# CA Workload Automation Agent for Databases

## Implementation Guide

r11.3

# CA Technologies Product References

This document references the following CA Technologies products:

- CA Process Automation
- CA Workload Automation AE
- CA Workload Automation Agent for Application Services (CA WA Agent for Application Services)
- CA Workload Automation Agent for Databases (CA WA Agent for Databases)
- CA Workload Automation Agent for i5/OS (CA WA Agent for i5/OS)
- CA Workload Automation Agent for Linux (CA WA Agent for Linux)
- CA Workload Automation Agent for Micro Focus (CA WA Agent for Micro Focus)
- CA Workload Automation Agent for Microsoft SQL Server (CA WA Agent for Microsoft SQL Server)
- CA Workload Automation Agent for Oracle E-Business Suite (CA WA Agent for Oracle E-Business Suite)
- CA Workload Automation Agent for PeopleSoft (CA WA Agent for PeopleSoft)
- CA Workload Automation Agent for Remote Execution (CA WA Agent for Remote Execution)
- CA Workload Automation Agent for SAP (CA WA Agent for SAP)
- CA Workload Automation Agent for UNIX (CA WA Agent for UNIX)
- CA Workload Automation Agent for Web Services (CA WA Agent for Web Services)
- CA Workload Automation Agent for Windows (CA WA Agent for Windows)
- CA Workload Automation CA 7 Edition
- CA Workload Automation DE
- CA Workload Automation Desktop Client (CA WA Desktop Client)
- CA Workload Automation ESP Edition
- CA Workload Control Center

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# Contents

# Chapter 1: Introduction

This section contains the following topics:



## Intended Audience

This document is for system administrators who are responsible for upgrading, installing, and configuring agents.

You require knowledge of the operating system where the agent is installed and any third-party products or software technology that the agent uses.

**Notes:**

- The term *Windows* refers to any Microsoft Windows operating system supported by the agent.
- The UNIX instructions in this document also apply to Linux systems unless otherwise noted.

## Agents and Agent Plug-ins

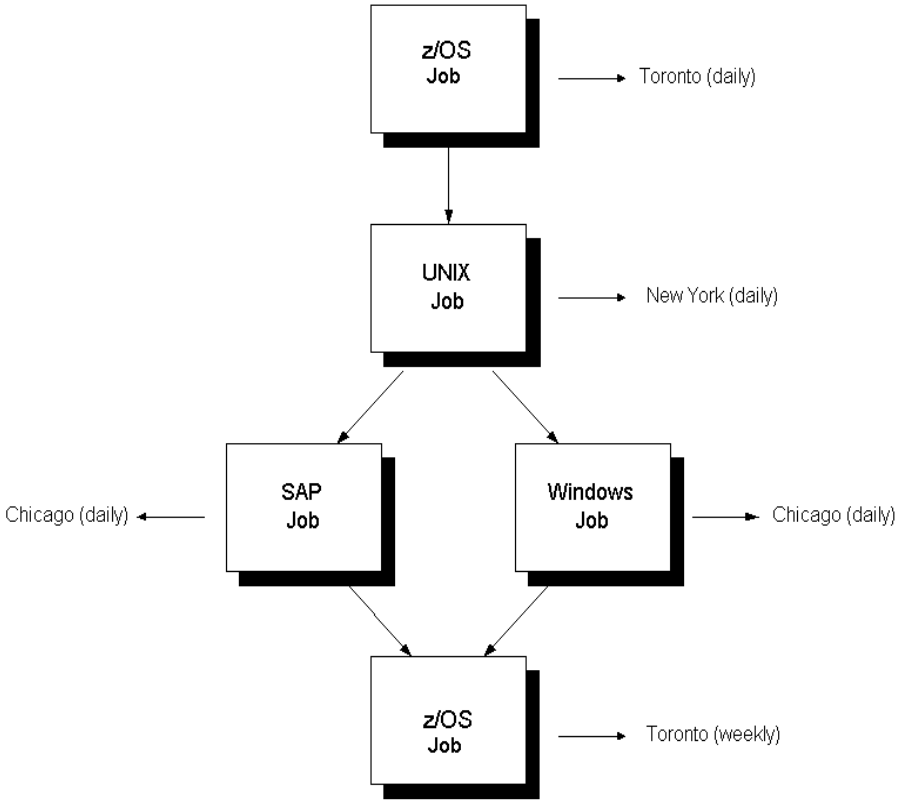
Agents are the key integration components of CA Technologies workload automation products. Agents let you automate, monitor, and manage workload on all major platforms, applications, and databases. To run workload on a particular system, you install an agent on that system. If your workload must run on a UNIX computer, for example, you can install and configure the CA WA Agent for UNIX. The agent lets you run UNIX scripts, execute UNIX commands, transfer files using FTP, monitor file activity on the agent computer, and perform many other tasks.

