

*Telelogic Focal Point*

*Installation Guide*

*Release 6.3*

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Before using this information, be sure to read the general information under Appendix “Notices”, on page 43.

This edition applies to version 6.3 of Focal Point and to all subsequent releases and modifications until otherwise indicated in new editions.

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# 1

## About this manual

Welcome to version 6.3 of Telelogic® 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 Telelogic Focal Point.

### Typographical conventions

The following typographical conventions are used in this manual:

Typeface or Symbol	Meaning
<b>Bold</b>	Book titles, important items, and items that you can select, including buttons and menus. For example: Click <b>Yes</b> to continue.
<i>Italic</i>	Book titles
<code>Courier</code>	Commands, files, and directories; computer output. For example: Edit your <code>.properties</code> file.
>	A menu choice. For example: Select <b>File &gt; Open</b> . 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 Telelogic Lifecycle Solutions DVD
- Our Support Website at <https://support.telelogic.com>



# 2

## Before you install

This chapter contains the following topics:

- Licensing options
- Prerequisites

### Licensing options

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

For more information about licensing, see the *Telelogic Lifecycle Solutions Licensing Guide*, which is available from the Telelogic Lifecycle Solutions DVD, and from our website at <https://support.telelogic.com>.

### If you are upgrading

If you are upgrading from Focal Point 5.4 or 5.4 01 you must request a new license file from Telelogic Customer 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 Focal Point. Details of system requirements can be found in the readme file and on the website at <https://support.telelogic.com>.
- 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 Focal Point, Java, Tomcat and the database server. The size of disk space needed for the database depends on what it will contain.
- Make sure that you have Telelogic License Server 1.3 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 Focal Point 6.3 is completed, you need to request the custom business rules you use from Telelogic Customer Support for compatibility reasons. Only the common business rules are included in the installation. The common business rules are: ChoiceAttributeText, LinkByText, LinkInfo, LinkListAttributeSum, MailImport, MatrixWriter, SetChoice, TextLog, and TrafficLight.
- Make a backup of any report images you are using.



# 3

## ***Installing Focal Point on Windows***

This chapter contains the following topics:

- Before you start
- Installing Java
- Installing Tomcat
- Installing the PostgreSQL database
- Configuring the PostgreSQL database
- Configuring Oracle
- Installing Focal Point
- Starting 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 Focal Point:

- Java™ Runtime Environment (JRE) 6
- Apache® Tomcat™ 5.5 15
- Either a PostgreSQL® database or an Oracle® database

Installer for Apache is included on the Telelogic Lifecycle Solutions DVD, and in the software zip file available from the Telelogic support site at <http://support.telelogic.com>.

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

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

You can download PostgreSQL 8.1.X from:

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

### **Installing Java**

Download Java Runtime Environment (JRE) 6 from:

<http://java.sun.com/javase/downloads/index.jsp>, and follow the on-screen instructions to install the software, using the default settings.

## Installing Tomcat

1. Make sure you have administrative access to the server.
2. If you are installing from DVD, put the **Telelogic Lifecycle Solutions DVD** into your DVD-ROM drive, browse to the Focal Point software and click to install Apache Tomcat.

A security warning dialog box is displayed. Click **Run** to install Apache Tomcat. Go to Step 4.

3. If you downloaded the **windows\_server.zip** from the website, extract the files from the zip and double click **apache-tomcat-5.5.15.exe**.

A security warning dialog box is displayed. Click **Run** to install Apache Tomcat.

4. The **Welcome** screen is displayed.
5. Click **Next**.

The **License Agreement** screen is displayed.

6. If you accept the terms of the license agreement, click **I Agree**.

The **Choose Components** screen is displayed.

7. Select **Minimum** from the **Select the type of install** list.

8. Click **Next**.

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

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

10. Click **Next**.

11. The Configuration screen is displayed

- a. Type **80** in the **HTTP/1.1 Connector Port** box.

Make sure that port 80 is not used by any other applications. For example, Microsoft IIS<sup>®</sup> and Skype<sup>™</sup> use this port by default.

