

Telelogic
System Architect Process Integrator
Installation Guide
Release 11.2

Before using this information, be sure to read the general information under Appendix, “Notices,” on page 19.

This edition applies to **Release 11.2, System Architect Process Integrator** and to all subsequent releases and modifications until otherwise indicated in new editions.

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Installing SA Process Integrator

Introduction

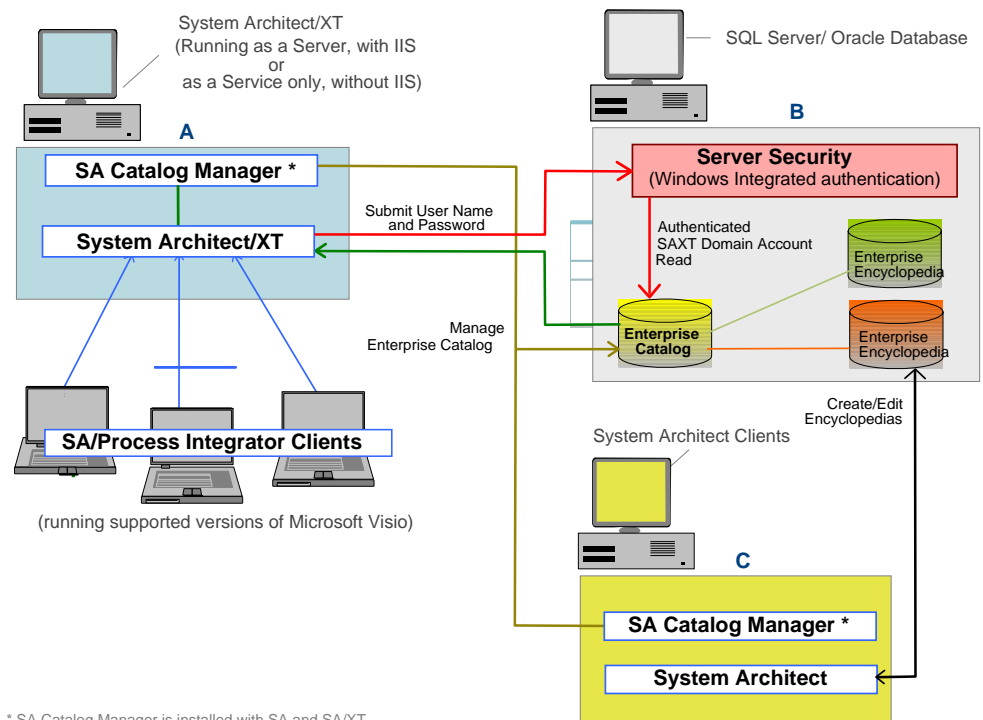
The Telelogic System Architect® Process Integrator™ is a paid-for add-on product that enables you to use Microsoft® Visio® to edit Business Process diagrams in System Architect® Enterprise encyclopedias. You can create BPMN diagrams locally, and if you require, save it later to a central SA repository. The workflow is facilitated by the collaboration of technologies in the System Architect Suite of tools.

This guide provides all the information that you need to install and run SA Process Integrator, including license, system and software requirements.

Installation overview

To install SA Process Integrator (SA PI) it's important to be clear on what is required, and what is not required. For example, your version of Visio, Windows, and software already installed in your particular environment all play a part in determining what you need to do to install SA PI. Those variables are discussed later in this guide.

SA Process Integrator is built on the System Architect, System Architect® XT™ and SA Catalog Manager technologies. SA XT provides the SAservice, which works as a bridge between a SA Enterprise Encyclopedias on SQL/Oracle servers and Microsoft Visio diagrams. SA PI also uses Windows components, such as integrated authentication and Internet Information Services, and the .Net Framework. As shown below, you need SA, SA XT and SA CM to deploy SA PI. The illustration below shows the overall flow among System Architect and Windows components.



System Architect Process Integrator Client

System requirements

This section contains operating system and hardware requirements for the SA Process Integrator client.

Note: The person who installs SA Process Integrator must have administrative privileges on the system (during the installation only).

