

# **Universal Automation Center Agent 7.9.x Reference Guide**

Universal Agent 7.9.x

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# 1 Universal Automation Center Agent

Universal Automation Center Agent (UAG) provides agent services for [Universal Controller](#), the Stonebranch workload automation solution that performs job scheduling, file transfer, and event monitoring across all server platforms in an enterprise.

UAG enables the Controller to schedule workload, transfer files, and monitor events on the Universal Agent system, integrating with the Controller to provide distributed, workload automation throughout the enterprise.

## 2 Usage

Universal Automation Center Agent (UAG) automatically starts when the Universal Broker starts and stops when the Universal Broker stops. In order for UAG to register with the Controller, UAG network configuration options must be appropriately defined for your local deployment.

UAG and the Controller communicate using the Universal Message Service (OMS) server. The OMS server provides for secure, reliable, asynchronous message oriented communications over TCP/IP sockets.

### 2.1 Configuration

UAG must be configured with the TCP/IP addresses of the OMS servers. An OMS server address is the TCP/IP port number and host name or IP address. A comma-separated list of OMS server addresses may be specified that represent an OMS server High Availability cluster.

For detailed information on the configuration options, see [Universal Automation Center Agent Configuration Options](#).

### 2.2 Component Definition

The Component Definition is a text file of options that defines UAG-specific information required by the Universal Broker.

For detailed information on the Component Definition options, see [Universal Automation Center Agent Component Definition Options](#).

### 2.3 Universal Access Control List

Universal Access Control Lists (UACLs) provide an additional layer of control over how work is executed by UAG. UAG is deployed on all Agents to perform services, such as executing tasks or monitoring files, on behalf of the Controller. Where the Controller provides a secure, central point of control for all enterprise workload, UACLs provide an additional layer of security control on the systems running UAG. The UACLs provide the ability to customize security controls as required by the local security policy that governs a system.

UAG can execute tasks with or without user credentials. The task credentials define the user account (and password) with which the task executes.

The UACLs provide two capabilities in regards to task execution:

1. Restrict the user accounts with which the Controller tasks execute. Specific user accounts can be denied or allowed access.  
For example, a UACL entry can deny access to any task request executing as root, or allow only specific user accounts to be used for task execution and deny all others.
2. Disable user authentication. User authentication is performed by UAG with the user account and password provided in the Controller credentials before UAG executes the requested task. For tasks executed from the Controller using specific user accounts, UACL entries can disable authentication so that passwords for these accounts do not have to be managed in the Controller. The task executes with the requested user account as if authentication was successfully completed.

**Note**

This is available only on UNIX and Linux platforms.

### 2.3.1 UACL Entries

The syntax of a UACL entry file is the same as the UAG configuration file.

For detailed information about each UACL entry, see [Universal Automation Center Agent UACL Entries](#).

## 3 Detailed Information

The following pages provide additional detailed information for UAG:

- [Universal Automation Center Agent on z/OS](#)
- [Universal Automation Center Agent Configuration Options](#)
- [Universal Automation Center Agent Component Definition Options](#)
- [Universal Automation Center Agent UACL Entries](#)

## 4 Universal Automation Center Agent on IBM i

- [User Command Environment](#)
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    - [UAGSJOB](#)
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### 4.1 User Command Environment

The user request is initiated by the **INITIATOR** program running under the **UNVSRV** pre-start job via the **UAGSRV** program running under a different **UNVSRV** pre-start job.

The **INITIATOR** program:

1. Performs environment setup required to execute user commands or scripts.
2. Changes the user profile if user credentials are specified in the associated task definition.
3. Initiates the user request.
4. Monitors the user's request as it runs.
5. Catches any exceptions that occur and prints their content to stderr.

Following completion of the user request, the **INITIATOR** program:

1. Cleans up the environment.
2. Returns the maximum severity code encountered while processing the user request to be used as the exit code for the associated task instance.

The **INITIATOR** job log is retained on the system in the pending state. The spool file output produced by the executed commands is written to the user's default spool output queue. The spool files produced by the commands are not returned with the task instance output. If you would like the command output returned to the Universal Command Manager as well as the job log, see [Universal Submit Job](#) for an execution method that returns all command spool files as well as the job log.

The **UNVSRV** pre-start job is defined in the **UNVUBR770** subsystem. By default, there are always at least three **UNVSRV** pre-start jobs running under the **UNVUBR770** subsystem.

### 4.1.1 Initiator (INITIATOR) Exit Points

The Initiator (**INITIATOR**) calls two user exits:

1. **UAGSJOB** is called once for job initialization.
2. **UAGSJOB** is called once for job termination.

The CL source code is provided in **UNVPRD770/UNVCLSRC**.

The CL source files are compiled and bound with the following command:

```
CRTBNDCL PGM(UNVPRD770/exitname)
          SRCFILE(UNVPRD770/UNVCLSRC)
          SRCMBR(exitname)
```

Change the **exitname** to the name of the exit to be compiled and bound.

#### 4.1.1.1 UAGSJOB

The **UAGSJOB** exit is called before any user command is executed. This exit can be used to customize the job's environment to meet local requirements. It executes under the user profile associated with the credentials specified in the associated task definition. If no credentials are specified, the UNVUBR770 user profile is used. If the exit issues unhandled messages with a severity greater than or equal to the value of the UAG Server **END\_SEVERITY** option, the job will terminate without executing any user commands.

#### 4.1.1.2 UAGSJOB

The **UAGSJOB** exit is called after all user commands have completed. The current exit code is passed in as a parameter. The exit executes under the user profile associated with the credentials specified in the associated task definition. If no credentials are specified, it executes under the UNVUBR770 user profile. The exit will always be called once **UAGSJOB** returns successfully. If **UAGSJOB** issues an unhandled message that causes job termination, **UAGSJOB** will not be called.

### 4.1.2 User Command Exit Code

The exit code returned to the task instance in the Controller indicates the success or failure of the user-requested command. The exit code is returned by UAG based on the exit code that it receives from the Initiator (**INITIATOR**). The Initiator sets its exit code based on the highest severity of the IBM i messages propagated to it from user commands or scripts. The Initiator traps and handles all \*ESCAPE, \*NOTIFY, \*STATUS messages and function checks.

**INITIATOR** continues executing user commands as long as the highest message severity is less than the severity specified by the UAG Server **END\_SEVERITY** option.

In the event of an error not associated with the user-requested command, **UAGSINIT** returns exit code 99. If the error occurs following set up for returning the **UAGSINIT** job log to the user, the job log is returned as usual. Otherwise, no job log is returned and the user must check the output queues for a job log associated with the failure.

#### 4.1.2.1 User Identification

- Task definitions that specify credentials will execute user commands in a job set to specified user profile.

- For task definitions that do not specify credentials, the user profile used for the job that runs the user commands is inherited from the Universal Broker. The inherited user profile is **UNVUBR770**; as installed, this profile provides a very high level of authority including \*ALLOBJ, \*SPLCTL, and \*JOBCTL.

### 4.1.2.2 Current Library and Working Directory

The current library and working directory of a user command depends on the user profile under which the job runs:

The default value used for the current library in the **UNVUBR770** user profile is **UNVTMP770**. Care should be taken to avoid name clashes and other consequences of multiple processes sharing a common current library and working directory.

## 4.2 User Commands

UAG accepts four forms of commands from task definitions specified in the Controller.

1. Single CL command
2. Single REXX line
3. Single PASE command
4. CL command script
5. REXX EXEC script

### 4.2.1 Single CL Command

The IBM i task type in the Controller specifies a command type of **CL** via the "Command Type" drop down in the task definition form.

The CL command must be of a type that can be executed by the QCMDXC API. This is indicated by the command description in the CL Reference manual by the keyword Exec in the upper right corner of the command's syntax diagram.

### 4.2.2 Single REXX Line

The IBM i task type in the Controller specifies a command type of **REXX** via the "Command Type" drop down in the task definition form.

REXX and any associated commands must be of a type that can be executed by the QCMDXC API as described in Single CL Command above.

Multiple statements contained in the single line command must be separated by semicolons as described in the REXX manuals. The first statement does not require a REXX comment.

For example, the following command sends the text "Change current library to ABC" to standard output and changes the current library:

```
say 'Change current library to ABC'; "CHGCURLIB CURLIB(ABC) "
```

A user may use a simple REXX program in this context to setup and execute programs on the IBM i.

REXX provides the benefit of using standard output (STDOUT) and standard input (STDIN) files as part of their environment. The SAY command writes to STDOUT and the PULL command reads from STDIN.

STDOUT from REXX on the IBM i is redirected back to STDIN of the Command Manager and REXX STDIN on the IBM i is redirected from the STDOUT of the Command Manager. CL command files do not use STDOUT or STDIN directly.

### 4.2.3 Single PASE Command

The IBM i task type in the Controller specifies a command type of **PASE** via the "Command Type" drop down in the task definition form.

### 4.2.4 CL Command Script

The IBM i task type in the Controller specifies a CL command script by selecting **Script** from the "Command or Script" drop down and selecting the target script from the "Script" dropdown in the task definition form. Additionally, in order to be processed as a CL script, the script name must use an extension of ".cl". For example, "my\_cl\_script.cl".

The script contains a sequence of CL commands to be executed in sequential order. The commands are executed from first to last or until a command generates a message with a severity greater than or equal to the UAG Server [END\\_SEVERITY](#) option.

The CL commands are limited to the same set of CL commands described in Single CL commands above.

Each command is executed within the same job environment. This is similar to a batch job execution, but // CL commands cannot be used.

Blank lines and CL comment lines are ignored in the script.

CL line continuation characters (+ and -) can be used in the script and are processed accordingly.

The first line cannot be a comment line containing the word REXX.

### 4.2.5 REXX EXEC File

The IBM i task type in the Controller specifies a REXX command script by selecting **Script** from the "Command or Script" drop down and selecting the target script from the "Script" dropdown in the task definition form. Additionally, in order to be processed as a REXX script, the script name must use an extension of ".rexx". For example, "my\_rexx\_script.rexx".

REXX EXECs have the benefit of using standard output (STDOUT) and standard input (STDIN) files as part of their environment. The SAY command writes to STDOUT and the PULL command reads from STDIN.

## 5 Universal Automation Center Agent on z/OS

- [z/OS Application Monitoring and Control](#)
- [Extended MCS Console](#)
  - [Security](#)
- [GDG Datasets Restriction](#)
- [Data Set Deletion Report](#)
- [UAG Audit Report](#)

### 5.1 z/OS Application Monitoring and Control

The Universal Controller [Application Monitoring and Control](#) feature allows you to use Universal Controller as an application monitoring and control system. You can start, stop, and query applications running on any system where you have an Agent installed and running.

A z/OS Universal Controller [Application](#) resource identifies a z/OS started task to be monitored and controlled by a z/OS Agent. The z/OS Agent executes MVS system commands using an extended MCS console to perform the start, stop, and query actions specified in the Application resource.

### 5.2 Extended MCS Console

Universal Automation Center Agent (UAG) establishes an extended MCS console with the following attributes:

| Extended MCS Attribute                  | Value                                   |
|-----------------------------------------|-----------------------------------------|
| Command Authority                       | Master Authority                        |
| Console Key (used in DISPLAY C command) | NONE                                    |
| Console Name                            | UBROKER <a href="#">SYSTEM_ID</a> value |
| Command Scope                           | Current system                          |
| Message Scope                           | Current system                          |
| Override User Profile OPERPARM          | Yes                                     |

#### 5.2.1 Security

The extended MCS console is activated and deactivated with the UBROKER STC user ID. The system commands are executed using the extended MCS console with the user ID defined by the Application resource credentials. If no credentials are specified in the Application resource definition, the system commands are executed with the UBROKER STC user ID.

Extended MCS consoles can be protected so that only permitted users have the authority to issue commands. The RACF OPERCMDS class is used to establish user security for extended MCS consoles.

Refer to the *IBM MVS Planning: Operations* and the *Security Server RACF Security Administrator Guide* manuals for complete details.

## 5.3 GDG Datasets Restriction

**File Monitors** with Monitor Type = Exists or Create do not work with GDG datasets. Whether the generation is coded explicitly (for example: DATA.SET.NAME.G0001V00) or relatively (for example: DATA.SET.NAME(0)), the File Monitor will always end with 'Dataset Not Found'.

## 5.4 Data Set Deletion Report

The UAG Deleted Data Sets report lists the data sets that were deleted before a z/OS job ran. This includes all data sets that were considered for deletion (that is, all data sets that would normally have been deleted, except under special circumstances).

Some reasons for not deleting a data set are:

- User specified OPSDSDEL=NO
- Data set name is included in the dsn\_delete\_exclude list
- Data set is referenced in a step prior to the one that creates it.
- Data set was not created in a prior run because the step was skipped or flushed.
- An error occurred while trying to delete the data set.

## 5.5 UAG Audit Report

At start-up, UAG produces a report containing information useful to Stonebranch Support.

This includes information on:

- UAG version
- OS version
- UAG configuration information
- OS environmental information
- Other UAG information considered useful

## 6 Universal Automation Center Agent Configuration Options

- [Overview](#)
- [Configuration Options Information](#)
  - [Description](#)
  - [Usage](#)
  - [Values](#)
  - [Additional Information](#)
- [Configuration Options List](#)

### 6.1 Overview

This page provides links to detailed information on the configuration options available for use with the Universal Automation Center Agent (UAG).

The options are listed alphabetically, without regard to any specific operating system.

### 6.2 Configuration Options Information

For each configuration option, these pages provide the following information.

#### 6.2.1 Description

Describes the configuration option and how it is used.

#### 6.2.2 Usage

Provides a table of the following information:

| Method                     | Syntax           | IBM i | HP NonStop | UNIX | Windows | z/OS |
|----------------------------|------------------|-------|------------|------|---------|------|
| Configuration File Keyword | <Format / Value> |       |            |      |         |      |

##### 6.2.2.1 Method

Identifies the method used to specify Universal Automation Center Agent configuration options:

- Configuration File Keyword

### 6.2.2.2 Syntax

Identifies the syntax of the method used to specify the option:

- **Format:** Specific characters that identify the option.
- **Value:** Type of value(s) to be supplied for this method.

### 6.2.2.3 (Operating System)

Identifies the operating systems for which each method of specifying the option is valid:

- IBM i
- UNIX
- Windows
- z/OS

### 6.2.3 Values

Identifies all possible values for the specified value type.

Defaults are identified in **bold type**.

### 6.2.4 Additional Information>

Identifies any additional information specific to the option.

