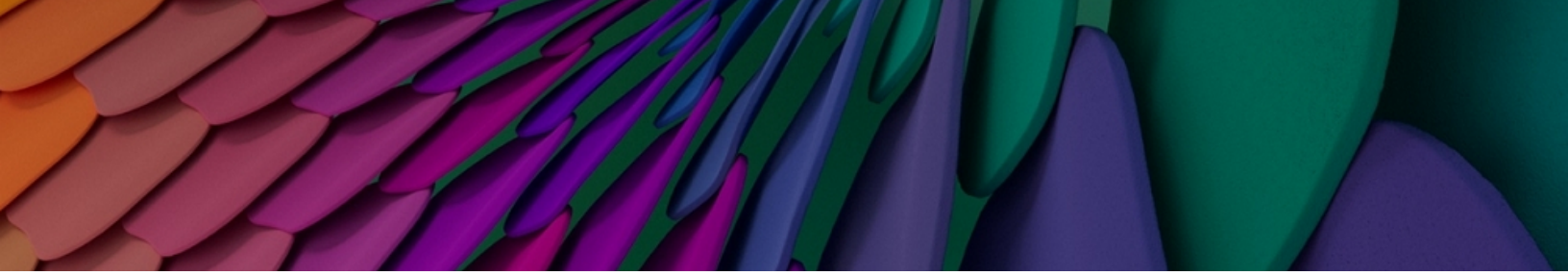

AOS-CX 10.14 Job Scheduler Guide

All Switch Series*

(excluding S3L75A, S3L76A, S3L77A)

aruba
a Hewlett Packard Enterprise company

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Chapter 1
About this document

This document describes features of the AOS-CX network operating system. It is intended for administrators responsible for installing, configuring, and managing Aruba switches on a network.

Applicable products

This document applies to the following products:

- HPE Aruba Networking 4100i Switch Series (JL817A, JL818A)
- HPE Aruba Networking 6000 Switch Series (R8N85A, R8N86A, R8N87A, R8N88A, R8N89A, R9Y03A)
- HPE Aruba Networking 6100 Switch Series (JL675A, JL676A, JL677A, JL678A, JL679A)
- HPE Aruba Networking 6200 Switch Series (JL724A, JL725A, JL726A, JL727A, JL728A, R8Q67A, R8Q68A, R8Q69A, R8Q70A, R8Q71A, R8V08A, R8V09A, R8V10A, R8V11A, R8V12A, R8V13A, R8Q72A, JL724B, JL725B, JL726B, JL727B, JL728B, S0M81A, S0M82A, S0M83A, S0M84A, S0M85A, S0M86A, S0M87A, S0M88A, S0M89A, S0M90A, S0G13A, S0G14A, S0G15A, S0G16A, S0G17A)
- HPE Aruba Networking 6300 Switch Series (JL658A, JL659A, JL660A, JL661A, JL662A, JL663A, JL664A, JL665A, JL666A, JL667A, JL668A, JL762A, R8S89A, R8S90A, R8S91A, R8S92A, S0E91A, S0X44A)
- HPE Aruba Networking 6400 Switch Series (R0X31A, R0X38B, R0X38C, R0X39B, R0X39C, R0X40B, R0X40C, R0X41A, R0X41C, R0X42A, R0X42C, R0X43A, R0X43C, R0X44A, R0X44C, R0X45A, R0X45C, R0X26A, R0X27A, JL741A, S0E48A,S0E48A #0D1, S1T83A, S1T83A #0D1)
- HPE Aruba Networking 8100 Switch Series (R9W94A, R9W95A, R9W96A, R9W97A)
- HPE Aruba Networking 8320 Switch Series (JL479A, JL579A, JL581A)
- HPE Aruba Networking 8325 Switch Series (JL624A, JL625A, JL626A, JL627A)
- HPE Aruba Networking 8360 Switch Series (JL700A, JL701A, JL702A, JL703A, JL706A, JL707A, JL708A, JL709A, JL710A, JL711A, JL700C, JL701C, JL702C, JL703C, JL706C, JL707C, JL708C, JL709C, JL710C, JL711C, JL704C, JL705C, JL719C, JL718C, JL717C, JL720C, JL722C, JL721C)
- HPE Aruba Networking 8400 Switch Series (JL366A, JL363A, JL687A)
- HPE Aruba Networking 9300 Switch Series (R9A29A, R9A30A, R8Z96A, S0F81A, S0F82A, S0F83A, S0F84A, S0F85A, S0F86A, S0F87A, S0F88A, S0F95A, S0F965A)
- HPE Aruba Networking 10000 Switch Series (R8P13A, R8P14A)

Latest version available online

Updates to this document can occur after initial publication. For the latest versions of product documentation, see the links provided in Support and Other Resources.