Operating System Requirements:

- Microsoft Windows Server 2003, Standard Edition (with Service Pack 1) or later
- Microsoft Windows XP (with Service Pack 2)
- Microsoft Windows Vista Business Edition - the installation and run-time requirements of SA Process Integrator on Windows Vista Business Edition depend on your version of Visio, as follows:

Microsoft Visio 2003, Standard or Professional Editions

- o The User Account Control (UAC) should be 'On' before running the installation. To enable the UAC from the Control Panel (select Classic View, open User Accounts, and select the 'On').
- o You must provide license information during the installation.
- o The UAC setting must be 'On' at SA Process Integrator run-time.
- o If Microsoft's Office suite is installed, it must be Office 2003.

Microsoft Visio 2007, Standard or Professional Editions

- o Microsoft Visio 2007
 - o The User Account Control should be 'Off' before you install SA Process Integrator.
 - o If Microsoft's Office suite is installed, it must be Office 2007.
- Microsoft Windows Terminal Service or Citrix® server

Hardware requirements

The hardware requirements for the SA Process Integrator client and Visio are as follows:

- Administrative privileges on the system (during the installation only).
- Pentium-class PC, 500 MHz or higher, minimum of 256 MB of RAM, Super VGA monitor (with the screen resolution set to at least 800 x 600, small fonts setting).
- Disk space: 100MB during installation and 60 MB after the install are complete.
- Hard disk requirements vary depending on your configuration. Custom installation choices may require more or less hard disk space.
- The hard disk requirements for Microsoft Office Visio versions are as follows:
 - o Visio 2007 - Standard Edition- 1.5 gigabyte (GB) of hard disk space.
 - o Visio 2007 - Professional Edition - 1.5 GB of hard disk space.
 - o Visio 2003 - Standard Edition -160 MB of hard disk space, including 75 MB on the hard disk where the operating system is installed. The optional installation files cache requires an additional 155 MB of available hard disk space.
 - o Visio 2003 - Professional Edition - 210 MB of available hard disk space, including 75 MB on the hard disk where the operating system is installed. The optional installation files cache requires an additional 155 MB of available hard disk space.

License Requirements

There are two types of licenses available for use with SA Process Integrator. The license type that you need depends on the environment in which you are running Microsoft Visio. The license options areas follows:

- **Node-Locked License** – to run SA Process Integrator on a machine with either of the supported versions of Windows (i.e., Microsoft Windows XP (with Service Pack 2), Microsoft Windows Vista Business Edition, Microsoft Windows Server 2003, Standard Edition (with Service Pack 1) or later). Node-Locked Licenses are ‘tied’ to individual client machines.
- **Concurrent License** – to run SA Process Integrator on a Citrix or Terminal Server environments. Licenses are managed by Macrovision’s FLEXnet Licensing system. At runtime, an SA PI Client uses an ‘SA-Process-Integrator’ license feature.

You can provide license information during the installation or the first time you run SA

Process Integrator.

For more information on licenses, see the ‘Telelogic Lifecycle Solutions Licensing Guide’, available in the IBM Telelogic Support Site (<https://support.telelogic.com/systemarchitect/systemarchitect>) and in the Documentation DVD of the TLS boxed package.

SA Process Integrator Server (SA XT Server) Installation

SA Process Integrator works with System Architect, System Architect XT and SA Catalog Manager. The integration among these products is described below. For installation information about these products see the 'System Architect and System Architect XT Installation Guide' available in the IBM Telelogic Support Site (<https://support.telelogic.com/systemarchitect>) and in the Documentation DVD of the TLS boxed package.

System Architect

System Architect® is required on the network to create or edit Enterprise encyclopedias. That is because the SA Process Integrator is an Add-on product to System Architect, and therefore is not enabled to create encyclopedias directly. As shown in the illustration in the 'Installation Overview' section, System Architect does not have to be installed on the same computer where the SA Process Integrator is installed. It does however need to create encyclopedias on a Server, which SA XT (running as a Server or a Service) can access.

Note: there is no restriction to installing System Architect on the same machine as an SA Process Integrator client.

System Architect XT

The SA Process Integrator requires that System Architect XT V 11.1 be installed on the network. However, an SA Process Integrator (SA PI) session does not consume SA XT licenses. Instead, SA PI uses the SA XT technology as a bridge between Microsoft Visio and System Architect encyclopedias.

