

# CA Workload Automation Agent for i5/OS

**Release Notes**

r11.3



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## CA Technologies Product References

This document references the following CA Technologies products:

- CA Process Automation
- CA Workload Automation AE
- CA Workload Automation Agent for Application Services (CA WA Agent for Application Services)
- CA Workload Automation Agent for Databases (CA WA Agent for Databases)
- CA Workload Automation Agent for i5/OS (CA WA Agent for i5/OS)
- CA Workload Automation Agent for Linux (CA WA Agent for Linux)
- CA Workload Automation Agent for Micro Focus (CA WA Agent for Micro Focus)
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- CA Workload Automation Agent for Web Services (CA WA Agent for Web Services)
- CA Workload Automation Agent for Windows (CA WA Agent for Windows)
- CA Workload Automation CA 7 Edition
- CA Workload Automation DE
- CA Workload Automation Desktop Client (CA WA Desktop Client)
- CA Workload Automation ESP Edition
- CA Workload Control Center

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# Chapter 1: Agent Functionality

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This section contains the following topics:

[CA WA Agent for i5/OS](#) (see page 7)

## CA WA Agent for i5/OS

CA WA Agent for i5/OS runs on the i5/OS operating system enabling the scheduling manager to submit and run workload on the i5/OS platform. You can run workload from the following file systems:

- Root file system
- Open systems file system (QOpenSys)
- Library file system (QSYS)

You can schedule most UNIX workload, such as UNIX scripts, in the PASE environment on the i5/OS operating system.

Using the agent, you can automate and manage your i5/OS environment from one central point of control. For example, you can do the following:

- Process jobs on an i5/OS platform with predecessor or successor jobs running on a z/OS mainframe or on other platforms
- Run workload across one or more i5/OS systems connected to a central scheduling manager site
- Pass information between the scheduling manager and the agent

You can also use the agent to automate FTP transfers using FTP jobs. An FTP job can use an existing FTP server or the agent as an FTP server. The FTP job always acts as an FTP client. You can set up the agent to run as an FTP client, FTP server, or both. You can define SCP and SFTP jobs to securely transfer binary files between an agent computer and a remote computer. You can upload to or download data from a remote server. The data is encrypted during the transfer. Other functionality includes the ability to monitor the disk, CPU and files on the system, as well as respond to jobs in a message wait (MSGW) state on the i5 system, and retrieve the spool file(s) for a job.



# Chapter 2: New Features

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This section contains the following topics:

[New Product Name](#) (see page 9)

[For Administrators](#) (see page 9)

[For Schedulers and Operators](#) (see page 11)

## New Product Name

In the previous release, the product was named ESP System Agent for i5/OS. Starting in r11.3, we have renamed the product to CA Workload Automation Agent for i5/OS. The product documentation uses agent as the short form.

## For Administrators

The agent is enhanced with the following new features:

### IPV6 Support

In addition to the current IPv4 protocol, the agent supports Internet Protocol version 6 (IPv6).

### FIPS 140-2 Compliance

The U.S. Government encryption standard FIPS 140-2 requires a FIPS-certified library and FIPS-certified cipher algorithm. To comply with the standard, the agent provides the following:

- RSA BSAFE Crypto-J library
- Advanced Encryption Standard (AES) cipher algorithm

## New Management Connectors

The agent has built-in management connectors that let third-party tools monitor and control the agent. The agent provides the following management connectors:

### JMX Connector

Connects a JMX console to the agent to perform the following tasks:

- Discover metrics
- Query and modify values of various metrics
- Discover and invoke various functions
- Discover, subscribe, and receive notifications

### SNMP Connector

Connects an SNMP manager to the agent to perform the following tasks:

- Discover metrics
- Query and modify values of various metrics
- Send notifications through SNMP traps

The agent supports SNMP V1, V2, and V3. The agent includes the MIB file that describes all the required metrics and traps.

## New SNMP Manager Functionality

You can configure an SNMP agent plug-in, packaged with the agent, to act as an SNMP manager to emit and listen for SNMP traps. The SNMP agent plug-in supports SNMP V1, V2, and V3. Once configured, users can define and run SNMP job types.

**Note:** Not all scheduling managers support the SNMP manager functionality. Consult the *Release Notes* for your scheduling manager to determine whether this enhancement is supported.

### More information:

[New SNMP Jobs](#) (see page 12)

## Log of Spool File Cleanup Activities

The agent generates spool files to store workload data. You can configure the agent to automatically clear spool files. In this release the agent logs the spool-file cleanup activities in the `runner_spool_cleaner.log` file, located in the log directory of the agent.

## New Job Logs for Troubleshooting

You can configure the agent to create a job log for each UNIX job that runs on the i5/OS system. The job log contains environment and other diagnostic information that you can use to debug failed jobs.