You can extend the functionality of the agent by installing one or more agent plug-ins in the agent installation directory. If you have a relational database such as Oracle, for example, you can install a database agent plug-in to query and monitor the database. Other agent plug-ins are also available. For more information about agent plug-ins, see the *Implementation Guide* for the appropriate agent plug-in.

**Note:** The agent plug-ins are only available for UNIX, Linux, and Windows operating environments.

### Example: Workload with Different Types of Jobs

The following workload contains z/OS jobs, a UNIX job, an SAP job, and a Windows job, running on different computers, in different locations, and at different times:




# CA WA Agent for Databases

The CA WA Agent for Databases lets a user perform tasks such as the following:

- Execute SQL queries against a relational database
- Run stored procedures contained in a relational database
- Monitor a relational database for changes to a table

**Note:** You can schedule jobs for Oracle, Microsoft SQL Server, and IBM DB2 databases.

# Job Types Supported by CA WA Agent for Databases

With the CA WA Agent for Databases, you can define and run the following types of jobs:

**SQL**

Lets you execute an SQL statement.

**Database Stored Procedure**

Lets you run a stored procedure.

**Database Trigger**

Lets you monitor for added, deleted, and updated rows in a database table.

**Database Monitor**

Lets you monitor for an increase or decrease in the number of rows in a database table.

# Chapter 2: Implementation Checklist

This section contains the following topics:



## How to Install and Configure CA WA Agent for Databases

CA WA Agent for Databases is an agent plug-in that installs into the CA WA Agent for UNIX, Linux, or Windows installation directory.

**Note:** Before installing the agent plug-in, you must install and configure the agent.

To install and configure the agent plug-in, follow these steps:

1. Review the system requirements in the *CA Workload Automation Agent for Databases Release Notes*.
2. Collect your database information (see page 11).
3. Decide whether to create an alias (see page 12).
4. Review the agent plug-in installation options (see page 13).
5. Install the agent plug-in (see page 14).
6. Configure the scheduling manager to work with the agent plug-in (see page 19).
7. (Optional) Run a verification test (see page 19).
8. (Optional) Configure the agent plug-in.

## Collecting Your Database Information

During the agent plug-in installation, you are prompted for information about your database. Speak to your database administrator and collect the following information:

| Information | Your Value |
|---|---|
| Type of database you are using (Oracle, SQL Server, or DB2) | |
| Address of the computer where your database is installed | |

| Information | Your Value |
| --- | --- |
| Database listener port | |
| System identifier (SID) for an Oracle database or database name for an SQL Server or DB2 database | |
| User ID and password of a user who has access to the database | |

# Deciding Whether to Create an Alias

**Note:** If you are installing the agent plug-in to work with CA Workload Automation DE, you must set up an alias. Setting up an alias for use with other scheduling managers is optional.

You install an agent plug-in into the agent installation directory to extend the core functionality of the agent. By default, the agent plug-in operates under the same agent name that is assigned to the agent. An alias lets you create a unique agent name for an agent plug-in, which is useful for controlling agent security or for setting up clustered environments.

Suppose you have installed an agent named AGT10 on a UNIX computer. Users who have access to that agent through their security permissions specify AGT10 as the agent name in their job definitions. Now suppose that you install an agent plug-in into the installation directory for AGT10. You can create an alias for the agent plug-in, for example, AGT10_DB. You can then restrict access to that alias to only those users that run database workload. Those specific users then must specify AGT10_DB as the agent name in their job definitions.

Each agent plug-in has a default alias that you can enable during installation. For example, the agent plug-in for CA WA Agent for Databases has the default alias *agentname*_DB. You can enable or change the default alias name after installation. To work, you must also configure the alias on the scheduling manager.

To configure agent aliasing for clustered environments, see the *CA Workload Automation Agent for UNIX, Linux, or Windows Implementation Guide*.