Command syntax notation conventions

Convention	Usage
`example-text`	Identifies commands and their options and operands, code examples, filenames, pathnames, and output displayed in a command window. Items that appear like the example text in the previous column are to be entered exactly as shown and are required unless enclosed in brackets (**[ ]**).
example-text	In code and screen examples, indicates text entered by a user.
Any of the following: ■ *<example-text>* ■ <example-text> ■ *example-text* ■ *example-text*	Identifies a placeholder—such as a parameter or a variable—that you must substitute with an actual value in a command or in code: ■ For output formats where italic text cannot be displayed, variables are enclosed in angle brackets (**< >**). Substitute the text—including the enclosing angle brackets—with an actual value. ■ For output formats where italic text can be displayed, variables might or might not be enclosed in angle brackets. Substitute the text including the enclosing angle brackets, if any, with an actual value.
|	Vertical bar. A logical **OR** that separates multiple items from which you can choose only one. Any spaces that are on either side of the vertical bar are included for readability and are not a required part of the command syntax.
{ }	Braces. Indicates that at least one of the enclosed items is required.
[ ]	Brackets. Indicates that the enclosed item or items are optional.
... or . . .	Ellipsis: ■ In code and screen examples, a vertical or horizontal ellipsis indicates an omission of information. ■ In syntax using brackets and braces, an ellipsis indicates items that can be repeated. When an item followed by ellipses is enclosed in brackets, zero or more items can be specified.

About the examples

Examples in this document are representative and might not match your particular switch or environment.

The slot and port numbers in this document are for illustration only and might be unavailable on your switch.

Understanding the CLI prompts

When illustrating the prompts in the command line interface (CLI), this document uses the generic term **switch**, instead of the host name of the switch. For example:

```
switch>
```

The CLI prompt indicates the current command context. For example:

```
switch>
```

Indicates the operator command context.

```
switch#
```

Indicates the manager command context.

switch(*CONTEXT-NAME*)#

Indicates the configuration context for a feature. For example:

```
switch(config-if)#
```

Identifies the **interface** context.

Variable information in CLI prompts

In certain configuration contexts, the prompt may include variable information. For example, when in the VLAN configuration context, a VLAN number appears in the prompt:

```
switch(config-vlan-100)#
```

When referring to this context, this document uses the syntax:

```
switch(config-vlan-<VLAN-ID>)#
```

Where <*VLAN-ID*> is a variable representing the VLAN number.

Identifying switch ports and interfaces

Physical ports on the switch and their corresponding logical software interfaces are identified using the format:

member/slot/port

On the 4100i Switch Series

- *member*: Always 1. VSF is not supported on this switch.
- *slot*: Always 1. This is not a modular switch, so there are no slots.
- *port*: Physical number of a port on the switch.

For example, the logical interface **1/1/4** in software is associated with physical port 4 on the switch.

On the 6000 and 6100 Switch Series

- *member*: Always 1. VSF is not supported on this switch.
- *slot*: Always 1. This is not a modular switch, so there are no slots.
- *port*: Physical number of a port on the switch.

For example, the logical interface **1/1/4** in software is associated with physical port 4 on the switch.

On the 6200 Switch Series

- *member*: Member number of the switch in a Virtual Switching Framework (VSF) stack. Range: 1 to 8. The primary switch is always member 1. If the switch is not a member of a VSF stack, then member is 1.
- *slot*: Always 1. This is not a modular switch, so there are no slots.
- *port*: Physical number of a port on the switch.

For example, the logical interface **1/1/4** in software is associated with physical port 4 in slot 1 on member 1.

On the 6300 Switch Series

- *member*: Member number of the switch in a Virtual Switching Framework (VSF) stack. Range: 1 to 10. The primary switch is always member 1. If the switch is not a member of a VSF stack, then member is 1.
- *slot*: Always 1. This is not a modular switch, so there are no slots.
- *port*: Physical number of a port on the switch.

For example, the logical interface **1/1/4** in software is associated with physical port 4 on member 1.

On the 6400 Switch Series

- *member*: Always 1. VSF is not supported on this switch.
- *slot*: Specifies physical location of a module in the switch chassis.
  - Management modules are on the front of the switch in slots 1/1 and 1/2.
  - Line modules are on the front of the switch starting in slot 1/3.
- *port*: Physical number of a port on a line module.

For example, the logical interface **1/3/4** in software is associated with physical port 4 in slot 3 on member 1.

On the 83xx, 9300, and 10000 Switch Series

- *member*: Always 1. VSF is not supported on this switch.
- *slot*: Always 1. This is not a modular switch, so there are no slots.
- *port*: Physical number of a port on the switch.

For example, the logical interface **1/1/4** in software is associated with physical port 4 on the switch.

If using breakout cables, the port designation changes to x:y, where x is the physical port and y is the lane when split to 4 x 10G or 4 x 25G. For example, the logical interface 1/1/4:2 in software is associated with lane 2 on physical port 4 in slot 1 on member 1.

