SAFECONTROL

Niagara 4 Driver for Galaxy
User Guide

SAFECONTROL

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Change log

4.8

- Build for 4.8.0.110

SAFECONTROL

Driver Overview

The SAFECONTROL Driver for Galaxy is written using Tridium's BFramework, for use in Niagara 4 or later.

The driver provides support for communication with Galaxy control panels using SIA Protocol Revision 1.05 and TCP through network. The driver's main purpose is to serve as gateway to Galaxy control panel for Tridium Supervisor 4 or JACE8000 stations (and OEM variations i.e. Centra Line, Trend, …).

The driver allows you to send commands to groups, zones and read their statuses, to control outputs and to read users and set their codes.

This help is also connected to the objects in Workbench / Coach NX and you can use the "Guide on target" function in the help or right menu to get more information.

Prerequisites for integration

1. Correctly installed modules with the driver, see chapter "Installation" for more details.
2. Active license and certificate for the driver on the target platform, see chapter "Licensing" for more details.
3. JACE 8000 or PC with Tridium Supervisor 4 must be connected to internet.

Installation

Source files are available for download from SAFECONTROL license web ((https://license.safecontrol.cz). Extract the **galaxy.zip** archive and copy all included *.jar files to your Niagara modules directory, which is typically **C:\Niagara\Niagara-4.x.xx.xx\modules**.

For correct behaviour it is necessary to install *.jar files on the client platform (Workbench PC) as well as on the target platform (JACE8000 or Supervisor).

Note: Close the Niagara Workbench after inserting all the modules in the folder. Next time you start the Niagara Workbench the driver will be loaded in Niagara Workbench and will be immediately available for use.

Licensing

Demo license is limited up to 90 days and purchased licenses are not time limited.

You can ask for license via SAFECONTROL license web (https://license.safecontrol.cz) or by sending e-mail to sales@safecontrol.cz. Purchased license will be generated via Niagara-Central license web where it will be available for download together with safecontrol.certificate file. You can also download license online in Niagara Workbench from license manager view, see picture bellow:

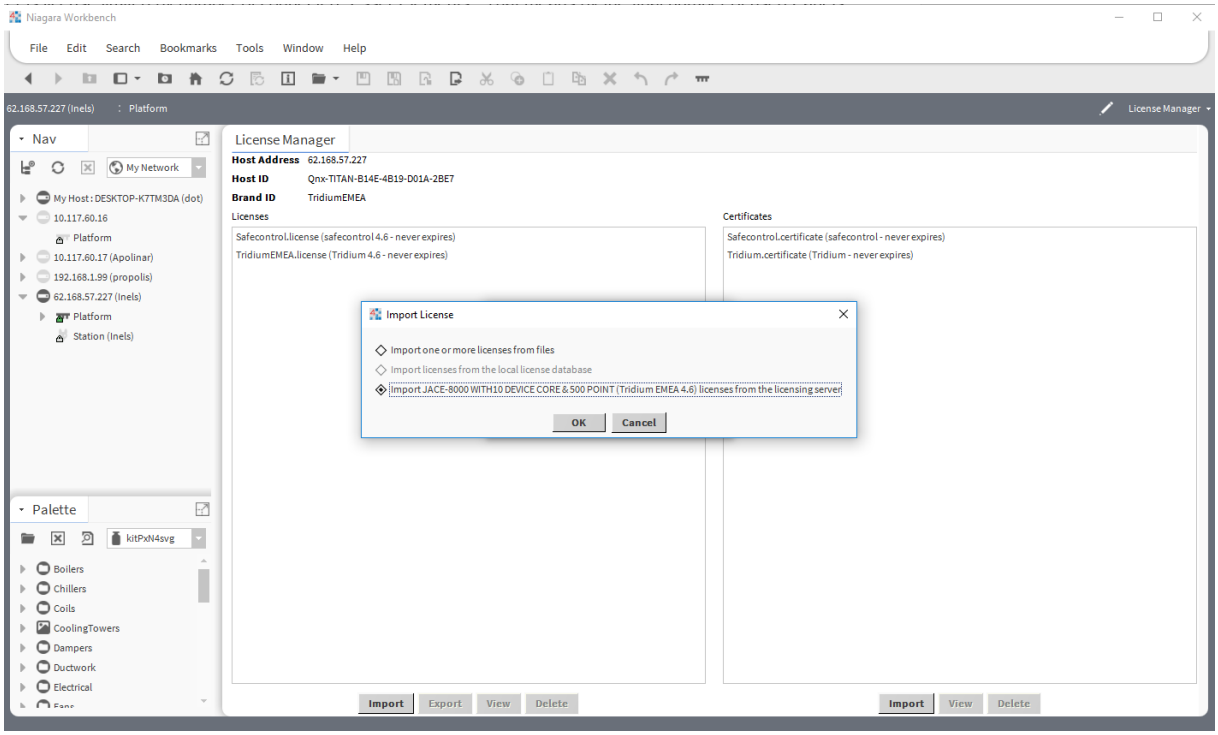

Figure 1: License import via License manager

Order codes

- DR-SC-GLX – Driver for Galaxy control panel

Basic config guide

1. Connect JACE 8000 or PC with Tridium Supervisor 4 to the internet.
2. Configure Galaxy control panel
3. Add new GalaxyNetwork to your Drivers node.
4. Correctly configure newly added GalaxyNetwork
5. Add GalaxyDevice under GalaxyNetwork
6. Add desired points under GalaxyDevice.

For more in-depth help read following chapters.

Setup guide

Configuring Galaxy control panel

For driver to function correctly the Galaxy control panel needs to be set up correctly.

Set SIA IP address to IP address of device where driver is running.

Set mode to direct access under Remote Access tab.

