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## cmlcmd: Command Utility Version 1

CML00007-01

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## 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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[Contact: stephen@codemagus.com].
```

```
Usage: cmlcmd [OPTION...]
```

<code>-i, --interactive</code>	Interactive session with a server
<code>-C, --host-charset={same ascii ebcdic}</code>	Host character set
<code>-h, --host={localhost &lt;host&gt;}</code>	Host name or TCP/IP address
<code>-p, --port=&lt;port&gt;</code>	TCP/IP port number
<code>-c, --command=&lt;command&gt;</code>	Command to send
<code>-f, --file=&lt;file name&gt;</code>	File containing commands to send
<code>-d, --path=&lt;path&gt;</code>	Path for command the file
<code>-t, --timeout={1 &lt;seconds&gt;}</code>	Maximum time in seconds to wait for a response

Help options:

<code>-, --help</code>	Show this help message
<code>--usage</code>	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
Code Magus Limited Command Utility V1.0: build 2011-04-05-12.11.12
[cmlcmd] $Id: cmlcmd.c,v 1.19 2011/04/04 12:59:40 janvlok Exp $
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[Contact: stephen@codemagus.com].
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
Code Magus Limited Command Utility V1.0: build 2011-04-05-12.11.12
[cmlcmd] $Id: cmlcmd.c,v 1.19 2011/04/04 12:59:40 janvlok Exp $
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[Contact: stephen@codemagus.com].
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](#).