

# **CA Workload Control Center**

## **Implementation Guide**

**r11.3**



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## CA Product References

This document references the following CA products:

- CA 11™ Workload Automation Restart and Tracking (CA 11 WA Restart and Tracking)
- CA Embedded Entitlements Manager (CA EEM)
- CA Jobtrac™ Job Management (CA Jobtrac JM)
- CA NSM
- CA Scheduler® Job Management (CA Scheduler JM)
- CA Workload Automation AE
- CA Workload Automation Agent for Application Services (CA WA Agent for Application Services)
- CA Workload Automation Agent for Databases (CA WA Agent for Databases)
- CA Workload Automation Agent for i5/OS (CA WA Agent for i5/OS)
- CA Workload Automation Agent for Linux (CA WA Agent for Linux)
- CA Workload Automation Agent for Micro Focus (CA WA Agent for Micro Focus)
- CA Workload Automation Agent for 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 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 SE
- CA Workload Control Center (CA WCC)

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## Documentation Changes

The following updates have been made since the last release of this guide:

- The Introduction to CA WCC Implementation chapter has been updated and a small-scale deployment example has been added.
- The Installing and Configuring Unicenter AutoSys JM Components chapter has been replaced by the CA Workload Automation AE Concepts chapter. Additionally, topics that support Unicenter AutoSys Job Management 4.5.x and RCS have been removed from the guide.
- The Installing and Configuring Unicenter CA-7 Components chapter has been removed from the guide. Unicenter CA-7/CA Workload Automation SE is not supported with this release.
- The procedures for installing common components have been removed from the guide. The installation procedures can now be found in the *CA Common Components Implementation Guide*, included with the CA Common Components DVD.
- A checklist that describes the installation prompts has been added to the Installing and Configuring the CA WCC Server on Windows and Installing and Configuring the CA WCC Server on UNIX chapters.
- The Installing and Configuring Reporting chapter has been removed from the guide. BusinessObjects Enterprise is not supported with this CA WCC release.
- The Installing and Configuring Event Management chapter has been removed from the guide. The installation procedure for Event Management can be found in the *CA Common Components Implementation Guide*.
- Topics that describe how to forward CA Workload Automation AE messages to Event Management have been moved to the *CA Workload Automation AE Implementation Guide*, included with the CA Workload Automation AE DVD.
- The content of the CA EEM Policy Information appendix has been moved to the new *CA Workload Automation Security Guide*.
- The Web Service Job-Related Information appendix has been removed from the guide. The new Web Service job type is defined in a different way in this release.
- The Default Ports section formerly in the *Readme* has been moved to the CA WCC Default Ports appendix in this guide.



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# Chapter 1: Introduction to CA WCC Implementation

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This guide describes installation and configuration tasks you must perform to enable CA Workload Control Center (CA WCC) to function in your enterprise. It is intended for system administrators.

This guide provides information about the following:

- CA WCC architectural overview and typical deployment scenarios
- Installing and configuring a CA WCC server on Windows
- Installing and configuring a CA WCC server on UNIX

This section contains the following topics:

- [CA WCC](#) (see page 12)  
[Architecture](#) (see page 13)  
[Common Components](#) (see page 14)  
[CA WCC Deployment](#) (see page 16)

## CA WCC

Workload automation requires real-time status information for your enterprise. Status information must be available in summary form, and the detail information supporting the summary must be readily accessible. For example, it is vital to be informed by the system when a job or job stream is delayed. Immediate access to detailed information about the cause of the delay is equally important. Information at the summary and detail levels must be available to Workload Automation operators and supervisors. Increasingly, this same information must be communicated to other stakeholders in your enterprise.

CA WCC provides users in your enterprise with status information at a summary and detail level through the Job Status Views portlet and the Job Status Console, Monitoring, CPM (Critical Path Monitoring), and Event Console applications. From the summary information, users can access applications of CA WCC such as Quick View and Quick Edit in context to get detailed information with which to analyze warnings and failure points and take appropriate corrective action. There are additional applications that enable administrators and other users to perform certain system configuration tasks, including publishing core server configurations to other CA WCC servers, running commands on back-end servers, and changing credentials.

Each CA WCC application is accessed by clicking the appropriate tab on the main page. The features of CA WCC are available to users based on their roles in the enterprise and their associated access rights.

With CA WCC, your enterprise has all the information required to efficiently and effectively perform the workload automation function.

# Architecture

The CA WCC architecture has the following three tiers:

## **Web Client Tier**

From the web client tier, you use the CA WCC user interface to access the primary CA WCC functions.

## **Server Tier**

Most of the work is performed in the server tier. The primary function of the server tier is to provide an interface to the CA WCC application to let you configure and monitor jobs. This level includes the interfaces, servlets, servlet engines, and adapters. Each functional category has its own servlet deployed in a private servlet engine. Each servlet acts as a central point of communication and management between the web application and the back-end management server.

## **Back-end System Tier**

The back-end management server or system tier includes CA Workload Automation instances.

## Common Components

Common components are software components that are used in many CA products, including CA WCC. This topic describes the common components required by CA WCC which you install from the CA Common Components DVD.

### CA EEM

Enables you to secure CA WCC objects. This component is required by CA WCC. If your environment is using CA EEM instead of native security for CA Workload Automation AE, both products should reference the same instance of CA EEM. Additionally, all CA WCC servers in a High Availability group must reference the same instance of CA EEM. We recommend that instance be located on a dedicated server so that policy checks do not degrade your performance on a particular CA Workload Automation AE or CA WCC server. However, if you are using native security for CA Workload Automation AE, are not implementing CA WCC High Availability, and have a limited number of servers available in your environment, CA EEM can be installed on the CA WCC server.

### CA, Inc. Common Communications Interface (CAICCI)

Provides communication to scheduling managers.

This component is not required on the CA WCC server.

### CA Secure Socket Adapter (SSA)

Lets CA components utilize a single communications multiplexing port to ease firewall administration and minimize conflicts with other applications.

This component must be installed on the CA WCC server.

### Event Management

(Optional) Routes job management messages to a consolidated event console. The resulting messages can be viewed through the CA WCC Event Console component.

This component can either be installed on a dedicated server (recommended) or on the CA WCC server.

### Notes:

- If a CA product is already installed in your enterprise, some or all of the common components may also already be installed. To use an existing common component with CA WCC, it must be at the supported version and patch level, if applicable. For information about supported versions, see the *CA WCC Release Notes*. For information about patches, see the *CA WCC Readme*.
- For information about installing common components, see the *CA Common Components Implementation Guide*.

**More information:**

[CA WCC Dependencies](#) (see page 19)

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## CA WCC Deployment

The installation for CA WCC is modular, providing maximum flexibility. The Event Management feature is optional. When planning your workload automation environment, there are multiple factors to consider in determining the appropriate server architecture. The number of servers required depends on which features you want to install, the amount of data you foresee being stored in the applicable databases, and the number of security policies you plan to implement.

If you implement CA WCC with a dedicated server for each component, the following servers are required:

- CA EEM server: This server hosts CA EEM, which provides security through role-based login access to CA WCC applications and objects. If more than one CA product in your environment uses CA EEM for security, we recommend that you use a dedicated server for CA EEM and that all CA products reference the same instance of CA EEM. If an existing instance of CA EEM previously installed by another CA product on a Windows or UNIX server is available, CA WCC can reference that instance.

**Notes:**

- If your environment utilizes CA EEM for CA Workload Automation AE security, all CA Workload Automation AE and CA WCC servers should reference the same instance of CA EEM. Additionally, all members of a CA WCC High Availability group must reference the same instance of CA EEM.
- For information about installing CA EEM, see the *CA Common Components Implementation Guide*.
- CA WCC server: This server hosts CA WCC.
- Event Management server: This server hosts Event Management and the DBMS it requires. Microsoft SQL Server is required as a prerequisite on Windows. PostgreSQL is required on UNIX, and it is installed as part of Event Management.

**Notes:**

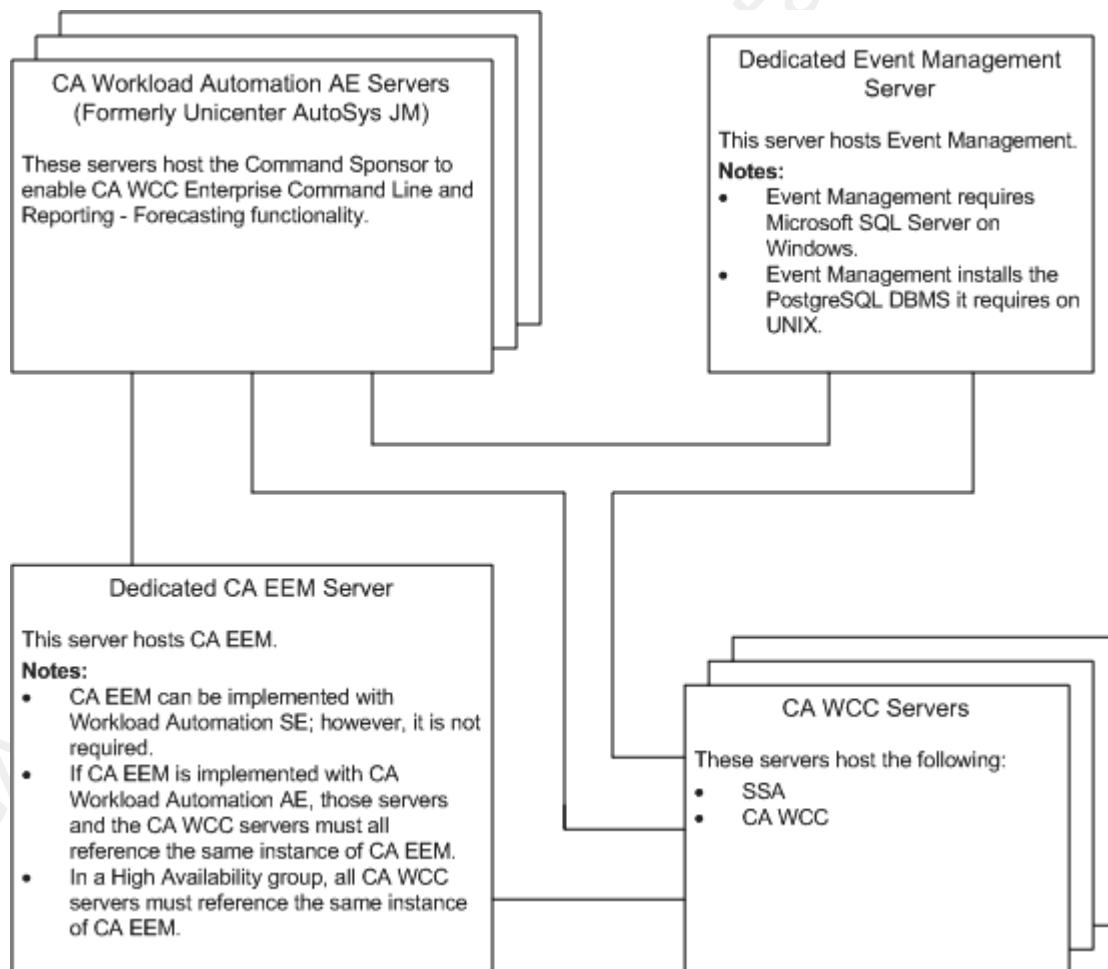
- Alternatively, Event Management can be installed on the CA WCC server. You can install Event Management using the CA Common Components DVD, or use an existing instance of Event Management, such as Unicenter Event Management, previously installed by another CA product on a Windows or UNIX server.
- For information about installing Event Management, see the *CA Common Components Implementation Guide*.
- For information about configuring Event Management for CA Workload Automation AE, see the *CA Workload Automation AE Implementation Guide*.

**More information:**

[CA WCC Dependencies](#) (see page 19)

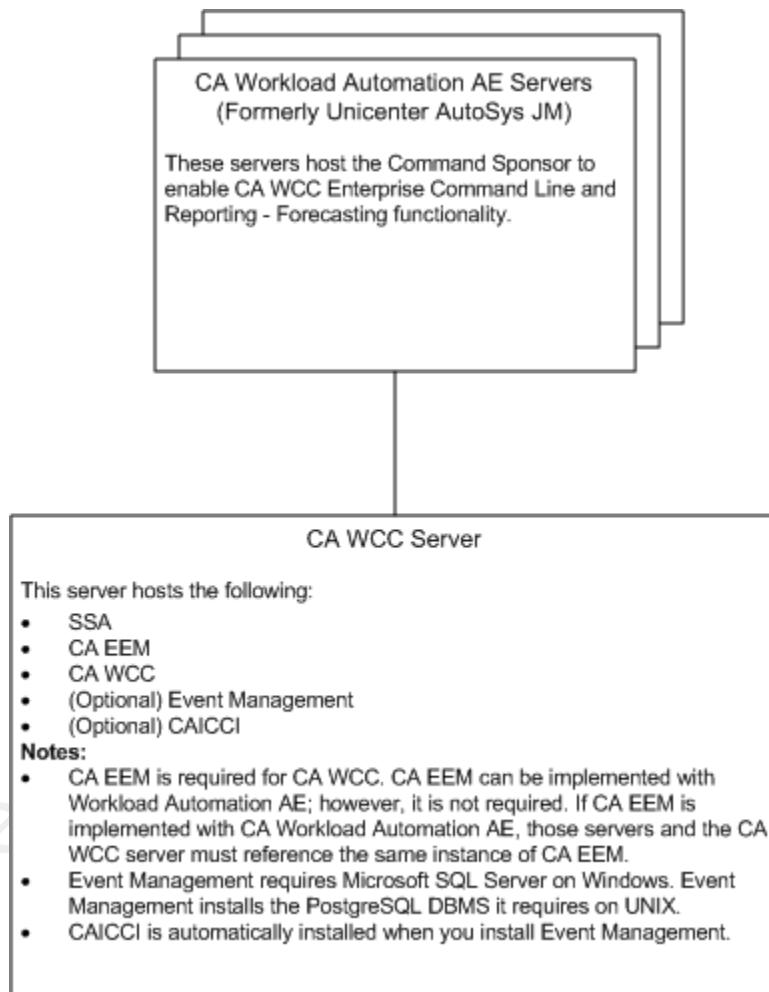
## Deployment Example Using Dedicated Servers

For a large-scale enterprise with multiple scheduling manager servers and extensive workload management requirements, we recommend using dedicated servers for each system component. The following diagram shows the recommended deployment of CA WCC, the common components, and the supported scheduling managers in an environment with four or more servers available:



## Deployment Example Using Two Servers

For a small-scale enterprise with light workload management requirements, deployment can be implemented using two servers for all system components. The following diagram shows the recommended deployment of CA WCC, the common components, and the supported scheduling managers in an environment with only two servers available:



## CA WCC Dependencies

The CA WCC environment has the following dependencies:

- CA WCC must have access to an instance of CA EEM.
- SSA must be installed on the CA WCC server.
- You must install the Command Sponsor on CA Workload Automation AE servers to enable CA WCC Enterprise Command Line and Reports - Forecast functionality. The Command Sponsor is installed using the CA Workload Automation AE DVD.

**More information:**

[Common Components](#) (see page 14)  
[CA WCC Deployment](#) (see page 16)

## High Availability

In an enterprise where CA WCC is heavily used and is running on multiple servers, the High Availability option provides increased reliability through redundant server configuration.

The CA WCC High Availability group consists of a core server and one or more spectator servers. On the core server, you can publish and optionally apply configuration packages of components to the spectator servers, so that all CA WCC servers in the High Availability group run the same configurations. Configuration packages typically include components such as CA WCC server and user definitions, views, and server environment settings. You can also update the components on spectator servers to the versions on the core server, and view the history of configuration package activities.

On each spectator server, you can select which new configuration package to apply if it was not automatically applied by the core server when published, view a list of configuration packages received by the server, and view the history of configuration package activities. You can also roll back and apply an entire previous configuration.

When you plan your CA WCC High Availability installation, designate one server as the core server and the other servers as spectator servers. As you install CA WCC on each server in the group, select the core server option for one server and select the spectator server option for the other servers. After installation, if necessary, a core server can be reconfigured as a spectator server, or a spectator server can be reconfigured as the core server.

You must specify the same CA EEM server for each CA WCC server in the group.

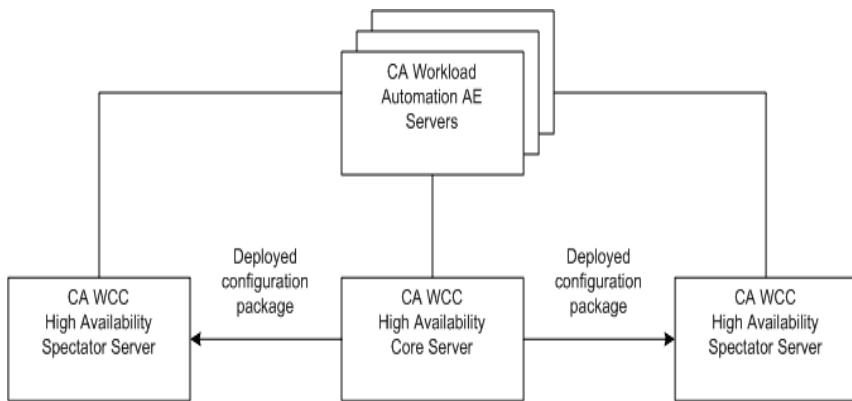
All group members must be on the same class C subnet. After you install CA WCC on the servers, group members use a self-discovery technique to find each other.

**Note:** If you need to synchronize a core server with servers that are not in the same subnet, you can use the Configuration Batch Interface utility to export the necessary configurations from the core server, then import the configurations into another core server in a different subnet. You can then publish the configurations from the second core server to its spectator servers using either the High Availability application or the High Availability Batch Interface utility.

