

# Specifying Scan Ranges at the Command Line

In normal usage you should specify scan ranges through the user interface. You can also specify scan ranges using the `tw_injectip` utility. The usage of the utility is as follows:

```
$TIDEWAY/bin/tw_injectip options range
```

Where `range` is an IP address, a space separated list of IP addresses, a range of IP addresses, a subnet, or if the `--file` switch is used, a file containing IP addresses. If a file of IPs is used, one IP per line should be specified.

- IP addresses, as a single address or a range, for example, `172.17.1.1` or `172.17.1.1-5`
- A subnet, for example `172.17.1.0/24`

The options are described in the Table below.

| Command line option   | Description  |
|---|--|
| <code>--clean</code>  | Remove all the recurrent ranges which are not currently being scanned from the Reasoning pipeline.   |
| <code>-f</code> ,<br><code>--file</code>                            | Expect a file or a list of files as arguments. They must be plain text files with a new line delimited list of IP addresses.   |
| <code>-h</code> ,<br><code>--help</code>                            | Displays help on standard options, some brief usage information, and exits.  |
| <code>--label=label</code>  | Specify a label for the scan.  |
| <code>--logbackupcount=</code><br><code>int</code>                  | Number of backup logs files preserved. The default is 0 which means that no previous logs are preserved. If a value is specified, the existing log is renamed <code>logname.log.1</code> suffix and the new log written as <code>logname.log</code> . The same happens with later logs until the first is called <code>logname.log.n</code> where <code>n</code> is the value specified. The next time a new log is written, the oldest is deleted. The rollover time is midnight. |
| <code>--logfile= filename</code>                                    | The name of the log file into which log messages are written.  |
| <code>--loglevel= level</code>                                      | Logging level: <ul style="list-style-type: none"> <li>• <code>debug</code> – log all messages</li> <li>• <code>info</code> – log critical, error, warning, and information messages.</li> <li>• <code>warn</code> – log critical, error, and warning messages.</li> <li>• <code>error</code> – log critical and error messages.</li> <li>• <code>crit</code> – log only critical messages.</li> </ul>  |
| <code>--passphrase=</code><br><code>passphrase</code>               | Specify a vault passphrase to use.   |
| <code>-p</code> , <code>--password=</code><br><code>password</code> | The password that corresponds to the user name entered after the <code>--username</code> option.<br>Note that if you use this option your password is visible in clear text. You should avoid using this option, when you do not use it, you are prompted for the password and it is not echoed.   |
| <code>-r</code> , <code>--random</code>                             | Scans the IP addresses given (in a file or listed at the command prompt) in a random order.  |
| <code>--recur-daily</code>  | Adds a daily recurrent range. This option specifies a recurrent range scan which must be modified with the <code>--recurrence-duration</code> and or <code>--recurrence-start</code> switches.   |
| <code>--recurrence-duration=</code><br><code>int</code>             | Specifies the length of time for the recurring scan to last. This is specified in hours.   |
| <code>--recurrence-start=</code><br><code>int</code>                | Specified the start time for recurrent ranges expressed in hours after midnight.   |

|  |  |
|--|--|
| <code>--replace=ID</code>              | Replace (edit) the specified scheduled discovery run. The discovery run is specified using its ID which can be determined using a search query like the following:<br><code>search IPRange where scan_type='Scheduled' show range_id,label.</code> See <a href="#">below</a> for examples.   |
| <code>-l, --scanLevel=string</code>    | Scan level to use. This may be one of the following: <ul style="list-style-type: none"> <li>• "Sweep Scan" – This will do a sweep scan, simply asserting that there is an IP device at the end of this endpoint. Note this also collects DeviceInfo data.</li> <li>• "Host Identification" – Enough to get to the point we can build a host and its interfaces. Usually this will involve getting the hostinfo and the interfaces for the endpoint.</li> <li>• "Host Information" – Retrieve all the default informaton for hosts, but do not do any inference.</li> <li>• "Full Discovery" – Retrieve all the default info for hosts, and complete full inference. This is the default if the option is not specified.</li> </ul> |
| <code>-s, --start</code>               | Force reasoning to start. This is the equivalent of clicking the START ALL SCANS button in the UI.   |
| <code>-x, --stop</code>                | Ask reasoning to stop. This is the equivalent of clicking the STOP ALL SCANS button in the UI.   |
| <code>-u, --username = username</code> | Username. This is a BMC Atrium Discovery command line user.  |
| <code>-v, --version</code>             | Displays BMC Atrium Discovery version information and exits.   |

## Example Usage (tw\_injectip)

In the following examples, the user name is always `system` and the password is not specified on the command line. The utility prompts for the password after you enter the command. Enter the commands on a single line, line breaks here are an aid to readability.

1. To specify an immediate scan of a single IP address:

```
$TIDEWAY/bin/tw_injectip --username system 192.168.0.1
```

2. To specify an immediate scan of a range of IP addresses:

```
$TIDEWAY/bin/tw_injectip --username system 192.168.0.1-10
```

3. To specify an immediate scan of IP addresses listed in a file:

```
$TIDEWAY/bin/tw_injectip --username system --file ~/scanlist
```

4. To specify a scheduled scan at 03.00 of IP addresses listed in a file:

```
$TIDEWAY/bin/tw_injectip --username system --recur-daily
--recurrence-start=3 --file ~/scanlist
```

5. To specify a two hour scheduled scan of IP addresses listed in a file:

```
$TIDEWAY/bin/tw_injectip --username system --recur-daily
--recurrence-duration=2 --file ~/scanlist
```

6. To specify a two hour scheduled scan of IP addresses listed in a file and label it TEST:

```
$TIDEWAY/bin/tw_injectip --username system --recur-daily
--recurrence-duration=2 --scheduled-label=TEST --file ~/scanlist
```

## Replacing a discovery run

The following example shows how to find the ID of a scheduled discovery run and use this to update the run's label. The way that this option works is to delete and replace the scan so it is important to specify *all* essential parameters (recur-daily, recurrence-duration and/or recurrence-start, and a range).

1. In the Enter Generic Query page, enter the following query and click the Run Query button:

```
search IPRange where scan_type='Scheduled' show range_id, label
```

2. Copy the ID from the range that you want to replace and use this to specify the ID of the scan that you want to replace.
3. Enter the command. This example shows the system user replacing a specified scan with a daily scan of six hours duration of the range 192.168.0.1-10 and a label of UPDATED.

```
tw_injectip -u system -p system --recur-daily --recurrence-duration=6 --label=UPDATED  
--replace 85be3f2d9ef810d84c1089485c704129 192.168.0.1-10
```