# Installation, Configuration and Commissioning Handbook

**AutroMaster V Presentation System**

AutroMaster-V-Installation-Configuration-Commissioning-Handbook-eng, Doc-1004122-3, 2022-09-20, Autronica Fire And Security AS

CE

# Table of Contents

# 1. About this handbook

This handbook provides information to successfully configure, install and commission the AutroMaster V Presentation System - Onshore Edition.

## 1.1 The reader

The handbook is intended for technical personnel who configure, install and commission AutroMaster V.

## 1.2 Reference documentation

The documentation consists of the following documents:

| Document Name | File name |
|---|---|
| System Description | AutroMaster-V-System-Description-eng |
| Installation, Configuration and Commissioning Handbook | AutroMaster-V-Installation-Configuration-Commissioning-Handbook-eng |
| Operator's Handbook | AutroMaster-V-Operator's-Handbook-eng |
| User Guide | AutroMaster-V-User-Guide-eng |
| Datasheet (system) | AutroMaster-V-System-Datasheet-eng |

# 2. Installing Linux

## 2.1 Requirement

AutroMaster requires Ubuntu 22.04 LTS, 64 bits. Autronica Fire and Security has prepared a version of Linux operating system that is compatible with AutroMaster V.

The downloaded Linux version is an iso file and must be provided by Autronica Fire and Security, as the standard Ubuntu Linux image does not contain the additional software packages required by AutroMaster V.

A bootable memory stick must be created from the iso file. There are many tools for generating bootable memory sticks from iso files. UNetbootin is an example of such a tool, and the first screendump shown in the next chapter is from an installation where a USB memory stick is created with UNetbootin.

Note that the screendumps that appear in the next chapters are from an installation using a completely clean harddisk.

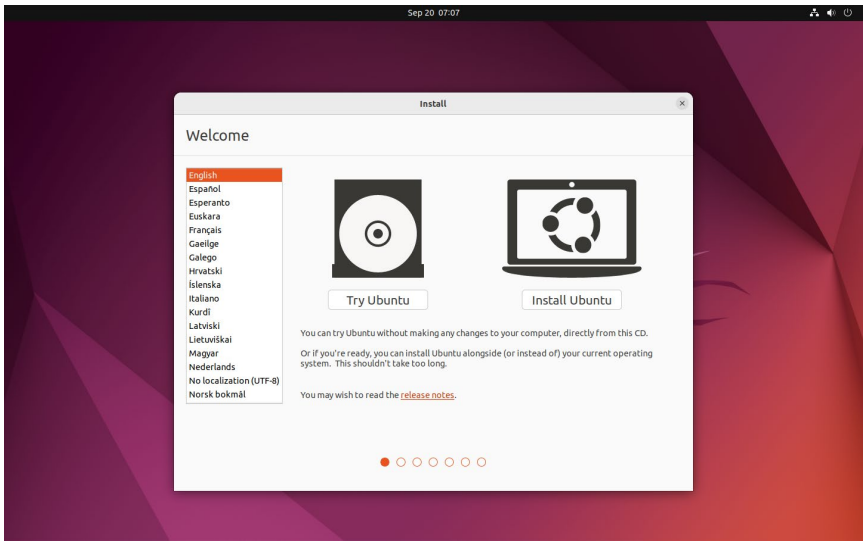
The description and screendumps in the next chapter are based on the following:

- The Linux version is provided by Autronica Fire and Security
- A bootable memory stick is used and created with UNetbootin
- Linux is installed on a completely clean harddisk
- Boot the computer in legacy mode, NOT UEFI mode