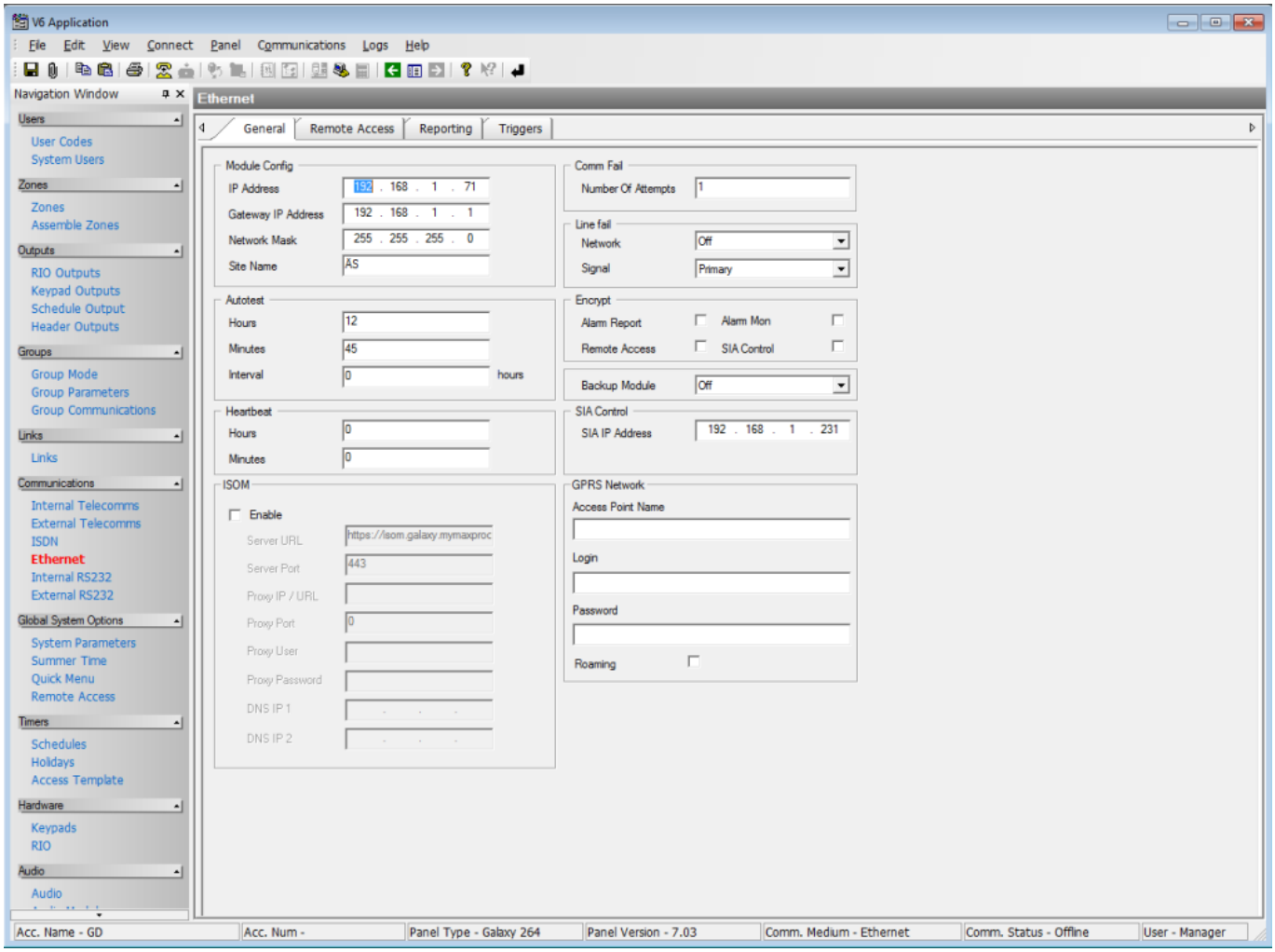

Figure 2: Galaxy panel SIA IP address configuration

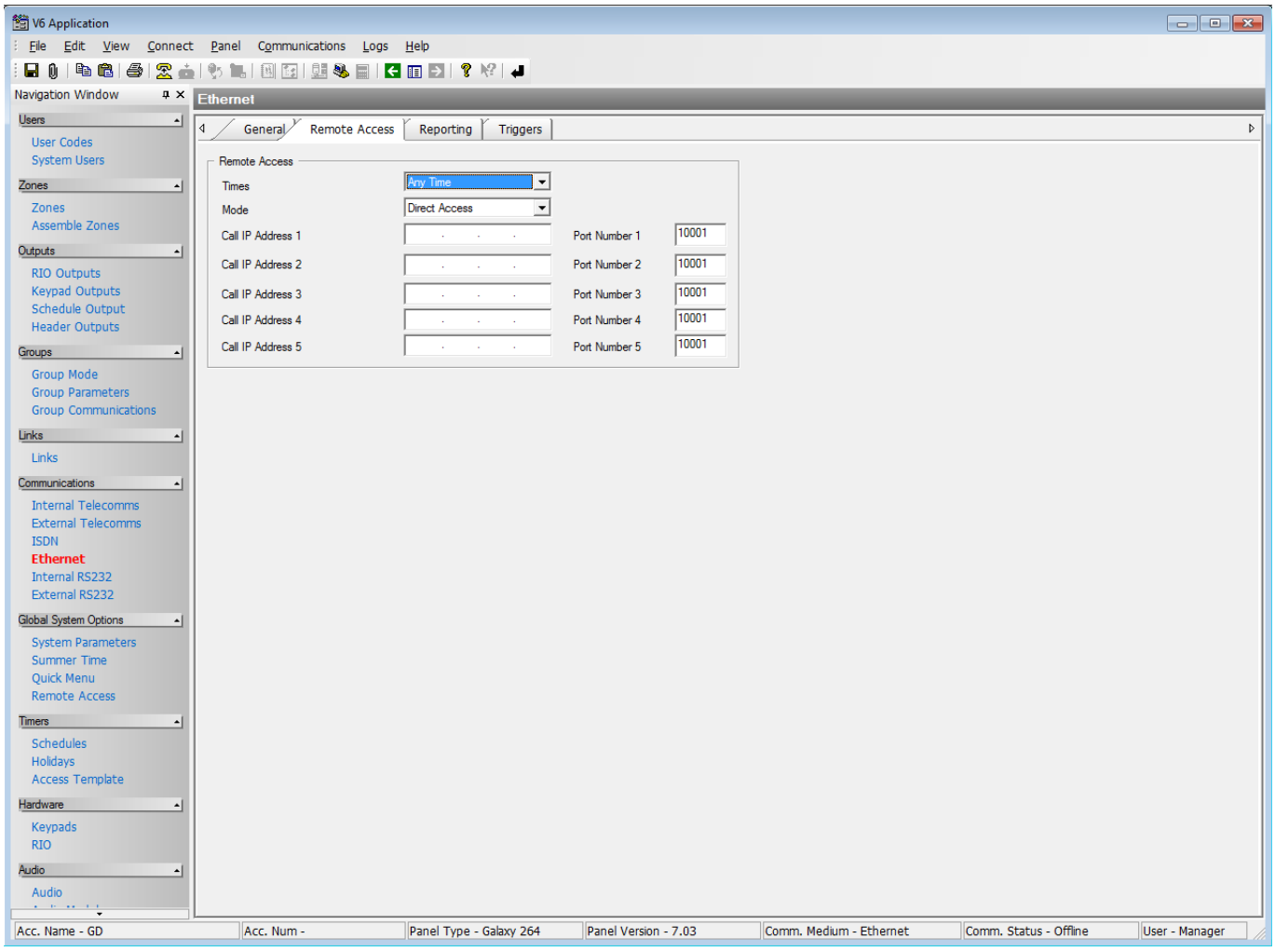

Figure 3: Galaxy panel mode configuration

Configuring connection

If your Galaxy Panel is connected to your JACE8000 via TCP connection, follow GalaxyTcpCommConfig setup section. If you are using direct connection to JACE8000 via RS232 cable, follow GalaxySerialCommConfig setup section.