## 6.3 Configuration Options List

The following table identifies all Universal Automation Center Agent configuration options. Each **Option Name** is a link to detailed information about that option.

| Option Name                        | Description                                                                                                            |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <a href="#">AGENT_CLUSTERS</a>     | List of Agent Clusters to join automatically.                                                                          |
| <a href="#">AGENT_IP</a>           | IP address of an Agent.                                                                                                |
| <a href="#">AUTOMATIC_FAILOVER</a> | Specification for whether or not automatic failover is used.                                                           |
| <a href="#">BUSINESS_SERVICES</a>  | Specification for the list of Business Services to join automatically.                                                 |
| <a href="#">CF_STRUCT_NAME</a>     | Name of a Coupling Facility structure that will be used to communicate from the secondary Agents to the primary Agent. |
| <a href="#">CODE_PAGE</a>          | Text translation code page.                                                                                            |
| <a href="#">DATA_DIRECTORY</a>     | Base directory for the UAG <code>cache/</code> , <code>logs/</code> , and <code>var/</code> sub-directories.           |
| <a href="#">DSN_DELETE_EXCLUDE</a> | Data sets that are excluded from UAG re-run data set delete processing.                                                |

|                                  |                                                                                                                                                                                                               |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| END_SEVERITY                     | Specifies the message severity level that must be reached in order for the Initiator job to terminate.                                                                                                        |
| EXTENSION_ACCEPT_LIST            | Lists Extensions that Universal Agent will accept via auto-deployment from Universal Controller.                                                                                                              |
| EXTENSION_CANCEL_TIMEOUT         | Length of time that a Universal Extension task is given to complete its response to a CANCEL request received from Universal Controller.                                                                      |
| EXTENSION_CHECKSUM_TIMEOUT       | Specifies how long a cached Universal Extension checksum will be considered valid.                                                                                                                            |
| EXTENSION_DEPLOY_ON_REGISTRATION | Controls Extension deployment behavior from Universal Controller.                                                                                                                                             |
| EXTENSION_PYTHON_LIST            | Controls Extension deployment behavior from Universal Controller.                                                                                                                                             |
| FM_CREATE_FAIL_NODIR             | Specification for whether or not a Universal Controller <a href="#">File Monitor task</a> with a Monitor Type of <b>Create</b> will fail if the directory specified in the file(s) to monitor does not exist. |
| FM_FAULT_TOLERANT                | Specification for whether or not <a href="#">File Monitors</a> will behave in a fault tolerant manner.                                                                                                        |
| FM_FAULT_TOLERANT_TIMEOUT        | Specification for the amount of time that a <a href="#">fault tolerant File Monitor</a> will tolerate a temporary fault condition before failing.                                                             |
| FM_FILES_OWNERSHIP               | Specification for whether or not to retrieve file ownership information in <a href="#">Agent File Monitors</a> .                                                                                              |
| FTP_FM_FAULT_TOLERANCE           | Specification for whether or not to enable fault tolerance for FTP File Monitors when <a href="#">UFTP</a> is executed from UAG.                                                                              |
| GDG_PROCESSING                   | Specification for the type of GDG processing to use.                                                                                                                                                          |
| HIGH_COMMON_STORAGE              | Maximum amount of high common storage (in MB) that will be used by an Agent to stage job tracking information.                                                                                                |
| HISTORY_RETENTION                | Specifies how many hours of history information for jobs executed by UAG is retained in the history dataset.                                                                                                  |
| INSTALLATION_DIRECTORY           | Base directory where product is installed.                                                                                                                                                                    |
| JCL_LIBRARY                      | JCL library ddname allocations.                                                                                                                                                                               |
| JCL_SAVE_LIBRARY                 | JCL for all jobs submitted by UAG will be saved here.                                                                                                                                                         |
| JES_SYSOUT_CLASS                 | JES held class dedicate to UAG SYSOUT processing.                                                                                                                                                             |
| JES_SYSOUT_DISP                  | Disposition of a job's SYSOUT data sets once UAG has completed processing them.                                                                                                                               |
| JES_SYSOUT_RETENTION             | Number of hours that job SYSOUT files are retained in the UAG cache directory.                                                                                                                                |
| JES_SYSOUT_SPACE                 | Allow configurable space parameters for UAGSRV Temporary Output Datasets on z/OS.                                                                                                                             |
| JES_SYSOUT_TIMEOUT               | Make timeout on JES output read configurable.                                                                                                                                                                 |
| JSC_DATASET                      | Name of the VSAM Job Submission Checkpoint cluster. In a sysplex environment, all Agents sharing the same system ID must use the same JSC.                                                                    |
| JTSK_NUM                         | Number of job task worker threads (JTSK threads) created, which are responsible for job-related services, such as job submission, tracking, and JES sysout collection.                                        |
| KILL_PROCESS_TREE                | Specification for whether or not UAG should always terminate the entire task process tree when a Cancel command is issued.                                                                                    |
| LOGLVL                           | Logging level of UAG.                                                                                                                                                                                         |
| LOGON_METHOD                     | Specification for whether the Batch Logon or Interactive Logon type will be used for all of the tasks executed by the Agent.                                                                                  |

|                               |                                                                                                                                                                                                |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MAX_SSL_PROTOCOL              | Maximum SSL/TLS protocol level that will be negotiated and used for communications channels.                                                                                                   |
| MESSAGE_LEVEL                 | Level of messages written.                                                                                                                                                                     |
| MIN_SSL_PROTOCOL              | Minimum SSL/TLS protocol level that will be negotiated and used for communications channels.                                                                                                   |
| NETNAME                       | Default network ID of UAG.                                                                                                                                                                     |
| OMS_SERVERS                   | Port and network address of the Universal Message Service (OMS) server(s) used for network communications.                                                                                     |
| OTEL_ENABLE_TRACING           | Specification for whether UAG will export traces to the OpenTelemetry collector.                                                                                                               |
| OTEL_EXPORT_METRICS           | Specification for whether UAG will export metrics to the OpenTelemetry collector.                                                                                                              |
| OTEL_METRICS_ENDPOINT         | URL used to export UAG metric data using the OTLP/HTTP(S) protocol to the OpenTelemetry Collector.                                                                                             |
| OTEL_METRICS_EXPORT_INTERVAL  | Interval for how often to export the metrics to the OpenTelemetry Collector.                                                                                                                   |
| OTEL_SERVICE_NAME             | Value of the <code>service.name</code> resource attribute used to identify UAG in traces and metrics.                                                                                          |
| OTEL_SSL_CA_CERT_PATH         | Full path to the file containing one or more X.509 trusted certificates in PEM format. The certificate(s) will be used to validate the OpenTelemetry Collector (server).                       |
| OTEL_SSL_CLIENT_CERT_PATH     | Full path to an X.509 certificate used to identify UAG to the OpenTelemetry Collector.                                                                                                         |
| OTEL_SSL_CLIENT_KEY_PATH      | Full path to the PEM formatted file containing the private key associated with the client certificate specified by the <code>OTEL_SSL_CLIENT_CERT_PATH</code> option.                          |
| OTEL_SSL_INSECURE_SKIP_VERIFY | Specification for whether to validate the OpenTelemetry Collector's (server's) certificate against the locally configured CA certificate (specified by <code>OTEL_CA_CERT_PATH</code> option). |
| OTEL_TRACE_ENDPOINT           | URL used to export UAG trace data using the OTLP/HTTP(S) protocol to the OpenTelemetry Collector.                                                                                              |
| OTEL_UIP_SERVICE_NAME         | Value of the <code>service.name</code> resource attribute used to identify an Extension worker process in traces and metrics.                                                                  |
| PDSE_SHARING                  | Specification for whether UAG will allocate PDS/E datasets for output with <code>DISP=SHR</code> (yes) or <code>DISP=OLD</code> (no).                                                          |
| PROCESS_CANCEL_TIMEOUT        | Length of time that an OS task is given to complete its response to a CANCEL request received from Universal Controller.                                                                       |
| PROXY_URL                     | Specifies the proxy server address to be used for OMS connection.                                                                                                                              |
| REQUEST_Z/OS_LICENSES         | Number of z/OS Agent licenses to request from Universal Controller in a Sysplex environment.                                                                                                   |
| RERUN_BEFORE_INCLUDE          | Specifies whether UAG will insert the JCL for the UAGRERUN step when it encounters an INCLUDE JCL statement or not.                                                                            |
| RERUN_LOAD_LIBRARY            | Location of the Stonebranch Rerun Utility (UAGRERUN).                                                                                                                                          |
| RERUN_OPTIONS                 | Specifies an options string which is passed as-is to the UAGRERUN program for every z/OS task submitted by this Agent.                                                                         |
| RERUN_PROC_NAME               | Specifies the name of a JCL procedure that can optionally be used to replace the standard UAGRERUN step inserted into any job submitted by UAG.                                                |
| SECURITY                      | Activates user security.                                                                                                                                                                       |
| SERVICE_TIMEOUT               | Specifies the idle time in seconds after which the Agent must drop the OMS connection and attempt to re-establish it.                                                                          |
| SSL_CIPHER_LIST               | SSL/TLS cipher suites acceptable for use by the SSL/TLS protocol.                                                                                                                              |

|                                     |                                                                                                                                                                                                                        |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">SSL_CIPHER_SUITES</a>   | SSL/TLS 1.3 specific cipher suites that are acceptable to use for network communications between UAG and OMS Server.                                                                                                   |
| <a href="#">SSL_CLIENT_AUTH</a>     | Provides client's certificate to the OMS Server for client certificate authentication, if the SSL/TLS protocol is used for network communication.                                                                      |
| <a href="#">SSL_SERVER_AUTH</a>     | Enables OMS server certificate authentication if the SSL/TLS protocol is used for network communication.                                                                                                               |
| <a href="#">TASK_RETRY_COUNT</a>    | Number of attempts to retry a task, in an interval specified by the <a href="#">TASK_RETRY_INTERVAL</a> configuration option, before the task goes to the Failed status.                                               |
| <a href="#">TASK_RETRY_INTERVAL</a> | Number of seconds that will elapse between a failed <a href="#">start task retry</a> attempt and the retry of that start task attempt.                                                                                 |
| <a href="#">TMP_DIRECTORY</a>       | Directory for temporary files.                                                                                                                                                                                         |
| <a href="#">TRACE_DIRECTORY</a>     | Directory for trace files.                                                                                                                                                                                             |
| <a href="#">TRACE_FILE_LINES</a>    | Maximum number of lines written to the trace file.                                                                                                                                                                     |
| <a href="#">TRACE_TABLE</a>         | Memory trace table specification.                                                                                                                                                                                      |
| <a href="#">TRANSIENT</a>           | Specification for whether to register the Agent as a transient Agent or a regular, persistent Agent.                                                                                                                   |
| <a href="#">TXTDEBUG</a>            | Specification for enabling or disabling additional diagnostics messages.                                                                                                                                               |
| <a href="#">UFTP_LOAD_LIBRARY</a>   | Specifies the location of the Stonebranch Universal FTP (UFTP) utility used for FTP <a href="#">File Transfer Tasks</a> and FTP <a href="#">File Monitor Tasks</a> received by this Agent from a Universal Controller. |
| <a href="#">z/OS_EXT_JOB</a>        | Can supply a list of names of external jobs to be tracked by UAG.                                                                                                                                                      |
| <a href="#">z/OS_JOB_SYSAFF</a>     | Instructs UAG to add a SYSAFF keyword to its JCL JOB statement.                                                                                                                                                        |
| <a href="#">z/OS_JOB_SYSTEM</a>     | Instructs UAG to add a SYSTEM keyword to its JCL JOB statement.                                                                                                                                                        |
| <a href="#">z/OS_JOB_USER</a>       | List of user IDs to be used when a job is submitted.                                                                                                                                                                   |

## 6.4 BUSINESS\_SERVICES - UAG configuration option

### 6.4.1 Description

The BUSINESS\_SERVICES option specifies the list of Business Services to join automatically.

(For information on creating business services and assigning records to business services, see [Business Services](#).)

#### Info

You can override this option through a UBROKER command line argument or environment variable. See [UAG\\_BUSINESS\\_SERVICES - UBROKER Configuration Option](#).

## 6.4.2 Usage

| Method                     | Syntax                              | IBM i | UNIX | Windows | z/OS |
|----------------------------|-------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>business_services list</code> | ✓     | ✓    | ✓       | ✓    |

## 6.4.3 Values

*list* is the list of Business Services to join automatically.

The syntax of *list* is a text string. Business Service names are separated by commas.

For example:

`business_services 'Collections, Fees'`

**Default is none.**

## 6.5 AGENT\_CLUSTERS - UAG configuration option

### 6.5.1 Description

The AGENT\_CLUSTERS option specifies the list of Agent Clusters to join automatically.

(For information on creating agent clusters and assigning agents to agent clusters, see [Agent Clusters](#).)

#### Info

You can override this option through a UBROKER command line argument or environment variable. See [UAG\\_AGENT\\_CLUSTERS - UBROKER Configuration Option](#).

## 6.5.2 Usage

| Method                     | Syntax                           | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>agent_clusters list</code> | ✓     | ✓    | ✓       | ✓    |

## 6.5.3 Values

*list* is the list of Agent Clusters to join automatically.

The syntax of *list* is a text string. Cluster names are separated by commas.

For example:

agent\_clusters 'GA Cluster, CA Cluster'

**Default is 'Opwise - Default Linux/Unix Cluster, Opwise - Default Windows Cluster'.**

If both agent\_clusters and business\_services options are specified, business\_services option will be processed first.

## 6.6 AGENT\_IP - UAG configuration option

### 6.6.1 Description

The AGENT\_IP option specifies the IP address or host name (which resolves to an IP address) that the Agent reports to the Controller.

- If AGENT\_IP specifies a host name, the host name gets resolved to an IP address. If the Agent cannot resolve the host name to an IP address, the Agent reports an error and terminates.
- If the AGENT\_IP is not specified, the Agent gets its host name and resolves that to an IP address. If the name cannot be resolved, **127.0.0.1** is used as the IP address; otherwise, the resolved address is used.

### 6.6.2 Usage

| Method                     | Syntax           | IBM i | UNIX | Windows | z/OS |
|----------------------------|------------------|-------|------|---------|------|
| Configuration File Keyword | agent_ip address | ✔     | ✔    | ✔       | ✔    |

### 6.6.3 Values

*address* is the IP address or host name of the Agent.

## 6.7 AUTOMATIC\_FAILOVER - UAG configuration option

### 6.7.1 Description

The AUTOMATIC\_FAILOVER option specifies whether or not automatic failover is used.

Automatic failover allows a Secondary agent to become the Primary agent when the original Primary agent ends.

## 6.7.2 Usage

| Method                     | Syntax                          | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------------------|-------|------|---------|------|
| Configuration File Keyword | automatic_failover <i>usage</i> |       |      |         | ✓    |

## 6.7.3 Values

*usage* is the specification for when automatic failover is used.

Valid values:

- **never**  
Automatic failover will not occur. Manual failover is still available.
- **always\_primary**  
For agents configured as Primary agents only. This agent should always be Primary. If another Primary agent is active when this agent starts, that agent will become a Secondary agent. If this agent cannot be a Primary agent, it will shut down.
- **primary\_secondary**  
For agents configured as Primary agents only. This agent will try to start as a Primary agent. If another Primary agent is already active, this agent will become a Secondary agent. It becomes first in the ranking to become Primary during failover.
- **secondary\_primary[n]**  
For agents configured as Secondary agents only: This agent will start as a Secondary agent. When the Primary agent ends, this agent is eligible to become the Primary agent.
  - An optional integer **[n]** controls the ranking of multiple Secondary agents during failover. A lower number means a higher priority in the failover ranking.
  - When multiple agents have the same ranking, the agent that started earliest will be considered to have a higher ranking.
  - Default for **[n]** is 1. The range is 1-32.

Default is **never**.

## 6.8 CF\_STRUCT\_NAME - UAG configuration option

### 6.8.1 Description

The CF\_STRUCT\_NAME option specifies the name of a Coupling Facility structure that will be used to communicate from the secondary Agents to the primary Agent. All Agents sharing the same system ID must use the same Coupling Facility structure name.

CF\_STRUCT\_NAME is required if the value of the [SYSPLEX\\_ROLE](#) Universal Broker configuration option is **primary** or **secondary**.

## 6.8.2 Usage

| Method                     | Syntax                     | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------|-------|------|---------|------|
| Configuration File Keyword | cf_struct_name <i>name</i> |       |      |         | ✓    |

## 6.8.3 Values

*name* is the name of a Coupling Facility structure that will be used to communicate from the secondary Agents to the primary Agent.

**There is no default value.**

## 6.9 CODE\_PAGE - UAG configuration option

### 6.9.1 Description

The CODE\_PAGE option specifies the character code page that is used to translate text data received and transmitted over the network.

The Universal Translate Table (UTT) files are used to translate between Unicode and the local single-byte code page.

### 6.9.2 Usage

| Method                     | Syntax                   | IBM i | UNIX | Windows | z/OS |
|----------------------------|--------------------------|-------|------|---------|------|
| Configuration File Keyword | codepage <i>codepage</i> | ✓     | ✓    | ✓       | ✓    |

### 6.9.3 Value

*codepage* is the character code page that is used to translate data.

*codepage* references a Universal Translate Table (UTT) file provided with the product (see [UTT Files](#) for information on UTT files). UTT files are used to translate between Unicode and the local single-byte code page. (All UTT files end with an extension of **.utt**.)

#### 6.9.3.1 Default

The default code page is different for different operating systems:

- ISO8859-1 (8-bit ASCII): ASCII-based operating systems
- IBM1047 (EBCDIC): EBCDIC-based operating system

See [Character Code Pages](#) for a complete list of character code pages provided by Stonebranch Inc. for use with Universal Agent components.

## 6.10 DATA\_DIRECTORY - UAG configuration option

### 6.10.1 Description

The DATA\_DIRECTORY option specifies the base directory for the UAG `cache/`, `logs/`, and `var/` sub-directories.

#### Note

By default, these sub-directories are hard-coded to `/var/opt/universal/uag`. This presents a problem when trying to run multiple Universal Brokers/UAGs on the same system, and in a scenario where you cannot have those directories under `/var/opt/universal/uag`.

### 6.10.2 Usage

| Method                     | Syntax                                | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>data_directory directory</code> | ✓     | ✓    | ✓       |      |

### 6.10.3 Value

*directory* is the full path name of the base directory for the UAG `cache/`, `logs/`, and `var/` sub-directories.