# Chapter 3: Installing the Agent Plug-in

This section contains the following topics:



## CA WA Agent for Databases Installation Options

The CA WA Agent for Databases interactive installation program prompts you for the following information:

**Database type**

Specifies the type of database you want to use with the agent plug-in. You must choose from one of the following types:

- Oracle
- SQL Server
- DB2

**Database host**

Specifies the address of the computer where your database is installed.

**Database port**

Specifies the database listener port.

**Database SID (applies to Oracle)**

Specifies the system identifier (SID) of the Oracle instance.

**Database name (applies to DB2 and SQL Server)**

Specifies the name of the database.

**Default database user ID**

Specifies the user who has access to the database.

**Default database user password**

Specifies the password corresponding to the default database user ID.

**Do you want to set up the alias?**

Sets whether the default alias is enabled for the agent plug-in.

- Y—Enables the default alias.
- N—Disables the default alias.

**Default:** Y

**Note:** The default alias for CA WA Agent for Databases is AGENTNAME_DB.

# Controlling the Agent Plug-in

You control the agent plug-in using the agent where the plug-in is installed. Depending on your operating system, you have several options for starting or stopping the agent. On UNIX, you must issue a command to run a start or stop script. On Windows, you must start or stop the agent as a Windows service using the command prompt.

**Note:** For instructions to start and stop the agent, see the *CA Workload Automation Agent for UNIX, Linux, or Windows Implementation Guide*.

# Install CA WA Agent for Databases

You install CA WA Agent for Databases using an interactive program that prompts you for the required information.

**To install CA WA Agent for Databases**

1. Copy the database.pak file into the agent installation directory. You can copy this file from the product DVD or download a zip file that contains the file from the CA Support Online website, found at http://ca.com/support.
2. Change to the agent installation directory. For example, type the following command:
   - On UNIX:

     ```
     cd opt/CA/WA_Agent_R11_3
     ```
   - On Windows:

     ```
     cd C:\Program Files\CA\WA Agent R11.3
     ```

3. Type the following command to stop the agent:
   - On UNIX:

     ```
     ./cybAgent -s
     ```
   - On Windows:

     ```
     cybAgent -s
     ```

   The agent stops.
4. Type the following command to start the installation program:
   - On UNIX:

     ```
     ./PluginInstaller database.pak install_dir
     ```
   - On Windows:

     ```
     PluginInstaller.exe database.pak install_dir
     ```

   *install_dir*

   Specifies the agent installation directory.

   The CA WA Agent for Databases installation program opens.
5. Enter the information the installation program prompts you for.

   The installation program displays a message and closes automatically upon a successful installation.
6. Type the following command to start the agent:
   - On UNIX:

     ```
     ./cybAgent &
     ```
   - On Windows:

     ```
     cybAgent -a
     ```

   The agent starts.

**Note:** The installation program backs up all modified and replaced files. The backup files are compressed into a file named backup_timestamp.zip, located in the backups subdirectory of the agent installation directory. You can use Winzip or other similar utilities to open the backup file. A backup copy of the agentparm.txt file is stored in the zip file.

**More information:**

Deciding Whether to Create an Alias (see page 12)

# How to Remove the Agent Plug-in

You can remove an agent plug-in when you no longer require it.

To remove the agent plug-in, follow these steps:

1. Disable the agent plug-in (see page 16).
2. (Optional) Remove the agent plug-in from the scheduling manager (see page 17).

## Disable CA WA Agent for Databases

Use this procedure when you want to remove CA WA Agent for Databases from your system.

**To disable CA WA Agent for Databases**

1. Verify that all workload is complete.
2. Stop the agent.
3. Open the agentparm.txt file located in the agent installation directory.
4. Comment out the plugins.start_internal_*n* parameter, and renumber any subsequent plugins.start_internal_*n* parameters.

   **Note:** Renumber all other agent plug-ins that are assigned a greater number than the agent plug-in you are uninstalling.
5. Comment out the communication.alias parameter if you created an alias during the agent plug-in installation.

   **Note:** Renumber any subsequent communication.alias_*n* parameters.
6. Save and close the agentparm.txt file.
7. Remove the database.jar file from the JARs subdirectory of the agent installation directory.
8. Start the agent.