You should be aware of the following information regarding SA XT and Microsoft Internet Information Services (IIS):

- If you are deploying SA Process Integrator without SA XT clients, you do not need to configure IIS (an SA XT client is an SA XT session that consumes an SA XT Read or a Read Write license to access encyclopedias). In this scenario, you need only install the SA XT software--you do not need to purchase a license or set up IIS to host an SA XT Website.
- If you are deploying SA Process Integrator with SA XT clients, then you need to perform the standard SA XT installation, which configures IIS to host your SA XT Website (see the 'System Architect and System Architect XT Installation Guide' for more information). If you already have an installation of 'SA XT 11.2' available, you

can use that same installation for SA PI.

System Architect Catalog Manager

System Architect Catalog Manager provides role-based, enterprise-level access control to System Architect encyclopedias. Access control is enforced by an Enterprise Catalog. You attach to the catalog encyclopedias to which you want to control access-these are termed ‘Enterprise’ encyclopedias.

Because SA Process Integrator only supports Enterprise encyclopedias, you must use SA Catalog Manager to create Users, assign them encyclopedias, and grant them one or more Roles on Enterprise encyclopedias.

SA Catalog Manager is automatically installed when you install System Architect or System Architect XT. You can use SA Catalog Manager installed by either product, as long as it can access the server where the encyclopedias to be accessed through SA Process Integrator reside.

Enterprise Catalogs

An enterprise catalog is an SQL Server or Oracle database that holds information about other databases (i.e., System Architect encyclopedias) on the same server. In Oracle, the catalog is a schema within the database. The catalog controls encyclopedias that are attached to it. These are termed ‘Enterprise’ encyclopedias. Through the catalog, SA Catalog Manager enables you to control which users can access ‘Enterprise’ encyclopedias, and what they can view or do in them.

There is a one-to-one correspondence between a server and a catalog, and one catalog can control access to multiple encyclopedias. SA Catalog Manager also controls permissions to the catalog database, enabling you to assign the Administrator role to other users. This lets you relegate some or all catalog-related tasks to others. But as the SA Catalog Manager installer, you have ultimate control over catalogs and by extension, to all the encyclopedias you attached to them.

License Requirements for Server

When the SA PI Client connects with the SA PI Server at runtime, the server license features (SA-XT and SA-PROCESS-INTEGRATOR-SERVER) are consumed on the SA PI server, and released when client disconnects and moves to Offline mode.

Installing SA Process Integrator Client

IBM provides separate SA Process Integration installation packages for Visio 2003 and for Visio 2007. However, after you download the appropriate files, the steps that you follow via the Installation Wizard are the same. Therefore, the instructions are arranged into the following parts:

Part I – Downloading and Starting the Installation

Part II – Running the SA Process Integrator Installation Wizard

Each of these parts is described in the sections that follow.

Note: the instructions below are based on a scenario wherein SA, SA XT and Enterprise Encyclopedias are already present., which is a recommended practice.

Part I – Downloading and Starting the Installation

Follow the steps in the sections below that correspond to the version of SA Process Integrator that you are installing. After completing either of the sections below, go on to Part II, which walks you through steps common to both SA Process Integrator versions.

SA Process Integrator for Visio 2003

To start installation of SA Process Integrator for Visio 2003, proceed as follows:

1. Open the folder onto which you downloaded SA Process Integrator for Visio 2003. The file name is **SA_ProcessIntegrator_11.1_Visio2003.zip**.
2. Extract the contents of the zip file to your folder of choice. The zip file you extract contains three executable files.
3. Click on the **dotnetfx.exe** file to install the Microsoft .Net Framework 2.0. If an earlier version of the Framework is installed, the installation of version 2.0 leaves it intact. Other applications using older versions are not affected.
4. Click on the **vstor.exe** file. This installs the required 'Visual Studio 2005 Tools for Office Second Edition Runtime.'
5. Click the **setup.exe** file to install the SA Process Integrator 2003.
6. Go on to 'Part II – Using the SA Process Integrator Installation Wizard' section below to complete the installation.

