

# **Universal Command 7.5.x Quick Reference Guide**

Universal Agent 7.5.x

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# 1 Usage

1.1 `ucmd COMMAND HOST [USER] [LOCAL] [OPTIONS...] [STDFILE OPTIONS]`

1.2 `ucmd { -help | -version }`

## 2 Format

There is a long form and, for most options, a short form available for specifying each option on the command line. The long form is not case-sensitive; the short form is case-sensitive.

Options must be prefixed with a dash ( - ) character. If an option value is specified, the option and its value must be separated by at least one space.

### 2.1 COMMAND {-cmd [-cmd\_type] | -script [-options] [-script\_type] } [ {-file | -encryptedfile [-key] } ] [-server]

| Long Form                  | Short Form        | Description  |
|----------------------------|-------------------|--|
| -cmd <i>command</i>        | -c <i>command</i> | Command to execute on the remote host.<br><i>command</i> must be in quotation marks if it contains any white space or shell meta-characters. |
| -cmd_type <i>type</i>      | n/a               | Type of command specified by <b>-cmd</b> .<br>Valid values are defined by the server on which the command will be executed.                  |
| -encryptedfile <i>file</i> | -x <i>file</i>    | Encrypted file from which UCMD options are read. Encrypted UCMD option files are creating using Universal Encrypt.                           |
| -exit_code_map <i>map</i>  | n/a               | Allows exit codes from the user process executed by UCMD Server to be translated (mapped) to a corresponding exit code for UCMD Manager      |
| -file <i>file</i>          | -f <i>file</i>    | File from which UCMD options are read.   |
| -key <i>key</i>            | -K <i>key</i>     | Key that was passed to Universal Encrypt when the UCMD option file was encrypted.  |
| -options <i>options</i>    | -o <i>options</i> | List of command line options for the script file specified by <b>-script</b> .   |
| -script <i>file</i>        | -s <i>file</i>    | Script file to execute on the remote host.   |
| -script_type <i>type</i>   | n/a               | Type of script specified by <b>-script</b> .<br>Valid values are defined by the server on which the script will be executed.                 |
| -server <i>options</i>     | -S <i>options</i> | Platform-specific options that are passed directly to the server.  |

### 2.2 HOST -host [-port] [-hostname\_retry\_count] [-outboundip]

| Long Form             | Short Form           | Description   |
|-----------------------|----------------------|---|
| -host <i>hostlist</i> | -i <i>hostlist</i> > | List of one or more hosts upon which a command can run. |

| Long Form                          | Short Form     | Description  |
|------------------------------------|----------------|--|
| -hostname_retry_count <i>count</i> | n/a            | Number of times that UCMD will attempt to resolve the host name of a specified Universal Broker before it ends with a connect error. |
| -outboundip <i>address</i>         | n/a            | Host network address to bind to for all outbound connections. <i>address</i> format is dotted form (1.2.3.4) or a host domain name.  |
| -port <i>port</i>                  | -p <i>port</i> | Host port number on which the Universal Broker is listening. Default is the Universal Broker default.                                |

## 2.3 LOCAL [-system\_id] [-bif\_directory] [-plf\_directory]

| Long Form  | Short Form | Description   |
|--|------------|---|
| -system_id <i>ID</i> <sup>Z</sup>  | n/a        | Local Universal Broker with which the UCMD Manager must register before the Manager performs any request. |
| -bif_directory <i>directory</i> <sup>U</sup>   | n/a        | Broker Interface File (BIF) directory where the Universal Broker interface file is located.               |
| -plf_directory <i>directory</i>  | n/a        | Program Lock File (PLF) directory where the program lock files are located.                               |
| <sup>Z</sup> Available for use on z/OS operating systems only.<br><sup>U</sup> Available for use on UNIX operating systems only. |            |   |

## 2.4 USER [-userid [-pwd] ] [-login]

| Long Form            | Short Form         | Description                                 |
|----------------------|--------------------|---|
| -login <i>option</i> | -G <i>option</i>   | Establish user login environment.           |
| -pwd <i>password</i> | -w <i>password</i> | Remote user ID's password.                  |
| -userid <i>user</i>  | -u <i>user</i>     | Remote user ID with which the command runs. |

