NAME
mode2 - Show pulse/space length or decoded input from infrared drivers.

SYNOPSIS
mode2 --driver *<driver>* [--device *<device>*] [*other options*]

mode2 --raw --device *<device>* [*other options*]

mode2 --driver *<driver>* --list-devices

DESCRIPTION
The main purpose of this program is to check operation of your home-brew LIRC receiver hardware and to see the IR waveform of the remote controller without an expensive oscilloscope. Very useful for debugging also in situations you just need to verify configuration.

mode2 will simply print pulse and space lengths to stdout for drivers supporting LIRC_MODE_MODE2. For drivers supporting LIRC_MODE_LIRCCODE such as TV-cards and the irman driver writes the decoded, integer values.

When given the correct driver mode2 should always work. Without a driver, the --raw option should always work for /dev/lirc* devices. At the time of writing, usb devices also works in most cases. However, since it is tricky to get the path to the usb device, such ones are normally best accessed using a driver.

Not all drivers requires a device.

OPTIONS
-d --device=*device*
> Read from given device.

-H --driver=*driver*
> Use given driver.

-m --mode
> Write pulse/space data as raw config files. Does not affect LIRCCODE drivers.

-s --scope=*time*
> Enable 'scope like display with time us per char. Does not affect lirccode drivers.

-k --keep-root
> Don't drop root privileges after opening device. See RUNNING AS ROOT.

-l --list-devices
> List all available devices for given driver. Requires support not present in all drivers.

-g --gap=*time*
> Treat spaces longer than time as the gap. Time is in microseconds.

-r --raw
> Access device directly. This is primarely intended to be used with kernel rc drivers i .e., when accessing */dev/lirc** devices. Using other devices might work, but is in general undefined.

-A --driver-options=*key:value[|key:value...]*
> Set driver-specific option named key to given value.

-U --plugindir=*directory*
> Load drivers from directory. See DRIVER LOADING.

-O, --options-file *<path>*
> File containing default values for all options. A relative path is interpreted from current directory. See [FILES] below.

-D --loglevel=*level*
> Determine the amount of logging information. [level] can be a symbolic syslog level: 'error','warning, 'info', 'notice' or 'debug'. lirc also defines three additional levels 'trace', 'trace1'

and 'trace2' which gives even more messages ('trace2' bringing the most). However, in the log these messages are marked as 'debug'. The level can also be an integer in the range 3 (almost no messages) to 10.

-h --help
> Display usage summary.

-v --version
> Display version.

RUNNING AS ROOT

In many cases mode2 needs to run as root to access devices not available to regular users. On the other hand, running as root creates problems such as log files owned by root, security concerns etc.

In order to cope with this, mode2 by default drops root privileges after opening the input device. This support is based on that root permissions are accquired using sudo(1) e. g., using

$ sudo mode2 --raw /dev/lirc0

If not using sudo, the same behaviour could be accomplished using the SUDO_USER environment variable e. g.,

SUDO_USER=$LOGNAME mode2 --raw /dev/lirc0

The --keep-root option will make mode2 to keep root privileges for the complete run.

EXAMPLES

Invoked with a MODE2 type driver with **mode2** prints space/mark timings:
al@snorken $ ./mode2 --driver default --device /dev/lirc0
Using driver default on device /dev/lirc0
Trying device: /dev/lirc0
Using device: /dev/lirc0
pulse 2750
space 800
pulse 500
space 350
pulse 550
space 350
pulse 550

Invoked with a LIRCCODE type driver **mode2** prints decoded values:

$ ./mode2 --driver atilibusb
Using driver atilibusb on device /dev/lirc0
Trying device: /dev/bus/usb/001/007
Using device: /dev/bus/usb/001/007
code: 0x14709b0000
code: 0x14709b0000
code: 0x14709b0000
code: 0x14709b0000
code: 0x14709b0000

DRIVER LOADING

Drivers are loaded dynamically. The search path used for this is determined by (falling priority):

- The --plugindir option.

- The 'plugindir' entry in the [lircd] section of the lirc_options.conf file.

- The environment variable LIRC_PLUGINDIR.

- A hardcoded default (/usr/lib/arm-linux-gnueabihf/lirc/plugins).

ENVIRONMENT

      LIRC_LOGLEVEL

            Used as fallback when there is no --loglevel option present. Syntax is the same as for --loglevel, see OPTIONS.

FILES

      /etc/lirc/lirc_options.conf

            The options file holding default values for command line options in the [mode2] section. For some values including debug, plugindir, driver and device mode2 falls back to the [lircd] section if not found in [mode2].

            The location of this file can be changed using the -O/--options-file command-line option or using the environment variable LIRC_OPTIONS_PATH.

      ˜/.cache/mode2.log

            Debug log. Setting the XDG_CACHE_HOME environment variable relocates this file to $XDG_CACHE_HOME/mode2.log. The amount of logging respects the LIRC_LOGLEVEL environment variable, defaulting to the debug value in lirc_options.conf.

SEE ALSO

      xmode2(1)
      lirc(4)

      The documentation for **lirc** is maintained as html pages. They are located under html/ in the documentation directory.