On the 8400 Switch Series

- *member*: Always 1. VSF is not supported on this switch.
- *slot*: Specifies physical location of a module in the switch chassis.
  - Management modules are on the front of the switch in slots 1/5 and 1/6.
  - Line modules are on the front of the switch in slots 1/1 through 1/4, and 1/7 through 1/10.
- *port*: Physical number of a port on a line module

For example, the logical interface **1/1/4** in software is associated with physical port 4 in slot 1 on member 1.

Identifying modular switch components

- Power supplies are on the front of the switch behind the bezel above the management modules. Power supplies are labeled in software in the format: *member/power supply*:
  - *member*: 1.
  - *power supply*: 1 to 4.
- Fans are on the rear of the switch and are labeled in software as: *member/tray/fan*:
  - *member*: 1.
  - *tray*: 1 to 4.
  - *fan*: 1 to 4.
- Fabric modules are not labeled on the switch but are labeled in software in the format: *member/module*:

- *member*: 1.
- *member*: 1 or 2.

- The display module on the rear of the switch is not labeled with a member or slot number.

- The Job Scheduler enables you to execute batches of CLI commands on a user-configured schedule or interval. Job Scheduler can be used, for example, to schedule activities such as port toggles, switch reboots, QoS policy changes, system health status checks, statistics clearing, clean-up, and saving the running configuration.
- Schedules can trigger jobs based on calendar date and time or at periodic intervals.
- Jobs can be scheduled to execute as frequently as once every thirty minutes.
- When executed, commands with simple (y/n) prompts (such as `boot system`) will be automatically confirmed with "y." Other commands requiring more complex user input (such as password change) cannot be used.

Working with Job Scheduler

To help understand how to work with the Job Scheduler, several basic examples are presented, followed by detailed descriptions of the commands involved under Job Scheduler commands.

Port toggle example

This example creates a port toggle job and then schedules the job for execution on Monday and Friday night at 11:45 PM.

Creating a port toggle job named **PTog1**:

```
switch(config)# job PTog1
switch(config-job-PTog1)# desc Toggle port 1/1/1
switch(config-job-PTog1)# 10 cli config
switch(config-job-PTog1)# 20 cli interface 1/1/1
switch(config-job-PTog1)# 30 cli shutdown
switch(config-job-PTog1)# 40 delay 10 cli no shutdown
switch(config-job-PTog1)# 50 cli end
switch(config-job-PTog1)# exit
```

Creating a schedule named **PT2xW** that runs the port toggle job **PTog1** on Mondays and Fridays at 11:45 PM, starting on August 2 2021, with a one-year duration:

```
switch(config)# schedule PT2xW
switch(config-schedule-PT2xW)# desc Monday & Friday 11:45 PM port toggles
switch(config-schedule-PT2xW)# 10 job PTog1
switch(config-schedule-PT2xW)# trigger on 23:45 weekly 2,6 count 104 start 2021-
08-02
switch(config-schedule-PT2xW)# exit
```

Showing the port toggle job information after first execution:

```
switch# show job PTog1

Job Name : PTog1

    Enabled                : Yes
    Description            : Toggle port 1/1/1
    Status                 : waiting
    Number of commands     : 5
    Total execution count  : 1
    Failed execution count : 0

    Job execution history
    ---------------------

    Instance number        : 1
    Execution status       : success
    Execution start time   : Mon Aug 2 23:45:00 2021
    Execution duration     : 10s

    Job CLI commands
    ----------------
    10 cli config
    20 cli interface 1/1/1
    30 cli shutdown
    40 delay 10 cli no shutdown
    50 cli end
```

Showing the port toggle job schedule information after first execution:

```
switch# show schedule PT2xW

Schedule Name: PT2xW

    Schedule config
    ---------------
    Description         : Monday & Friday 11:45 PM port toggles
    Enabled             : Yes
    Trigger type        : calendar
    Transient           : No
    Max trigger count   : 104
    Trigger start date  : 2021-08-02 23:45

    Schedule Status
    ---------------
    Trigger status      : active
    Next trigger time   : Fri Aug  6 23:45:00 2021
    Triggered count     : 1

    Scheduled Jobs
    --------------
    10  : PTog1
```

Showing the port toggle job most recent execution output:

```
switch# show job PTog1 execution-output 1
================================================================================
Command: config
time: Mon Aug  2 23:45:00 2021
================================================================================
```

```
================================================================================
Command: interface 1/1/1
time: Mon Aug  2 23:45:00 2021
================================================================================

================================================================================
Command: shutdown
time: Mon Aug  2 23:45:00 2021
================================================================================

================================================================================
Command: cli no shutdown
time: Mon Aug  2 23:45:10 2021
================================================================================

================================================================================
Command: end
time: Mon Aug  2 23:45:10 2021
================================================================================
```

Switch reboot example

This example creates a switch reboot job and then schedules the job for execution on the last day of every month at 3:00 AM.

