



Universal Automation Center Agent 5.1.0

Reference Guide

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1. Universal Automation Center Agent 5.1.0 Reference Guide	3
1.1 Universal Automation Center Agent on zOS	5
1.2 Universal Automation Center Agent Configuration Options	6
1.2.1 AGENT_CLUSTERS - UAG configuration option	9
1.2.2 AUTOMATION_CENTER_CORE - UAG configuration option	10
1.2.3 AUTOMATION_CENTER_TRANSPORTS - UAG configuration option	11
1.2.4 CODE_PAGE - UAG configuration option	12
1.2.5 DATA_DIRECTORY - UAG configuration option	13
1.2.6 DSN_DELETE_EXCLUDE - UAG Configuration Option	14
1.2.7 ENABLE_SSL - UAG configuration option	15
1.2.8 INSTALLATION_DIRECTORY - UAG configuration option	16
1.2.9 JCL_LIBRARY - UAG configuration option	17
1.2.10 JES_SYSOUT_CLASS - UAG configuration option	18
1.2.11 JES_SYSOUT_DISP - UAG configuration option	19
1.2.12 LOGLVL - UAG configuration option	21
1.2.13 LOGON_METHOD - UAG Configuration Option	22
1.2.14 MESSAGE_LEVEL - UAG configuration option	23
1.2.15 NETNAME - UAG configuration option	25
1.2.16 SECURITY - UAG configuration option	26
1.2.17 TMP_DIRECTORY - UAG configuration option	27
1.2.18 TRACE_DIRECTORY - UAG configuration option	28
1.2.19 TRACE_FILE_LINES - UAG configuration option	29
1.2.20 TRACE_TABLE - UAG configuration option	30
1.2.21 TXTDEBUG - UAG configuration option	31
1.3 Universal Automation Center Agent Component Definition Options	32
1.3.1 AUTOMATICALLY_START - UAG Component Definition option	34
1.3.2 COMPONENT_NAME - UAG Component Definition option	35
1.3.3 CONFIGURATION_FILE - UAG Component Definition option	36
1.3.4 RESTART - UAG Component Definition option	37
1.3.5 RESTART_CONDITIONS - UAG Component Definition option	38
1.3.6 RESTART_DELAY - UAG Component Definition option	39
1.3.7 RESTART_MAX_FREQUENCY - UAG Component Definition option	40
1.3.8 RUNNING_MAXIMUM - UAG Component Definition option	41
1.3.9 START_COMMAND - UAG Component Definition option	42
1.3.10 WORKING_DIRECTORY - UAG Component Definition option	43
1.4 Universal Automation Center Agent UACL Entries	44
1.4.1 UAG_WORK_REQUEST - UAG UACL Entry	46

Universal Automation Center Agent 5.1.0 Reference Guide

- [Universal Automation Center Agent](#)
- [Usage](#)
 - [Configuration](#)
 - [Component Definition](#)
 - [Universal Access Control List](#)

Universal Automation Center Agent

[Opwise Automation Center](#) is the Stonebranch workload automation solution that performs job scheduling, file transfer, and event monitoring across all server platforms in the enterprise. An Agent is an Indesca / Infitran installation comprised of Universal Broker (UBROKER), Universal Automation Center Agent (UAG), and one or more other Indesca / Infitran components, such as Universal Command (UCMD).

Universal Automation Center Agent (UAG) provides agent services for an Opwise Automation Center [Controller](#). UAG enables a Controller to schedule workload, transfer files, and monitor events on the Agent system. UAG completely and seamlessly integrates with a Controller to provide distributed, workload automation throughout the enterprise.

These pages provide operating system-specific detailed technical information for Universal Automation Center Agent:

- [Usage](#)
- [Configuration Options](#)
- [Component Definition options](#)
- [Universal Access Control List entries](#)

Usage

UAG automatically starts when the Universal Broker starts and stops when the Universal Broker stops. In order for UAG to register with an Opwise Controller, UAG must be configured with two configuration values that identify the Opwise Controller.

Communications with a Controller is performed with a publish and subscribe application protocol over a TCP/IP socket connection. The TCP/IP socket connection is established by the UAG server and remains connected until UAG is shut down.

Configuration

UAG must be configured with the names of the Opwise Automation Center Transporter(s) and Message Hub queue. A Transporter name is the TCP/IP port number and host name or IP address. A Message Hub queue name is the name of a UAG internal message queue from which messages are routed to the Controller.