2.5 OPTIONS [ {-help | -version } | [-lang] [-level] [-codepage] [-comment] [-compress] [-connect\_timeout] [-crl] [-dns\_expand] [-encrypt] [-authenticate] [-host\_selection] [-mft\_safe\_mode] [-networkft] [-managerft] [-assign\_process\_to\_job] [-delay] [-job\_retention] [-retry\_count] [-retry\_interval] [-cmdid] [-restart] [-saf\_key\_ring] [-saf\_king\_ring\_label] [-ssl\_implementation] [-server\_stop\_conditions] [-tracefilelines] [-tracetable] [-uencrypted\_codepage] [-uencrypted\_codepage\_path] [-elevate\_user\_token] [-forcecomplete] [-trailingspaces] [-ctl\_ssl\_cipher\_list] [-data\_ssl\_cipher\_list] [-default\_cipher] [-cert -private\_key [-private\_key\_pwd] ] [-ca\_certs [-verify\_host\_name] [-verify\_serial\_number] ] ]

| Long Form                            | Short Form              | Description   |
|--------------------------------------|-------------------------|---|
| -assign_process_to_job <i>option</i> | n/a                     | Specification for whether or not UCMD Server assigns child processes to a single Windows job object.  |
| -authenticate <i>option</i>          | -a <i>option</i>        | Specification for whether or not all data sent over the network is authenticated (yes or no).<br>Default is no.   |
| -ca_certs <i>file</i>                | n/a                     | Name of a PEM-formatted file containing the X.509 certificates for trusted Certificate Authorities (CAs).   |
| -cert <i>file</i>                    | n/a                     | Name of a PEM-formatted file containing an X.509 certificate used to identify UCMD to the Broker.   |
| -cmdid <i>id</i>                     | -C <i>id</i>            | Identifier of the unit of work represented by the UCMD Manager, UCMD Server, and user command.  |
| -codepage <i>codepage</i>            | -t <i>codepage</i>      | Code page used to translate text on the local host for all standard files.  |
| -comment <i>text</i>                 | n/a                     | User-defined string.  |
| -compress <i>mode[,method]</i>       | -k <i>mode[,method]</i> | Specification for whether or not data transmitted across the network should be compressed<br>Valid values for <i>mode</i> are yes and no.<br>Default is no.<br><i>method</i> specifies the method of compression: <ul style="list-style-type: none"> <li>• zlib (ZLIB compression algorithm is used.)</li> <li>• hasp (HASP compression algorithm is used.)</li> </ul> Default is zlib. |
| -connect_timeout <i>seconds</i>      | n/a                     | Length of time that a UCMD Manager will wait for a connection to a remote Universal Broker to complete.   |
| -crl <i>file / ddname</i>            | n/a                     | File name / ddname of the PEM-formatted file containing the Certificate Revocation List (CRL) issued by the trusted Certificate Authority.  |