Creating a job named **Reboot_sw1** that saves the running configuration and then reboots the switch:

```
switch(config)# job Reboot_sw1
switch(config-job-Reboot_sw1)# desc Save config then reboot switch
switch(config-job-Reboot_sw1)# 10 cli config
switch(config-job-Reboot_sw1)# 20 cli write mem
switch(config-job-Reboot_sw1)# 30 cli boot system
switch(config-job-Reboot_sw1)# exit
switch(config)#
```

Creating a schedule named **RB_LDM** that runs the switch reboot job **Reboot_sw1** on the last day of the month at 3:00 AM, starting on January 31 2022, with a two-year duration:

```
switch(config)# schedule RB_LDM
switch(config-schedule-RB_LDM)# desc Monthly reboot 3:00 AM
switch(config-schedule-RB_LDM)# 10 job Reboot_sw1
switch(config-schedule-RB_LDM)# trigger on 3:00 monthly 31 count 24 start 2022-01-
31
switch(config-schedule-RB_LDM)# exit
switch(config)#
```

After the **RB_LDM** schedule triggers the reboot job **Reboot_sw1**, the `show events` command is available to show schedule triggering (*<MODEL>* represents the switch model number):

```
switch# show events -a -d schedulerd
-------------------------------------------------
Event logs from previous boots
-------------------------------------------------
...
2022-01-31T03:00:14.405135+00:00 <MODEL> schedulerd[2054]: Event|12202|LOG_
```

```
INFO|AMM|1/1|Schedule RB_LDM triggered, trigger_count: 1
-----------------------------------------------------
Event logs from current boot
-----------------------------------------------------
switch#
```

Job Scheduler commands

job

In the config context:

```
job <JOB-NAME>
no job [<JOB-NAME>]
```

Subcommands available In the job config context (`config-job`):

```
[no] enable
[no] desc <DESCRIPTION>
[no] [<SEQ-NUM>] [delay <DELAY>] cli <COMMAND>
resequence <START-SEQ-NUM> <INCREMENT>
```

Description

If ***<JOB-NAME>*** does not exist, this command creates a job and then enters its context.

The no form of this command deletes the specified job. If no job is specified, all jobs are deleted.

Deleting a job also removes it from any schedule that uses the job, preventing further attempts to execute the job.

If ***<JOB-NAME>*** exists, this command enters the **config-job-*<NAME>*** context for the specified job.

Parameter	Description
<JOB-NAME>	Specifies the job name. Range 1 to 64 characters (alphanumeric and "_" (underscore)

Subcommands

These subcommands are available within the **config-job-*<NAME>*** context for configuring the job:

`enable`

Enables the job (the default). **no enable** disables the job.

`[no] desc <DESCRIPTION>`

Specifies a user-defined job description. **no desc** removes the description. Range: 1 to 128 characters. For example:

```
switch(config-job-PTog1)# desc Toggle port 1/1/1
```

`[no] [<SEQ-NUM>] [delay <DELAY>] cli <COMMAND>`

Adds a CLI command to the job. The no form removes the command from the job. When executed, commands with simple (y/n) prompts (such as **boot system**) will be automatically confirmed with "y." Other commands requiring more complex user input (such as password change) cannot be used.

<SEQ-NUM> specifies the job CLI command sequence number to facilitate ordering of commands within a job. When omitted, a sequence number that is 10 greater the highest existing sequence number is auto-assigned. The first auto-assigned sequence number is 10. Range: 1 to 4294967295.

[delay <*DELAY*>] specifies the delay in seconds before this CLI command is executed. The cumulative delay for all commands in a job must be no more than 300 seconds. Range 1 to 300.

cli <*COMMAND*> specifies the CLI command to be executed. Range 1 to 4096 characters.

These commands must not be used in a job: **copy**, **repeat**, **show boot-history**, **show core-dump**, **show events**, **show job**, **show tech**, **sleep**, **terminal-monitor**.

For example, adding a command as line 18 to a job:

```
switch(config-job-PTog1)# 18 cli interface 1/1/1
```

resequence *<START-SEQ-NUM> <INCREMENT>*

Resequences the CLI command line sequence numbers. Both **<START-SEQ-NUM>** and **<INCREMENT>** default to 10. For example, resequencing the CLI command list to start at 10 with an increment of 5.

```
switch(config-job-PTog1)# resequence 10 5
switch(config-job-PTog1)# show job PTog1

Job Name : PTog1
...
    Job CLI commands
    ----------------
    10 cli config
    15 cli interface 1/1/1
    20 cli shutdown
...
```

Usage

- A maximum of 20 commands can be used in a job.
- To see the maximum number of jobs and job execution output preserved instances for your particular switch, use command **show capacities job**.
- Jobs must complete execution in under five minutes and are force-stopped after five minutes if they do not.