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

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](#).

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 Opwise Automation Center. Where Opwise Automation Center 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 Opswise 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 Opswise Controller credentials before UAG executes the requested task. For tasks executed from Opswise Controller using specific user accounts, UACL entries can disable authentication so that passwords for these accounts do not have to be managed in Opswise 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.

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](#).

Universal Automation Center Agent on zOS

- z/OS Application Monitoring and Control
- Extended MCS Console
 - Security

z/OS Application Monitoring and Control

The Opwise Automation Center [Application Monitoring and Control](#) feature allows you to use Opwise Automation Center 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 Opwise [Application](#) resource definition 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 definition.

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 <code>SYSTEM_ID</code> value
Command Scope	Current system
Message Scope	Current system
Override User Profile OPERPARM	Yes

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.

Universal Automation Center Agent Configuration Options

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

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.

Configuration Options Information

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

Description

Describes the configuration option and how it is used.

Usage

Provides a table of the following information:

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

Method

Identifies the method used to specify UAG configuration options:

- Configuration File Keyword

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.

(Operating System)

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

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

Values

Identifies all possible values for the specified value type.

Defaults are identified in **bold type**.

<Additional Information>

Identifies any additional information specific to the option.

Configuration Options List

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

Option Name	Description
AGENT_CLUSTERS	List of Agent Clusters to join automatically.
AUTOMATION_CENTER_CORE	Queue name for the Opwise Automation Center Message Hub.
AUTOMATION_CENTER_TRANSPORTS	Port and network address of Opwise Automation Center Transporter(s) used for network communication.
CODE_PAGE	Text translation code page.
DATA_DIRECTORY	Base directory for the UAG <code>cache/</code> , <code>logs/</code> , and <code>var/</code> sub-directories.
DSN_DELETE_EXCLUDE	Data sets that are excluded from UAG re-run data set delete processing.
ENABLE_SSL	Specification for whether to enable or disable the SSL protocol for network communications between UAG and the Opwise Automation Center Transporter(s).
INSTALLATION_DIRECTORY	Base directory where product is installed.
JCL_LIBRARY	JCL library ddname allocations.
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.
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.

MESSAGE_LEVEL	Level of messages written.
NETNAME	Default network ID of UAG.
SECURITY	Activates user security.
TMP_DIRECTORY	Directory for temporary files.
TRACE_DIRECTORY	Directory for trace files.
TRACE_FILE_LINES	Maximum number of lines written to the trace file.
TRACE_TABLE	Memory trace table specification.
TXTDEBUG	Specification for enabling or disabling additional diagnostics messages.

AGENT_CLUSTERS - UAG configuration option

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](#).)

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	<code>agent_clusters list</code>			✔	✔	✔

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 = 'Opwise - Default Linux/Unix Cluster, Opwise - Default Windows Cluster'.

AUTOMATION_CENTER_CORE - UAG configuration option

Description

The AUTOMATION_CENTER_CORE option specifies the queue name for the Opswise Automation Center Message Hub.

This option is required for Universal Automation Center Agent to be activated.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	<code>automation_center_core <i>text string</i></code>			✔	✔	✔

Value

text string is the queue name for the Opswise Automation Center Message Hub.

(The default Opswise Automation Center Message Hub queue name is **HUB01**.)

Example

```
automation_center_core HUB01
```

AUTOMATION_CENTER_TRANSPORTS - UAG configuration option

Description

The AUTOMATION_CENTER_TRANSPORTS option specifies the port and network address of the Opwise Automation Center Transporter(s) used for network communication.

This option is required for Universal Automation Center Agent (UAG) to be activated.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	<code>automation_center_transports port@host [,port@host...]</code>			✔	✔	✔

Value

port is the TCP port on which the Transporter is listening.

(The Opwise Automation Center default Transporter port is 4803.)

host is the host name or IP address of the Transporter.

(The Opwise Automation Center default Transporter host name / IP address is localhost / 127.0.0.1.)

If multiple Transporters are specified, they must be separated by a comma.

Example

`automation_center_transports 4803@dallas.acme.com,4804@tucson.acme.com`

CODE_PAGE - UAG configuration option

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.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	<code>codepage <i>codepage</i></code>					

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**.)

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 Workload Automation components.

