CA Workload Automation DE

Release Notes

r11.3 SP2

ca technologies

CA Technologies Product References

This document references the following CA Technologies products:

- CA Process Automation
- CA Spectrum® Service Assurance (CA Spectrum SA)
- 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 Informatica (CA WA Agent for Informatica)
- 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 DE Web Client
- CA Workload Automation Desktop Client (CA WA Desktop Client)
- CA Workload Automation ESP Edition
- CA Workload Automation High Availability DE (CA WA High Availability)
- CA Workload Automation Restart Option EE (CA WA Restart Option)
- CA Workload Automation Web Services (CA WA Web Services)
- CA Workload Control Center (CA WCC)

Contact CA Technologies

Contact CA Support

For your convenience, CA Technologies provides one site where you can access the information that you need for your Home Office, Small Business, and Enterprise CA Technologies products. At http://ca.com/support, you can access the following resources:

- Online and telephone contact information for technical assistance and customer services
- Information about user communities and forums
- Product and documentation downloads
- CA Support policies and guidelines
- Other helpful resources appropriate for your product

Providing Feedback About Product Documentation

If you have comments or questions about CA Technologies product documentation, you can send a message to techpubs@ca.com.

To provide feedback about CA Technologies product documentation, complete our short customer survey which is available on the CA Support website at http://ca.com/docs.

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Chapter 1: Welcome

Welcome to CA Workload Automation DE. This document includes information about changes to existing features, a complete list of fixed issues, supported platform information and system requirements, and known issues for this release, if any. Relevant documentation may also be included for significant fixes or changes.

For the latest version of the Release Notes, visit http://ca.com/support. Service pack releases do not feature a full updated documentation set with a bookshelf. You can find the Release Notes by searching the Find Other Product Documentation section on the Documentation page.

Upgrading CA Workload Automation DE r11.3 SP1 to r11.3 SP2

If you are using CA Workload Automation DE r11.3 SP1, you can upgrade the server and CA WA Desktop Client to r11.3 SP2 using patches.

You can find the latest CA Workload Automation DE solutions and patches on CA Support Online:

https://support.ca.com/irj/portal/anonymous/phpsupcontent?contentID=7e52789e-ab05-4dea-b58b-a4925a7f4beb&productID=7833

On Windows, the patch files are .caz files. On UNIX, the patch files are tar.Z files.

Notes:

- The patches upgrade only CA Workload Automation DE r11.3 SP1. If you are using an older version of CA Workload Automation DE, you must first upgrade to r11.3 SP1.
- The patches do not upgrade the default agent from r11.3 SP1 to r11.3 SP2. You must upgrade the default agent manually. For information on upgrading the agent to r11.3 SP2, see the *CA Workload Automation Agent for UNIX, Linux, Windows, or i5/OS r11.3 SP2 Release Notes*.

Upgrade the Server to r11.3 SP2 on Windows

If you are using CA Workload Automation DE r11.3 SP1 on Windows, you can upgrade the server to r11.3 SP2 using a patch.

Note: If CA WA High Availability is configured, you must complete these steps on both Primary and Standby servers.

Follow these steps:

1. Stop the server.
2. Unpack the supplied .caz file into a temporary location, such as C:\temp\patch:
   `CAZIPXP -u patch.caz`

   patch

   Specifies the name of the patch file.

   Note: The CAZIPXP utility must reside in the same directory as the .caz file. You can download the CAZIPXP utility from CA Support Online at https://support.ca.com/irj/portal/phpsupcontent?contentID=cb74d332-823b-427e-a6de-811dc2183fb1&fromKBResultsScreen=T.
3. Copy the following extracted files to the r11.3 SP1 server installation directory:

   `11.3.2.0_build_xxxx_update.zip`
   `11.3.2.0_build_xxxx_update.zip.MD5`

   xxxx

   Specifies the build number of the patch file.
4. Change to the following directory at the command prompt:

   `install_dir\bin`

   install_dir

   Specifies the server installation directory.
5. Verify the integrity of the server patch file by running the following command:

   `MD5Checksum.bat "install_dir\11.3.2.0_build_xxxx_update.zip"`

   The MD5Checksum utility runs. If you receive a failure message, download the patch file again.
6. Unzip the 11.3.2.0_build_*xxxx*_update.zip file into the server installation directory.

7. Change to the following directory:

   install_dir\update

8. Run the upgrade patch using *one* of the following commands:

   - In interactive mode:

     ```
     update.bat [-licenseAccepted]
     ```

   - In silent mode:

     ```
     update.bat -silent -licenseAccepted
     ```

   Note: If you use the -licenseAccepted option, the license agreement is not shown. Before running the upgrade patch with the -licenseAccepted option, review the license agreement (LICENSES.txt) in the *install_dir*\update\other_libraries directory.

   The patch upgrades the server to r11.3 SP2 and also updates the JRE to version 1.7 on all Windows platforms.

Upgrade the Server to r11.3 SP2 on UNIX

If you are using CA Workload Automation DE r11.3 SP1 on UNIX, you can upgrade the server to r11.3 SP2 using a patch.

Note: If CA WA High Availability is configured, you must complete these steps on both Primary and Standby servers.

Follow these steps:

1. Stop the server.
2. (z/Linux systems only) Complete the following steps:
   a. Change to the server installation directory.
   b. Remove the existing soft link for JRE 1.6 using one of the following commands:

      ```
      rm jre
      ```

      ```
      unlink jre
      ```

   c. Install the latest version of JRE 1.7 (see page 39).
   d. Create a soft link that points to the installed JRE 1.7:

      ```
      ln -sf installedPath jre
      ```

      installedPath

      Specifies the full path to the JRE 1.7 that you installed in the previous step.

      Example: ln -sf /opt/ibm/java-s390-70/jre jre
3. Unpack the supplied tar.Z file into a temporary location, such as /tmp:

   ```
   cd /tmp
   uncompress < patch.tar.Z | tar xvf -
   ```

   patch

   Specifies the name of the patch file.
4. Copy the following extracted files to the r11.3 SP1 server installation directory:

   ```
   11.3.2.0_build_xxxx_update.tar.gz
   11.3.2.0_build_xxxx_update.tar.gz.MD5
   ```

   xxxx

   Specifies the build number of the patch file.
5. Change to the following directory at the command prompt:

   ```
   install_dir/bin
   ```

   install_dir

   Specifies the server installation directory.

6. Verify the integrity of the server patch file by running the following command:

   `MD5Checksum.sh "install_dir/11.3.2.0_build_xxxx_update.tar.gz"`

   The MD5Checksum utility runs. If you receive a failure message, download the patch file again.

7. Unpack the extracted tar.gz file into the server installation directory:

   ```
   gunzip 11.3.2.0_build_xxxx_update.tar.gz
   tar -xvf 11.3.2.0_build_xxxx_update.tar
   ```

8. Change to the following directory:

   `install_dir/update`

9. Enter the following command to provide execute permission to the UNIX shell scripts:

   ```
   chmod a+x *.sh
   ```

10. Run the upgrade patch using *one* of the following commands:

    - In interactive mode:

      ```
      update.sh [-licenseAccepted]
      ```

    - In silent mode:

      ```
      update.sh -silent -licenseAccepted
      ```

    Note: If you use the -licenseAccepted option, the license agreement is not shown. Before running the upgrade patch with the -licenseAccepted option, review the license agreement (LICENSES.txt) in the *install_dir*/update/other_libraries directory.

    The patch upgrades the server to r11.3 SP2 and also updates the JRE to version 1.7 on all UNIX platforms except HP-UX PA-RISC and z/Linux.

Upgrade CA WA Desktop Client r11.3 SP1 to r11.3 SP2

If you are using CA Workload Automation DE r11.3 SP1, you can upgrade CA WA Desktop Client to r11.3 SP2 using a patch.

Follow these steps:

1. Download and unpack the supplied .caz file into a temporary location, such as C:\temp\patch:

   `CAZIPXP -u patch.caz`

   patch

   *S*pecifies the name of the patch file.

2. Extract the CAWADesktopClientUpdate_11.3.2.0.*timestamp_build*_patch1.zip file to the following directory.

   `install_dir``\update`

   install_dir

   Specifies the CA WA Desktop Client installation directory.

3. Verify that CA WA Desktop Client is closed.
4. Change to the following directory at the command prompt:

   `install_dir``\update`

5. Run the following command to update the JRE:

   `update.bat`

6. Extract the CAWADesktopClientUpdate_11.3.2.0.*timestamp_build*_patch2.zip file to the update location used for automatic patch updates and apply the patch.

Notes:

- CA WA Desktop Client patches are made available as ZIP archives and can only be applied through automatic updates. For more information about applying CA WA Desktop Client patches, see the *Admin Perspective Help.*
- If you get a dependency error when applying the patch, complete the following steps:

  a. Close CA WA Desktop Client.

  b. Right-click the program shortcut or executable file that you use to launch CA WA Desktop Client, and select the Run as Administrator option.

  c. Apply the patch as described in the Admin Perspective Help.

Uninstall a Server Patch

If you update the server using a patch, you can uninstall the patch using an uninstallation script. After you uninstall the patch, the server reverts to the previous version.

Notes:

- You can use the patch uninstallation script only for r11.3 or later versions of CA Workload Automation DE.
- If CA WA High Availability is configured, you must complete these steps on both Primary and Standby servers.

Follow these steps:

1. Stop the server.
2. Change to the following directory at the command prompt:
   - On Windows:

     install_dir\backup_dir
   - On UNIX:

     install_dir/backup_dir

     install_dir

     Specifies the server installation directory.

     backup_dir

     Specifies the backup directory that was created when you applied the patch. A separate backup directory is created for each patch update.
3. Run the following command:
   - On Windows:

     `uninstall.bat`
   - On UNIX:

     `uninstall.sh`

   Note: The patch uninstallation file is copied to the backup directory automatically when you apply a patch. If the uninstallation file is missing from the backup directory, first copy the uninstallation file that was included as part of the patch files to the backup directory.
4. Follow the prompts to complete the uninstallation.

   The patch is uninstalled successfully. You can now restart the server.

   Note: If the patch uninstallation fails, review the error message to resolve the problem and then retry uninstalling the server patch. If the problem persists, contact CA Support.

Chapter 2: Changes to Existing Features

This chapter documents changes made to existing features in CA Workload Automation DE r11.3 SP2.

This section contains the following topics:

Support for New Platforms (see page 17)
JRE Not Supplied with the Server or Stand-alone CLI on z/Linux (see page 17)
CA WA Desktop Client Silent Install (see page 18)
Support for New Agent Releases (see page 18)
Starting the Server during Migration of History Data (see page 21)
CA WA Web Client Support (see page 21)
Support for Active Directory Lightweight Directory Services (see page 21)

Support for New Platforms

The CA Workload Automation DE server now supports Windows Server 2012.

CA WA Desktop Client supports the following new platforms:

- Windows Server 2012
- Windows 8

More Information:

CA Workload Automation DE Server (see page 31)
CA Workload Automation Desktop Client (see page 34)

JRE Not Supplied with the Server or Stand-alone CLI on z/Linux

On z/Linux, the JRE is not supplied for the server or the stand-alone Command Line Interface (CLI). If you are installing the server or stand-alone CLI on z/Linux, you must install the required 31-bit JRE 1.7 before the installation.

More information:

Install the JRE on z/Linux (see page 39)
CA Workload Automation DE Server (see page 31)

CA WA Desktop Client Silent Install

You can now install CA WA Desktop Client using a silent installer to automate the installation of multiple clients.

More Information:

How to Install CA WA Desktop Client (see page 40)
Install CA WA Desktop Client Using a Silent Installer (see page 40)

Support for New Agent Releases

This release of CA Workload Automation DE supports the following new agent releases:

- CA Workload Automation Agent for Microsoft SQL Server r11.3.1 (build 28 or higher)
- CA Workload Automation Agent for Informatica r11.3.1

MSSQL Server Jobs

The CA Workload Automation Agent for Microsoft SQL Server supports the following job type:

MSSQL Server

Lets you execute predefined jobs in Microsoft SQL Server Agent to perform administrative tasks. The jobs can be Transact-SQL scripts, command prompt applications, Microsoft ActiveX scripts, Integration Services packages, Analysis Services commands and queries, or Replication tasks.