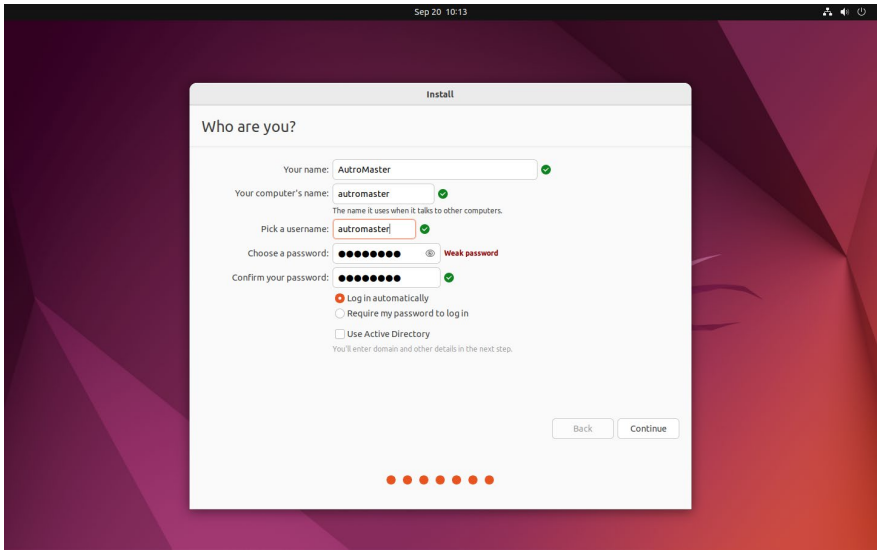
## 2.2 Installation

- Insert the installation media into your computer and power the computer up
- If the installation procedure does not start, check the computers BIOS settings to make sure that the installation media containing Linux, is the first unit on the boot list

  During first phase of the startup, the screen will go black and Ubuntu will be displayed, and the line “Default” will be highlighted.



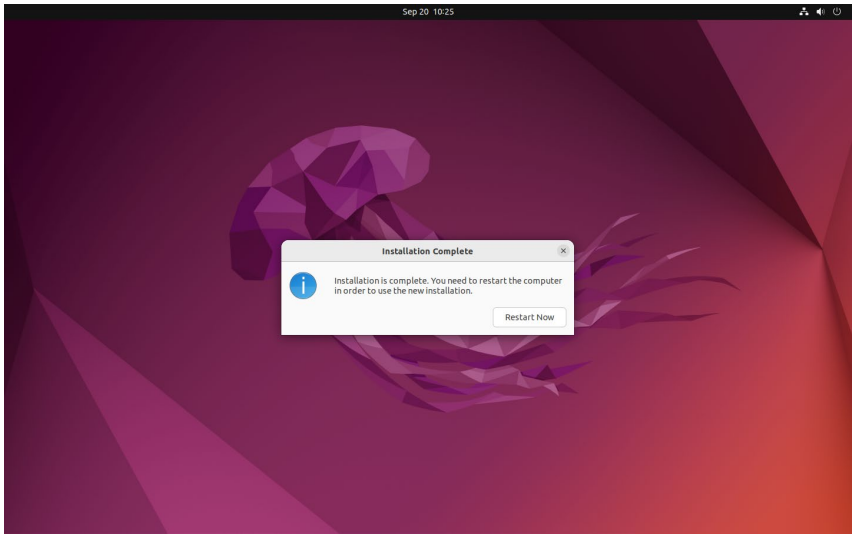

- Select “Install Ubuntu”
- Select your desired keyboard layout
- Choose “normal installation”.
- Choose “Erase disk and Install Ubuntu”, “Install now” and “Continue”.
- Choose your desired Time Zone, choose “Continue”.



- For user (account) information specify the following.

| | | Example |
|---|---|---|
| Your Name | Freely selected name of the user account | AutroMaster |
| Computer Name | Hostname of computer, must be unique all computers installed in the same network. | am-server1, am-client2. |
| Username | Username used for login. | autromaster |
| Password | Password for the account. (Please use the same password for all installation) | |
| Login | Login with password, or log in automatically | Select Log in automatically |

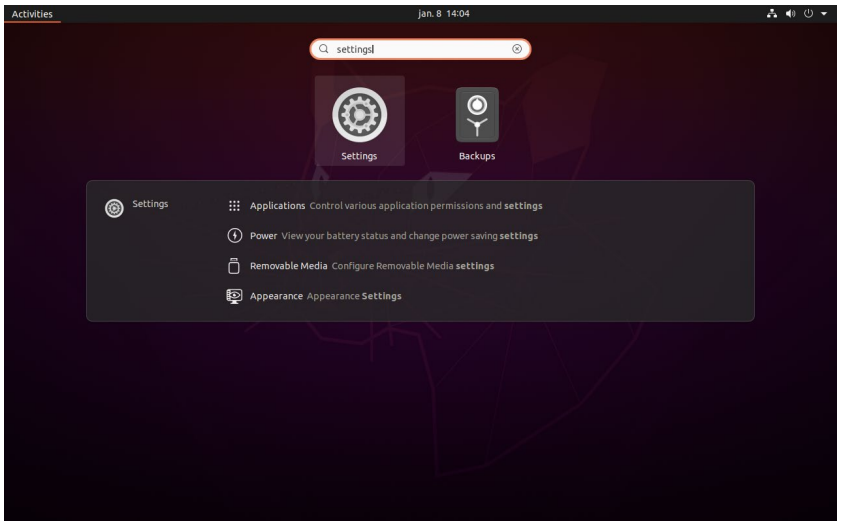
- When all information is entered, choose “Continue”




- Choose “Restart” to continue the installation.

