IBM Rational Developer for zEnterprise

RSE Server Installation Guide: AIX and Linux on IBM Power Systems

SC14-7496-01

IBM Rational Developer for zEnterprise

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Note
Before using this information, be sure to read the general information under "Notices" on page 15.

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About this document

This document describes how to install the RSE server option of IBM® Rational® Developer for zEnterprise® on AIX® or Linux on IBM Power Systems™.

From here on, the following names are used in this manual:

- *IBM Rational Developer for zEnterprise* is called *Developer for zEnterprise*.
- *IBM Rational Developer for System z®* is called *Developer for System z*.

For earlier releases, including Developer for zEnterprise, Developer for System z, WebSphere® Developer for zSeries®, and IBM WebSphere Enterprise Developer, use the installation information found in the documentation included in those releases.

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Chapter 1. Who should use this document

This document is intended for system programmers installing and configuring Developer for zEnterprise on AIX or Linux on IBM Power Systems.

This document lists in detail the different steps needed to install the RSE server component of Developer for zEnterprise. To use this document, you need to be familiar with AIX or Linux on IBM Power Systems.

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Chapter 2. Introduction

The Remote System Explorer communications server (RSE server) is installed on a remote AIX, Intel Linux, or Linux on System z system, or on AIX or Linux running on IBM Power Systems.

The RSE server allows a workstation running Developer for zEnterprise to perform the following types of tasks on the connected remote host system:

- Copy, edit, create, or delete remote files; search for files on the remote system.
- Download and upload files between workstation and server; transfer files between remote systems.
- Use remote command shells; execute commands on the remote system; work with remote processes.
- Run integrated builds of remote source code; develop and debug remote programs.

This document describes how to install, use, and uninstall the RSE server on AIX or Linux running on IBM Power Systems.

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Chapter 3. AIX host requisites

General information

The products listed in this section are all available at the time of publication for this manual. See the IBM Software Lifecycle Web site (http://www.ibm.com/software/support/lifecycle/) to see whether a selected IBM product is still available at the time that you want to use the related Developer for zEnterprise function.

The most current listing of prerequisites and corequisites is available in the *Developer for System z Prerequisites Guide* (SC23-7659). This document is available on the IBM Rational Developer for System z Web site Library page (http://www.ibm.com/software/rational/products/developer/systemz/library/) and supersedes the requirements listed in this document.

AIX

One of the following levels must be installed:

Program Number	Product Name
5765-G98	AIX 7.1
5765-G62	AIX 6.1
5765-G03	AIX version 5.3, TL 7 or higher

The related product Web site is:

http://www.ibm.com/developerworks/java/jdk/aix/

SDK for AIX, Java 2 Technology Edition

To use Remote Systems Explorer (RSE) on AIX, one of the following levels must be installed:

Program Number	Product Name
6207-001	IBM 32-bit Runtime Environment for AIX, Java 2 Technology Edition, Version 6
6205-001	IBM 32-bit Runtime Environment for AIX, Java 2 Technology Edition, Version 5

The related product Web site is:

http://www.ibm.com/developerworks/java/jdk/aix/

Attention: The 64-bit version is not supported.

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Chapter 4. Linux host requisites

General information

The products listed in this section are all available at the time of publication for this manual. See the IBM Software Lifecycle Web site (http://www.ibm.com/software/support/lifecycle/) to see whether a selected IBM product is still available at the time that you want to use the related Developer for zEnterprise function.

The most current listing of prerequisites and corequisites is available in the *Developer for System z Prerequisites Guide* (SC23-7659). This document is available on the IBM Rational Developer for System z Web site Library page (http://www.ibm.com/software/rational/products/developer/systemz/library/) and supersedes the requirements listed in this document.

Linux

One of the following levels must be installed:

Product Name
Red Hat Enterprise Linux Server 6 for IBM Power Systems
Red Hat Enterprise Linux Server 5 (Update 5 or higher) for IBM Power Systems
SUSE Linux Enterprise Server 11 (SP1 or higher) for IBM Power Systems
SUSE Linux Enterprise Server 10 (SP3 or higher) for IBM Power Systems

SDK for Linux, Java 2 Technology Edition

To use Remote Systems Explorer (RSE) on Linux, one of the following levels must be installed:

Program Number	Product Name
6207-001	IBM 32-bit Runtime Environment for Linux on System i® and System p®, Java Technology Edition, Version 6
6205-001	IBM 32-bit Runtime Environment for Linux on System i and System p, Java Technology Edition, Version 5

The related product Web site is:

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

Attention: The 64-bit version is not supported.

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Chapter 5. RSE server installation and configuration

The supported functions of the RSE server on AIX or Linux on Power Systems are the following:

- RSE access to including SSL connections.
- Command shell use in RSE except vi or similar programs.
- Connection by the Host Emulator with full shell access.