High Availability requires multicast to be enabled. The multicast address range is 224.0.0.0-239.255.255.255 and the port range is 9701-9999. These ports must be opened for High Availability clustering to function.

**Note:** For more information about server configuration, see the *Configuration Manager Help*.

The following diagram shows configuration packages being published from the core server to the spectator servers in a typical High Availability group configuration:



## Installation DVDs

Two DVDs are provided to let you install the CA WCC features that you require:

- CA Common Components—Installs CA EEM, CA Secure Socket Adapter (SSA), and CA Common Services (CAICCI and Event Management).
- CA WCC—Installs the CA WCC application and documentation.

This guide contains installation and configuration procedures for CA WCC.

**Note:** For information about installing common components, see the *CA Common Components Implementation Guide*.

## Required Databases

CA WCC utilizes private databases for Job Status Console Alerts, Monitoring, and Reports.

The Job Status Console Alerts database stores alerts for Job Status Console, a component of CA WCC. The Job Status Console Alerts database is automatically created during the CA WCC installation.

The Monitoring database stores data to calculate and render Monitoring views. By default, a Derby database is selected to be installed for the Monitoring application during the CA WCC installation; however, you can alternatively specify an existing Oracle, MS SQL, MySQL Enterprise, or MySQL Community database.

The Reports database stores data used by the Reports - Forecast application. A Derby database is automatically created during the CA WCC installation.

### Notes:

- Each CA WCC server must have its own Monitoring database. Additionally, in a High Availability group, each core or spectator server must have its own Monitoring database; a Monitoring database cannot be shared among High Availability member servers.
- If you use the MySQL Community database for the Monitoring application, you must download the JDBC driver for the MySQL Community Server from <http://www.mysql.com/downloads/>.
- All CA WCC servers in a High Availability group must use the same Reports database.

# Chapter 2: CA Workload Automation AE Concepts

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This chapter describes CA Workload Automation AE components, and basic CA Workload Automation AE and CA WCC implementation.

This section contains the following topics:

[CA Workload Automation AE Components](#) (see page 23)

[Implementing CA Workload Automation AE and CA WCC](#) (see page 32)

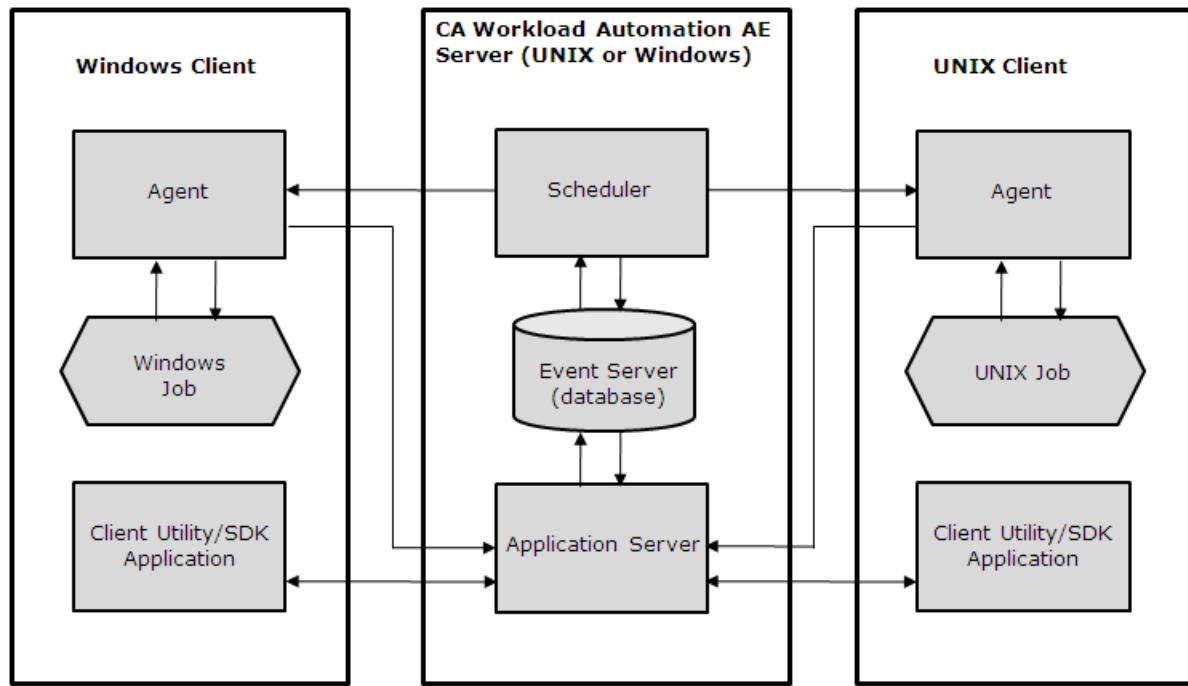
## CA Workload Automation AE Components

The main CA Workload Automation AE components are as follows:

- Event server
- Application server
- Scheduler
- Client
- Agent

CA Workload Automation AE also provides utilities to help you define, run, and maintain instances and jobs. The client utilities enable you to define, manage, monitor, and report on jobs.

The following illustration shows the components in a basic configuration and displays the communication paths between them:



## Event Server

The *event server*, or database, is the data repository for all events and system information. It also serves as a repository for all job, monitor, and report definitions.

Occasionally, the database is called a *data server*, which actually describes a server instance. That is, it is a Windows service or UNIX process and associated data space (or raw disk storage), which can include multiple databases or tablespaces.

You can configure CA Workload Automation AE to run using two databases, or *dual event servers*. This feature provides complete redundancy. Therefore, if you lose one event server, operations can continue on the second event server without loss of information or functionality.

## Events

CA Workload Automation AE is completely event-driven; for the scheduler to activate a job, an event must occur on which the job depends. For example, a job can be activated when a prerequisite job has completed running successfully or a required file has been received.

Events can come from a number of sources, including:

- Jobs changing states, such as starting, finishing successfully, and so on.
- Internal verification agents, such as detected errors.
- Events sent with the sendevent command, from the CA WCC GUI, or from user applications.

As each event is processed, the scheduler scans the database for jobs that are dependent on that event. If the event satisfies another job's starting conditions, that job is either started immediately or queued for the next qualified and available computer. The completion of one job can cause another job to start so that jobs progress in a controlled sequence.

## Alarms

*Alarms* are special events that notify operators of situations requiring their attention. Alarms are integral to the automated use of CA Workload Automation AE. That is, you can schedule jobs to run based on a number of conditions, but some facility is necessary for addressing incidents that require manual intervention. For example, a set of jobs could depend on the arrival of a file, and the file may be long overdue. It is important that someone investigate the situation, make a decision, and resolve the problem.

The following are some important aspects of alarms:

- Alarms are informational only. Any action taken must be initiated by a separate action event.
- Alarms are system messages about a detected incident.
- Alarms are sent through the system as events.
- Alarms have special monitoring features to make sure they are noticed.

## Application Server

The *application server* is the communicator between the CA Workload Automation AE agent or client utilities and the event server. It runs as a Windows service or UNIX process.

After you start the application server, communication between the event server and agent or client utilities begins.

## Scheduler

The *scheduler* is the program, running as a Windows service or UNIX process, that runs CA Workload Automation AE. It processes all the events it reads from the event server.

When you start the scheduler, it continually scans the database for events to process. For example, when the scheduler finds a STARTJOB event, it verifies whether the event satisfies the starting conditions for that job in the database. Based on this information, the scheduler determines the actions to take and instructs the appropriate agent to perform the actions. These actions may include starting or stopping jobs, checking for resources, monitoring existing jobs, or initiating corrective procedures.

You can set up a second scheduler, called the *shadow scheduler*. If the primary scheduler fails for some reason, the shadow scheduler takes over the responsibility of interpreting and processing events.

If you run CA Workload Automation AE with a shadow scheduler and dual event servers, a *tie-breaker scheduler* is required, which is a scheduler process that runs on a third node. The tie-breaker scheduler remains permanently idle and updates the event servers periodically to indicate its presence. The tie-breaker scheduler resolves contentions and eliminates situations in which one scheduler takes over because its own network is down.

## Client

A *client* is any executable that interfaces with the application server. This includes CA Workload Automation AE Command Line Interface (CLI) applications such as Job Information Language (JIL) and autorep. It also includes the CA WCC services, which are clients of the application server and service the CA WCC GUI components, and any user-defined binaries that link to the CA Workload Automation AE SDK.

Client applications work by calling Application Programming Interfaces (APIs) that are available in the application server. A client can run anywhere in the enterprise provided it can reach the computer where the application server is running. It does not require the installation of a database vendor client. Clients are the means by which users control the scheduling environment by creating and monitoring the scheduling resources.

**Note:** For more information about the CA Workload Automation AE SDK APIs, see the *API Reference Guide*.

## Agents and Agent Plug-ins

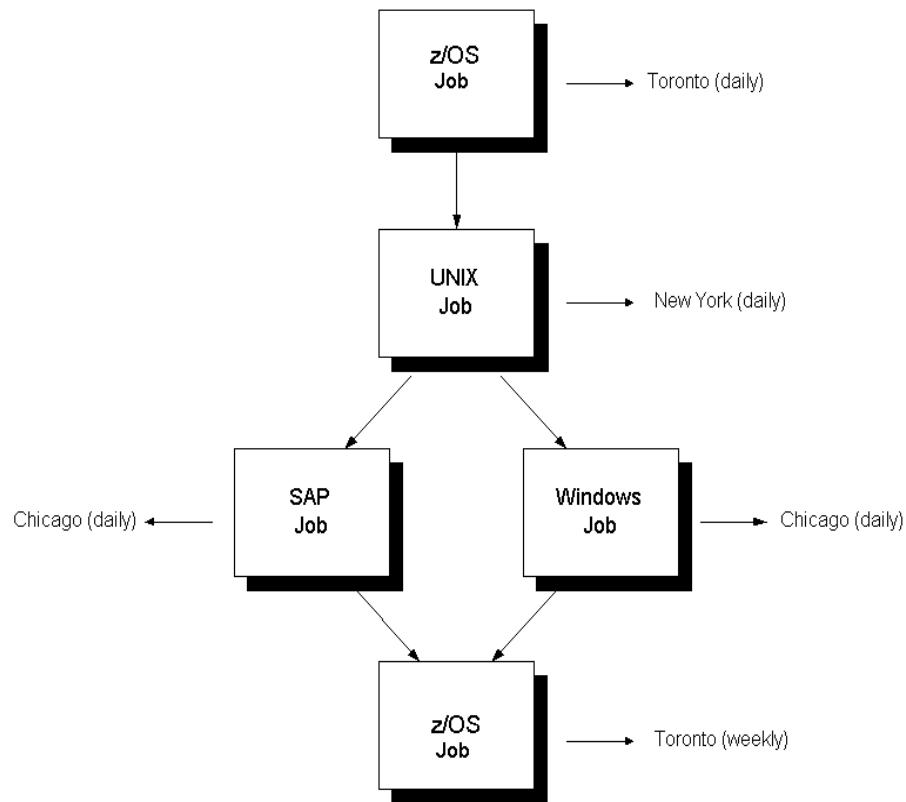
Agents are the key integration components of CA's workload automation products. Agents let you automate, monitor, and manage workload on all major platforms, applications, and databases. To run workload on a particular system, you need to install an agent on that system. For example, if your workload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

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

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

### Example: Run Workload with Different Types of Jobs

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



### Legacy Agent and UUJMA Agent Replaced by CA Workload Automation Agent

The new CA Workload Automation Agent for UNIX, Linux, or Windows replaces the Remote Agent (`auto_remote`) that was provided with Unicenter AutoSys JM r4.5 and r11. The r11.3 documentation refers to `auto_remote` as the *legacy agent*.

The new CA Workload Automation Agent also replaces CA Universal Job Management Agent (formerly named UUJMA) for Windows, UNIX, Linux, and z/Linux.

The new agent provides additional job types, including monitoring and FTP jobs. The agent is automatically installed on the computer where CA Workload Automation AE is installed. You can also install the agent on remote computers to run jobs on those computers.

## Jobs

In the CA Workload Automation AE environment, a job is a single action that can be performed on a valid agent computer. For example, on UNIX, you can run a script, issue a command, transfer files using FTP, and monitor file activity and processes on the agent computer. Similarly, on Windows, you can run an executable or batch file, issue a command, transfer files using FTP, and monitor files or processes. To run a job, you must create a job definition. A job definition includes attributes that define what the job does, when it runs, and where it runs.

## How the System Components Interact

The following steps explain the interactions between the event server, application server, scheduler, and agents:

1. From the event server, the scheduler reads a new event, which is a STARTJOB event with a start time condition that has been met. Then, the scheduler reads the appropriate job definition from the database and, based on that definition, determines what action to take. In the example, it runs the following command on WorkStation\_2:

### Windows

```
del C:\tmp\*.*
```

### UNIX

```
rm /tmp/mystuff/*
```

2. The scheduler communicates with the agent on WorkStation\_2. When the agent receives the instructions from the scheduler, the connection between the two processes is dropped. After the connection is dropped, the job runs to completion, even if the scheduler stops running.
3. The agent performs resource checks, such as ensuring that the minimum specified number of processes is available, and creates a process that actually runs the specified command.
4. The command completes and exits, and the agent captures the command's exit code.
5. The agent reports the status to the scheduler. The scheduler processes the event and updates the event server.
6. The application server updates the event server with the event information.

The scheduler, application server, and event server must be running to make CA Workload Automation AE fully operational. The agent is started on a client computer once per job. When a job ends, the agent sends a completion event to the database through the scheduler, and exits.

**Example: Interaction Between the CA Workload Automation AE System Components**

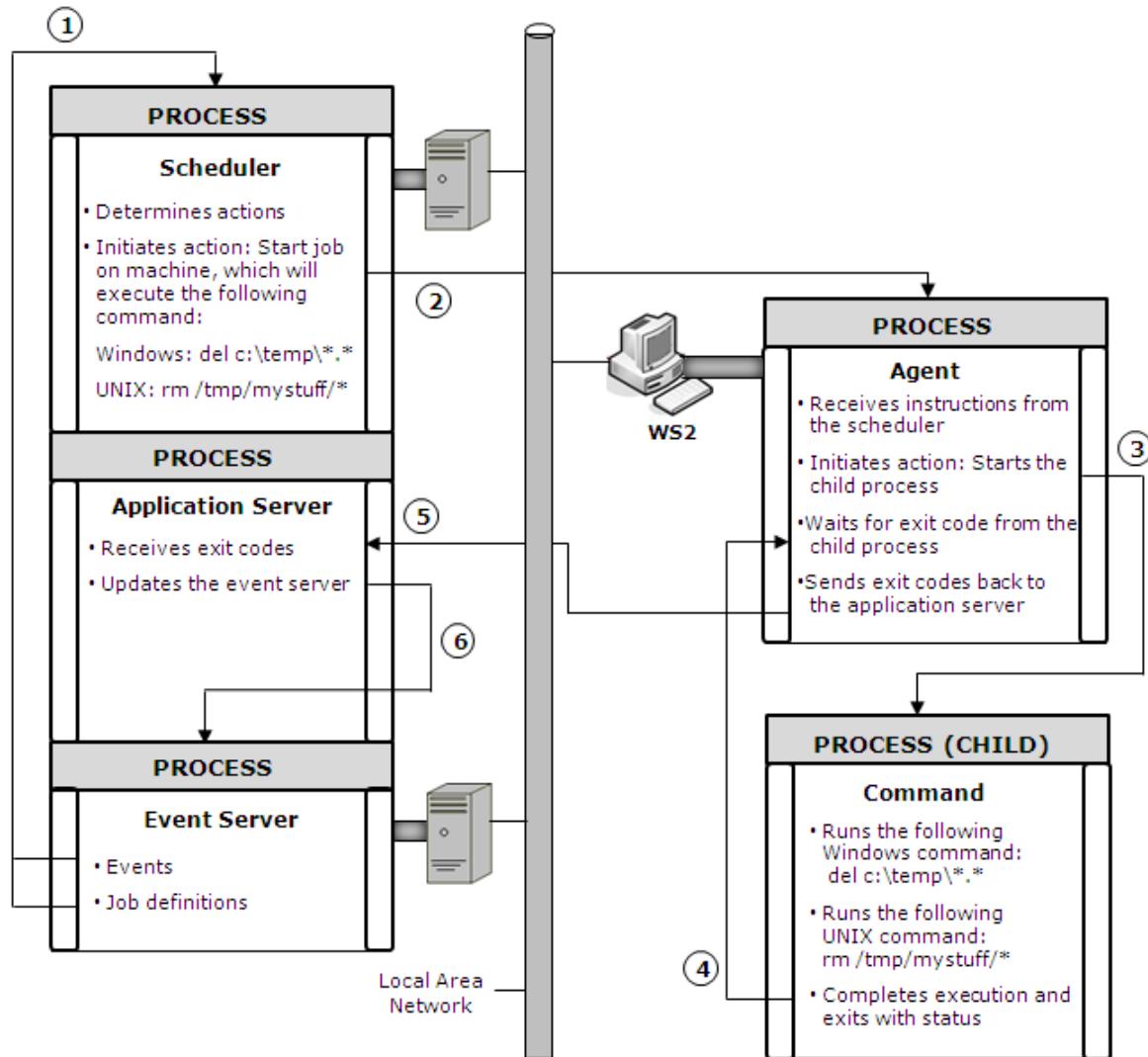
This example illustrates the four primary components running on different computers. At a start date and time specified in the job definition, suppose you run the following Windows command on WorkStation\_2 (WS2):

**Windows**

```
del C:\tmp\*.*
```

**UNIX**

```
rm /tmp/mystuff/*
```



**Note:** The scheduler and the event server typically run on the same computer.

## Implementing CA Workload Automation AE and CA WCC

When you implement CA Workload Automation AE and CA WCC, you should plan to install the components in the following order:

1. CA EEM
2. CA Workload Automation AE product components
3. Command Sponsor
4. CA WCC
5. CA Workload Automation agents
6. Required patches for CA Workload Automation AE, the CA Workload Automation AE agents, and CA WCC

CA EEM is optional for CA Workload Automation AE; however, is required for CA WCC. CA EEM is installed using the CA Common Components DVD, and must be installed and running before you install CA WCC.