(If you want to 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 Focal Point. Change the port number in the line `<Connector port="80"`. To make the

shortcut in **Start Menu** work, you also need to change the index.html file in the **Telelogic > Focal Point** folder. Add the port number to the end of the login URL in line 5 (URL=http://127.0.0.1:XX, where XX is the port number you have chosen).

- b. Type a user name and password for the administrator login.

**Note** This account is only used in Tomcat.

12. Click **Next**.

The **Java Virtual Machine** screen is displayed.

13. Enter the path to your Java installation.

14. Click **Install**.

The Tomcat files are installed on your machine, and the **Completing the Apache Tomcat Setup Wizard** screen is displayed.

15. Clear the **Run Apache Tomcat** check box and click **Finish**.

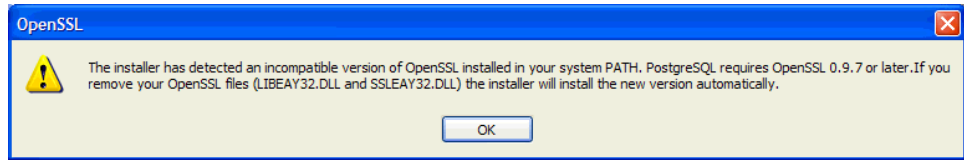
## Installing the PostgreSQL database

Focal Point can use either a PostgreSQL database or an Oracle database. If you are going to use an Oracle database, see “Oracle DBMS Support,” on page 23.

### To install the PostgreSQL database:

1. Make sure you have Administrator access to the server.
2. If you are installing from DVD, put the **Telelogic Lifecycle Solutions DVD** into your DVD-ROM drive, browse to the 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 the **windows\_server.zip** from the website, download PostgreSQL 8.1.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.

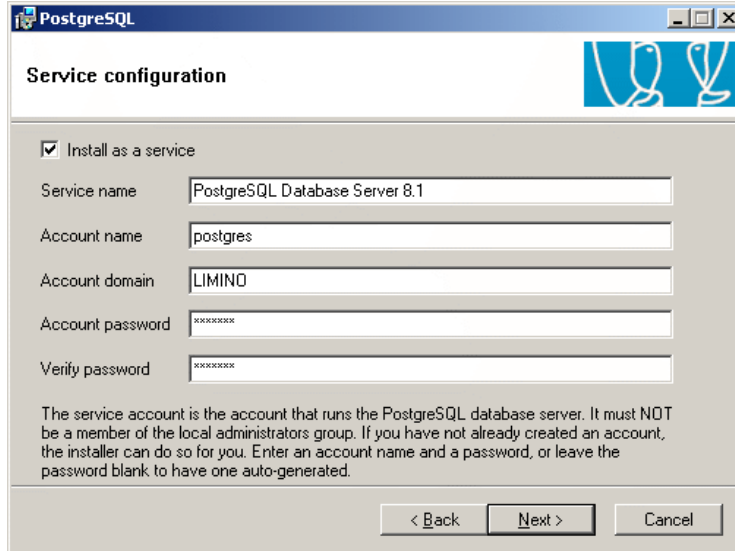
6. Read the information provided, then click **Next**.

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 8.1**, 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.

**PostgreSQL**

**Initialise database cluster**

Initialize database cluster

Port number: 5432

Addresses:  Accept connections on all addresses, not just localhost

Locale: C

Encoding: UTF-8

Superuser name: postgres

Password: xxxxxxxxxxxx

Password (again): xxxxxxxxxxxx

This is the internal database username, and not the service account. For security reasons, the password should NOT be the same as the service account.

< Back   Next >   Cancel

- a. Select **Accept connections on all addresses, not just localhost**.
- b. Select **UTF-8** from the **Encoding** list.
- 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 9 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 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**.