DATA_DIRECTORY - UAG configuration option

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/`.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	<code>data_directory directory</code>			✔	✔	

Value

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

Defaults

UNIX	<code>/var/opt/universal/uag/</code>
Windows	<code>'.'</code> (which gets translated to <code><Installation Directory>\UAGSrv</code>)

DSN_DELETE_EXCLUDE - UAG Configuration Option


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.

Usage

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

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.

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.

ENABLE_SSL - UAG configuration option

Description

The ENABLE_SSL option specifies whether to enable or disable the SSL protocol for network communications between UAG and the Opwise Automation Center Transporter(s).

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	enable_ssl <i>option</i>					

Values

option is the specification for whether to enable or disable the SSL protocol.

Valid values for *option* are:

- **yes** - SSL is enabled.
- **no** - SSL is disabled.

Default is no.

INSTALLATION_DIRECTORY - UAG configuration option

Description

The INSTALLATION_DIRECTORY option specifies the Universal Automation Center Agent (UAG) base installation directory.



Note

This is a required option.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	installation_directory <i>directory</i>					

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.

JCL_LIBRARY - UAG configuration option


Description

The JCL_LIBRARY option specifies the JCL library ddname allocations.

JCL libraries are referred to by Opwise Automation Center 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.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	<code>jcl_library ddname,dataset[,dataset]...</code>					

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.

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.

JES_SYSOUT_CLASS - UAG configuration option



Note

This option is available starting with UAG release 5.1.0.12.

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.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	jes_sysout_class <i>class</i>					

Value

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

Valid value for class is any JES held class. The JES class should be defined to JES with an OUTDISP value of HOLD,HOLD for both the JOBCLASS and OUTCLASS class definitions.

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

JES_SYSOUT_DISP - UAG configuration option



Note

This option is available starting with UAG release 5.1.0.12.

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 option and the [JES_SYSOUT_CLASS](#) together are used to configure UAG's SYSOUT processing.

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

Usage

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

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 queued 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 queued 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 queued.

If the JES_SYSOUT_DISP value is anything other than KEEP, the [JES_SYSOUT_CLASS](#) option is required.

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 queued 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 queued to class X. If the JOB statement did not include a MSGCLASS parameter, the SYSOUT data sets are queued 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.

LOGLVL - UAG configuration option

Description

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

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	loglvl <i>level</i>					

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.

LOGON_METHOD - UAG Configuration Option

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**.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	logon <i>option</i>					

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.

MESSAGE_LEVEL - UAG configuration option

Description

The MESSAGE_LEVEL option specifies the level of messages to write.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	message_level <i>level</i>			✔	✔	✔

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**.

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 $\text{cylCount} = (\text{totalSize} / 16) / 750000$.

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.

NETNAME - UAG configuration option

Description

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

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	netname <i>text string</i>			✔	✔	✔

Values

text string is the default network ID of UAG.

Default = OPSAUTOCONF.



Note

If *text string* is **OPSAUTOCONF**, the ID would be requested from the Opwise Automation Center Controller after the first successful connection attempt.

SECURITY - UAG configuration option

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.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	<i>security option</i>			✔	✔	✔

Values

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

UNIX	<p>Valid values for <i>option</i> are:</p> <ul style="list-style-type: none"> • default - Security is activated and uses UNIX default user authentication method. • none - Security is not activated. • trusted - Security is activated and uses HP Trust Security authentication. • pam - Security is activated and use the Pluggable Authentication Modules (PAM) interface to provide user authentication.
Windows	<p>Valid values for <i>option</i> are:</p> <ul style="list-style-type: none"> • default - Security is activated and uses Windows authentication to verify user ID and password. • none - Security is not activated.
z/OS	<p>Valid values for <i>option</i> are:</p> <ul style="list-style-type: none"> • default - Security is activated and uses z/OS SAF user authentication method. The user ID must have an OMVS segment. • none - Security is not activated.

Default is default.

TMP_DIRECTORY - UAG configuration option

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.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	tmp_directory <i>directory</i>			✔	✔	✔

Values

directory is the name of the directory that UAG uses for temporary files.

A fully qualified path name is recommended.

Default

UNIX	<code>/var/opt/universal/tmp</code>
Windows	<code>.. \tmp</code>
z/OS	<code>/tmp</code>

TRACE_DIRECTORY - UAG configuration option

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**).