The Command Sponsor enables CA WCC Enterprise Command Line and Reports - Forecast functionality, and must be installed on the server on which the CA Workload Automation AE Application Server is installed.

### Notes:

- Remember to install all operating system patches before installing any of the product components.
- For information about installing CA EEM, see the *CA Common Components Implementation Guide*.
- For information about installing CA Workload Automation AE, see the *CA Workload Automation AE Windows Implementation Guide* or the *CA Workload Automation AE UNIX Implementation Guide*.
- For CA patch information, see the *CA Common Components Readme*, the *CA Workload Automation AE Readme*, and the *CA WCC Readme*. The patches are available from the CA Support website, found at <http://ca.com/support>.

# Chapter 3: Installing and Configuring the CA WCC Server on Windows

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This chapter describes the recommended installation protocol, credentials, prerequisites, and post-installation configuration for the CA WCC server.

This section contains the following topics:

[How the CA WCC Server is Installed](#) (see page 33)

[How the CA WCC Server Is Configured](#) (see page 47)

[Uninstall CA WCC on Windows](#) (see page 65)

## How the CA WCC Server is Installed

The CA WCC server is the main server in a typical CA WCC environment. This topic provides an overview of the steps you must perform to complete the installation of the CA WCC server.

To complete the installation of the CA WCC server, follow these steps:

1. Use the CA Common Components DVD to install SSA.

**Notes:**

- CA EEM, also a common component, is required for CA WCC and must be installed before you install CA WCC. CA EEM is optional for CA Workload Automation AE but, if you opt to implement it, we recommend that you install a single instance of it on a dedicated server and reference that instance from both CA WCC and CA Workload Automation AE.
- Event Management, also a common component, is optional for CA WCC. Event Management is typically installed on a dedicated server.
- For information about installing common components, see the *CA Common Components Implementation Guide*.

2. Use the CA WCC DVD to install the base product.
3. Verify the installation by logging in to CA WCC.

## Installation Considerations

This section contains considerations and information requirements for CA WCC server installation.

The CA WCC DVD contains the *Readme* file that lists supported operating systems and patches, and the *Release Notes* document that describes the minimum system requirements. Before you begin the installation, review these documents for additional information.

### General Installation Considerations

Note the following general installation considerations:

- When installing CA WCC on Windows servers that are Terminal Services server machines, you must install and uninstall using the Windows Control Panel Add/Remove Programs feature.
- CA WCC cannot be installed from your Windows Desktop or from a folder with a path length longer than 97 characters. If the media is copied locally before installation, make sure that the destination folder on your hard drive has a path length of 97 characters or fewer.
- CA WCC cannot be installed from a network drive that is not mapped to a letter drive (for example, "X"). To install from a network drive, map the shared network drive (for example, map \\server\drive to X:\) and then install from that drive. Note that using a mapped drive instead of local media will extend the amount of time required for the installation.
- If you plan to install CA WCC with the High Availability option, decide which servers in the group should be the spectator servers, and which server should be the core server before you begin the installation.

**Important!** If you are running performance monitoring, antivirus, or antispyware software, you may experience a problem completing the installation. If you receive a message indicating that a .DLL is in use or that a file is locked, stop the performance monitoring, antivirus, or antispyware software, and select the option to retry the installation.

## Common Components Installation Considerations

The following are important considerations when you install the common components:

- SSA must be installed on the CA WCC server before you install CA WCC.
- If you plan to install CA WCC on a server on which common components are already installed from a source other than the CA Common Components DVD, you must upgrade the common components before you install CA WCC.
- If an existing instance of CA EEM previously installed by another CA product resides on a server other than the CA WCC server, CA WCC can reference that instance.
- If you do not want to reference an existing instance of CA EEM and you have more than one CA product in your environment, we recommend that you install CA EEM on a dedicated server, and that you configure all CA products to reference the same instance of CA EEM.
- Event Management is typically installed on a server other than the CA WCC server after you complete the CA WCC installation.

**Note:** For information about installing common components, see the *CA Common Components Implementation Guide*.

## CA WCC Installation Considerations

The following are important considerations when you install CA WCC:

- An instance of CA EEM must be installed and accessible, otherwise you cannot install CA WCC.
- You can opt to perform an Express or a Custom installation.

An Express or Custom installation lets you do the following:

- Specify the installation directory path. A default path is provided.
- Specify the mode of operation for the CA WCC server (stand-alone, High Availability core, or High Availability spectator).

**Note:** If you are using High Availability, you should determine which server in the group is the core server and which servers are spectator servers before you begin the installation. If you select core or spectator, you will need to specify the High Availability group name and a member name for the server. Default names are provided.

- Select whether to enable Secure Socket Layer (SSL) protocol for additional security.
- Specify the CA EEM server host name and the password for the user EiamAdmin.

### Notes:

- The password for the user EiamAdmin is the same password entered during the installation of CA EEM, a common component.
- When you install CA WCC on the core and spectator servers in a High Availability group, you must specify the same CA EEM instance during each installation to allow High Availability to authenticate and authorize user actions.
- If your environment includes CA Workload Automation AE servers that are registered with CA EEM, you must specify the same CA EEM instance when you install CA WCC to enable pass-through security.

A Custom installation lets you do the following:

- Select installation options. The options include install CA WCC, install documentation and, during a reinstallation, perform CA EEM registration.

**Note:** The perform EEM registration option is only available with a custom installation if this release of CA WCC has been previously installed. This lets you register CA WCC with a different instance of CA EEM if the current instance becomes unavailable.

- Specify the method of referring to the CA WCC server. The options include host name, fully qualified domain name, alias, IPv4 address, and IPv6 address.

**Note:** IPv6 Address appears only if the system is configured to support IPv6.

- Specify stop and HTTP ports for the Tomcat application servers that CA WCC installs, and specify the HTTPS ports for the servers if you are using SSL. Default port values are provided.

**Note:** If a port conflict is detected during a Custom or Express installation, an error message is displayed. You must select a different port before you can continue the installation.

- Specify the database to be used for the Monitoring application. A default database is provided.
- Specify the properties for the Reports database.

#### **More information:**

[Install CA WCC on Windows](#) (see page 43)

### **CA WCC Upgrade Considerations**

You can upgrade CA WCC r11.1 SP1 or r11.1 SP2 to the current release; however, you cannot upgrade CA WCC r11.1 and earlier to the current release.

#### **Notes:**

- Common components already installed on the CA WCC server must be updated to the current release before you upgrade CA WCC.
- The instance of CA EEM referenced by the CA WCC server should be at the latest release, which includes new policies and policy updates for new functionality included in this release of CA WCC.
- For information about installing and upgrading common components, see the *CA Common Components Implementation Guide*.
- For information about new features and changes to existing features of CA WCC, see the *CA WCC Release Notes*.

## Installation Checklist for CA WCC

This checklist describes the prompts that appear during the interview phase of the CA WCC installation. Default values are provided for many fields that require text or numeric input. Unless your environment has specific requirements, we recommend that you accept the default values.

You can install CA WCC using either of the following setup types:

- Express—Requires minimal user input. This mode is suitable for most installations.
- Custom—Lets you select installation options and specify values, such as ports. This mode is suitable for advanced users.

### Notes:

- CA WCC requires access to CA EEM, the CA application that provides role-based authorization to CA WCC applications and objects in the CA WCC environment. During the installation, an attempt is made to verify the connection with CA EEM using the information you provide. If the connection is valid, registration with CA EEM will occur. If the connection is not valid, you cannot continue with the installation.
- If you need to register CA WCC with a different instance of CA EEM after you successfully install CA WCC, you can run the reinstallation process, select the Custom setup type, and select Perform EEM Registration only.

Information Requested	Installation Type	Your Selection or Value
<b>Choose Installation Folder</b>  The fully-qualified directory name to which you are installing CA WCC. The default on Windows is C:\Program Files\CA\Workload Control Center. The default on UNIX is C:/Program Files/CA/Workload Control Center.	Express or Custom	
<b>Express or Custom Install</b>  The type of installation to perform: <ul style="list-style-type: none"><li>■ Express—Uses default selections and values for most installation properties and requires minimal user input.</li><li>■ Custom—Presents default selections and values for all installation properties, but lets you modify any selection or value.</li></ul>	Express or Custom	

<b>Information Requested</b>	<b>Installation Type</b>	<b>Your Selection or Value</b>
<b>Features</b>	Custom	
The features you want to install:		
<ul style="list-style-type: none"> <li>■ CA Workload Control Center</li> <li>■ Documentation</li> </ul>		
<b>CA Workload Control Center Instance Name</b>	Express or Custom	
The name of the CA WCC instance. This name appears in the title bar of your browser when you are logged into CA WCC.		
<b>Note:</b> The default instance name is the name of the server.		
<b>Host Specifier</b>	Custom	
The method clients use to access the CA WCC server:		
<ul style="list-style-type: none"> <li>■ Host Name</li> <li>■ Fully Qualified Domain Name</li> <li>■ Alias Host Name (must be set up prior to installing CA WCC)</li> <li>■ IPv4 Address</li> <li>■ IPv6 Address</li> </ul>		
<b>Note:</b> IPv6 Address appears only if the system is configured to support IPv6.		
<b>Verify [Host Specifier Selection]</b>	Custom	
The name in this field is returned by the system if you select Fully Qualified Domain Name or Alias Host Name in the Host Specifier panel. You can edit the name or address if it is incorrect.		
<b>Note:</b> The following values are not permitted:		
<ul style="list-style-type: none"> <li>■ localhost</li> <li>■ 127.0.0.1</li> <li>■ ::1</li> <li>■ 0:0:0:0:0:0:0:1</li> </ul>		

Information Requested	Installation Type	Your Selection or Value
<b>High Availability</b>	Express or Custom	
The CA WCC server mode of operation:		
<ul style="list-style-type: none"><li>■ Standalone—A CA WCC server that is not in a High Availability group.</li><li>■ Core—The CA WCC server in a High Availability group that can publish its configurations to the spectator servers so that all servers in the group run with the same configurations. There is typically only one core server in the group.</li><li>■ Spectator—A CA WCC server in a High Availability group that can receive its configurations from the core server so that it can run with the same configurations. There can be one or more spectator server in the group.</li></ul>		
<b>High Availability Member and Group</b>	Express or Custom	
<b>Note:</b> This panel appears only if you selected Core or Spectator in the High Availability panel.		
The High Availability names:		
Group name—The name of the High Availability group.		
Member name—The name of the server in the High Availability group.		
<b>Note:</b> The default member name is the name of the server.		
<b>UNIX Run As User</b>	Express or Custom	
(UNIX only) An existing non-root user ID. This user ID will be used when starting most of the CA WCC servers, and will be set as the owner of the file structure installed by CA WCC.		
<b>SSL or Non-SSL</b>	Express or Custom	
Whether to enable Secure Socket Layer (SSL) protocol. SSL protocol provides increased data security and integrity over a TCP/IP network.		

<b>Information Requested</b>	<b>Installation Type</b>	<b>Your Selection or Value</b>
<b>Server Ports, More Server Ports</b>	Custom	
<p>The <a href="#">port numbers</a> (see page 119) for the Stop, HTTP, and HTTPS ports for the CA WCC servers.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>■ Default port numbers are provided. If the default value for a port is already assigned another function in your environment, you will be prompted to specify a different port value during either an express or custom installation.</li> <li>■ The Job Status Console Server requires only a Stop port specification. A default port number is provided.</li> <li>■ HTTPS port numbers are required only if you have selected the Enable SSL option.</li> <li>■ Port numbers 1000 and lower are reserved for system services.</li> </ul>		
<b>Monitoring Cache Database</b>	Custom	
<p>The database to use with the Monitoring application:</p> <ul style="list-style-type: none"> <li>■ Derby</li> <li>■ Oracle</li> <li>■ MS SQL</li> <li>■ MySQL Enterprise</li> <li>■ MySQL Community</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>■ By default, the Derby database will be installed. Alternatively, you can select a different existing database for use by the Monitoring application.</li> <li>■ If you use the MySQL Community database for the Monitoring application, you must download the JDBC driver for the MySQL Community Server from <a href="http://www.mysql.com/downloads/">http://www.mysql.com/downloads/</a>.</li> <li>■ Each CA WCC server must have its own Monitoring database. Additionally, servers in a High Availability group cannot share a Monitoring database.</li> </ul>		

Information Requested	Installation Type	Your Selection or Value
<b>Monitoring Cache Database Specifics</b> The properties of the Monitoring database you have selected: <ul style="list-style-type: none"><li>■ Host name</li><li>■ Database name</li><li>■ Port number</li><li>■ User name</li><li>■ Password</li></ul>	Custom	
<b>Reports Database Specifics</b> The properties of the Reports database: <ul style="list-style-type: none"><li>■ Host name</li><li>■ Database name</li><li>■ Port number</li><li>■ User name</li><li>■ Password</li></ul>	Custom	
<b>EEM Server</b> The name of the server that hosts CA EEM. The default is the local host.  The password for the EiamAdmin user.  <b>Note:</b> If a matching version of the CA Workload Control Center security policies already exists on the CA EEM instance that you specify, a dialog appears that lets you select whether to keep the existing policies or select a different CA EEM server.	Express or Custom	

This completes the information requested during the installation of CA WCC.

## Installation on Windows

The CA WCC server hosts the main CA WCC application and the required common components.

## Install CA WCC on Windows

This procedure describes how to install the main CA WCC application on the CA WCC server.

**Important!** Common component SSA must be installed on the CA WCC server before you install CA WCC.

### Notes:

- CA EEM must be running when you install CA WCC so that registration can occur; otherwise, you cannot install CA WCC.
- Before you begin the installation, stop performance-monitoring, antivirus, and antispyware software.

### To install CA WCC on Windows

1. Log in with an ID that belongs to the Administrator group.
2. Insert the CA WCC media into the DVD drive of the computer.  
The Product Explorer appears.
3. Select Install CA Workload Control Center and click Install.  
The Welcome page appears in a separate window. This window is used for the remainder of the installation wizard.
4. Click Next.  
The License Agreement page appears.
5. Read the license text. When you have scrolled to the bottom of the license text, the I accept the terms of the license agreement option will become available. If you agree with the license agreement, select that option and click Next.  
**Note:** If you do not accept the license agreement, you cannot continue with the installation. You must accept the license agreement or click Cancel.  
The next wizard page appears.
6. Specify the installation directory path or accept the default path and click Next.  
The next wizard page appears.
7. Select the appropriate installation type and click Next.  
The installation type options are:
  - Express
  - CustomThe next wizard page appears.

8. Continue with the installation. As you proceed through the wizard, select the appropriate server type and, if you select Core or Spectator, enter a High Availability group name and optionally enter a member name. (The default is the server name.)

The server types are:

- Standalone (without High Availability)
- Core (with High Availability)
- Spectator (with High Availability)

**Note:** Only one server in the High Availability group can be a core server.

9. Continue with the installation by entering the required information in each wizard page and clicking Next. Default values are provided for options that require a value.
10. Click Next after you complete the last data entry page of the wizard.

The summary information page appears, listing the components you have selected to install.

11. Review the summary information page, and if it is correct, click Install.

**Note:** To make a change to an entry, click Back as many times as necessary to locate that entry. Then, make the appropriate change, click Next until the pre-installation summary appears again, and click Install.

The installation process begins, and the progress is displayed. When the installation completes, you are prompted to restart the computer (recommended).

12. Do one of the following:

- Select Yes, restart my computer.
- Select No, I will restart my computer at a later time.

**Note:** You must restart the computer before you begin using CA WCC.

13. Click Finish.

The CA WCC installation is complete, and the computer restarts if you have selected the option to do so.

**Note:** Installation log files are in the following location:

*WCC\_installation\_root\Logs\install*

**More information:**

[CA WCC Installation Considerations](#) (see page 36)

## Verify the Installation with Secure Socket Layer Enabled

After you install CA WCC, you can test the installation by starting a CA WCC session. You should use this login URL if you selected the Enable SSL option during the installation of CA WCC.

### To log in to CA WCC (with SSL)

1. Open a browser window and navigate to the URL for CA WCC. Typically, this is `https://host_name:8443/wcc`, where `host_name` is the host name for the CA WCC server.

The login page appears.

2. Enter the appropriate credentials and click Log In.

The Workload Control Center opens to the default page for your user ID, displaying the tabs and applications of CA WCC that you are authorized to access.

## Verify the Installation with Secure Socket Layer Disabled

After you install CA WCC, you can test the installation by starting a CA WCC session. You should use this login URL if you selected the Do not enable SSL option during the installation of CA WCC.

### To log in to CA WCC (non-SSL)

1. Open a browser window and navigate to the URL for CA WCC. Typically, this is `http://host_name:8080/wcc`, where `host_name` is the host name for the CA WCC server.

The login page appears.

2. Enter the appropriate credentials, select Main, and click Log In.

The Workload Control Center opens to the default page for your user ID, displaying the tabs and applications of CA WCC that you are authorized to access.

## Run the CA WCC Version Utility

You can use the uejmver.bat file, located in the root installation directory of the CA WCC server, to return the version information for the CA WCC instance.

### To run the CA WCC version utility

1. Open a command prompt.
2. Navigate to the CA WCC installation directory. By default, this is c:\Program Files\CA\Workload Control Center.
3. Do one of the following:
  - For Windows, type uejmver and press Enter.
  - For UNIX, type ./uejmver.sh and press Enter.

The version, service pack, and build number are displayed.

