/usr/ucb/ps	awk	cat
chown	crontab	cut
ed	grep	ksh
ln	mkdir	mv
rm	sh	su
tar	touch	zcat

   In addition to the core operating system the following components are needed: zip and gunzip (in package SUNWgzip) and perl (in package SUNWpl5u). You can test compliance (both commands and their versions) by running the script testfp.sh (Included in the downloaded .tar file). The output from this script should say "All checks passed.". If not, please refer to your system documentation for instructions on how to install missing components.

4. Rational Focal Point uses the following ports on the server by default:

Port	Usage
5432	Database
7091	Ajp13 protocol
8091	Tomcat HTTP
80	Apache HTTP
8011	Tomcat control port

5. The user postgres (group postgres) will be created on the system by the PostgreSQL installation package if it does not already exist. This user is used for running the PostgreSQL database.

Installing Java

1. Check that your current Java version is 1.6.0_XX by running

```
java -version
```

in your shell. A correct result could look like:

```
java version "1.6.0_XX"
Java(TM) SE Runtime Environment (build 1.6.0_XX)
Java HotSpot(TM) Client VM (build 1.6.0_XX, mixed mode)
```

2. If you do not have Java 1.6 installed or your version of Java does not correspond to the one above, you will need to install Java Runtime Environment (JRE) 6.

Download Java for your system according to the instructions in "Before you start" on page 23 and install it according to the Java installation instructions.

Installing the application server

Apache Tomcat is currently included in the Rational Focal Point installation.

Websphere Application Server Community Edition 2.1.1.1

Install `wasce_setup-2.1.x.x-unix.bin` that you downloaded during the preparations.

Note: The directories in the installation path should not contain any spaces.

Installing Rational Focal Point

All the necessary Rational Focal Point installation files can be downloaded from the [IBM Rational Focal Point Support Download site](#). For the basic installation, you need the `focalpoint-6.4.sh` file.

1. Put the installation file in a directory of your choice, here `<installerdir>`.

2. Go to the directory where you want to install Rational Focal Point. Make sure that you have write permissions in that directory.

3. Run the self-extracting installer by issuing the command:

    ```
    sh <installerdir>/focalpoint-6.4.sh
    ```

You will be asked to read and understand the license agreement. Make sure you do so. If you do not agree, then answer **no** and press **Enter** and nothing will be installed on your system. Installation can be started again at any time. If you agree with the license terms, then answer **yes** and press **Enter**. A directory named fp will be created in the current directory. This directory will be denoted `<fp>` from now on.

Installing the database

PostgreSQL DBMS Support

Rational Focal Point can be configured to use the open source DBMS PostgreSQL.

Red Hat®Enterprise Linux®

Red Hat Enterprise Linux 4

If you are installing PostgreSQL on Red Hat Enterprise Linux 4, get the latest 8.X.X postgresql packages for your architecture from the PostgreSQL web site available at:

http://www.postgresql.org/ftp/binary/

For example, if you are running on a 32 bit intel architecture, download the following three packages:

postgresql-server-8.X.X-XPGDG.rhel4.i386.rpm

postgresql-libs-8.X.X-XPGDG.rhel4.i386.rpm

postgresql-8.X.X-XPGDG.rhel4.i386.rpm

Install them by running the following command (one line):

```
rpm -Uvh postgresql-server-8.X.X-XPGDG.rhel4.i386.rpm
postgresql-libs-8.X.X-XPGDG.rhel4.i386.rpm
postgresql-8.X.X-XPGDG.rhel4.i386.rpm
```

When the packages have been installed, make sure that the DBMS is started, and that it starts automatically when the server boots:

```
service postgresql initdb
service postgresql start
chkconfig postgresql on
```

Red Hat Enterprise Linux 5

Install the PostgreSQL packages by running the following command:

```
yum install postgresql-server
```

When the packages have been installed, make sure that the DBMS is started, and that it starts automatically when the server boots:

```
service postgresql start
chkconfig postgresql on
```

Create database and user

Use the script <fp>/scripts/postgresql/postgres_create.sh to create a database and database user for Rational Focal Point. Note that you will have to make the script executable before running it.

Solaris

Install PostgreSQL according to the instructions available at Sun:

http://www.sun.com/software/solaris/howtoguides/postgresqlhowto.jsp

Oracle RDBMS Support

Rational Focal Point supports using Oracle RDBMS. This requires a properly installed and configured Oracle 10g. The following steps are required to use Oracle:

1. Create a new Oracle instance. Make sure that the parameter NLS_SORT is set to BINARY_CI.

2. Create a database for the schema for Focal Point. Ensure that the database is created with a unicode character set, e.g. AL32UTF8 to enable storing unicode characters as supported in Focal Point.