# 3. System settings

- To access the available applications, from the Activities menu, choose the “Show Applications” icon  (see arrow in bottom left corner)

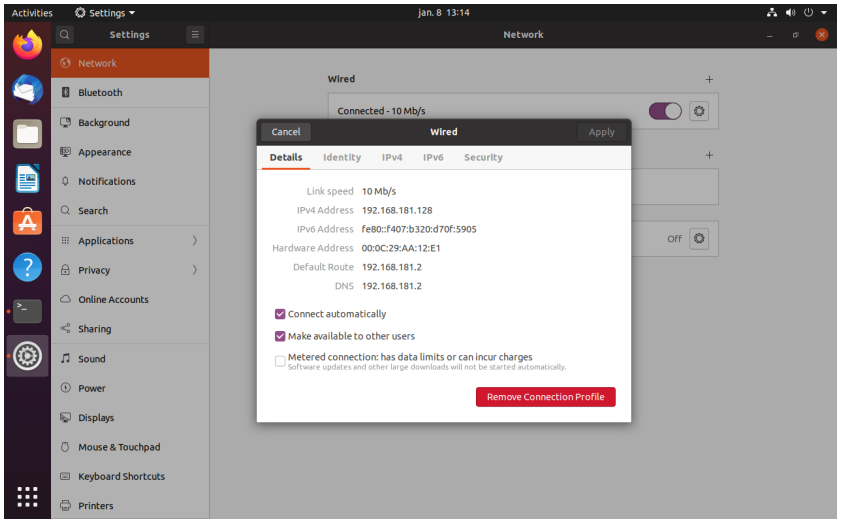



- Click the Settings icon to configure the operating system

Application in the “All Settings” window are self-explanatory, the most common ones will be described here.

# 3.1 Changing Network Configuration

Make sure that your network settings is correct, you will find this in the network section.




# 3.2 How to Install Network Time Protocol (NTP)

## 3.2.1 Introduction

AutroMaster V uses NTP which is intended to synchronize all participating computers to within a few milliseconds of Coordinated Universal Time (UTC). To install NTP, the following deb packages are requred (the packages are already installed on AutroMaster V):

ntp
ntp-doc
ntpdate
ntpstat
sntp

## 3.2.2 Setup

First disable timesyncd => sudo timedatectl set-ntp no
Check with timedatectl

**Setup NTP server (local server)**
Edit the file /etc/ntp.conf and add
server 127.127.1.0 prefer
(This is minimum configuration)

Comment or remove the existing server configuration.

pool 0.ubuntu.pool.ntp.org iburst
pool 1.ubuntu.pool.ntp.org iburst
pool 2.ubuntu.pool.ntp.org iburst
pool 3.ubuntu.pool.ntp.org iburst

# Use Ubuntu's ntp server as a fallback.
pool ntp.ubuntu.com

Restart NTP => sudo systemctl restart ntp

**Setup NTP client**
Edit the file /etc/ntp.conf and add name or ip address of the NTP server
server ntpserver
(This is minimum configuration)

Comment or remove the existing server configuration.

pool 0.ubuntu.pool.ntp.org iburst
pool 1.ubuntu.pool.ntp.org iburst
pool 2.ubuntu.pool.ntp.org iburst
pool 3.ubuntu.pool.ntp.org iburst

# Use Ubuntu's ntp server as a fallback.
pool ntp.ubuntu.com

Restart server => sudo systemctl restart ntp

**Synchronize time for the first time**
NTP will not start synchronizing the clock if there is a big difference between the server and client.
Stopp NTP with command sudo systemctl stop ntp
Update time with command sudo ntpdate ntpserver
Replace ntpserver with the hostname or IP-address of your NTP server.
Start the NTP with command sudo systemctl start ntp
Reboot the AutroMaster.

Wait some minutes (up to 20) after reboot and check if the clock synchronization has started.