## How the CA WCC Server Is Configured

When the installation process is complete, you must prepare CA WCC for use. This topic provides an overview of the steps you must perform to complete the configuration of CA WCC. This process must be followed to enable successful configuration.

To complete the configuration of CA WCC, follow these steps:

1. Add users to CA WCC through the CA EEM interface. You can add users by referencing an Active Directory as the source.
2. Customize your CA EEM policies as necessary to assign the appropriate user access rights.
3. [Configure JAWS \(Critical Path Monitoring\) to complete your JAWS integration](#) (see page 55).
4. [Click CONFIG to access the Configuration Manager and do the following](#) (see page 105):
  - a. Create CA WCC server definitions for each back-end server you want CA WCC to access, assigning the appropriate parameter values for the properties of that server.

**Notes:**

- CA Workload Automation AE, Event Console, and JAWS servers have different parameters. The Server Name parameter is available for all server types, but the name you use must be unique for each server. The same CA EEM server name defined in the External User Domains field on the Administration tab in JAWS must be used in the CA WCC definition for the JAWS server.
  - Each CA Workload Automation AE server definition must specify a user ID and password for the monitor user. A monitor user gathers job data from the CA Workload Automation AE instance on behalf of all CA WCC users.
- b. Edit the configuration preferences for the various CA WCC applications in Configuration Manager as appropriate.
  - c. Deploy your changes.

- d. Restart the necessary services.

**Note:** When a CA WCC service stops and restarts while users are logged in, the user sessions are broken. To continue to use CA WCC, users must log out, then log back in to CA WCC.

**Note:** You can also use the Configuration Batch Interface to perform many of the Configuration Manager functions.

5. (Optional) [Add credentials for the appropriate back-end servers using the conversion utility, the Credentials application, or both as appropriate](#) (see page 58).

**Note:** If you want to define a global user for enterprise-wide access to a CA Workload Automation AE instance, enter “\_GLOBAL\_: username” in the Credentials application and assign that user a password.

6. (Optional) [Customize session time-out values for your various servers to maximize session security](#) (see page 61).

7. (Optional) [Increase the initial and maximum heap sizes on your client computers, if necessary](#) (see page 62).

8. (Optional) Set up event management if applicable. For more information, see the *CA Workload Automation AE Implementation Guide*.

**More information:**

[Batch Interface Utilities](#) (see page 63)

## Configuring CA WCC to Work with CA EEM

CA EEM is used for security. The three key objects of CA EEM are identities (users and user groups), resource classes, and policies. CA EEM is used to secure CA WCC objects, providing the following capabilities:

### Authentication

CA EEM authenticates the user. The authenticated user can then be used in subsequent authorization processing.

### Authorization

CA EEM provides access to a user for a particular resource. A resource can be any logical or physical entity. In CA WCC, the typical resource is a user interface component (for example, tab, command, drop-down list, and so on). Authorization is controlled by a set of policies associated with a resource class. These policies are the primary way to integrate CA EEM with CA WCC.

## Users

The following CA EEM users are created by default during the CA WCC installation:

### EJMADMIN

Provides system configuration access for CA WCC. Typically, these users are system administrators or security administrators:

**User name:** ejmadmin

**Password:** ejmadmin

### EJMEXEC

Provides access to summary information on job status for CA WCC. Typically, these users are executives and managers from other disciplines:

**User name:** ejmexec

**Password:** ejmexec

### EJMOPERATOR

Provides a basic level of access for CA WCC. Typically, these users are console operators:

**User name:** ejmoperator

**Password:** ejmoperator

### EJMSCHEDULER

Provides a level of access that includes the ability to create and modify jobs and job objects. Typically, these users are both schedulers and job and jobset administrators:

**User name:** ejmscheduler

**Password:** ejmscheduler

### EJMSUPERVISOR

Provides a higher level of access. Typically, these users are scheduling or monitoring supervisors:

**User name:** ejmsupervisor

**Password:** ejmsupervisor

### EJMCOMMANDER

Provides the highest level of access. These users have access to all in CA WCC features. Typically, these users are system administrators, scheduling monitors, or job and jobset administrators:

**User name:** ejmcommander

**Password:** ejmcommander

These users are set up in CA EEM. Each of these users has a default display in CA WCC, letting them access the applications to which they have rights.

Typically, you would use either the system administrator (ejmadmin) or the superuser (ejmcommander) to perform system configuration.

**More information:**

[Configure CA EEM to Reference Active Directory Global Users \(see page 53\)](#)

## User Groups

The CA EEM installation creates default users using the policies defined in CA WCC. Although CA EEM can provide access authentication that is set up for individuals, the best practice for policy creation is to assign groups to policies and include individual users in those groups, instead of assigning individual users directly to the policies. This enables you to maintain stable policies even when individuals' access rights change.

You can assign any of the following types of groups:

### **Global Group**

Includes users across all applications in the current CA EEM instance.

### **Application Group**

Includes users in the currently selected application only. For example, you can create an application group based on a specific business function, such as Payroll. The users will be included in the group only if they are part of this function.

### **Dynamic Groups**

Includes users based on their characteristics. For example, you can create a dynamic group based on parameters such as office, city, and title. The users will be automatically included in the group only if they meet the parameters set.

**Note:** For more information, see the CA Embedded Entitlements Manager documentation.

## User Roles

A number of preconfigured user roles provided with CA WCC are used in the default CA EEM policy definitions. These roles are defined as follows:

### **Console Operator**

The *console operator* is responsible for monitoring job streams, correcting minor errors that are resolved through forcing job status or through one time overrides of data. The console operator also reports significant application errors to other operators and to the application owners. To complete these tasks, console operators use Job Status Console to monitor the jobs for which they are responsible and, optionally, may use Monitoring to track job status. They may also use the CPM (Critical Path Monitoring) application to ensure that job streams are running on time, the Event Console to view events related to the jobs for which they are responsible, and Quick View to view the detailed properties for a particular job in the flow.

### **Scheduler**

The *scheduler* is responsible for the creation and maintenance of the job definitions. The schedulers use Quick Edit and Application Editor to create, modify, and delete jobs, calendars, and other job-related information such as constraints. Schedulers may also monitor job streams to make sure that they are running properly. Schedulers receive reports about problems with jobs that have already run, and they might need to look at historical information to analyze and correct a job stream.

### **Supervisor**

The *supervisor* role performs all the tasks of a scheduler, and an additional level of tasks to help oversee and assist all the schedulers. The supervisor may also perform other tasks such as defining job streams, monitoring views, and job status views.

### **System Administrator**

The *system administrator* is responsible for configuring and maintaining the CA WCC environment. This includes defining the scheduling manager servers and event servers, configuring software-specific properties, and defining host connection links for mainframe systems. System administrators may also be responsible for security, and for creating users and user groups assigned to specific roles.

## Executive

The *executive*, or *manager*, has a very different set of needs compared to the other roles. The executive's tasks include monitoring, at the highest level, the overall status of the scheduling managers operating in their area. They generate and view reports, but do not build their own views. The executive uses the Job Status Views application to track the status of their views. The executive may also use the CPM (Critical Path Monitoring) application in conjunction with their job status views.

## Security Administrator

The *security administrator* is responsible for configuring and maintaining security, and creating users and user groups assigned to specific roles. The security administrator also creates and maintains policies for CA EEM.

## Commander

The *commander* is a superuser created as a convenience, and is a member of all the application groups.

The following table summarizes the functionalities that are available to the various user roles:

Role	Task	Data Item	Application Group	Default User
Console Operator	Monitor, report	Job Stream, View, Definition	Console Operator	ejmoperator
Supervisor	Define, monitor, report, react, correct	Job Stream, View, Definition, Criteria, Capacity, Monitors	Supervisor	ejmsupervisor
Scheduler	Define, analyze, update	Jobs, Schedules, JCL, Applications, Software, Constraints	Scheduler	ejmscheduler
System Administrator	Configure	Servers, Users	Administrator	ejmadmin
Executive	Plan, monitor, report, supervise	Users, Systems, Data-Center	Executive	ejmexec
Security Administrator	Security	Servers, Users, Objects	Security Administrator	ejmadmin and ejmcommander
Commander	Superuser	All	Commander	ejmcommander

## Configure CA EEM to Reference Active Directory Global Users

Configuring CA EEM to reference the Active Directory global users enables the applications using CA EEM, such as CA Workload Automation AE and CA WCC, to share the user information from the Active Directory.

**Note:** You may want to configure filters so that users do not access all entries in the global Active Directory.

### To configure CA EEM to reference the Active Directory global users

1. Access the CA EEM Home page.
2. Click the Configure tab.

The Configure page opens.
3. Click the EEM Server link.

The EEM Server page appears.
4. Click Global Users/Global Groups.

The EEM Server Configuration page appears in the right pane.
5. Select the Reference from an external directory option.

Additional fields relating to the external directory appear.
6. Leave the default directory server type as Microsoft Active Directory, and complete the following fields:
  - a. Enter the host computer on which Active Directory is running.
  - b. Enter the port for eiamAdmin. The default is 389.

**Note:** Enter the port only if the Active Directory Server administrator has reconfigured the default Active Directory port.
  - c. Enter the Base DN. The value specified here must be similar to the base DN value that is specified in the Active Directory server.
  - d. Enter the User DN that is used to attach to the eiamAdmin server.
  - e. Enter the required value in the Password field.
  - f. Re-enter the value in the Confirm Password field.
  - g. Enter the values in the remaining fields based on the enterprise configuration.
7. Click Save.

The values you have specified are saved, and CA EEM is configured to the Active Directory.

## CA WCC Resource Classes

A resource is a logical or physical entity whose access is controlled by CA EEM. You define groups of resources, called resource classes, to identify resources of similar types. A resource class contains the following information:

- Name
- Actions (List)
- Named Attributes (List)

Eleven resource classes are available for the CA WCC application. The classes can be categorized into the following types:

### Access Resource Classes

The ApplicationAccess and ServerAccess classes control access to applications and servers respectively. The ConfigurationControl class lets you configure additional levels of access to certain application features, such as those in Credentials and High Availability.

### Action or Log Resource Classes

The JobActionAutoSys, AlertAction, LogAction, CommandSetup, and CommandExecute classes control access to job actions, alert actions, job and scheduler logs, and Enterprise Command Line commands respectively.

### Object Access Resource Classes

The MonitorViewControl, ObjectAccess, and ObjectControl classes are used to control specific types of access to a variety of objects that are displayed and maintained by CA WCC. Each of the actions that can be performed on these objects is enumerated in the resource actions. The name of the object is specified for the resource name. There are typically attributes specified for server type and server name. These resource classes are only implemented in server-side code.

## CA EEM Policies

Policies define the access rights of a particular user or user group to a particular resource. They associate identities with resources. There is a single default policy for each resource class. The default policy for each class is delivered with the CA WCC application in CA EEM.

## Configuring JAWS for Critical Path Monitoring

This procedure describes the configuration that is necessary to enable full JAWS Workload Service Manager integration. You must perform this procedure before you access the JAWS server from either the Available JAWS Servers page or the CPM (Critical Path Monitoring) application.

### To configure JAWS

1. Add the JAWS policies to the same CA EEM instance that CA WCC uses.  
**Note:** These policies are included with the JAWS installation (currently located in a file named JAWSCreate.xml). For more information, contact CA Technical Support.
2. Open the JAWS application, select User Management on the Administration tab, and click New eEM in the External User Domains section.  
The New eEM Domain dialog appears.
3. Complete the entries in the following fields:

#### Name

Specifies the user-defined domain name.

#### Host

Specifies the host address of the CA EEM server.

#### Port

Specifies the port for the domain. A default value is provided.

#### User

Specifies the user with access to CA EEM. This user name is typically EiamAdmin.

#### Password

Specifies the password for the user.

#### JAWS App Name

Specifies the name of the JAWS CA EEM policy. JAWS is the default application name, created from information in the JAWSCreate.xml file.

#### AutoSys App Name

Specifies the name of the CA EEM policy for the CA Workload Automation AE server. A default name is provided.

A new domain is created that allows JAWS to authorize users against CA EEM.

4. Open Configuration Manager and add the user-defined domain name you entered in the Name field of the New eEM Domain dialog in Step 3 to the JAWS server definition in Configuration Manager.

The configuration is complete.

## Configuring CA WCC Using the Configuration Manager

The Configuration Manager is a CA WCC application that lets you configure the job management CAICCI links, servers, and users. In addition to this initial setup, the Configuration Manager lets you set properties for multiple layers of security, including access rights to job management servers, and for the environment parameters related to individual CA WCC components.

You can access Configuration Manager by clicking the CONFIG tab on the CA WCC main page.

**Note:** For more information, such as conceptual information or field-level descriptions, see the *Configuration Manager Help*.

**More information:**

[Configuration Manager Tasks](#) (see page 105)

## How to Set Up a Monitor User

A monitor user gathers job information in the background from a CA Workload Automation AE server on behalf of all CA WCC users. To do this, special user authentication is used with CA Workload Automation AE.

A monitor user must be set up on the CA Workload Automation AE server and in the CA WCC definition for the CA Workload Automation AE server.

When you set up the monitor user on the CA Workload Automation AE server, one of the following is required, depending on the type of security used:

- If CA Workload Automation AE native security is used, the password for `user@host` specified for the monitor user must be defined in `autosys_secure`, and the user must be specified as a SUPER EDIT user.
- If CA EEM is used for security, the monitor user specified must be a valid user on the CA EEM server (`@host` has no meaning in the context of CA EEM). The CA EEM server defined to CA Workload Automation AE will be used for authentication.

When you set up the monitor user in CA WCC using Configuration Manager, you need only to enter the Monitor ID and Monitor Password into the server definition.

**Note:** For more information about Configuration Manager, see *Configuration Manager Help*.

## Get Help with Configuration

At any time, you can get help setting up your CA WCC configuration using the Information page. This page includes tips for configuring objects such as servers or users and warnings about potential problems or errors with the current configuration, information that is valuable in determining the status of your CA WCC configuration and helps ensure that it is properly set up.

### To get help with configuration

1. Click Information in the top right corner of any configuration page in the Configuration Manager.

The Information page appears in a separate window, open to the page that corresponds to the page displayed in the Configuration Manager window. Relevant configuration tips and potential issues with the current configuration, if any, are displayed.

**Note:** You may choose to keep the Information page open the entire time you work with the Configuration Manager. If you keep it open, make sure that you refresh the page each time you modify a parameter in the Configuration Manager, so that the potential issues displayed are updated.

2. Review the information to determine if your current configuration is viable.
3. (Optional) Return to the Configuration Manager window to modify the object configuration as necessary.

## Add New Credentials for a Server

To set up credentials for a new user on a back-end server, you can enter the credentials directly into the Credentials application.

**Note:** You can add multiple credentials to a server.

### To add new credentials for a server

1. Select the option button in the Select column to the left of the appropriate server.
2. Enter a new user ID in the User Name column.
3. Complete the Password and Confirm Password columns, which must match exactly, to the right of that user ID.
4. Click the Add link.

The new credentials are added to the server.

## Convert Legacy Job Flows into Monitoring Views

The conversion utility provided with Monitoring lets you convert your existing job flow definitions, which are called business service views (BSVs), into valid Monitoring views. The utility only needs to be run once. On Windows, this utility is the wcc\_jfmconvert.bat file. On UNIX, this utility is the wcc\_jfmconvert.sh file.

*Important!* You can only migrate job flows from CA WCC r11.1 SP1. Prior versions are not supported.

### To convert job flows to monitoring views

1. Copy the bin directory containing the conversion utility to an external storage device or a shared network drive, and then copy it to the CA WCC server that contains the source job flows.
2. Open a Windows command prompt or UNIX shell on that server and change your directory to the bin folder of the conversion utility.
3. Run the following command:

```
wcc_jfmconvert [-d bsv_folder_path] [-b bsv1[,bsv2,bsv3]] [-e encrypted_file]
[-E input_file] [-i installation_location] [-r server_name=new_server_name] [-x
output_file] [-v] [-?]
```

#### **-d, --directory *bsv\_folder\_path***

Specifies the exact location of the job flows to convert. You can use either the short name (-d) or the long name (--directory).

**Note:** Alternatively, you can use the -i option to specify the path to the CA WCC installation directory. The conversion utility, by default, will migrate the job flows that exist within the bsv folder.

#### **-b, --bsvname [*bsv1[,bsv2,bsv3]*] [*bsv%[bsv%{server\_name}[,bsv%{server\_name1,server\_name2}]]* [*bsv%{server%}*]]**

Specifies the job flow or job flows to convert. You can use this option to look for a specific set or subset of job flows, and specify a name pattern using the % as a wildcard. You can also specify the server name in brackets {} after the job flow name, to migrate a subset of job flows where the filters match the specified instances. You can use either the short name (-b) or the long name (--bsvname).

#### **-e, --encrypt *encrypted\_file***

Specifies the fully-qualified file name to which the arguments should be encrypted and saved. The file is created by the encryption; however, the path must exist. If you do not specify a path, the file will be created in the folder that contains the batch utility. You can use either the short name (-e) or the long name (--encrypt).

**-E, --read *input\_file***

Specifies the fully-qualified name of the encrypted text file to use. You can use either the short name (-E) or the long name (--read).

**-i, --installfolder *installation\_location***

Specifies the CA WCC installation folder. You can use either the short name (-i) or the long name (--installfolder).

**-r, --replace *server\_name=new\_server\_name***

Specifies to replace the old instance name with the name of the server to which the views will be attached. You can use either the short name (-r) or the long name (--replace).

**-x, --export *output\_file***

Specifies the .txt file to which the job flow definitions are exported and, optionally, its path. The file is created by the export; however, the path must exist. If you do not specify a path, the file will be created in the folder that contains the conversion utility. You can use either the short name (-x) or the long name (--export).