#### 6.10.3.1 Defaults

|         |                                                                                                |
|---------|------------------------------------------------------------------------------------------------|
| UNIX    | <code>/var/opt/universal/uag</code>                                                            |
| Windows | <code>''</code> (which gets translated to <code>&lt;Installation Directory&gt;\UAGSrv</code> ) |

## 6.11 DSN\_DELETE\_EXCLUDE - UAG Configuration Option

### 6.11.1 Description

The DSN\_DELETE\_EXCLUDE option specifies the names of data sets that are excluded from UAG data set delete processing.

When UAG launches a zOS task, it analyzes the JCL to determine which data sets to delete in order to avoid duplicate data set creation. Data sets specified to be excluded from delete processing are never considered by UAG for deletion, even in cases where they should be in order to successfully re-run a job.

The DSN\_DELETE\_EXCLUDE option can be specified multiple times. All specified data sets are added to the list of data sets to exclude from delete processing.

## 6.11.2 Usage

| Method                     | Syntax                                                | IBM i | UNIX | Windows | z/OS |
|----------------------------|-------------------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>dsn_delete_exclude dataset [,dataset]...</code> |       |      |         | ✔    |

## 6.11.3 Value

*dataset* is the name of a data set to exclude from delete processing.

*dataset* can be either a fully-qualified data set name or it can end with an asterisk (\*) to match any data set name starting with the specified *dataset* value. An asterisk can only be used at the end of the *dataset* value.

**There is no default value.**

## 6.11.4 Examples

```
dsn_delete_exclude sys1.*,sys2.*,app.prod.data
```

This example excludes all data sets starting with `SYS1.` and `SYS2.` and fully-qualified data set `APP.PROD.DATA` from UAG data set delete processing. UAG will never delete these data sets, even when it would be necessary to successfully execute or re-run a job.

```
dsn_delete_exclude sys1.*
dsn_delete_exclude sys2.*
dsn_delete_exclude app.prod.data
```

This example excludes the same data sets as the previous example from delete processing. The `DSN_DELETE_EXCLUDE` option is used multiple times to specify each of the data sets to be excluded instead of a comma-separated list of data set names.

```
dsn_delete_exclude *
```

This example excludes all data sets from delete processing.

## 6.12 END\_SEVERITY - UAG configuration option

### 6.12.1 Description

The END\_SEVERITY option specifies the message severity level that must be reached in order for the Initiator job to terminate. The Initiator job traps messages received from IBM i tasks and records the maximum severity message. When the maximum severity is equal to or greater than the value set by this option, the Initiator terminates without executing any additional commands.

### 6.12.2 Usage

| Method                     | Syntax                    | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------------|-------|------|---------|------|
| Configuration File Keyword | end_severity <i>level</i> |       |      |         |      |

### 6.12.3 Values

*level* is the message severity level.

Valid values for *level* are positive integers.

**Default is 30.**

While this option is relevant to the Universal Agent for IBM i, is not currently exposed as a configurable value. Until it is provided in a future release, the default of **30** will be used.

## 6.13 EXTENSION\_ACCEPT\_LIST - UAG configuration option

### 6.13.1 Description

The EXTENSION\_ACCEPT\_LIST option lists Extensions that Universal Agent will accept from Universal Controller.

**Info**  
 You can override this option through a UBROKER command line argument or environment variable. See [UAG\\_EXTENSION\\_ACCEPT\\_LIST - UBROKER Configuration Option](#).

### 6.13.2 Usage

| Method                     | Syntax                            | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------------|-------|------|---------|------|
| Configuration File Keyword | extension_accept_list <i>list</i> | ✔     | ✔    | ✔       |      |

### 6.13.3 Values

*list* is a comma-delimited list of zero or more Extensions that the Agent will accept via auto-deployment from Universal Controller.

- An empty *list* will cause UAG to deny extension deployment.
- A *list* value of \* will cause UAG to accept any extension deployed by the Controller.

Default is \* (accept any extension).

## 6.14 EXTENSION\_CANCEL\_TIMEOUT - UAG configuration option

### 6.14.1 Description

The EXTENSION\_CANCEL\_TIMEOUT option specifies the length of time that a Universal Extension task is given to complete its response to a CANCEL request received from Universal Controller.

If the task fails to finish its own termination processing within the specified timeout period, UAG Server will forcefully terminate the task.

**Info**

You can override this option through a UBROKER command line argument or environment variable. See [UAG\\_EXTENSION\\_CANCEL\\_TIMEOUT - UBROKER configuration option](#).

### 6.14.2 Usage

| Method                     | Syntax                                        | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | extension_cancel_timeout <i>time[s m h d]</i> | ✔     | ✔    | ✔       |      |

### 6.14.3 Values

*time* must be numeric, but a one-letter suffix is accepted to specify a time unit of (s)econds, (m)inutes, (h)ours, or (d)ays. If no time unit is specified, the default is seconds.

The following maximums are enforced:

- 2147683647 or 2147683647s
- 35791394m
- 596523h
- 24855d

Minute, hour, and day maximums are set to ensure that their value, when represented as a number of seconds, does not exceed 2147683647.

**Default is 10 seconds.**

## 6.15 EXTENSION\_CHECKSUM\_TIMEOUT - UAG configuration option

### 6.15.1 Description

The EXTENSION\_CHECKSUM\_TIMEOUT option specifies how long a cached Universal Extension checksum will be considered valid.

The timeout period is the amount of time that a Universal Extension module could exist and be executed in an altered state (from deployment) before being detected.

If a Universal Extension is found to be altered (i.e. its calculated checksum does not match the checksum reported by the Controller), a checksum mismatch error will occur and the Universal Extension will automatically be redeployed by the Controller before it can be executed by a task instance.

### 6.15.2 Usage

| Method                     | Syntax                                           | IBM i | UNIX | Windows | z/OS |
|----------------------------|--------------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | extension_checksum_timeout <i>time</i> [s m h d] |       | ✓    |         |      |

### 6.15.3 Values

*time* must be numeric, but a one-letter suffix is accepted to specify a time unit of (s)econds, (m)inutes, (h)ours, or (d)ays. If no time unit is specified, the default is seconds.

**Default is 5 seconds.**

## 6.16 EXTENSION\_DEPLOY\_ON\_REGISTRATION - UAG configuration option

### 6.16.1 Description

The EXTENSION\_DEPLOY\_ON\_REGISTRATION option controls Extension deployment behavior from Universal Controller.

Info

You can override this option through a UBROKER command line argument or environment variable. See [UAG\\_EXTENSION\\_DEPLOY\\_ON\\_REGISTRATION - UBROKER Configuration Option](#).

## 6.16.2 Usage

| Method                     | Syntax                                               | IBM i | UNIX | Windows | z/OS |
|----------------------------|------------------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>extension_deploy_on_registration option</code> | ✔     | ✔    | ✔       |      |

## 6.16.3 Values

*option* specifies when the Controller will send Extensions to the Universal Agent.

Valid values for *option* are:

- **yes**  
Universal Controller will pre-emptively deploy all Extensions acceptable by UAG (in accordance with the [EXTENSION\\_ACCEPT\\_LIST](#) option) upon Agent registration.
- **no**  
Universal Controller will only send Extension modules as needed (on demand).

**Default is no.**

## 6.17 EXTENSION\_PYTHON\_LIST - UAG configuration option

### 6.17.1 Description

The EXTENSION\_PYTHON\_LIST option specifies Python interpreters that are eligible to run Universal Extensions.

#### Info

You can override this option through a UBROKER command line argument or environment variable. See [UAG\\_EXTENSION\\_PYTHON\\_LIST - UBROKER Configuration Option](#).

### 6.17.2 Usage

| Method                     | Syntax                                  | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>extension_python_list list</code> | ✔     | ✔    | ✔       |      |

### 6.17.3 Values

*list* is a comma-delimited list of zero or more *absolute* paths to Python interpreters that UAG Server will consider for Universal Extension execution. UAG Server uses the first Python interpreter that satisfies the Extension's Python version requirement to execute the Extension.

UAG Server will look first for the Python interpreter supplied by the Universal Agent package's Python distribution, unless the path to that interpreter is explicitly specified in *list*.

If the Agent's Python distribution is not found or does not satisfy the Universal Extension's requirement, UAG Server checks the default locations (see below) or the user-specified *list*.

On Windows, a final check is made (if necessary) against external Python installations whose install locations are recorded in the Windows system registry under HKLM\SOFTWARE\Python\PythonCore.

If the `EXTENSION_ACCEPT_LIST` is empty or set to **none**, the search for available Python interpreters is skipped.

|                |                                                                                                                                                                                                           |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UNIX</b>    | Default value for <i>list</i> is <code>/usr/bin/python3,usr/bin/python,/usr/libexec/platform-python</code> .                                                                                              |
| <b>Windows</b> | No default value for <i>list</i> , but an empty or missing list will still cause UAG Server to check the Universal Agent-supplied Python distribution and the Windows system registry as described above. |

## 6.18 FM\_CREATE\_FAIL\_NODIR - UAG configuration option

### 6.18.1 Description

The `FM_CREATE_FAIL_NODIR` option specifies whether or not a Universal Controller [File Monitor](#) task with a [Monitor Type](#) of **Create** will fail if the directory specified in the file(s) to monitor does not exist.

#### Note

Starting with UAGSRV 5.2.0.0, the default behavior of **Create** File Monitor tasks was changed to fail if the directory provided in the file path did not exist. This behavior is incompatible with pre-5.2.0.0 releases.

UAGSRV 5.2.0.11 (delivered with the Universal Agent 5.2.0.11 maintenance release) restored the default behavior that existed prior to 5.2.0.0, which allows a File Monitor task to continue executing and to wait (if necessary) for the complete path to be created.

For any **Create** File Monitor task you may have implemented since 5.2.0.0 - where the task is expected to fail if the directory does not exist - UAGSRV 5.2.0.11 provided `FM_CREATE_FAIL_NODIR` to restore pre-5.2.0.11 behavior.

The behavior delivered with UAGSRV 5.2.0.11 will continue to be the default, and any new **Create** File Monitor tasks should be designed with this in mind.

## 6.18.2 Usage

| Method                     | Syntax                             | IBM i | UNIX | Windows | z/OS |
|----------------------------|------------------------------------|-------|------|---------|------|
| Configuration File Keyword | fm_create_fail_nodir <i>option</i> |       | ✓    | ✓       | ✓    |

## 6.18.3 Values

*option* specifies whether or not a **Create File Monitor task** will fail if the specified directory does not exist when the task begins execution.

Valid values for *option* are:

- **yes**  
Task will fail if the specified directory does not exist when the task is launched.
- **no**  
Task will continue to execute if the specified directory does not exist when the task is launched.

**Default is no.**

## 6.19 FM\_FAULT\_TOLERANT - UAG configuration option

### 6.19.1 Description

The FM\_FAULT\_TOLERANT option specifies whether or not **File Monitors** will behave in a fault tolerant manner.

Fault tolerant **File Monitors** will handle error conditions that are considered temporary by retrying the action for an amount of time specified by the **FM\_FAULT\_TOLERANT\_TIMEOUT** UAG configuration option.

If a fault is not resolved in the time period specified by **FM\_FAULT\_TOLERANT\_TIMEOUT**, the **File Monitor** will fail.

If FM\_FAULT\_TOLERANT is set (to **no**) so that **File Monitors** do not behave in a fault tolerant manner, any fault encountered by a **File Monitor** will result in a failure.

### 6.19.2 Usage

| Method                     | Syntax                          | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------------------|-------|------|---------|------|
| Configuration File Keyword | fm_fault_tolerant <i>option</i> |       |      | ✓       |      |

### 6.19.3 Values

*option* specifies whether or not fault tolerant **File Monitor** behavior is enabled.

Valid values for *option* are:

- **yes**  
**File Monitors** will handle error conditions that are considered temporary by retrying the action.

- **no**  
Any fault encountered by [File Monitors](#) will result in a failure.

**Default is no.**

## 6.20 FM\_FAULT\_TOLERANT\_TIMEOUT - UAG configuration option

### 6.20.1 Description

The FM\_FAULT\_TOLERANT\_TIMEOUT option specifies the amount of time that a [fault tolerant File Monitor](#) will tolerate a temporary fault condition before failing.

### 6.20.2 Usage

| Method                     | Syntax                                | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------------------------|-------|------|---------|------|
| Configuration File Keyword | fm_fault_tolerant_timeout <i>time</i> |       |      | ✔       |      |

### 6.20.3 Values

*time* specifies the amount of time that a [fault tolerant File Monitor](#) will tolerate a temporary fault condition before failing.

Format: **nnnn[s|m|h|d]**

- **nnnn** = numeric value
- **s** = seconds
- **m** = minutes
- **h** = hours
- **d** = days

**Default is 120s.**

## 6.21 FM\_FILES\_OWNERSHIP - UAG configuration option

### 6.21.1 Description

The FM\_FILES\_OWNERSHIP option specifies whether or not to retrieve file ownership information in [Agent File Monitors](#).

#### Note

Retrieving file ownership information may cause delays if performed on a network shared in a domain.

## 6.21.2 Usage

| Method                     | Syntax                           | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------------|-------|------|---------|------|
| Configuration File Keyword | fm_files_ownership <i>option</i> |       |      | ✓       |      |

## 6.21.3 Values

*option* specifies whether or not to retrieve file ownership information in [Agent File Monitors](#).

Valid values for *option* are:

- **yes**  
Retrieve file ownership information.
- **no**  
Owner user name and group are unavailable.

**Default is yes.**

## 6.22 FTP\_FM\_FAULT\_TOLERANCE - UAG configuration option

### 6.22.1 Description

The FTP\_FM\_FAULT\_TOLERANCE option specifies whether or not to enable fault tolerance for [FTP File Monitors](#) when [UFTP](#) is executed from UAG.

### 6.22.2 Usage

| Method                     | Syntax                               | IBM i | UNIX | Windows | z/OS |
|----------------------------|--------------------------------------|-------|------|---------|------|
| Configuration File Keyword | ftp_fm_fault_tolerance <i>option</i> |       | ✓    | ✓       | ✓    |

### 6.22.3 Values

*option* specifies whether or not fault tolerant [FTP File Monitor](#) behavior is enabled.

Valid values for *option* are:

- **yes**  
[FTP File Monitors](#) will retry on any error if Wait Until Satisfied option is turned on. If an error still occurs after the Maximum Polls attempts, the FTP File Monitor instance is switched to the Start Failure state.
- **no**  
[FTP File Monitors](#) will go to Start Failure in the case where any error occurs during the FTP/SFTP/FTPS sessions, even if the Wait Until Satisfied option is turned on. .

**Default is no.**

## 6.23 GDG\_PROCESSING - UAG configuration option

### 6.23.1 Description

The GDG\_PROCESSING option specifies the type of GDG processing to use.

### 6.23.2 Usage

| Method                     | Syntax                     | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------|-------|------|---------|------|
| Configuration File Keyword | gdg_processing <i>type</i> |       |      |         | ✓    |

### 6.23.3 Values

*type* is the type of GDG processing.

Valid values for *type* are:

- absolute**  
 Absolute name of any GDGs will be captured during the initial run of a job (for example: .G0001V00). This absolute name will be used during reruns of the job. This is the original behaviour.
- relative**  
 Relative generation (for example: +1 or 0) of any GDGs referenced by a job will be maintained during reruns. If a step which creates a new generation of a GDG is skipped during rerun, subsequent relative references to the GDG will be adjusted to compensate. For example, if a step which creates a +1 generation is skipped during rerun, a subsequent step which reads in generation +1 will be adjusted to read in generation 0. Thus preserving the original intent.

**Default is absolute.**

## 6.24 HIGH\_COMMON\_STORAGE - UAG configuration option

### 6.24.1 Description

The HIGH\_COMMON\_STORAGE option specifies the maximum amount of high common storage (in MB) that will be used by this Agent to stage job tracking information.

## 6.24.2 Usage

| Method                     | Syntax                            | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------------|-------|------|---------|------|
| Configuration File Keyword | high_common_storage <i>amount</i> |       |      |         | ✓    |

## 6.24.3 Values

*amount* is the maximum amount of high common storage (in MB) that will be used by this Agent to stage job tracking information.

**Limit is 128; Default is 4.**

## 6.25 HISTORY\_DATASET - UAG configuration option

### 6.25.1 Description

This optional parameter specifies the name of the z/OS Job History dataset. If specified, execution history for jobs executed by UAG and/or externally tracked jobs will be stored in this dataset. (See: [ZOS\\_EXT\\_JOB](#) on how to configure external job tracking.) If ,EXTONLY is appended to the value for this parameter, only external jobs will be tracked.