Examples

Creating a port toggle job named **PTog1**:

```
switch(config)# job PTog1
switch(config-job-PTog1)# desc Toggle port 1/1/1
switch(config-job-PTog1)# 10 cli config
switch(config-job-PTog1)# 20 cli interface 1/1/1
switch(config-job-PTog1)# 30 cli shutdown
switch(config-job-PTog1)# 40 delay 10 cli no shutdown
switch(config-job-PTog1)# 50 cli end
switch(config-job-PTog1)# exit
switch(config)#
```

Creating a job named **Reboot_sw1** that saves the running configuration and then reboots the switch:

```
switch(config)# job Reboot_Sw1
switch(config-job-Reboot_sw1)# desc Save config then reboot switch
switch(config-job-Reboot_Sw1)# 10 cli config
switch(config-job-Reboot_Sw1)# 20 cli write mem
switch(config-job-Reboot_Sw1)# 30 cli boot system
switch(config-job-Reboot_Sw1)# exit
switch(config)#
```

For more information on features that use this command, refer to the Job Scheduler Guide for your switch model.

Command History

Release	Modification
10.08	Command introduced.

Command Information

Platforms	Command context	Authority
All platforms	`config` `config-job-<NAME>`	Administrators or local user group members with execution rights for this command.

schedule

In the config context:

```
schedule <SCHEDULE-NAME> [transient]
no schedule [<SCHEDULE-NAME>]
```

Subcommands available In the schedule config context (`config-schedule`):

```
[no] enable
[no] desc <DESCRIPTION>
[no] [<SEQ-NUM>] job <JOB-NAME>
resequence <START-SEQ-NUM> <INCREMENT>
[no] trigger on HH:MM {daily | weekly <1-7> | monthly <1-31>}
     [count <1-1000>] [start YYYY-MM-DD]
[no] trigger every {days <1-365> | hours <1-8760> | minutes <30-525600>}
     [count <1-1000> ] [start HH:MM [YYYY-MM-DD]]
[no] trigger at HH:MM [YYYY-MM-DD]
```

Description

If ***<SCHEDULE-NAME>*** does not exist, this command creates a job schedule and then enters its context.

The **no** form of this command deletes the specified schedule. If no schedule is specified, all schedules are deleted.

If ***<SCHEDULE-NAME>*** exists, this command enters the **config-schedule-*<NAME>*** context for the specified job schedule.

Parameter	Description
<SCHEDULE-NAME>	Specifies the schedule name. Range 1 to 64 characters (alphanumeric and "_" (underscore)).
[transient]	Causes the schedule to be cleared upon switch reboot. By default, schedules are maintained after switch reboots.

Subcommands

These subcommands are available within the config-schedule-*<NAME>* context for scheduling jobs and controlling the order in which the jobs are executed:

enable

Enables the schedule (the default). no enable disables the schedule.

[no] desc *<DESCRIPTION>*

Specifies a user-defined schedule description. no desc removes the description. Range: 1 to 128 characters. For example:

```
switch(config-schedule-Monthly)# desc Monthly schedule
```

[no] [*<SEQ-NUM>*] job *<JOB-NAME>*

Associates an existing job with this schedule. The no form removes the job from the schedule.

<JOB-NAME> specifies an existing job name. Range: 1 to 64 characters (alphanumeric and "_" (underscore)).

<SEQ-NUM> specifies the job name sequence number to facilitate ordering of jobs within a schedule. When omitted, a sequence number that is 10 greater the highest existing sequence number is auto-assigned. The first auto-assigned sequence number is 10.

For example, associating two jobs with the selected schedule:

```
switch(config-schedule-Monthly)# 10 job PTog1
switch(config-schedule-Monthly)# 20 job PTog2
```

resequence *<START-SEQ-NUM> <INCREMENT>*

Resequences the job name sequence numbers in the schedule. Both <START-SEQ-NUM> and <INCREMENT> default to 10. For example, resequencing the job list to start at 5 with an increment of 10.

```
switch(config-schedule-Monthly)# resequence 5 10
switch(config-schedule-Monthly)# show schedule Monthly

Schedule Name: Monthly
...
    Scheduled Jobs
    --------------
    5   : PTog1
    15  : PTog2
```

[no] trigger on HH:MM {daily | weekly <1-7> | monthly <1-31>}
[count <1-1000>] [start YYYY-MM-DD]

Sets the job to trigger at a specific time. The no form removes the trigger.