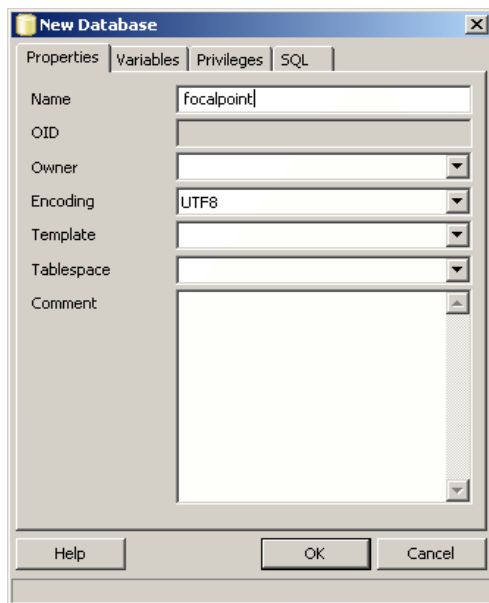
The **Installing** screen is displayed while the necessary files are installed. When all the files have been installed, the **Installation complete** screen is displayed.

16. Click **Finish**.

## Configuring the PostgreSQL database

1. Click **Start Menu > All Programs > PostgreSQL 8.1 > 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 8.1** and select **Stop**.
7. Edit the PostgreSQL configuration file:
  - a. Navigate to `C:\Program Files\PostgreSQL\8.1\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 Focal Point computer where Apache Tomcat is installed. If Focal Point and PostgreSQL are installed on the same server you don't have to change the IP number. You must change `md5` at the end the line 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 33.

## 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 Focal Point:

1. Create a new System Identifier (SID). The SID uniquely identifies a database on a server.
2. Create a user to hold the schema for focalpoint. For example, `CREATE USER focalpoint IDENTIFIED BY focalpoint.`
3. Create three tablespaces `FP_DATA`, `FP_INDEX` and `FP_BIGOBJ`.
4. Grant unlimited quota to the focalpoint user on the newly created tablespaces.
5. Download the file **focalpoint\_grant.sql** from <http://support.telelogic.com>. Run the file as `system` in **sqlplus** with the focalpoint user as the first parameter. For example, `@focalpoint_grant.sql focalpoint.`

## Installing Focal Point

1. Make sure that you have Administrator access on the server.
2. Shut down all Windows programs.
3. Stop the Apache Tomcat service:
  - a. Click **Start Menu > All Programs > Apache Tomcat 5.5 > Configure Tomcat**.  
The **Apache Tomcat Properties** dialog box is displayed.
  - b. Click **Stop**.
4. If you are installing from DVD, put the **Telelogic Lifecycle Solutions DVD** into your DVD-ROM drive, browse to the Focal Point software and click to run the Focal Point Installer.



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

5. If you downloaded the **windows\_server.zip** from the website, <http://support.telelogic.com>, extract the files from the zip and double click **FocalPointServer.exe**.

A security warning dialog box is displayed. Click **Run** to install 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 Agree** and click **Next**.

If the Tomcat installation directory is not found, you are prompted to select the installation directory.

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

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

The **License Information** screen is displayed.

9. 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 *Telelogic Lifecycle Solutions Licensing Guide*, which is available from the Telelogic Lifecycle Solutions DVD, and from our website at <https://support.telelogic.com>.

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

- Telelogic 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.