**Usefull commands to check the status of the NTP syncronization**
**ntptrace**

Use the command ntptrace and you should see two lines, own NTP server and remote NTP server.
If the synchronization have not started, you will only see own NTP server

```
autromaster@amv-perf:~$ ntptrace
localhost: stratum 7, offset -0.000297, synch distance 0.019241
ntpserver: stratum 6, offset 0.000000, synch distance 0.011751
```

**ntpq**
Use the command **ntpq -p**.

```
autromaster@amv-perf:~$ ntpq -p
     remote           refid      st t when poll reach   delay   offset  jitter
==============================================================
*ntpserver      LOCAL(0)        6 u   46  128  377    0.495   -0.080   0.143
```

Use the command **ntpq -c rv**

```
autromaster@amv-perf:~$ ntpq -c rv
associd=0 status=0615 leap_none, sync_ntp, 1 event, clock_sync,
version="ntpd 4.2.8p12@1.3728-o (1)", processor="x86_64",
system="Linux/5.8.0-36-generic", leap=00, stratum=7, precision=-24,
rootdelay=0.495, rootdisp=22.567, refid=172.16.1.94,
reftime=bdd211d2.8228a855  Fri, Dec  1 2000 13:02:26.508,
clock=bdd213d9.02190e21  Fri, Dec  1 2000 13:11:05.008,
peer=40044, tc=8,
mintc=3, offset=-0.080090, frequency=5.467, sys_jitter=0.000000,
clk_jitter=0.107, clk_wander=0.031
autromaster@amv-perf:~$
```

Look for **leap_code**

| Code | Message | Description |
|---|---|---|
| 0 | leap_none | normal synchronized state |
| 1 | leap_add_sec | insert second after 23:59:59 of the current day |
| 2 | leap_del_sec | delete second 23:59:59 of the current day |

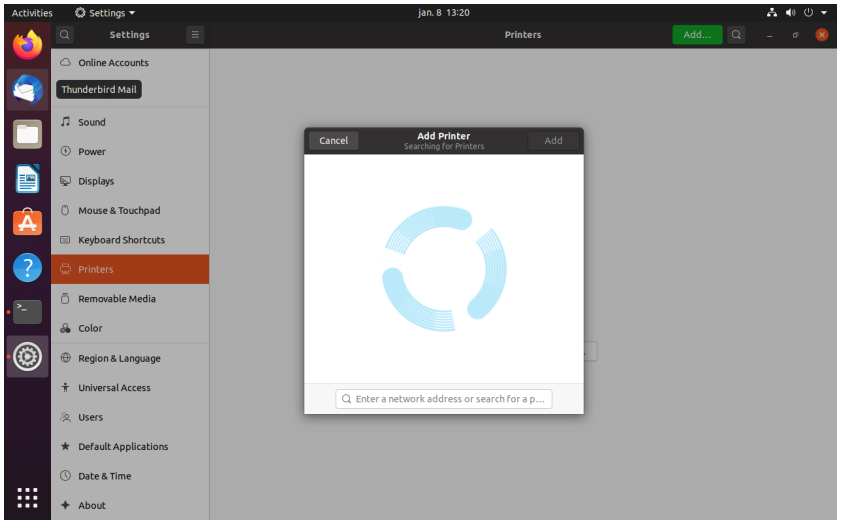
| Code | Message | Description |
|---|---|---|
| 3 | leap_alarm | never synchronized |

**ntpstat**
Use the command **ntpstat**

autromaster@amv-perf:~$ ntpstat
synchronised to NTP server (172.16.1.94) at stratum 7
  time correct to within 20 ms
  polling server every 256 s

## 3.3 Adding Printer

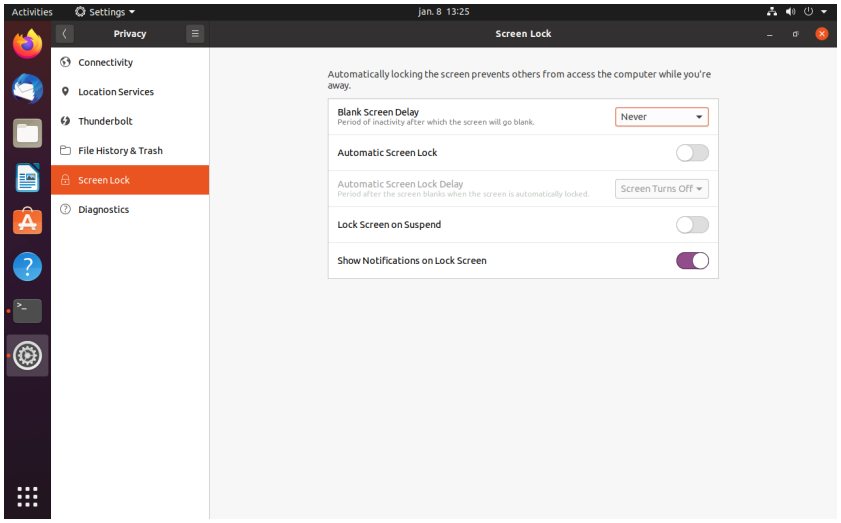
Adding a printer can be done from the “Printer” section.