An installation job is provided to allocate and initialize this dataset before use. In a Sysplex environment, all agents sharing the same system ID should share the same history dataset.

### 6.25.2 Usage

| Method                     | Syntax                                    | IBM i | UNIX | Windows | z/OS |
|----------------------------|-------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | history_dataset <i>dataset</i> [,EXTONLY] |       |      |         | ✓    |

### 6.25.3 Value

The fully qualified name of the history dataset.

**Default: None**

## 6.26 HISTORY\_RETENTION - UAG configuration option

### 6.26.1 Description

The optional HISTORY\_RETENTION parameter specifies how many hours of history information for jobs executed by UAG is retained in the history dataset.

This parameter does not affect information stored for external jobs.

## 6.26.2 Usage

| Method                     | Syntax                         | IBM i | UNIX | Windows | z/OS |
|----------------------------|--------------------------------|-------|------|---------|------|
| Configuration File Keyword | history_retention <i>hours</i> |       |      |         | ✓    |

## 6.26.3 Value

*hours* is the number of hours of history information for jobs executed by UAG to store in the history dataset.

**Default is 1.**

## 6.27 INSTALLATION\_DIRECTORY - UAG configuration option

### 6.27.1 Description

The INSTALLATION\_DIRECTORY option specifies the Universal Automation Center Agent (UAG) base installation directory.

#### Note

This is a required option.

### 6.27.2 Usage

| Method                     | Syntax                                  | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------------------|-------|------|---------|------|
| Configuration File Keyword | installation_directory <i>directory</i> |       | ✓    | ✓       |      |

### 6.27.3 Value

*directory* is the name of the UAG base installation directory.

A full path name is required.

#### UNIX

If UAG is installed in `/opt/universal/uag`, specify that entire path name: `/opt/universal/uag`.

**Windows**

The default is set in the `uags.conf` file at installation time.

## 6.28 JCL\_LIBRARY - UAG configuration option

### 6.28.1 Description

The JCL\_LIBRARY option specifies the JCL library ddname allocations.

JCL libraries are referred to by Universal Controller z/OS task definitions by ddname and member name for batch job submission.

You can JCL\_LIBRARY multiple times for the same ddname. All the data sets specified on the JCL\_LIBRARY options are concatenated on the ddname in the order read.

### 6.28.2 Usage

| Method                     | Syntax                                                      | IBM i | UNIX | Windows | z/OS |
|----------------------------|-------------------------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>jcl_library ddname,dataset[UAG520;,dataset]...</code> |       |      |         | ✔    |

### 6.28.3 Value

The value is a ddname followed by a comma-separated list of one or more data set names to allocate to the ddname. The data sets are concatenated on the ddname in the order listed.

**There is no default value.**

#### 6.28.3.1 Examples

```
jcl_library prod,sys1.jcl.cntl,sys2.jcl.cntl
```

This example illustrate two data sets being allocated to ddname PROD.

`sys1.jcl.cntl` will be first in the concatenation since it is first in the data set list.

```

jcl_library prod,sys1.jcl.cntl
jcl_library prod,sys2.jcl.cntl
jcl_library "test, test1.jcl.cntl, +
            test2.jcl.cntl, +
            test3.jcl.cntl"
    
```

This example illustrates two ddnames being allocated, PROD and TEST.

- The PROD ddname will have data sets `sys1.jcl.cntl` and `sys2.jcl.cntl` allocated in that order.
- The TEST ddname will have `test1.jcl.cntl`, `test2.jcl.cntl`, `test3.jcl.cntl` allocated in that order.

## 6.29 JCL\_SAVE\_LIBRARY - UAG configuration option

### 6.29.1 Description

When this option is specified, the JCL for all jobs submitted by UAG will be saved here. The dataset should be a PDS/E (recommended) or PDS with a fixed record length of 80. JCL will be saved using the job name as the member name.

### 6.29.2 Usage

| Method                     | Syntax                                             | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>jcl_save_library</code> <i>PDS/E dataset</i> |       |      |         | ✔    |

### 6.29.3 Value

The value is the name of a PDS/E dataset.

Default is **None**.

## 6.30 JES\_SYSOUT\_CLASS - UAG configuration option

### 6.30.1 Description

The JES\_SYSOUT\_CLASS option specifies the JES held class dedicated to UAG SYSOUT processing.

Universal Automation Center Agent (UAG) processes a number of SYSOUT data sets produced by the batch jobs it submits. When there are multiple SYSOUT applications in the environment, JES\_SYSOUT\_CLASS must be specified for UAG to reliably process the SYSOUT data sets.

By specifying a JES\_SYSOUT\_CLASS value, UAG will add or update the JCL JOB statement MSGCLASS parameter to the JES\_SYSOUT\_CLASS value. UAG will process the SYSOUT data sets from this JES held class. Once it has completed processing, it performs final disposition of the SYSOUT data sets as specified by the UAG [JES\\_SYSOUT\\_DISP](#) option.

See [JES SYSOUT Processing](#) for a description of UAG SYSOUT Processing configuration.

## 6.30.2 Usage

| Method                     | Syntax                              | IBM i | UNIX | Windows | z/OS |
|----------------------------|-------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>jes_sysout_class class</code> |       |      |         | ✓    |

## 6.30.3 Value

*class* is the JES held class dedicated to UAG SYSOUT processing.

Valid value for *class* is any JES held class. A JES held class is defined with a JES JOBCLASS statement with an OUTDISP parameter value of HOLD,HOLD. The class must be used exclusively by UAG.

If no class is specified, UAG will select a job's SYSOUT data sets from any class with any disposition (held or not).

## 6.31 JES\_SYSOUT\_DISP - UAG configuration option

### 6.31.1 Description

The JES\_SYSOUT\_DISP option specifies the disposition of a job's SYSOUT data sets once Universal Automation Center Agent (UAG) has completed processing them.

The JES\_SYSOUT\_DISP, [JES\\_SYSOUT\\_CLASS](#), and [JES\\_SYSOUT\\_RETENTION](#) options together are used to configure UAG's SYSOUT processing.

See [JES SYSOUT Processing](#) for a description of UAG SYSOUT Processing configuration.

### 6.31.2 Usage

| Method                     | Syntax                                                                            | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------------------------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>jes_sysout_disp disp [, { * [<i>defaultClass</i>]   <i>class</i> } ]</code> |       |      |         | ✓    |

### 6.31.3 Value

*disp* is the SYSOUT data sets disposition.

Valid values for *disp* are:

- DELETE  
SYSOUT data sets are deleted from the JES spool.
- KEEP  
SYSOUT data sets are kept as they are.
- HOLD  
SYSOUT data sets are held.

- **RELEASE**  
SYSOUT data sets are released.

For disposition values other than DELETE, the SYSOUT data sets can be requeued to another JES class, *class*.

The requeue *class* value is optional. If it is not specified, the SYSOUT data sets remain in their current class.

Valid values for *class* are:

- An asterisk (\*) specifies the SYSOUT data sets are requeued back to the original MSGCLASS value. This option works in conjunction with the [JES\\_SYSOUT\\_CLASS](#) option. The *defaultClass* value is the default class if the job's JCL JOB statement did not include a MSGCLASS parameter. The *defaultClass* default is class A.
- A JES class to which the SYSOUT data sets are requeued.

If the JES\_SYSOUT\_DISP value is anything other than KEEP, the [JES\\_SYSOUT\\_CLASS](#) option is required.

### 6.31.4 Examples

```
jes_sysout_disp  keep,*,H
```

This example sets the final disposition of SYSOUT data sets to KEEP, which will leave the SYSOUT data sets disposition unchanged.

The requeue class is \*, which works in conjunction with the [JES\\_SYSOUT\\_CLASS](#) option. The SYSOUT data sets are requeued to the original MSGCLASS value of the job. If the job's JCL JOB statement originally included MSGCLASS=X, the SYSOUT data sets will be requeued to class X. If the JOB statement did not include a MSGCLASS parameter, the SYSOUT data sets are requeued to the default class of H.

```
jes_sysout_disp  release,*
```

This example sets the final disposition of SYSOUT data sets to RELEASE, which will release the SYSOUT data sets to the JES output queue.

The requeue class is \*, which works in conjunction with the [JES\\_SYSOUT\\_CLASS](#) option. The SYSOUT data sets are requeued to the original MSGCLASS value of the job. If the job's JCL JOB statement originally included MSGCLASS=H, the SYSOUT data sets will be requeued to class H. If the JOB statement did not include a MSGCLASS parameter, the SYSOUT data sets are requeued to the default, default class of A.

```
jes_sysout_disp  hold,H
```

This example sets the final disposition of SYSOUT data sets to HOLD, which sets the SYSOUT data sets disposition to hold.

The SYSOUT data sets are requeued to class H.

```
jes_sysout_disp  delete
```

This example sets the final disposition of SYSOUT data sets to DELETE, which removes the SYSOUT data sets from the JES spool.

## 6.32 JES\_SYSOUT\_RETENTION - UAG Configuration Option

### 6.32.1 Description

The JES\_SYSOUT\_RETENTION option specifies the number of hours that job SYSOUT files are retained in the UAG cache directory. The SYSOUT files are deleted once the retention period expires.

See [JES SYSOUT Processing](#) for a description of UAG SYSOUT Processing configuration.

### 6.32.2 Usage

| Method                     | Syntax                            | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------------|-------|------|---------|------|
| Configuration File Keyword | jes_sysout_retention <i>hours</i> |       |      |         | ✓    |

### 6.32.3 Value

*hours* is the number of hours job SYSOUT files are retained in the UAG cache directory.

The default is 1.

## 6.33 JES\_SYSOUT\_SPACE - UAG Configuration Option

### 6.33.1 Description

The JES\_SYSOUT\_SPACE option allows configurable space parameters for UAGSRV Temporary Output Datasets on z/OS.

### 6.33.2 Usage

| Method                     | Syntax                                                 | IBM i | UNIX | Windows | z/OS |
|----------------------------|--------------------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | jes_sysout_space <UnitName>,TRK CYL,<PrimQty>,<SecQty> |       |      |         | ✓    |

### 6.33.3 Values

Default is: SYSALLDA,TRK,30,300

<UnitName> can be any valid DASD generic, symbolic or group name.

TRK or CYL must be coded as shown.

<PrimQty> and <SecQty> are the primary and secondary allocation amounts (cylinders or tracks) respectively.

## 6.34 JES\_SYSOUT\_TIMEOUT - UAG Configuration Option

### 6.34.1 Description

The JES\_SYSOUT\_TIMEOUT option makes timeout on JES output read configurable.

### 6.34.2 Usage

| Method                     | Syntax                       | IBM i | UNIX | Windows | z/OS |
|----------------------------|------------------------------|-------|------|---------|------|
| Configuration File Keyword | jes_sysout_timeout <seconds> |       |      |         | ✓    |

### 6.34.3 Values

Default is: 10

The minimum value is 5, the maximum value is 3600.

## 6.35 JSC\_DATASET - UAG configuration option

### 6.35.1 Description

The JSC\_DATASET option specifies the name of the VSAM Job Submission Checkpoint (JSC) cluster. In a Sysplex environment, all Agents sharing the same system ID must use the same JSC.

JSC\_DATASET is required for all z/OS users.

### 6.35.2 Usage

| Method                     | Syntax                  | IBM i | UNIX | Windows | z/OS |
|----------------------------|-------------------------|-------|------|---------|------|
| Configuration File Keyword | jsc_dataset <i>name</i> |       |      |         | ✓    |

### 6.35.3 Values

*name* is the name of the VSAM Job Submission Checkpoint cluster.

**There is no default value.**

## 6.36 JTSK\_NUM - UAG configuration option

### 6.36.1 Description

UAG uses a fixed number of job task worker threads (JTSK threads) responsible job-related services, such as job submission, tracking, and JES sysout collection.

The JTSK\_NUM option specifies the number of JTSK threads created. Job task throughput may be improved with more JTSK threads, depending on O/S resource availability.

### 6.36.2 Usage

| Method                     | Syntax                       | IBM i | UNIX | Windows | z/OS |
|----------------------------|------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>jtsk_num number</code> | ✔     | ✔    | ✔       | ✔    |

### 6.36.3 Value

*number* is the number of JTSK threads created. Valid vales are in the range of 1 to 64, inclusively.

**Default is 5.**

## 6.37 KILL\_PROCESS\_TREE - UAG configuration option

### 6.37.1 Description

The KILL\_PROCESS\_TREE option specifies whether or not UAG should always terminate the entire task process tree when a Cancel command is issued.

Normally, the entire process tree is terminated, but if one or more of the Children processes ignore/handle the initial SIGTERM signal, they will continue to run even after the task is cancelled.

If KILL\_PROCESS\_TREE is enabled, however, all descendant processes will be terminated regardless of whether the SIGTERM signal is ignored/handled or not.

#### Note

This option is available only for IBM i and Linux/Unix systems.

### 6.37.2 Usage

| Method                     | Syntax                          | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------------------|-------|------|---------|------|
| Configuration File Keyword | kill_process_tree <i>option</i> | ✓     | ✓    |         |      |

### 6.37.3 Values

Valid values are:

- **yes**  
Agent always terminates the entire task process tree.
- **no**  
Agent attempts to terminate the entire task process tree, but children processes can avoid this by ignoring/handling the SIGTERM signal.

**Default is no.**

## 6.38 LOGLVL - UAG configuration option

### 6.38.1 Description

The LOGLVL option specifies the logging level of Universal Automation Center Agent (UAG).

### 6.38.2 Usage

| Method                     | Syntax              | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------|-------|------|---------|------|
| Configuration File Keyword | loglvl <i>level</i> | ✓     | ✓    | ✓       | ✓    |

### 6.38.3 Values

*level* is the logging level of UAG.

Valid values for *level* are:

- **E** - ERROR level.
- **W** - WARN level.
- **I** - INFO level.
- **D** - DEBUG level.
- **T** - TRACE level.

**Default is I.**

## 6.39 LOGON\_METHOD - UAG Configuration Option

### 6.39.1 Description

The LOGON\_METHOD option specifies whether the Batch Logon or Interactive Logon type will be used for all of the tasks executed by the Agent.

**Note**

This option is ignored if the SECURITY configuration option is set to **none**.

### 6.39.2 Usage

| Method                     | Syntax              | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------|-------|------|---------|------|
| Configuration File Keyword | logon <i>option</i> |       |      | ✓       |      |

### 6.39.3 Values

*option* is the user's log on method.

Valid values for *option* are:

- batch**

Windows log on type is **batch**. A batch logon is provided to establish an execution environment for processes that execute on a user's behalf, but without that user's direct interaction. When this logon type is used, the user account must have the "Allow log on as a batch job" permission granted to it. Likewise, the account must not have the "Deny log on as a batch job" policy assigned to it.
- interactive**

Windows logon type is **interactive**. An interactive logon establishes an execution environment similar to one a user could expect to have when physically logged in to a workstation. When this logon type is used, the user account must have the "Allow log on locally" permission granted to it. Likewise, the account must not have the "Deny log on locally" policy assigned to it.

**Default is interactive.**

## 6.40 MAX\_SSL\_PROTOCOL - UAG configuration option

### 6.40.1 Description

The MAX\_SSL\_PROTOCOL option specifies the maximum SSL/TLS protocol level that will be negotiated and used for communications channels.

### 6.40.2 Usage

| Method                     | Syntax                         | IBM i | UNIX | Windows | z/OS |
|----------------------------|--------------------------------|-------|------|---------|------|
| Configuration File Keyword | max_ssl_protocol <i>option</i> | ✓     | ✓    | ✓       |      |

This option is NOT currently supported on z/OS

### 6.40.3 Values

*option* is the specification for the maximum SSL/TLS protocol level that will be supported.

- **TLS1\_2**  
Maximum SSL/TLS protocol is TLS 1.2.
- **TLS1\_3**  
Maximum SSL/TLS protocol is TLS 1.3.

**Default is TLS1\_2.**

## 6.41 MESSAGE\_LEVEL - UAG configuration option

### 6.41.1 Description

The MESSAGE\_LEVEL option specifies the level of messages to write.

### 6.41.2 Usage

| Method                     | Syntax                     | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------|-------|------|---------|------|
| Configuration File Keyword | message_level <i>level</i> | ✓     | ✓    | ✓       | ✓    |

### 6.41.3 Values

*level* is the level of messages to write.