Installing the RSE server on IBM Power Systems

This topic describes how to install the RSE server on AIX or Linux for IBM Power Systems.

Note: You must have root access privileges when you perform these install operations.

Installing on AIX

On AIX, install the RSE server from the RSE server filesets stored in the product image.

The filesets are located in the `disk1/AIXServerRuntime` directory. Install with the AIX command **`installp`**. For example:

```
installp -agXd ./ all
```

Installing on Linux

On Linux, install the RSE server from the RSE server RPM packages stored in the product image.

The RPM packages are located in the `disk1/PowerLinuxServerRuntime` directory. Install with the Linux utility **`rpm`**. For example:

```
rpm -ivh *.rpm
```

Note: If you plan to use the Java JDK rather than the Java JRE to run the RPM server, add the `nodeps` option to `rpm` to disable the dependency check. For example:

```
rpm -ivh *.rpm --nodeps
```

RSE directory configuration

Important: After the RSE server has been installed on a host system, only the root user can log in to the host system.

To allow other users to log in to the system, the system administrator must grant read and execute permissions on the directory where the RSE server is installed and on all the files and subdirectories within that directory.

To grant permissions to the owning user (root) and to all users in the root group, enter the following command at the command line:

```
chmod –R ug+xr  rse_directory
```

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where *rse_directory* is the path of the directory where the RSE server is installed. The default path is `/opt/IBM/RDPower/8.5`.

Note: This example assumes that the RSE server is the only product installed in the directory.

To grant permissions to every user on the system, enter the following command at the command line:

```
chmod –R ugo+xr  rse_directory
```

where *rse_directory* is the path of the directory where the RSE server is installed. The default path is `/opt/IBM/RDPower/8.5`.

Note: This example assumes that the RSE server is the only product installed in the directory.

Starting the RSE server on IBM Power Systems

In both AIX and Linux on Power Systems, the RSE server daemon is started automatically when the system is started. The default port is `8050`.

To configure the RSE server to use a different port:

1. Kill the RSE server daemon if it is running.
2. Set the new port number in the `$portvariable` variable in the script file `/opt/IBM/RDPower/8.5/rse/daemon.pl`
3. Restart the RSE server daemon using the `telinit q` command.

Configuring the RSE server to use SSL

You can configure the RSE server to use SSL authentication to provide secure connections between the server and its clients. To configure the RSE server to use SSL authentication follow these steps:

1. Create a Java keystore file on the system where the RSE server is installed.

   Use the `keytool` program provided with the Java SDK to generate a key pair (public key and associated private key). For example:

   ```
   keytool -genkey -alias alias_name -validity 3650 -keystore keystore_name
       -storepass keystore_password -keypass key_password
   ```

   where:

   - *alias_name* is the name of the keystore.
   - *keystore_password* is the password for the keystore.
   - *key_password* is the password for the key.
2. In the RSE server install directory, update the `ssl.properties` file:
   a. Open the `ssl.properties` file with a text editor.
   b. Specify the location of the Java keystore file and the password:

      ```
      daemon_keystore_file=jks_file
      daemon_keystore_password=jks_password
      ```

      where:

      - *jks_file* is the path of the Java keystore file that you created, and
      - *jks_password* is the password for the Java keystore file.

   c. Set the following two properties to enable SSL authentication:

```
enable_ssl=true
disable_server_ssl=false
```

d. Close the `ssl.properties` file.

3. Start the SSL Server in the usual way.

Example: RSE server start with SSL

The following example shows what the command line interface looks like when the RSE server with SSL is started successfully. The first line is the command to start the server and the subsequent lines are output from that command:

```
# perl ./daemon.pl 4080

SSL Settings
[daemon keystore:       /opt/IBM/RDz85SSL/rdzrse.jks]
[daemon keystore pw:    MyKeystorePassword]
[server keystore:       /opt/IBM/RDz85SSL/rdzrse.jks]
[server keystore pw:    MyKeystorePassword]
Daemon running on:      RDzServer.rtp.raleigh.ibm.com, port: 4080
```

Secure and nonsecure sessions

If you want to concurrently run both secure sessions and nonsecure sessions, you must install a second instance of the RSE server and configure the `ssl.properties` file in the new installation directory. You cannot use a single instance of the server to run both secure sessions and nonsecure sessions concurrently.

For example, suppose that you have installed the RSE server in the default directory and you have configured it to run nonsecure sessions using the default port . Follow these steps:

1. Install a second instance of the RSE server into a new installation directory, such as `/opt/IBM/RDPower/8.5/rsessl`.
2. In the installation directory, modify the `ssl.properties` file as described in the topic “Configuring the RSE server to use SSL” on page 12:

   ```
   daemon_keystore_file=jks_file
   daemon_keystore_password=jks_password

   enable_ssl=true
   disable_server_ssl=false
   ```

3. Start the server, using a different port than the port used for nonsecure connections:

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