In addition to the standard commands, you can issue the following commands against a MSSQL Server job:

Cancel Job

Cancels a running MSSQL Server job.

Get Job Detail

Retrieves the details of a MSSQL Server job.

Get Job History

Retrieves the execution log of a MSSQL Server job.

Get Job Status

Retrieves the status of a MSSQL Server job.

Get Step Log

Retrieves the step log of a MSSQL Server job.

Notes:

- To run MSSQL Server jobs, install the latest patch of CA WA Agent for Microsoft SQL Server (build 28 or higher).
- Due to a Microsoft SQL Server restriction, the agent cannot run multiple MSSQL Server jobs with the same name simultaneously. If a MSSQL Server job is running, you cannot rerun the job until its previous execution finishes.
- MSSQL Server jobs do not produce a spool file.
- For more information on defining MSSQL Server jobs, see the *Define Perspective Help* in CA WA Desktop Client. For more information about controlling MSSQL Server jobs, see the *Monitor Perspective Help* in CA WA Desktop Client.

Informatica Jobs

The CA Workload Automation Agent for Informatica supports the following job type:

Informatica

Lets you start a predefined workflow on Informatica PowerCenter. A workflow can contain multiple tasks. You can start the workflow from the beginning of the workflow or from a specified task. You can also start a workflow instance.

In addition to the standard commands, you can issue the following commands against an Informatica workflow:

Get Workflow Log

Retrieves the log of a completed or failed Informatica workflow, its instance, or its sessions.

Get Workflow Run Details

Retrieves the run details of a completed, failed, or running Informatica workflow or its instance.

Get Workflow Status

Retrieves the status of a completed, failed, or running Informatica workflow or its instance.

Restart Workflow

Restarts a failed workflow or its instance.

Stop Workflow

Stops a running Informatica workflow or its instance.

Notes:

- Due to a known issue in Informatica, the workflow run ID parameter is not supported. As a result, you cannot identify the workflow run in the Monitor commands. When you retrieve the workflow status or log information, the agent can retrieve information about only the latest run of the workflow or its instance. Similarly, the agent can stop only the latest run of the workflow or its instance.
- Due to this issue, you cannot start or restart workflow instances in parallel.
- For more information on defining Informatica jobs, see the *Define Perspective Help* in CA WA Desktop Client. For more information about controlling Informatica jobs, see the *Monitor Perspective Help* in CA WA Desktop Client.

Starting the Server during Migration of History Data

During the migration, you can migrate artifacts, global variables, and history data. Currently, if you choose to migrate history data, you cannot start the new server until the migration of all history data is complete. With this enhancement, you can now start the server after the data from the ESP_APPL_GEN and ESP_LONGKEYS tables are migrated. The migration utility prompts you when you can start the server:

```
Now DEr11.3 server can be started for parallel workload processing.....
```

Note: For more information about the migration, see the *Implementation Guide*.

CA WA Web Client Support

This release of CA Workload Automation DE is not packaged with an updated CA WA Web Client. However, CA WA Web Client r11.3 SP1 supports the current release.

Support for Active Directory Lightweight Directory Services

In addition to Microsoft Active Directory, Novell eDirectory, and Sun One Directory, this release supports Active Directory Lightweight Directory Services (AD LDS). When configuring AD LDS to work with CA Workload Automation DE, specify Microsoft_AD as the LDAP server type.

Chapter 3: Known Issues

The chapter details the known issues in CA Workload Automation DE r11.3 SP2.

This section contains the following topics:

ORA-00942: table or view does not exist (see page 23)
References to espresso.properties in Documentation (see page 23)
Wrong Status Reported for Informatica Jobs (see page 24)
Informatica Workflow Object Hierarchy Displays the Tasks in an Incorrect Sequence (see page 24)

ORA-00942: table or view does not exist

Valid on Oracle

Symptom:

After running the server for a long time, the following database error sometimes occurs, causing the server to shut down:

```
ORA-00942: table or view does not exist
```

Solution:

This issue occurs when there is a cache memory problem with the Oracle database.

To resolve this issue, clear the used space in the database using the following command:

```
ALTER SYSTEM FLUSH SHARED_POOL;
```

Note: For more information about this command, see your Oracle documentation.

References to espresso.properties in Documentation

The documentation contains a few references to the old espresso.properties file. The espresso.properties file was renamed to server.properties and is located in the conf subdirectory of your server's installation directory.

Wrong Status Reported for Informatica Jobs

The run status of a workflow is retrieved from Informatica regardless of the Pass on success only value for that workflow. If you set the Pass on success only value to True, the job can succeed though a task in the workflow fails.

Note: This issue will be fixed in the next release of CA WA Agent for Informatica.

Informatica Workflow Object Hierarchy Displays the Tasks in an Incorrect Sequence

When you retrieve the hierarchy of objects that are defined within an Informatica workflow, the tasks are not displayed in correct sequence. The retrieved sequence of tasks does not match the sequence that is displayed in Informatica PowerCenter. To view the correct sequence of tasks in a tabular format, you can retrieve the workflow details.

Note: This issue will be fixed in the next release of CA WA Agent for Informatica.

Chapter 4: Fixed Issues

The chapter details the issues that have been fixed in CA Workload Automation DE r11.3 SP2.

Jobs Not Bypassed at Abandon Submission Time

When you enable the Require reason for job commands option in the Application, jobs are not automatically bypassed at the abandon submission time. In this issue, email notifications were sent when jobs reached the Abandon submission monitor state, but the jobs were not bypassed. This issue has been fixed.

Support for Multiple Network Cards (NICs)

When using a CA Workload Automation DE server with multiple network cards (NICs), the server can listen on only one network card. After the fix, the server can now listen on all the available NICs to communicate with agents and CA WA Desktop Client.

Support for Multiple-Line Emails in PeopleSoft Jobs

In a PeopleSoft job, you can distribute a PeopleSoft report by email. In this issue, multiple lines in the email text were not processed correctly. This issue has been fixed on the CA Workload Automation DE server.

Note: To use multiple lines in the email text, you must also apply an agent fix.

WOB._agent Resolved to Null When Agent Group is Used

The WOB._agent symbolic variable is resolved to null when using an agent group. In this release, when running a job on all agents in an agent group, you can use WOB._agent or WOB._qualifier to get the agent name.

Event Execution Skipped after Reassigning Workload

After reassigning workload from one user to another user, the next scheduled execution of the Event was skipped. This issue has been fixed.

Monitor Events Do Not Support Agent Names that Contain a Dash

When you define a monitor Event such as a File Trigger Event, the Agent name field does not support the dash (-) character. But you can include a dash in the agent name when adding an agent to the Topology. In this release, you can now specify the dash in the Agent name field for a monitor Event.

Agent Becomes Unresponsive During Delays in Communication

During workload processing, intermittently an agent becomes unresponsive and appears to go down. In this issue, the CA Workload Automation DE server determined that an agent was down when the agent was too busy processing other requests to acknowledge the current request or because of intermittent network problems between the server and the agent. To resolve this issue, the server now retries communication with subsequent message requests before notifying that the agent is down.

Note: If a ping fails during agent communication, the server marks the agent as down immediately.

To configure the number of ping requests and the time between retries, follow these steps:

1. Open the following file in a text editor:
   - On Windows:

     install_dir\conf\server.properties
   - On UNIX:

     install_dir/conf/server.properties

   install_dir

   Specifies the server installation directory.
2. Uncomment and update the following parameters as indicated:

   ```
   agentdown.notification.threshold.attempts=5
   agentCommunicationFailed.queue.reprocessing.interval=30000
   ```
3. Save and close the file.
4. Restart the server.

Server Shut Down After Forced Completions

After two generations of the same Application were forced completed around the same time, the server shut down because of a critical internal problem. When an Application generation is completed, the corresponding records are removed from an internal database table. In this rare issue, a pending task for the generation tried to update the table after the generation details were removed. This issue has been fixed.

Cannot Specify Date Range in Report Event

When you specify a date range in a Report Event, an error occurs and no report is produced. This issue has been fixed.

Release 7 Agent Cannot Communicate with 11.3 Server

When configuring a release 7 agent to work with an 11.3 CA Workload Automation DE server, the agent is inactive. The same agent is active on an 11.1 server on the same system. In this issue, the server hostname was not resolved properly on certain platforms the agent runs on.

To resolve this issue, the server now sends the hostname to agents as specified in the server instance parameters. Agents use this hostname to communicate with the server. If an agent requires a domain name in addition to the hostname, specify the following format for the hostname:

machine_name.domain_name

When the server is installed with an IP address, you can configure the server to send the hostname to agents instead. To send the hostname instead of the IP address, set the following internal server instance parameter to true:

```
Send the host DNS name instead of the IP address in CONTROL MGRADDR AFM
```

The default value is false.

File Trigger Event Triggers Two Generations

A particular File Trigger Event triggers two generations at a time. Recreating the Event did not resolve the issue. In this issue, the Event gets suspended and resumed each day during maintenance. In the script, a different case was used to identify the Event prefix and Event name. This issue has been fixed.

Clients Unable to Reconnect after Losing Their Connections

Clients are unable to reconnect to the server after losing their connections. In this issue, the problem tended to occur on Saturdays and forced the recycling of the server. The issue occurred due to a defect in the locking mechanism for handling stale connections. This issue has been fixed.

Primary Server Shuts Down After Standby Server Restarts

In a CA WA High Availability environment, the active (Primary) server sometimes shuts down, causing failover to the monitoring (Standby) server. In this issue, after the Standby server is restarted, the handshake between the Primary and Standby Server sometimes fails even though both servers are active. This issue has been fixed.

Blank Password Sent for Monitor as User in Windows File Trigger Jobs

If the Monitor as user specified in a Windows File Trigger job has not been defined in the Topology, the server still submits the job. As a result, in this issue a blank password was sent for the user, causing Active Directory to lock the user ID. With this fix, if the Monitor as user is not defined in the Topology, the job goes into a SUBERROR state. The job details show the following error:

```
User <user_name> not defined to Agent <Agent_name>
```

File Trigger Events Indicate Agent Down While Agent is Active in Topology

When you update the definition of an agent in the Topology, the status of the associated File Trigger Events changes to "agent down". However, the status of the agent shows as "Active" in the Topology. This issue has been fixed.

On-Request Job with Do not submit before Time Gets Stuck in WAITING State

When an on-request job with a Do not submit before time is eligible to run, it goes into a WAITING state. When the time dependency of the job is met, it is bypassed. Before the fix, if you issue a Ready command against the on-request job while it is in a WAITING state, the job is never bypassed. The job remains in a WAITING state (or READIED state if you then issue the Request command) indefinitely and must be forced complete manually.

After the fix, if you issue a Ready command against the on-request job while it is in a WAITING state, the job is bypassed immediately.

Note: If you issue the Request command against the on-request job *before* it is eligible to run, the job runs properly.

Chapter 5: System Requirements

This section contains the following topics:

CA Workload Automation DE Server (see page 31)
CA Workload Automation Desktop Client (see page 34)
Supported Databases (see page 35)
Supported Agents (see page 37)

CA Workload Automation DE Server

The following table lists the minimum and recommended hardware requirements and software requirements for the CA Workload Automation DE server.

Notes:

- Based on your workload volume and environment, you may require additional disk space, a larger processor, and more memory than the minimum requirements.
- In the table below, the number of cores refers to the number of CPUs multiplied by the number of cores per CPU.
- A Java Runtime Environment (JRE) runs the server and default agent. The JRE is supplied with the server on all platforms except z/Linux. For z/Linux, install the required JRE versions. For the other platforms, do not change the JRE.
- The default agent that is packaged with the server is CA Workload Automation Agent for UNIX, Linux, or Windows r11.3 SP2. However, if you upgrade CA Workload Automation DE r11.3 SP1 to r11.3 SP2 using the patch, the default agent is not upgraded to r11.3 SP2. You must upgrade the default agent manually. For information on upgrading the agent to r11.3 SP2, see the *CA Workload Automation Agent for UNIX, Linux, Windows, or i5/OS r11.3 SP2 Release Notes*.
- The following platforms have been certified at the time of General Availability (GA). Additional platforms are planned to be certified post GA. For current information regarding platform support, check the CA Workload Automation DE Support web page at http://ca.com/support and follow the CA Workload Automation Compatibility Information link under the Product Status section.