**-v, --verbose**

(Optional) Displays debug messages. You can use either the short name (-v) or the long name (--verbose).

**-?, --help**

Displays the inline help, which describes the options for the wcc\_jfmconvert command.

The batch or script file reads the arguments, converts the job flows to view and filter commands, and writes the output to the specified text file. The console displays a success message.

**Notes:**

- If an error occurs, then the appropriate error messages are displayed in the console. Alternatively, these messages are logged in a log file wcc\_monitorcli.log in the logs directory within the Migration Utility folder.
  - The output text file can be modified prior to importing it to the CA WCC r11.3 server.
4. Copy the output text file to an external storage device or a shared network drive, and then copy it to the bin folder in the installation path on the CA WCC r11.3 server.
  5. Open a Windows command prompt or UNIX shell on the CA WCC r11.3 server and change your directory to the bin folder in the CA WCC installation path.

6. Run the following command:

```
wcc_monitor -u user_name -p password -i input_file [-v]
```

**-u, --user user\_name**

Specifies the authorized user name. You can use either the short name (-u) or the long name (--user).

**-p, --password password**

Specifies the password for the authorized user name. You can use either the short name (-p) or the long name (--password).

**-i, --import input\_file**

Specifies the fully-qualified name of the text file to import. You can use either the short name (-i) or the long name (--import).

**-v, --verbose**

(Optional) Displays debug messages. You can use either the short name (-v) or the long name (--verbose).

The exported job flows are imported as valid Monitoring views.

## Configuring Session Time-outs

Session time-out is the time that a user session can remain idle before timing out and releasing the session. A time-out is indicated by an Authorization Failure message in the interface window. Session time-outs for the Job Scheduling Server and the Job Flow Monitoring Server are determined by the Session Idle Timeout parameter. For the Job Status Console Server, they are determined by the Session Inactivity Timeout parameter. You can modify the Session Idle Timeout parameter or Session Inactivity Timeout parameters for the appropriate server using the Environment tab of the Configuration Manager.

**Note:** For more information about modifying this parameter, see the *Configuration Manager Help*.

Sessions also expire if the server or a CA WCC service stops and restarts while a user is logged in. This requires users to log in again in order to access CA WCC components. You may not be able to reconnect to some of the components without closing and reopening them.

If you are experiencing a significant number of session time-outs, you may want to modify the session time-out values to accommodate expected usage.

## Modify Session Time-outs

To modify the session time-out for a CA WCC component, you must modify the time-out value of the underlying Tomcat application server.

### To modify the session time-out

1. Open the web.xml file, located in the following folder, using a text editor:

*WCC\_installation\_root\servername\conf\*

The following XML element appears, containing the Session Timeout value, which is 30 minutes by default:

```
<session-config>
<session-timeout>30</session-timeout>
</session-config>
```

2. Change the value from 30 to the appropriate value (in minutes).
3. Save and close the web.xml file.
4. Restart the appropriate service. For example, restart CA WCC Configuration Server.

## Increasing the Initial and Maximum Heap Sizes on Client Computers

Graph views such as Flow View and Requirements View involve many graphical objects. Therefore, you may need to increase the initial and maximum heap sizes for the memory in the Java plug-in to support the large number of objects in graphs. If you have trouble rendering large job flows, contact CA Technical Support.

## Batch Interface Utilities

Six batch interface utilities are available for performing CA WCC functions from the Windows command line or UNIX console. The batch interface utilities replicate the features of the associated applications and also let you perform batch actions.

**Note:** To use a batch interface, you must be authorized to use the associated application.

Help for each batch interface can be found in the following locations:

### Windows

*WCC\_installation\_root\ConfigServer\BatchInterface\help*

*WCC\_installation\_root\Bookshelf\Help*

### UNIX

*WCC\_installation\_root/ConfigServer/BatchInterface/help*

*WCC\_installation\_root/Bookshelf/Help*

The batch interfaces included with CA WCC are as follows:

#### Configuration Batch Interface

Lets you modify CA WCC configurations such as server and user definitions from the Windows command line or UNIX console as an alternative to using the Configuration Manager to define the configuration. You can export, import, and deploy one or more CA WCC configurations, and restart CA WCC services. An exported configuration can be modified using a text editor.

Configuration Batch Interface Help contains procedures and examples that explain the command arguments. The name of the help file is Configuration\_Batch\_Interface\_Help.html.

#### Filter Job Types Batch Interface

Lets you create a list of authorized job types for all or for specific users. The list is used to populate the Filter Job Types tab in the Customize dialog that you can access in Quick Edit and Application Editor.

Filter Job Types Batch Interface Help contains procedures and examples that explain the command arguments. The name of the help file is Filter\_Job\_Types\_Batch\_Interface\_Help.html.

### **High Availability Batch Interface**

Lets you propagate configurations from a High Availability core server to spectator servers, list the members in the High Availability group, and list the configuration packages on a spectator server from the Windows command line or UNIX console as an alternative to using the High Availability application. Additionally, you can create a file that contains encrypted High Availability Batch Interface arguments. The encrypted file can be distributed, and a job or script can be created so that another user with lower security access can run the High Availability Batch Interface command with the encrypted file at a convenient time.

High Availability Batch Interface Help contains procedures and examples that explain the command arguments. The name of the help file is High\_Availability\_Batch\_Interface\_Help.html.

### **Job Status Console Batch Interface**

Lets you add, modify, and delete CA WCC view definitions (job status, prior run, and run log) and alert policy definitions from the Windows command line or UNIX console as an alternative to using the Job Status Console application. You can export and import existing views, filters, and alert policies from one CA WCC server to another, or create a text file that lets you insert and delete views, filters, and alert policies. An exported file can be modified using a text editor.

Job Status Console Batch Interface Help contains procedures and examples that explain the command arguments. The name of the help file is Job\_Status\_Console\_Batch\_Interface\_Help.html.

### **Job Template Batch Interface**

Lets you create job templates for use with Quick Edit and Application Editor that contain common job properties. You can then select a job template from the Create Job dialog in Quick Edit or the Palette in Application Editor and create a job without the need to enter common job properties.

Job Template Batch Interface Help contains procedures and examples that explain the command arguments. The name of the help file is Job\_Template\_Batch\_Interface\_Help.html.

### **Monitoring Batch Interface**

Lets you insert, modify, or delete CA WCC monitoring views from the Windows command line or UNIX console as an alternative to using the Monitoring application. You can export and import existing views from one CA WCC r11.3 server to another, or create a text file that lets you insert, modify, or delete view definitions and their filters. An exported file can be modified using a text editor.

The Monitoring Batch Interface Help contains procedures and examples that explain the command arguments. The name of the help file is Monitoring\_Batch\_Interface\_Help.html.

## Uninstall CA WCC on Windows

This procedure describes how to uninstall CA WCC from the CA WCC server.

**Important!** During the uninstallation, you are asked whether you want to unregister the application for CA WCC from CA EEM. If the server is part of a High Availability group, do not unregister the application if other CA WCC servers in the group are still using the application. The application should only be unregistered when you uninstall the last server in the group.

### To uninstall CA WCC on Windows

1. Open the Control Panel on the CA WCC server and double-click Add or Remove Programs.

The Add or Remove Programs window appears.
2. Select CA Workload Control Center and click Change/Remove.

The CA Workload Control Center and Welcome pages appear.
3. Click Next.

The CA EEM server page appears.
4. Enter the CA EEM server information, select the Skip EEM Unregistration check box if appropriate, and click Next.

The summary information page appears.
5. Click Uninstall.

The uninstallation proceeds and after several minutes, you are prompted whether to back up your user data.
6. Click your response (Yes or No).

The uninstallation continues. When it ends, a message appears indicating success.
7. Click Next.

You are prompted to restart the computer.
8. Do one of the following:
  - Select Yes, restart my computer.
  - Select No, I will restart my computer at a later time.
9. Click Finish.

The uninstallation is complete.



# Chapter 4: Installing and Configuring the CA WCC Server on UNIX

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This chapter describes the recommended installation protocol, credentials, prerequisites, and post-installation configuration for the CA WCC server.

This section contains the following topics:

[How the CA WCC Server is Installed](#) (see page 67)

[How the CA WCC Server Is Configured](#) (see page 84)

[Uninstall CA WCC on UNIX Using Graphical Mode](#) (see page 102)

[Uninstall CA WCC on UNIX Using Console Mode](#) (see page 103)

## How the CA WCC Server is Installed

The CA WCC server is the main server in a typical CA WCC environment. This topic provides an overview of the steps you must perform to complete the installation of the CA WCC server.

To complete the installation of the CA WCC server, follow these steps:

1. Use the CA Common Components DVD to install SSA.

**Notes:**

- CA EEM, also a common component, is required for CA WCC and must be installed before you install CA WCC. CA EEM is optional for CA Workload Automation AE but, if you opt to implement it, we recommend that you install a single instance of it on a dedicated server and reference that instance from both CA WCC and CA Workload Automation AE.
- Event Management, also a common component, is optional for CA WCC. Event Management is typically installed on a dedicated server.
- For information about installing common components, see the *CA Common Components Implementation Guide*.

2. Use the CA WCC DVD to install the base product.
3. Verify the installation by logging in to CA WCC.

## Installation Considerations

This section contains considerations and information requirements for CA WCC server installation.

The CA WCC DVD contains the *Readme* file that lists supported operating systems and patches, and the *Release Notes* document that describes the minimum system requirements. Before you begin the installation, review these documents for additional information.

### General Installation Considerations

Note the following general installation considerations:

- CA WCC cannot be installed from a network drive that is not mapped to a letter drive (for example, "X"). To install from a network drive, map the shared network drive (for example, map \\server\drive to X:\) and then install from that drive. Note that using a mapped drive instead of local media will extend the amount of time required for the installation.
- If you plan to install CA WCC with the High Availability option, decide which servers in the group should be the spectator servers, and which server should be the core server before you begin the installation.

**Important!** If you are running performance monitoring, antivirus, or antispyware software, you may experience a problem completing the installation. If you receive a message indicating that a .DLL is in use or that a file is locked, stop the performance monitoring, antivirus, or antispyware software, and select the option to retry the installation.

## Common Components Installation Considerations

The following are important considerations when you install the common components:

- SSA must be installed on the CA WCC server before you install CA WCC.
- Event Management is typically installed on a server other than the CA WCC server after you complete the CA WCC installation.
- For Linux, verify that the appropriate RPM package and operating system patches for your Linux platform have been installed. For more information, see the "Operating System Support" section of the *CA WCC Readme*.
- If you plan to install CA WCC on a server on which common components are already installed from a source other than the CA Common Components DVD, you must upgrade the common components before you install CA WCC.

**Note:** For common components upgrade considerations and upgrade scenarios on UNIX, see the *CA Common Components Implementation Guide*.

- If an existing instance of CA EEM previously installed by another CA product resides on a server other than the CA WCC server, CA WCC can reference that instance.
- If you do not want to reference an existing instance of CA EEM and you have more than one CA product in your environment, we recommend that you install CA EEM on a dedicated server, and that you configure all CA products to reference the same instance of CA EEM.

**Note:** For information about installing common components, see the *CA Common Components Implementation Guide*.

## CA WCC Installation Considerations

The following are important considerations when you install CA WCC:

- An instance of CA EEM must be installed and accessible, otherwise you cannot install CA WCC.
- The installer will automatically determine whether to use graphical mode or console mode. To run the installation in graphical mode, the monitor must be graphics-enabled and the DISPLAY environment variable must be correctly defined.
- You can opt to perform an Express or a Custom installation.

An Express or Custom installation lets you do the following:

- Specify the installation directory path. A default path is provided.
  - Specify the mode of operation for the CA WCC server (stand-alone, High Availability core, or High Availability spectator).
- Note:** If you are using High Availability, you should determine which server in the group is the core server and which servers are spectator servers before you begin the installation. If you select core or spectator, you will need to specify the High Availability group name and a member name for the server. Default names are provided.
- Select whether to enable Secure Socket Layer (SSL) protocol for additional security.
  - Specify an existing non-root user ID in the Run as wizard page or prompt. This user ID will be used when starting the CA WCC server, and will be set as the owner of the file structure installed by CA WCC.
  - Specify the CA EEM server host name and the password for the user EiamAdmin.

### Notes:

- The password for the user EiamAdmin is the same password entered during the installation of CA EEM, a common component.
- When you install CA WCC on the core and spectator servers in a High Availability group, you must specify the same CA EEM instance during each installation to allow High Availability to authenticate and authorize user actions.
- If your environment includes CA Workload Automation AE servers that are registered with CA EEM, you must specify the same CA EEM instance when you install CA WCC to enable pass-through security.

A Custom installation lets you do the following:

- Select installation options. The options include install CA WCC, install documentation and, during a reinstallation, perform CA EEM registration.

**Note:** The Perform EEM Registration option is only available with a custom installation if this release of CA WCC has been previously installed. This lets you register CA WCC with a different instance of CA EEM if the current instance becomes unavailable.

- Specify the method of referring to the CA WCC server. The options include host name, fully qualified domain name, alias, IPv4 address, and IPv6 address.

**Note:** IPv6 Address appears only if the system is configured to support IPv6.

- Specify stop and HTTP ports for the Tomcat application servers that CA WCC installs, and specify the HTTPS ports for the servers if you are using SSL. Default port values are provided.

**Note:** If a port conflict is detected during a Custom or Express installation, an error message is displayed. You must select a different port before you can continue the installation.

- Specify the database to be used for the Monitoring application. A default database is provided.
- Specify the properties for the Reports database.

#### More information:

[Install CA WCC on UNIX Using Graphical Mode](#) (see page 78)  
[Install CA WCC on UNIX Using Console Mode](#) (see page 80)

### CA WCC Upgrade Considerations

You can upgrade CA WCC r11.1 SP1 or r11.1 SP2 to the current release; however, you cannot upgrade CA WCC r11.1 and earlier to the current release.

#### Notes:

- Common components already installed on the CA WCC server must be updated to the current release before you upgrade CA WCC.
- The instance of CA EEM referenced by the CA WCC server should be at the latest release, which includes new policies and policy updates for new functionality included in this release of CA WCC.
- For information about installing and upgrading common components, see the *CA Common Components Implementation Guide*.
- For information about new features and changes to existing features of CA WCC, see the *CA WCC Release Notes*.

## Installation Checklist for CA WCC

This checklist describes the prompts that appear during the interview phase of the CA WCC installation. Default values are provided for many fields that require text or numeric input. Unless your environment has specific requirements, we recommend that you accept the default values.

You can install CA WCC using either of the following setup types:

- Express—Requires minimal user input. This mode is suitable for most installations.
- Custom—Lets you select installation options and specify values, such as ports. This mode is suitable for advanced users.

### Notes:

- CA WCC requires access to CA EEM, the CA application that provides role-based authorization to CA WCC applications and objects in the CA WCC environment. During the installation, an attempt is made to verify the connection with CA EEM using the information you provide. If the connection is valid, registration with CA EEM will occur. If the connection is not valid, you cannot continue with the installation.
- If you need to register CA WCC with a different instance of CA EEM after you successfully install CA WCC, you can run the reinstallation process, select the Custom setup type, and select Perform EEM Registration only.

Information Requested	Installation Type	Your Selection or Value
<b>Choose Installation Folder</b> The fully-qualified directory name to which you are installing CA WCC. The default on Windows is C:\Program Files\CA\Workload Control Center. The default on UNIX is C:/Program Files/CA/Workload Control Center.	Express or Custom	
<b>Express or Custom Install</b> The type of installation to perform: <ul style="list-style-type: none"><li>■ Express—Uses default selections and values for most installation properties and requires minimal user input.</li><li>■ Custom—Presents default selections and values for all installation properties, but lets you modify any selection or value.</li></ul>	Express or Custom	

<b>Information Requested</b>	<b>Installation Type</b>	<b>Your Selection or Value</b>
<b>Features</b>	Custom	
The features you want to install:		
<ul style="list-style-type: none"> <li>■ CA Workload Control Center</li> <li>■ Documentation</li> </ul>		
<b>CA Workload Control Center Instance Name</b>	Express or Custom	
The name of the CA WCC instance. This name appears in the title bar of your browser when you are logged into CA WCC.		
<b>Note:</b> The default instance name is the name of the server.		
<b>Host Specifier</b>	Custom	
The method clients use to access the CA WCC server:		
<ul style="list-style-type: none"> <li>■ Host Name</li> <li>■ Fully Qualified Domain Name</li> <li>■ Alias Host Name (must be set up prior to installing CA WCC)</li> <li>■ IPv4 Address</li> <li>■ IPv6 Address</li> </ul>		
<b>Note:</b> IPv6 Address appears only if the system is configured to support IPv6.		
<b>Verify [Host Specifier Selection]</b>	Custom	
The name in this field is returned by the system if you select Fully Qualified Domain Name or Alias Host Name in the Host Specifier panel. You can edit the name or address if it is incorrect.		
<b>Note:</b> The following values are not permitted:		
<ul style="list-style-type: none"> <li>■ localhost</li> <li>■ 127.0.0.1</li> <li>■ ::1</li> <li>■ 0:0:0:0:0:0:0:1</li> </ul>		

Information Requested	Installation Type	Your Selection or Value
<b>High Availability</b>	Express or Custom	
The CA WCC server mode of operation:		
<ul style="list-style-type: none"><li>■ Standalone—A CA WCC server that is not in a High Availability group.</li><li>■ Core—The CA WCC server in a High Availability group that can publish its configurations to the spectator servers so that all servers in the group run with the same configurations. There is typically only one core server in the group.</li><li>■ Spectator—A CA WCC server in a High Availability group that can receive its configurations from the core server so that it can run with the same configurations. There can be one or more spectator server in the group.</li></ul>		
<b>High Availability Member and Group</b>	Express or Custom	
<b>Note:</b> This panel appears only if you selected Core or Spectator in the High Availability panel.		
The High Availability names:		
Group name—The name of the High Availability group.		
Member name—The name of the server in the High Availability group.		
<b>Note:</b> The default member name is the name of the server.		
<b>UNIX Run As User</b>	Express or Custom	
(UNIX only) An existing non-root user ID. This user ID will be used when starting most of the CA WCC servers, and will be set as the owner of the file structure installed by CA WCC.		
<b>SSL or Non-SSL</b>	Express or Custom	
Whether to enable Secure Socket Layer (SSL) protocol. SSL protocol provides increased data security and integrity over a TCP/IP network.		