**Note:** These job logs are different than the job logs the i5/OS system creates.

## For Schedulers and Operators

The agent is enhanced with the following new features:

### Local Data Area (LDA) Support for i5/OS Jobs

You can specify data for the local data area in an i5/OS job. The local data area is a temporary 1024-byte storage area that exists for the duration of the job. You can use the local data area to pass data to the job and to other programs that run as part of the job.

### New Secure Copy Job

You can automate the transfer of binary files between your agent computer and a remote computer using a Secure Copy job. The data is encrypted during the transfer. The job can use the Secure Copy Protocol (SCP) or the Secure File Transfer Protocol (SFTP). The SFTP protocol supports wildcard transfers, so you can upload multiple files to a remote computer or download multiple files to the agent computer. The SCP protocol does not support wildcard transfers.

**Note:** Some scheduling managers support the Secure Copy job and a Secure FTP job. Consult the *Release Notes* for your scheduling manager to determine the support for this enhancement.

### New Wake on LAN Job

You can save energy using the Wake on LAN (WOL) feature to automate the startup of your computers. Setting up WOL lets you define and schedule WOL jobs to ping a server to turn it on. When the server is no longer needed, you can schedule a different job to power it down.

**Note:** Not all scheduling managers support the Wake on LAN job. Consult the *Release Notes* for your scheduling manager to determine whether this enhancement is supported.

## New SNMP Jobs

The new SNMP agent plug-in, packaged with the agent, lets you define and run the following new job types:

### **SNMP Subscribe**

Lets you subscribe for SNMP trap information.

### **SNMP Trap Send**

Lets you send SNMP trap information.

### **SNMP Value Get**

Lets you retrieve the value of an SNMP variable.

### **SNMP Value Set**

Lets you set the value of an SNMP variable.

**Note:** Not all scheduling managers support the SNMP jobs. Consult the *Release Notes* for your scheduling manager to determine whether this enhancement is supported.

## Enhanced FTP Job—Commands and Parameters

When you define an FTP job, you can specify one or more commands to execute before file transfer. You can use this feature to send site-specific FTP commands to FTP servers.

## Enhanced Text File Reading and Monitoring Job—Character Encoding

When you define a Text File Reading and Monitoring job, you can specify the character encoding of the text file the agent monitors. For example, you can monitor a text file that contains data encoded in ISO-8859-1 (ISO Latin Alphabet No. 1 or ISO-LATIN-1).

## WAIT Mode for Monitoring Jobs

A WAIT mode is available for all the monitoring jobs. When you specify the WAIT mode in a job definition, the job waits for the conditions to occur. When the conditions are met, the job completes.

**Note:** Not all scheduling managers support the WAIT mode. Consult the *Release Notes* for your scheduling manager to determine whether this enhancement is supported.

## File System Size Verification for UNIX and Windows Systems

When you define a job that runs on a Windows or UNIX system, you can specify the minimum amount of file space that must be available for the job to start. Before the job is submitted, the agent reviews the target file system for sufficient space to determine whether the job runs. If insufficient space is available, the job fails.

**Note:** Not all scheduling managers support the file system size verification. Consult the *Release Notes* for your scheduling manager to determine whether this enhancement is supported.

## Ulimit Support for UNIX Scripts or Commands

When you define jobs that run on UNIX computers, you can specify a ulimit to set or get the resource usage of the UNIX shell. The ulimit lets you specify a resource type, the usage limit for the resource, and whether root authority is required for changes. For example, you can specify a ulimit to restrict the core file size of a UNIX script.

**Note:** Not all scheduling managers support ulimit. Consult the *Release Notes* for your scheduling manager to determine whether this enhancement is supported.



# Chapter 3: Changes to Existing Features

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This section contains the following topics:

[For Administrators](#) (see page 15)

[For Schedulers and Operators](#) (see page 16)

## For Administrators

The agent is enhanced with the following changes:

### Change to Log Timestamp Format

The timestamp format in the agent logs has been changed from:

EEE MMM dd HH:mm:ss.SSS zzz yyyy

to

MM/dd/yyyy HH:mm:ss.SSS zZ

**Note:** This change does not apply to the runner\_os\_component.log log.

### CybFTPSecurityUtility Change to ftpusrcfg

The CybFTPSecurityUtility utility that you use to create FTP users has changed its name in this release to ftpusrcfg. The utility is located in the agent installation directory.

### Change to Default Shell for Running UNIX Scripts

The agent uses the Bourne shell as its default to run UNIX scripts. You can change the default shell using the oscomponent.defaultshell parameter in the agentparm.txt file. In previous releases, the agent used the Korn shell as the default.