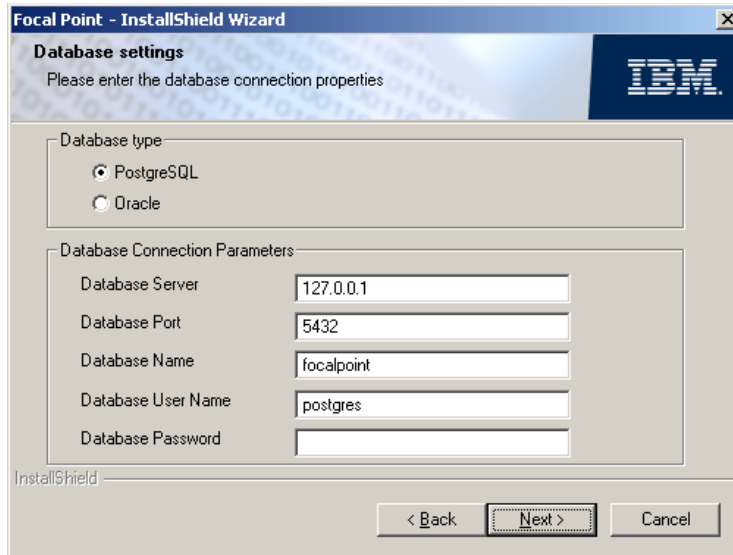
- Client license file

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

10. Click **Next**.

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

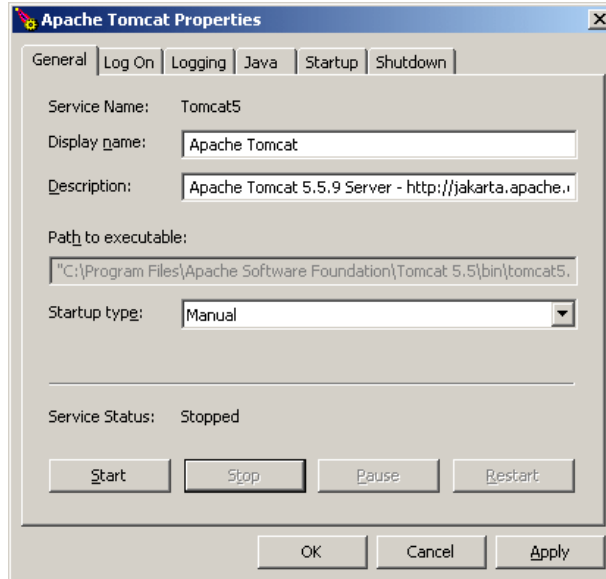
12. The **Database Settings** screen is displayed.



- a. In the **Database Type** frame, select the database you want to use for 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 respectively Oracle, e.g. the database account password. This is critical. For Postgres, see Installing the PostgreSQL database, step 11.
13. Click **Next**.
  14. Click **Install**.
  15. The **InstallShield Wizard Complete** screen is displayed. Click **Finish**.
  16. Restart the computer. If you are using an Oracle database, you must add the JDBC driver to the <TOMCAT 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](http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/htdocs/jdbc_10201.html)

## Starting Focal Point for the first time

1. Start Apache Tomcat by clicking **Start Menu > All Programs > Apache Tomcat 5.5 > Configure Tomcat**.



2. Click **Start**.

The Apache Tomcat service is started and Focal Point is running.

**Note** You can also start and stop Apache Tomcat as a service by clicking **Start Menu > Control Panel > Administrative Tools > Services > Apache Tomcat**.

3. Click **Start Menu > All Programs > Telelogic > Telelogic Focal Point 6.3**

A browser window opens and the Focal Point login page is displayed.

4. Type the login name **admin** and password **focalpoint**.
5. Click **Login**.
6. Click **Preferences** in the upper right corner.
7. 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.
8. To be able to use the client, you must have the latest Java 5 or 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>.

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

# 4

## Upgrading to Focal Point 6.3 on Windows

This chapter contains the following topics:

- Before you start
- Upgrade Focal Point 5.4 to Focal Point 6.3

### 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 Telelogic Customer Support. You cannot use your Focal Point 5.4 license with Focal Point 6. This is because we have upgraded the version of FLEXnet and introduced date-versioned licensing.

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

- Java Runtime Environment (JRE) 6
- Apache Tomcat 5.5 15
- Either a PostgreSQL database or an Oracle database

Installer for Apache is included on the Telelogic Lifecycle Solutions DVD, and in the software zip file available from the Telelogic support site at <http://support.telelogic.com>.