<b>Information Requested</b>	<b>Installation Type</b>	<b>Your Selection or Value</b>
<b>Server Ports, More Server Ports</b>	Custom	
<p>The <a href="#">port numbers</a> (see page 119) for the Stop, HTTP, and HTTPS ports for the CA WCC servers.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>■ Default port numbers are provided. If the default value for a port is already assigned another function in your environment, you will be prompted to specify a different port value during either an express or custom installation.</li> <li>■ The Job Status Console Server requires only a Stop port specification. A default port number is provided.</li> <li>■ HTTPS port numbers are required only if you have selected the Enable SSL option.</li> <li>■ Port numbers 1000 and lower are reserved for system services.</li> </ul>		
<b>Monitoring Cache Database</b>	Custom	
<p>The database to use with the Monitoring application:</p> <ul style="list-style-type: none"> <li>■ Derby</li> <li>■ Oracle</li> <li>■ MS SQL</li> <li>■ MySQL Enterprise</li> <li>■ MySQL Community</li> </ul> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>■ By default, the Derby database will be installed. Alternatively, you can select a different existing database for use by the Monitoring application.</li> <li>■ If you use the MySQL Community database for the Monitoring application, you must download the JDBC driver for the MySQL Community Server from <a href="http://www.mysql.com/downloads/">http://www.mysql.com/downloads/</a>.</li> <li>■ Each CA WCC server must have its own Monitoring database. Additionally, servers in a High Availability group cannot share a Monitoring database.</li> </ul>		

Information Requested	Installation Type	Your Selection or Value
<b>Monitoring Cache Database Specifics</b>	Custom	
The properties of the Monitoring database you have selected:		
<ul style="list-style-type: none"><li>■ Host name</li><li>■ Database name</li><li>■ Port number</li><li>■ User name</li><li>■ Password</li></ul>		
<b>Reports Database Specifics</b>	Custom	
The properties of the Reports database:		
<ul style="list-style-type: none"><li>■ Host name</li><li>■ Database name</li><li>■ Port number</li><li>■ User name</li><li>■ Password</li></ul>		
<b>Note:</b> All CA WCC servers in a High Availability group must use the same Reports database.		
<b>EEM Server</b>	Express or Custom	
The name of the server that hosts CA EEM. The default is the local host.		
The password for the EiamAdmin user.		
<b>Note:</b> If a matching version of the CA Workload Control Center security policies already exists on the CA EEM instance that you specify, a dialog appears that lets you select whether to keep the existing policies or select a different CA EEM server.		

This completes the information requested during the installation of CA WCC.

## Installation on UNIX

The CA WCC server hosts the main CA WCC application and the required common components.

You can install CA WCC using graphical mode, which uses a wizard, or using console mode, which uses plain text. Using graphical mode is recommended when you are installing locally. Console mode is recommended if you are installing remotely. To use graphical mode, the monitor must be graphics-enabled, and the DISPLAY environment variable must be correctly defined.

## Install CA WCC on UNIX Using Graphical Mode

This procedure describes how to install the main CA WCC application on the CA WCC server using graphical mode.

**Important!** Common component SSA must be installed on the CA WCC server before you install CA WCC.

### Notes:

- CA EEM must be running when you install CA WCC so that registration can occur; otherwise, you cannot install CA WCC.
- Before you begin the installation, stop performance-monitoring, antivirus, and antispyware software.

### To install CA WCC on UNIX using graphical mode

1. Mount the CA WCC media.

2. Run the following command in a shell window:

```
./UnixInstaller.sh
```

The Product Explorer appears.

3. Select Install CA Workload Control Center, click Install, and select graphical mode.

The Welcome page appears in a separate window. This window is used for the remainder of the installation wizard.

**Note:** If the requirements for graphical mode are not met, you can continue the installation in console mode.

4. Click Next.

The License Agreement page appears.

5. Read the license text. When you have scrolled to the bottom of the license text, the I accept the terms of the license agreement option will become available. If you agree with the license agreement, select that option and click Next.

**Note:** If you do not accept the license agreement, you cannot continue with the installation. You must accept the license agreement or click Cancel.

The next wizard page appears.

6. Specify the installation directory path or accept the default path and click Next.

The next wizard page appears.

7. Select the appropriate installation type and click Next.

The installation type options are:

- Express
- Custom

The next wizard page appears.

8. Continue with the installation. As you proceed through the wizard, select the appropriate server type and, if you select Core or Spectator, enter a High Availability group name and optionally enter the member name. (The default is the server name.)

The server types are:

- Standalone (without High Availability)
- Core (with High Availability)
- Spectator (with High Availability)

**Note:** Only one server in the High Availability group can be a core server.

9. Continue with the installation by entering the required information in each wizard page and clicking Next. Default values are provided for options that require a value. Click Next after you complete the last data entry page of the wizard.

The summary information page appears, listing the components you have selected to install.

10. Review the summary information and, if it is correct, click Install.

**Note:** To make a change to an entry, click Back as many times as necessary to locate that entry. Then, make the appropriate change, click Next until the pre-installation summary appears again, and click Install.

The installation process begins, and the progress is displayed. When the installation completes, you are prompted to exit the installation.

11. Click Finish.

The CA WCC installation is complete.

**Notes:**

- You must log out and log back in to the computer before you begin using CA WCC.
- Installation log files are in the following location:  
*WCC\_installation\_root/Logs/install*

**More information:**

[CA WCC Installation Considerations](#) (see page 70)

## Install CA WCC on UNIX Using Console Mode

This procedure describes how to install the main CA WCC application on the CA WCC server using console mode.

**Important!** Common component SSA must be installed on the CA WCC server before you install CA WCC.

### Notes:

- CA EEM must be running when you install CA WCC so that registration can occur; otherwise, you cannot install CA WCC.
- Before you begin the installation, stop performance-monitoring, antivirus, and antispyware software.

### To install CA WCC on UNIX using console mode

1. Mount the CA WCC media.

2. Run the following command in a shell window:

```
./UnixInstaller.sh
```

The Product Explorer appears.

3. Select Install CA Workload Control Center, select Install, and select console mode.

**Note:** if the environment variable DISPLAY is not defined, the installation continues automatically in console mode.

The Welcome message appears.

4. Enter **1** (Next).

The first lines of the license agreement appear.

5. Press **Enter** as many times as needed to page through the license text.

When you have read the entire license agreement, a prompt appears with option 2 selected (I do not agree with the license agreement).

6. Enter **1** (Next) and **0** (Finished).

The prompt refreshes with I accept the terms of the license agreement selected.

**Note:** If you do not want to accept the license agreement, you can cancel the installation by entering **3** (Cancel), then entering **1** (Yes) in response to the prompt to exit.

7. Enter **1** (Next).

The next prompt appears.

8. Specify the installation directory path or accept the default path and enter **1** (Next).

The next prompt appears.

9. Enter the number for the appropriate installation type, and then enter **0** (finished) and **1** (Next).

The installation type prompt options are:

- 1 - Express
- 2 - Custom

The next prompt appears.

10. Continue with the installation. As you proceed through the prompts, select the appropriate server type and, if you select Core or Spectator, enter a High Availability group name and optionally enter a member name. (The default is the server name.)

The server types are:

- Standalone (without High Availability)
- Core (with High Availability)
- Spectator (with High Availability)

**Note:** Only one server in the High Availability group can be a core server.

11. Continue with the installation, responding to each prompt as it appears.

**Note:** A value enclosed in brackets is the default for the prompt. Press **Enter** to accept the value. The following rules apply:

- For a prompt with multiple options, enter the option number you want (or accept the default) and enter **0** (Finished) to complete the selection.
- For a prompt that requires a single value, enter the correct value (or accept the default) and press **Enter**.
- For a prompt for a password or for confirmation of a password, type your password and press **Enter**.

12. Enter **1** (Next) after you respond to the last prompt.

The summary information appears, listing the components you have selected to install.

13. Review the summary information and, if it is correct, enter **1** (Next).

**Note:** To make a change to an entry, enter **2** (Previous) as many times as necessary to locate that entry. Then, make the appropriate change, enter **1** (Next) until the pre-installation summary appears again, and enter **1** (Next).

The installation process begins, and the progress is displayed. When the installation completes, you are prompted to exit the installation.

**14. Enter 3 (Finish).**

The CA WCC installation is complete.

**Notes:**

- You must log out and log back in to the computer before you begin using CA WCC.
- Installation log files are in the following location:  
*WCC\_installation\_root/Logs/install*

**More information:**

[CA WCC Installation Considerations](#) (see page 70)

## Verify the Installation with Secure Socket Layer Enabled

After you install CA WCC, you can test the installation by starting a CA WCC session. You should use this login URL if you selected the Enable SSL option during the installation of CA WCC.

### To log in to CA WCC (with SSL)

1. Open a browser window and navigate to the URL for CA WCC. Typically, this is `https://host_name:8443/wcc`, where *host\_name* is the host name for the CA WCC server.  
The login page appears.
2. Enter the appropriate credentials and click Log In.  
The Workload Control Center opens to the default page for your user ID, displaying the tabs and applications of CA WCC that you are authorized to access.

## Verify the Installation with Secure Socket Layer Disabled

After you install CA WCC, you can test the installation by starting a CA WCC session. You should use this login URL if you selected the Do not enable SSL option during the installation of CA WCC.

### To log in to CA WCC (non-SSL)

1. Open a browser window and navigate to the URL for CA WCC. Typically, this is `http://host_name:8080/wcc`, where *host\_name* is the host name for the CA WCC server.  
The login page appears.
2. Enter the appropriate credentials, select Main, and click Log In.  
The Workload Control Center opens to the default page for your user ID, displaying the tabs and applications of CA WCC that you are authorized to access.

## Run the CA WCC Version Utility

You can use the uejmver.bat file, located in the root installation directory of the CA WCC server, to return the version information for the CA WCC instance.

### To run the CA WCC version utility

1. Open a command prompt.
  2. Navigate to the CA WCC installation directory. By default, this is c:\Program Files\CA\Workload Control Center.
  3. Do one of the following:
    - For Windows, type uejmver and press Enter.
    - For UNIX, type ./uejmver.sh and press Enter.
- The version, service pack, and build number are displayed.

## How the CA WCC Server Is Configured

When the installation process is complete, you must prepare CA WCC for use. This topic provides an overview of the steps you must perform to complete the configuration of CA WCC. This process must be followed to enable successful configuration.

To complete the configuration of CA WCC, follow these steps:

1. Add users to CA WCC through the CA EEM interface. You can add users by referencing an Active Directory as the source.
2. Customize your CA EEM policies as necessary to assign the appropriate user access rights.
3. [Configure JAWS \(Critical Path Monitoring\) to complete your JAWS integration](#) (see page 55).
4. [Click CONFIG to access the Configuration Manager and do the following](#) (see page 105):
  - a. Create CA WCC server definitions for each back-end server you want CA WCC to access, assigning the appropriate parameter values for the properties of that server.

**Notes:**

- CA Workload Automation AE, Event Console, and JAWS servers have different parameters. The Server Name parameter is available for all server types, but the name you use must be unique for each server. The same CA EEM server name defined in the External User Domains field on the Administration tab in JAWS must be used in the CA WCC definition for the JAWS server.
  - Each CA Workload Automation AE server definition must specify a user ID and password for the monitor user. A monitor user gathers job data from the CA Workload Automation AE instance on behalf of all CA WCC users.
- b. Edit the configuration preferences for the various CA WCC applications in Configuration Manager as appropriate.
  - c. Deploy your changes.

- d. Restart the necessary services.

**Note:** When a CA WCC service stops and restarts while users are logged in, the user sessions are broken. To continue to use CA WCC, users must log out, then log back in to CA WCC.

**Note:** You can also use the Configuration Batch Interface to perform many of the Configuration Manager functions.

5. (Optional) [Add credentials for the appropriate back-end servers using the conversion utility, the Credentials application, or both as appropriate](#) (see page 58).

**Note:** If you want to define a global user for enterprise-wide access to a CA Workload Automation AE instance, enter “\_GLOBAL\_: username” in the Credentials application and assign that user a password.

6. (Optional) [Customize session time-out values for your various servers to maximize session security](#) (see page 61).

7. (Optional) [Increase the initial and maximum heap sizes on your client computers, if necessary](#) (see page 62).

8. (Optional) Set up event management if applicable. For more information, see the *CA Workload Automation AE Implementation Guide*.

**More information:**

[Batch Interface Utilities](#) (see page 63)

## Configuring CA WCC to Work with CA EEM

CA EEM is used for security. The three key objects of CA EEM are identities (users and user groups), resource classes, and policies. CA EEM is used to secure CA WCC objects, providing the following capabilities:

### Authentication

CA EEM authenticates the user. The authenticated user can then be used in subsequent authorization processing.

### Authorization

CA EEM provides access to a user for a particular resource. A resource can be any logical or physical entity. In CA WCC, the typical resource is a user interface component (for example, tab, command, drop-down list, and so on). Authorization is controlled by a set of policies associated with a resource class. These policies are the primary way to integrate CA EEM with CA WCC.

## Users

The following CA EEM users are created by default during the CA WCC installation:

### EJMADMIN

Provides system configuration access for CA WCC. Typically, these users are system administrators or security administrators:

**User name:** ejmadmin

**Password:** ejmadmin

### EJMEXEC

Provides access to summary information on job status for CA WCC. Typically, these users are executives and managers from other disciplines:

**User name:** ejmexec

**Password:** ejmexec

### EJMOPERATOR

Provides a basic level of access for CA WCC. Typically, these users are console operators:

**User name:** ejmoperator

**Password:** ejmoperator

### EJMSCHEDULER

Provides a level of access that includes the ability to create and modify jobs and job objects. Typically, these users are both schedulers and job and jobset administrators:

**User name:** ejmscheduler

**Password:** ejmscheduler

### EJMSUPERVISOR

Provides a higher level of access. Typically, these users are scheduling or monitoring supervisors:

**User name:** ejmsupervisor

**Password:** ejmsupervisor

### EJMCOMMANDER

Provides the highest level of access. These users have access to all in CA WCC features. Typically, these users are system administrators, scheduling monitors, or job and jobset administrators:

**User name:** ejmcommander

**Password:** ejmcommander

These users are set up in CA EEM. Each of these users has a default display in CA WCC, letting them access the applications to which they have rights.

Typically, you would use either the system administrator (ejmadmin) or the superuser (ejmcommander) to perform system configuration.

**More information:**

[Configure CA EEM to Reference Active Directory Global Users \(see page 53\)](#)

## User Groups

The CA EEM installation creates default users using the policies defined in CA WCC. Although CA EEM can provide access authentication that is set up for individuals, the best practice for policy creation is to assign groups to policies and include individual users in those groups, instead of assigning individual users directly to the policies. This enables you to maintain stable policies even when individuals' access rights change.

You can assign any of the following types of groups:

**Global Group**

Includes users across all applications in the current CA EEM instance.

**Application Group**

Includes users in the currently selected application only. For example, you can create an application group based on a specific business function, such as Payroll. The users will be included in the group only if they are part of this function.

**Dynamic Groups**

Includes users based on their characteristics. For example, you can create a dynamic group based on parameters such as office, city, and title. The users will be automatically included in the group only if they meet the parameters set.

**Note:** For more information, see the CA Embedded Entitlements Manager documentation.

## User Roles

A number of preconfigured user roles provided with CA WCC are used in the default CA EEM policy definitions. These roles are defined as follows:

### **Console Operator**

The *console operator* is responsible for monitoring job streams, correcting minor errors that are resolved through forcing job status or through one time overrides of data. The console operator also reports significant application errors to other operators and to the application owners. To complete these tasks, console operators use Job Status Console to monitor the jobs for which they are responsible and, optionally, may use Monitoring to track job status. They may also use the CPM (Critical Path Monitoring) application to ensure that job streams are running on time, the Event Console to view events related to the jobs for which they are responsible, and Quick View to view the detailed properties for a particular job in the flow.

### **Scheduler**

The *scheduler* is responsible for the creation and maintenance of the job definitions. The schedulers use Quick Edit and Application Editor to create, modify, and delete jobs, calendars, and other job-related information such as constraints. Schedulers may also monitor job streams to make sure that they are running properly. Schedulers receive reports about problems with jobs that have already run, and they might need to look at historical information to analyze and correct a job stream.

### **Supervisor**

The *supervisor* role performs all the tasks of a scheduler, and an additional level of tasks to help oversee and assist all the schedulers. The supervisor may also perform other tasks such as defining job streams, monitoring views, and job status views.

### **System Administrator**

The *system administrator* is responsible for configuring and maintaining the CA WCC environment. This includes defining the scheduling manager servers and event servers, configuring software-specific properties, and defining host connection links for mainframe systems. System administrators may also be responsible for security, and for creating users and user groups assigned to specific roles.

## Executive

The *executive*, or *manager*, has a very different set of needs compared to the other roles. The executive's tasks include monitoring, at the highest level, the overall status of the scheduling managers operating in their area. They generate and view reports, but do not build their own views. The executive uses the Job Status Views application to track the status of their views. The executive may also use the CPM (Critical Path Monitoring) application in conjunction with their job status views.

## Security Administrator

The *security administrator* is responsible for configuring and maintaining security, and creating users and user groups assigned to specific roles. The security administrator also creates and maintains policies for CA EEM.