## 3.4 Disable screen lock

In the “Privacy/Sceen lock” settings.

- Choose “Never” for Blank screen
- Turn off “Automatic Screen lock”
- Turn off “Lock screen on suspend”



# 4. Installing AutroMaster V

## 4.1 Introduction

AutroMaster is distributed as two files, one file for the server and one file for the client.

The file names of the distributed files are as follows (x.x.x is the version number):

- AutroMasterV-Server- x.x.x.deb
- AutroMasterV-Client-x.x.x.deb

The file format is the Debian package format which is widely used for distributing and installing software for many LINUX distributions.

## 4.2 Installation / Upgrade

- Copy the two AutroMaster installation files to your harddrive

The directory /tmp is a suitable location.
Depending on the installation (server, client or combined), install AutroMaster by executing the following commands in a command window:

For a computer intended to be a Server only:

- Type: sudo dpkg -i AutroMasterV-Server- x.x.x.deb
  (enter the password if prompted)

For a computer intended to be a Client only:

- sudo dpkg -i AutroMasterV-Client-x.x.x.deb
  (enter the password if prompted)

For a computer intended to be a combined Server and Client:

- Use the commands for both the Server and Client
- After installation, reboot the computer.

## 4.3 Installing AutroMaster V on Custom Hardware

AutroMaster V can be purchased preinstalled from Autronica Fire & Security. This is the recommended and by far easiest way of setting up a AutroMaster V system.

If you need to run AutroMaster V on your own or custom hardware, the description below (1-5) is the minimum specification that we recommend using.

Note: Autronica cannot support you on any installations issues related to your custom hardware, and will not make any warranties that the software will run on your custom hardware.

If your AutroMaster V installation relies on certifications obtained by Autronica, these will not be valid on custom hardware.

Running AutroMaster V as a virtual machine is also possible, and is also considered custom hardware.

AutroMaster V runs on Ubuntu LTS. Thus, hardware must be compatible with the current Ubuntu LTS version.

For information on minimum requirements, refer to System Description.

## 4.4 Easy Upgrade Procedure

When upgrading to a version that do not need an OS upgrade, you can use the easy upgrade procedure.

The easy upgrade procedure is performed by using a USB memory stick with the necessary files (AutroMasterV-Server- x.x.x.deb and AutroMasterV-Client-x.x.x.deb).

The following is required:

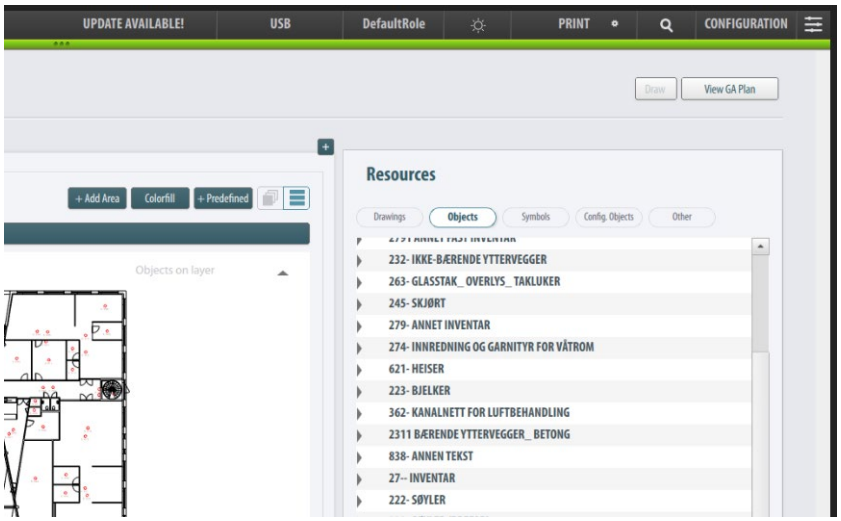
- USB stick with a debian package (AutroMasterV-Server- x.x.x.deb and AutroMasterV-Client-x.x.x.deb)
- Access to “Service” level

Perform the following steps:

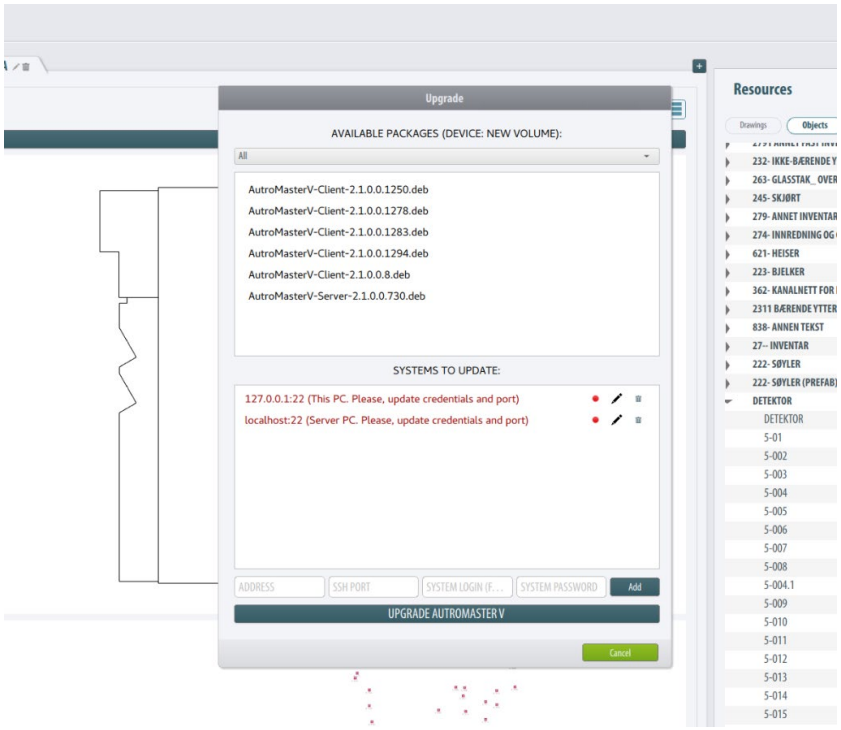
- Enter “Service” level
- Insert the USB memory stick into the USB drive

Wait until information about the available update is available.

- When it is displayed, click the update and a window with available deb packages will appear



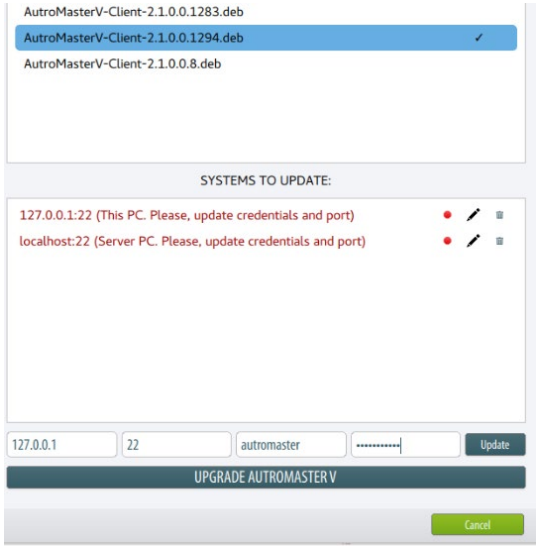

After clicking the ‘update available!’ field, a box with available updates is displayed.



The user can filter out a desired package type (e.g. client, server) by clicking the dropdown menu under ‘Available Packages’ in the upper part of the field.

In case the client is to be updated, the Server PC option can be deleted by clicking the trash can icon.