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

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

You can download PostgreSQL 8.1.X from:

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

### Upgrade Focal Point 5.4 to Focal Point 6.3

1. Make a backup of the old database before upgrading. See “Backing up and restoring the PostgreSQL database on Windows,” on page 33.
2. Back up report images if any. They are placed here:  
<INSTALLDIR>\images. <INSTALLDIR> 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 Focal Point 6.3 is finished, you need to request the custom business rules you use from Telelogic Customer Support for compatibility reasons. Only the common business rules are included in the installation. The common business rules are: ChoiceAttributeText, LinkByText, LinkInfo, LinkListAttributeSum, MailImport, MatrixWriter, SetChoice, TextLog, and TrafficLight. Incompatible business rules will be ignored.
4. Stop the Tomcat service.
5. Go to **Start Menu > Control Panel > Add or Remove Program** to uninstall Focal Point 5.4.
6. Install Focal Point 6.3.

See “Installing Focal Point,” on page 12.

**Note** When upgrading, Focal Point defaults the Tomcat port to 80. 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 Focal Point. Change the port number in the line `<Connector port="80"`. To make the shortcut in **Start Menu** work, you also need to change the `index.html` file in the **Telelogic > Focal Point** folder. Add the port number to the end of the login URL in line 5 (URL=`http://127.0.0.1:XX`, where XX is the port number you have chosen).

7. Start using Focal Point.  
See “Starting Focal Point for the first time,” on page 15.
8. When you have received the custom business rules from Telelogic Customer Support, log on to Focal Point and go to **Advanced > Business Rules**. Import the custom business rules files to the database. Instructions are available in the online help.
9. In 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 Focal Point 6. In Focal Point, go to **Advanced > Migrate Baselines**. Instructions are available in the online help.

# 5

## Installing 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 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 Focal Point
- Installing the database
- Configuring Focal Point
- Maintaining Focal Point
- Monitoring 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 from:

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

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

1. Make sure that you have Administrator access to the server(s).
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 Focal Point.

Monitor the amount of space left on the different partitions on the 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 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 .tar file you download from Telelogic Support Website). 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. 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 executing

```
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 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 from

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

and install it according to the Java installation instructions.

## Installing Focal Point

All the necessary Focal Point installation files can be downloaded from the Telelogic Support Website. For the basic installation, you need the `focalpoint-6.3.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 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-6.3.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

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

## RedHat®Enterprise™Linux®

### RedHat Enterprise Linux 4

If you are installing PostgreSQL on RedHat Enterprise Linux 4, get the latest 8.2.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-8.2.9-1PGDG.rhel4.i386.rpm
```

```
postgresql-libs-8.2.9-1PGDG.rhel4.i386.rpm
```

```
postgresql-8.2.9-1PGDG.rhel4.i386.rpm
```

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

```
rpm -Uvh postgresql-server-8.2.9-1PGDG.rhel4.i386.rpm  
postgresql-libs-8.2.9-1PGDG.rhel4.i386.rpm  
postgresql-8.2.9-1PGDG.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
```

### RedHat 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 postgres\_create.sh script (supplied by Telelogic) to create a database and database user for Focal Point. Note that you will have to make the script executable before running it. The script is here:

```
<fp>/scripts/postgres_create.sh
```

## Solaris

Install PostgreSQL according to the instructions available at Sun:

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

## Oracle DBMS Support

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

1. Create a new sid.
2. Create a user to hold the schema for focalpoint. For example, create user focalpoint identified by focalpoint.
3. Make sure the user has quota on a table space.
4. Download JDBC Driver 10g from [http://www.oracle.com/technology/software/tech/java/sqlj\\_jdbc/index.html](http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/index.html) and copy the jar-file to <fp>/apache-tomcat-5.5.20/common/lib
5. 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.

6. Run focalpoint\_grant.sql (available in <fp>/scripts) as system in sqlplus with the focalpoint user as the first parameter, e.g. @focalpoint\_grant.sql focalpoint.

## Specifying storage parameters for Oracle

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

If you have changed the tablespace definitions from the standard names please change them accordingly.