## Commander

The *commander* is a superuser created as a convenience, and is a member of all the application groups.

The following table summarizes the functionalities that are available to the various user roles:

Role	Task	Data Item	Application Group	Default User
Console Operator	Monitor, report	Job Stream, View, Definition	Console Operator	ejmoperator
Supervisor	Define, monitor, report, react, correct	Job Stream, View, Definition, Criteria, Capacity, Monitors	Supervisor	ejmsupervisor
Scheduler	Define, analyze, update	Jobs, Schedules, JCL, Applications, Software, Constraints	Scheduler	ejmscheduler
System Administrator	Configure	Servers, Users	Administrator	ejmadmin
Executive	Plan, monitor, report, supervise	Users, Systems, Data-Center	Executive	ejmexec
Security Administrator	Security	Servers, Users, Objects	Security Administrator	ejmadmin and ejmcommander
Commander	Superuser	All	Commander	ejmcommander

## Configure CA EEM to Reference Active Directory Global Users

Configuring CA EEM to reference the Active Directory global users enables the applications using CA EEM, such as CA Workload Automation AE and CA WCC, to share the user information from the Active Directory.

**Note:** You may want to configure filters so that users do not access all entries in the global Active Directory.

### To configure CA EEM to reference the Active Directory global users

1. Access the CA EEM Home page.
  2. Click the Configure tab.

The Configure page opens.
  3. Click the EEM Server link.

The EEM Server page appears.
  4. Click Global Users/Global Groups.

The EEM Server Configuration page appears in the right pane.
  5. Select the Reference from an external directory option.

Additional fields relating to the external directory appear.
  6. Leave the default directory server type as Microsoft Active Directory, and complete the following fields:
    - a. Enter the host computer on which Active Directory is running.
    - b. Enter the port for eiamAdmin. The default is 389.

**Note:** Enter the port only if the Active Directory Server administrator has reconfigured the default Active Directory port.
    - c. Enter the Base DN. The value specified here must be similar to the base DN value that is specified in the Active Directory server.
    - d. Enter the User DN that is used to attach to the eiamAdmin server.
    - e. Enter the required value in the Password field.
    - f. Re-enter the value in the Confirm Password field.
    - g. Enter the values in the remaining fields based on the enterprise configuration.
  7. Click Save.
- The values you have specified are saved, and CA EEM is configured to the Active Directory.

## CA WCC Resource Classes

A resource is a logical or physical entity whose access is controlled by CA EEM. You define groups of resources, called resource classes, to identify resources of similar types. A resource class contains the following information:

- Name
- Actions (List)
- Named Attributes (List)

Eleven resource classes are available for the CA WCC application. The classes can be categorized into the following types:

### Access Resource Classes

The ApplicationAccess and ServerAccess classes control access to applications and servers respectively. The ConfigurationControl class lets you configure additional levels of access to certain application features, such as those in Credentials and High Availability.

### Action or Log Resource Classes

The JobActionAutoSys, AlertAction, LogAction, CommandSetup, and CommandExecute classes control access to job actions, alert actions, job and scheduler logs, and Enterprise Command Line commands respectively.

### Object Access Resource Classes

The MonitorViewControl, ObjectAccess, and ObjectControl classes are used to control specific types of access to a variety of objects that are displayed and maintained by CA WCC. Each of the actions that can be performed on these objects is enumerated in the resource actions. The name of the object is specified for the resource name. There are typically attributes specified for server type and server name. These resource classes are only implemented in server-side code.

## CA EEM Policies

Policies define the access rights of a particular user or user group to a particular resource. They associate identities with resources. There is a single default policy for each resource class. The default policy for each class is delivered with the CA WCC application in CA EEM.

## Configuring JAWS for Critical Path Monitoring

This procedure describes the configuration that is necessary to enable full JAWS Workload Service Manager integration. You must perform this procedure before you access the JAWS server from either the Available JAWS Servers page or the CPM (Critical Path Monitoring) application.

### To configure JAWS

1. Add the JAWS policies to the same CA EEM instance that CA WCC uses.  
**Note:** These policies are included with the JAWS installation (currently located in a file named JAWSCreate.xml). For more information, contact CA Technical Support.
2. Open the JAWS application, select User Management on the Administration tab, and click New eEM in the External User Domains section.  
The New eEM Domain dialog appears.
3. Complete the entries in the following fields:

#### Name

Specifies the user-defined domain name.

#### Host

Specifies the host address of the CA EEM server.

#### Port

Specifies the port for the domain. A default value is provided.

#### User

Specifies the user with access to CA EEM. This user name is typically EiamAdmin.

#### Password

Specifies the password for the user.

#### JAWS App Name

Specifies the name of the JAWS CA EEM policy. JAWS is the default application name, created from information in the JAWSCreate.xml file.

#### AutoSys App Name

Specifies the name of the CA EEM policy for the CA Workload Automation AE server. A default name is provided.

A new domain is created that allows JAWS to authorize users against CA EEM.

4. Open Configuration Manager and add the user-defined domain name you entered in the Name field of the New eEM Domain dialog in Step 3 to the JAWS server definition in Configuration Manager.

The configuration is complete.

## Configuring CA WCC Using the Configuration Manager

The Configuration Manager is a CA WCC application that lets you configure the job management CAICCI links, servers, and users. In addition to this initial setup, the Configuration Manager lets you set properties for multiple layers of security, including access rights to job management servers, and for the environment parameters related to individual CA WCC components.

You can access Configuration Manager by clicking the CONFIG tab on the CA WCC main page.

**Note:** For more information, such as conceptual information or field-level descriptions, see the *Configuration Manager Help*.

**More information:**

[Configuration Manager Tasks](#) (see page 105)

## How to Set Up a Monitor User

A monitor user gathers job information in the background from a CA Workload Automation AE server on behalf of all CA WCC users. To do this, special user authentication is used with CA Workload Automation AE.

A monitor user must be set up on the CA Workload Automation AE server and in the CA WCC definition for the CA Workload Automation AE server.

When you set up the monitor user on the CA Workload Automation AE server, one of the following is required, depending on the type of security used:

- If CA Workload Automation AE native security is used, the password for `user@host` specified for the monitor user must be defined in `autosys_secure`, and the user must be specified as a SUPER EDIT user.
- If CA EEM is used for security, the monitor user specified must be a valid user on the CA EEM server (`@host` has no meaning in the context of CA EEM). The CA EEM server defined to CA Workload Automation AE will be used for authentication.

When you set up the monitor user in CA WCC using Configuration Manager, you need only to enter the Monitor ID and Monitor Password into the server definition.

**Note:** For more information about Configuration Manager, see *Configuration Manager Help*.

## Get Help with Configuration

At any time, you can get help setting up your CA WCC configuration using the Information page. This page includes tips for configuring objects such as servers or users and warnings about potential problems or errors with the current configuration, information that is valuable in determining the status of your CA WCC configuration and helps ensure that it is properly set up.

### To get help with configuration

1. Click Information in the top right corner of any configuration page in the Configuration Manager.

The Information page appears in a separate window, open to the page that corresponds to the page displayed in the Configuration Manager window. Relevant configuration tips and potential issues with the current configuration, if any, are displayed.

**Note:** You may choose to keep the Information page open the entire time you work with the Configuration Manager. If you keep it open, make sure that you refresh the page each time you modify a parameter in the Configuration Manager, so that the potential issues displayed are updated.

2. Review the information to determine if your current configuration is viable.
3. (Optional) Return to the Configuration Manager window to modify the object configuration as necessary.

## Add New Credentials for a Server

To set up credentials for a new user on a back-end server, you can enter the credentials directly into the Credentials application.

**Note:** You can add multiple credentials to a server.

### To add new credentials for a server

1. Select the option button in the Select column to the left of the appropriate server.
2. Enter a new user ID in the User Name column.
3. Complete the Password and Confirm Password columns, which must match exactly, to the right of that user ID.
4. Click the Add link.

The new credentials are added to the server.

## Convert Legacy Job Flows into Monitoring Views

The conversion utility provided with Monitoring lets you convert your existing job flow definitions, which are called business service views (BSVs), into valid Monitoring views. The utility only needs to be run once. On Windows, this utility is the wcc\_jfmconvert.bat file. On UNIX, this utility is the wcc\_jfmconvert.sh file.

*Important!* You can only migrate job flows from CA WCC r11.1 SP1. Prior versions are not supported.

### To convert job flows to monitoring views

1. Copy the bin directory containing the conversion utility to an external storage device or a shared network drive, and then copy it to the CA WCC server that contains the source job flows.
2. Open a Windows command prompt or UNIX shell on that server and change your directory to the bin folder of the conversion utility.
3. Run the following command:

```
wcc_jfmconvert [-d bsv_folder_path] [-b bsv1[,bsv2,bsv3]] [-e encrypted_file]  
[-E input_file] [-i installation_location] [-r server_name=new_server_name] [-x  
output_file] [-v] [-?]
```

#### **-d, --directory *bsv\_folder\_path***

Specifies the exact location of the job flows to convert. You can use either the short name (-d) or the long name (--directory).

**Note:** Alternatively, you can use the -i option to specify the path to the CA WCC installation directory. The conversion utility, by default, will migrate the job flows that exist within the bsv folder.

#### **-b, --bsvname [*bsv1[,bsv2,bsv3]*] [*bsv%*] [*bsv%{server\_name}*][,*bsv%{server\_name1,server\_name2}*]] [*bsv%{server%*}]**

Specifies the job flow or job flows to convert. You can use this option to look for a specific set or subset of job flows, and specify a name pattern using the % as a wildcard. You can also specify the server name in brackets {} after the job flow name, to migrate a subset of job flows where the filters match the specified instances. You can use either the short name (-b) or the long name (--bsvname).

#### **-e, --encrypt *encrypted\_file***

Specifies the fully-qualified file name to which the arguments should be encrypted and saved. The file is created by the encryption; however, the path must exist. If you do not specify a path, the file will be created in the folder that contains the batch utility. You can use either the short name (-e) or the long name (--encrypt).

**-E, --read *input\_file***

Specifies the fully-qualified name of the encrypted text file to use. You can use either the short name (-E) or the long name (--read).

**-i, --installfolder *installation\_location***

Specifies the CA WCC installation folder. You can use either the short name (-i) or the long name (--installfolder).

**-r, --replace *server\_name=new\_server\_name***

Specifies to replace the old instance name with the name of the server to which the views will be attached. You can use either the short name (-r) or the long name (--replace).

**-x, --export *output\_file***

Specifies the .txt file to which the job flow definitions are exported and, optionally, its path. The file is created by the export; however, the path must exist. If you do not specify a path, the file will be created in the folder that contains the conversion utility. You can use either the short name (-x) or the long name (--export).

**-v, --verbose**

(Optional) Displays debug messages. You can use either the short name (-v) or the long name (--verbose).

**-?, --help**

Displays the inline help, which describes the options for the wcc\_jfmconvert command.

The batch or script file reads the arguments, converts the job flows to view and filter commands, and writes the output to the specified text file. The console displays a success message.

**Notes:**

- If an error occurs, then the appropriate error messages are displayed in the console. Alternatively, these messages are logged in a log file wcc\_monitorcli.log in the logs directory within the Migration Utility folder.
  - The output text file can be modified prior to importing it to the CA WCC r11.3 server.
4. Copy the output text file to an external storage device or a shared network drive, and then copy it to the bin folder in the installation path on the CA WCC r11.3 server.
  5. Open a Windows command prompt or UNIX shell on the CA WCC r11.3 server and change your directory to the bin folder in the CA WCC installation path.

6. Run the following command:

```
wcc_monitor -u user_name -p password -i input_file [-v]
```

**-u, --user user\_name**

Specifies the authorized user name. You can use either the short name (-u) or the long name (--user).

**-p, --password password**

Specifies the password for the authorized user name. You can use either the short name (-p) or the long name (--password).

**-i, --import input\_file**

Specifies the fully-qualified name of the text file to import. You can use either the short name (-i) or the long name (--import).

**-v, --verbose**

(Optional) Displays debug messages. You can use either the short name (-v) or the long name (--verbose).

The exported job flows are imported as valid Monitoring views.

## Configuring Session Time-outs

Session time-out is the time that a user session can remain idle before timing out and releasing the session. A time-out is indicated by an Authorization Failure message in the interface window. Session time-outs for the Job Scheduling Server and the Job Flow Monitoring Server are determined by the Session Idle Timeout parameter. For the Job Status Console Server, they are determined by the Session Inactivity Timeout parameter. You can modify the Session Idle Timeout parameter or Session Inactivity Timeout parameters for the appropriate server using the Environment tab of the Configuration Manager.

**Note:** For more information about modifying this parameter, see the *Configuration Manager Help*.

Sessions also expire if the server or a CA WCC service stops and restarts while a user is logged in. This requires users to log in again in order to access CA WCC components. You may not be able to reconnect to some of the components without closing and reopening them.

If you are experiencing a significant number of session time-outs, you may want to modify the session time-out values to accommodate expected usage.

## Modify Session Time-outs

To modify the session time-out for a CA WCC component, you must modify the time-out value of the underlying Tomcat application server.

### To modify the session time-out

1. Open the web.xml file, located in the following folder, using a text editor:

*WCC\_installation\_root/servername/conf/*

The following XML element appears, containing the Session Timeout value, which is 30 minutes by default:

```
<session-config>
<session-timeout>30</session-timeout>
</session-config>
```

2. Change the value from 30 to the appropriate value (in minutes).
3. Save and close the web.xml file.
4. Restart the appropriate service. For example, restart CA WCC Configuration Server.

## Increasing the Initial and Maximum Heap Sizes on Client Computers

Graph views such as Flow View and Requirements View involve many graphical objects. Therefore, you may need to increase the initial and maximum heap sizes for the memory in the Java plug-in to support the large number of objects in graphs. If you have trouble rendering large job flows, contact CA Technical Support.

## Batch Interface Utilities

Six batch interface utilities are available for performing CA WCC functions from the Windows command line or UNIX console. The batch interface utilities replicate the features of the associated applications and also let you perform batch actions.

**Note:** To use a batch interface, you must be authorized to use the associated application.

Help for each batch interface can be found in the following locations:

### Windows

*WCC\_installation\_root\ConfigServer\BatchInterface\help*

*WCC\_installation\_root\Bookshelf\Help*

### UNIX

*WCC\_installation\_root/ConfigServer/BatchInterface/help*

*WCC\_installation\_root/Bookshelf/Help*

The batch interfaces included with CA WCC are as follows:

#### Configuration Batch Interface

Lets you modify CA WCC configurations such as server and user definitions from the Windows command line or UNIX console as an alternative to using the Configuration Manager to define the configuration. You can export, import, and deploy one or more CA WCC configurations, and restart CA WCC services. An exported configuration can be modified using a text editor.

Configuration Batch Interface Help contains procedures and examples that explain the command arguments. The name of the help file is Configuration\_Batch\_Interface\_Help.html.

#### Filter Job Types Batch Interface

Lets you create a list of authorized job types for all or for specific users. The list is used to populate the Filter Job Types tab in the Customize dialog that you can access in Quick Edit and Application Editor.

Filter Job Types Batch Interface Help contains procedures and examples that explain the command arguments. The name of the help file is Filter\_Job\_Types\_Batch\_Interface\_Help.html.

### **High Availability Batch Interface**

Lets you propagate configurations from a High Availability core server to spectator servers, list the members in the High Availability group, and list the configuration packages on a spectator server from the Windows command line or UNIX console as an alternative to using the High Availability application. Additionally, you can create a file that contains encrypted High Availability Batch Interface arguments. The encrypted file can be distributed, and a job or script can be created so that another user with lower security access can run the High Availability Batch Interface command with the encrypted file at a convenient time.

High Availability Batch Interface Help contains procedures and examples that explain the command arguments. The name of the help file is `High_Availability_Batch_Interface_Help.html`.

### **Job Status Console Batch Interface**

Lets you add, modify, and delete CA WCC view definitions (job status, prior run, and run log) and alert policy definitions from the Windows command line or UNIX console as an alternative to using the Job Status Console application. You can export and import existing views, filters, and alert policies from one CA WCC server to another, or create a text file that lets you insert and delete views, filters, and alert policies. An exported file can be modified using a text editor.

Job Status Console Batch Interface Help contains procedures and examples that explain the command arguments. The name of the help file is `Job_Status_Console_Batch_Interface_Help.html`.

### **Job Template Batch Interface**

Lets you create job templates for use with Quick Edit and Application Editor that contain common job properties. You can then select a job template from the Create Job dialog in Quick Edit or the Palette in Application Editor and create a job without the need to enter common job properties.

Job Template Batch Interface Help contains procedures and examples that explain the command arguments. The name of the help file is `Job_Template_Batch_Interface_Help.html`.

### **Monitoring Batch Interface**

Lets you insert, modify, or delete CA WCC monitoring views from the Windows command line or UNIX console as an alternative to using the Monitoring application. You can export and import existing views from one CA WCC r11.3 server to another, or create a text file that lets you insert, modify, or delete view definitions and their filters. An exported file can be modified using a text editor.

The Monitoring Batch Interface Help contains procedures and examples that explain the command arguments. The name of the help file is `Monitoring_Batch_Interface_Help.html`.

## Uninstall CA WCC on UNIX Using Graphical Mode

This procedure describes how to uninstall CA WCC from the CA WCC server.

**Important!** During the uninstallation, you are asked whether you want to unregister the application for CA WCC from CA EEM. If the server is part of a High Availability group, do not unregister the application if other CA WCC servers in the group are still using the application. The application should only be unregistered when you uninstall the last server in the group.

### To uninstall CA WCC on UNIX using graphical mode

1. Change to the following directory:

*WCC\_Root/\_uninst*

*WCC\_Root*

Specifies the root directory. This is usually /opt/CA/WorkloadCC.