#### Example: Renumber the plugins.start_internal_*n* Parameter

Suppose you have the following agent plug-ins set in the agentparm.txt file:

```
plugins.start_internal_1=runner
plugins.start_internal_2=database
plugins.start_internal_3=ftp
plugins.start_internal_4=microfocus
```

To disable the agent plug-in for CA WA Agent for Databases, you would modify the agentparm.txt file as follows:

```
plugins.start_internal_1=runner
#plugins.start_internal_2=database
plugins.start_internal_2=ftp
plugins.start_internal_3=microfocus
```

#### Example: Renumber the communication.alias_*n* Parameter

Suppose you have two alias agent plug-ins. The agentparm.txt file has the following parameters:

```
communication.alias_1=AGENTNAME_DB
communication.alias_2=AGENTNAME_MF
```

To disable the agent plug-in for CA WA Agent for Databases, modify the agentparm.txt file as follows:

```
#communication.alias_1=AGENTNAME_DB
communication.alias_1=AGENTNAME_MF
```

## Remove the Agent Plug-in from the Scheduling Manager

In addition to disabling the agent plug-in, you can remove it from the configuration on the scheduling manager.

**Note:** For detailed instructions to remove the agent from the scheduling manager, see the documentation for your scheduling manager.

# Chapter 4: Your Scheduling Manager and the Agent Plug-in

This section contains the following topics:



## Configuring the Scheduling Manager to Work with the Agent Plug-in

If you have defined the following items for the agent plug-in, you must configure the items on the scheduling manager:

- An alias
- A user

For detailed configuration instructions, see the documentation for your scheduling manager.

## Running a Verification Test

For your verification test, you define and run an SQL job. To define the job, you require the following information:

**Agent name**

Specifies the name of your agent or the alias for the agent plug-in if you created an alias.

**SQL**

Specifies the SQL statement to run.

**Output file**

Specifies the valid path to a file where you want the agent to store the query results.

**User**

Specifies the user ID to run the job under.

**Note:** You do not need to include the USER statement if a default user ID is specified in the agentparm.txt file.

For more information about defining an SQL job, see the documentation for your scheduling manager.

# Chapter 5: Configuring the Agent Plug-in

This section contains the following topics:



## How to Configure Agent Parameters

You configure agent parameters by editing the agentparm.txt file, located in the agent installation directory. When you install the agent, the installation program adds frequently-configured agent parameters to the file. Other agent parameters exist, which you must manually add to the agentparm.txt file to configure the agent. For any configuration changes to take effect, always stop and restart the agent. For some agent parameters, such as the agent name and communication parameters, also configure the parameters on the scheduling manager.

To configure agent parameters, do the following:

1. Configure agent parameters on the agent (see page 22).
2. Configure agent parameters on the scheduling manager (see page 22).

## Configure Agent Parameters on the Agent

Use the following procedure to configure agent parameters on CA WA Agent for UNIX, Linux, or Windows.

**To configure agent parameters on the agent**

1. Change to the agent installation directory.
2. Stop the agent. At the command prompt, enter the following command:
   - On UNIX:

     ```
     ./cybAgent -s
     ```
   - On Windows:

     ```
     cybAgent -s
     ```

   The agent stops.
3. Open the agentparm.txt file located in the agent installation directory.
4. Edit the parameters to make the required changes.
5. Save and close the agentparm.txt file.
6. Start the agent. At the command prompt, enter the following command:
   - On UNIX:

     ```
     ./cybAgent &
     ```
   - On Windows:

     ```
     cybAgent -a
     ```

   The agent starts and the parameters are configured.

## Configure Agent Parameters on the Scheduling Manager

When you change an agent parameter in the agentparm.txt file that is also defined on the scheduling manager, such as the agent name, configure the agent parameter on the scheduling manager.

**Note:** For detailed instructions to configure agent parameters on the scheduling manager, see the documentation for your scheduling manager.

# CA WA Agent for Databases Parameters in the agentparm.txt File

The agent plug-in installation program adds the parameters listed below to the agentparm.txt file. The file is located in the agent installation directory. You can open the agentparm.txt file in any standard text editor.

**Note:** You must save the file after making edits to persist the changes.

**communication.alias_*n***

Defines the alias name for the agent. The *n* suffix increments sequentially for each alias agent.

**Note:** To enable an alias on the agent, verify that the comment character (#) is removed from the parameter line.

**Default:** AGENTNAME_DB

**db.connectionPool.maxSize**

Specifies the maximum number of simultaneously open connections in a database pool. Specify a number between zero and 20.