The defaults are FP\_DATA, FP\_INDEX, FP\_BIGOBJ.

```
<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 Focal Point:

```
delete from node;
```

## Convert to Oracle

Please contact support for scripts and instructions. (See “Contacting IBM Rational Software Support” on page 41.)

## Configuring 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. In catalinabase1/conf/server.xml, edit the database parameters of the Resource named “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.
4. Start 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. If you are upgrading Focal Point, it will offer to upgrade the database table. Click **Yes** and wait until it has finished, and restart Focal Point when prompted, by issuing the following commands

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

## Start script

To make 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

1. Perform all steps in “Basic setup without clustering” on page 24.

2. At this point you should have one 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 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.

- i. Modify the port attribute of the Server element.

- ii. 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"
```

- iii. 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"
```

6. 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.
7. Start remaining node(s) by entering  
`./startnode.sh <X>`  
where `<X>` is the node number

### **Setting up load balancing using mod\_jk**

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](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 load 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 Focal Point installation**

The 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” on page 25 step 5 b) i-iii.
2. After changing the port number, you need to restart Focal Point.



## Maintaining Focal Point

Usually, 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 Work Space Administrators as defined by the local usage policies.

### Log files

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

## Monitoring 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 Focal Point 6.3 on UNIX

This chapter contains the following topics:

- Before you start
- Upgrading Focal Point 5.4 to Focal Point 6.3

### Before you start

Before you start upgrading read the chapter “Before you start” on page 19.

**Caution** When you upgrade to Focal Point 6.3 from 5.4 or 5.4 01 you must request a new license file from Telelogic Customer Support. If you want to upgrade to 6.3 from 5.4 SP1, you can use the license file you have.

### Upgrading Focal Point 5.4 to Focal Point 6.3

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 Focal Point 6.3 is finished, you need to request the custom business rules you use from Telelogic Customer Support for compatibility reasons. Only the common business rules are included in the installation. The common business rules are: ChoiceAttributeText, LinkByText, LinkInfo, LinkListAttributeSum, MailImport, MatrixWriter, SetChoice, TextLog, and TrafficLight.

Linux:

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

Solaris:

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

3. Get the package from the Telelogic Support Website. The only package you should need for the upgrade is focalpoint-6.3.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 Focal Point” on page 21, and “Configuring Focal Point” on page 24.
8. When you have received the custom business rules from Telelogic Customer Support, log on to 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 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 Focal Point 6. In Focal Point, go to **Advanced > Migrate Baselines**. Instructions are available in the help.

# 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

Here is a guide on 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**