SA Process Integrator for Visio 2007

To start installation of SA Process Integrator for Visio 2007, proceed as follows:

1. Open the folder onto which you downloaded the SA Process Integrator for Visio 2007 file, named **SA_ProcessIntegrator_Visio2007_11.1.exe**.
2. Click on the **SA_ProcessIntegrator_Visio2007_11.1.exe** file.
3. Go on to 'Part II – Using the SA Process Integrator Installation Wizard' section below to complete the installation.

Part II – Running the SA Process Integrator Installation Wizard

After you have started the installation of SA Process Integrator for Visio 2003 or SA Process Integrator for Visio 2007 as described above, complete the installation as follows:

1. In the initial **Telelogic SA Process Integrator** wizard screen, click **Next**. The **License Agreement** screen is displayed.
2. Select the **I accept the terms of the License Agreement** option and click **Next**.
3. In the **Customer Information** screen, enter **User Name** and **Company Name** in the corresponding fields. Review the **Install this application for** field and accept the default setting (**All users**) or choose **Only for me**. If you are installing on a Terminal Server or Citrix, you must select the **All Users** option.
4. Click **Next**.
5. Select where to install SA Process Integrator. You can accept the default folder (C:\Program Files\Telelogic\System Architect Suite\SA-Process Integrator) or click on **Browse** to select a different folder.
6. Click **Next**. The **License Information** screen is displayed. See the 'License Requirements' section above for license options.
7. Click **Next**. The **SA Process Integrator Server Info** screen is displayed.
8. Enter the Server Name in the **Server name** field. This is the SA Process Integrator server, which is the name of the machine running the SAService (i.e. the SA XT server, where SAService is running). 'SAService' is also known as the 'SA PI Service.'

The **Port Number** field contains the default value ('8022') used by the SA Process Integrator server.

Optionally (in the Visio 2007 installer), you can click the **Verify** button to check if the SAService is running (or not) the server side. It may take a while for the connection to be verified. An **OK** button is displayed when the connection has been verified. Click on **OK** to continue with the installation.

If you need to change the port number after the installation, you can edit the 'SAService.exe.config' file, located in the default installation path (see the 'Changing the Port on the Server' section on page 15).

9. Click **Next**. Enter the values for the following fields: **Offline root path**, **Default Database Server**, and **Default Encyclopedia**.

Note: if you select an Offline folder used in a previous SA PI installation, and it contains diagrams you want to reuse, then you need to select the same 'Default Database Server' and 'Default Encyclopedia.' Alternatively, if you choose a new Offline folder, you can select any 'Default Database Server' or 'Default Encyclopedia.'

10. Click **Next**. An Information dialog is displayed stating that 'Offline Root Folder access' has been granted (to the user running the installation).
11. Click **OK** to close the Information dialog. The **Start Copying Files** screen is displayed.
12. Click **Next** to accept the options shown in the **Current Settings** field, or if necessary, click **Back** to change your current settings.
13. Click **Finish** to complete the SA Process Integrator installation.

Configuring SA Process Integrator Client after Installation

After completing the installation of SA Process Integrator, you may need to check or change certain values to get access to the Enterprise encyclopedias. The following sections provide some of the more common settings you may need to change, or choose to change, to get SA PI properly set up in your particular environment.

Checking SA PI Client Connection to SA XT Server or SA PI Service (SAService)

The SA Process Integrator toolbar in Visio contains indicator icons that signify the current connection status to the SA XT Server or Service.

To check the connection, proceed as follows:

1. Click on the **Configure Process Integrator** icon. The dialog displays the offline root path.
2. Click on the tab to display the Server Name and Port. Change the Server Name to point to the SA XT machine (not the SQL machine).
3. Click on the **Verify** button to verify the following settings:
 - o Read/Write permissions to the Offline root path.
 - o The SAService is running (on the SA XT server).

A dialog box displays the results. If the verification is successful, and you specified the Default Database Server and Default Encyclopedia at install time, it means you can connect to an SA Enterprise encyclopedia from Visio. If you have not specified a Default Database Server and Default Encyclopedia, you can specify (and verify) these at runtime through the System Architect Browser (see the SA Process Integrator online help for more information).

Configuring the SA PI Service on the SA XT Server

After the installation is complete, you may need or choose to configure the server as described in the sections that follow.