Valid values for *level* are:

- **trace**  
Writes trace messages used for diagnostic purposes (see [#Trace Files](#)).

#### Note

Use **trace** only as directed by Stonebranch, Inc. Customer Support.

- **audit**  
Writes audit, informational, warning, and error messages.
- **info**  
Writes informational, warning, and error messages.
- **warn**  
Writes warning and error messages.
- **error**  
Writes error messages only.

**Default is info.**

### 6.41.4 Trace Files

#### UNIX

The trace file is created in the directory **/var/opt/universal/trace**.

#### Windows

The trace file is created in the installation directory of Universal Automation Center Agent, which defaults to:

**C:\Program Files\Universal\uag**

#### z/OS

There are two possible destinations of the trace data:

1. If ddname **UNVTRMDL** is defined in the UBROKER started task procedure, a sequential data set is created using the data set allocated to UNVTRMDL as a model.

The dynamically allocated trace data set name is **#HLQ.UBR.Dyymmdd.Thhmmss**, where:

- **#HLQ** is the data set name allocated on the UNVTRMDL ddname.
- **yymmdd** is the year, month, and day.
- **hhmmss** is the hour, minute, second the data set was allocated.

The amount of space allocated for trace data sets modeled after **UNVTRMDL** is based upon the [TRACE\\_FILE\\_LINES](#) configuration option and the record format of the model data set. If the model data set is fixed record format, the total amount of space measured in bytes is [TRACE\\_FILE\\_LINES](#) \*LRECL. If the model data set is variable record format, the total amount of space measured in bytes is [TRACE\\_FILE\\_LINES](#) \* 50 (50 is considered the average length of a trace file record).

The number of cylinders is calculated from the total amount of space in bytes. The total number of cylinders is calculated base on a total of 16 extents being allocated.

The formula is  $cylCount = (totalSize / 16) / 760000$ .

The allocation unit is set to cylinders and the primary and secondary space allocation is set to cylCount (that is, SPACE=(CYL,(cylCount,cylCount),RLSE)).

2. If ddname **UNVTRMDL** is not defined in the UBROKER started task procedure, member name **UBROKER** is created in the PDS or PDS/E allocated to the UNVTRACE ddname.

Depending on the error condition being diagnosed, it is possible that the member name of the **UNVTRACE** PDS or PDS/E is not created. If this occurs, the **UNVTRMDL** ddname must be used to create a sequential data set name.

The records written to PDS and PDS/E members cannot be wrapped, so the [TRACE\\_FILE\\_LINES](#) limit has no effect on the maximum number of trace records written to the member.

## 6.42 MIN\_SSL\_PROTOCOL - UAG configuration option

### 6.42.1 Description

The MIN\_SSL\_PROTOCOL option specifies the minimum SSL/TLS protocol level that will be negotiated and used for communications channels.

### 6.42.2 Usage

| Method                     | Syntax                         | IBM i | UNIX | Windows | z/OS |
|----------------------------|--------------------------------|-------|------|---------|------|
| Configuration File Keyword | min_ssl_protocol <i>option</i> | ✓     | ✓    | ✓       | ✓    |

### 6.42.3 Values

*option* is the specification for the minimum SSL/TLS protocol level that will be supported.

- **TLS1\_0**  
Minimum SSL/TLS protocol is TLS 1.0.
- **TLS1\_2**  
Minimum SSL/TLS protocol is TLS 1.2.
- **TLS1\_3**

TLS 1.3 is NOT currently supported on z/OS

Minimum SSL/TLS protocol is TLS 1.3.

**Default is TLS1\_2.**

## 6.43 NETNAME - UAG configuration option

### 6.43.1 Description

The NETNAME option sets the default network ID of Universal Automation Center Agent (UAG).

**Info**

You can override this option through a UBROKER command line argument or environment variable. See [UAG\\_NETNAME - UBROKER Configuration Option](#).

### 6.43.2 Usage

| Method                     | Syntax              | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------|-------|------|---------|------|
| Configuration File Keyword | netname <i>name</i> | ✔     | ✔    | ✔       | ✔    |

### 6.43.3 Values

*name* is the default network ID of UAG. It is a case sensitive value.

The default is **OPSAUTOCONF**.

**Note**

If *name* is **OPSAUTOCONF**, the ID would be requested from the Universal Controller after the first successful connection attempt.

## 6.44 OMS\_SERVERS - UAG configuration option

### 6.44.1 Description

The OMS\_SERVERS option specifies the port and network address of the Universal Message Service (OMS) server(s) used for network communication.

**Info**

You can override this option through a UBROKER command line argument or environment variable. See [UAG\\_OMS\\_SERVERS - UBROKER Configuration Option](#).

### 6.44.2 Usage

| Method                     | Syntax                                                  | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | oms_servers <i>port@host[:sni][,port@host[:sni]...]</i> | ✓     | ✓    | ✓       | ✓    |

### 6.44.3 Values

*port* is the TCP port on which the OMS server is listening. The default is **7878**.

*host* is the host name or IP address of the OMS server.

*sni* is the TLS SNI Hostname to be sent in the TLS ClientHello packet. The value is optional. If not specified, the TLS SNI extension is not included in the TLS ClientHello packet. If TLS SNI Hostname is specified, the Agent will not be able to connect to OMS Servers of versions lower than 7.9.0.0.

**Note**

If TLS SNI is specified on a z/OS Agent that is configured to use SystemSSL, then only one host can be configured.

### 6.44.3.1 OMS Failover Configuration

OMS servers may be deployed in a [High Availability \(HA\)](#) cluster, in which there are two or more OMS servers. An HA cluster has one active OMS server and one or more inactive OMS servers. When the active OMS server fails, one of the inactive OMS servers becomes the new active OMS server. UAG will automatically failover to the new active member of the HA cluster.

An OMS server HA cluster is specified as a comma-separated list of OMS servers, where each OMS server specified in the list is a member of the same HA cluster. UAG will connect to the first OMS server in the list. If that OMS server connection fails, UAG will attempt to connect to the next OMS server in the list, and so on, until it has successfully connected. The first OMS server in the list is should be considered the primary OMS server and subsequent OMS servers in the list are backup OMS servers.

Do not specify OMS servers in the comma-separated list that are not part of the same HA cluster, otherwise OMS messages may be lost in the case of failover.

## 6.45 OTEL\_ENABLE\_TRACING - UAG configuration option

### 6.45.1 Description

The OTEL\_ENABLE\_TRACING option specifies whether UAG will export traces to the Opentelemetry collector.

**Note**

The value of this option will be propagated to and used by the Extension worker process.

### 6.45.2 Usage

| Method                     | Syntax                           | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------------|-------|------|---------|------|
| Configuration File Keyword | otel_enable_tracing <i>value</i> |       | ✓    | ✓       |      |

**Note**

This option is **NOT** available on for UNIX on:

- Solaris

### 6.45.3 Values

*value* is case-insensitive and must be either **YES** or **NO**.

**Default is NO.**

## 6.46 OTEL\_EXPORT\_METRICS - UAG configuration option

### 6.46.1 Description

The OTEL\_EXPORT\_METRICS option specifies whether UAG will export metrics to the Opentelemetry collector.

#### Exported Metrics

See [Provided Metrics](#) for the list of metrics exported by UAG.

#### Note

The value of this option will be propagated to and used by the Extension worker process.

## Usage

| Method                     | Syntax                           | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------------|-------|------|---------|------|
| Configuration File Keyword | otel_export_metrics <i>value</i> |       | ✓    | ✓       |      |

#### Note

This option is **NOT** available on for UNIX on:

- Solaris

### 6.46.2 Values

*value* is case-insensitive and must be either **YES** or **NO**.

**Default is NO.**

## 6.47 OTEL\_HTTP\_METRICS\_PROTOCOL - UAG configuration option

### 6.47.1 Description

The OTEL\_HTTP\_METRICS\_PROTOCOL option specifies a value for the protocol used to export metrics from the agent.

This functionality can also be configured using OpenTelemetry's own environment variables, OTEL\_EXPORTER\_OTLP\_PROTOCOL or OTEL\_EXPORTER\_OTLP\_METRICS\_PROTOCOL. However, this configuration option takes precedence over those. If you wish to configure this functionality using OpenTelemetry, then you must leave the OTEL\_HTTP\_METRICS\_PROTOCOL option unspecified.

**Note**

The value of this option will be **NOT** be used by the Extension worker process. Extension tasks will always export using the default **http/protobuf**.

### 6.47.2 Usage

| Method                     | Syntax                                  | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------------------|-------|------|---------|------|
| Configuration File Keyword | otel_http_metrics_protocol <i>value</i> |       | ✓    | ✓       |      |

**Note**

This option is **NOT** available for Unix on:

- Solaris

### 6.47.3 Values

*protocol* is the protocol used to export metrics.

Valid values for *protocol* are:

- **http/json** - export over HTTP with JSON encoded data
- **http/protobuf** - export over HTTP with protobuf encoded data

**Default is http/protobuf.**

## 6.48 OTEL\_HTTP\_TRACE\_PROTOCOL - UAG configuration option

### 6.48.1 Description

The OTEL\_HTTP\_TRACE\_PROTOCOL option specifies a value for the protocol used to export traces from the agent.

This functionality can also be configured using OpenTelemetry's own environment variables, `OTEL_EXPORTER_OTLP_PROTOCOL` or `OTEL_EXPORTER_OTLP_TRACES_PROTOCOL`. However, this configuration option takes precedence over those. If you wish to configure this functionality using OpenTelemetry, then you must leave the `OTEL_HTTP_TRACE_PROTOCOL` option unspecified.

**Note**

The value of this option will be **NOT** be used by the Extension worker process. Extension tasks will always export using the default **http/protobuf**.

### 6.48.2 Usage

| Method                     | Syntax                                      | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>otel_http_trace_protocol value</code> |       | ✔    | ✔       |      |

**Note**

This option is **NOT** available for Unix on:

- Solaris

### 6.48.3 Values

*protocol* is the protocol used to export traces.

Valid values for *protocol* are:

- **http/json** - export over HTTP with JSON encoded data
- **http/protobuf** - export over HTTP with protobuf encoded data

**Default is http/protobuf.**

## 6.49 OTEL\_METRICS\_ENDPOINT - UAG configuration option

### 6.49.1 Description

The `OTEL_METRICS_ENDPOINT` option specifies the URL used to export UAG metric data using the OTLP/HTTP(S) protocol to the Opentelemetry Collector.

**Note**

For HTTPS connections, the URL must start with `https://`

**Note**

As of UA 7.9.0.0, only `OTLP/HTTP` protocol is supported. `OTLP/gRPC` is **NOT** supported.

**Note**

The value of this option will be propagated to and used by the Extension worker process.

## Usage

| Method                     | Syntax                                 | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>otel_metrics_endpoint url</code> |       | ✓    | ✓       |      |

**Note**

This option is **NOT** available for UNIX on:

- Solaris

### 6.49.2 Values

`url` must be a properly formatted, according to [Opentelemetry conventions](#).

**Default is** `http://localhost:4318`

## 6.50 OTEL\_METRICS\_EXPORT\_INTERVAL - UAG configuration option

### 6.50.1 Description

The `OTEL_METRICS_EXPORT_INTERVAL` option specifies how often to export the metrics to the Opentelemetry Collector.

## Usage

| Method | Syntax | IBM i | UNIX | Windows | z/OS |
|--------|--------|-------|------|---------|------|
|--------|--------|-------|------|---------|------|

|                            |                                              |  |   |   |  |
|----------------------------|----------------------------------------------|--|---|---|--|
| Configuration File Keyword | otel_metrics_export_interval <i>interval</i> |  | ✓ | ✓ |  |
|----------------------------|----------------------------------------------|--|---|---|--|

**Note**

This option is **NOT** available for UNIX on:

- Solaris

### 6.50.2 Values

*interval* must be specified in seconds and must be greater than 0.

**Default is** 60 seconds (Opentelemetry Default).

## 6.51 OTEL\_SERVICE\_NAME - UAG configuration option

### 6.51.1 Description

The OTEL\_SERVICE\_NAME option sets the value of the `service.name` resource attribute used to identify UAG in traces and metrics.

### Usage

| Method                     | Syntax                        | IBM i | UNIX | Windows | z/OS |
|----------------------------|-------------------------------|-------|------|---------|------|
| Configuration File Keyword | otel_service_name <i>name</i> |       | ✓    | ✓       |      |

**Note**

This option is **NOT** available for UNIX on:

- Solaris

### 6.51.2 Values

**Default is** uagsrv

## 6.52 OTEL\_SSL\_CA\_CERT\_PATH - UAG configuration option

### 6.52.1 Description

The OTEL\_SSL\_CA\_CERT\_PATH option specifies the full path to the file containing one or more X.509 trusted certificates in PEM format. The certificate(s) will be used to validate the Opentelemetry Collector (server). This option should only be specified for secure, HTTPS endpoints (ignored for HTTP).

**Note**

To use the host platform's trust certificates instead, do NOT specify this option.

**Note**

The value of this option will be propagated to and used by the Extension worker process.

## Usage

| Method                     | Syntax                             | IBM i | UNIX | Windows | z/OS |
|----------------------------|------------------------------------|-------|------|---------|------|
| Configuration File Keyword | otel_ssl_ca_cert_path <i>value</i> |       | ✔    | ✔       |      |

**Note**

This option is **NOT** available for UNIX on:

- Solaris

### 6.52.2 Values

*value* must be a fully-qualified path to the CA Certificate.

**No default value is set.**

## 6.53 OTEL\_SSL\_CLIENT\_CERT\_PATH - UAG configuration option

### 6.53.1 Description

The OTEL\_SSL\_CLIENT\_CERT\_PATH option specifies the full path to an X.509 certificate used to identify UAG to the Opentelemetry Collector. This option is only needed for HTTP connections where client authentication is set up in the Opentelemetry Collector.

**Note**

The value of this option will **NOT** be propagated to and used by the Extension worker process.

## Usage

| Method                     | Syntax                                 | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------------------|-------|------|---------|------|
| Configuration File Keyword | otel_ssl_client_cert_path <i>value</i> |       | ✓    | ✓       |      |

**Note**

This option is **NOT** available for UNIX on:

- Solaris

### 6.53.2 Values

*value* must be a fully-qualified path to the client certificate.

**No default value is set.**

## 6.54 OTEL\_SSL\_CLIENT\_KEY\_PATH - UAG configuration option

### 6.54.1 Description

The OTEL\_SSL\_CLIENT\_KEY\_PATH option specifies the full path to the PEM formatted file containing the private key associated with the client certificate specified by the OTEL\_SSL\_CLIENT\_CERT\_PATH option. This option is only needed for HTTP connections where client authentication is set up in the Opentelemetry Collector.

**Note**

The value of this option will **NOT** be propagated to and used by the Extension worker process.

## Usage

| Method                     | Syntax                                | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------------------------|-------|------|---------|------|
| Configuration File Keyword | otel_ssl_client_key_path <i>value</i> |       | ✔    | ✔       |      |

### Note

This option is **NOT** available for UNIX on:

- Solaris

### 6.54.2 Values

*value* must be a fully-qualified path to the key.

**No default value is set.**

## 6.55 OTEL\_SSL\_INSECURE\_SKIP\_VERIFY - UAG configuration option

### 6.55.1 Description

The OTEL\_SSL\_INSECURE\_SKIP\_VERIFY option specifies whether to validate the Opentelemetry Collector's (server's) certificate against the locally configured CA certificate (specified by OTEL\_CA\_CERT\_PATH option).

### Note

The value of this option will **NOT** be propagated to and used by the Extension worker process.

## Usage

| Method                     | Syntax                                     | IBM i | UNIX | Windows | z/OS |
|----------------------------|--------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | otel_ssl_insecure_skip_verify <i>value</i> |       | ✔    | ✔       |      |

### Note

This option is **NOT** available for UNIX on:

- Solaris

## 6.55.2 Values

*value* is case-insensitive and must be either **YES** or **NO**.

**Default is NO (Opentelemetry Collector's certificate will NOT be validated).**

## 6.56 OTEL\_TRACE\_ENDPOINT - UAG configuration option

### 6.56.1 Description

The OTEL\_TRACE\_ENDPOINT option specifies the URL used to export UAG trace data using the OTLP/HTTP(S) protocol to the Opentelemetry Collector.

#### Note

For HTTPS connections, the URL must start with `https://`

#### Note

As of UA 7.9.0.0, only `OTLP/HTTP` protocol is supported. `OTLP/gRPC` is **NOT** supported.