GalaxyTcpCommConfig setup

1. Locate GalaxyTcpCommConfig in galaxy palette.
2. Click and drag GalaxyTcpCommConfig to GalaxyNetwork in the Drivers node.
3. Right click on GalaxyNetwork and select Property Sheet view.
4. Expand the GalaxyTcpCommConfig item by clicking small arrow on the left.
5. Enter the IP Address of the Galaxy Panel.
6. Click on the Save button.

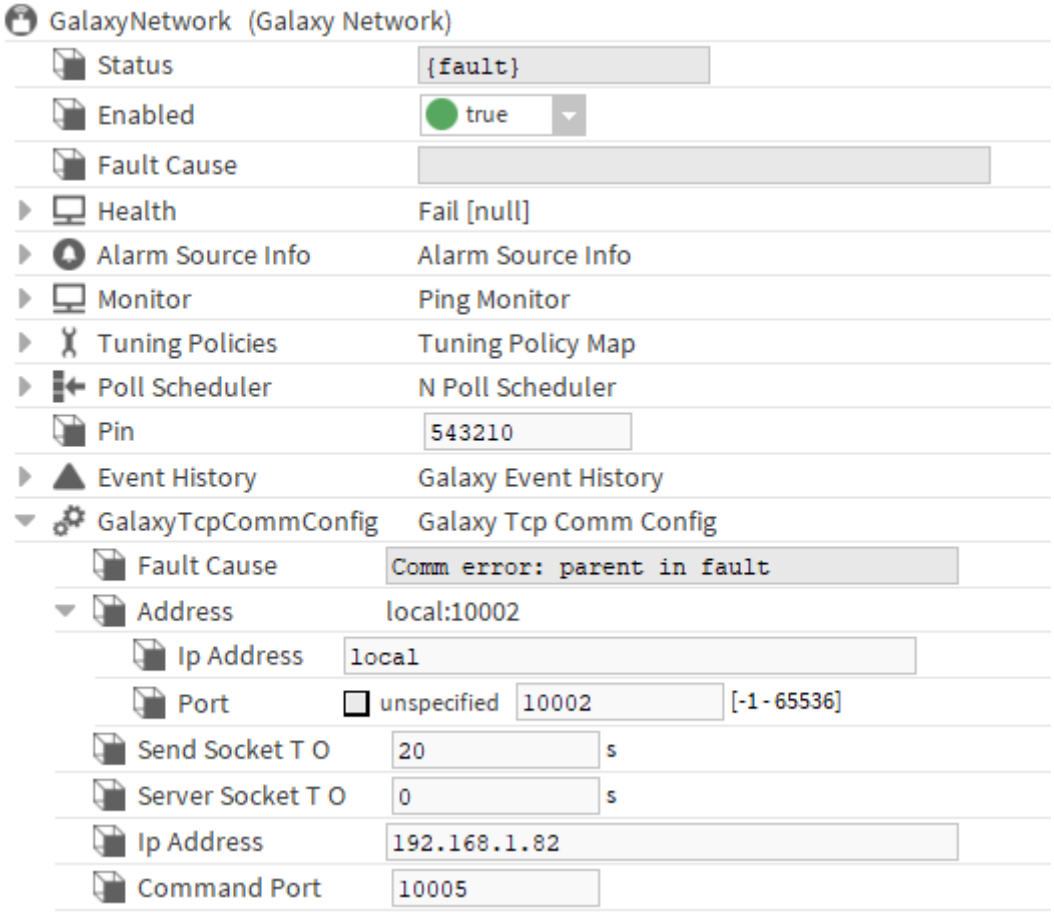

Figure 4: GalaxyTcpCommConfig under GalaxyNetwork

GalaxySerialCommConfig setup

1. Locate GalaxySerialCommConfig in Communication folder in galaxy palette.
2. Drag and drop GalaxySerialCommConfig to GalaxyNetwork in the Drivers node.
3. Right click on GalaxyNetwork and select Property Sheet view.
4. Expand the GalaxySerialCommConfig item by clicking small arrow on the left.
5. Correctly config parameters:
   - Port Name: Usually COM1
   - Flow Control: Leave set to default
   - Baud Rate: Baud9600
   - Data Bits: Data Bits8
   - Parity: None
   - Stop Bits: Stop Bit1
6. Click on the Save button.