Platform	Minimum Hardware	Recommended Hardware	Operating System	JRE Version
AIX	IBM eServer P5 P550E 2 CPU cores, 1.5 GHz each 2 GB RAM 10 GB of disk space	IBM eServer P5 550B 4 CPU cores, 1.65 GHz each 4 GB RAM 20 GB of disk space	AIX 5.3, 6.1, or 7.1 (64-bit)	IBM JRE 1.7.0-SR5 (64-bit)
HP-UX PA-RISC	HP-9000 rp 3440-4 server 2 CPU cores, 1 GHz each 2 GB RAM 10 GB of disk space	HP rp 3440 server 4 CPU cores, 1 GHz each 4 GB RAM 20 GB of disk space	HP 11i v3 (PA-RISC) (64-bit)	HP-UX JRE 1.6.0.20 (HPUX_PA-RISC)
HP-UX IA	HP rx2660 2 CPU cores, 1 GHz each 4 GB RAM 20 GB of disk space	HP rx2660 4 CPU cores, 1 GHz each 4 GB RAM 20 GB of disk space	HP 11i v3 (Itanium 64-bit)	HP-UX JRE 1.7.0.06 (ia64)
Linux x86	Intel Xeon processor 2 CPU cores, 2.8 GHz each 2 GB RAM 10 GB of disk space	Intel Xeon processor 4 CPU cores, 2.8 GHz each 4 GB RAM 20 GB of disk space	Red Hat Enterprise Linux EA/AS 5 or 6 (32-bit) SUSE Linux Enterprise Server 10 (32-bit) **Note:** You must have RPM package libXp-1.0.0-8.i386.rpm for Linux systems.	Oracle (formerly SUN) JRE 1.7.0_25 (32-bit)

Platform	Minimum Hardware	Recommended Hardware	Operating System	JRE Version
Linux x64	Intel Xeon processor 2 CPU cores, 2.8 GHz each 2 GB RAM 10 GB of disk space	Intel Xeon processor 4 CPU cores, 2.8 GHz each 4 GB RAM 20 GB of disk space	Red Hat Enterprise Linux EA/AS 5 or 6 (64-bit) SUSE Linux Enterprise Server 10 (64-bit) **Note:** You must have RPM package libXp-1.0.0-8.i386.rpm for Linux systems.	Oracle (formerly SUN) JRE 1.7.0_25 (64-bit)
z/Linux (s390/zSeries)	4 GB RAM 10 GB of disk space	8 GB RAM 20 GB of disk space	Red Hat Enterprise z/Linux 5 or 6 (31- or 64-bit) SUSE z/Linux 10 or 11 (31- or 64-bit)	31-bit JRE 1.7.0 SR5 or higher for the server 31-bit JRE 1.6 SR8 or higher for the default agent **Note:** The JRE is not supplied with the server or default agent.
Solaris SPARC	Sun V440 UltraSPARC IIIi processor 2 CPU cores, 1.5 GHz each 2 GB RAM 10 GB of disk space	Sun V440 UltraSPARC IIIi processor 4 CPU cores, 1.5 GHz each 4 GB RAM 20 GB of disk space	Solaris 9 or 10 (64-bit)	Oracle (formerly SUN) JRE 1.7.0_25 (64-bit)

Platform	Minimum Hardware	Recommended Hardware	Operating System	JRE Version
Windows	Intel Xeon processor 2 CPU cores, 2.8 GHz each 2 GB RAM 10 GB of disk space	Intel Xeon processor 4 CPU cores, 2.8 GHz each 4 GB RAM 20 GB of disk space	Windows Server 2003 and R2 (32- or 64-bit), Enterprise Edition Windows Server 2008 and R2 (64-bit), Enterprise Edition Windows Server 2012 (64-bit), Standard Edition	Oracle (formerly SUN) JRE 1.7.0_25 (32- and 64-bit)

CA Workload Automation Desktop Client

The following table lists the system requirements for CA WA Desktop Client:

Component	Recommended Level
Operating system	Windows XP Professional - any supported version Windows Vista Business & Ultimate - any supported version Windows 7 Professional & Ultimate - any supported version Windows 8 Professional - any supported version Windows Server 2012 Standard - any supported version
JRE Version	JRE 1.6.0_45 (32-bit)
Processor	Intel Pentium, 1.0 GHz or higher
Memory	2 GB RAM or higher

Component	Recommended Level
Monitor	Video support for at least 256 colors at 1024x768 resolution
Network	Active IP connection to your CA Workload Automation DE server and a user ID that has authority to access it

Note: CA WA Desktop Client does not support CA Workload Automation ESP Edition functionality.

Supported Databases

CA Workload Automation DE supports the following databases:

- Oracle 10g R1 or R2, Oracle 11g R2, Oracle 11g RAC, and Oracle 12c

  Note: On Oracle 12c, SSL is supported only on AIX and z/Linux platforms.
- Microsoft SQL Server 2005, 2008, and 2012 (with the CA Workload Automation DE server installed on all supported platforms except AIX and z/Linux)
- IBM DB2 9.1, 9.5, 9.7, and 10.1 (with the CA Workload Automation DE server installed on AIX and z/Linux only)

Database Requirements

The following table lists the disk space requirements for the database:

Requirement	Minimum Value
Disk space for software files	3 GB
Disk space for database files	16 GB

Notes:

- If you use a Microsoft SQL Server database, verify that the collation setting is set to be case insensitive.
- If you use an Oracle database, verify that the database uses an 8-bit ASCII character set. Non-ASCII characters sets such as Unicode are not supported.

Disk Space Calculation

Before you install CA Workload Automation DE, ensure that your database has the required disk space to handle your workload. To calculate the required disk space, use the following formula:

```
required disk space = initial storage space + database growth
```

initial storage space

Specifies the storage space (file size) required to initially set up the database to work with CA Workload Automation DE. We recommend that you set up the following initial storage space for your database:

- Trial environment—200 MB
- Production environment—1 GB

database growth

Specifies the storage space your database requires over time. To calculate the database growth, use the following formula:

```
Database growth = Number of jobs run per day x 13 KB x Number of days
```

where 13 KB is the maximum space required for a job based on testing.

Example

Suppose that you want to set up a database for a trial environment. You plan to run 500 jobs per day, everyday. You delete data from the database once a month to free space for future workload. To calculate the disk space required to handle growth per month, apply the following formula:

Database growth = 500 jobs run/day x 13 KB x 30 days

= approximately 200 MB

To calculate the overall disk space required for the database, apply the following formula:

Required disk space = Initial storage space + database growth

= 200 MB + 200 MB

= 400 MB

Supported Agents

CA Workload Automation DE supports the following agents and the supported agent plug-ins:

- CA WA Agent for UNIX, Linux, Windows, or i5/OS r11.3, r11.3 SP1, and r11.3 SP2
- ESP System Agent Release 7.0 for UNIX, Linux, Windows, and i5/OS

Chapter 6: Related Documentation

This chapter includes documentation updates made as a direct result of the functionality changes and fixed issues in this service pack.

Note: CA Workload Automation DE r11.3 SP2 includes the Release Notes and online help updates only. This chapter refers to and should be read in conjunction with the CA Workload Automation DE r11.3 documentation set.

This section contains the following topics:

Install the JRE on z/Linux (see page 39)
How to Install CA WA Desktop Client (see page 40)
Install CA WA Desktop Client Using a Silent Installer (see page 40)
Informatica Jobs (see page 42)
MSSQL Server Jobs (see page 50)
Set Up an Email Notification in the Job Definition (see page 63)
Set Up an Email Notification in the Application (see page 65)
Find the Troubled Jobs within an Application (see page 67)
Retrieve the Log for an Informatica Workflow (see page 68)
Retrieve the Run Details of an Informatica Workflow (see page 69)
Retrieve the Status of an Informatica Workflow (see page 70)
Restart an Informatica Workflow (see page 71)
Stop a Running Informatica Workflow (see page 72)
Retrieve the Details of a MSSQL Server Job (see page 73)
Retrieve the Status of a MSSQL Server Job (see page 73)
Retrieve the Step Log for a MSSQL Server Job (see page 74)
Retrieve the Execution Log for a MSSQL Server Job (see page 75)
Cancel a Running MSSQL Server Job (see page 77)
countagents Command—Display the Number of Agents that Meet Criteria (see page 78)
createagent Command—Add an Agent to the Topology (see page 79)
listagent Command—Display Status Information for Agents (see page 84)
Retrieve and Authenticate Users of an LDAP Group (see page 88)

Install the JRE on z/Linux

A Java Runtime Environment (JRE) runs the server and default agent. Before installing the server on z/Linux, you must install the following Java Runtime Environment (JRE) versions on your system:

- For the server—31-bit JRE 1.7.0 SR5 or higher
- For the default agent—31-bit JRE 1.6 SR8 or higher

The installation program prompts for the location of the JRE for the server and default agent.

How to Install CA WA Desktop Client

CA WA Desktop Client is a graphical interface for defining, monitoring, and controlling enterprise workload and includes the administrator's tools for setting up, monitoring, and diagnosing problems with CA Workload Automation DE. This topic provides an overview of the steps you must perform to complete the installation of CA WA Desktop Client.

To complete the installation of CA WA Desktop Client, follow these steps:

1. Install CA WA Desktop Client using one of these methods:
   - Install CA WA Desktop Client using an interactive program.
   - Install CA WA Desktop Client using a silent installer (see page 40).
2. Start CA WA Desktop Client.
3. Connect to the server.

After you complete the installation, you can do the following tasks:

- Add a server connection if you want to connect to another server.
- Uninstall CA WA Desktop Client if you no longer use it.

Install CA WA Desktop Client Using a Silent Installer

A silent installer lets you automate the installation of multiple clients. You can configure a properties file for each client and then run a silent installer instead of using an interactive program to install each client.

Note: Before you run the silent installer, ensure that your computer meets the system requirements.

Follow these steps:

1. Log in to your Windows computer with an ID that belongs to the Administrator group.
2. Copy the Setup.exe file and the DesktopClient_Silent_Install.properties file to a directory of your choice.

   The Setup.exe and installer properties files are available on the product DVD or CA Support Online website, found at http://ca.com/support. We recommend that you keep a copy of the installer properties file to use as a template.
3. Open the DesktopClient_Silent_Install.properties file in a text editor.

4. Edit the following properties:

   USER_INSTALL_DIR

   Specifies the path to the location where you want to install CA WA Desktop Client. The specified directory must be empty. To uncomment out the property, remove the # sign.

   PRODUCT_ICONS_1=On The Desktop

   Adds a shortcut to CA WA Desktop on the Desktop. To disable the Desktop shortcut, comment out the property.

   PRODUCT_ICONS_2=Quick Launch Bar

   Adds a shortcut to CA WA Desktop on the Quick Launch Bar. To disable the Quick Launch Bar shortcut, comment out the property.

5. Save the file.

   The properties are set in the installer properties file.

6. Enter the following command at the command prompt:

   ```
   Setup.exe -f DesktopClient_Silent_Install.properties
   ```

   The silent installer runs. You can determine whether the installation was successful based on the exit code that is returned:

   0

   Indicates that the installation completed successfully without any warnings or errors.

   1

   Indicates that the installation completed successfully, but one or more actions from the installation sequence caused a warning or a nonfatal error.

   -1

   Indicates that one or more actions from the installation sequence caused a fatal error.

7. Review the installation log for warnings and errors, if applicable.

   If the installation completed successfully, you can find the installer log file in the installation directory. If the installation failed, you can find the installer log file on the Desktop.

Informatica Jobs

Informatica jobs let you start predefined workflows on Informatica PowerCenter. In Informatica, jobs are known as workflows. A workflow can contain multiple tasks. You can start the workflow from the beginning of the workflow or from a specified task. You can also start a workflow instance.