#### Note

The value of this option will be propagated to and used by the Extension worker process.

## Usage

| Method                     | Syntax                               | IBM i | UNIX | Windows | z/OS |
|----------------------------|--------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>otel_trace_endpoint url</code> |       | ✓    | ✓       |      |

#### Note

This option is **NOT** available for UNIX on:

- Solaris

## 6.56.2 Values

*url* must be a properly formatted, according to [Opentelemetry conventions](#).

**Default is** `http://localhost:4318`

## 6.57 OTEL\_UIP\_SERVICE\_NAME - UAG configuration option

### 6.57.1 Description

The OTEL\_UIP\_SERVICE\_NAME option sets the value of the `service.name` resource attribute used to identify an Extension worker process in traces and metrics.

#### Note

The value of this option will be propagated to and used by the Extension worker process.

## Usage

| Method                     | Syntax                                  | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>otel_uip_service_name name</code> |       | ✓    | ✓       |      |

#### Note

This option is **NOT** available for UNIX on:

- Solaris

### 6.57.2 Values

**Default is** `uip/${extension_name}`, where `${extension_name}` will be replaced with the actual extension name defined in `extension.yml`.

## 6.58 PDSE\_SHARING - UAG configuration option

### 6.58.1 Description

The `pdse_sharing` option specifies whether UAG will allocate PDS/E datasets for output with `DISP=SHR` (yes) or `DISP=OLD` (no). Specify 'yes' if your system is using GRS to serialize datasets and one of the following is true: UAG is executing on a stand-alone z/OS system and PDS/E datasets will not be shared outside this system, or UAG is executing on a z/OS Sysplex and `PDSESHARING(EXTENDED)` has been specified in the `IGDSMSxx` member in `SYS1.PARMLIB` for all systems.

### 6.58.2 Usage

| Method                     | Syntax                           | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>pdse_sharing option</code> |       |      |         | ✓    |

### 6.58.3 Values

Options:

- `yes`
- `no`

Default is `no`.

## 6.59 PROCESS\_CANCEL\_TIMEOUT - UAG configuration option

### 6.59.1 Description

The `PROCESS_CANCEL_TIMEOUT` option specifies the length of time that an OS task is given to complete its response to a `CANCEL` request received from Universal Controller.

If the task fails to terminate within the specified timeout period, UAG Server will forcefully terminate the task.

#### Info

You can override this option through a `UBROKER` command line argument or environment variable. See [UAG\\_PROCESS\\_CANCEL\\_TIMEOUT - UBROKER configuration option](#).

## 6.59.2 Usage

| Method                     | Syntax                                            | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>process_cancel_timeout time[s m h d]</code> | ✓     | ✓    |         |      |

## 6.59.3 Values

*time* must be numeric, but a one-letter suffix is accepted to specify a time unit of (**s**)econds, (**m**)inutes, (**h**)ours, or (**d**)ays. If no time unit is specified, the default is seconds.

The following maximums are enforced:

- 2147683647 or 2147683647s
- 35791394m
- 596523h
- 24855d

Minute, hour, and day maximums are set to ensure that their value, when represented as a number of seconds, does not exceed 2147683647.

**Default is 10 seconds.**

## 6.60 PROXY\_URL - UAG configuration option

### 6.60.1 Description

Specifies the proxy server address through which UAG Server's connection to OMS should be forwarded.

### 6.60.2 Usage

| Method                     | Syntax                                                          | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>proxy_url protocol://[[user]:password@]host[:port]</code> | ✓     | ✓    | ✓       | ✓    |

### 6.60.3 Values

#### *protocol*

Required. The protocol the proxy server should use to forward traffic from UAG Server to OMS.

As of this writing, **http** is the only supported protocol.

#### *user*

Optional. User name for proxy authentication.

This parameter has no default value.

**password**

Optional. The password for the account specified by the user parameter.

This parameter has no default value.

When specified, must be preceded by a colon (:). Any user account information must be separated from the host value with the @ symbol.

**host**

Required. The host name or IP address of the proxy server.

**port**

Optional. The port number upon which the proxy server accepts incoming connections.

The default value for this parameter is **80**.

**6.60.4 Examples**

1. Use an HTTP proxy server listening on TCP port 80 that does not require any credentials.

```
proxy_url http://proxyserver.com/
```

2. Use an HTTP proxy server listening on TCP port **3128** that does not require any credentials.

```
proxy_url http://proxyserver.com:3128/
```

3. Use an HTTP proxy server listing on port **3128** using a user ID of **proxyuser** whose password is **secret**.

```
proxy_url http://proxyuser:secret@proxyserver.com:3128/
```

**6.61 REQUEST\_Z/OS\_LICENSES - UAG configuration option****6.61.1 Description**

The REQUEST\_ZOS\_LICENSES option specifies the number of z/OS Agent licenses to request from Universal Controller in a Sysplex environment.

**Note**

REQUEST\_Z/OS\_LICENSES is ignored for a secondary z/OS agent.

## 6.61.2 Usage

| Method                     | Syntax                           | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------------|-------|------|---------|------|
| Configuration File Keyword | req_zos_lic reserve[,additional] |       |      |         | ✓    |

## 6.61.3 Values

*reserve* is the number of licenses to reserve for this Sysplex group. The minimum value is 1.

*additional* specifies, optionally, the additional number of licenses that can be requested from the Controller on an as-needed basis. The minimum value is 0.

**Default values are: 1,0**

Added together, *reserve* and *additional* cannot exceed 32.

### Note

In non-Sysplex environments, the values of *reserve* and *additional* are always 1,0.

**No Default.**

## 6.62 RERUN\_BEFORE\_INCLUDE - UAG configuration option

### 6.62.1 Description

The RERUN\_BEFORE\_INCLUDE option specifies whether UAG will insert the JCL for the UAGRERUN step when it encounters an INCLUDE JCL statement or not. When no is specified or defaulted, UAG will ignore INCLUDE statements and insert the UAGRERUN JCL when it encounters the first EXEC, PROC or IF JCL statement in the job.

### 6.62.2 Usage

| Method                     | Syntax                      | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------|-------|------|---------|------|
| Configuration File Keyword | rerun_before_include option |       |      |         | ✓    |

### 6.62.3 Value

Options:

- yes
- no

Default is **no**.

## 6.63 RERUN\_LOAD\_LIBRARY - UAG configuration option

### 6.63.1 Description

The RERUN\_LOAD\_LIBRARY option specifies the location of the Stonebranch Rerun Utility (UAGRERUN).

If no value is provided for this option, the load library in which the UAGRERUN module resides must be part of the z/OS [LNKLST](#).

### 6.63.2 Usage

| Method                     | Syntax                             | IBM i | UNIX | Windows | z/OS |
|----------------------------|------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <i>rerun_load_library location</i> |       |      |         | ✓    |

### 6.63.3 Values

*location* is the location of the Stonebranch Rerun Utility (UAGRERUN).

**No Default.**

## 6.64 RERUN\_OPTIONS - UAG configuration option

### 6.64.1 Description

The RERUN\_OPTIONS option specifies an options string which is passed as-is to the UAGRERUN program for every [z/OS Task](#) submitted by this Agent.

### Usage

| Method                     | Syntax                       | IBM i | UNIX | Windows | z/OS |
|----------------------------|------------------------------|-------|------|---------|------|
| Configuration File Keyword | <i>rerun_options options</i> |       |      |         | ✓    |

### 6.64.2 Value

*options* is the options string that is passed to the UAGRERUN program for each z/OS task.

**Default:** None

## 6.65 RERUN\_PROC\_NAME - UAG configuration option

### 6.65.1 Description

Specifies the name of a JCL procedure that can optionally be used to replace the standard UAGRERUN step inserted into any job submitted by UAG. Use this procedure if customization of the UAGRERUN step is desired. A sample procedure named UAGRRPRC is provided in the SUNVSAMP installation library. If this parameter is coded, the named procedure must be copied into a JCL procedure library that is accessible to all jobs submitted by UAG.

### 6.65.2 Usage

| Method                     | Syntax                      | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------|-------|------|---------|------|
| Configuration File Keyword | rerun_proc_name <i>name</i> |       |      |         | ✓    |

## 6.66 SECURITY - UAG configuration option

### 6.66.1 Description

The SECURITY option activates user security.

If SECURITY is activated, the remote command execution request must supply a local user ID and password. The command is started as that user.

If SECURITY is not activated, the user ID and password is not required from the remote request and the user's process is started with the same user ID as the remote agent.

### 6.66.2 Usage

| Method                     | Syntax                 | IBM i | UNIX | Windows | z/OS |
|----------------------------|------------------------|-------|------|---------|------|
| Configuration File Keyword | security <i>option</i> | ✓     | ✓    | ✓       | ✓    |

### 6.66.3 Values

*option* is the specification for whether or not security is activated.

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>IBM i</b>   | <p>Valid values for <i>option</i> are:</p> <ul style="list-style-type: none"> <li>• default<br/>Security is activated and uses IBM i default user authentication method.</li> <li>• inherit<br/>Universal Automation Center Agent will inherit the user account of the broker which started it. The user processes created as a result of task execution are started with the same user ID as that inherited from the Broker.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>UNIX</b>    | <p>Valid values for <i>option</i> are:</p> <ul style="list-style-type: none"> <li>• default<br/>Security is activated and uses UNIX default user authentication method.</li> <li>• inherit<br/>Universal Automation Center Agent will inherit the user account of the broker which started it. The user processes created as a result of task execution are started with the same user ID as that inherited from the Broker.</li> <li>• none<br/>Universal Automation Center Agent will inherit the user account of the broker which started it. The user processes created as a result of task execution are started with the same user ID as that inherited from the Broker.</li> <li>• pam<br/>Security is activated and use the Pluggable Authentication Modules (PAM) interface to provide user authentication.</li> <li>• pam_sessions (Linux only)<br/>Processes Pluggable Authentication Modules (PAM) session modules in addition to account and authentication modules.</li> <li>• trusted<br/>Security is activated and uses HP Trust Security authentication.</li> </ul> |
| <b>Windows</b> | <p>Valid values for <i>option</i> are:</p> <ul style="list-style-type: none"> <li>• default<br/>Security is activated and uses Windows authentication to verify user ID and password.</li> <li>• inherit<br/>Universal Automation Center Agent will inherit the user account of the broker which started it. The user processes created as a result of task execution are started with the same user ID as that inherited from the Broker.</li> <li>• none<br/>Universal Automation Center Agent will inherit the user account of the broker which started it. The user processes created as a result of task execution are started with the same user ID as that inherited from the Broker.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                              |
| <b>z/OS</b>    | <p>Valid values for <i>option</i> are:</p> <ul style="list-style-type: none"> <li>• default<br/>Security is activated and uses z/OS SAF user authentication method. The user ID must have an OMVS segment.</li> <li>• inherit<br/>Universal Automation Center Agent will inherit the user account of the broker which started it. The user processes created as a result of task execution are started with the same user ID as that inherited from the Broker.</li> <li>• none<br/>Universal Automation Center Agent will inherit the user account of the broker which started it. The user processes created as a result of task execution are started with the same user ID as that inherited from the Broker.</li> </ul>                                                                                                                                                                                                                                                                                                                                                         |

**Note**

The inherit value replaces the none value. There are currently no plans to deprecate support for none, but new installs should use inherit instead of none.

### 6.66.3.1 Default Values

|         |                           |
|---------|---------------------------|
| default | AIX, IBM i, Windows, z/OS |
| pam     | Linux, Solaris            |

## 6.67 SERVICE\_TIMEOUT - UAG configuration option

### 6.67.1 Description

Specifies the idle time in seconds after which the Agent must drop the OMS connection and attempt to re-establish it. The default value for the option is 0 (do not terminate an idle OMS connection). The maximum value of the option is 604800 seconds (7 days).

### 6.67.2 Usage

| Method                     | Syntax                       | IBM i | UNIX | Windows | z/OS |
|----------------------------|------------------------------|-------|------|---------|------|
| Configuration File Keyword | service_timeout <i>value</i> | ✓     | ✓    | ✓       | ✓    |

### 6.67.3 Values

The maximum value of the option is 604800 seconds (7 days).

**The default value for the option is 0** (do not terminate an idle OMS connection).

## 6.68 SSL\_CIPHER\_LIST - UAG configuration Option

### 6.68.1 Description

The SSL\_CIPHER\_LIST option specifies the SSL/TLS cipher suites acceptable for use by the SSL/TLS protocol.

The SSL/TLS protocol uses the cipher suites to specify which encryption and message authentication (or message digest) algorithms to use.

### 6.68.2 Usage

| Method                     | Syntax                      | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------|-------|------|---------|------|
| Configuration File Keyword | ssl_cipher_list <i>list</i> | ✓     | ✓    | ✓       | ✓    |

### 6.68.3 Values

*list* is a comma-separated list of SSL/TLS cipher suites. The following table identifies the list of SSL/TLS cipher suites supported for this option.

The list is in default order, with the most preferred suite first and the least preferred suite last.

| Cipher Suite                  | Description                                                                                                                                              |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| AES256-GCM-SHA384             | 256-bit AES encryption in Galois Counter Mode, SHA-2 384-bit message digest.                                                                             |
| AES256-SHA                    | 256-bit AES encryption with SHA-1 message digest.                                                                                                        |
| AES128-GCM-SHA256             | 128-bit AES encryption in Galois Counter Mode, SHA-2 256-bit message digest.                                                                             |
| AES128-SHA                    | 128-bit AES encryption with SHA-1 message digest.                                                                                                        |
| ECDHE-RSA-AES256-GCM-SHA384   | Ephemeral Elliptic Curve Diffie-Hellman Key Exchange, RSA authentication, 256-bit AES encryption in Galois Counter Mode, SHA-2 384-bit message digest.   |
| ECDHE-ECDSA-AES256-GCM-SHA384 | Ephemeral Elliptic Curve Diffie-Hellman Key Exchange, ECDSA authentication, 256-bit AES encryption in Galois Counter Mode, SHA-2 384-bit message digest. |
| ECDHE-RSA-AES128-GCM-SHA256   | Ephemeral Elliptic Curve Diffie-Hellman Key Exchange, RSA authentication, 128-bit AES encryption in Galois Counter Mode, SHA-2 256-bit message digest.   |
| ECDHE-ECDSA-AES128-GCM-SHA256 | Ephemeral Elliptic Curve Diffie-Hellman Key Exchange, ECDSA authentication, 128-bit AES encryption in Galois Counter Mode, SHA-2 256-bit message digest. |
| DES-CBC3-SHA                  | 128-bit Triple-DES encryption with SHA-1 message digest.                                                                                                 |

## 6.69 SSL\_CIPHER\_SUITES - UAG configuration option

### 6.69.1 Description

The `SSL_CIPHER_SUITES` option specifies one or more **SSL/TLS 1.3 specific** cipher suites that are acceptable to use for network communications between UAG and OMS Server.

This option is specific to TLS 1.3. To configure ciphers for TLS 1.2 and earlier, see the `ssl_cipher_list` option.

### 6.69.2 Usage

| Method                     | Syntax                                 | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>ssl_cipher_suites ciphers</code> | ✓     | ✓    | ✓       |      |

### 6.69.3 Value

`ciphers` is a comma-separated list of SSL/TLS 1.3 specific cipher suites. The following table identifies the list of SSL/TLS cipher suites supported for this option.

The list is in default order, with the most preferred suite first and the least preferred suite last.

| Cipher Suite                 | Description                                                                                  |
|------------------------------|----------------------------------------------------------------------------------------------|
| TLS_AES_256_GCM_SHA384       | 256-bit AES encryption in Galois Counter Mode, SHA-2 384-bit message digest                  |
| TLS_CHACHA20_POLY1305_SHA256 | 256-bit CHACHA encryption with POLY1305 message authentication, SHA-2 256-bit message digest |
| TLS_AES_128_GCM_SHA256       | 128-bit AES encryption in Galois Counter Mode, SHA-2 256-bit message digest                  |

## 6.70 SSL\_CLIENT\_AUTH - UAG configuration Option

### 6.70.1 Description

The `SSL_CLIENT_AUTH` option enables client's certificate authentication from OMS server if the SSL/TLS protocol is used for network communication.

By default, OMS server does not authenticate client's certificate.

### 6.70.2 Usage

| Method                     | Syntax                            | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>ssl_client_auth list</code> | ✓     | ✓    | ✓       | ✓    |

### 6.70.3 Values

*option* specifies whether or not client's certificate authentication when the SSL/TLS protocol is used.

