

# SNMP4J-CLT-Usage

## SNMP4J Command-Line Tool, version 3.4.0

Type

```
java -SNMP4J-CLT.jar help <command>
```

for help on a specific command.

Type

```
java -jar SNMP4J-CLT.jar example <command>
```

for examples on a specific command.

Type

```
java -jar SNMP4J-CLT.jar version
```

to see the program version.

Type

```
java -jar SNMP4J-CLT.jar -L "<license>" "<key>" defaults list
```

to register your license (*you then do not need to enter it for subsequent commands*).

Most commands take agent address and OID list arguments. A list of the available options for each command is listed after the command description. The description of all options follows the command list.

Standard parameter formats are:

**<OID>**:

1. An object identifier is either a dotted notation like '1.3.6.1.2.2.1.0'.
2. An object name with dotted numeric suffix like 'IF-MIB:ifDescr.0' or 'sysName' (requires MIB information).
3. An columnar OBJECT-TYPE name with formatted index, e.g. vacmAccessContextMatch."v3group"."".3.'authPriv(3)' (requires MIB information).

**<address>**: [upd:[tcp:]<host>[/<port>]

Host is either an IP address or hostname and port is the SNMP port of the target SNMP entity.

```
create-snapshot:
  create-snapshot <file> <address> <OID>
```

```
defaults:
  defaults <action>
```

```
list
```

```
reset
```

```
save
```

```
dump-snapshot:
  dump-snapshot <file>
```

```
example:
  example <command>
```

```
get:
    get <address> <OID> [..]

getbulk:
    [-Cr <repeaters>] [-Cn <non-repeaters>] getbulk <address> <OID> [..]

getnext:
    getnext <address> <OID> [..]

help:
    help [command]|all

inform:
    inform <address> <OID>={<type>}<value> [..]

license:
    license

listen:
    listen <address>

mib:
    mib <action> [<mib>]

    add    <mib-file>

    del    <mib-module-name>

    list

oid:
    oid [find|find-by-descr] <regex>

    find    oid find <regex>

    find-by-descr    oid find-by-descr <regex>

set:
    set <address> <OID>={<type>}<value> [..]

smi:
    smi <OID> [..]
```

```

table:
    table <address> <OID> [..]

trap:
    [-To <notificationID>] trap <address> <OID>={<type>}<value> [..]

usmDHKey:
    usmKey auth|priv|authPriv <address> <oldpwd> <newpwd> [<user>]

    auth    usmDHKey auth <address> [<user>]

    priv    usmDHKey priv <address> [<user>]

    authPriv usmDHKey authPriv <address> [<user>]

usmDHKickstartInit:
    usmDHKickstartInit -privateKeysFile <dhKickstartPrivKeys.properties> <address> [<user> ..]

usmDHKickstartRun:
    usmDHKickstartRun -privateKeysFile <dhKickstartPrivKeys.properties> <address> [<user> ..]

usmKey:
    usmKey auth|priv|authPriv <address> <old> <new> [<user>]

    auth    usmKey auth <address> <old> <new> [<user>]

    priv    usmKey priv <address> <old> <new> [<user>]

    authPriv usmKey authPriv <address> <oldpwd> <newpwd> [<user>]

usmUser:
    usmUser create|delete <address> <user> [<cloneFromUser> [<cloneFromEngineID>]]

    create    [-CE <usmUserEngineID>] [-createAndWait] usmUser create <address> <user> [<cloneFromUser>
[<cloneFromEngineID>]]

    delete    [-CE <usmUserEngineID>] usmUser delete <address> <user>

v1trap:
    -Te eid -Ts sid -Tg gid -Ta addr v1trap <address> <OID>={<type>}<value> [..]

version:

```

version

walk:

walk <address> <OID>

xml:

xml <output-dir>

#### OPTIONS:

- A authPassphrase Set the authentication pass phrase for authenticated SNMPv3 messages.
- CB Display brief column headers. Common prefixes will be dropped.
- CE usmUserTableEngineID Set usmUserTableEngineID to be used as part of the index of the usmUserTable. Default is to use the authoritative engine ID (set via -e or probed) as the usmUserTableEngineID.
- CH Do not display column headers.
- Cb bufferSize The number of table rows to buffer before computing column sizes.
- Cc columnWidth Print table columns with specified character width.
- Cf columnSeparator Separate table columns with the specified separator string. The table is printed in compact form. By default columns are separated by spaces and aligned.
- Ch Display only column headers.
- Ci Prepend the index for each printed row.
- Cil lowerBoundIndex Set the lower bound index for TABLE operations.
- Ciu upperBoundIndex Set the upper bound index for TABLE operations.
- Cl Left justify all cells when printing a table.
- Cn non-repeaters Set the non-repeaters field for GETBULK PDUs. It specifies the number of supplied variables that should not be iterated over. The default is 0.
- Cr max-repetitions Set the max-repetitions field for GETBULK PDUs. This specifies the maximum number of iterations over the repeating variables. The default is 10.
- Cw Specify the line width when printing tables
- Djavax.net.ssl.keyStore keyStoreFile The key store file with SSL keys for the TLS protocol.
- Djavax.net.ssl.keyStorePassword keyStorePassword The password for the key store file with SSL keys for TLS.
- Djavax.net.ssl.trustStore keyStoreFile The trust store file with trusted (public) SSL keys for the TLS protocol.
- Djavax.net.ssl.trustStorePassword keyStorePassword The password for the trust store file.
- Dn Do not use any default option values stored in config.
- E contextEngineID Set the context engine ID used for the SNMPv3 scoped PDU. The authoritative engine ID will be used for the context engine ID, if the latter is not specified.
- L license key Specify license and associated key. The license info will be saved in the SNMP4J-CLT config file in your home directory. Enter each license part enclosed in quotes, for example by '-L "b6 80 4d 68 3a 8 c0 f4" "O?fwo-3s"'
- M mibRepositoryPath Set the path to the MIB repository to be used to resolve object names (OIDs) and parse/format object values ('repository' is the default). The repository directory must contain compiled MIB modules files only.
- Oesc escapeCharacter Escape character used in non-printable OCTET-STRING values to print them as strings (instead of

hex-strings). Default is '\_' and 'x' disables escaping and enables hex-string output.

-Ors maxSizeRespPDU The maximum size of the response PDU in bytes.

-OtCSV For each SNMP row received exactly one row of comma separated values will be printed to the console where the first column contains the row index.

-Otd Activates dense table operation mode which improves table retrieval performance on regular (dense) tables. This option must not be used with sparse tables.

-OttCSV Same as -OtCSV except that each row's first column will report the current time (millis after 1.1.1970) when the request has been sent.

-Ta agentAddress Set the agent address field of a V1TRAP PDU. The default value is '0.0.0.0'.

-Te enterpriseOID Set the enterprise OID field of a V1TRAP PDU.

-Tg genericID Set the generic ID for SNMPv1 TRAPS (V1TRAP). The default is 0 (coldStart).

-To trapOID Sets the trapOID (1.3.6.1.6.3.1.1.4.1.0) of an INFORM or TRAP PDU. The default is 1.3.6.1.6.3.1.1.5.1.

-Ts specificID Set the specific ID for V1TRAP PDU. The default is 0.

-Tu upTime Set the sysUpTime field of an INFORM, TRAP, or V1TRAP PDU.

-Y privacyPassphrase Set the privacy pass phrase for encrypted SNMPv3 messages.

-a authProtocol Set the authentication protocol used to authenticate SNMPv3 messages. Valid values are MD5 and SHA, SHA224, SHA256, SHA384, and SHA512.

-b bindAddress Set local interface and port to use for outgoing SNMP messages. By default this is 0.0.0.0/0 (host chosen port on all local IPv4 addresses).

-bc engineBootCount Set the engine boot count to the specified value greater or equal to zero. Default is zero.

-c community Set the community for SNMPv1/v2c messages.

-createAndWait Use the createAndWait(5) RowStatus to create new rows instead of createAndGo(4) which might not be supported on certain devices.

-d debugLevel Set the global debug level for Log4J logging output. Valid values are OFF, ERROR, WARN, INFO, and DEBUG.