Informatica PowerCenter provides an environment that lets you load data into a centralized location, such as a data warehouse or operational data store (ODS). You can extract data from multiple sources, transform the data according to business logic you build in the client application, and load the transformed data into file and relational targets.

Note: To run these jobs, your system requires CA WA Agent for Linux or Windows and CA WA Agent for Informatica.

Define an Informatica Job

You can define an Informatica job to start a predefined workflow on Informatica PowerCenter. You can start the workflow from the beginning of the workflow or from a specified task. You can also start a workflow instance.

Notes:

- Due to a known issue in Informatica, you cannot run workflow instances in parallel.
- To run these jobs, your system requires CA WA Agent for Linux or Windows and CA WA Agent for Informatica.

Follow these steps:

1. Open the Application that you want to add the job to in the Define perspective.

   The Application appears in the workspace.

2. Select the Informatica job in the Palette view, and drag the job to the workspace.

   The Informatica icon appears on the Application workspace view.

3. Right-click the Informatica icon, and select Edit from the pop-up menu.

   The Basic page of the Informatica dialog opens.

4. Complete the following required fields:

   Name

   Defines the name of the job that you want to schedule.

   Limits: 128 alphanumeric characters, plus the special characters commercial at (@), pound (#), dollar sign ($), underscore (_), square brackets ([]), brace brackets ({}), and percent sign (%) as a symbolic variable introducer character.

Agent name

Specifies the name of the agent that runs the Informatica job.

Note: The drop-down list displays all the agents that are defined in the Topology for the specified job type.

Folder name

Specifies the Informatica PowerCenter repository folder name where the specified workflow resides. You can obtain this value from the Informatica server.

Limits: Up to 79 characters

Workflow name

Specifies the name of the Informatica PowerCenter workflow to be started.

Limits: Up to 79 characters

Note: You can type the workflow name or, if you are connected to the server, click the arrow search button next to the field to search for a workflow that is defined in Informatica PowerCenter. You can also view the sequence of tasks and the hierarchy of objects within a selected workflow.

5. (Optional) Specify the following additional information:

Informatica target

Specifies the name of the Informatica target (*infaTarget*). The corresponding directory (*install_dir*/config/informatica/*infaTarget*) stored on the agent contains the properties for connecting to the Informatica server and one or more database repositories.

Limits: Up to 128 characters

Note: If this field is not specified, the agent uses the default value specified in the informatica.server.target.default parameter in the agentparm.txt file.

Repository name

Specifies the name of the repository created on the Informatica server. The repository can be obtained from the Informatica Administrative console. The corresponding property file (*repositoryName*.properties) stored on the agent contains the database connection properties for a specified Informatica target (*infaTarget*).

Limits: Up to 128 characters

Note: If this field is not specified, the agent uses the default value specified in the informatica.repository.name.default parameter in the informatica.properties file stored on the agent.

Informatica user

Specifies the Informatica server user name. The user must be defined in the Topology. This field supports the use of a namespace for a user that has more than one password. Contact your administrator for the user name defined in the Topology.

Limits: Up to 128 characters

Examples: Bob, Production:Bob

Notes:

- The drop-down list displays all of the user names that are defined in the Topology for the specified agent. You must have at least Read access to the ADMIN.Network Topology permission to view this list.
- If this field is not specified, the agent uses the default value specified in the informatica.user.id.default parameter in the informatica.properties file stored on the agent.

Workflow instance

Specifies the name of the workflow instance to be started. When the task name and the workflow instance name are specified, the workflow instance is started from the specified task. When the task name is not specified, the workflow instance starts from the beginning. If the instance name is not specified, the workflow is started.

Limits: Up to 79 characters

Note: Before you select a workflow instance from the drop-down, you must specify the workflow in the Workflow name field. The workflow instances in the drop-down list are populated based on the specified workflow.

Task name

Specifies the name of the task to start the workflow from. If the task name is not specified, the workflow starts from the beginning.

Limits: Up to 79 characters

Note: You can type the task name or, if you are connected to the server, click the arrow search button next to the field to search for a task that is defined within the specified workflow. You can also view the details and the hierarchy of a selected task within the workflow.

Param file

Specifies the path and name of a parameter file on the Informatica server. Informatica PowerCenter processes the parameter file when running a workflow. The parameter file contains values for symbolic variables and must adhere to the format that Informatica PowerCenter expects. A property value that is set in a parameter file overrides a value for this property that is set at the session level or elsewhere.

Limits: Up to 256 characters

Pass on success only

Indicates whether the status of the workflow is retrieved directly from Informatica or inferred depending on the successful execution of all the tasks. Select one of the following values from the drop-down list:

- True—Returns the workflow status based on the status of tasks in the Informatica workflow. If all tasks in the workflow complete successfully, the agent reports the status of the workflow as successful. If any task in the workflow fails, the agent reports the status of the workflow as failed.
- False—Returns the workflow status as reported by Informatica. In Informatica, a workflow can succeed even if one or more tasks in the workflow fail.

Notes:

- If you do not select any value from the drop-down list, the agent uses the default value specified in the informatica.passonsuccessonly.default parameter in the agentparm.txt file.
- If no value is specified in the drop-down list or in the agentparm.txt file, the default value is False.

6. Click OK.

   The Informatica job is defined.

Example: Start a Workflow on Informatica PowerCenter from a Task

This example starts a workflow named WF_1 on Informatica PowerCenter from the copyfile task. The workflow is started from the copyfile task.

To start a workflow on Informatica PowerCenter from a task

1. Enter the following information on the Basic page of the job definition:
   - Name—INF_1
   - Agent name—AGENT_INF
   - Folder name—sandbox
   - Workflow name—WF_1
   - Task name—copyfile
2. Click OK.

Example: Start a Workflow with a Parameter File

Suppose that you want to start a workflow named WF_2 with the wf2.prm parameter file on Informatica server. When the workflow runs, Informatica PowerCenter processes the specified parameter file.

The wf2.prm parameter file includes symbolic variables that override the default log directory and file name:

```
;Workflow Parameters
[INFAPLUGIN.WF:wf_3]
;Session parameters
$PMSessionLogFile=wf3.log
$PMSessionLogDir=C:\Infa\Log
;mapping parameters
```

To start a workflow with a parameter file

1. Enter the following information on the Basic page of the job definition:
   - Name—INF_1
   - Agent name—AGENT_INF
   - Folder name—sandbox
   - Workflow name—WF_2
   - Param file—C:/Infa/wf2.prm
2. Click OK.

   The log files will be stored in the C:\Infa\Log directory on the Informatica server and their name will start with wf2.log. The actual files that Informatica generates will be longer, for example, wf2.log.1225.20131021131730.bin.

More information:

Informatica Jobs (see page 42)

Search for an Informatica Workflow

You can use the Search Informatica Workflows dialog to search for and select a workflow that is defined on Informatica PowerCenter. You can also view the sequence of tasks and the hierarchy of objects within a workflow.

Follow these steps:

1. Ensure you are connected to the server.
2. Open the Basic page of the Informatica job definition.
3. Complete the following required fields:

   Agent name

   Specifies the name of the Informatica agent where the workflow runs.

   Folder name

   Specifies the Informatica PowerCenter repository folder name where the specified workflow resides.

4. Click the arrow search button next to the Workflow name field.

   The Search Informatica Workflows dialog opens.

   Note: The required fields in this dialog are populated with the information that is specified on the Basic page of the job definition. You can also select another repository folder from the Folder name drop-down list.

5. (Optional) Specify the information in the Informatica Server Info section.

   Note: The fields in this section are populated with the information that is specified on the Basic page of the job definition, if any.

6. (Optional) Specify the filter criteria in the following field:

   Matching pattern

   Specifies the matching pattern string that is used to retrieve the names of workflows. Only workflows whose names contain the search pattern are displayed. % is the only wildcard character that is supported for the pattern matching.

   Example: If you specify "A%ab%" as the matching pattern, all the workflows whose names start with A and contain ab in the middle or at the end are displayed. If you specify "%file%" as the matching pattern, all the workflows whose names contain file are displayed, for example: file_task, X_file_Task and T_file.

   Note: If you do not specify a matching pattern, all workflows that belong to the specified repository folder are displayed.

7. Click the arrow search button next to the Informatica Server Info section.

   The Workflows table is populated with the list of workflows that meet the matching pattern string.

   Note: You can sort the data in the table by clicking on a table column heading.

8. (Optional) Select a workflow and click Workflow Details to display the sequence of tasks for the selected workflow in a tabular format.

9. (Optional) Select a workflow and click Workflow Object Hierarchy to display the hierarchy of all tasks within the selected workflow in a graphical format.

10. Select a workflow and click Select Workflow to specify the workflow name in the job definition.

    The selected workflow is set on the Basic page of the job definition.

Example: List Workflows that Match a Specified Pattern

Suppose that you want to retrieve a list of Informatica workflows whose names contains INF and underscore (_).

To list workflows based on matching pattern criteria

1. Open the Basic page of the Informatica job definition.
2. Enter the following information:
   - Agent name—Agent_INF
   - Folder name—sandbox
3. Click the arrow search button next to the Workflow name field.

   The Search Informatica Workflows dialog opens.

4. Enter **%inf%_%** in the Matching pattern field.
5. Click the arrow search button next to the Informatica Server Info section.

   The Workflows table is populated with the list of workflows that meet the search criteria.

Search for a Task in an Informatica Workflow

You can use the Search Informatica Tasks dialog to search for and select a task that is defined in an Informatica workflow. When the workflow runs, it starts from the task that you select. By default, the workflow starts from the first task. You can also view the details and the hierarchy of a task within the workflow.

Follow these steps:

1. Ensure you are connected to the server.
2. Open the Basic page of the Informatica job definition.
3. Complete the following required fields:

   Agent name

   Specifies the name of the agent that runs the Informatica job.

   Folder name

   Specifies the Informatica PowerCenter repository folder name where the specified workflow resides.

   Workflow name

   Specifies the name of the Informatica PowerCenter workflow to be started.
4. Click the arrow search button next to the Task name field.

   The Search Informatica Tasks dialog opens.

   Note: The required fields in this dialog are populated with the information that is specified on the Basic page of the job definition. You can also select another repository folder from the Folder name drop-down list and another workflow from the Workflow name drop-down list.
5. (Optional) Specify the information in the Informatica Server Info section.

   Note: The fields in this section are populated with the information that is specified on the Basic page of the job definition, if any.
6. Click the arrow search button next to the Informatica Server Info section.

   The Tasks table is populated with the workflow tasks that meet the search criteria.

   Note: You can sort the data in the table by clicking on a table column heading.
7. (Optional) Select a task and click Task Details to display the details of the selected task in a tabular format.

   Note: You can only retrieve the details of a task that ran as part of the workflow at least once. If the task has not previously run, an error message is displayed.

8. (Optional) Select a task and click Workflow Object Hierarchy to display the hierarchy of the selected task within the workflow in a graphical format.
9. Select a task and click Select Task to specify the task name in the job definition.

   The selected task name is set on the Basic page of the job definition.

Example: Display All Tasks for a Workflow

Suppose that you want to display all tasks for a workflow named INF_job in the sandbox folder.

To display all tasks for a workflow

1. Open the Basic page of the Informatica job definition.
2. Enter the following information:
   - Agent name—Agent_INF
   - Folder name—sandbox
   - Workflow name—INF_job
3. Click the arrow search button next to the Task name field.

   The Search Informatica Tasks dialog opens.
4. Click the arrow search button next to the Informatica Server Info section.

   The Tasks table is populated with the tasks that are defined in the workflow.

MSSQL Server Jobs

MSSQL Server jobs let you execute predefined jobs in the Microsoft SQL Server Agent to perform administrative tasks. The jobs can be Transact-SQL scripts, command prompt applications, Microsoft ActiveX scripts, Integration Services packages, Analysis Services commands and queries, or Replication tasks.

Notes:

- To run these jobs, your system requires CA WA Agent for Windows and CA WA Agent for Microsoft SQL Server.
- Due to a Microsoft SQL Server restriction, the agent cannot run multiple MSSQL Server jobs with the same name simultaneously. If a MSSQL Server job is running, you cannot rerun the job until its previous execution finishes.
- MSSQL Server jobs do not produce a spool file.