**Note:** If set to zero, the agent does not use a connection pool.

**Default:** 5

**Limits:** 0-20

**db.default.password**

Specifies the encrypted password for the default database user ID.

**Note:** This parameter does not apply to CA Workload Automation AE.

**db.default.url**

Specifies the default database URL, which includes the database host name and port. When you specify the default location, you use a unique URL format for each database type. Default database URL specifications are formatted as follows:

- Oracle database:

  `jdbc:oracle:thin:@`*`host`*`:`*`port`*`:`*`dbname`*

  **Example:** jdbc:oracle:thin:@gemini:1527:cyb

- Oracle Real Application Clusters (RAC)

  **Example:** jdbc:oracle:thin:@(DESCRIPTION=(LOAD_BALANCE=on) (ADDRESS=(PROTOCOL=TCP)(HOST=host1) (PORT=1521))

  (ADDRESS=(PROTOCOL=TCP)(HOST=host2) (PORT=1521)) (CONNECT_DATA=(SERVICE_NAME=service)))

- Microsoft SQL Server database:

  `db.default.url=jdbc:sqlserver://`*`host`*`:`*`port`*`;DatabaseName=`*`dbname`*

  **Example:** jdbc:sqlserver://qatest04:1433;DatabaseName=JAT50

- IBM DB2 database:

  `db.default.url=jdbc:db2://`*`host`*`:`*`port`*`/`*`dbname`*

  **Example:** jdbc:db2://sapent:50000/SAMPLE

**Note:** The URL specified in a job definition overrides this value.

**db.default.user**

Specifies the default database user ID that is used to monitor the table. You must also specify the encrypted password for this user ID using the db.default.password parameter.

**Notes:**

- If another user ID is specified in the job definition, the user ID in the job definition overrides this default user ID.
- This parameter does not apply to CA Workload Automation AE.

**db.out.format.paramSeparator**

Specifies the separator the agent uses between key value pairs in the return strings.

**Default:** |

**db.out.format.valueSeparator**

Specifies the separator the agent uses between keys and values in the return strings.

**Default:** =

**db.trig.log.table**

Specifies the name of the log table.

**Default:** CYB_TRIG_LOG

**Note:** You must manually add the parameter to the agentparm.txt file.

**db.trig.namePrefix**

Specifies the prefix name for database triggers.

**Default:** CYB_

**db.trig.pollingInterval.ms**

Specifies how often (in milliseconds) the agent plug-in monitors for changes to the CYB_TRIG_LOG table and any other table for Database Trigger jobs.

**Default:** 10000 (10 seconds)

**db.trig.processMissingTriggers**

Generates STATE COMPLETE messages for Database Trigger jobs and jobs that are no longer tracked if set to true.

**Default:** false

**db.trig.propfile**

Sets the properties file that stores database templates for a particular database type as follows:

- dbtrigOracle sets the file to dbtrigOracle.properties
- dbtrigSqlServer sets the file to dbtrigSqlServer.properties
- dbtrigDb2 sets the file to dbtrigDb2.properties

The properties files are located in the agent installation directory.

**jdbc.drivers**

Specifies the driver class name for the JDBC driver. Separate multiple drivers with a colon (:).

**Example:**
oracle.jdbc.driver.OracleDriver:com.microsoft.sqlserver.jdbc.SQLServerDriver

**plugins.start_internal_*n***

Specifies the agent plug-in to start by the core Java agent.

***n***

Denotes an integer assigned to the agent plug-in, starting at 1. The *n* suffix must increase sequentially for each agent plug-in.

# How to Set Up an Alias for the Agent Plug-in

When you install the agent plug-in, you are prompted to create a default alias, which you can change after installation. If you enable an alias on the agent plug-in, you must also configure the alias on the scheduling manager.

To set up an alias for the agent plug-in, follow these steps:

1. Create an alias for the agent plug-in (see page 26).
2. Configure the alias on the scheduling manager (see page 26).

**More information:**

Deciding Whether to Create an Alias (see page 12)

## Create an Alias for the Agent Plug-in

An alias lets you create a unique agent name for an agent plug-in. Each agent plug-in has a default alias, which you can enable or change.

To create an alias for the agent, configure the following agent parameter on the agent:

**communication.alias_*n***

Defines the alias name for the agent. The *n* suffix increments sequentially for each alias agent.