HH:MM selects the time using a 24-hour clock (switch local time). Range: 00:00 to 23:59.

daily selects daily.

weekly <1-7> selects specific days of week or days-of-week ranges (with comma or hyphen separators) using numeric day-of-week numbers with Sunday equal 1. For example: `1,3,5-7` for Sunday, Tuesday, Thursday, Friday, Saturday.

monthly <1-31> selects specific days of month or days of month ranges (with comma or hyphen separators) using numeric day-of-month numbers. For example: `5,14-21,25,31`. For months with fewer days than the specified day number, the last day of the month is selected.

count <1-1000> selects the number of times the job will be executed. When omitted, job execution triggering is indefinite.

start YYYY-MM-DD selects the schedule first trigger date. When omitted, today's date is used for times at least 5 minutes into the future, otherwise tomorrow is selected as the first trigger date.

For example, setting the schedule to trigger monthly on the 15th, at 11:45 PM, starting on August 15, with an execution limit of 200:

```
switch(config-schedule-M)# trigger on 23:45 monthly 15 count 200 start 2021-08-15
```

[no] trigger every {days <1-365> | hours <1-8760> | minutes <30-525600>}
[count <1-1000>] [start HH:MM [YYYY-MM-DD]]

Sets the job trigger to a specific periodic interval. The no form removes the trigger. By default, the schedule is activated within 5 minutes from the configuration time. If the start time is specified, then the job is executed beginning at the specified start time and thereafter at the specified interval.

days <1-365> selects the interval in days. Range: 1 to 365.

hours <1-8760> selects the interval in minutes. Range: 1 to 8760.

minutes <30-525600> selects the interval in seconds. Range: 30 to 525600.

count <1-1000> selects the number of times the job will be executed. When omitted, job execution triggering is indefinite.

start HH:MM [YYYY-MM-DD] selects the schedule first trigger time and date.

For example, setting the schedule to trigger once every 14 days, starting on January 1, with an execution limit of 500:

```
switch(config-schedule-Ev14D)# trigger every days 14 count 500 start 2022-01-01
```

[no] trigger at HH:MM [YYYY-MM-DD]

Sets the job to trigger one time only on a specific date and time. When the date is omitted, today's date is used for times at least 5 minutes into the future, otherwise tomorrow is selected. The no form removes the trigger.

For example, setting the schedule to trigger once only on August 26 at midnight:

```
switch(config-schedule-Aug26)# trigger at 00:00 2021-08-26
```

Usage

- A job can be used only once per schedule.
- To see the maximum number of schedules and jobs per schedule for your particular switch, use command **show capacities schedule**.
- Configure the jobs to be executed (using the **job** command) before configuring a schedule.
- Jobs must complete execution in under five minutes and are force-stopped after five minutes if they do not.

- A job must be scheduled to execute at least five minutes after its previous execution. If the same job is scheduled to be executed again within less than five minutes, the execution is skipped.

Examples

Creating a schedule named **PT2xW** that runs the port toggle job **PTog1** on Mondays and Fridays at 11:45 PM, starting on August 2 2021, with a one-year duration:

```
switch(config)# schedule PT2xW
switch(config-schedule-PT2xW)# desc Monday & Friday 11:45 PM port toggles
switch(config-schedule-PT2xW)# 10 job PTog1
switch(config-schedule-PT2xW)# trigger on 23:45 weekly 2,6 count 104 start 2021-
08-02
switch(config-schedule-PT2xW)# exit
switch(config)#
```

Creating a schedule named **RB_LDM** that runs the switch reboot job on the last day of the month at 3:00 AM, starting on January 31 2022, with a two-year duration:

```
switch(config)# schedule RB_LDM
switch(config-schedule-RB_LDM)# desc Monthly reboot 3:00 AM
switch(config-schedule-RB_LDM)# 10 job Reboot_sw1
switch(config-schedule-RB_LDM)# trigger on 3:00 monthly 31 count 24 start 2022-01-
31
switch(config-schedule-RB_LDM)# exit
```

For more information on features that use this command, refer to the Job Scheduler Guide for your switch model.

Command History

Release	Modification
10.08	Command introduced.

Command Information

Platforms	Command context	Authority
All platforms	`config` `config-schedule-<NAME>`	Administrators or local user group members with execution rights for this command.

show capacities (job, schedule)

```
show capacities {job | schedule}
```

Description

Shows either job or schedule capacities information for your switch model.

Examples

Showing job capacities information (8320 example shown):

```
switch# show capacities job

System Capacities: Filter Job
Capacities Name                                                                  Value
--------------------------------------------------------------------------------------
Maximum number of job execution output preserved per job                           10
Maximum number of jobs configurable in a system                                    32
```

Showing schedule capacities information (8320 example shown):

```
switch# show capacities Schedule

System Capacities: Filter Schedule
Capacities Name                                                                  Value
--------------------------------------------------------------------------------------
Maximum number of jobs configurable in a schedule                                  10
Maximum number of schedules configurable in a system                               32
```

For more information on features that use this command, refer to the Job Scheduler Guide for your switch model.

Command History

Release	Modification
10.08	Command introduced.