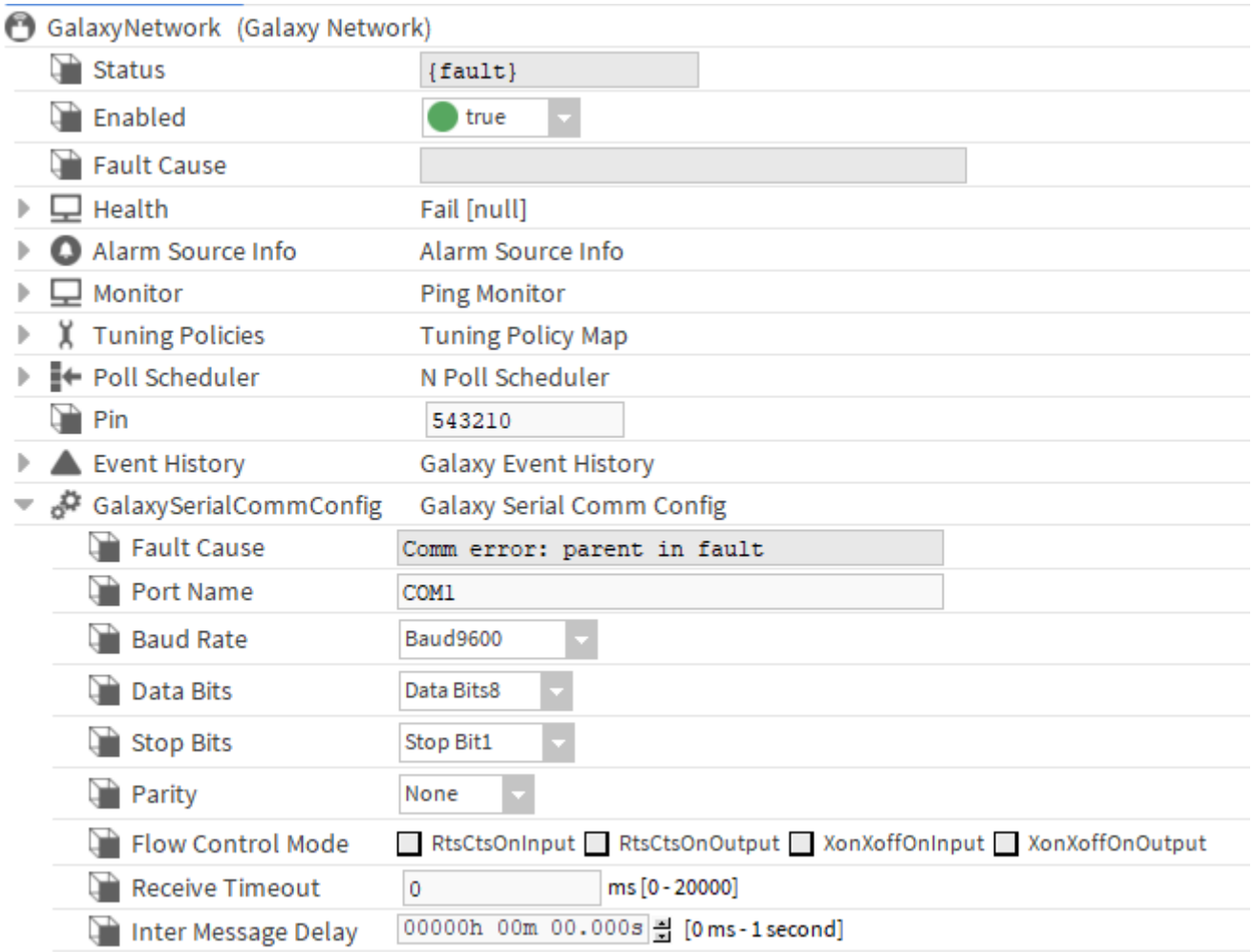

Figure 5: GalaxySerialComm under GalaxyNetwork

Adding new device

Open GalaxyDeviceManager and click New button. Proceed to add new GalaxyDevice. GalaxyDevice represents Galaxy control panel on GalaxyNetwork. It has four extensions – Groups, Zones, Outputs, Users.

Figure 6: Newly added GalaxyDevice

Groups extension

Groups extension contains Group Commands and Group Statuses. Commands and Statuses are all polled together at once. GroupsExtension uses normal poll frequency. You can create these points manually or by Create Groups action on GroupsExtension which will create all possible commands and statuses.