Define a MSSQL Server Job

You can define a MSSQL Server job to execute predefined jobs in the Microsoft SQL Server Agent to perform administrative tasks.

Note: To run these jobs, your system requires CA WA Agent for Windows and CA WA Agent for Microsoft SQL Server.

Follow these steps:

1. Open the Application that you want to add the job to in the Define perspective.

   The Application appears in the workspace.

2. Select the MSSQL Server job in the Palette view, and drag the job to the workspace.

   The MSSQL Server icon appears on the Application workspace view.

3. Right-click the MSSQL Server icon, and select Edit from the pop-up menu.

   The Basic page of the MSSQL Server dialog opens.

4. Complete the following required fields:

   Name

   Defines the name of the job that you want to schedule.

   Limits: 128 alphanumeric characters, plus the special characters commercial at (@), pound (#), dollar sign ($), underscore (_), square brackets ([]), brace brackets ({}), and percent sign (%) as a symbolic variable introducer character.

   Agent name

   Specifies the name of the agent that runs the MSSQL Server job.

   Note: The drop-down list displays all the agents that are defined in the Topology for the specified job type.

   Job name/job ID

   Specifies the job name or internal job identification (ID) number. Select the Job name or Job ID option button in the MSSQL server job section and then specify the job name or job ID in this field.

   Limits: Up to 128 characters for job name; up to 36 characters for job ID

   Notes:

   - You can type the job name or job ID or, if you are connected to the server, click the arrow search button next to the field to search for a job that is defined in Microsoft SQL Server Agent.
   - The agent does not support double quotes in the job name. If the job name includes double quotes, remove the double quotes from the job definition using Microsoft SQL Server Management Studio.

5. (Optional) Specify the following additional information:

Target DB

Specifies the target server database. The agent retrieves the JDBC connection information from the corresponding property file (*target_database*.properties) stored on the agent.

Limits: Up to 128 alphanumeric or underscore characters. The first character cannot be a number.

Notes:

- If the target database is not specified in the job definition, the agent uses the default value specified in the mssql.default.TargetDB parameter in the agentparm.txt file.
- If the target server database is not specified in either the job definition or the mssql.default.TargetDB parameter, the agent reports an error.

MSSQL server name

Specifies the target server to start the job on.

Limits: Up to 128 characters

Note: You can type the MSSQL server name or, if you are connected to the server, click the arrow search button next to the field to search for a target server that the job can run on.

Step name

Specifies the name of the job step to start the job from. The default is to start the job from the first step. To start the job from another step, specify the step name in this field.

Limits: Up to 128 characters

Note: You can type the step name of a job or, if you are connected to the server, click the arrow search button next to the field to search for a job step that is defined in the Microsoft SQL Server Agent job.

User name

Specifies the user that the agent uses to create a JDBC connection to the database. The user can be a Windows domain user for Windows domain authentication or a Microsoft SQL Server user for Microsoft SQL Server authentication. The user must be defined in the Topology. This field supports the use of a namespace for a user that has more than one password. Contact your administrator for the user name defined in the Topology.

Limits: Up to 128 alphanumeric characters; you can also specify spaces and special characters including period (.), hyphen (-), and underscore (_).

Examples: Bob, Production:Bob

Note: The drop-down list displays all of the user names that are defined in the Topology for the specified agent. You must have at least Read access to the ADMIN.Network Topology permission to view this list.

Domain

Specifies the Windows domain name for Windows authentication.

Limits: Up to 24 alphanumeric characters; you can also specify hyphen (-) and period (.).

Notes:

- If the User name and Domain fields are specified, the agent assumes that the User name contains the Windows domain user. In this case, Windows domain authentication is used.
- If the User name is specified without the Domain field, the agent assumes that the User name contains the Microsoft SQL Server user. In this case, Microsoft SQL Server authentication is used.
- If neither the User name or the Domain fields are specified, the agent uses the default user settings specified in the *target_database*.properties file.

6. Click OK.

   The MSSQL Server job is defined.

Example: Run a Predefined Job on a Target Server

This example runs a predefined job named mssql_job on the myserver target server.

To run a predefined job on a target server

1. Enter the following information on the Basic page of the job definition:
   - Name—mssql_DE_job
   - Agent name—AGENT_MSSQL
   - MSSQL server name—myserver
   - Target DB—mytargetDB
   - User name—mydomainuser
   - Domain—mydomain
2. Select the Job name option button and enter **mssql_job** in the Job name/job ID field.
3. Click OK.

More information:

MSSQL Server Jobs (see page 50)

Search for a Microsoft SQL Server Agent Job

You can use the Search MSSQL Jobs dialog to search for and select a job that is defined in Microsoft SQL Server Agent.

Follow these steps:

1. Ensure you are connected to the server.
2. Open the Basic page of the MSSQL Server job definition.
3. Specify the name of the agent that runs the MSSQL Server job in the Agent name field.
4. Click the arrow search button next to the Job name/job ID field.

   The Search MSSQL Jobs dialog opens.

   Note: The fields in this dialog are populated with the information that is specified on the Basic page of the job definition, if any.
5. (Optional) Specify the filter criteria in the following fields in the Filter Options section:

   Job Type

   Specifies the job type to filter on. Options are LOCAL and MULTI-SERVER. The default is to return all jobs regardless of job type.

   Owner Login Name

   Specifies the login name of the owner of the job to filter on. The default is to return all jobs regardless of the owner login name.

   Category

   Specifies the category name to filter on. Options are as follows:

   - Uncategorized (Local)
   - Data Collector
   - Database Engine Tuning Advisor
   - Database Maintenance
   - Full-Text
   - Jobs From MSX
   - Log Shipping
   - REPL-Alert Response
   - REPL-Checkup
   - REPL-Distribution
   - REPL-Distribution Cleanup
   - REPL-History Cleanup

- REPL-LogReader
- REPL-Merge
- REPL-QueueReader
- REPL-Snapshot
- REPL-Subscription Cleanup

The default is to return all jobs regardless of category.

Subsystem

Specifies the name of the subsystem to filter on. Options are as follows:

- TSQL
- ActiveScripting
- CmdExec
- Snapshot
- LogReader
- Distribution
- Merge
- QueueReader
- AnalysisQuery
- AnalysisCommand
- SSIS
- PowerShell

Note: When this field is specified, only jobs with job steps that belong to the specified subsystem are listed. The default is to return all jobs regardless of subsystem.

Execution Status

Specifies the execution status to filter on. Options are as follows:

Suspended

Lists only jobs that are not idle or suspended.

Executing

Lists only jobs that are executing.

WaitingForThread

Lists only jobs that are waiting for a thread.

BetweenRetries

Lists only jobs that are between retries.

Idle

Lists only jobs that are idle.

PerformingCompletionActions

Lists only jobs that are performing completion options.

The default is to return all jobs regardless of execution status.

Date

Specifies a date range based on when the job was created or last modified. To filter by date, specify the following:

- Type of date (DateCreated or DateLastModified)
- Date comparator (After or Before)
- Date (using the calendar)
- Time

Example: DateCreated After Sept 13, 2013 12:00:00 AM (returns jobs that were created since midnight on September 13, 2013).

Enabled

Indicates whether to list only enabled or disabled jobs.

TRUE

Lists only enabled jobs.

FALSE

Lists only disabled jobs.

The default is to return enabled and disabled jobs.

Description

Specifies the job description to filter on. The Description field can include the wildcard characters *, ?, ^, and [] for pattern matching. The * wildcard character is equivalent to the % SQL wildcard character. The ? wildcard character is equivalent to the _ SQL wildcard character. The default is to return all jobs regardless of description.

6. Click the arrow search button next to the MSSQL server info section.

   The List of Jobs table is populated with the list of jobs that meet the search criteria.

   Notes:

   - You can sort the data in the table by clicking on a table column heading.
   - The agent administrator can configure the properties files on the agent to change the fields that are displayed in the table. For more information about configuring the properties files and the available fields that can be displayed, see the *CA Workload Automation Agent for Microsoft SQL Server Implementation Guide*.

7. Select the job you want from the table.
8. Click Select Job Name to specify the job name or click Select Job ID to specify the job ID in the job definition.

   The specified job name or job ID of the selected job is set on the Basic page of the job definition.

Example: Retrieve a List of Microsoft SQL Server Agent Jobs Based on Job Description Criteria

Suppose that you want to retrieve a list of all jobs with the job description that starts with sqljob.

To list the Microsoft SQL Server Agent jobs based on job description criteria

1. Open the Basic page of the MSSQL Server job definition.
2. Enter **AGENT_MSSQL** in the Agent name field.
3. Click the arrow search button next to the Job name/job ID field.

   The Search MSSQL Jobs dialog opens.
4. Enter **sqljob*** in the Description field.
5. Click the arrow search button next to the MSSQL server info section.

   The List of Jobs table is populated with the list of jobs that meet the search criteria.

Search for a Target Server that the Microsoft SQL Server Agent Job Can Run on

You can use the Search MSSQL Job Target Server dialog to search for and select a server that the Microsoft SQL Server Agent job can run on.

Note: To list the target servers that the job can run on, you must enlist the target servers into the master server in the Microsoft SQL Server database.

Follow these steps:

1. Ensure you are connected to the server.
2. Open the Basic page of the MSSQL Server job definition.
3. Complete the following required fields:

   Agent name

   Specifies the name of the agent that runs the MSSQL Server job.

   Job name/job ID

   Specifies the job name or internal job identification (ID) number. Select the Job name or Job ID option button in the MSSQL server job section and then specify the job name or job ID in this field.
4. Click the arrow search button next to the MSSQL server name field.

   The Search MSSQL Job Target Servers dialog displays the list of target servers that the job can run on.

   Notes:

   - You can sort the data in the List of Target Servers table by clicking on a table column heading.
   - The agent administrator can configure the properties files on the agent to change the fields that are displayed in the table. For more information about configuring the properties files and the available fields that can be displayed, see the *CA Workload Automation Agent for Microsoft SQL Server Implementation Guide*.
5. Select the server that you want to run the job on from the table.
6. Click Select Job Target Server Name to specify the target server in the job definition.

   The selected target server is set on the Basic page of the job definition.

Example: Retrieve a List of Target Servers that the Microsoft SQL Server Agent Job Can Run on

Suppose that you want to retrieve a list of all target servers that the job named Test job monitoring can run on.

To list the target servers that the Microsoft SQL Server Agent job can run on

1. Open the Basic page of the MSSQL Server job definition.
2. Enter **AGENT_MSSQL** in the Agent name field.
3. Select the Job name option button and enter **Test job monitoring** in the Job name/job ID field.
4. Click the arrow search button next to the MSSQL server name field.

   The Search MSSQL Job Target Servers dialog displays the list of target servers that the job can run on.

Search for a Job Step in a Microsoft SQL Server Agent Job

You can use the Search MSSQL Job Steps dialog to search for and select a job step that is defined in the Microsoft SQL Server Agent job. You can start a job from the job step that you want.

Follow these steps:

1. Ensure you are connected to the server.
2. Open the Basic page of the MSSQL Server job definition.
3. Complete the following required fields:

   Agent name

   Specifies the name of the agent that runs the MSSQL Server job.

   Job name/job ID

   Specifies the job name or internal job identification (ID) number. Select the Job name or Job ID option button in the MSSQL server job section and then specify the job name or job ID in this field.
4. Click the arrow search button next to the Step name field.

   The Search MSSQL Job Steps dialog opens.
5. (Optional) Specify the search criteria in *one* of the following fields:

   Job Step Name

   Specifies the name of the job step to filter on.

   Job Step ID

   Specifies the ID of the job step to filter on.

   The default is to include all job steps for the specified field.
6. Click the arrow search button next to the MSSQL Job Step Filter Info section.

   The List of Job Steps table is populated with the job steps that meet the search criteria for the specified job.

   Notes:

   - You can sort the data in the table by clicking on a table column heading.
   - The agent administrator can configure the properties files on the agent to change the fields that are displayed in the table. For more information about configuring the properties files and the available fields that can be displayed, see the *CA Workload Automation Agent for Microsoft SQL Server Implementation Guide*.