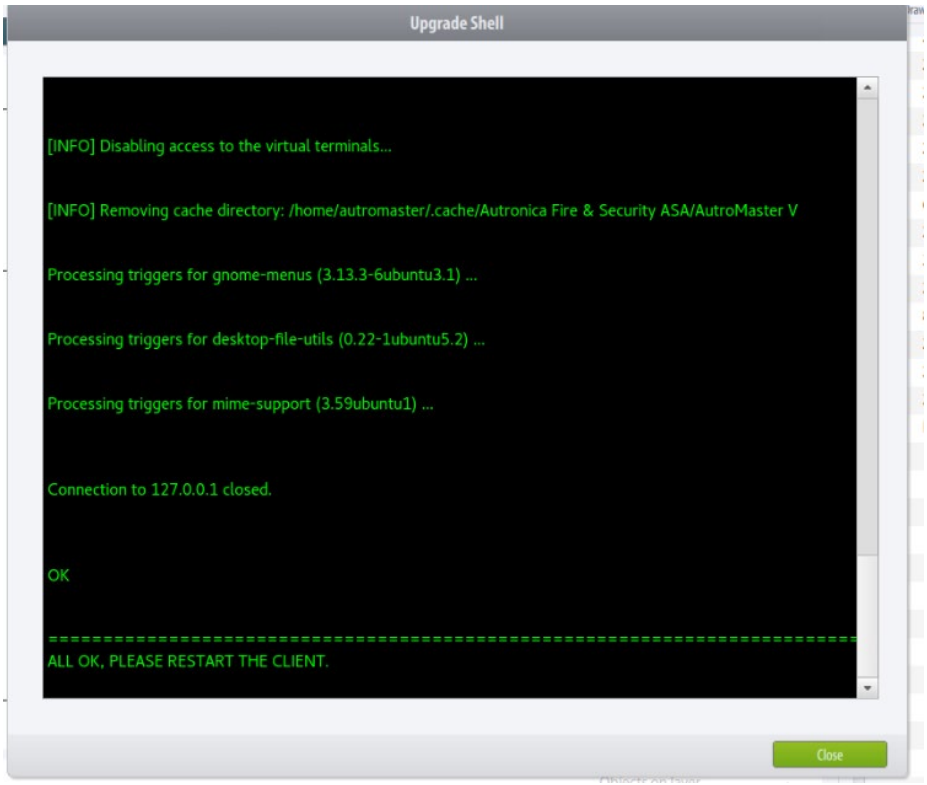
- After deleting the ‘Server’, provide the credentials of the sudoer for the PC by clicking the pen icon and filling out the required fields.
- To save the data, click “Update”




- To upgrade AutroMasterV, select the desired package and click “UPGRADE AUTROMASTER V”

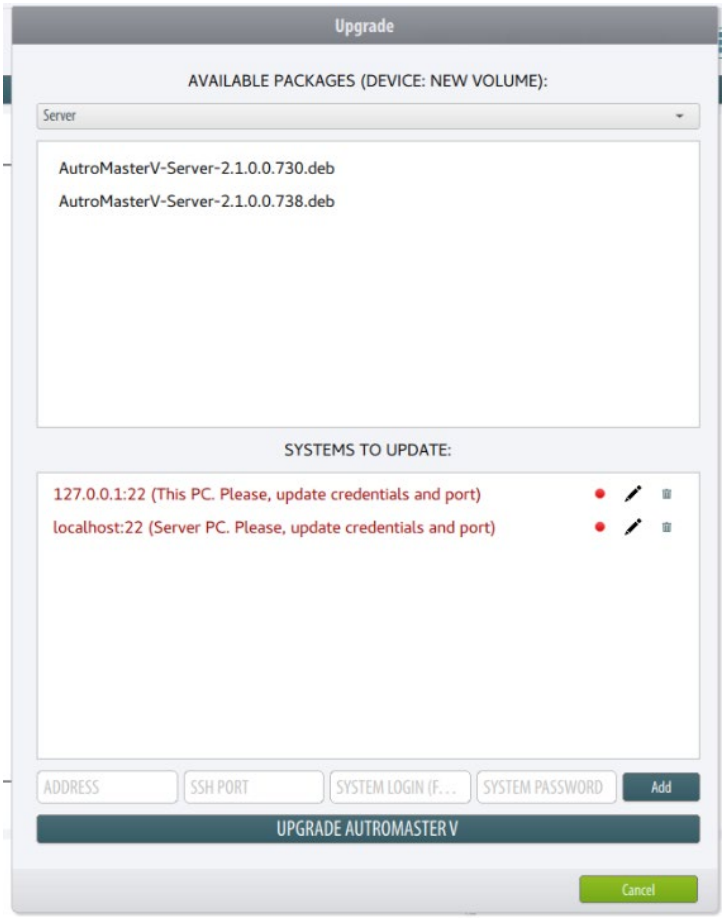
Attention: during the upgrade the AutroMasterV’s cache is cleared, so a restart of the AutroMaster V is essential for the proper operation of the application.