| Long Form                            | Short Form         | Description  |
|--------------------------------------|--------------------|--|
| -ctl_ssl_cipher_list <i>ciphers</i>  | n/a                | <p>SSL/TLS cipher suites (one or more, in their preferred order) for control SSL/TLS connections. <i>ciphers</i> is a comma-separated list of cipher suite names or a single value of NULL-NULL, which disables SSL/TLS, encryption, and message authentication.</p> <p>Valid SSL/TLS cipher suites are AES256-GCM-SHA384,AES256-SHA,AES128-GCM-SHA256,AES128-SHA,ECDHE-RSA-AES256-GCM-SHA384,ECDHE-ECDSA-AES256-GCM-SHA384,ECDHE-RSA-AES128-GCM-SHA256,ECDHE-ECDSA-AES128-GCM-SHA256,RC4-SHA,RC4-MD5,DES-CBC3-SHA.</p>  |
| -data_ssl_cipher_list <i>ciphers</i> | n/a                | <p>SSL/TLS cipher suites (one or more, in their preferred order) for stdio SSL/TLS connections. <i>ciphers</i> is a comma-separated list of cipher suite names.</p> <p>Valid values are AES256-GCM-SHA384, AES256-SHA, AES128-GCM-SHA256, AES128-SHA, ECDHE-RSA-AES256-GCM-SHA384,ECDHE-ECDSA-AES256-GCM-SHA384,ECDHE-RSA-AES128-GCM-SHA256,ECDHE-ECDSA-AES128-GCM-SHA256, RC4-SHA, RC4-MD5, DES-CBC3-SHA, and DES-CBC-SHA.</p> <p>One of these cipher suites is used when encryption is requested with the <b>-encrypt</b> option and the SSL/TLS protocol is used with the server.</p> |
| -default_cipher <i>cipher</i>        | n/a                | <p>Default SSL/TLS cipher used when no encryption is requested.</p> <p>Valid values are AES256-GCM-SHA384, AES256-SHA, AES128-GCM-SHA256, AES128-SHA, ECDHE-RSA-AES256-GCM-SHA384,ECDHE-ECDSA-AES256-GCM-SHA384,ECDHE-RSA-AES128-GCM-SHA256,ECDHE-ECDSA-AES128-GCM-SHA256, RC4-SHA, RC4-MD5, DES-CBC3-SHA, DES-CBC-SHA, NULL-SHA256, NULL-SHA, NULL-MD5, and NULL-NULL (no SSL/TLS).</p> <p>Default is NULL-MD5.</p>   |
| -delay <i>seconds</i>                | -d <i>seconds</i>  | Maximum delay for transmitting data that may be expected due to network conditions.  |
| -dns_expand <i>option</i>            | n/a                | Number of IP addresses returned to UCMD Manager following a DNS query, which is issued to resolve a host name.   |
| -elevate_user_token <i>option</i>    | n/a                | Allows a process to obtain a user access token that is not subject to User Account Control (UAC) restrictions. It overrides the UCMD Server ELEVATE_USER_TOKEN configuration option that determines whether a Windows process executes with highest available privileges.  |
| -encrypt <i>option</i>               | -e <i>option</i>   | <p>Specification for whether or not all data sent over the network is encrypted (yes or no).</p> <p>Default is no.</p>   |
| -forcecomplete <i>option</i>         | n/a                | <p>Specification for whether or not to force a PENDING server to a completed state (yes or no).</p> <p>Default is no.</p>  |
| -help                                | -h                 | Writes help file.  |
| -host_selection <i>option</i>        | n/a                | Host (from the <b>-host</b> list) that the UCMD Manager will choose to begin its attempts to connect to a remote Universal Broker.   |
| -job_retention <i>seconds</i>        | -j <i>seconds</i>  | Length of time that a server should wait after the user process ends for a manager reconnect request. The server default is 172,800 seconds (2 days).  |
| -lang <i>language</i>                | -L <i>language</i> | Message and text language.   |

| Long Form   | Short Form                      | Description  |
|---|---------------------------------|--|
| -level <i>level</i> [ <i>time</i> ]               | -l <i>level</i> [ <i>time</i> ] | Level of messages to write.<br><i>level</i> is one or more of the following, separated by commas: error   warn   info   audit   trace}.<br><i>time</i> specifies whether or not a time stamp is included with each message. Valid values for <i>time</i> are {notime   time}.  |
| -managerft <i>option</i>                          | -M <i>option</i>                | Specification for whether or not to use manager fault tolerance (yes or no).<br>Default is no.   |
| -mft_safe_mode <i>option</i>                      | n/a                             | Situations in which more than one host may be specified in the <b>-host</b> list when manager fault tolerance (MFT) is enabled.  |
| -networkft <i>option</i>                          | -N <i>option</i>                | Specification for whether or not to use network fault tolerance (yes or no).<br>Default is no.   |
| -private_key <i>file</i>                          | n/a                             | Name of a PEM formatted file containing the RSA private key corresponding to the X.509 certificate specified by <b>-cert</b> .   |
| -private_key_password <i>password</i>             | n/a                             | Password for the private key file specified by <b>-private_key</b> .   |
| -restart <i>option</i>                            | -R <i>option</i>                | Specification for whether or not this execution of UCMD Manager is a restart of a previous manager fault tolerant Manager.<br>Valid values for <i>option</i> are {yes   no   auto}.<br>Default is no.  |
| -retry_count <i>count</i>                         | n/a                             | Number of reconnection attempts that will be made following a network outage.  |
| -retry_interval <i>seconds</i>                    | n/a                             | Number of seconds to wait between reconnection attempts.   |
| -saf_key_ring <i>name</i> <sup>Z</sup>            | n/a                             | SAF certificate key ring name that the Universal Command job should use for its certificate.   |
| -saf_key_ring_label <i>label</i> <sup>Z</sup>     | n/a                             | Label of the certificate in the SAF certificate key ring that the Universal Command job should use for its certificate.  |
| -ssl_implementation <i>option</i> <sup>Z</sup>    | n/a                             | SSL/TLS implementation to be used for network communications.<br>Valid values for <i>option</i> are OPENSLL (OpenSSL SSL/TLS library is used.) and SYSTEM (z/OS system SSL library is used.)   |
| -server_stop_conditions <i>codes</i> <sup>Z</sup> | n/a                             | Exit codes (one or more) of the executing UCMD Manager that should trigger the locally running Universal Broker to cancel the corresponding UCMD Server for the exited UCMD Manager.   |
| -trace_table <i>size,condition</i>                | n/a                             | Size of a wrap-around trace table maintained in memory.<br><i>size</i> is the table size in kilobytes or megabytes (for example, 100K or 10M).<br><i>condition</i> is the condition under which the trace table is written: <ul style="list-style-type: none"> <li>• error: Write table only if the program ends with a non-zero return code.</li> <li>• always: Always write table when the program ends.</li> <li>• never: Never write table.</li> </ul> |
| -tracefilelines <i>count</i>                      | n/a                             | Maximum number of lines written to a trace file before it wraps around to the top of the file.   |