### Change to Agent Status File

In this release, the agent records its status in the status file. The status.os file no longer exists.

## Save Encrypted ESPlmi Password

ESPlmi now accepts an encrypted password in hexadecimal format that starts with 0x. You can use the password utility, provided with the agent, to encrypt the password.

**Note:** This enhancement only applies to CA Workload Automation ESP Edition.

## For Schedulers and Operators

The agent is enhanced with the following changes:

### Change in File Trigger Job Behavior

A File Trigger job that monitors for DELETE, CREATE, or NOTEXIST (Non existing) file activity does not complete when the file directory specified in the job definition is missing. If the specified directory does not exist or is deleted during monitoring, the job fails and the agent sets the status to "Scan Failed".

# Chapter 4: Supported Systems and Requirements

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This section contains the following topics:

[i5/OS Platforms](#) (see page 17)

[i5/OS System Requirements](#) (see page 17)

[Scheduling Manager Support](#) (see page 18)

## i5/OS Platforms

The agent supports any i5/OS or i5 system that supports i5/OS, Version V5R4M0, or higher.

**Note:** Ensure that IBM PTF SI27705 is installed on V5R4M0 systems.

## i5/OS System Requirements

CA Workload Automation Agent for i5/OS requires the following environments:

- J2SE 5.0 32-bit (5722-JV1, Option 8)
- PASE (5722SS1 - Portable Application Solutions Environment, option 33)
- TCP/IP (5722-TC1) or TCP/IP (5722-AC1, AC2 or AC3) if you are using the agent to run SSL FTP workload
- Installation of the latest i5/OS CUM distribution
- The required group PTF levels for your i5/OS system

For V5R4, the required minimum group PTF levels are as follows:

Group PTF	Level	Description
SF99540	9321	CUMULATIVE PTF PACKAGE C9321540
SF99539	118	Group Hiper PTF
SF99291	22	Java Group PTF
SF99315	13	TCP/IP Group PTF

For V6R1, the required minimum group PTF levels are as follows:

<b>Group PTF</b>	<b>Level</b>	<b>Description</b>
SF99610	10047	CUMULATIVE PTF PACKAGE C0047610
SF99609	57	Group Hiper PTF
SF99562	11	Java Group PTF
SF99354	5	TCP/IP Group PTF

For V7R1, the required minimum group PTF levels are as follows:

<b>Group PTF</b>	<b>Level</b>	<b>Description</b>
SF99710	11116	CUMULATIVE PTF PACKAGE C1116710
SF99709	46	Group Hiper PTF
SF99572	6	Java Group PTF
SF99367	5	TCP/IP Group PTF

## Scheduling Manager Support

For current information regarding scheduling manager support, check the CA Workload Automation Support web page at <http://ca.com/support>.

# Chapter 5: Related Documentation

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

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

This section contains the following topics:

[Agent Documentation](#) (see page 19)

[CA Workload Automation AE Documentation](#) (see page 19)

[CA Workload Automation DE Documentation](#) (see page 20)

[CA Workload Automation ESP Edition Documentation](#) (see page 20)

[CA Workload Automation CA 7 Edition Documentation](#) (see page 21)

## Agent Documentation

To install, configure, and maintain the agent, refer to the *CA Workload Automation Agent for i5/OS r11.3 Implementation Guide*.

## CA Workload Automation AE Documentation

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

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

## CA Workload Automation DE Documentation

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

<b>Task</b>	<b>Documentation</b>
Configure the scheduling manager to work with the agent	<i>CA Workload Automation DE Admin Perspective Help</i>
Define jobs	<i>CA Workload Automation DE Define Perspective Help</i>
Monitor and control jobs	<i>CA Workload Automation DE Monitor Perspective Help</i>

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

## CA Workload Automation ESP Edition Documentation

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

<b>Task</b>	<b>Documentation</b>
Configure the agent to work with the scheduling manager	<i>CA Workload Automation ESP Edition Installation and Configuration Guide</i>
Define jobs	<i>ESP System Agent for i5/OS Guide to Scheduling Workload</i>
Monitor and control jobs	<i>ESP System Agent for i5/OS Guide to Scheduling Workload</i>
	<i>CA Workload Automation ESP Edition Operator's Guide</i>

## CA Workload Automation CA 7 Edition Documentation

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

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



# Appendix A: Acknowledgements

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

This section contains the following topics:

[Apache Axis 1.4](#) (see page 23)

[Apache Software Foundation](#) (see page 23)

[Cryptix 3.2](#) (see page 28)

[HP-UX JRE 6.0.04](#) (see page 28)

[JT Open 6.0](#) (see page 33)

[Jython](#) (see page 37)

[Rhino 1.6 Release 2](#) (see page 45)

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