**Note:** To enable an alias on the agent, verify that the comment character (#) is removed from the parameter line.

## Configuring an Alias on the Scheduling Manager

When you create an alias for an agent plug-in, you must also configure the alias on the scheduling manager. You must define the alias on the scheduling manager with the same address, port number, and encryption key as the agent where the agent plug-in is installed.

**Note:** For detailed instructions to configure an alias on the scheduling manager, see the documentation for your scheduling manager.

# Change the JDBC Driver the Agent Plug-in Uses for your Database

When you install CA WA Agent for Databases, the installation program installs a default JDBC driver for the database type you chose.

**Note:** For IBM DB2 on z/OS, you must copy your own driver.

**To change the JDBC driver CA WA Agent for Databases uses for your database**

1. Copy the JDBC driver for your database to the jars/ext subdirectory of the agent installation directory.

   **Note:** If you are using a DB2 database, you must also copy the license file: db2jcc_license_cu.jar (UNIX or Windows) or db2jcc_license_cisuz.jar (z/OS)

2. Remove the old JDBC driver if it has a different name to the one you copied.
3. Change to the agent installation directory.
4. Stop the agent using one of the following commands:

   - On UNIX:

     ```
     ./cybAgent -s
     ```

   - On Windows:

     ```
     cybAgent -s
     ```

   The agent stops.

5. Open the agentparm.txt file located in the agent installation directory.
6. Edit the following parameter if the driver class name for your database driver is different:

   **jdbc.drivers**

   Specifies the driver class name for the JDBC driver. Separate multiple drivers with a colon (:).

   **Example:**
   oracle.jdbc.driver.OracleDriver:com.microsoft.sqlserver.jdbc.SQLServerDriver

7. Save and close the agentparm.txt file.
8. Start the agent using one of the following commands:

   - On UNIX:

     ```
     ./cybAgent &
     ```

   - On Windows:

     ```
     cybAgent -a
     ```

   The agent starts.

## Locating the JDBC Driver for your Database

To locate the JDB driver (and license file for DB2) for your database, see the location in the following table:

| Database | JDBC Driver Location |
|---|---|
| IBM DB2 | *databaseinstalldir*\SQLLIB\java directory |
| Microsoft SQL Server | *databaseinstalldir*\sqljdbc_<version>\<language> directory |
| Oracle | [ORACLE_HOME]\jdbc\lib directory |

# Change the Number of Simultaneously Open Database Connections

CA WA Agent for Databases maintains simultaneously open database connections. By default, the agent plug-in allows five simultaneous open connections.

To change the number of simultaneously open database connections, configure the following agent parameter on the agent:

**db.connectionPool.maxSize**

Specifies the maximum number of simultaneously open connections in a database pool. Specify a number between zero and 20.

**Note:** If set to zero, the agent does not use a connection pool.

**Default:** 5

**Limits:** 0-20

**Notes:**

- Specify a number greater than five if you run many stored procedures or SQL queries on the database at one time.
- Specifying a greater number of open connections to the database requires more resources. Do not specify a number greater than 20.
- If you specify zero, connections are not reused. A new database connection opens each time you run a database job.

# Specify a Default Database URL

You can specify a default database URL for database jobs. You can override the default database URL in the job definition.

**Note:** The scheduling manager uses JDBC to connect to the database.

To specify a default database URL, configure the following agent parameter on the agent:

**db.default.url**

Specifies the default database URL, which includes the database host name and port. When you specify the default location, you use a unique URL format for each database type. Default database URL specifications are formatted as follows:

- Oracle database:

  `jdbc:oracle:thin:@`*`host`*`:`*`port`*`:`*`dbname`*

  **Example:** jdbc:oracle:thin:@gemini:1527:cyb

- Oracle Real Application Clusters (RAC)

  **Example:** jdbc:oracle:thin:@(DESCRIPTION=(LOAD_BALANCE=on) (ADDRESS=(PROTOCOL=TCP)(HOST=host1) (PORT=1521))

  (ADDRESS=(PROTOCOL=TCP)(HOST=host2) (PORT=1521)) (CONNECT_DATA=(SERVICE_NAME=service)))

- Microsoft SQL Server database:

  `db.default.url=jdbc:sqlserver://`*`host`*`:`*`port`*`;DatabaseName=`*`dbname`*

  **Example:** jdbc:sqlserver://qatest04:1433;DatabaseName=JAT50

- IBM DB2 database:

  `db.default.url=jdbc:db2://`*`host`*`:`*`port/dbname`*

  **Example:** jdbc:db2://sapent:50000/SAMPLE

**Note:** The URL specified in a job definition overrides this value.

## Connecting to Oracle Real Application Clusters (RAC)

Connecting to an Oracle RAC system is similar to connecting to a single instance of an Oracle database. When connecting to a single Oracle database instance, you specify the SID of the instance to which you want to connect in the JDBC URL. In a RAC environment, multiple Oracle instances share the same physical data. You must list all of them in the JDBC URL as in the following example:

```
jdbc:oracle:thin:@(DESCRIPTION=(LOAD_BALANCE=on)
(ADDRESS=(PROTOCOL=TCP)(HOST=host1) (PORT=1521))
(ADDRESS=(PROTOCOL=TCP)(HOST=host2) (PORT=1521))
(CONNECT_DATA=(SERVICE_NAME=service)))
```

In the example, the agent accesses the database through host1 or host2.

**Note:** If a host that the agent is using to access the database fails or failover occurs while a database job is running, the database job fails and you must resubmit it.

# How to Change the Default Database User ID and Password

The agent plug-in installation program prompts you for a default database user ID and password. You can change the default database user ID and password after the installation.

To change the default database user ID and password, follow these steps:

1. Encrypt the password (see page 31).
2. Change the default database user ID and password (see page 31).

## Encrypt the Password

To encrypt a password, run the password utility provided with the agent.

**To encrypt a password**

1. Change to the agent installation directory.
2. Type the following command at the command prompt to run the password utility:
   - On UNIX:

     ```
     password
     ```

   - On Windows:

     ```
     password.bat
     ```

   The utility prompts you for the password.
3. Enter your password at the prompt.

   The program responds with your encrypted password.
4. Copy the encrypted string.

## Change the Default Database User and Password

After you encrypt the password for the default database user, change that user and password.

To change the default database user and password, configure the following agent parameters on the agent:

**db.default.user**

Specifies the default database user ID that is used to monitor the table. You must also specify the encrypted password for this user ID using the db.default.password parameter.

**Notes:**

- If another user ID is specified in the job definition, the user ID in the job definition overrides this default user ID.
- This parameter does not apply to CA Workload Automation AE.

**db.default.password**

Specifies the encrypted password for the default database user ID.

**Note:** This parameter does not apply to CA Workload Automation AE.

# Specify a Default Oracle User Role for Database Jobs

You can specify a default Oracle database user role that applies globally to all database jobs. You can override the default in the job definition.

To specify a default Oracle database user role, configure the following agent parameter on the agent:

**db.default.userType**

Specifies the role of the Oracle user to log in as. The user role must be defined in the Oracle database.

**Note:** You must manually add the parameter to the agentparm.txt file.

**Example:** as sysdba

# Change the Frequency the Agent Plug-in Monitors for Changes to the Database

Database Trigger jobs monitor for changes to the database every 10 seconds by default.

To change the frequency the CA WA Agent for Databases monitors for changes to the database, configure the following agent parameter on the agent:

**db.trig.pollingInterval.ms**

Specifies how often (in milliseconds) the agent plug-in monitors for changes to the CYB_TRIG_LOG table and any other table for Database Trigger jobs.

**Default:** 10000 (10 seconds)

# Enable Automatic Spool File Cleanup

You can configure the agent plug-in to automatically clear spool files of successfully completed SQL and Stored Procedure jobs.

To enable automatic spool file cleanup, configure the following agent parameter on the agent:

**agent.spool.success.autocleanup**

Sets whether the agent automatically clears spool files.

- false—Disables automatic spool file cleanup.
- true—Enables automatic spool file cleanup.

**Note:** You must manually add the parameter to the agentparm.txt file.

**Default:** false

# Configure the Agent Plug-in to Retry Running a Stored Procedure

By default, the agent sends only one message to the database to run a stored procedure. If your system encounters problems with connectivity, for example, you can have the agent continue resending messages until the stored procedure runs. You can configure the db.dbproc.retryOnFailure parameter in the agentparm.txt file to control whether the agent retries running a stored procedure.

**To configure the agent to retry running a stored procedure**

1. Change to the agent installation directory.
2. Stop the agent using one of the following commands:
   - On UNIX:

     ```
     ./cybAgent -s
     ```

   - On Windows:

     ```
     cybAgent -s
     ```

   The agent stops.
3. Open the agentparm.txt file located in the agent installation directory.
4. Add the following parameter and set the value to true.

