magSensor

This Nagios Plugin lets You check temperature and humidity through Magiant (http://www.magiant.it) USB sensors, on Linux machines (usually, with Nagios, USB sensors are attached to the server itself). Freely download the package from gitHub (http://github.....) and compile it for Your platform with gcc:

```
gcc magsensor.c -o magsensor
```

Now You have a (simple) executable that can easily be integrate in Nagios. Put it into /usr/local/bin (for example) and You're quite done.

Syntax

You can run magsensor with the following syntax:

```
magSensor [-h] [-V] [-v] [-t <C|F>] [-m <T|H>] [-d <U|D>]
          [-z <Sensor name>] -p <devicePath> -c <value> -w <value>
```

Parameters and options are:

-h (--help)	Show quick help screen.
-v (--verbose)	Enable verbose output.
-V (--version)	Show script version.
-t <C|F>	Temperature Units: • **C** – Celsius degrees • **F** – Fahreneit degrees If not specified, the default is “C” (Celsius).
-m <T|H>	Reading Mode: • **T** – Temperature • **H** – Humidity If not specified, the default is “T” (Temperature).
-l <U|D>	Threshold mode: • **U** – Alarms are triggered if read value is ***higher*** than threshold. • **D** – Alarms are triggered if read value is ***lower*** than threshold. If not specified, the default value is “U”.
-z <Sensor Name>	Sensor logical name, to easily identify returning messages.
-p <Device Path>	USB Device Path.

-c <value>	Critical Threshold.
-w <value>	Warning Threshold.

UDev Rules

Since the sensor is a USB device, the O.S. could restrict access to it even in Read-Only mode, if the User is not fully-privileged.

This is where “udev rules” comes to play, changing access mode to devices identified by VendorId and/or ProductId.

For Magiant sensors, just create a new “.rules” file like this:

```
/etc/udev/rules.d/90-magiant.rules
```

And fill it with the following line:

```
SUBSYSTEM=="usb", ATTRS{idVendor}=="04d8", MODE="0666"
```

This means that Magiant sensors will be available (in read-only mode) to any Users/Group.

Nagios Sample Configs

The integration with Nagios is quite simple: just setup **commands** and use them in **services** to check temperature and humidity. Depending on the structure you built to configure Nagios, you'll need one or more files, with the following content:

Commands definition (the executable is in ***/usr/local/bin*** directory and the device is installed under ***/dev/usb/hiddev0***):

```
# magCheckTemperature command definition to check temperature on Magiant sensor
define command{
   command_name  magCheckTemperature
   command_line  /usr/local/bin/magsensor -p /dev/usb/hiddev0 -z s1 -w $ARG1$ -c $ARG2$
               }

# magCheckHumidity command definition to check humidity on Magiant sensor
define command{
   command_name  magCheckHumidity
   command_line  /usr/local/bin/magsensor -p /dev/usb/hiddev0 -z s1 -w $ARG1$ -c $ARG2$ -m H
               }
```

Services definition, using the above defined commands. The sensor name is ***s1***.
Temperatures below 28°C are ok. Over 28°C a warning status is issued, while over 32°C the status

become critical:

```
# Check for Temperature (Local Magiant Sensor)
define service{
                use                     generic-service
                host_name               localhost
                service_description     Check Temperature
                check_command           magCheckTemperature!28!32
                contact_groups          MyContactGroup
              }
```

Humidity under 60% is ok. Over 60% the status become “warning”, while over 70% it become critical.

```
# Check for Humidity (Local Magiant Sensor)
define service{
                use                     generic-service
                host_name               localhost
                service_description     Check Humidity
                check_command           magCheckHumidity!60!70
                contact_groups          MyContactGroup
              }
```

The above configurations are just an example, feel free to change them to satisfy your needs.