7. Select the job step that you want to start the job from in the table.

   The default is to start the job from the first step.

8. Click Select Job Step Name to specify the step name in the job definition.

   The specified step name of the selected job step is set on the Basic page of the job definition.

Example: Display Details of All Job Steps

Suppose that you want to display details of all job steps for a job named Test job monitoring.

To display details of all job steps

1. Open the Basic page of the MSSQL Server job definition.
2. Enter **AGENT_MSSQL** in the Agent name field.
3. Select the Job name option button and enter **Test job monitoring** in the Job name/job ID field.
4. Click the arrow search button next to the Step name field.

   The Search MSSQL Job Steps dialog opens.

5. Click the arrow search button next to the MSSQL Job Step Filter Info section.

   The List of Job Steps table is populated with the details of all the job steps that are defined in the job.

Example: Display Details of a Job Step

Suppose that you want to display details of a job step named Step 2 for a job named Test job monitoring.

To display details of a job step

1. Open the Basic page of the MSSQL Server job definition.
2. Enter **AGENT_MSSQL** in the Agent name field.
3. Select the Job name option button and enter **Test job monitoring** in the Job name/job ID field.
4. Click the arrow search button next to the Step name field.

   The Search MSSQL Job Steps dialog opens.

5. Enter **Step 2** in the Job Step Name field.
6. Click the arrow search button next to the MSSQL Job Step Filter Info section.

   The List of Job Steps table is populated with the details of only Step 2.

Set Up an Email Notification in the Job Definition

If you want an email notification to send an email when a job reaches a certain condition, such as Fail or Overdue, set up the email notification in the job definition.

Follow these steps:

1. Open the Application in the Define perspective.

   The Application appears in the workspace.

2. Right-click the job in the workspace, and select Edit from the pop-up menu.

   The Basic page of the job definition dialog opens.

3. Click Notifications in the left pane.

   The Notifications page opens in the right pane.

4. Select the Email tab.

5. Clear the Use Application-level defaults check box.

   If the Application contains any email notifications, the notifications are copied to the job definition. You can edit or remove a copied notification by selecting the notification and clicking Edit or Remove as required.

   Notes:

   - If you leave the Use Application-level defaults check box selected, the email notifications defined in the Application are displayed, but you cannot edit or add new notifications.
   - To suppress the Application-level notifications for this job, ensure that the list of notifications is empty.

6. Click New to add a notification.

   The New Email Notification dialog opens.

7. Complete the following fields as appropriate:

   Return code

   (Optional) Specifies an exit code to send the notification on a more specific condition.

   Note: This field applies to only Complete and Fail monitor states.

   Monitor states

   Specifies the job states you can monitor.

   To

   Specifies the recipient's email address.

   Note: After you specify an email address, you must click Add to add the email address to your notification. You can add multiple email addresses.

Subject

(Optional) Specifies a customized email subject.

Notes:

- To insert the default subject, select the Use default subject check box. The administrator can edit the default subject by modifying the default email template in the Admin perspective.
- To specify a customized email subject, clear the Use default subject check box. You can insert Application- and job-level built-in symbolic variables into the subject line by right-clicking in the field and selecting the symbolic variable you want to insert from the drop-down menu.

Message

(Optional) Adds a customized message to the email.

Notes:

- To insert the default message, select the Use default message option button. The administrator can edit the default message by modifying the default email template in the Admin perspective.
- To add to the default message, select the Attach to default message option button and enter your message. To specify a customized message or override the default message, select the Override default message option button and enter your message. You can insert Application- and job-level built-in symbolic variables into the message by right-clicking in the text box and selecting the symbolic variable you want to insert.

Attach spool file

(Optional) Attaches the job's spool file to the email notification.

Notes:

- The administrator can configure a shared parameter to limit the size of spool file attachments in email when providing email notifications for failed jobs. For more information about server shared parameters, see the *Admin Perspective Help*.
- Not all job types support the Attach spool file option.

8. Click OK.

   The New Email Notification dialog closes.

9. Click OK.

   The server sends an email notification whenever the job reaches the monitor state you specified.

Set Up an Email Notification in the Application

If you want the email notification to apply to all jobs in the Application, set up the email notification in the Application.

Follow these steps:

1. Open the Application in the Define perspective.

   The Application appears in the workspace.

2. Right-click the Application in the Application Workspace view, and select Properties from the pop-up menu.

   The Basic page of the Application properties dialog opens.

3. Click Notifications in the left pane.

   The Notifications page opens in the right pane.

4. Select the Email tab and click New.

   The New Email Notification dialog opens.

5. Complete the following fields as appropriate:

   Return code

   (Optional) Specifies an exit code to send the notification on a more specific condition.

   Note: This field applies to only Complete and Fail monitor states.

   Monitor states

   Specifies the job states you can monitor.

   To

   Specifies the recipient's email address.

   Note: After you specify an email address, you must click Add to add the email address to your notification. You can add multiple email addresses.

   Subject

   (Optional) Specifies a customized email subject.

   Notes:

   - To insert the default subject, select the Use default subject check box. The administrator can edit the default subject by modifying the default email template in the Admin perspective.
   - To specify a customized email subject, clear the Use default subject check box. You can insert Application- and job-level built-in symbolic variables into the subject line by right-clicking in the field and selecting the symbolic variable you want to insert from the drop-down menu.

Message

(Optional) Adds a customized message to the email.

Notes:

- To insert the default message, select the Use default message option button. The administrator can edit the default message by modifying the default email template in the Admin perspective.
- To add to the default message, select the Attach to default message option button and enter your message. To specify a customized message or override the default message, select the Override default message option button and enter your message. You can insert Application- and job-level built-in symbolic variables into the message by right-clicking in the text box and selecting the symbolic variable you want to insert.

Attach spool file

(Optional) Attaches the job's spool file to the email notification.

Notes:

- The administrator can configure a shared parameter to limit the size of spool file attachments in email when providing email notifications for failed jobs. For more information about server shared parameters, see the *Admin Perspective Help*.
- Not all job types support the Attach spool file option.

6. Click OK.

   The New Email Notification dialog closes.

7. Click OK.

   The server sends an email notification whenever a job in the Application reaches the monitor state you specified.

Example: Send an Email Notification When a Job Fails or Has an Error

Suppose that you want to send an email notification to operator1@yourcompany.com and operator2@yourcompany.com when a job in the Application fails or has a monitoring or submission error.

To send an email notification when a job fails or has an error

1. Open the New Email Notification dialog.
2. Select the Failed and Suberror monitor states.
3. Enter **operator1@yourcompany.com,operator2@yourcompany.com** in the To field and click Add.
4. Clear the Use default subject check box and enter **Job has failed** in the Subject field.
5. Select the Use default message option button.
6. Select the Attach spool file check box and click OK twice.

   The server sends an email notification if a job in the Application fails or has a monitoring or submission error.

Find the Troubled Jobs within an Application

When an Application appears in a troubled state, you can locate the trouble jobs in the Application.

Follow these steps:

1. Open the Monitor perspective.
2. Subscribe to workload on the server.

   The Applications and their generations are displayed in the Application Monitor view.
3. Right-click the Application generation, and select Find Troubled Job from the drop-down menu.

   Note: You can press Ctrl+T to find more troubled jobs.

   The troubled job is highlighted in the graphical view.

Retrieve the Log for an Informatica Workflow

You can retrieve the log of a completed or failed Informatica workflow, its instance, or its sessions. The workflow log details include the workflow run ID, log type (workflow or session), log output, and so on.

Notes:

- If you specified a workflow instance on the Basic page of the job definition, only the log of the specified workflow instance is retrieved.
- You can retrieve the log of only the latest run of the workflow or its instance.

Follow these steps:

1. Right-click the Informatica job in the Monitor perspective.

   A list of job commands appears.

2. Select Get Workflow Log.

   The Workflow Logs dialog opens.

3. (Optional) Specify the name of a session task in the Session Name field to retrieve the log of a workflow session.

   Note: Alternatively, click the arrow search button next to the Session Name field to search for and select a workflow session that is defined within the workflow.

4. Click Retrieve Log.

   The log details for the specified workflow, instance, or session are displayed in the Workflow Log Details section.

5. (Optional) Click Export as Text to save the log details in a text file.

Retrieve the Run Details of an Informatica Workflow

You can retrieve the run details of a completed, failed, or running Informatica workflow or its instance. The run details include the total run time of the workflow, workflow status (including error code and messages in case of workflow failure), task type, total run time of tasks in the workflow, and so on.

Notes:

- If you specified a workflow instance on the Basic page of the job definition, only the run details of the specified workflow instance are retrieved.
- You can retrieve the details of only the latest run of the workflow or its instance.

Follow these steps:

1. Right-click the Informatica job in the Monitor perspective.

   A list of job commands appears.

2. Select Get Workflow Run Details.

   The Informatica Workflow Run Details dialog displays the run details of the workflow and the tasks within the workflow.

   Note: You can sort the data in the Task Run Details table by clicking on a table column heading.

Retrieve the Status of an Informatica Workflow

You can retrieve the status of a completed, failed, or running Informatica workflow or its instance. The status details include the workflow run ID, list of failed tasks in a workflow, and so on.

Notes:

- If you specified a workflow instance on the Basic page of the job definition, only the status of the specified workflow instance is retrieved.
- The status of the Informatica workflow or its instance is retrieved based on the value of the Pass on success only field in the job definition or its default.
- You can retrieve the status of only the latest run of the workflow or its instance.

Follow these steps:

1. Right-click the Informatica job in the Monitor perspective.

   A list of job commands appears.

2. Select Get Workflow Status.

   The Informatica Workflow Status dialog displays the status details for the specified workflow or instance.

Restart an Informatica Workflow

You can restart a failed workflow or its instance from the point of failure or from the beginning in recovery mode. For example, if a workflow is terminated abnormally, you can restart the workflow.

Notes:

- If you specified a workflow instance on the Basic page of the job definition, only the specified workflow instance is restarted.
- Due to a known issue in Informatica, workflow instances cannot be restarted in parallel.
- If recovery mode is not set for a workflow or a session, the workflow starts normally.

Follow these steps:

1. Right-click the Informatica job in the Monitor perspective.

   A list of job commands appears.

2. Select Restart Workflow.

   The Restart Workflow dialog opens.

3. (Optional) Click the arrow search button next to the Session Task field to select a session task that you want to restart the workflow from.

   Note: To restart a workflow or its instance from a point of failure, select a session task. If a session task is not selected, the workflow is restarted from the beginning in recovery mode.

4. Click Restart.

   The server restarts the specified workflow or its instance in recovery mode from the specified session task or from the beginning.

Stop a Running Informatica Workflow

You can stop a running Informatica workflow or its instance. For example, if a workflow is started by mistake, you can stop that workflow.

Notes:

- If you specified a workflow instance on the Basic page of the job definition, only the specified instance of the workflow is stopped.
- You can stop only the latest run of the workflow or its instance.

Follow these steps:

1. Right-click the Informatica job in the Monitor perspective.

   A list of job commands appears.

2. Select Stop Workflow.

   The Stop Workflow dialog opens.

3. (Optional) Enter the command reason in the Reason field.

   Limit: 1024 characters (including the timestamp and the user name)

   Note: We recommend that the reason text not exceed 250 characters. The number of commands displayed in the command log is limited to the size of the command log buffer, which is 1024 characters. For example, if the reason text averages 10 characters per command, the command log displays up to 50 commands; if the reason text averages 250 characters per command, the command log displays up to 4 commands.

4. Click OK.

   The server stops the running Informatica workflow or its instance.

Retrieve the Details of a MSSQL Server Job

You can retrieve the details of a MSSQL Server job. The job details include the name of the server the job belongs to, job description, job category, job owner, date that the job was last modified, and so on.

Follow these steps:

1. Right-click the MSSQL Server job in the Monitor perspective.

   A list of job commands appears.

2. Select Get Job Detail.

   The Get Job Detail dialog displays the details of the job.

   Note: The agent administrator can configure the properties files on the agent to change the fields that are displayed in the table. For more information about configuring the properties files and the available fields that can be displayed, see the *CA Workload Automation Agent for Microsoft SQL Server Implementation Guide*.

