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

AUTHOR

Man page written by Stephane Fillod.

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)