3. Create a user to hold the schema for focalpoint. For example, `CREATE USER focalpoint IDENTIFIED BY focalpoint`.

4. Create three tablespaces FP_DATA, FP_INDEX and FP_BIGOBJ.

5. Grant unlimited quota to the focalpoint user on the newly created tablespaces.

6. Download JDBC Driver 10g from http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/index.html and copy the jar-file to `<fp>/apache-tomcat-5.5.x/common/lib`.

7. Modify the properties in `<fp>/catalinabaseX/conf/server.xml` to match your Oracle settings. Under `<Resource name="jdbc/focalpoint"` the relevant property lines should look something like this:

```
driverClassName="oracle.jdbc.OracleDriver"
url="jdbc:oracle:thin:@localhost:1521:FOCL"
username="focalpoint"
password="focalpoint"
maxActive="10"
connectionProperties="SetBigStringTryClob=true"
```

where hostname (localhost), port number (1521) and sid (FOCL) may have to be altered in the url property, and username and password should match the user in step 2.

Make sure the max active connections for the database pool do not exceed the number of allowed sessions in Oracle.

8. Run **focalpoint_grant.sql** in `<fp>/scripts/oracle` as `system` in **sqlplus** with the focalpoint user as the first parameter, for example, `@focalpoint_grant.sql focalpoint`.

Specifying storage parameters for Oracle

In **server.xml** there is a section for specifying storage parameters for Oracle.

If your tablespace definitions differs from the default names FP_DATA, FP_INDEX and FP_BIGOBJ, update the storage parameters accordingly.

Add the following storage parameters to **server.xml**:

```
<Environment description=""
    name="focalpoint/dataStorage"
    type="java.lang.String"
    value="TABLESPACE FP_DATA
  STORAGE (initial 1m next 1m pctincrease 0)"/>

    <Environment description=""
```

```
  name="focalpoint/indexStorage"
  type="java.lang.String"
  value="TABLESPACE FP_INDEX
 STORAGE (initial 1m next 1m pctincrease 0)"/>

<Environment description=""
  name="focalpoint/bigObjStorage"
  type="java.lang.String"
  value="TABLESPACE FP_BIGOBJ
 STORAGE (initial 1m next 1m pctincrease 0)"/>
```

Backup

If you use Oracle, back up the database according to standard procedures.

Restore

If you use Oracle, restore the database according to standard procedures. Run the following SQL query before you start Rational Focal Point:

```
delete from node;
```

Convert to Oracle

Please contact support for scripts and instructions. (See "Contacting IBM Rational Software Support" on page 53.)

DB2 Support

Rational Focal Point supports using IBM® DB2® version 9.5. The following steps assume that you already have installed IBM® DB2® version 9.5. Refer to the DB2 installation documentation for information on how to install and configure DB2.

If you are installing DB2 on RedHat Enterprise Linux 4 or 5, check for the DB2 installation prerequisites and get the latest DB2 9.5[Enterprise or Express-C] edition for 32 bit or 64 bit Linux.

The following steps are required to use DB2:

1. To configure DB2 for Rational Focal Point, edit **createFocalDBSchema.sql** in <fp>/scripts/db2 and make changes to the batch sql as needed:

    a. If needed, change the default Database Name FOCALDB to a database name of your choice.

    b. If needed, change the default names of the three tablespaces FP_DATA, FP_INDEX and FP_BIGOBJ.

    c. For each tablespace, change the path in the container clause to a suitable local directory, for example on RedHat Enterprise Linux, change the file storage directory from USING (FILE 'D:\DB2\fp_data_cont11') to USING (FILE '\root\DB2\fp_data_cont11'). Make sure that the local directory has read and write permissions.

    d. Based on the server configuration, select size in the container clause of each tablespace.

2. Download JDBC Driver for DB2 from https://www14.software.ibm.com/webapp/iwm/web/preLogin.do?lang=en_US&source=swg-idsjs11 and copy the jar file to <fp>/apache-tomcat-5.5.x/common/lib

3. Modify the properties in <fp>/catalinabaseX/conf/server.xml, to match your DB2 settings. Under <Resource name="jdbc/focalpoint" the relevant property lines should look something like this:

```
driverClassName="com.ibm.db2.jcc.DB2Driver"
url="jdbc:db2://localhost:50000/FOCALDB"
username="focalpoint"
password="focalpoint"
maxActive="10"
```

where hostname (localhost), port number (50000) and database name (FOCALDB) may have to be altered in the url property.