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	trace_directory <i>directory</i>			✔	✔	

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.

Default

UNIX	<code>/var/opt/universal/trace</code>
Windows	<code>C:\Program Files\Universal\uag</code>

TRACE_FILE_LINES - UAG configuration option

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.)

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	trace_file_lines <i>lines</i>			✔	✔	✔

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.

TRACE_TABLE - UAG configuration option

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**.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	<i>trace_table size, condition</i>			✔	✔	✔

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.

TXTDEBUG - UAG configuration option

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.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	enable_ssl <i>option</i>					

Values

Valid values are:

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

Default is N.

Universal Automation Center Agent Component Definition Options

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

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.

Component Definition Options Information

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

Description

Describes the option and how it is used.

Usage

Provides a table of the following information:

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

Method

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

- Component Definition Keyword

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.

(Operating System)

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

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

Values

Identifies all possible values for the specified value type.

Defaults are identified in **bold type**.

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

AUTOMATICALLY_START - UAG Component Definition option

Description

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



Note

AUTOMATICALLY_START is optional in a component definition.

Usage

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

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.

COMPONENT_NAME - UAG Component Definition option

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.

Usage

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

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.

CONFIGURATION_FILE - UAG Component Definition option

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.

Usage

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

Values

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



UNIX

Full path name of the configuration file. The file name can be any valid file name. The installation default is **/etc/universal/uags.conf**.



Windows

Full path name of the configuration file. The file name can be any valid file name. The installation default is **c:\Documents and Settings\All Users\Application Data\Universal\confuags.conf**.



z/OS

Member name of the component configuration file in the **UNVCONF** library allocated to the Universal Broker ddname **UNVCONF**. The installation default is **UAGCFG00**.

RESTART - UAG Component Definition option

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.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	<code>restart options</code>			✔	✔	✔

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.

RESTART_CONDITIONS - UAG Component Definition option

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.

Usage

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

Values

conditions is a comma-separated list of exit conditions.

The exit conditions names are based on the Workload Automation 5 [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:

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

Default is ABNORMAL.

RESTART_DELAY - UAG Component Definition option

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.

Usage

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

Values

seconds is the number of seconds to wait.

Default is 5.

RESTART_MAX_FREQUENCY - UAG Component Definition option

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.

Usage

Method	Syntax	IBM i	HP NonStop	UNIX	Windows	z/OS
Configuration File Keyword	<code>restart_max_frequency <i>number/interval</i></code>			✔	✔	✔

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.

RUNNING_MAXIMUM - UAG Component Definition option

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.

Usage

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

Values

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

Default is 1.

START_COMMAND - UAG Component Definition option

Description

The START_COMMAND option specifies the full path name (member name for z/OS) of the Universal Automation Center Agent (UAG) Server program.

Optionally, START_COMMAND also can specify command line options.



Note

START_COMMAND is required in a component definition.

Usage

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

Values

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

options is the optional list of command line options.



z/OS

member 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, *member* 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.

options is not a valid value.



UNIX

name is the full path name of the UAG Server program.



Windows

name 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.

WORKING_DIRECTORY - UAG Component Definition option

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.

Usage

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

Values

directory is the full path name of the working directory.

Default is (.).



Note
Do not change this directory.



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.

Universal Automation Center Agent UACL Entries

- [Universal Automation Center Agent UACL Entries](#)
- [UACL Entries Information](#)
 - [Description](#)
 - [Usage](#)
 - [Values](#)
- [UACL Entries List](#)

Universal Automation Center Agent UACL Entries

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.

UACL Entries Information

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

Description

Describes the UACL entry and how it is used.

Usage

Provides a table of the following information:

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

Method

Identifies the method used for specifying a UACL entry:

- UACL File Keyword

Syntax

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

- Type: Workload Automation 5 component to which the rule applies.
- Rule: Client's identity, request to which the entry pertains, and security attributes that the entry enforces.

(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

Values

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

Defaults are identified in **bold type**.

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
UAG_WORK_REQUEST	Allows or denies access to a task execution request and if allowed, specifies whether or nor user authentication is performed.

UAG_WORK_REQUEST - UAG UACL Entry

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.

Usage

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

Values

The `local_user` is the local user identifier specified in the Automation Center 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** - Automation Center request to execute the task is denied.
- **allow** - Automation Center 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.