Valid values for *option* are:

- **yes** - client's certificate is authenticated.
- **no** - client's certificate is not authenticated.

Default is **no**.

## 6.71 SSL\_SERVER\_AUTH - UAG configuration option

### 6.71.1 Description

The `SSL_SERVER_AUTH` option enables OMS server certificate authentication if the SSL/TLS protocol is used for network communication.

By default, UAG does not authenticate the OMS server certificate.

### 6.71.2 Usage

| Method                     | Syntax                              | IBM i | UNIX | Windows | z/OS |
|----------------------------|-------------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>ssl_server_auth option</code> | ✓     | ✓    | ✓       | ✓    |

### 6.71.3 Values

*option* specifies whether or not OMS server certificate authentication when the SSL/TLS protocol is used.

Valid values for *option* are:

- **yes**  
OMS server certificate is authenticated.
- **no**  
OMS server certificate is not authenticated.

Default is **no**.

## 6.72 TASK\_RETRY\_COUNT - UAG configuration option

### 6.72.1 Description

The `TASK_RETRY_COUNT` option specifies the number of attempts to retry a task, in an interval specified by the `TASK_RETRY_INTERVAL` configuration option, before the task goes to the Failed status.

## 6.72.2 Usage

| Method                     | Syntax                         | IBM i | UNIX | Windows | z/OS |
|----------------------------|--------------------------------|-------|------|---------|------|
| Configuration File Keyword | task_retry_count <i>number</i> | ✓     | ✓    | ✓       |      |

## 6.72.3 Values

*number* is the number of retry attempts to make before the task goes to the Failed status.

- If *number* is 0 or is not specified, the feature is disabled and task execution behaves as usual.
- If *number* is >0, every failure to start a task causes it to be rerun.

## 6.73 TASK\_RETRY\_INTERVAL - UAG configuration option

### 6.73.1 Description

The TASK\_RETRY\_INTERVAL option specifies the number of seconds that will elapse between a failed [start task retry](#) attempt and the retry of that start task attempt.

### 6.73.2 Usage

| Method                     | Syntax                             | IBM i | UNIX | Windows | z/OS |
|----------------------------|------------------------------------|-------|------|---------|------|
| Configuration File Keyword | task_retry_interval <i>seconds</i> | ✓     | ✓    | ✓       |      |

### 6.73.3 Values

*second* is the number of seconds that will elapse between a failed start task retry attempt and the retry of that start task attempt.

## 6.74 TLS\_SNI\_HOSTNAME - UAG configuration option

### 6.74.1 Description

The TLS\_SNI\_HOSTNAME option specifies a value for the TLS SNI hostname used to reach this Agent. The value is only reported to the Controller, and does not affect Agent functionality. The Controller can use this value to know how to reach this Agent in environments where an SNI extension is required, such as when the Agent is running in an OpenShift pod.

Info

You can override this option through a UBROKER command line argument or environment variable. See [UAG\\_TLS\\_SNI\\_HOSTNAME - UBROKER Configuration Option](#).

## 6.74.2 Usage

| Method                     | Syntax                        | IBM i | UNIX | Windows | z/OS |
|----------------------------|-------------------------------|-------|------|---------|------|
| Configuration File Keyword | tls_sni_hostname <i>value</i> | ✓     | ✓    | ✓       | ✓    |

## 6.74.3 Values

*value* is the port, hostname, and TLS SNI hostname that can be used to reach this Agent. It uses the following format:

```
PORT@HOSTNAME : SNI_HOSTNAME
```

Where:

- **PORT** must consist of only digits 0-9.
- **HOSTNAME** and **SNI\_HOSTNAME** must contain only alphanumeric characters, hyphens, and periods.

**Default is none.**

## 6.75 TMP\_DIRECTORY - UAG configuration option

### 6.75.1 Description

The TMP\_DIRECTORY option specifies the directory that Universal Automation Center Agent (UAG) uses for temporary files.

#### z/OS

TMP\_DIRECTORY specifies the name of a z/OS UNIX directory.

## 6.75.2 Usage

| Method                     | Syntax                         | IBM i | UNIX | Windows | z/OS |
|----------------------------|--------------------------------|-------|------|---------|------|
| Configuration File Keyword | tmp_directory <i>directory</i> |       | ✓    | ✓       | ✓    |

### 6.75.3 Values

*directory* is the name of the directory.

A fully qualified path name is recommended.

#### 6.75.3.1 Defaults

|                |                        |
|----------------|------------------------|
| <b>UNIX</b>    | /var/opt/universal/tmp |
| <b>Windows</b> | ..\tmp                 |
| <b>z/OS</b>    | /tmp                   |

## 6.76 TRACE\_DIRECTORY - UAG configuration option

### 6.76.1 Description

The TRACE\_DIRECTORY option specifies the directory that Universal Automation Center Agent (UAG) uses for trace files ([MESSAGE\\_LEVEL](#) option value is set to **trace**).

### 6.76.2 Usage

| Method                     | Syntax                           | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------------------|-------|------|---------|------|
| Configuration File Keyword | trace_directory <i>directory</i> |       | ✓    | ✓       |      |

### 6.76.3 Values

*directory* is the name of the directory for trace files.

Relative path names are relative to the UAG installation directory.

Full path names are recommended.

#### 6.76.3.1 Defaults

|                |                                 |
|----------------|---------------------------------|
| <b>Windows</b> | C:\Program Files\Universal\uag. |
| <b>UNIX</b>    | /var/opt/universal/trace.       |

## 6.77 TRACE\_FILE\_LINES - UAG configuration option

### 6.77.1 Description

The TRACE\_FILE\_LINES option specifies the maximum number of lines to write to the trace file.

A trace file is generated when the MESSAGE\_LEVEL option is set to **trace**. The trace file will wrap around when the maximum number of lines has been reached and start writing trace entries after the trace header lines.

(The average size of a trace file line is 50 characters.)

### 6.77.2 Usage

| Method                     | Syntax                        | IBM i | UNIX | Windows | z/OS |
|----------------------------|-------------------------------|-------|------|---------|------|
| Configuration File Keyword | trace_file_lines <i>lines</i> | ✓     | ✓    | ✓       | ✓    |

### 6.77.3 Values

*lines* is the maximum number of lines to write to the trace file.

**Default is 100,000.** (If space is limited in the trace file directory, set *lines* to a smaller value.)

## 6.78 TRACE\_TABLE - UAG configuration option

### 6.78.1 Description

The TRACE\_TABLE option specifies the size of a wrap-around trace table maintained in memory.

The trace table is written to a file / data set when the program ends under the conditions specified in this option. Tracing is activated, and a trace file is generated, when the MESSAGE\_LEVEL option is set to **trace**.

### 6.78.2 Usage

| Method                     | Syntax                             | IBM i | UNIX | Windows | z/OS |
|----------------------------|------------------------------------|-------|------|---------|------|
| Configuration File Keyword | trace_table <i>size, condition</i> | ✓     | ✓    | ✓       | ✓    |

### 6.78.3 Values

*size* is the size (in bytes) of the trace table.

The size can be suffixed with either of the following characters:

- **M** indicates that the size is specified in megabytes
- **K** indicates that the size is specified in kilobytes

For example, *50M* indicates that 50 X 1,048,576 bytes of memory is allocated for the trace table.

#### Note

If *size* is **0**, the trace table is not used.

**Default is 0.**

*condition* is the condition under which the trace table is written.

Possible values for *condition* are:

- **error**  
Write the trace table if the program ends with a non-zero exit code.
- **always**  
Write the trace table when the program ends regardless of the exit code.
- **never**  
Never write the trace table.

**Default is never.**

## 6.79 TRANSIENT - UAG configuration option

### 6.79.1 Description

The TRANSIENT option specifies whether to register the Agent as a Transient Agent or a regular, persistent Agent.

A Transient Agent will be deleted or decommissioned when it shuts down or goes offline. Transient Agents are suspended from any Agent Clusters that they may belong to.

#### Info

You can override this option through a UBROKER command line argument or environment variable. See [UAG\\_TRANSIENT - UBROKER Configuration Option](#).

#### Note

If a Transient Agent is referenced in any task definitions, the dynamic delete will fail. It should be understood that Transient Agents should never be specified directly in any task definition. They are designed to accept work via an Agent Cluster, so when configuring a Universal Agent to operate in a containerized environment, you should ensure that the Agent registers with one or more Agent Clusters via the [AGENT\\_CLUSTERS](#) UAG configuration option.

## 6.79.2 Usage

| Method                     | Syntax                  | IBM i | UNIX | Windows | z/OS |
|----------------------------|-------------------------|-------|------|---------|------|
| Configuration File Keyword | <i>transient option</i> |       | ✓    |         |      |

## 6.79.3 Values

Valid values are:

- **yes**  
Agent is registered as a transient Agent.
- **no**  
Agent is registered as a regular, persistent Agent.

**Default is no.**

## 6.80 TXTDEBUG - UAG configuration option

### 6.80.1 Description

The TXTDEBUG option specifies whether to enable or disable additional diagnostics messages.

#### Note

Since the use of TXTDEBUG could affect performance adversely, we recommended that it be used only by Technical Support.

### 6.80.2 Usage

| Method                     | Syntax               | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------|-------|------|---------|------|
| Configuration File Keyword | <i>txtbug option</i> | ✓     | ✓    | ✓       | ✓    |

### 6.80.3 Values

Valid values are:

- **Y**  
Enable additional diagnostic messages.
- **N**  
Disable additional diagnostic messages.

**Default is N.**

## 6.81 UFTP\_LOAD\_LIBRARY - UAG configuration option

### 6.81.1 Description

The UFTP\_LOAD\_LIBRARY option specifies the location of the Stonebranch Universal FTP (UFTP) utility used for FTP [File Transfer Tasks](#) and FTP [File Monitor Tasks](#) received by this Agent from a Universal Controller.

If no value is provided for this option, the load library in which the UFTP module resides must be part of the global linklist. Otherwise, FTP File Transfer and Monitor Tasks will fail.

### Usage

| Method                     | Syntax                            | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------------|-------|------|---------|------|
| Configuration File Keyword | uftp_load_library <i>location</i> |       |      |         | ✔    |

### 6.81.2 Value

*location* is the location of the Stonebranch Universal FTP (UFTP) utility.

**Default: None**

## 6.82 ZOS\_EXT\_JOB - UAG configuration option

### 6.82.1 Description

This parameter can optionally be used to supply a list of names of external jobs to be tracked by UAG. External jobs are jobs which are not submitted by UAG. These jobs can then be referenced by External Job Monitors.

The values will be a list of triplets, contained within parentheses, specifying a job name mask, a user ID mask and the number of generations of a job to track.

The job names and user IDs can contain the wild card characters '\*' (one or more characters) and '?' (Any character).

The number of generations is an integer between 1 and 100. If omitted, the default is 1.

If zos\_ext\_job is coded multiple times, the values coded will be added to the end of the list of previously specified values.

When zos\_ext\_job is specified, [HISTORY\\_DATASET](#) must also be specified.

## 6.82.2 Usage

| Method                     | Syntax                                                                      | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------------------------------------------------------|-------|------|---------|------|
| Configuration File Keyword | zos_ext_job (jobname,user,generations),...,(jobname-n,user-n,generations-n) |       |      |         | ✓    |

## 6.82.3 Values

List of triplets, contained within parentheses, specifying a job name mask, user ID and a number of generations from 1 (the default) to 100.

**Default: None**

## 6.83 ZOS\_JOB\_SYSAFF - UAG configuration option

### 6.83.1 Description

The ZOS\_JOB\_SYSAFF option instructs UAG to add a SYSAFF keyword to the JCL JOB statement of any job it submits.

#### Note

The ZOS\_JOB\_SYSAFF and [ZOS\\_JOB\\_SYSTEM](#) configuration options are mutually exclusive. If both options are provided, the last one coded will take precedence.

### 6.83.2 Usage

| Method                     | Syntax               | IBM i | UNIX | Windows | z/OS |
|----------------------------|----------------------|-------|------|---------|------|
| Configuration File Keyword | zos_job_sysaff value |       |      |         | ✓    |

### 6.83.3 Values

The value coded is expected to conform to the JCL syntax of the JOB statement SYSAFF keyword.

If the JOB statement already contains either a SYSTEM or SYSAFF keyword, UAG will leave the current value in place.

If the JCL contains a /\*JOBPARM SYSAFF=, /\*ROUTE XEQ or /\*XEQ statement (JES2), or a /\*ROUTE XEQ statement (JES3), no SYSTEM or SYSAFF keyword will be added to the JOB statement.

**Default: none.**

## 6.84 ZOS\_JOB\_SYSTEM - UAG configuration option

### 6.84.1 Description

The ZOS\_JOB\_SYSTEM option instructs UAG to add a SYSTEM keyword to the JCL JOB statement of any job it submits.

#### Note

The ZOS\_JOB\_SYSTEM and ZOS\_JOB\_SYSAFF configuration options are mutually exclusive. If both options are provided, the last one coded will take precedence.

### 6.84.2 Usage

| Method                     | Syntax                      | IBM i | UNIX | Windows | z/OS |
|----------------------------|-----------------------------|-------|------|---------|------|
| Configuration File Keyword | zos_job_system <i>value</i> |       |      |         | ✔    |

### 6.84.3 Values

The value coded is expected to conform to the JCL syntax of the JOB statement SYSTEM keyword.

If the JOB statement already contains either a SYSTEM or SYSAFF keyword, UAG will leave the current value in place.

If the JCL contains a /\*JOBPARM SYSAFF=, /\*ROUTE XEQ or /\*XEQ statement (JES2), or a /\*ROUTE XEQ statement (JES3), no SYSTEM or SYSAFF keyword will be added to the JOB statement.

**Default:** none.

## 6.85 ZOS\_JOB\_USER - UAG configuration option

### 6.85.1 Description

The ZOS\_JOB\_USER option can be used to supply a list of user IDs to be used when a job is submitted. The value will be a list of triplets, contained within parentheses, specifying a job name mask, user ID and an optional keyword: NOOVERRIDE or OVERRIDE .

The job name can contain the wild card characters '\*' (one or more characters) and '?' (Any character). NOOVERRIDE (the default) indicates a match will not override an existing USER keyword on the job statement or Credential received from the UC. OVERRIDE specifies the user ID for the matching job name mask will override a user ID from any other source.

When a job is submitted, the list will be searched for a matching job name in the order in which it is coded. The first match will be used, even if a closer match appears later in the list. If no match is found, processing will continue as if zos\_job\_user was

not specified. If `zos_job_user` is coded multiple times, the values coded will be added to the end of the list of previously specified values.

### 6.85.2 Usage

| Method                     | Syntax                          | IBM i | UNIX | Windows | z/OS |
|----------------------------|---------------------------------|-------|------|---------|------|
| Configuration File Keyword | <code>zos_job_user value</code> |       |      |         | ✓    |

### 6.85.3 Values

List of triplets, contained within parentheses, specifying a job name mask, user ID and an optional keyword: NOOVERRIDE or OVERRIDE.

# 7 Universal Automation Center Agent Component Definition Options

- [Overview](#)
- [Component Definition Options Information](#)
  - [Description](#)
  - [Usage](#)
  - [Values](#)
- [Component Definition Options List](#)

## 7.1 Overview

This page provides links to detailed information about the options that comprise Universal Automation Center Agent (UAG) component definitions.

The options are listed alphabetically, without regard to any specific operating system.

## 7.2 Component Definition Options Information

For each component definition option, these pages provide the following information.

### 7.2.1 Description

Describes the option and how it is used.

### 7.2.2 Usage

Provides a table of the following information:

| Method                       | Syntax           | IBM i | HP NonStop | UNIX | Windows | z/OS |
|------------------------------|------------------|-------|------------|------|---------|------|
| Component Definition Keyword | <Format / Value> |       |            |      |         |      |

#### 7.2.2.1 Method

Identifies the method used for specifying a UAG component definition option:

- Component Definition Keyword

### 7.2.2.2 Syntax

Identifies the syntax of the method used to specify the option:

- **Format:** Specific characters that identify the option.
- **Value:** Type of value(s) to be supplied for this method.

### 7.2.2.3 (Operating System)

Identifies the operating systems for which the method of specifying the option is valid:

- IBM i
- HP NonStop
- UNIX
- Windows
- z/OS

### 7.2.3 Values

Identifies all possible values for the specified value type.

Defaults are identified in **bold type**.