Make sure the max active connections for the database pool do not exceed the number of allowed sessions in DB2.

4. Logged in as the DB2 instance user, run **createFocalDBSchema.sql** by entering db2 -tvf createFocalDBSchema.sql in the DB2 command window.

Specifying storage parameters for DB2

In **server.xml** there is a section for specifying storage parameters for DB2.

If your tablespace definitions differs from the default names FP_DATA, FP_INDEX and FP_BIGOBJ, update the storage parameters accordingly.

Add the following storage parameters to **server.xml**:

```
<Environment description="Tablespace for data storage"
            name="focalpoint/dataStorage"
            type="java.lang.String"
            value="IN FP_DATA"/>
```

```
<Environment description="Tablespace to be used for indexes"
             name="focalpoint/indexStorage"
             type="java.lang.String"
             value="IN FP_INDEX"/>

<Environment description="Tablespace to be used for storing big
objects"
             name="focalpoint/bigObjStorage"
             type="java.lang.String"
             value="IN FP_BIGOBJ"/>
```

Backup

If you use DB2, back up the database according to standard procedures.

Restore

If you use DB2, restore the database according to standard procedures. Run the following SQL query before you start Rational Focal Point:

```
delete from node;
```

Converting to DB2

DB2 is only available for new installations of Rational Focal Point, currently there is no supported migration path to DB2.

Configuring the application server

Websphere Application Server Community Edition 2.1.1.1

Install dependency jars

In <fp>/wasce/, run geronimo_configure.sh.

Specify the JAVA_OPTS

Linux:

1. Modify <WASCE_HOME>/bin/setenv.sh
2. Include the following entry in setenv.sh as the first line

```
JAVA_OPTS="-Xmx1024m -XX:MaxPermSize=384m
-Dorg.apache.geronimo.jaxws.builder.useSimpleFinder=true
$JAVA_OPTS"
```

Install License libraries

Include `libtl_lic.so` in the java.library.path

32 bit Solaris:
Place libtl_lic.so under /usr/lib/32

64 bit Solaris:
Place libtl_lic.so under /usr/lib/64
64 bit Linux:
Place libt_lic.so under /usr/lib

Configuring used ports

If you identify port conflicts, you can change the ports used in
`<WASCE_HOME>/var/config/config-substitutions.p roperties`

Note: Stop the WASCE server before making the modifications.

Starting and stopping Websphere Application Server Community Edition 2.1.1.1

To start the server

1. Go to `<WASCE_HOME>/bin`
2. Run `startup.sh`

To stop the server

1. Go to `<WASCE_HOME>/bin`
2. Run `shutdown.sh`

References to Websphere Application Server Community Edition 2.1.1.1 documentation

- **System requirements** -
  http://publib.boulder.ibm.com/wasce/V2.0.0/en/administration.html
- **Creating server assemblies** -
  http://www.ibm.com/developerworks/websphere/library/techarticles/0807_jain/0807_jain.html#heading1
- **Check list** -
  http://www.ibm.com/developerworks/websphere/techjournal/0810_supauth/0810_supauth.html
- **WASCE administration** -
  http://publib.boulder.ibm.com/wasce/V2.0.0/en/administration.html

Configuring Rational Focal Point

Basic setup without clustering

1. Become root.

2. cd into <fp> created by the installer script. Edit focalpoint.conf. Read the comments on each individual variable in the file for a short explanation.

3. Ensure that the application server has correct database pool settings, see step 4 for Tomcat, or step 5 for Websphere.

4. Edit database parameters (Tomcat). Go to `catalinabase1/conf/server.xml`, and edit the database parameters of the Resource `jdbc/focalpoint`:

    a. `url`: The URL identifying the database. The port number is by default 5432.

    b. `username`: By default, postgres on Solaris and focalpoint on RedHat Linux.

    c. `password`: By default, dbasql.

    d. `defaultAutoCommit`: verify that `defaultAutoCommit` is set to `true`.

5. Edit database parameters (Websphere):

    a. **Select deployment plan -** Depending on the database type used, select one of the following deployment plans in `<fp>/wasce/`:
        - `postgres_deployment-plan.xml`
        - `db2_deployment-plan.xml`
        - `oracle10g_deployment-plan.xml`

    b. **Change the default database name -** Change all occurrences of `fpdbpool` in the database deployment plan to the desired database name.

> **Note:** The name should not contain the characters slash, backward slash or space.

   c. In`<fp>/wasce/geronimo_deploy_dbpool.sh`, uncomment the required database pool and comment out other database pool configurations.

   d. Update `geronimo-web.xml` in `<fp>/wasce/` with the new dbpool name.

   e. Deploy the database configuration by running `geronimo_deploy_dbpool.sh`.

   f. Deploy Rational Focal Point by running `geronimo_deploy.sh`.