Retrieve the Status of a MSSQL Server Job

You can retrieve the status of a MSSQL Server job. The status details include the name of the server the job belongs to, last time the job ran, outcome of the job last time it ran, current execution status of the job, job step that is currently running, current retry attempt if the job is running and the step has been retried, and so on.

Follow these steps:

1. Right-click the MSSQL Server job in the Monitor perspective.

   A list of job commands appears.

2. Select Get Job Status.

   The Get Job Status dialog displays the status details of the job.

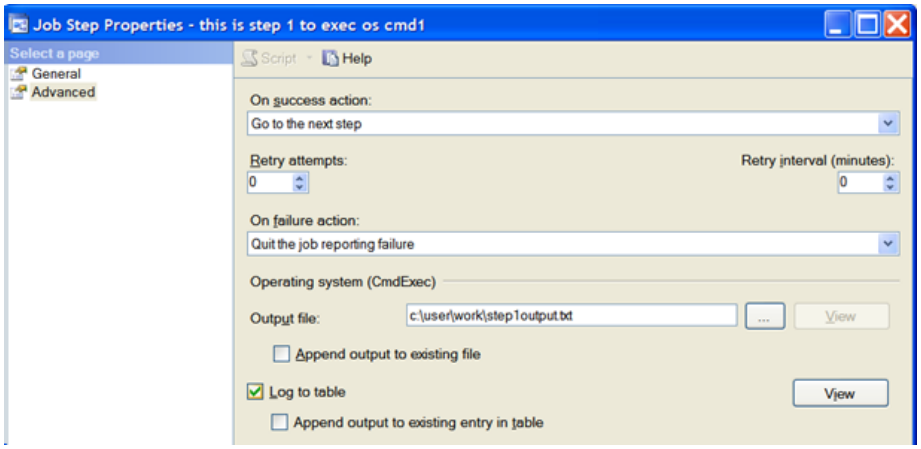
   Note: The agent administrator can configure the properties files on the agent to change the fields that are displayed in the table. For more information about configuring the properties files and the available fields that can be displayed, see the *CA Workload Automation Agent for Microsoft SQL Server Implementation Guide*.

Retrieve the Step Log for a MSSQL Server Job

You can retrieve the step log of a MSSQL server job in table format. The step log details include the unique identifier of the step (system-generated), size of the step log, step log output, and so on.

Notes:

- To retrieve the job step log, the Log to table option button must be selected in the Job Step Properties dialog of Microsoft SQL Server Management Studio. If the Log to table option button is not selected, the job step log will not be available.



- To retrieve the job step log for previous job executions, the Append output to existing entry in table option button must also be selected in the same dialog. If the Append output to existing entry in table option button is not selected, only the most recent job step log will be available.
- When the Append output to existing entry in table option button is selected, the log generated from every execution of the job step will be appended. As a result, it can cause a large amount of log data to be kept in the database.

Follow these steps:

1. Right-click the MSSQL Server job in the Monitor perspective.

   A list of job commands appears.

2. Select Get Step Log.

   The Get Step Log dialog opens.

3. (Optional) Complete one of the following fields:

   Step ID

   Specifies the identification number of the job step to return a log for.

   Step name

   Specifies the name of the job step to return a log for.

   Note: The default is to include all steps in the step log.

4. Click Retrieve.

   The server retrieves the step log for the job.

   Notes:

   - You can view the entire log output of a job step in a separate dialog by clicking on the log output in the table.
   - You can sort the data in the table by clicking on a table column heading.
   - The agent administrator can configure the properties files on the agent to change the fields that are displayed in the table. For more information about configuring the properties files and the available fields that can be displayed, see the *CA Workload Automation Agent for Microsoft SQL Server Implementation Guide*.

Retrieve the Execution Log for a MSSQL Server Job

You can retrieve the execution log of a MSSQL Server job in table format. The execution log details include the time the job or step began executing, time elapsed in the execution of the job or step, number of times the step was retried, highest Transact-SQL error severity encountered while running the command, and so on.

Follow these steps:

1. Right-click the MSSQL Server job in the Monitor perspective.

   A list of job commands appears.

2. Select Get Job History.

   The Get Job History dialog opens.

3. (Optional) Specify the identification number of the job step to return a log for in the Step ID field.

   The default is to include all steps for the specified job in the output.

4. (Optional) Select the Selection Criteria option button and complete one of the following fields:

   Last hours

   Retrieves the job runs that were started in the last specified number of hours.

   Limits: Up to 99 hours

   Last days

   Retrieves the job runs that were started in the last specified number of days.

   Limits: Up to 99 days

   Start date and time

   Retrieves the job runs that were started on and after the specified date and time. Specify the date using the pop-up calendar. The agent retrieves the job history using the Microsoft SQL Server time.

   Example: Sep 23, 2013 02:00:00 PM (retrieves the job runs that were started on and after 2PM on September 23, 2013)

   Note: Alternatively, if you select the Show recent option button, the log of the latest job run is returned.

5. Click Retrieve.

   The server retrieves the execution log for the job.

   Note:

   - You can sort the data in the table by clicking on a table column heading.
   - The agent administrator can configure the properties files on the agent to change the fields that are displayed in the table. For more information about configuring the properties files and the available fields that can be displayed, see the *CA Workload Automation Agent for Microsoft SQL Server Implementation Guide*.

Cancel a Running MSSQL Server Job

You can cancel a running MSSQL Server job.

Follow these steps:

1. Right-click the MSSQL Server job in the Monitor perspective.

   A list of job commands appears.

2. Select Cancel Job.

   The Cancel Job dialog opens.

3. (Optional) Enter the command reason in the Reason field.

   Limit: 1024 characters (including the timestamp and the user name)

   Note: We recommend that the reason text not exceed 250 characters. The number of commands displayed in the command log is limited to the size of the command log buffer, which is 1024 characters. For example, if the reason text averages 10 characters per command, the command log displays up to 50 commands; if the reason text averages 250 characters per command, the command log displays up to 4 commands.

4. Click OK.

   The server cancels the running MSSQL Server job.

countagents Command—Display the Number of Agents that Meet Criteria

You can display the total number of agents defined in the Topology. You can limit the agents counted by status (active, inactive, quiesced) or by agent type. To display the number of agents, issue the COUNTAGENTS command.

This command has the following format:

```
countagents [status("status"] [type("type")]
```

status(“*status*”)

(Optional) Limits the agents counted by status. Options are active, inactive, and quiesced.

type(“*type*”)

(Optional) Limits the agents counted by agent type. Options are the following:

- appserv—Application Services Agent
- db—Database Agent
- informatica—Informatica
- microfocus—Micro Focus Agent
- mssqlserver—Microsoft SQL Server
- oracle—Oracle E-Business Suite Agent
- os400—OS/400 Agent
- peoplesoft—PeopleSoft Agent
- remoteexecution—Remote Execution
- sapr3—SAP-R/3 Agent
- tandem—Tandem Agent
- unix—UNIX Agent
- virtual—Virtual Agent
- vms—Open-VMS Agent
- winnt—Windows Agent
- ws—Web Services Agent
- zos—z/OS Agent

Examples: Display the Number of Agents that Meet Criteria

- The following example displays the total number of active Windows agents:

```
countagents status("active") type("winnt")
1
```

- The following example displays the total number of inactive agents:

```
countagents status("inactive")
3
```

createagent Command—Add an Agent to the Topology

You can add an agent to the Topology to work with the server using the CREATEAGENT command.

This command has the following format:

```
createagent name("name") [description("description")] template("template")
[container("container"] address("address") [port(port)] [charcode("charcode")]
[version("version")] [encryptkey("encryptkey")] [serveralias("serveralias")]
[fromagentencryptkey("fromagentencryptkey")] [snmpenabled(true|false)]
[heartbeatfrequency(heartbeatfrequency)] [heartbeatmaxretry(heartbeatmaxretry)]
[persistmgrchange(true|false)] [encryptionmethod("encryptionmethod")]
[user("user")] [userids(userid(id("id") password("password"))...)]
```

name("*name*")

Specifies the name of the agent to be added.

Limits: Up to 16 characters

Notes:

- The server changes the agent name to upper case. Verify that the agentname parameter in the agentparm.txt file is in upper case; otherwise, the server and the agent cannot communicate.
- An agent cannot have the same name as a user defined in the Security view.
- An agent cannot have the same name as an existing agent.

description("*description*")

(Optional) Defines a description of the agent.

template("*template*")

Identifies the type of agent to be added. Options are the following:

- appserv—Application Services
- db—Database
- informatica—Informatica
- microfocus—Micro Focus
- mssqlserver—Microsoft SQL Server
- oracle—Oracle E-Business Suite
- os400—i5/OS
- peoplesoft—PeopleSoft
- remoteexecution—Remote Execution
- sapr3—SAP-R/3
- tandem—Tandem (virtual)
- unix—UNIX
- vms—Open-VMS (virtual)
- winnt—Windows
- ws—Web Services
- zos—z/OS

Note: Before adding a Tandem or Open-VMS virtual agent, you require an agent that acts as a parent for the virtual agent. The parent agent runs on UNIX, Linux, or Windows and connects to the virtual agent using Telnet.

container("*container*")

(Tandem and Open-VMS virtual agents only) Specifies the name of the real (parent) agent that the virtual agent belongs to. It is required to add a virtual agent to the Topology.

address("*address*")

Specifies the IP address or DNS name of the computer where the agent is installed.

port(*port*)

(Optional) Specifies the port number that the agent uses to listen for traffic. The port number is not supported on virtual agents.

Default: 7520

Limits: 1024-65534

Note: This port number must match the communication.inputport parameter in the agentparm.txt file.

charcode("*charcode*")

(Optional) Specifies the character set. The character set is not supported on virtual agents. Options are ASCII and EBCDIC.

Default: EBCDIC (z/OS agent); ASCII (all other non-virtual agents)

version("*version*")

Identifies the release number of the agent. The release number is not supported on virtual agents.

Note: The value depends on the agent type. You can find the list of values in the Release number drop-down list when you add an agent to the Topology in CA WA Desktop Client.

encryptkey("*encryptkey*")

Specifies the encryption key the agent uses to communicate with CA Workload Automation DE. The encryption key is not supported on virtual agents.

Notes:

- CA Workload Automation DE and the agent must have the same encryption key to communicate. The agent's encryption key is stored in a text file (encrypted). The path to that file is set by the security.cryptkey parameter in the agentparm.txt file. If the keys are different, the agent and CA Workload Automation DE cannot communicate and an AGENTDOWN state occurs when you try to run workload.
- If you specify NONE in the encryptionmethod operand, set this value to NOENCRYPTION.

serveralias("*serveralias*")

(z/OS agents only) Specifies the name the agent uses to communicate with the server. It is required to add a z/OS agent to the Topology.

Limits: Up to 16 characters

fromagentencryptkey("*fromagentencryptkey*")

(z/OS agents only) Specifies the encryption key used from agent to server. It is defined for the COMMCHAN initialization parameter in the agent definition data set. It is required to add a z/OS agent to the Topology.

snmpenabled(true|false)

(Optional) Indicates whether SNMP is enabled. This option is not supported on virtual agents.

Default: false

Note: If you specify true, you need to update the SNMP information in the agentparm.txt file.

heartbeatfrequency(*heartbeatfrequency*)

(Optional) Specifies the frequency you want the server to send the heartbeat signal to in minutes. This option is not supported on virtual agents.

Default: 5

Limits: 0 and above

Note: If you want individual agents to have their own heartbeat frequencies, you can set the internal shared parameter named Global agent heartbeat interval in minutes to 0 (zero).

heartbeatmaxretry(*heartbeatmaxretry*)

(Optional) Specifies the number of heartbeat signals the server attempts before it sends an SNMP message indicating agent inactivity. This option is not supported on virtual agents.

Default: 1

Limits: 1 and above

persistmgrchange(true|false)

(Optional) Indicates whether the changes to server properties that affect agent communication are permanently changed on the agent. If you change the ID, address, or port of the server in the Topology, the server sends the agent the updated server connection information at the next heartbeat signal, allowing the server and agent to communicate. Options are as follows:

true

Updates the communication parameters in the agentparm.txt file with changes made to the corresponding properties in the server Topology. For example, if you change the server address and port in the Topology, the communication.manageraddress_*n* and communication.managerport_*n* parameters in the agentparm.txt file are updated with the new server address and port.

false

Updates the server connection information every time the agent is restarted, allowing the server and agent to communicate for that session only. The communication changes are not saved in the agentparm.txt file.