| Long Form  | Short Form | Description   |
|--|------------|---|
| -uencrypted_codepage                                       | n/a        | Character code page that Universal Command Manager uses to translate characters within a command file that has been encrypted with the Universal Encrypt utility    |
| -uencrypted_codepage_path                                  | n/a        | Location of the code page specified by the UENCRYPTED_CODEPAGE option   |
| -verify_host_name <i>host</i>                              | n/a        | Specification that the Broker's X.509 certificate must identify a host name that matches <i>host</i> .  |
| -verify_serial_number <i>number</i>                        | n/a        | Specification that the Broker's X.509 certificate must have a serial number that matches <i>number</i> . Hexadecimal format is specified with a prefix of 0x or 0X. |
| -version   | -v         | Write program version information and exit.   |
| <b>Z</b> Available for use on z/OS operating systems only. |            |   |

## 2.6 STDFILE-OPTIONS [ {-stdin | -stdout | -stderr} [-codepage] [-remotecodepage] [-mode] [-compress] [-encrypt] [-authenticate] [-localfile] ]...

| Long Form                     | Short Form         | Description   |
|-------------------------------|--------------------|---|
| -stdin                        | -I                 | Start of stdin options.   |
| -stdout                       | -O                 | Start of stdout options.  |
| -stderr                       | -E                 | Start of stderr options.  |
| -authenticate <i>option</i>   | -a <i>option</i>   | Authentication option - yes or no (default) - for the standard file.  |
| -codepage <i>codepage</i>     | -t <i>codepage</i> | Code page used to translate text on local host for standard file.   |
| -compress <i>mode[method]</i> | -k <i>mode</i>     | Compression option for the standard file.<br>Valid values for <i>mode</i> are yes and no.<br>Default is no.<br><br><i>method</i> specifies the method of compression: <ul style="list-style-type: none"> <li>• zlib (ZLIB compression algorithm is used.)</li> <li>• hasp (HASP compression algorithm is used.)</li> </ul> Default is zlib. |
| -encrypt <i>option</i>        | -e <i>option</i>   | Specification for whether or not the standard file is encrypted (yes or no).<br>Default is no.  |
| -localfile <i>file</i>        | -F <i>file</i>     | Local file name to read from for stdin or written to for stdout and stderr.<br>In the case of stdin, if a <i>file</i> value is not specified, stdin is immediately closed.  |

| Long Form   | Short Form         | Description  |
|---|--------------------|--|
| -mode <i>mode</i>   | -m <i>mode</i>     | <p>Standard file transfer mode.</p> <p>Valid values for <i>mode</i> are one or more of the following, separated by commas: {binary   text [,direct   ucs]}.</p> <p>Default is text,ucs.</p>  |
| -remotecodepage <i>codepage</i>                                       | -T <i>codepage</i> | <p>Code page used to translate text on the remote host for the standard file.</p>  |
| -trailingspaces <i>option</i> <sup>Z</sup>                            | n/a                | <p>Specification for how fixed format records are read from UNVIN ddname.</p> <p>This option is standard input, text mode only. Either the complete record is read including trailing spaces or only the data up to the last non-space character is read. The default behavior is to truncate the data after the last non-space character in the record.</p> <p>Valid values for <i>option</i> are:</p> <ul style="list-style-type: none"> <li>• yes: Complete record is read.</li> <li>• no: Record is truncated after last non-space character.</li> </ul> <p>Default is no.</p> |
| <p><sup>Z</sup> Available for use on z/OS operating systems only.</p> |                    |  |