6. Start Rational Focal Point.

   a. Run command:

```
./startnode.sh 1
```

Go to the login page (http://<server>:8091/fp/servlet/Login) and verify that you get the page correctly. Make sure that you modify the portnumber in the URL according to your server.xml file or deployment plan. **Upgrades only:** If you are upgrading Focal Point and the upgrade includes database updates, you will be asked to confirm the database update. Click **Yes** and wait until the upgrade has finished. Then restart Rational Focal Point when prompted, by issuing the following commands

```
cd <fp>
./stopnode.sh 1
./startnode.sh 1
```

Go back to the login page (http://<server>:8091/fp/servlet/Login) and verify that the page is accessible.

Start script

To make Rational Focal Point start whenever the system starts, a start script is needed in:

```
/etc/init.d/
```

and also some links to it in:

```
/etc/rcX.d/
```

Consult your system documentation for details on these scripts and links. We provide a sample of a start script in:

```
<fp>/scripts/focalpoint
```

that should work on any UNIX-like system. If you use that, make sure that you edit the BASEDIR and NODES variables to reflect your setup.

After the focalpoint start script is configured you should be able to start and stop all your local nodes by issuing the following commands:

```
/etc/init.d/focalpoint start
/etc/init.d/focalpoint stop
```

Setting up a cluster with application server Apache Tomcat

1. Perform step 1-4 and 6 in "Basic setup without clustering" on page 33.

2. At this point you should have one Rational Focal Point node running. Set a multicast group address in the database. It should be an unused "Administratively-scoped (local) multicast address" on your network. Make sure that it does not interfere with other multicasts on your network. To set 239.0.0.1 as multicast address, go to the login page (http://<server>:8091/fp/servlet/Login) and log in (The default user name is admin with password focalpoint). Go to **Advanced > SQL** and insert the following in the topmost text area and click **Execute**:

    ```
    insert into projectsetting (pid,name,value) select
    projectid,'multicast.group.address','239.0.0.1' from toc
    where type='allusers';
    ```

3. Stop Rational Focal Point:

    ```
    ./stopnode.sh 1
    ```

4. Copy <fp>/catalinabase1 into as many nodes as you want on this machine. Normally you only want one node per machine. If you want two nodes on this machine:

    ```
    cp -r -p catalinabase1 catalinabase2
    ```

5. For each node, edit `<fp>/catalinabase<X>/conf/server.xml` where `<X>` is the node number:

    a. Set the node name by setting the `jvmRoute="worker<Y>"` attribute of the Engine element. This name must be unique across all nodes in the cluster. `<Y>` should be replaced by an integer.

    b. If you want to run multiple nodes on this machine you also need to edit the following port numbers in server.xml, so that they do not clash with other nodes on this machine. Any port number above 1024 will do, but the easiest way is to replace the last digit in the port numbers with the number of the node.

    1.Modify the port attribute of the Server element.

> 2. Set http connector port number to be used by the node. It should look
> something like this if you want to use port 8092:
>
> ```
> <!-- Define a non-SSL HTTP/1.1 Connector on port 8080 -->
> <Connector port="8092" maxHttpHeaderSize="8192"
> ```
>
> 3. Set ajp port numbers to be used by the node. It should look something
> like this if you want to use port 7092:
>
> ```
> <!-- Define an AJP 1.3 Connector on port 8009 -->
> <Connector port="7092"
> ```

4. Start the first node by entering
   `./startnode.sh 1`
   Check the log written to `<fp>/catalinabase1/logs` to ensure that
   the first node is working properly.

5. Start remaining node(s) by entering
   `./startnode.sh <X>`
   where <X> is the node number

Setting up a cluster with Websphere Application Server Community Edition 2.1.1.1

1. Setting up the cluster configuration for database.

2. Configure the database pool for WASCE, see "Edit database parameters
   (Websphere):" on page 33.

3. Open `config.xml` in `<WASCE_HOME>/var/config/`
   Search for the module "org.apache.geronimo.configs/tomcat6/2.1.1/car"
   Add the following gbean immediately after the module as follows:
   <gbean name="TomcatEngine">
    <attribute name="initParams">name=WASCE
   jvmRoute=node1</attribute>
   </gbean>
   where node1 is the desired node name.

4. Optionally modify PortOffset with the desired offset in
   <WASCE_HOME>/var/log/config-substitution.properties
   Note: If PortOffset is set to 5, all port numbers specified will be increased
   by 5.

