

NAME

`rigsmtr` – measure S-Meter vs azimuth using Hamlib

SYNOPSIS

`rigsmtr` [*OPTION*]... [*time_step*]

DESCRIPTION

rigsmtr uses Hamlib to control a rig to measure S-Meter vs azimuth:

It rotates the antenna from minimum azimuth to maximum azimuth. Every second or *time_step* if specified in seconds, it retrieves the signal strength.

Azimuth in degree and corresponding S-Meter level in dB relative to S9 are then printed on stdout.

To work correctly, `rigsmtr` needs a rig that could measure S-Meter and a Hamlib backend that is able to get it, mounted on a Hamlib supported rotator.

Keep in mind that **Hamlib** is still BETA level software. A lot of stuff hasn't been tested thoroughly, and the API may change without publicised notice. Please report bugs and feedback at the e-mail address given in the REPORTING BUGS section.

OPTIONS

This program follows the usual GNU command line syntax, with long options starting with two dashes ('-'). A summary of options is included below.

-m, --model=id

Select radio model number. See model list provided by `rigctl`.

-r, --rig-file=device

Use **device** as the file name of the radio to operate on.

-s, --serial-speed=baud

Set radio serial speed to **baud** rate. Uses maximal rig speed as default.

-c, --civaddr=id

Use **id** as the CI-V address to communicate with the rig. Only for Icom rigs. NB: the id is in decimal, unless prefixed by **0x**, in which case it is hexadecimal.

-C, --set-conf=parm=val[,parm=val]*

Set radio config parameter. See -L option of `rigctl` for a list.

-M, --rot-model=id

Select radio model number. See model list provided by `rotctl`.

-R, --rot-file=device

Use **device** as the file name of the rotator to operate on.

-S, --rot-serial-speed=baud

Set rotator serial speed to **baud** rate. Uses maximal speed as default.

-N, --rot-set-conf=parm=val[,parm=val]*

Set rotator config parameter. See -L option of `rotctl` for a list.

-v, --verbose

Set verbose mode, cumulative (BUG, ERR, WARN, VERBOSE, TRACE).

-h, --help

Show summary of options and exit.

-V, --version

Show version of program and exit.

RETURN VALUE

`rigsmtr` exits with: 0 if all operations went fine; 1 if there was an invalid command line option or arg; 2 if an error was returned by Hamlib; 3 if the rig doesn't have the required capabilities.

EXAMPLE

```
rigsmtr -m 209 -r /dev/ttyS1 -M 202 > csmtr
```

Collect S-Meter readings on a TS850 while an EasycommII rotator makes a full 360°, and record measurements in file csmtr.

After completion, csmtr file contains for example the following lines :

```
0 -47
30 -40
60 -22
90 -3
120 10
150 1
180 -11
210 -24
240 -35
270 -42
300 -48
330 -51
360 -49
```

Result could then be plotted with gnuplot:

```
gnuplot
set angles degrees
set polar
set grid polar 15.
unset border
unset param
set style data line
set xrange [-60:60]
set yrange [-60:60]
plot "csmtr"
```

AUTHOR

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BUGS

Need more testing. Reports are welcome.

REPORTING BUGS

Report bugs to <hamlib-developer@users.sourceforge.net>.

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SEE ALSO

hamlib(3), rigctl(1), rotctl(1)