## 7.3 Component Definition Options List

The following table identifies all of the options that can comprise a UAG component definition. Each **Option Name** is a link to detailed information about that option.

| Option Name                                                | Description                                                                                            |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <a href="#">AUTOMATICALLY_START</a>                        | Specification for whether or not the UAG Server starts automatically when Universal Broker is started. |
| <a href="#">COMPONENT_NAME</a>                             | Name by which the clients know the UAG Server.                                                         |
| <a href="#">CONFIGURATION_FILE *</a>                       | Name of the UAG Server configuration file.                                                             |
| <a href="#">RESTART</a>                                    | Specification for whether or not the UAG Server should be restarted if it ends.                        |
| <a href="#">RESTART_CONDITIONS</a>                         | Exit conditions criteria for which the UAG server is considered eligible for restart.                  |
| <a href="#">RESTART_DELAY</a>                              | Number of seconds to wait before restarting the UAG Server.                                            |
| <a href="#">RESTART_MAX_FREQUENCY</a>                      | Maximum frequency the UAG Server can be restarted.                                                     |
| <a href="#">RUNNING_MAXIMUM</a>                            | Maximum number of UAG Servers that can run simultaneously.                                             |
| <a href="#">START_COMMAND *</a>                            | Program name of the UAG Server.                                                                        |
| <a href="#">WORKING_DIRECTORY *</a>                        | Directory used as the working directory of the UAG Server.                                             |
| * These options are required in all component definitions. |                                                                                                        |

## 7.4 AUTOMATICALLY\_START - UAG Component Definition option

### 7.4.1 Description

The AUTOMATICALLY\_START option specifies whether or not the Universal Automation Center Agent (UAG) Server starts automatically when the Universal Broker is started.

#### Info

You can override this option through a UBROKER command line argument or environment variable. See [UAG\\_AUTOSTART - UBROKER Configuration Option](#).

#### Note

AUTOMATICALLY\_START is optional in a component definition.

### 7.4.2 Usage

| Method                       | Parameter / Value        | IBM i | UNIX | Windows | z/OS |
|------------------------------|--------------------------|-------|------|---------|------|
| Component Definition Keyword | auto_start <i>option</i> | ✔     | ✔    | ✔       | ✔    |

### 7.4.3 Values

*option* is the specification for how the UAG Server is started.

The only valid value for *option* is:

- **yes**  
UAG Server is started automatically when Universal Broker is started.

## 7.5 COMPONENT\_NAME - UAG Component Definition option

### 7.5.1 Description

The COMPONENT\_NAME option specifies the name of the Universal Automation Center Agent (UAG) Server.

Component start requests refer to UAG Server by this name.

**Note**

COMPONENT\_NAME is optional in a component definition. If it is not specified, the file name is used as the component name.

### 7.5.2 Usage

| Method                       | Syntax                     | IBM i | HP NonStop | UNIX | Windows | z/OS |
|------------------------------|----------------------------|-------|------------|------|---------|------|
| Component Definition Keyword | component_name <i>name</i> | ✓     |            | ✓    | ✓       | ✓    |

### 7.5.3 Values

*name* is the name of the UAG server.

There is only one valid value for *name*:

- **uag**  
(This is the name of the UAG Server component definition file / member.)

This name should not be changed.

## 7.6 CONFIGURATION\_FILE - UAG Component Definition option

### 7.6.1 Description

The CONFIGURATION\_FILE option specifies the name of the Universal Automation Center Agent (UAG) configuration file.

**Note**

CONFIGURATION\_FILE is required in a component definition.

### 7.6.2 Usage

| Method                       | Syntax                                                                | IBM i | HP NonStop | UNIX | Windows | z/OS |
|------------------------------|-----------------------------------------------------------------------|-------|------------|------|---------|------|
| Component Definition Keyword | configuration_file <i>member</i> or<br>configuration_file <i>file</i> | ✓     |            | ✓    | ✓       | ✓    |

### 7.6.3 Values

*member / file* is the name of the configuration member / file.

|                          |                                                                                                                                                                                                                                                                                                                                        |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>IBM<br/>i</b>         | Member name of the component configuration file in the <b>UNVPRD<sub>vrm</sub>/UNVCONF</b> source physical file, where <i>vrm</i> is the Universal Agent's version, release, and <i>modification</i> level, respectively (e.g., the value for the Universal Agent 7.9.0.0 release is 770).<br>The default member name is <b>UAGS</b> . |
| <b>UNI<br/>X</b>         | Full path name of the configuration file. The file name can be any valid file name. The installation default is <b>/etc/universal/uags.conf</b> .                                                                                                                                                                                      |
| <b>Win<br/>dow<br/>s</b> | Full path name of the configuration file. The file name can be any valid file name. The installation default is <b>c:\Documents and Settings\All Users\Application Data\Universal\conf\uags.conf</b> .                                                                                                                                 |
| <b>z/OS</b>              | Member name of the component configuration file in the <b>UNVCONF</b> library allocated to the Universal Broker ddname <b>UNVCONF</b> . The installation default is <b>UAGCFG00</b> .                                                                                                                                                  |

## 7.7 RESTART - UAG Component Definition option

### 7.7.1 Description

The RESTART option specifies whether or not the Universal Automation Center Agent (UAG) Server should be restarted if it ends.

**Note**

RESTART is optional in a component definition.

The UAG Server is restarted when the following conditions are met:

1. Universal Broker is not in shutdown mode.
2. UAG Server has not been stopped by Universal Broker, Universal Control, or Universal Enterprise Controller. This is considered a controlled shutdown.
3. RESTART option value is **yes**.
4. UAG Server's exit conditions must meet one of the values specified by the [RESTART\\_CONDITIONS](#) option.
5. UAG Server must not have been restarted more than specified by the [RESTART\\_MAX\\_FREQUENCY](#) option.

## 7.7.2 Usage

| Method                     | Syntax                 | IBM i | HP NonStop | UNIX | Windows | z/OS |
|----------------------------|------------------------|-------|------------|------|---------|------|
| Configuration File Keyword | restart <i>options</i> | ✓     |            | ✓    | ✓       | ✓    |

## 7.7.3 Values

*options* is the specification for whether or not the UAG Server should be restarted.

Valid values for *options* are:

- **yes**  
UAG Server should be restarted if it meets the restart criteria.
- **no**  
UAG Server should not be restarted.

**Default is no.**

## 7.8 RESTART\_CONDITIONS - UAG Component Definition option

### 7.8.1 Description

The RESTART\_CONDITIONS option specifies the exit conditions of the UAG Server for which it should be considered eligible for restart.

#### Note

RESTART\_CONDITIONS is optional in a component definition.

If the exit conditions of the UAG Server do not meet the criteria, it will not be restarted.

### 7.8.2 Usage

| Method                     | Syntax                               | IBM i | HP NonStop | UNIX | Windows | z/OS |
|----------------------------|--------------------------------------|-------|------------|------|---------|------|
| Configuration File Keyword | restart_conditions <i>conditions</i> | ✓     |            | ✓    | ✓       | ✓    |

## 7.8.3 Values

*conditions* is a comma-separated list of exit conditions.

The exit conditions names are based on the Universal Agent [return codes](#). Category names are used instead of numeric values, as the exit code numeric value may not be consistent across all platforms.

The exit conditions are:

|                 |                                                                                       |
|-----------------|---------------------------------------------------------------------------------------|
| <b>ABNORMAL</b> | UAG Server ended abnormally due to a UNIX signal, Windows Exception, z/OS ABEND, etc. |
| <b>SUCCESS</b>  | UAG Server ended normally with exit code 0.                                           |
| <b>WARN</b>     | UAG Server ended normally with a warning exit code.                                   |
| <b>ERROR</b>    | UAG Server ended normally with an error exit code.                                    |
| <b>FATAL</b>    | UAG Server ended normally with a fatal exit code.                                     |
| <b>CONFIG</b>   | UAG Server ended normally with a configuration error exit code.                       |
| <b>SECURITY</b> | UAG Server ended normally with a security related exit code.                          |
| <b>NETWORK</b>  | UAG Server ended normally with a network related exit code.                           |
| <b>SHUTDOWN</b> | UAG Server ended normally with a shutdown related exit code.                          |
| <b>LICENSE</b>  | UAG Server ended normally with a license violation related exit code.                 |
| <b>ALL</b>      | All of the above.                                                                     |

**Default is ABNORMAL.**

## 7.9 RESTART\_DELAY - UAG Component Definition option

### 7.9.1 Description

The RESTART\_DELAY option specifies the number of seconds to wait from the time the Universal Broker detects that the UAG Server has ended until Universal Broker restarts it.

#### Note

RESTART\_DELAY is optional in a component definition.

## 7.9.2 Usage

| Method                     | Syntax                       | IBM i | HP NonStop | UNIX | Windows | z/OS |
|----------------------------|------------------------------|-------|------------|------|---------|------|
| Configuration File Keyword | restart_delay <i>seconds</i> | ✓     |            | ✓    | ✓       | ✓    |

## 7.9.3 Values

*seconds* is the number of seconds to wait.

**Default is 5.**

## 7.10 RESTART\_MAX\_FREQUENCY - UAG Component Definition option

### 7.10.1 Description

The RESTART\_MAX\_FREQUENCY option specifies the maximum frequency in which the UAG Server can be restarted in a specific time interval.

#### Note

RESTART\_MAX\_FREQUENCY is optional in a component definition.

If the UAG Server becomes eligible for restart but exceeds the maximum restart frequency, it will not be restarted.

### 7.10.2 Usage

| Method                     | Syntax                                       | IBM i | HP NonStop | UNIX | Windows | z/OS |
|----------------------------|----------------------------------------------|-------|------------|------|---------|------|
| Configuration File Keyword | restart_max_frequency <i>number/interval</i> | ✓     |            | ✓    | ✓       | ✓    |

### 7.10.3 Values

*number* is the maximum number of restarts.

*interval* is the time interval in which the specified maximum number of restarts (*number*) is allowed.

Valid values for interval are **week**, **day**, **hour**, and **minute**.

**Default is 2 / day.**

## 7.11 RUNNING\_MAXIMUM - UAG Component Definition option

### 7.11.1 Description

The RUNNING\_MAXIMUM option specifies the maximum number of Universal Automation Center Agent (UAG) Servers that can run simultaneously.

If this maximum number is reached, any command received to start a UAG Server is rejected.

**Note**

RUNNING\_MAXIMUM is optional in a component definition.

### 7.11.2 Usage

| Method                       | Syntax                     | IBM i | HP NonStop | UNIX | Windows | z/OS |
|------------------------------|----------------------------|-------|------------|------|---------|------|
| Component Definition Keyword | running_max <i>maximum</i> | ✓     |            | ✓    | ✓       | ✓    |

### 7.11.3 Values

*maximum* is the maximum number of UAG Servers that can run simultaneously.

**Default is 1.**

**Note**

If you specify 0 for *maximum*, the default (1) will be used. To use 0 for the maximum number of servers, specify -1 or less for *maximum*.

## 7.12 START\_COMMAND - UAG Component Definition option

### 7.12.1 Description

The START\_COMMAND option specifies the full path name (member name for z/OS) of the UAG Server program.

Optionally, START\_COMMAND also can specify command line options.

**Note**

START\_COMMAND is required in a component definition.

### 7.12.2 Usage

| Method                       | Syntax                                                                         | IBM i | HP NonStop | UNIX | Windows | z/OS |
|------------------------------|--------------------------------------------------------------------------------|-------|------------|------|---------|------|
| Component Definition Keyword | start_command <i>member</i> or<br>start_command <i>name</i> [ <i>options</i> ] | ✔     |            | ✔    | ✔       | ✔    |

### 7.12.3 Values

*member / name* is the full path name of the UAG Server program.

*options* is the optional list of command line options.

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UNIX</b>    | <i>name</i> is the full path name of the UAG Server program.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Windows</b> | <i>name</i> is the full path name of the UAG Server program. This name is defined at installation; it is not modifiable from the Universal Configuration Manager.                                                                                                                                                                                                                                                                                                                                   |
| <b>z/OS</b>    | <i>member</i> is the program object of the UAG Server. The program object must be in the Universal Broker's search order for loading program objects. The default location is the SUNVLOAD library allocated to the Universal Broker's STEPLIB ddname. Alternatively, starting with Universal Broker 5.1.0.4, <i>member</i> can be the fully specified path of a USS external link to the UAG Server program. The external link must be owned by UID 0.<br><br><i>options</i> is not a valid value. |

## 7.13 WORKING\_DIRECTORY - UAG Component Definition option

### 7.13.1 Description

The WORKING\_DIRECTORY option specifies the full path name used as the working directory of the Universal Automation Center Agent (UAG) Server.

**Note**

WORKING\_DIRECTORY is required in a component definition.

## 7.13.2 Usage

| Method                       | Syntax                             | IBM i | HP NonStop | UNIX | Windows | z/OS |
|------------------------------|------------------------------------|-------|------------|------|---------|------|
| Component Definition Keyword | working_directory <i>directory</i> | ✓     |            | ✓    | ✓       | ✓    |

## 7.13.3 Values

*directory* is the full path name of the working directory.

**Default is ( . ).**

### Caution

Do not change this directory.

### IBM i

*directory* is the directory name to which the UAG Server uses for its working library.

### UNIX and Windows

*directory* is the full path name of the directory that the UAG Server uses as its working directory.

### z/OS

*directory* is the HFS directory name that the UAG Server uses as its working directory.

## 8 Universal Automation Center Agent UACL Entries

- [Introduction](#)
- [UACL Entries Information](#)
  - [Description](#)
  - [Usage](#)
  - [Values](#)
- [UACL Entries List](#)

### 8.1 Introduction

This page provides links to detailed information on the Universal Access Control List (UACL) entries available for use with Universal Automation Center Agent (UAG).

The UACL entries are listed alphabetically, without regard to any specific operating system.

### 8.2 UACL Entries Information

For each UACL entry, these pages provide the following information.

#### 8.2.1 Description

Describes the UACL entry and how it is used.

#### 8.2.2 Usage

Provides a table of the following information:

| Method            | Syntax        | IBM i | HP NonStop | UNIX | Windows | z/OS |
|-------------------|---------------|-------|------------|------|---------|------|
| UACL File Keyword | <Type / Rule> |       |            |      |         |      |

##### 8.2.2.1 Method

Identifies the method used for specifying a UACL entry:

- UACL File Keyword

##### 8.2.2.2 Syntax

Identifies the syntax of the method used for a UACL entry:

- Type: Universal Agent component to which the rule applies.
- Rule: Client's identity, request to which the entry pertains, and security attributes that the entry enforces.

### 8.2.2.3 (Operating System)

Identifies the operating systems for which the method of specifying the UACL entry is valid:

- IBM i
- HP NonStop
- UNIX
- Windows
- z/OS

### 8.2.3 Values

Identifies all possible values for the fields in a UACL entry rule.

Defaults are identified in **bold type**.

## 8.3 UACL Entries List

The following table identifies all UAG UACL Entries. Each **UACL Entry Name** is a link to detailed information about that option.

| UACL Entry Name                  | Description                                                                                                                    |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">UAG_WORK_REQUEST</a> | Allows or denies access to a task execution request and if allowed, specifies whether or not user authentication is performed. |

## 8.4 UAG\_WORK\_REQUEST - UAG UACL Entry

### 8.4.1 Description

A UAG\_WORK\_REQUEST UACL entry either allows or denies access to a task execution request and if allowed, specifies whether or not user authentication is performed.

The search for a UAG\_WORK\_REQUEST entry is based on the local user identifier with which the task is requested to execute. The first UACL entry found that matches the request will be used. If no match is found, the request is allowed to execute and the user account, if provided, is authenticated.

### 8.4.2 Usage

| Method            | Syntax                                               | IBM i | HP NonStop | UNIX | Windows | z/OS |
|-------------------|------------------------------------------------------|-------|------------|------|---------|------|
| UACL File Keyword | <code>uag_work_request local_user,access,auth</code> | ✓     |            | ✓    | ✓       | ✓    |

### 8.4.3 Values

The `local_user` is the local user identifier specified in the Universal Agent task credentials. Generic masking is supported for the value.

See [UACL Entries](#) for more information on generic masking support.

Valid values for `access` are:

- **deny** - Universal Agent request to execute the task is denied.
- **allow** - Universal Agent request to execute the task is allowed.

Valid values for `auth` are:

- **auth** - User authentication is performed.
- **noauth** - User authentication is not performed. The task will execute with the requested user identifier without authenticating the user account.

#### Windows

The **noauth** value is not valid.