☰ Essential Information

pScheduler and this cheat sheet are a work in progress.

Guide to Symbols

🔧   Something in development or used for development and debug purposes

☑   Required argument or parameter

Basic Command Structure

All pScheduler commands follow the same format:

`pscheduler COMMAND [ ARGUMENTS ]`

An alias, `psc` is provided for convenience:

`psc COMMAND [ ARGUMENTS ]`

Argument Types

duration	An ISO 8601 duration (e.g., `PT1H30M` or `P3D`). Months and years are not supported.
host	The DNS name or IP address of a host
number	A number, usually positive.
timestamp	An ISO 8601 timestamp (e.g., `2016-05-04T12:34:56-04:00`)

☰ pScheduler Commands

task

Tells pScheduler to set up a task

Synopsis:

`psc task TASK-OPTIONS TEST-TYPE TEST-OPTIONS`

General TASK-OPTIONS:

`--export` - Export JSON for the task to the standard output and don't submit it for scheduling.

`--format` *format* - Output format for results. Valid formats are `text`, `html`, `json` and `none`. Default is `text`.

`--import` *file* - Import JSON for the task from *file*.

`--quiet` - Display nothing but results and errors.

`--reference` *json* - Include the arbitrary blob of JSON *json* for the submitter's reference.

`--tool` *tool* - Force the tool *tool* to be used for the test. Repeat to allow a list of tools, preferred in the order specified.

`--url` - Print the URL for the task and exit.

Scheduling TASK-OPTIONS:

task (cont)

`--max-runs` *cardinal* - Repeat the task up to the specified number of times. Requires `--repeat`.

`--randslip` *float* - Randomize the start time by this fraction of the allowed slip. Must be in `[0.0..1.0]`.

`--repeat` *duration* - Amount of time between runs.

`--slip` *duration* - Allow the start of any run to slip by the specified amount of time.

`--start` *timestamp* - When the first run of the task should start.

`--until` *timestamp* - Allow repeats to continue until the specified time. Requires `--repeat`.

watch

Synopsis:

`psc watch URL`

The `watch` command shows the results for runs of a task, identified by a URL, as they happen

☰ Tests

latency - One-Way Network Traversal Time

🔧 *This test is in development.*

rtt - Round Trip Time Between Hosts

`--count` *n* - How many times the round-trip time should be tested

`--deadline` *duration* - Deadline for all measurements to finish

`--dest` *host* - ☑ The destination host for the test

`--flowlabel` *number* - The flow label to be used on outgoing packets

`--[no-]hostnames` - [Dis]able resolution of host names from IPs. Default is to resolve.

`--interval` *duration* - Time to wait between packets sent

`--length` *number* - Set the size of outgoing packets

`--source` *host* - Source address or interface

`--timeout` *duration* - How long to wait for each packet to return

`--tos` *number* - Set the IP type of service on outgoing packets

`--ttl` *number* - Set the time to live on outgoing packets

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throughput - Available Bandwidth Between Hosts

🔧 *This test is in development.*

trace - Path Between Hosts

`--algorithm` - Use a specific algorithm for the trace. Valid value is `paris-traceroute`.

`--[no-]as` - [Dis]able lookup of autonomous system numbers and owner information.

`--dest-port` *number* - Port where packets will be sent when the probe type is `udp` or `tcp`.

`--dest` *host* - ☑ The far end of the trace

`--first-ttl` *number* - Time to live on the first packet sent

`--[no-]fragment` - [Dis]able fragmentation

`--hops` *number* - Maximum number of hops (largest TTL)

`--[no-]hostnames` - [Dis]able resolution of host names from IPs. Default is to resolve.

`--ip-version` *number* - Set the version of the IP protocol to be used. Valid values are `4` and `6`.

`--length` *number* - Size of outgoing packets

`--probe-type` *t* - Type of probes sent. Valid values are `icmp`, `udp` and `tcp`. Default is `udp`.

`--queries` *number* - Number of queries per hop. Default is `1`.

`--sendwait` *duration* - Amount of time to wait between probes

`--source` *host* - Source address or host name

`--tos` *number* - IP type of service on outgoing packets

`--wait` *duration* - Wait time for probes to be returned

idle - Do Nothing Useful

`--duration` *duration* - ☑ How long the test should do nothing

`--host` *host* - The host which should be idle

`--parting-comment` *text* - Text to be logged at the end of the idle period

`--starting-comment` *text* - Text to be logged at the start of the idle period

🔧 *This test is intended for use in development and troubleshooting pScheduler.*

simplestream - TCP Stream Between Hosts

`--dest` *host* - ☑ Receiving end of the stream

`--dawdle` *duration* - Maximum amount of time spent delaying before sending the test material

`--fail` *probability* - Probability that the test will be forced to fail

`--test-material` *text* - String to be sent. Defaults to a message containing a timestamp.

`--timeout` *duration* - How long the receiving end should wait for the sending end before giving up

🔧 *This test is intended for use in development and troubleshooting pScheduler.*

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