cmlcmd: Command Utility Version 1

CML00007-01

CodeMagus

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Contents

1 Introduction

`cmlcmd` is a utility program that sends one or more user commands using TCP/IP to a server that has an exposed command interface and writes the server response to `stdout`.

Commands that `cmlcmd` is to send to a server may be entered interactively or saved in a file and executed as a batch.

2 Invoking `cmlcmd`

The utility is invoked from the command line and if passed the '`--help`' parameter will write information about all the available parameters to `stdout`.

2.1 Synopsis

```
user@machine> cmlcmd --help

Code Magus Limited Command Utility V1.0: build 2011-04-05-12.21.31
[./cmlcmd] $Id: cmlcmd.c,v 1.19 2011/04/04 12:59:40 janvlok Exp $
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Usage: cmlcmd [OPTION...]
  -i, --interactive                      Interactive session with a server
  -C, --host-charset={same|ascii|ebcdic} Host character set
  -h, --host={localhost|<host>}          Host name or TCP/IP address
  -p, --port=<port>                      TCP/IP port number
  -c, --command=<command>                Command to send
  -f, --file=<file name>                 File containing commands to send
  -d, --path=<path>                      Path for command the file
  -t, --timeout={1|<seconds>}            Maximum time in seconds to wait
                                         for a response

Help options:
  -?, --help                             Show this help message
  --usage                                Display brief usage message
```

Where:

- '`-i|--interactive`' Requests an interactive session with a server.

- '`-C|--host-charset`' Specifies the character set the server is using.

- '`-h|--host`' Specifies the host address of the server. This may be a dotted decimal IPv4 address or a domain name address.

- '`-p|--port`' Specifies the port number of the server.

- '`-c|--command`' Specifies the command to send to the server.

- '-f|--file' Specifies a file that contains commands to send to the server. This parameter is validated by the cmdname [1] library and must adhere to those requirements.

- '-p|--path' Specifies the path where the command file can be found. This parameter is validated by the cmdname [1] library and must adhere to those requirements.

- '-t|--timeout' Specifies the time in seconds to wait for a response from the server. The default time out is one second.

2.2 Exit Status

cmlcmd exits and returns zero to the invoking system on success.

On failure 16 is returned and an appropriate error message is written to stdout.

Examples of error conditions are:

- Parameter errors. Any parameters that are out of bounds or required but not specified cause an error condition.

- A response is not received within the time limit specified.

- The connection could not be established.

3 Examples

3.1 Sending Single Commands

Send two separate commands to a server on a remote host:

```
[jan@phoenix ~]$ cmlcmd --host=codemagus --port=40142
                --command="add route justintest3 visa_sim2 4263939099671201"
VISA proxy>    Added route justintest3;


[jan@phoenix ~]$cmlcmd --host=codemagus --port=40142
                --command="add route default visa_sim1"
VISA proxy>    Set default route to visa_sim1;
```

3.2 Sending Canned Commands

Send the commands saved in a file to a server on a remote host:

```
jan@bloubos ~> cmlcmd --host=codemagus --port=60050 --file=damager_cmlprobe.cmd
                    --path=/home/jan/software/cmlxsnmp/testing
-- File damager_cmlprobe.cmd
--
-- first time we need the select, later we need the close
close probe cmlxsnmp
SNMP oid counters> Error: Probe is not running!
```

```
.
.
.
SNMP damager.africa.nedcor.net> open probe
CML SNMP probe initialised
```

3.3 Starting an Interactive Command Session

Enter an interactive session with a server on a remote host. If the host and port are not specified on the command line, `cmlcmd` will request this from the user:

```
jan@bloubos:~/software/cmlcmd> cmlcmd --interactive
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[cmlcmd] $Id: cmlcmd.c,v 1.19 2011/04/04 12:59:40 janvlok Exp $
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Enter IPADDR - host:port > phoenix:10000
Connecting to phoenix:10000
phoenix:10000 > help
serfboard>[output (<filename>)] <command>
try: help {background|display|exit|load|open|set|shutdown|start
serfboard>phoenix:10000 >
```

3.4 Invoking Single and Interactive Commands

Send a command to a server on a remote host and then enter an interactive session with the server:

```
jan@bloubos:~/software/cmlcmd> cmlcmd --interactive --host=phoenix --port=10000
                              --command="help"

help

serfboard>[output (<filename>)] <command>
try: help {background|display|exit|load|open|set|shutdown|start
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[cmlcmd] $Id: cmlcmd.c,v 1.19 2011/04/04 12:59:40 janvlok Exp $
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serfboard>phoenix:10000 > help display
display metric {[all [(group(<name>))] | [<name> (group(<name>))] }
    Display metrics
display dashboard <name>
    Display a dashboard
display status
    Display serfboard status
serfboard>phoenix:10000 >
```

3.5 Error Conditions

Send a command to a server on a remote host, but specify an invalid port number:

```
[jan@phoenix ~]$ cmlcmd --host=codemagus --port=50142
                 --command="display routes"
Connect Error: Connection refused
```

References

[1] cmdname: Command Name Resolver Library Version 1. CML Document CML00076-01, Code Magus Limited, December 2010. PDF.