-dhp usmDHParameters The octet string (provided as colon separated hexadecimal string) containing the BER encoded ASN.1 sequence of prime (p) and base (g) as defined by RFC2786 usmDHParameters OBJECT-TYPE. The default value is (without line breaks):  
10:69:02:61:00:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:c9:0f:  
da:a2:21:68:c2:34:c4:c6:62:8b:80:dc:1c:d1:29:  
02:4e:08:8a:67:cc:74:02:0b:be:a6:3b:13:9b:22:  
51:4a:08:79:8e:34:04:dd:ef:95:19:b3:cd:3a:43:  
1b:30:2b:0a:6d:f2:5f:14:37:4f:e1:35:6d:6d:51:  
c2:45:e4:85:b5:76:62:5e:7e:c6:f4:4c:42:e9:a6:  
3a:36:20:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:02:01:02:02:  
01:10

-dhx diffieHellmanPropertyPrefix The property prefix used with the privateKeysFile for the usmDHKickstartInit and usmDHKickstartRun commands. By default 'org.snmp4j.' is used.

-dtls-version dtlsVersion Specifies the DTLS version to use. Possible values are DTLSv1.0 and DTLSv1.2 (default).

-e engineID Set the authoritative engine ID of the command responder used for SNMPv3 request messages. If not supplied, the engine ID will be discovered.

-f 1|2|3|4 Set the OID output format, where 1 = numeric, 2 = last name and numeric index, 3 = last name and formatted index without quoting, and 4 = last name and formatted index including hex-formatting of non-printable strings. The default is 4.

-h windowSize Set the window height in rows. If the value is

greater than zero, every windowSize rows the user is prompted to continue output. Default is zero.

-ilo Do not check for lexicographic ordering errors while walking a subtree. Using this option may cause endless looping if an agent does not implement lexicographic ordering correctly!

-l localEngineID Set the local engine ID of the command generator and the notification receiver used for SNMPv3 request messages. This option can be used to avoid engine ID clashes through duplicate IDs leading to usmStatsNotInTimeWindows reports.

-m mibModuleName Load the specified MIB module from the MIB repository specified by the -M option. The mibModuleName can be a regular expression, e.g. use 'SNMPv2-.\*' to load all MIB modules in the repository that start with 'SNMPv2-'.

-n contextName Set the target context name for SNMPv3 messages. Default is the empty string.

-p Dump sent and received packets as hex string.

-r retries Set the number of retries used for requests. A zero value will send out a request exactly once. Default is 1.

-rsl low|basic|secure Set the security level strategy for auto-responses to REPORT PDUs The default is 'low' for better error handling. Use 'secure' for max. security (i.e. never send noAuthNoPriv). The basic level is conforming to RFC 3412 and 3414 allowing 'noAuthNoPriv' for engine ID discovery and wrong username reports.

-s Suppress any output on stderr (silent mode).

-t timeout Set the timeout in milliseconds between retries. Default is 1000 milliseconds.

-tls-cert-fingerprint certFingerprint The fingerprint of the trusted certificate presented by the remote SNMP engine as hex string. If the fingerprint does not match, connection will not be established. Use this option with the "tls:" or "dtls:" transport domain.

-tls-local-id certAlias The local certificate alias identity which selects a certificate chain from the local key store. Only the selected certificate chain will be presented to the remote SNMP engine. Use this option with the "tls:" or "dtls:" transport domain.

-tls-peer-id subjectDN The subject DN (e.g., "EMAILADDRESS=email@host.com, C=US, CN=My Name") of the trusted certificate presented by the remote SNMP engine ID. Use this option with the "tls:" or "dtls:" transport domain.

-tls-trust-ca issuerDN The issuer DN (e.g., "Company Name CA") of a trusted certification authority (CA) presented by the remote SNMP engine ID for TLS and DTLS.

-tls-version tlsVersion The TLS version to use with the 'tls:' transport protocol. Currently only 'TLSv1', 'TLSv1.1', and 'TLSv1.2' are supported with Java 7 or later. 'TLSv1' is the default which is supported with Java 6 too.

-u securityName Set the security name for authenticated v3 messages.

-v 1|2c|3 Set the SNMP protocol version to be used. Default is 3.

-w consoleWidth Specifies the width of the console output, default is 80 characters.

-y privacyProtocol Set the privacy protocol to be used to encrypt SNMPv3 messages. Valid values are DES, AES (AES128), AES192, AES256, AES192p, AES256p, and 3DES(DESEDE). The AES protocols that end with 'p' (for proprietary) are using a non-standardized key extension algorithm from 3DES.