NAME

alsaucm − ALSA Use Case Manager

SYNOPSIS

alsaucm <options> [command]

DESCRIPTION

alsaucm (ALSA Use Case Manager) is a program to use the ALSA *Use Case Interface* from the command line.

On complex sound cards, setting up audio routes is not trivial and mixer settings can conflict one another preventing the audio card to work at all.

The ALSA Use Case Manager is a mechanism for controlling complex audio hardware establishing a relationship between hardware configurations and meaningful use cases that the end−user can relate with.

The use case manager can also be used to switch between use cases when necessary, in a consistent way.

At a lower level, the use case manager works by configuring the sound card ALSA kcontrols to change the hardware digital and analog audio routing to match the requested device use case.

The use case manager kcontrol configurations are stored in easy to modify text files. An audio use case can be defined by a **verb** and **device** parameter.

The verb describes the use case action i.e. a phone call, listening to music, recording a conversation etc. The device describes the physical audio capture and playback hardware i.e. headphones, phone handset, bluetooth headset, etc.

OPTIONS

Available options:

−h, −−help
this help

−c, −−card *NAME*
open card NAME

−i, −−interactive
interactive mode

−b, −−batch *FILE*
batch mode (use '−' for the stdin input)

−n, −−no−open
do not open first card found

Available commands:

open *NAME*
open card NAME.

valid names are sound card names as listed in **/usr/share/alsa/ucm**.

reset reset sound card to default state.

reload reload configuration.

listcards
list available cards.

list *IDENTIFIER*
list command, for items returning two entries (value+comment).

the value of the *IDENTIFIER* argument can can be:

- **_verbs** − get verb list (in pair verb+comment)
- **_devices[/{verb}]** − get list of supported devices (in pair device+comment)
- **_modifiers[/{verb}]** − get list of supported modifiers (in pair modifier+comment)

The forms without the trailing **/{verb}** are valid only after a specific verb has been set.

list1 *IDENTIFIER*
list command, for lists returning one item per entry.

the value of the *IDENTIFIER* argument can vary depending on the context, it can be:

- **TQ[/{verb}]** − get list of Tone Quality identifiers
- **_enadevs** − get list of enabled devices
- **_enamods** − get list of enabled modifiers
- **_supporteddevs/{modifier}|{device}[/{verb}]** − list of supported devices
- **_conflictingdevs/{modifier}|{device}[/{verb}]** − list of conflicting devices

get *IDENTIFIER*
get string value.

the value of the *IDENTIFIER* argument can can be:

- **_verb** − return current verb
- **[=]{NAME}[/[{modifier}|{/device}][/{verb}]]** (For valid NAMEs look at the ALSA *Use Case Interface*)

geti *IDENTIFIER*
get integer value.

the value of the *IDENTIFIER* argument can can be:

- **_devstatus/{device}**
- **_modstatus/{device}**

set *IDENTIFIER VALUE*
set string value

The value of the *IDENTIFIER* argument can can be:

- **_verb** − set the verb to *VALUE*
- **_enadev** − enable the device specified by *VALUE*
- **_disdev** − disable the device specified by *VALUE*
- **_swdev/{old_device}** − switche device:
  - disable *old_device* and then enable the device specified by *VALUE*
  - if no device was enabled just return
- **_enamod** − enable the modifier specified by *VALUE*
- **_dismod** − disable the modifier specified by *VALUE*

- **_swmod/{old_modifier}** − switch modifier:
  - disable *old_modifier* and then enable the modifier specified by *VALUE*
  - if no modifier was enabled just return

Note that the identifiers referring to devices and modifiers are valid only after setting a verb.

h, help help

q, quit quit

FILES

The master use case files for each supported sound card are in **/usr/share/alsa/ucm**.

For example, the master use case file for the *Pandaboard* card is in **/usr/share/alsa/ucm/PandaBoard/PandaBoard.conf**, this file lists all the supported use cases, e.g.

```
SectionUseCase."HiFi" {
                File "hifi"
                Comment "Play HiFi quality Music."
}
...
```

Each use case defines a _verb, which is described in the file specified in the **File** directive, like above.

The **HiFi** verb above is described in **/usr/share/alsa/ucm/PandaBoard/hifi**.

For more details on the syntax of UCM files, see the alsa−lib source code: *http://git.alsa−project.org/?p=alsa−lib.git;a=blob;f=src/ucm/parser.c*

EXAMPLES OF USE

Some commands, like for instance **list _devices**, can only work after setting a **_verb** in the **same execution**, for instance this sequence doesn't work:

```
# alsaucm −c bytcr−rt5640 set _verb HiFi
# alsaucm −c bytcr−rt5640 list _devices
```

However this command does:

```
# alsaucm −n −b − <<EOM
open bytcr−rt5640
set _verb HiFi
list _devices
EOM
```

An example of setting the *Speaker* device for the *HiFi* verb of the *bytcr−rt5640* card:

```
# alsaucm −n −b − <<EOM
open bytcr−rt5640
reset
set _verb HiFi
set _enadev Speaker
EOM
```

SEE ALSO

- Use Case Interface: *http://www.alsa−project.org/alsa−doc/alsa−lib/group__ucm.html*

BUGS

None known.

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