Important:

1. You should make a backup copy of the 'SAService.exe.config' file before modifying it; the SAService may not restart if you make invalid modifications .
2. If you make any changes to the SAService in the 'SAService.exe.config file, you need to have all users log off, and restart the service for your changes to take effect (see the 'Restarting the SA Process Integrator Service' section below.).

Changing the Timeout Settings for User Sessions

To change the session Timeout settings for users proceed as follows:

1. Open the **SAService.exe.config** file (installed by default to subfolder C:\Program Files\Telelogic\System Architect Suite\System Architect\SA-Process Integrator).
2. Change the **leaseTime** and **renewOnCallTime** properties, which work as follows:

LeaseTime – The 'leaseTime' setting limits the number of minutes a client license can be idle before the SA PI Server releases that license to make it available for other clients. The default 'leaseTime' value is '0,' meaning that the Timeout option is 'Off.' Changing that value to a positive number turns the setting 'On.' For example, setting the Timeout value to '30M' releases any client license that is idle for 30 minutes. Commonly used Timeout values are between 15M - 30M.

RenewOnCallTime – The 'renewOnCallTime' setting renews the Timeout counter to a value you select, as long as the value you select is greater than the 'leaseTime' value. The 'renewOnCallTime' is not applicable when the 'leaseTime' value is '0' (the default). It is only applicable if the 'leaseTime' value is greater than '0.' Commonly used values are between 15M - 30M.

Note: If you change the 'leaseTime' and 'renewOnCallTime' values to very short intervals it may affect how users work and how they save their work.

Change the Timeout settings as desired using these parameters:

D for Days,
H for Hours,
M for Minutes,
S for Seconds, or
MS for Milliseconds.

The following **SASservice.exe.config** file code sample sets the Timeout value to 15 Minutes:

```
<lifetime leaseTime="15M" renewOnCallTime="15M"  
sponsorshipTimeOut ="0M" pollTime="30s"/>
```

3. Save changes and close the **SASservice.exe.config** file.
4. Restart SA Process Integrator Service (SASevice) for your changes to take effect, as described in the 'Restarting the SA Process Integrator Service' section below.

SA PI Login Credentials for SQL Oracle Servers

The System Architect Process Integrator Service provides the following authentication mechanisms for users to access SQL Oracle servers:

- **SA Catalog Manager Authentication** – users are added to the catalog through SA Catalog Manager. Through SA Catalog Manager, you add the user name (must be added in the form ‘DomainName\UserName’), to grant user access to the encyclopedias in the Enterprise Catalog. The user must be an authenticated user on the network domain.
- **Windows Authentication** – only the user account that starts the SAService on the server needs Admin access to the SQL server or Oracle database. By default, the SAService is started by the ‘Local System Account’, which gains access to SQL database running on the same machine automatically. For Oracle, the user starting SAService has to be granted access to the database manually.

If the SAService is not running on the same machine as the SQL/Oracle servers, then a network user logged in through Windows Authentication needs to start/restart the SAService for it to make Enterprise encyclopedias available to users (as described above).

- **Database Authentication** – this mechanism allows Oracle users to gain access to Oracle databases. You can add your values for Database Authentication at install time, or by adding them to the DBUser and DBPassword properties in the SAService.exe.config file (located in the default installation path C:\Program Files\Telelogic\System Architect Suite\System Architect\SA-Process Integrator). In the ‘SAService.exe.config,’ you enter the appropriate ‘DBUser’ and ‘DBPassword’ values in the ‘connectionString’ tag as follows:

```
<connectionStrings>  
<add name="DBUser" connectionString="DBUserName"/>  
<add name="DBPassword" connectionString="DBUserPassword"/>  
</connectionStrings>
```

Changing the Port on the Server

The SA Process Integrator Server uses Port Number '8022' by default. To change the port number after installing the SA PI Server, you need to edit the 'SAService.exe.config' file as described below.

Note: it is recommended that you make a backup copy of the 'SAService.exe.config' file before you modify it; the SAService does not start with invalid modifications.