Group Command is Writable Enum point with 6 different states:

1. Unset
2. Set
3. Part Set
4. System Reset
5. Abort Set
6. Force Set

Group Status is Enum point with 3 possible values:

1. Normal
2. Alarm
3. Reset required

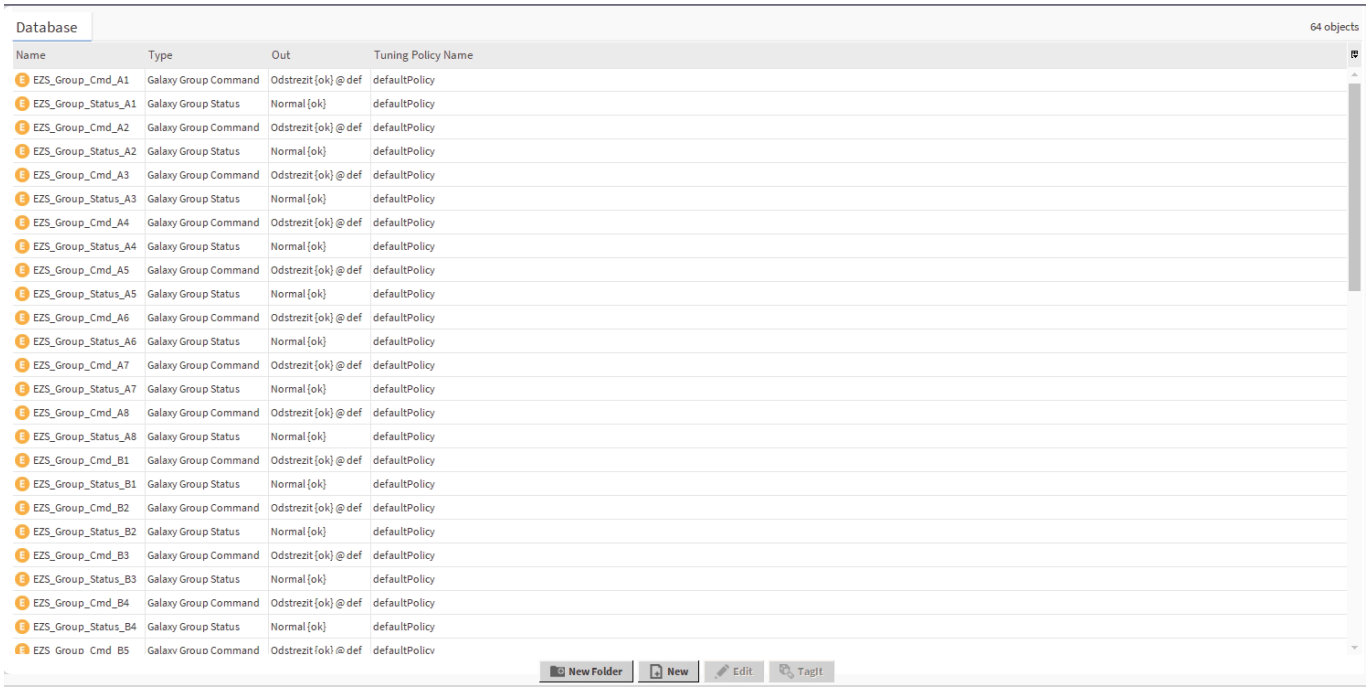

Figure 7: Group Commands and Statutes

Zones extension

Zone extension contains Zone Commands and Zone Statuses. Commands and Statuses are polled individually so it important to keep only those points which you need for fast polling times. You can create these points manually or by Create Zones action on ZonesExtension which will create all possible commands and statuses.

Zone Command is Writable Enum point with 2 possible states:

1. Unomit
2. Omit

Zone Status is Enum point with 9 possible states:

1. Tamper SC
2. Low Resistance
3. Closed
4. High Resistance
5. Open
6. Tamper OC
7. Masked
8. Tamper CV
9. Fault

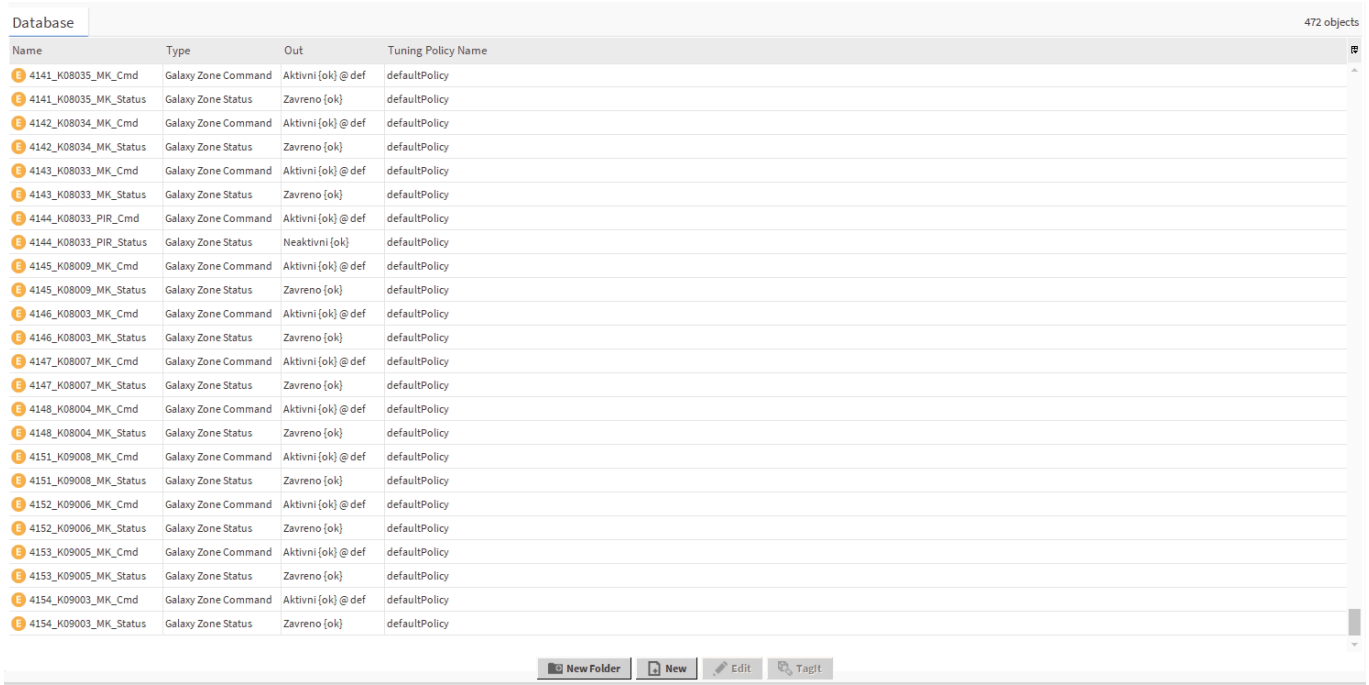

Figure 8: Zone Commands and Statutes

Outputs extension

Output extension contains Output Statuses. Statuses are all polled at once. Outputs extension uses normal poll frequency. You can create this point manually or by Create Outputs action on Outputs extension.

Output Status is Writable Boolean point with true or false value.