5. In `geronimo-web.xml`, modify `tcpListenAddress` with the IP
   address of the server where WASCE is configured.

6. Create another copy of the WASCE folder, for example WASCE2.

7. Repeat the steps 3 and 4 for the next node.
   Note: Give the new node a different name, for example node2.
   Note: Specify a different PortOffset value for the new node.

8. Start WASCE, see "To start the server" on page 32.

9. Deploy Rational Focal Point with WASCE by running
   `geronimo_deploy.sh`.

10. After WASCE is started, start WASCE2.

11. Deploy Rational Focal Point with WASCE by running
    `geronimo_deploy.sh`.

12. Access the focalpoint urls with the assigned port numbers.
    Note: If a single machine is used for testing purposes, open two different
    Web browsers and test the focalpoint application.

Setting up load balancing using mod_proxy

Load balancing can be done in several ways. There are a number of requirements
that need to be met:

• Sticky sessions: All sessions must stay on the same node during the session.

• Ajp 1.3 or http can be used between the load balancer and the nodes.

The method described here is not in any way superior to other ways of load
balancing, but it has been tested. It is good practice to use a separate machine for
load balancing even though you can, for testing purposes, set up load balancing
on one of your nodes' machine.

To set up a load balancer using Apache 2.2, you need to have mod_proxy,
mod_proxy_balancer and mod_proxy_http or mod_proxy_ajp (depending on
what protocol you have selected in server.xml on your nodes) loaded. The
following Apache configuration snippet will set up a simple load balancer called
mycluster. All requests coming to "/fp/*" will be routed into the load balancer.
The load balancer will try to distribute the sessions evenly between the two
nodes.

This is an example configuration, assuming the above mentioned modules are
loaded, that sets up a load balancer with two nodes on Apache 2.2. For details on
mod_proxy_balancer, please refer to
http://httpd.apache.org/docs/2.2/mod/mod_proxy_balancer.html

```
######## balancer configuration ############################

<Location /balancer-manager>
```

```
# This is the location where you can get status information
# about the load balancer. You can enable and disable the nodes
# as well as modify the balance between the nodes

SetHandler balancer-manager

# Only let local connections manage the balancer
Order Deny,Allow
Deny from all
Allow from 127.0.0.1
</Location>

<Location /fp>
# We will only allow access from local network
Order Deny,Allow
Deny from all
Allow from 192.168.0.0/24
Allow from 127.0.0.1
</Location>

<Proxy balancer://mycluster>
# Here are the two nodes and their names (worker1 and worker2)
# These nodes are both running on this machine.
BalancerMember http://127.0.0.1:8091/fp route=worker1
BalancerMember http://127.0.0.1:8092/fp route=worker2

# If you want to use AJP instead of HTTP, uncomment the
following
# lines. Note the different port numbers. They can be configured
in
# server.xml in tomcat.
#BalancerMember ajp://127.0.0.1:7091/fp route=worker1
#BalancerMember ajp://127.0.0.1:7092/fp route=worker2
</Proxy>

# Route everything coming to /fp/ into the laod balancer
# and make sure that the cookie whose value to modify have the
# name JSESSIONID.
ProxyPass /fp/ balancer://mycluster/ stickysession=JSESSIONID

######## End balancer configuration #######################
```

Configuring memory for the Rational Focal Point installation

The Rational Focal Point application can consume a large amount of system memory (RAM). It is dependent on the amount of memory assigned to the Tomcat server. By default, Tomcat is assigned 400 MB of memory, but this should be raised to about 2/3 of the available RAM on the system.

Memory configuration is set up in <fp>/focalpoint.conf.

Changing the Web server port

1. See "Setting up a cluster with application server Apache Tomcat" on page 35 step 5 b) i-iii.

2. After changing the port number, you need to restart Rational Focal Point.

Maintaining Rational Focal Point

Usually, Rational Focal Point does not require much maintenance; most of the application configuration is done using the web interface. This is done by application administrators or workspace administrators as defined by the local usage policies.

Log files

Tomcat

Log files for Rational Focal Point are located in <fp>/catalinabaseX/logs.

Websphere

Wasce server logs are located in
`<WASCE_HOME>/var/log/server.log`

Log files for Rational Focal Point are by default located in
`<WASCE_HOME>/var/log/fp.log`

To modify the focalpoint logging location in Websphere:

1. Open
   `<WASCE_HOME>/repository/focalpoint/fp/1.0/fp-1.0.war/WEB-INF/classes/fp-logging.properties`

2. Modify the following entry:
   `java.util.logging.FileHandler.pattern=<WASCE_HOME>/var/log/fp.log`

Note: FileHandler.pattern requires an absolute path.