2. Run the following command in a shell window:

*./uninstaller.bin*

Initialization occurs, then the CA Workload Control Center and Welcome pages appear.

3. Click Next.

The CA EEM server page appears.

4. Enter the CA EEM server information, select the Skip EEM Unregistration check box if appropriate, and click Next.

The summary information page appears.

5. Click Uninstall.

The uninstallation proceeds and after several minutes, you are prompted whether to back up your user data.

6. Click your response (Yes or No).

The uninstallation continues. When it ends, a message appears indicating success.

7. Click Finish.

The uninstallation is complete.

## Uninstall CA WCC on UNIX Using Console Mode

This procedure describes how to uninstall CA WCC from the CA WCC server.

**Important!** During the uninstallation, you are asked whether you want to unregister the application for CA WCC from CA EEM. If the server is part of a High Availability group, do not unregister the application if other CA WCC servers in the group are still using the application. The application should only be unregistered when you uninstall the last server in the group.

### To uninstall CA WCC on UNIX using console mode

1. Change to the following directory:

*WCC\_Root/\_uninst*

*WCC\_Root*

Specifies the root directory. This is usually /opt/CA/WorkloadCC.

2. Run the following command in a shell window:

*./uninstaller.bin -console*

Initialization occurs, then the CA Workload Control Center and Welcome messages appear.

3. Enter **1** (Next).

The CA EEM server page appears.

4. Enter the number for the appropriate response regarding CA WCC security policies, then enter **0** (finished).

**Note:** In console mode, removing the CA WCC security policies is the equivalent of unregistering the application for CA WCC from CA EEM.

5. Press **Enter** to accept the CA EEM server name.

6. Enter the EiamAdmin password, then enter **1** (Next).

The summary information page appears.

7. Enter **1** (Next).

The uninstallation proceeds and after several minutes, you are prompted whether to back up your user data.

8. Enter your response (**Y** or **N**).

The uninstallation continues. When it ends, a message appears indicating success.

9. Enter **3** (Finish).

The uninstallation is complete.



# Appendix A: Configuration Manager Tasks

---

The tasks described in this appendix can be used to configure CA WCC using the CA Configuration Manager application. For more information about related concepts or user interface components, see the *Configuration Manager Help*. These tasks are duplicated in the *Configuration Manager Help*, which can be opened in a separate browser window to have them available while you perform your configuration.

This section contains the following topics:

[Setting Up Servers](#) (see page 105)

[Setting Application Preferences](#) (see page 108)

[Deploying Changes and Restarting Services](#) (see page 114)

## Setting Up Servers

Initial CA WCC setup is performed using the Setup section of Configuration Manager, which contains options for performing the following tasks:

- Add, edit, or delete servers for CA WCC
- Verify the status of all scheduling manager servers currently deployed in CA WCC

### More information:

[Create a Server](#) (see page 106)

[Copy a Server](#) (see page 107)

[Verify a Server's Status](#) (see page 108)

## Create a Server

If you want to collect information from a specific back-end server, such as a CA Workload Automation AE server, to be displayed in the CA WCC interface, you must define that server to CA WCC. This includes workload automation servers and servers on which Event Management is installed.

### To define a server to CA WCC

1. Select one of the following server types from the drop-down list to the left of the Create button in the Server Results section:

- AE Server
- Event Console Server

2. Click Create.

The Create Server section opens with the appropriate properties for the selected server type displayed.

3. Complete the fields as appropriate, and click Save.

**Note:** If you try to add or update a server that has the same instance name and cluster name as an undeployed server, an error message is displayed.

The server configuration is saved.

4. Click Done.

The new server is displayed in the Deploy section and the Create Server section is removed from view.

5. Deploy your changes.

**Note:** Clicking the name of a server in the Deploy section opens the Edit Server section with the appropriate properties for the selected server displayed, so you can view or modify the properties before deploying.

6. Stop and start the services automatically selected for you in the Services section.

The server is now available for information retrieval.

### More information:

[Deploy Server Configuration Changes](#) (see page 117)

## Copy a Server

Once you have one server definition for a certain server type set up, you can use it as the basis for creating new definitions of that type to reduce data entry.

### To create a new server definition based on an existing server

1. Find the server you want to copy.
2. Select the Select check box to the left of that server, select Edit in SMC from the Select and drop-down list, and click Go.

The Server Management Console dialog opens, with the properties for the selected server displayed.

**Note:** You can copy multiple servers at one time by selecting the Select check boxes for all of the servers to be copied and then selecting Edit in SMC from the Select and drop-down list.

3. Change the modify\_servertype\_server command to insert\_servertype\_server and edit the server definition as appropriate. You must enter a unique name for the new server.
4. Click Execute.

CA WCC verifies the validity of the server definition. If the validity check encounters problems, a message is displayed describing the error. If the validity check succeeds, the commands are executed and the server is created.

5. Close the Server Management Console dialog.

The server configuration is saved and displayed in the Deploy section.

6. Deploy your changes.

**Note:** Clicking the name of a server in the Deploy section opens the Edit Server section with the appropriate properties for the selected server displayed, so you can view or modify the properties before deploying.

7. Stop and start the services automatically selected for you on the Services page.

The server is now available for information retrieval.

### More information:

[Deploy Server Configuration Changes](#) (see page 117)

## Verify a Server's Status

We recommend that you verify the status of each of your server definitions in Configuration Manager after you create them.

### To verify the status of a server

1. Find the server you want to verify.
2. Select the check box to the left of that server in the Server Results section.
3. Select Validate from the Select and drop-down list, and click Go.

**Note:** You can also validate a server before you deploy it by selecting the check box next to the server name in the Deploy section, selecting Validate from the Select and drop-down list, and clicking Go.

A status message is displayed at the top of the page and the Server Results section refreshes to display the status of the selected server.

### More information:

[Setting Up Servers](#) (see page 105)

## Setting Application Preferences

Environment and user interface properties for CA WCC applications are set to logical defaults. Using the Preferences section of Configuration Manager, you can modify the properties of the following applications as required to meet the needs of your enterprise:

- Application Editor
- Configuration Manager
- Enterprise Command Line
- High Availability
- Job Status Console
- Monitoring
- Quick Edit
- Quick View
- Reports
- Resources

**Note:** Some application preferences take effect immediately upon saving; others require services to be restarted and a new session of the corresponding application to be opened before taking effect.

## Edit Application Editor Preferences

Modifying the Application Editor preferences lets you change general properties to use for the Application Editor application for this CA WCC instance.

### To edit Application Editor preferences

1. Select Application Editor from the View/Modify Preferences drop-down list in the Preferences section, and click Go.  
The Application Editor properties are displayed.
2. Complete the fields as appropriate, and click Save.  
The properties are saved.
3. Stop and start the services automatically selected for you in the Services section.  
The specified properties are now in effect.

## Edit Configuration Preferences

Modifying the Configuration preferences lets you change the general properties to use for the Configuration Manager application for this CA WCC instance.

### To edit Configuration preferences

1. Select Configuration from the View/Modify Preferences drop-down list in the Preferences section, and click Go.  
The Configuration properties are displayed.
2. Complete the fields as appropriate, and click Save.  
The properties are saved.
3. Restart the CA WCC Configuration Server service.

**Note:** You cannot start, stop, or restart the CA WCC Configuration Server service from the Services section. On Windows, you must use the Services tool in the Control Panel to start or stop this service; on UNIX, you must use the unisrvctr command to start or stop it.

The specified properties are now in effect.

## Edit Enterprise Command Line Preferences

Modifying the Enterprise Command Line preferences lets you change general properties to use for the Enterprise Command Line application for this CA WCC instance.

### To edit Enterprise Command Line preferences

1. Select Enterprise Command Line from the View/Modify Preferences drop-down list in the Preferences section, and click Go.  
The Enterprise Command Line properties are displayed.
2. Complete the fields as appropriate, and click Save.  
The properties are saved.
3. Stop and start the services automatically selected for you in the Services section.  
The specified properties are now in effect.

## Edit High Availability Preferences

Modifying the High Availability preferences lets you change the server designation (core to spectator or spectator to core) or other High Availability properties for this CA WCC instance.

### To edit High Availability preferences

1. Select High Availability from the View/Modify Preferences drop-down list in the Preferences section, and click Go.  
The High Availability properties are displayed.
2. Complete the fields as appropriate, and click Save.  
The properties are saved.
3. Stop and start the services automatically selected for you in the Services section.

**Note:** When you restart the CA WCC Launcher Server service, you must close the main CA WCC page, then open a new browser instance and log back in.

The specified properties are now in effect.

## Edit Job Status Console Preferences

Modifying the Job Status Console preferences lets you change the general properties to use for the Job Status Console application for this CA WCC instance.

### To edit Job Status Console preferences

1. Select Job Status Console Server from the View/Modify Preferences drop-down list in the Preferences section, and click Go.  
The Job Status Console properties are displayed.
2. Complete the fields as appropriate, and click Save.  
The properties are saved.
3. Stop and start the services automatically selected for you in the Services section.  
The specified properties are now in effect.

## Edit Monitoring Preferences

Modifying the Monitoring preferences lets you change general properties to use for the Monitoring application for this CA WCC instance.

### To edit Monitoring preferences

1. Select Monitoring from the View/Modify Preferences drop-down list in the Preferences section, and click Go.  
The Monitoring properties are displayed.
2. Complete the fields as appropriate, and click Save.  
The properties are saved.
3. Stop and start the services automatically selected for you in the Services section.  
The specified properties are now in effect.

## Edit Quick Edit Preferences

Modifying the Quick Edit preferences lets you change general properties to use for the Quick Edit application for this CA WCC instance.

### To edit Quick Edit preferences

1. Select Quick Edit from the View/Modify Preferences drop-down list in the Preferences section, and click Go.  
The Quick Edit properties are displayed.
2. Complete the fields as appropriate, and click Save.  
The properties are saved.
3. Stop and start the services automatically selected for you in the Services section.  
The specified properties are now in effect.

## Edit Quick View Preferences

Modifying the Quick View preferences lets you change the general properties to use for the Quick View application for this CA WCC instance.

### To edit Quick View preferences

1. Select Quick View from the View/Modify Preferences drop-down list in the Preferences section, and click Go.  
The Quick View properties are displayed.
2. Complete the fields as appropriate, and click Save.  
The properties are saved.
3. Stop and start the services automatically selected for you in the Services section.  
The specified properties are now in effect.

## Edit Reports Preferences

Modifying the Reports preferences lets you change the general properties to use for the Reports-Forecast application for this CA WCC instance.

### To edit the Reports preferences

1. Select Reports from the View/Modify Preferences drop-down list in the Preferences section, and click Go.  
The Reports properties are displayed.
2. Complete the fields as appropriate, and click Save.  
The properties are saved.
3. Stop and start the services automatically selected for you in the Services section.  
The specified properties are now in effect.

## Edit Resources Preferences

Modifying the Resources preference lets you change general properties to use for the Resources application for this CA WCC instance.

### To edit Resources preferences

1. Select Resources from the View/Modify Preferences drop-down list in the Preferences section, and click Go.  
The Resources properties are displayed.
2. Complete the fields as appropriate, and click Save.  
The properties are saved.
3. Stop and start the services automatically selected for you in the Services section.  
The specified properties are now in effect.

## Deploying Changes and Restarting Services

It may be necessary to deploy changes, restart services, or both for the property settings to take effect. This is done using the Deploy section of Configuration Manager, which contains options for performing the following tasks:

- Deploy server configuration changes

**Note:** You can add comments before deploying changes.

- Start, stop, restart, or refresh CA WCC services

**Note:** The services that must be restarted are selected by default based on the changes made in the Configuration Manager.

### More information:

[CA WCC Services](#) (see page 115)

[Restart Services](#) (see page 117)

## CA WCC Services

You can use the Services section in Configuration Manager to stop, start, or restart the following services related to the application servers installed with CA WCC:

- CA WCC Application Editor Server
- CA WCC Command App Server
- CA WCC Event CPM Server
- CA WCC High Availability Server
- CA WCC Job Status Console Servant
- CA WCC Job Status Console Server
- CA WCC Launcher Server
- CA WCC Monitoring Collector
- CA WCC Monitoring Repository
- CA WCC Monitoring Server
- CA WCC Quick Edit Server
- CA WCC Quick View Server
- CA WCC Remote Services
- CA WCC Resources Server
- CA-Unicenter (NR-Server)
- CA-Unicenter (Remote)
- CA-Unicenter (Transport)
- CA-Unicenter
- CA-Unicenter NSM Auxiliary Services

**Note:** The CA WCC Configuration Server service may also appear, but you cannot start, stop, or restart it from the Services section. On Windows, you must use the Services tool in the Control Panel to start or stop this service; on UNIX, you must use the unisrvctr command to start or stop it. The CA-Unicenter NSM Auxiliary Services and CA-Unicenter services appear only if the associated features have been installed.

The CA-Unicenter NSM Auxiliary Services and CA-Unicenter services may not be available on all CA WCC servers. These optional installations may be installed elsewhere in the enterprise. If CA-Unicenter is present on the CA WCC server and you stop the CA-Unicenter (NR-Server) or CA-Unicenter (Transport) services, the CA-Unicenter service also stops. Because the CA-Unicenter service does not restart automatically when the CA-Unicenter (NR-Server) or CA-Unicenter (Transport) services are restarted, you must restart the CA-Unicenter service separately.

**Note:** On UNIX, the CA-Unicenter (NR-Server), CA-Unicenter (Remote), and CA-Unicenter (Transport) services are not started automatically during the installation process or by a system restart. They must be started manually from the Services section.

**More information:**

[unisrvctrn Command](#) (see page 116)

## unisrvctrn Command

The CA WCC Configuration Server service cannot be stopped or started from the Services page. On UNIX, you must use the unisrvctrn command to stop and start this service. The syntax for the unisrvctrn command is as follows:

`unisrvctrn {start|stop|restart|status} CA-uwccconfig`

**start**

Starts the service.

**stop**

Stops the service.

**restart**

Stops and then starts the service.

**status**

Reports the status of the service.

The unisrvctrn command must be run as a root user.

**Note:** When you stop the CA WCC Configuration Server (CA-uwccconfig) service, active CA WCC sessions in Configuration Manager are terminated.

## Deploy Server Configuration Changes

You must deploy server configuration changes to make them available. Deploying a change notifies the appropriate server (for example, JAWS or Event Console) that the servlet should refresh its copy of the configuration parameters.

### To deploy configuration changes

1. Click Deploy in the Deploy section.  
The Deploy dialog is displayed.
2. (Optional) Enter the appropriate comments in the Deploy Comments box. For example, you might enter a description of the specific changes being deployed.
3. Click Deploy.  
CA WCC deploys your changes and displays status messages indicating success (✓) or failure (✗).

### More information:

[Create a Server](#) (see page 106)

[Copy a Server](#) (see page 107)

## Restart Services

Restarting a service may be necessary to reflect the most current configuration settings in CA WCC. If a selected service was running, the service is stopped and then started. If a selected service was stopped, the service is started.

### To restart a service

1. Select the check box in the Select column in the Services section for each running service that you want to restart. To restart all services, select the check box to the left of the Select column title.

**Note:** Any services that require a restart for your latest set of configuration changes to become effective are selected by default.

2. Select Restart from the Select and drop-down list, and click Go.  
A confirmation dialog appears.
3. Click OK.

The selected services restart. The Status displays for each restarted service.

#### Notes

- Services do not start or stop immediately. Depending upon the service and the available server resources, starting or stopping a service may require from 15 seconds to more than 2 minutes to complete.
- When you restart the CA WCC Launcher Server service, you must close the main CA WCC page, then open a new browser instance and log back in.
- You cannot start, stop, or restart the CA WCC Configuration Server service from the Services section. On Windows, you must use the Services tool in the Control Panel to start or stop this service; on UNIX, you must use the unisrvctr command to start or stop it.

# Appendix B: CA WCC Default Ports

This section contains the following topics:

[Tomcat Application Servers and Default Ports](#) (see page 119)

## Tomcat Application Servers and Default Ports

The following table lists the default Tomcat application servers installed with CA WCC with their corresponding port settings:

Server	Related Applications	HTTP	HTTPS	Shutdown	Server
AppEditorServer	Application Editor	10129	10131	10130	n/a
CmdAppServer	Enterprise Command Line Reports - Forecast	10146	10148	10147	n/a
ConfigServer	Configuration Manager	n/a	10134	10133	n/a
Derby	Monitoring Database	1527	n/a	n/a	n/a
Derby	Reports - Forecast Database	1627	n/a	n/a	n/a
EventCPMServer	Critical Path Monitoring Event Console	10138	10140	10139	n/a
HAServer	High Availability Collector Servlet	10149	10151	10150	n/a
JobStatusConsoleServant	Job Status Console Job Status Views	10143	10145	10144	n/a
JobStatusConsoleServer	Job Status Console	n/a	n/a	n/a	10222
LauncherServer	CA WCC Main Credentials	n/a	8443	8005	n/a
MonitoringCollector	Monitoring Collector	n/a	n/a	n/a	n/a
MonitoringServer	Monitoring	10135	10137	10136	n/a
QuickEditServer	Quick Edit	10152	10154	10153	n/a
QuickViewServer	Quick View	10155	10157	10156	n/a
RemoteServices	Remote Services	n/a	10163	10162	n/a
ResourcesServer	Resources	10158	10160	10159	n/a

The following table lists other default ports:

Name	Port	Notes
HA Server UDP Multicast	2299	The UDP Multicast address is 229.9.1.1.
HA TCP Port	9701	If 9701 is not available, High Availability will use a port in the following range: 9701-9999.
Job Status Console UDP Multicast	2399	The UDP Multicast address is 229.9.1.1.
CA EEM (formerly eTrust IAM)	5250	
CA EEM Failover Port	509	

**More information:**

[Installation Checklist for CA WCC \(see page 38\)](#)

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