Note: This option only applies to Release 7 agents and higher and is not supported on virtual agents.

encryptionmethod("*encryptionmethod*")

Specifies the encryption method the CA Workload Automation DE uses to encrypt messages. The encryption method is not supported on virtual agents. Options are the following:

DES

Specifies Data Encryption Standard encryption. It uses a 56-bit key. Encryption key length: 56 bits (16 hexadecimal characters).

DESEDE

Specifies 3DES encryption. It uses the DES algorithm in EDE (encrypt-decrypt-encrypt) mode. Encryption key length: 192 bits (48 hexadecimal characters).

AES

Specifies Advanced Encryption Standard encryption. It uses a 128-bit key. Encryption key length: 32 hexadecimal characters.

BLOWFISH

Specifies Blowfish encryption. It uses a 64-bit block and a variable key length. Encryption key length: 32 to 64 even number of hexadecimal characters.

NONE

Specifies no encryption.

Notes:

- CA Workload Automation DE supports the U.S. Government encryption standard FIPS 140-2 and can be configured to run in a FIPS-compliant mode. Your CA Workload Automation DE environment can be considered FIPS-compliant only if all the components use FIPS-compliant algorithms for encryption and decryption. Currently, only AES and DESEDE algorithms are FIPS-certified. If any of your CA Workload Automation DE components use DES or BLOWFISH, your system is not FIPS-compliant.
- If you specify NONE as the encryption method, you must set the security.cryptkey parameter in the agentparm.txt file to no value. For more information about the security.cryptkey parameter, see the *CA Workload Automation Agent for UNIX, Linux, and Windows Implementation Guide*.

user("*user*")

(Tandem and Open-VMS virtual agents only) Specifies the user name for the virtual agent. It is required to add a virtual agent to the Topology.

userids(userid(id("*id*") password("*password*"))...)

(Optional) Specifies a list of users for running jobs. The users are defined on the agent computer.

id("*id*")

Specifies the user ID. This value is case-sensitive.

password("*password*")

Specifies the encrypted password. This value is case-sensitive.

Note: Not all agents support agent users.

Example: Add an Agent to the Topology

The following example adds a new agent named MYAGENT to the Topology:

```
createagent name("MYAGENT") description("Windows-NT/2000") address("HOSTNAME")
port(7520) template("winnt") version("Release 11.3") encryptkey("1234567890ABCDEF")
encryptionmethod("DES") snmpenabled(true) userids(userid(id("user1")
password("1234567890ABCDEF")) userid(id("user2") password("1234567890ABCDEF")))
```

Example: Add an Open-VMS Virtual Agent

The following example adds an Open-VMS virtual agent named TestAgentVMS to the Topology. The Agent007 parent agent connects to the virtual agent using Telnet.

```
createagent name(TestAgentVMS) description("used to simulate VMS jobs")
template(vms) container(Agent007) address(testmachine.mycompany.com) user("user")
userids(userid(id("id") password("password")))
```

listagent Command—Display Status Information for Agents

You can view the agent status information by issuing the LISTAGENT command. You can filter the status information by agent name or by status (active, inactive, quiesced) and view detailed status information.

This command the following format:

```
listagent agent("agent") [status("status")] [type("type")] [verbose(true|false)]
```

agent("*agent*")

Specifies the name of the agent to list.

Default: All agents are listed.

Note: You can include a wildcard for a partial name. For example, AG* displays all the agents whose names start with AG. * represents any string of zero or more characters. ? represents any single character.

status("*status*")

(Optional) Lists agents by status. Options are active, inactive, and quiesced.

type("*type*")

(Optional) Lists agents by type. Options are the following:

- appserv—Application Services
- db—Database
- informatica—Informatica
- microfocus—Micro Focus
- mssqlserver—Microsoft SQL Server
- oracle—Oracle E-Business Suite
- os400— i5/OS
- peoplesoft—PeopleSoft
- remoteexecution—Remote Execution
- sapr3—SAP-R/3
- tandem—Tandem (virtual)
- unix—UNIX
- virtual—Virtual
- vms—Open-VMS (virtual)
- winnt—Windows
- ws—Web Services
- zos—z/OS

verbose(true|false)

(Optional) Indicates whether to display detailed status information. Options are the following:

true

Displays detailed status information

false

Does not display detailed status information

Default: verbose(false)

Examples: Display Status Information for Agents

- The following example displays the status of an agent:

```
listagent agent("agent")
AGENT
Status: Inactive
```

- The following example displays detailed status information for an agent:

```
listagent agent("agent") verbose(true)
AGENT
Status: Inactive
Quiesced: No
Address: EManero1
Port: 7520
Type: Windows-NT/2000
Version: Release 7
Operating System: Windows
Character Code: ASCII
SNMP Enabled: No
Heartbeat Frequency: 2
Strong Encryption Enabled: No
```

- The following example displays detailed status information for all the agents:

```
listagent agent("*") verbose(true)
WFOX24
Status: Active
Quiesced: No
Address: chiki03-test
Port: 8484
Type: Windows
Version: Release 11.3
Operating System: Windows
Character Code: ASCII
SNMP Enabled: No
Heartbeat Frequency: 5
Encryption Method: DES
```

```
WFOX25
Status: Active
Quiesced: No
Address: wade01
Port: 8484
Type: Windows
Version: Release 11.3
Operating System: Windows
Character Code: ASCII
SNMP Enabled: No
Heartbeat Frequency: 5
Encryption Method: DES

SFOX24G
Status: Inactive
Quiesced: No
Address: HOSTNAME
Port: 7520
Type: Windows-NT/2000
Version: Release 11.3
Operating System: Windows
Character Code: ASCII
SNMP Enabled: No
Heartbeat Frequency: 5
Encryption Method: DES
```

Retrieve and Authenticate Users of an LDAP Group

By default, the CA Workload Automation DE server does not retrieve and authenticate users of an LDAP group. To retrieve and authenticate users of an LDAP group, configure the CA Workload Automation DE server.

Important! To use this feature, update your CA Workload Automation DE server with the patch RO67825 or higher.

Follow these steps:

1. Open the following file in a text editor:
   - On Windows:

     `install_dir\conf\server.properties`
   - On UNIX:

     `install_dir/conf/server.properties`

   install_dir

   Specifies the server installation directory.
2. Set the following parameter:

   `ldap.pullUsersFromSubdirectories=true`

   Note: If the parameter is set to false, users from subdirectories of the configured LDAP directory are not retrieved.
3. (Optional) Set the following parameter:

   `ldap.propertyNameForLogin=property_name`

   property_name

   Specifies the LDAP user property that contains the username.

   Default: cn (MS Active Directory and Novell eDirectory); uid (Sun One Directory Server)

   Example: sAMAccountName
4. Add the following filter parameters:

   `LDAP_GETUSERS_FILTER=(&(|(|(|(objectClass=person)(objectClass=organizationalPerson))(objectClass=inetOrgPerson))(objectClass=user))(memberOf=LDAP_group))`

   `LDAP_USERLOGIN_FILTER=(&(&(|(|(|(objectClass=person)(objectClass=organizationalPerson))(objectClass=inetOrgPerson))(objectClass=user))(memberOf=LDAP_group))(__ldapLoginNameProp__=__user__))`

   memberOf=*LDAP_group*

   Specifies the path for the LDAP group that the users are retrieved from and authenticated.

Example: CN=Team-ITC-Women-Forum,OU=Groups,OU=ITC Hyderabad,DC=ca,DC=com

Note: To retrieve and authenticate users of an LDAP group, the LDAP user that is specified in the LDAP configuration must have access to the memberOf property of the LDAP server. You can specify multiple LDAP groups using multiple memberOf properties. You can filter the users that are retrieved and authenticated from the LDAP group using criteria that is based on the cn value.

__ldapLoginNameProp__=__user__

Specifies the login name of an LDAP user that is configured in the LDAP server.

Note: Do not modify the __ldapLoginNameProp__ property. When a user tries to log in, the CA Workload Automation DE server substitutes __user__ with the login name of the user during authentication.

5. Save and close the file.
6. Restart the server.

   CA Workload Automation DE retrieves and authenticates users of the specified LDAP group.

Example: Retrieve and Authenticate Users of an LDAP Group

The following example retrieves and authenticates users of the LDAP group 'CN=Team-ITC-Women-Forum,OU=Groups,OU=ITC Hyderabad,DC=ca,DC=com' in MS Active directory:

```
LDAP_GETUSERS_FILTER=(&(|(|(|(objectClass=person)(objectClass=organizationalPerso
n))(objectClass=inetOrgPerson))(objectClass=user))(memberOf=CN=Team-ITC-Women-For
um,OU=Groups,OU=ITC Hyderabad,DC=ca,DC=com))
```

```
LDAP_USERLOGIN_FILTER=(&(&(|(|(|(objectClass=person)(objectClass=organizationalPe
rson))(objectClass=inetOrgPerson))(objectClass=user))(memberOf=CN=Team-ITC-Women-
Forum,OU=Groups,OU=ITC Hyderabad,DC=ca,DC=com))(__ldapLoginNameProp__=__user__))
```

Example: Retrieve and Authenticate Users of Multiple LDAP Groups

The following example retrieves and authenticates users of two LDAP groups in MS Active directory:

- CN=Team-ITC-Women-Forum,OU=Groups,OU=ITC Hyderabad,DC=ca,DC=com
- CN=Team-ITC-Women-Forumextteam,OU=Groups,OU=ITC Hyderabad,DC=ca,DC=com

```
LDAP_GETUSERS_FILTER=(&(|(|(|(objectClass=person)(objectClass=organizationalPerso
n))(objectClass=inetOrgPerson))(objectClass=user))(|(memberOf=CN=Team-ITC-Women-F
orum,OU=Groups,OU=ITC
Hyderabad,DC=ca,DC=com)(memberOf=CN=Team-ITC-Women-Forumextteam,OU=Groups,OU=ITC
Hyderabad,DC=ca,DC=com)))
```

```
LDAP_USERLOGIN_FILTER=(&(&(|(|(|(objectClass=person)(objectClass=organizationalPe
rson))(objectClass=inetOrgPerson))(objectClass=user))(|(memberOf=CN=Team-ITC-Wome
n-Forum,OU=Groups,OU=ITC
Hyderabad,DC=ca,DC=com)(memberOf=CN=Team-ITC-Women-Forumextteam,OU=Groups,OU=ITC
Hyderabad,DC=ca,DC=com)))(__ldapLoginNameProp__=__user__))
```

Example: Retrieve and Authenticate Users Whose cn Value Starts with p

The following example retrieves and authenticates users whose cn value starts with p from the LDAP group 'CN=Team-ITC-Women-Forum,OU=Groups,OU=ITC Hyderabad,DC=ca,DC=com' in the MS Active directory server:

```
LDAP_GETUSERS_FILTER=(&(&(|(|(|(objectClass=person)(objectClass=organizationalPer
son))(objectClass=inetOrgPerson))(objectClass=user))(memberOf=CN=Team-ITC-Women-F
orum,OU=Groups,OU=ITC Hyderabad,DC=ca,DC=com))(cn=p*))
```

```
LDAP_USERLOGIN_FILTER=(&(&(&(|(|(|(objectClass=person)(objectClass=organizational
Person))(objectClass=inetOrgPerson))(objectClass=user))(memberOf=CN=Team-ITC-Wome
n-Forum,OU=Groups,OU=ITC
Hyderabad,DC=ca,DC=com))(cn=p*))(__ldapLoginNameProp__=__user__))
```

Appendix A: Acknowledgements

This appendix contains copyright and license agreement information from third-party software used in CA Workload Automation DE.

This section contains the following topics:

HP-UX JRE 1.6 (see page 91)
HP-UX JRE v1.7 (see page 91)
JRE v.1.7 (see page 91)
JRE v.1.6 (see page 92)

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