mldb

-d - directs command to the only connected USB device

returns an error if more than one USB device is present.

-s <specific device> - directs command to the device with the given serial number

or qualifier. Overrides ML\_SERIAL environment variable.

-H - Name of mldb server host (default: localhost). Can also

be specified with MLDB\_SERVER\_HOST environment variable.

-P - Port of mldb server (default: 5038)

mldb devices [-l] - list all connected devices

('-l' will also list device qualifiers)

mldb connect <host>[:<port>] - connect to a device via TCP/IP

Port 5555 is used by default if no port number is specified.

mldb disconnect [<host>[:<port>]]

- disconnect from a TCP/IP device.

Port 5555 is used by default if no port number is specified.

Using this command with no additional arguments

will disconnect from all connected TCP/IP devices.

device commands:

mldb push <-p <package> | -D> [-v] <local> <remote>

- copy file/dir to device

(-p <package>: name of package to push to)

(-v: display the name of every file copied)

(-D: push file to users document directory)

mldb pull <-p <package> | -D> [-v] [-a] <remote> [<local>]

- copy file/dir from device

(-p <package>: name of package to pull from)

(-a: copy timestamp and mode)

(-v: display the name of every file copied)

(-D: pull file from users document directory)

mldb log [-d] [-v <format>] [-t <count>] [-T <count>] [filterspecs]

- view device log

(-c: clear the log and exit.)

(-d: dump the log and exit, do not wait for additional content)

(-v <format>: configure the log format. Possible formats are

brief, color, epoch, long, printable, process, raw, tag,

thread, threadtime, time, uid, usec, year and zone.

A comma separated list of formats can be specified with

environment variable MLDB\_LOG\_FORMAT)

(-t <count> view the last count log entries)

(-T <count> view the last count log entries and wait for new content, blocks)

filterspecs are a series of

<tag>[:priority]

where <tag> is a log component tag (or \* for all tags), and priority is:

V Verbose (default for <tag>)

D Debug (default for '\*')

I Info

W Warn

E Error

F Fatal

S Silent (suppress all output)

For example, 'myapp:W' will exclude informational, debug and verbose

log entries that have tag myapp. 'myapp:S' will exclude all entries

that have tag myapp.

There is an implicit '\*:V'. I.e., by default all entries (all tags and

priorities) are shown. When you specify a filterspec, you are altering

only the tag you specify in that filterspec. E.g., 'log myapp:F' does not

reduce the output to only the fatal myapp entries. You will see all

entries for all other tags but only the fatal entries for myapp. To see

only the fatal entries for myapp and nothing else, 'log \*:S myapp:F'. The

first filterspec says 'suppress all entries from all tags' and the second

says 'suppress all myapp entries except fatal ones'. A filterspec with a

tag name overrides the default filtering for that tag set by '\*'.

'\*' by itself means '\*:D' and <tag> by itself means <tag>:V.

mldb forward [--no-rebind] tcp:<host-port> tcp:<device-port>

- make a listening port on the device accessible as a listening

port on the host.

mldb forward --list - list the forward socket connections.

mldb forward --remove tcp:<host-port>

- remove a specific forward socket connection

mldb forward --remove-all - remove all forward socket connections

mldb reverse [--no-rebind] tcp:<device-port> tcp:<host-port>

- make a listening port on the host accessible as a listening

port on the device. Port reversing will work only for debuggable apps

and only if they connect to ports 57000 thru 57100 (inclusive, inclusive)

mldb reverse --list - list all reverse socket connections from device

mldb reverse --remove tcp:<device-port>

- remove a specific reverse socket connection

mldb reverse --remove-all - remove all reverse socket connections from the device

mldb bugreport [-p <PIN>] <zip\_file>

- return all information from the device that should be included

in a bug report. Produce a zip file.

(-p: If the device is locked, the PIN must be specified)

mldb install [-u] <mpk-file> - install a package file

(-u: update installation)

mldb uninstall <pkg-name> - uninstall and remove a package from the device

mldb launch [-f] [[-d] -p <host-port>] [-i <value> ] [-w] [-x] [-v <name>=<value>]... <pkg-name> [<comp-name>]

- launch an application. First component in manifest is used

if not specified.

(-f: don't fail if app is already running; force a restart.)

(-d: launch app suspended. Debuggable apps only.)

(-p <host-port>: host port for gdbserver connection.)

(-i: initialization string. Debuggable apps only.)

(-w: wait for app to terminate. CTRL-C will kill app.)

(-x: wait for app to terminate. CTRL-C will NOT kill app.)

(-v: environment variable. Debuggable apps only.)

(--auto-net-privs: give app networking privileges without

prompting. Required by some tools such as Unity(R) Profiler.

Debuggable apps only.)

mldb terminate [-f] <pkg-name> [<comp-name>]

- terminate an application. If <comp-name> is omitted,

it terminates the first running component found.

(-f: forcefully end debugged applications)

mldb getprop [<name>] - retrieve a system property.

mldb ps [-j] - list running applications.

(-j: return the list in JSON format)

mldb packages [-j] - list installed packages.

(-j: return the list in JSON format)

mldb ls <-p <package> | -D> [-l] [-d] [-t] [-S] [-a] [-A] [-s] [-m] [-R] [-C] <device-path>

- list device files

(-p <package> the package whose content to list)

(-D: list files in users document directory)

(-l: long format, list file details)

(-d: list directories and not their content)

(-t: sort by modification time)

(-S: sort by file size)

(-a: list all files including . and ..)