Monitoring Rational Focal Point

You can request the application status from the application over http. The following commands are available:

- http://<hostname>:8091/fp/servlet/Ping?cmd=ping

If the application and database are running the reply will be:

```
pong
```

If something is not working properly the reply will be:

```
dead
```

Or there will be no response at all.

- http://<hostname>:8091/fp/servlet/Ping?cmd=stats or
  http://<hostname>:8091/fp/servlet/Ping?cmd=htmlstats

  This will result in an XML or HTML file describing the current application state.

- http://<hostname>:8091/fp/servlet/Ping?cmd=version

  This will result in the application version.

6 *Upgrading to Rational Focal Point 6.4 on UNIX*

This chapter contains the following topics:

- Before you start
- Upgrading Focal Point 5.4 to Rational Focal Point 6.4
- Upgrading Focal Point 6.x to Rational Focal Point 6.4

Before you start

Before you start upgrading read the chapter "Before you start" on page 23.

Note When you upgrade to Rational Focal Point 6.4 from 5.4 or 5.4 01 you must request a new license file from IBM Rational Software Support to 6.4 from 5.4 SP1, you can use the current license file.

Note If you are upgrading from 5.4 on an installation running on Oracle, or migrating to Oracle, locate the latest version of **focalpoint_grant.sql** in <fp>/scripts/oracle, and run it according to the instructions in "Oracle RDBMS Support" on page 27 before the upgrade.

Upgrading Focal Point 5.4 to Rational Focal Point 6.4

1. Back up report images if any.

   Linux:

   ```
   /usr/share/focalpoint/images
   ```

   Solaris:

   ```
   /opt/FOCAfp/share/images
   ```

2. Make a note of any used **custom** business rules. When the installation of Rational Focal Point is finished, you need to request the custom business rules you use from IBM Rational Software Support for compatibility reasons. Only the common business rules are included in the installation. The common business rules are: ChoiceAttributeText, LinkByText, LinkInfo, LinkListAttributeSum, ListAttributeSum, MailImport, MatrixWriter, SetChoice, TextLog, and TrafficLight.

   Linux:

```
/usr/share/focalpoint/formulas
```

Solaris:

```
/opt/FOCAfp/share/formulas
```

3. Get the package from the [IBM Rational Focal Point Support Download site](#). The only package you need for the upgrade is focalpoint-6.4.sh.

4. Stop the application.

    Linux:

    ```
    service tomcat55 stop
    ```

    Solaris:

    ```
    /etc/init.d/focalpoint stop
    ```

5. Take a database backup. If possible, copy the backup file to another system. Please refer to the backup instructions of the Installation Guide for Focal Point 5.4.

6. Remove the focalpoint package:

    Linux:
    ```
    rpm -ev focalpoint
    ```
    Solaris:
    ```
    pkgrm FOCAfp
    ```

7. Install the new focalpoint package and configure it. See "Installing Rational Focal Point" on page 26, and "Configuring the application server" on page 31.

8. When you have received the custom business rules from IBM Rational Focal PointSupport, log on to Rational Focal Point and go to **Advanced > Business Rules**. Import the custom business rules files to the database. Instructions are available in the help.

9. In Rational Focal Point, go to **General > Report Images** to import the backed up images from step 2 into the database. Instructions are available in the help.

10. If you have any saved baselines in your database, you need to migrate them to the new architecture in Rational Focal Point 6. In Rational Focal Point, go to **Advanced > Migrate Baselines**. Instructions are available in the help.

Upgrading Focal Point 6.x to Rational Focal Point 6.4

Preparations:

- Back up the configuration files `<fp>/focalpoint.conf` and `catalinabase1/conf/server.xml` in a directory outside the Focal Point installation.

- Ensure that the Postgres or Oracle database is running.

- Locate the Rational Focal Point installer at the IBM® Rational® Solutions for Enterprise Lifecycle Management DVD, or download Rational Focal Point 6.4 Installer for Linux or Solaris from the [IBM Rational Focal Point Support Download site](#).

- From Rational Focal Point 6.4 Installer, extract `focalpoint-6.4.sh` to a file directory of your choice, e.g. `<installerdir>`.

Upgrading:

1. Go to the directory where Focal Point 6.x is installed. Make sure that you have write permissions in that directory

2. Run the self-extracting installer by issuing the command

   ```
   sh <installerdir>/focalpoint-6.4.sh
   ```

   You will be asked to read and understand the license agreement. Make sure you do so. If you do not agree, then answer **no** and press **Enter** and nothing will be installed on your system. Installation can be started again at any time. If you agree with the license terms, then answer **yes** and press **Enter**.