   **db.dbproc.retryOnFailure**

   Specifies whether the agent continues to resend a stored procedure when an error occurs between the agent and the database. The error is logged in the agent log file.

   - false—The agent attempts to run a stored procedure only once.
   - true—The agent retries running a stored procedure when an error occurs.

   **Default:** false
5. Save and close the agentparm.txt file.
6. Start the agent using one of the following commands:
   - On UNIX:

     ```
     ./cybAgent &
     ```

   - On Windows:

     ```
     cybAgent -a
     ```

   The agent starts and is configured to retry running a stored procedure.

# Chapter 6: Troubleshooting the Agent Plug-in

This section contains the following topics:



## Problem Connecting to Oracle Real Application Clusters (RAC)

**Valid on Windows, UNIX, and Linux**

**Symptom:**

When I run a Database job that connects to an Oracle RAC system, the job goes into a SUBERROR state with the following error message:

**Problem connecting to DB: Listener refused the connection with the following error: ORA-12505, TNS:listener does not currently know of SID given in connect descriptor.**

**Solution:**

In an Oracle RAC environment, multiple Oracle instances share the same physical data. You must list all Oracle instances in the JDBC URL.

**To correct this problem**

Use the following example to specify the db.default.url parameter in the agentparm.txt file or the JDBC URL in the job definition:

**Example: JDBC URL for Oracle RAC**

```
jdbc:oracle:thin:@(DESCRIPTION=(LOAD_BALANCE=on)
(ADDRESS=(PROTOCOL=TCP)(HOST=host1) (PORT=1521))
(ADDRESS=(PROTOCOL=TCP)(HOST=host2)(PORT=1521))
(CONNECT_DATA=(SERVICE_NAME=service)))
```

# Chapter 7: Related Documentation

Documentation for the agent and scheduling managers is available in PDF format at http://ca.com/support.

**Note:** To view PDF files, you must download and install the Adobe Reader from the Adobe website if it is not already installed on your computer.

This section contains the following topics:



## CA Workload Automation AE Documentation

To work with the agent and CA Workload Automation AE, see the following documentation:

| Task | Documentation |
| --- | --- |
| Configure the scheduling manager to work with the agent | *CA Workload Automation AE UNIX Implementation Guide*<br>*CA Workload Automation AE Windows Implementation Guide* |
| Define, monitor, and control jobs | *CA Workload Automation AE Reference Guide*<br>*CA Workload Automation AE User Guide*<br>*CA Workload Control Center Workload Scheduling Guide* |

# CA Workload Automation DE Documentation

To work with the agent and CA Workload Automation DE, see the following documentation:

| Task | Documentation |
|---|---|
| Configure the scheduling manager to work with the agent | *CA Workload Automation DE Admin Perspective Help* |
| Define jobs | *CA Workload Automation DE Define Perspective Help* |
| Monitor and control jobs | *CA Workload Automation DE Monitor Perspective Help* |

**Note:** The online help is available in HTML and PDF formats.

# CA Workload Automation ESP Edition Documentation

To work with the agent and CA Workload Automation ESP Edition, see the following documentation:

| Task | Documentation |
|---|---|
| Configure the scheduling manager to work with the agent | *CA Workload Automation ESP Edition Installation and Configuration Guide* |
| Define jobs | *CA ESP Workload Automation Database Agent Guide to Scheduling Workload* |
| Monitor and control jobs | *CA Workload Automation Agent for UNIX, Linux, or Windows Guide to Scheduling Workload*<br>*CA Workload Automation ESP Edition Operator's Guide* |

# CA Workload Automation CA 7 Edition Documentation

To work with the agent and CA Workload Automation CA 7 Edition, see the following documentation:

| Task | Documentation |
| --- | --- |
| Configure the scheduling manager to work with the agent | *CA Integrated Agent Services Implementation Guide*<br>*CA Workload Automation CA 7 Edition Interface Reference Guide*<br>*CA Workload Automation CA 7 Edition Systems Programming Guide* |
| Define, monitor, and control jobs | *CA Integrated Agent Services User Guide*<br>*CA Workload Automation CA 7 Edition Interface Reference Guide*<br>*CA Workload Automation CA 7 Edition Database Maintenance Guide*<br>*CA Workload Automation CA 7 Edition Command Reference Guide* |

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