To change the port number, proceed as follows:

1. Using a text editor, open the 'SAService.exe.config' file, located in the default installation path (C:\Program Files\Telelogic\System Architect Suite\System Architect\SA-Process Integrator).
2. The code sample below shows the 'channel' tag wherein the port number is specified.

```
<channels>  
<channel name="SAServer" ref="tcp" port="8022" displayName="TCP  
Channel (SAServer)"/>  
</channels>
```

3. Change the port number to your preferred port.
4. Save and close the 'SAService.exe.config' file.

Restart SA Process Integrator Service for your changes to take effect, as described in the 'Restarting the SA Process Integrator Service' section below.

Restarting the SA Process Integrator Service

You need to restart the SA PI Service for any changes to the 'SAService.exe.config' file to take effect. A best practice is for all users to log off before you restart the service.

To restart the SA Process Integrator Service proceed as follows:

1. Click the Windows **Start** menu, select **Settings, Control Panel**, and select **Administrative Tools**.
2. Click on **Services**. The **Service** console is displayed.
3. Right-click on the **SAService** and select **Restart**. A **Service Control** dialog shows the restart progress and informs when it is done (on Windows XP with SP 2; dialogs and messages may vary according to Windows versions).
4. Click **OK** to close the Service **Control** dialog.

Silent Installation for SA Processor Integrator– Visio 2003

In addition to the standard installation options above, you can install SA Process Integrator for Visio 2003 (SA PI 2003) in Silent mode. A Silent installation uses Microsoft Windows Installer (MSI) Technology, enabling you to install SA PI 2003 without presenting dialog boxes requiring users to enter installation values. Systems Administrators find this useful to perform the same installation for multiple users.

Requirements for SA PI 2003 Silent Installation

The following software needs to be already installed on your computer:

- Microsoft .Net Framework 2.0
- Microsoft Visual Studio 2005 Tools for Office Runtime (VSTO) – An add-on (of project types and controls) that allows VSTO applications and Office add-ins to be developed with Visual Studio IDE. This version is for 2003 and 2005.
- Microsoft Office 2003 Primary Interop Assemblies – Facilitates the interoperability between managed code and Office 2003 COM-type libraries.

Running a Silent SA PI 2003

You can run the Silent Installation two different ways. You can use the **Orca** tool, which provides a user interface for you to edit .MSI installation files. After editing the **SAVisioDesigner.msi** file you run it from the Command Line. Or you can use the **Command Line** options alone to submit the property values and execute silent install. Each of these options are described in the following sections.

SA PI 2003 Silent Installation with Orca

If you do not already have Orca, you need to install it to use this option. You can download Orca from the Microsoft Web site (<http://support.microsoft.com/kb/255905>). Once Orca is on your computer, proceed as follows.

1. Locate the **SAVisioDesigner.msi** file and click on **Edit with Orca**.
2. On the **Tables** column in the left pane, click on the **Property** table to select it. The **Property** and **Value** columns for the table are displayed in the right pane.

3. Enter your **Property** options in the **Value** column as in the following example:

EDITA1 - Server Name

EDITA2 - Port Number. Do not change default value of 8022.

EDITA3 - Offline Root Path

EDITB2 - Default Database Server

EDITB3 - Default Encyclopedia

BUTTON2 - For SQL value is 1, for Oracle value is 2

4. Save the **SAVisioDesigner.msi** file.
5. Click **Start**, select Run, type **cmd** in the **Open** field, and click **OK**.
6. Run the installation from the command line as follows:

```
msiexec /i "SAVisioDesigner.msi" /qn TARGETDIR="C:\Program  
Files\Telelogic\System Architect Suite\SA-ProcessIntegrator\"
```

SA PI 2003 Silent Install with Command Line Options

1. Click **Start**, select Run, type **cmd** in the **Open** field, and click **OK**.
2. Type your command line options (do not copy and paste values instead because a white space may be inserted and prevent the installation from working properly).

Using your actual Property values, type your command line options as in the following example:

```
msiexec /i "SAVisioDesigner.msi" /qn TARGETDIR="C:\Program  
Files\Telelogic\System Architect Suite\SA-ProcessIntegrator\  
EDITA1="nycsrv08" EDITA3="C:\MySAPISVisioOfflinePath\  
EDITB2="nycsrv08\TLOGICNYC EDITB3="Samples".
```

3. Press the **Enter** key to begin the installation.

IBM Support

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 [System Architect 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](#).

Appendix

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