3. Restore the configuration files by moving the backup of `catalinabase1/conf/server.xml` and `<fp>/focalpoint.conf` back to their original locations.
   Note: If the application server or servlet container is Tomcat, in `catalinabase/conf/server.xml`, for the resource `jdbc/focalpoint`, verify that `defaultAutoCommit` is set to `true`.

4. Configure the newly installed focalpoint package, see "Configuring Focal Point" on page 29.

Rational Focal Point is now upgraded to 6.4.

7

Backing up

It is essential to regularly back up the database. For more information on how to backup a PostgreSQL database, please visit http://www.postgresql.org.

This chapter contains the following topics:

- Backing up and restoring the PostgreSQL database on Windows
- Backing up and restoring the PostgreSQL database on Unix

Backing up and restoring the PostgreSQL database on Windows

This chapter describes how to manually backup the database. Make sure there is at least one free database connection available, before configuring the backup.
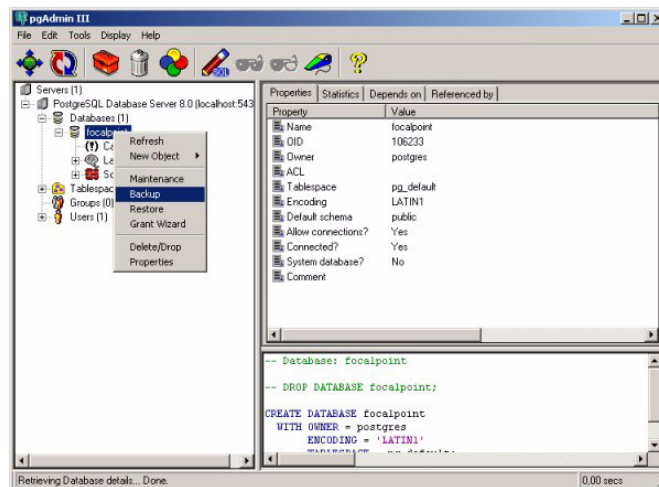
Manually backing up the PostgreSQL database

To create a backup:

1. Click **Start Menu> All Programs > PostgreSQL 8.1 > pgAdmin III**.

   The **pgadmin III** window is displayed.

2. Right-click on the database name, select **Connect** and enter the password for the database. This is the password you provided on the **Initialize database clusters** screen when you installed the PostgreSQL database.

3. Right-click on the **focalpoint** database and select **Backup**.

The **Backup Database** dialog box is displayed.

4. Type a path and name for the backup file, or click **...** to select a folder.
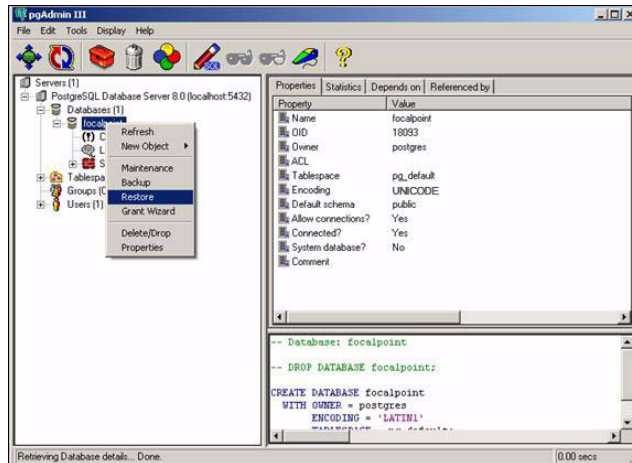
5. Click **OK**.

   A backup file is created.

6. Click **Done**.

### *Restoring a PostgreSQL database backup file*

Make sure that Rational Focal Point is stopped before you restore the database.

1. Click **Start Menu > All Programs > PostgreSQL 8.1 > pgAdminIII** for the database. This is the password you provided on the **Initialize database clusters** screen when you installed the PostgreSQL database.

2. Right-click on the **focalpoint** database and select **Restore**.

The **Restore Database** dialog box is displayed.

3. Browse to the backup file you want to restore.
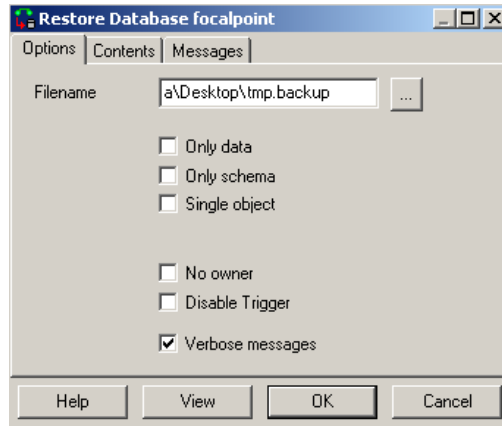
4. Click **OK**.

The database is restored.