You can create a standard backup or an advanced backup of the PostgreSQL database. A standard backup is created in the backup folder, which is located in `C:\Program Files\Telelogic\PostgreSQL Backup` by default. An advanced backup can be created in any folder.

##### **To create a standard backup:**

- Select **Start Menu > All Programs > Telelogic > Telelogic Lifecycle Solutions Tools > Telelogic Focal Point 6.3 > Backup PostgreSQL Database Now**.

The backup folder is created.

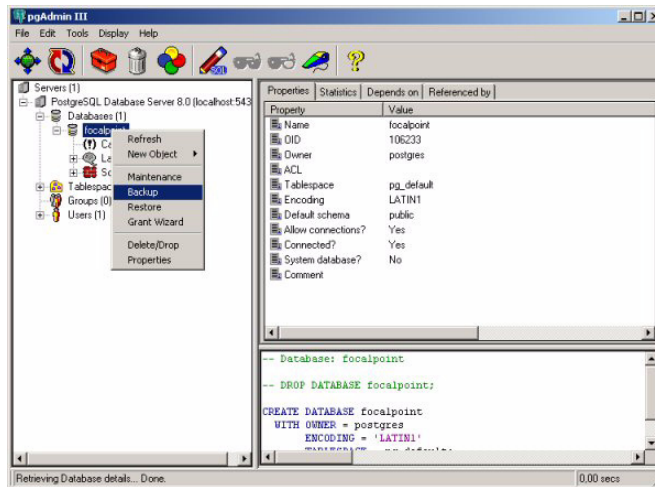
##### **To create an advanced backup:**

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.

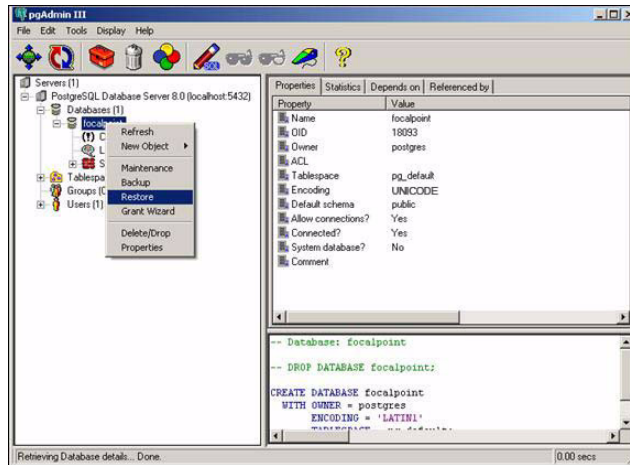
4. Type a path and name for the backup file, or click ... to select a folder.
5. Click **OK**.  
A backup file is created.
6. Click **Done**.

## **Restoring a PostgreSQL database backup file**

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

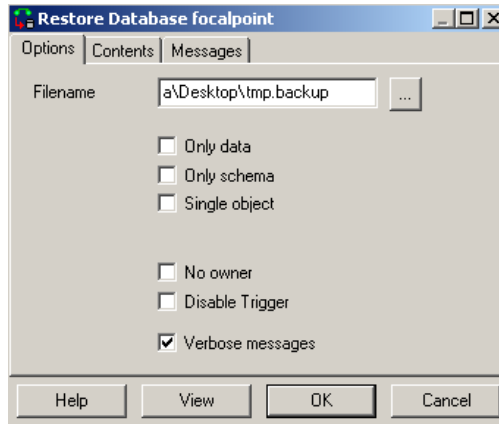
1. Click **Start Menu > All Programs > PostgreSQL 8.1 > pgAdminIII** for the database. This is the password you provided on the **Initialize database clusters** screen when you installed the PostgreSQL database.

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 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 Focal Point installation folder in `tools\formulas` and `tools\images`. Focal Point is installed to `C:\Program Files\Telelogic` by default.

7. Start 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 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 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 Focal Point

If you want to use Japanese characters in 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 Focal Point server. This means that it is not necessary to administrate and remember a separate password for Focal Point.

**Note** For information on setting up SSO, visit the online help in 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 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 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 Focal Point server URL>/fp/services/FocalPoint  
http(s)://<your Focal Point server URL>/fp/servlet/Wsd1
```

For example:

```
http://focalpoint.examplecompany.com/fp/services/FocalPoint and  
http://focalpoint.examplecompany.com/fp/servlet/Wsd1
```

# 10

## Contacting IBM Rational Software Support

Support and information for Telelogic products is currently being transitioned from the Telelogic Support site to the IBM Rational Software Support site. During this transition phase, your product support location depends on your customer history.

### Product support

- If you are a heritage customer, meaning you were a Telelogic customer prior to November 1, 2008, please visit the [Focal Point Support Web site](#).
- Telelogic customers will be redirected automatically to the IBM Rational Software Support site after the product information has been migrated.
- If you are a new Rational customer, meaning you did not have Telelogic-licensed products prior to November 1, 2008, please visit the [IBM Rational Software Support site](#).

Before you contact Support, gather the background information that you will need to describe your problem. When describing a problem to an IBM software support specialist, be as specific as possible and include all relevant background information so that the specialist 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?
- Do you have logs, traces, or messages that are related to the problem?
- Can you reproduce the problem? If so, what steps do you take to reproduce it?
- Is there a workaround for the problem? If so, be prepared to describe the workaround.

### Other information

For Rational software product news, events, and other information, visit the [IBM Rational Software Web site](#).



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