BatteryLevel python plugin for Domoticz

Documentation

IMPORTANT NOTE: This is Beta software, so you use it at your own risk…

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Plugin objective:

Domoticz does report level of batteries of battery powered z-wave devices, but in a way that I do not find easy to use for the following reasons:

1. Battery levels are only shown in the "Setup/Devices" page and for zwave nodes that produce multiple devices, the same information is reported across all these devices.
2. The system wide "Battery Low Level" notification system within Domoticz (in "Setup/Settings/Other") does not allow for different levels of trigger depending on devices, while it is my experience that some devices can operate for long with say 20% of battery level, while others will shortly stop after reporting a battery level of 50%.
3. The evolution of battery level over time cannot be logged for analysis of battery life patterns per devices

This plugin addresses the above as follows:

1. It polls at regular intervals a given Domoticz system (it can be the system on which the plugin is running, but also another one in the same local network) for z-wave nodes and creates/updates a Domoticz device for each z-wave node to show the node's battery level
2. Each of the devices representing a battery operated z-wave node will allow:
    a. An easy to read display of the current battery level
    b. Logging over time like for any Domoticz sensor
    c. The definition of custom battery level notifications or events for each specific z-wave node
    d. As a bonus, a dynamic icon will display the battery level in 4 colors (green if >75%, yellow if 50 to 75%, orange if 25 to 50% and red if below 25%). Icons are from https://wpclipart.com/index.html , many thanks to them for these public domain graphics.

Prerequisites:

1. The Domoticz system on which the plugin runs must be version 3.7418 minimum (otherwise Domoticz might crash due to a bug in the python plugin framework).
2. The python plugin system must be installed (see the instructions at https://www.domoticz.com/wiki/Using_Python_plugins).
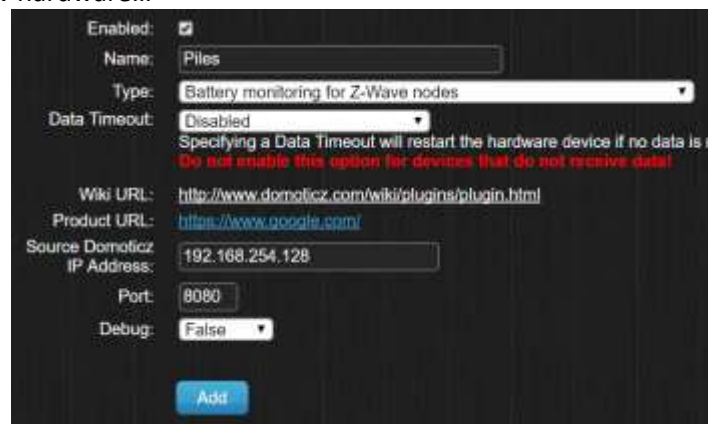
Installation:

The below instructions are for a Raspberry Pi Linux platform… I have not tested this on other platform (e.g. Windows) but I assume a bit of search on the Domoticz forum can help you…

1. Open a shell session
2. Navigate to the directory holding your Domoticz installation (typically ~/domoticz)
3. Perform the following commands within the shell:

```
cd plugins
mkdir BatteryLevel
sudo apt-get update
sudo apt-get install git
git clone https://github.com/999LV/BatteryLevel.git BatteryLevel
cd BatteryLevel
sudo chmod +x plugin.py
sudo /etc/init.d/domoticz.sh restart
```

4. Now connect to Domoticz with your browser and go to the "Setup/Hardware" page and select the "Battery monitoring for Z-Wave nodes" type from the drop-down list
5. Enter the IP address and HTTP port of the target Domoticz system (if the plugin runs on the same system that hosts the z-wave devices to be monitored, then keep default IP of 127.0.0.1). Please note that the plugin does not support user/password authentication, so IF the target Domoticz system requires an authentication MAKE SURE that the "Local Networks (no username/password):" field in the target Domoticz system includes the IP of the system on which the plugin is running (e.g. 127.0.0.*)
6. "Add" the new hardware…

And you are done… the plugin will create one device per z-wave node found, that you will find in the "Settings/Devices" page and then mark as used to move these to the "Utilities" page… See below screen shot for illustration

In case something does not work, enable the "Debug" mode for the plugin in the "Settings/Hardware" page and check the logs for errors and send me a pm @ logread on the Domoticz forum with the description of the error(s) and copy of the relevant log entries

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