5. Click **Done**.

6. Open the SQL prompt and run the following query:

```
delete from node;
```

If you are restoring the files to a different Rational Focal Point server, you have to copy any special expression class files from your old installation to your new installation. (The generic built-in expression class files come with the installation.) Special expression class files are stored in the Rational Focal Point installation folder in `tools\formulas` and `tools\images`. Rational Focal Point is installed to `C:\Program Files\IBM Rational\IBM Rational Focal Point` by default.

7. Start Rational Focal Point again.

Backing up and restoring the PostgreSQL database on Unix

You must make sure the database is backed up properly. The database backup only contains data stored on the database, the application is not backed up. Make sure that the <fp> directory is backed up so that your configuration can be restored. (If you have made any changes to the maximum number of connections in Rational Focal Point or the PostgreSQL database, make sure there is at least one free database connection available, before configuring the backup. Default maximum number of connections in Rational Focal Point is 30 and in PostgreSQL the default number is 100. Note that two nodes means 60 connections, etc.)

8 *Troubleshooting*

Using Japanese characters in Rational Focal Point

If you want to use Japanese characters in Rational Focal Point, you must install files for East Asian languages.

On Windows XP:

1. Click **Start Menu > Control Panel** and select **Date, Time, Language, and Regional Options**, then select **Regional and Language Options**.
2. On the **Languages** tab, select the check box for **Install files for East Asian languages**.
3. Click **OK**. You will need the Windows CD to complete this step.
4. Restart the computer.

On Windows 2003 Server:

1. Click **Start Menu > Control Panel** and select **Regional and Language Options**.
2. On the **Languages** tab, select the check box for **Install files for East Asian languages**.
3. Click **OK**. You will need the Windows CD to complete this step.
4. Restart the computer.

9

Single Sign-On

This chapter contains the following topics:

- Introduction
- Ping servlet
- Synchronization servlet
- Web Services

Introduction

The Single Sign-On (SSO) feature allows a user who is logged on to a corporate network to be automatically logged on to the Rational Focal Point server. This means that it is not necessary to administrate and remember a separate password for Rational Focal Point.

Note For information on setting up SSO, visit the online help in Rational Focal Point.

In some cases it may be possible to call the server without being logged in to the SSO solution, for example when retrieving the server status or using the Web Services interface. To do this, it is necessary to allow some URLs to pass through the SSO Proxy without authentication.

Ping servlet

To allow tools or users to retrieve server status information, calls to the Ping servlet must be allowed to pass through the SSO solution without authentication.

```
http(s)://<your Rational Focal Point server
URL>/fp/servlet/Ping
```

For example:

```
http://focalpoint.examplecompany.com/fp/servlet/Ping?cmd=ping
```

Synchronization servlet

To allow integrations that use the Focal HUB to work through the SSO solution, calls to the Synchronization servlet must be allowed to pass through the SSO solution without authentication.

```
http(s)://<your Rational Focal Point server
URL>/fp/servlet/Synchronization
```

For example:

```
http://focalpoint.examplecompany.com/fp/servlet/Synchronization
```

Web Services

To allow integrations that use Web Services to work through the SSO solution, calls to the following two URLs must be allowed to pass through the SSO solution without authentication.

```
http(s)://<your Rational Focal Point server
URL>/fp/services/FocalPoint
http(s)://<your Rational Focal Point server URL>/fp/servlet/Wsdl
```

For example:

```
http://focalpoint.examplecompany.com/fp/services/FocalPoint and
http://focalpoint.examplecompany.com/fp/servlet/Wsdl
```

10 *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, a single reference site for all 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.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 *critical* 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 *significant* business impact: The program is usable, but it is severely limited.
3	The problem has *some* business impact: The program is usable, but less significant features (not critical to operations) are unavailable.
4	The problem has *minimal* 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 <ins>https://www.ibm.com/software/rational/support/</ins> 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 <ins>http://www.ibm.com/software/support/help.html</ins>

   You can also open an online service request using the IBM Support Assistant. For more information, go to <ins>http://www.ibm.com/software/support/isa/faq.html</ins>.

- **By phone**: For the phone number to call in your country or region, go to the IBM directory of worldwide contacts at <ins>http://www.ibm.com/planetwide/</ins> 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 <ins>http://www.ibm.com/planetwide/</ins>.

Appendix K: Notices

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