(-A: list all files except . and ..)

(-m: mark directories with a / suffix)

(-R: recursive)

(-C: enable color)

mldb rm <-p <package> | -D> [-r] [-f] <device-path>

- Remove device files or directories

(-f: ignore non existing files)

(-r: recursive)

(-D: remove files or directories from user document directory)

mldb cp <-p <package> | -D> [-r] [-n] [-f] <device-src> <device-dest>

- Copy files on the device

(-r: recursive)

(-n: fail instead of overwriting)

(-f: force, overwrite read-only destination)

(-D: copy files or directories in user document directory)

mldb mv <-p <package> | -D> [-n] [-f] <device-src> <device-dest>

- Move files on the device

(-n: fail instead of overwriting)

(-f: force, overwrite read-only destination)

(-D: move files or directories in user document directory)

mldb mkdir <-p <package> | -D> <device-path>

- Create device directory

(-D: create directory in users document directory)

mldb df [--iec] - show filesystem usage

(--iec: use multiples of 1024 instead of 1000)

mldb attach -p <host-port> <pkg-name> [<comp-name>]

- attach debugger to already running application.

(-p <host-port>: host port for gdbserver connection.)

Only allowed for debuggable applications.

mldb crashdump list - list all available application crash dumps

mldb crashdump get (all | <exe-name> | <pid>) [<outfile>]

- retrieves all crash dumps or the latest

crash dump with a specific executable name or pid

mldb keygen <file> - generate mldb public/private key. The private key is stored in <file>,

and the public key is stored in <file>.pub. Any existing files

are overwritten.

mldb help - show this help message

mldb version - show version num

scripting:

mldb wait-for-device - block until device is online

mldb start-server - ensure that there is a server running

mldb kill-server - kill the server if it is running

mldb get-state - prints: offline | bootloader | device

mldb get-serialno - prints: <serial-number>

mldb get-devpath - prints: <device-path>

mldb reboot [bootloader] - reboots the device, optionally into the bootloader (aka,

fastboot) mode.

mldb shutdown - shut down the device.

mldb usb - restarts the daemon listening on USB

mldb tcpip [-p] <port> - restarts the daemon listening on TCP on the specified port

(-p: persist; continue using TCP even after a reboot)

mldb ifconfig [-a] [<interface>]

- displays network interfaces

(-a: show all interfaces, not just active ones)

mldb access-status - show state of various mechanisms that control access to the device

mldb changepin <oldpin> <newpin>

- change the unlock PIN

mldb lock - lock the device. Must have set a PIN first

mldb unlock <pin> - unlock with the specific PIN

mldb wifi <operation> [options/args]

- configure and view Wi-Fi. Use --help for details

mldb perf <operation> [options/args]

- configure profiling. Use --help for details

mldb capture image [-r] [-q (1080p|720p)] [-b (alpha|additive|hybrid)] <dest-file.jpg>

mldb capture video [-r] [-q (1080p|720p)] [-b (alpha|additive|hybrid)] [-a (virtual|mixed)] (-f <cnt> | -t <sec> | -w) <dest-file.mp4>

(-r: capture only rendered content, not using the camera)

(-q (1080p|720p): quality, resolution to capture with. Defaults to 1080p)

(-b (alpha|additive|hybrid): blend type. Defaults to additive.

(-a (virtual|mixed) audio recording type: virtual only or mixed virtual+ambient (default)

(-f <cnt>: number of frames to record)

(-t <sec>: time in seconds to record)

(-w: record until a key is pressed)

mldb audiocapture [options/args]

- make an audio recording. Use --help for details

mldb audioplayer [options/args]

- play an audio file. Use --help for details

mldb ping [-c <count>] host - send an ICMP echo request to a host

(-c: number of sequential requests to send)

mldb mlma <operation> [options/args]

- configure and view Magic Leap Mobile Application (MLMA). Use --help for details

mldb controller <operation> [options/args]

- configure and view controller. Use --help for details

mldb battery

- prints Lightpack battery status

mldb reset-headpose - reset headpose

mldb top [-n <num>] [-d <sec>] [-s <col>] [-m <max # of threads>]

- Display user process usage statistics

(-n: Updates to show before exiting)

(-d: Seconds to wait between updates)

(-s: Column to sort by [cpu, vss, rss, thr])

(-m: Maximum # of threads to display)

launching server:

You can explicitly launch the server with finer control as follows:

mldb server [-a] [-P] [nodaemon | fork-server --reply-fd <fd>]

-a: Accept a connection from any address, not just loopback (127.0.0.1)

Can only be specified with nodaemon or fork-server

-P: The port to listen on (default is 5038)

nodaemon: Don't spawn a process. Use this if you're launching the server in a

terminal and want the terminal to block and the server to log messages

to stdout. The default behavior is for the server to be spawned in

another process, and for 'mldb server' to return as soon as the server

is ready to service requests.

fork-server: Same as nodaemon but with the server writing an acknowledgment message

to the file descriptor specified with --reply-fd. Use this if you need

to spawn the server from a program. The ack is sent when the server is

ready to start servicing requests.

Note that both 'mldb server' and 'mldb start-server' spawn a server, but they differ

in two ways. The former will spawn a server unconditionally. The latter will spawn a

server only if one isn't running (on the specified or default port). Also, the former

completes as soon as the server is ready to service requests; the latter waits three

additional seconds to give the server time to discover USB devices.