Command Information

Platforms	Command context	Authority
All platforms	Operator (>) or Manager (#)	Operators or Administrators or local user group members with execution rights for this command. Operators can execute this command from the operator context (>) only.

show job

`show job [<JOB-NAME>] [execution-output <INSTANCE-ID>]`

Description

Shows information about a specific job or every job. Optionally shows the job execution output log.

Parameter	Description
<JOB-NAME>	Specifies an existing job name. When omitted, information is shown for every job. Range: 1 to 64 characters (alphanumeric and "_" (underscore)).
<INSTANCE-ID>	Selects the job execution output instance with 1 selecting the most recent. To see the maximum number of job execution output instances for your particular switch, use command **show capacities job**.

Usage

Job execution statistics such as execution counts are reset to zero upon switch reboot.

Examples

Showing port toggle job information before execution has occurred:

```
switch# show job PTog1

Job Name : PTog1


    Enabled                : Yes
    Description            : Toggle port 1/1/1
    Status                 : waiting
    Number of commands     : 5
    Total execution count  : 0
    Failed execution count : 0

    Job CLI commands
    ----------------
    10 cli config
    20 cli interface 1/1/1
    30 cli shutdown
    40 delay 10 cli no shutdown
    50 cli end
```

Showing port toggle job information after execution has occurred:

```
switch# show job PTog1

Job Name : PTog1


    Enabled                : Yes
    Description            : Toggle port 1/1/1
    Status                 : waiting
    Number of commands     : 5
    Total execution count  : 1
    Failed execution count : 0

    Job execution history
    ---------------------

    Instance number        : 1
    Execution status       : success
    Execution start time   : Mon Aug 2 23:45:00 2021
    Execution duration     : 10s

    Job CLI commands
    ----------------
    10 cli config
    20 cli interface 1/1/1
    30 cli shutdown
    40 delay 10 cli no shutdown
    50 cli end
```

Showing port toggle job most recent execution output:

```
switch# show job PTog1 execution-output 1
================================================================================
Command: config
time: Mon Aug  2 23:45:00 2021
================================================================================

================================================================================
Command: interface 1/1/1
time: Mon Aug  2 23:45:00 2021
================================================================================

================================================================================
Command: shutdown
time: Mon Aug  2 23:45:00 2021
================================================================================

================================================================================
Command: cli no shutdown
time: Mon Aug  2 23:45:10 2021
================================================================================

================================================================================
Command: end
time: Mon Aug  2 23:45:10 2021
================================================================================
```

For more information on features that use this command, refer to the Job Scheduler Guide for your switch model.

Command History

Release	Modification
10.08	Command introduced.

Command Information

Platforms	Command context	Authority
All platforms	Operator (>) or Manager (#)	Operators or Administrators or local user group members with execution rights for this command. Operators can execute this command from the operator context (>) only.

show running-config (job, schedule)

```
show running-config [current-context]
```

Description

Shows the entire running configuration for the switch, including configuration details for the Job Scheduler job and schedule configuration.

Parameter	Description
current-context	When included from within the Job Scheduler job or schedule context, shows only the job or schedule configuration information for the selected job or schedule.

Examples

Showing the running configuration information for all jobs and schedules with unrelated configuration information omitted for clarity (omitted portions represented by ellipses("..."):

```
switch# show running-config

Current configuration:
...
!
job PTog1
    desc Toggle port 1/1/1
    10 cli config
    20 cli interface 1/1/1
    30 cli shutdown
    40 delay 10 cli no shutdown
    50 cli end
job Reboot_sw1
    desc Save config then reboot switch
    10 cli config
    20 cli write mem
    30 cli boot system
schedule PT2xW
    desc Monday & Friday 11:45 PM port toggles
    trigger on 23:45 weekly 2,6 count 104 start 2021-08-02
    10 job PTog1
schedule RB_LDM
    desc Monthly reboot 3:00 AM
    trigger on 3:00 monthly 31 count 24 start 2022-01-31
    10 job Reboot_sw1
...
```

From within the job **PTog1** context, showing the running configuration information for the job:

```
switch(config-job-PTog1)# show running-config current-context

Current configuration:
job PTog1
    desc Toggle port 1/1/1
    10 cli config
    20 cli interface 1/1/1
    30 cli shutdown
    40 delay 10 cli no shutdown
    50 cli end
```

From within the schedule **PT2xW** context, showing the running configuration information for the schedule:

```
switch(config-schedule-PT2xW)# show running-config current-context

Current configuration:
```

```
schedule PT2xW
    desc Monday & Friday 11:45 PM port toggles
    trigger on 23:45 weekly 2,6 count 104 start 2021-08-02
    10 job PTog1
```

For more information on features that use this command, refer to the Job Scheduler Guide for your switch model.

Command History

Release	Modification
10.08	Command introduced.