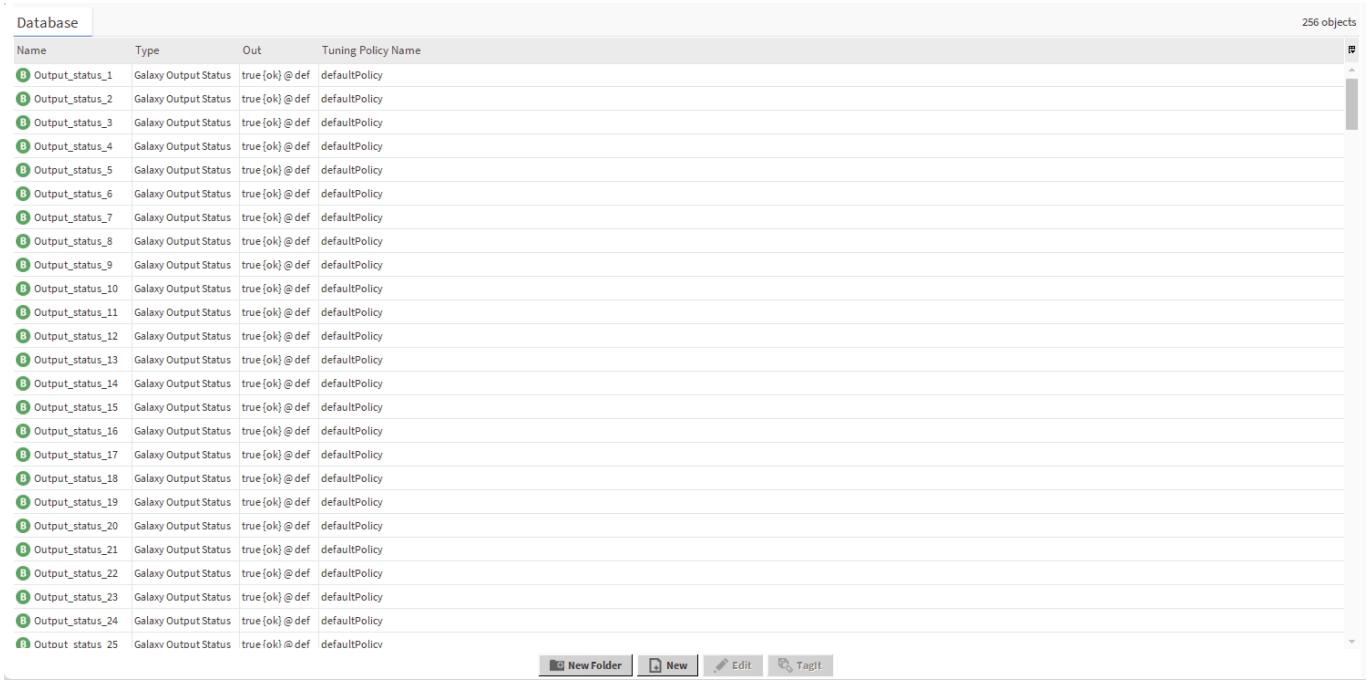

Figure 9: Output Statuses

Users extension

Users extension contains Users. To save bandwith info about users is only polled when GalaxyUserManager is opened. You can create these points manually or by Create Users action on Users extension. User will be prompted to enter id of first user and count, desired amount of users from that id will be then created. To change User name or PIN Code you can call Set Code action on GalaxyUser point. User will be prompted to enter code string and name string. You can enter new code or new name or both. New code can't be same to code of other user in database and user will be alerted about that.

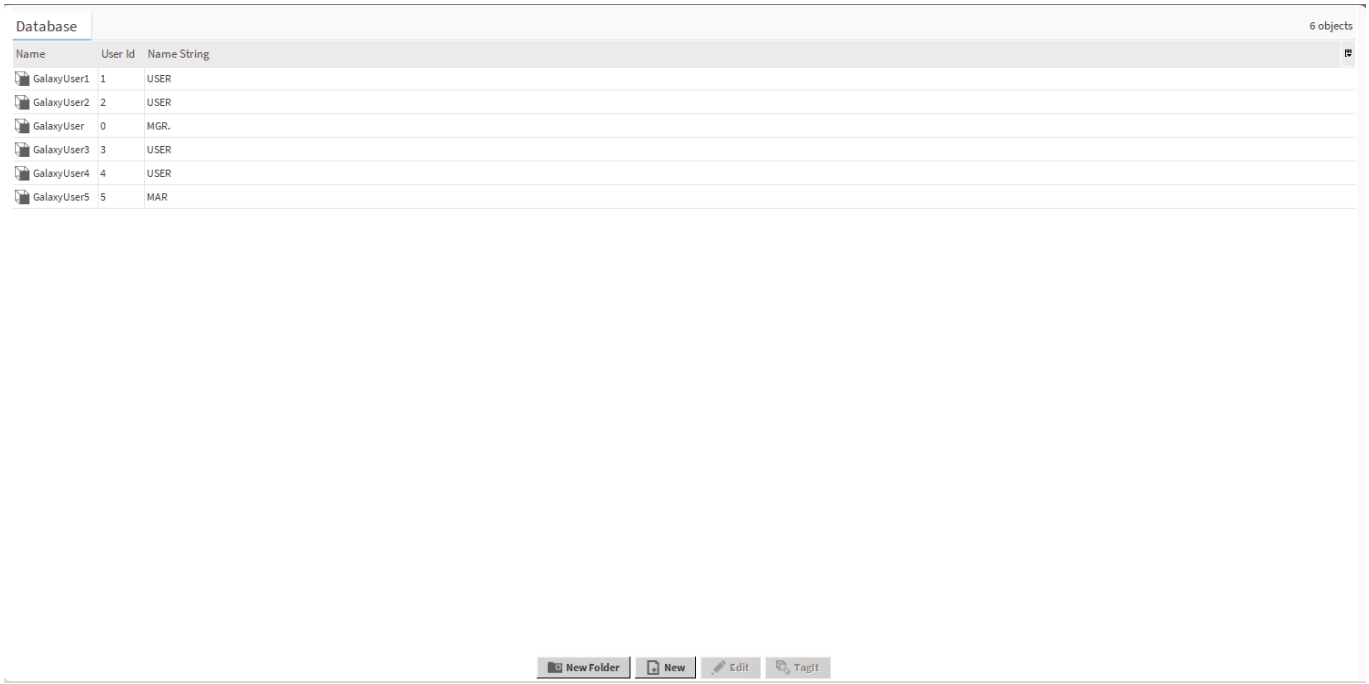

Figure 10: Galaxy Users