Command Information

Platforms	Command context	Authority
All platforms	Operator (>) or Manager (#) config-job-*<NAME>* config-schedule-*<NAME>*	Operators or Administrators or local user group members with execution rights for this command. Operators can execute this command from the operator context (>) only.

show schedule

```
show schedule [<SCHEDULE-NAME>]
```

Description

Shows information about a specific schedule or every schedule.

Parameter	Description
<SCHEDULE-NAME>	Specifies an existing job schedule name. When omitted, information is shown for every schedule. Range: 1 to 64 characters (alphanumeric and "_" (underscore)).

Usage

Schedule statistics such as **Triggered count** are reset to zero upon switch reboot.

Examples

Showing port toggle job schedule information before execution has occurred:

```
switch# show schedule PT2xW

Schedule Name: PT2xW

    Schedule config
    ---------------
    Description         : Monday & Friday 11:45 PM port toggles
    Enabled             : Yes
```

```
    Trigger type        : calendar
    Transient           : No
    Max trigger count   : 104
    Trigger start date  : 2021-08-02 23:45

    Schedule Status
    ---------------
    Trigger status      : active
    Next trigger time   : Mon Aug  2 23:45:00 2021

    Scheduled Jobs
    --------------
    10  : PTog1
```

Showing port toggle job schedule information after execution has occurred:

```
switch# show schedule PT2xW


Schedule Name: PT2xW

    Schedule config
    ---------------
    Description         : Monday & Friday 11:45 PM port toggles
    Enabled             : Yes
    Trigger type        : calendar
    Transient           : No
    Max trigger count   : 104
    Trigger start date  : 2021-08-02 23:45

    Schedule Status
    ---------------
    Trigger status      : active
    Next trigger time   : Fri Aug  6 23:45:00 2021
    Triggered count     : 1

    Scheduled Jobs
    --------------
    10  : PTog1
```

For more information on features that use this command, refer to the Job Scheduler Guide for your switch model.

Command History

Release	Modification
10.08	Command introduced.

Command Information

Platforms	Command context	Authority
All platforms	Operator (>) or Manager (#)	Operators or Administrators or local user group members with execution rights for this command. Operators can execute this command from the operator context (>) only.

Chapter 3
Support and Other Resources

Accessing HPE Aruba Networking Support

HPE Aruba Networking Support Services	https://www.arubanetworks.com/support-services/
AOS-CX Switch Software Documentation Portal	https://www.arubanetworks.com/techdocs/AOS-CX/help_portal/Content/home.htm
HPE Aruba Networking Support Portal	https://networkingsupport.hpe.com/home
North America telephone	1-800-943-4526 (US & Canada Toll-Free Number) +1-408-754-1200 (Primary - Toll Number) +1-650-385-6582 (Backup - Toll Number - Use only when all other numbers are not working)
International telephone	https://www.arubanetworks.com/support-services/contact-support/

Be sure to collect the following information before contacting Support:

- Technical support registration number (if applicable)
- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages
- Product-specific reports and logs
- Add-on products or components
- Third-party products or components

Other useful sites

Other websites that can be used to find information:

Airheads social forums and Knowledge Base	https://community.arubanetworks.com/
HPE Aruba Networking Hardware Documentation and Translations Portal	https://www.arubanetworks.com/techdocs/hardware/DocumentationPortal/Content/home.htm

HPE Aruba Networking software	https://networkingsupport.hpe.com/downloads
Software licensing and Feature Packs	https://lms.arubanetworks.com/
End-of-Life information	https://www.arubanetworks.com/support-services/end-of-life/
HPE Aruba Networking Developer Hub	https://developer.arubanetworks.com/

Accessing Updates

You can access updates from the HPE Aruba Networking Support Portal at https://networkingsupport.hpe.com.

Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.

To subscribe to eNewsletters and alerts:

https://networkingsupport.hpe./notifications/subscriptions (requires an active HPE Aruba Networking Support Portal account to manage subscriptions). Security notices are viewable without an HPE Aruba Networking Support Portal account.

Warranty Information

To view warranty information for your product, go to https://www.arubanetworks.com/support-services/product-warranties/.

Regulatory Information

To view the regulatory information for your product, view the *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at https://www.hpe.com/support/Safety-Compliance-EnterpriseProducts

Additional regulatory information

HPE Aruba Networking is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements, environmental data (company programs, product recycling, energy efficiency), and safety information and compliance data, (RoHS and WEEE). For more information, see https://www.arubanetworks.com/company/about-us/environmental-citizenship/.

Documentation Feedback

HPE Aruba Networking is committed to providing documentation that meets your needs. To help us improve the documentation, send any errors, suggestions, or comments to Documentation Feedback (docsfeedback-switching@hpe.com). When submitting your feedback, include the document title, part number, edition, and publication date located on the front cover of the document. For online help

content, include the product name, product version, help edition, and publication date located on the legal notices page.