After the upgrade is finished, the info in the terminal window should provide a following information:


Upgrade Shell
[INFO] Disabling access to the virtual terminals...
[INFO] Removing cache directory: /home/autromaster/.cache/Autronica Fire & Security ASA/AutroMaster V
Processing triggers for gnome-menus (3.13.3-6ubuntu3.1) ...
Processing triggers for desktop-file-utils (0.22-1ubuntu5.2) ...
Processing triggers for mime-support (3.59ubuntu1) ...
Connection to 127.0.0.1 closed.
OK
ALL OK, PLEASE RESTART THE CLIENT.
Close

Server upgrade:

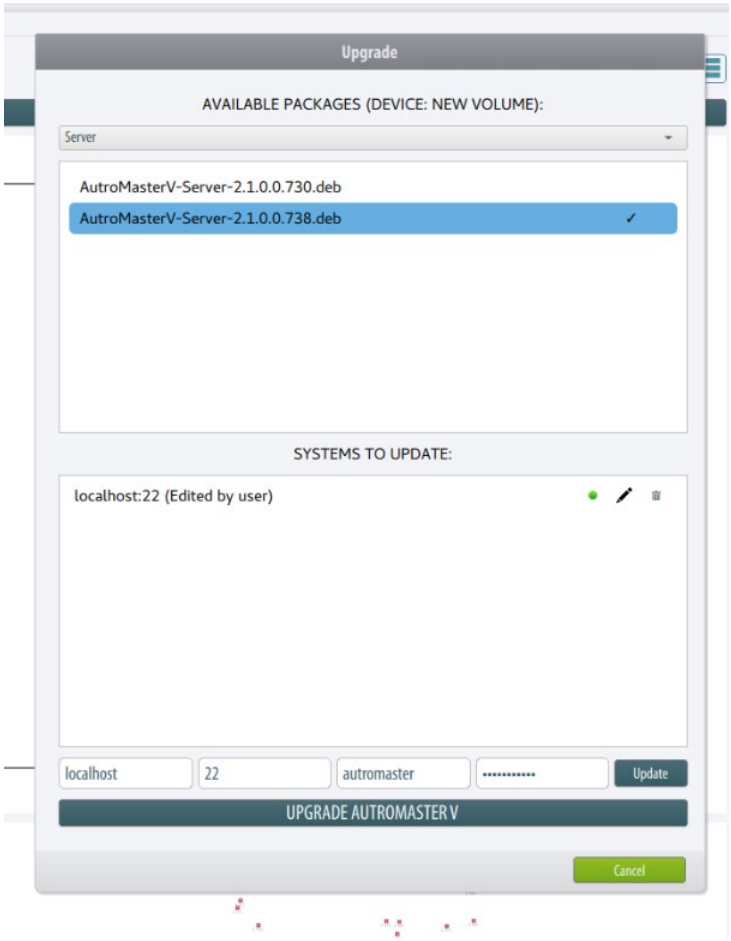
After clicking “Update Available!”, the user may choose listing all possible server packages that are on the USB (not mandatory).




“This PC” should be removed by using the trash can icon.

- To provide data for the local host (Server PC), click the pencil icon and provide the login credentials for the sudoer, then press update.

- To upgrade the Server of AutroMasterV, choose the desired AutroMasterV-Server deb package and click ‘Upgrade AutroMaster V’




After the update is complete, the user will be asked to perform a restart of the Client.

The restart is necessary for the proper functioning of the application.

# 5. Preparations Before Configuration

## 5.1 AutoCAD Drawings

### 5.1.1 Preparations

AutoCAD drawings must be prepared in AutoCAD and copied to a USB memory stick.

The drawings must meet certain criteria with respect to the location of the detectors/loop units, the tag name of each detector/loop unit and the layer control.

For the AutroMaster to properly import AutoCAD files (.dwg files), certain conventions need to be followed.

- The location (attribute/position) of each detector/loop unit must be indicated
- When inserting blocks in AutoCAD drawings, make sure that the block insertion point is in the center of the symbol
- Be careful of the AutoCAD insertion point when placing the detectors, avoid having the insertion point outside the floor/deck.
- Dwg files must be saved in Model View. You cannot assign names to AutoCAD standard layouts
- Before importing AutoCAD drawings to AutroMaster, make sure that the drawings only include the Model View. If necessary, remove all other named views
- In order to achieve automatic detector addressing, the attribute value for a specific symbol (block) must be identical to the tagname of the corresponding unit in the configuration files (AutroSafe and Autroprime) see next chapter
- Split the drawing in layers, the detectors should at least be on an own layer.
- Avoid having more than one floor / deck in the same drawing.
- Use standard names for metadata that shall be imported, like TAG1 or CAT, which will simplify the import of the drawing during commission.

### 5.1.2 Relationship Between a Symbol (Block) in AutoCAD and a Unit in Configuration Files

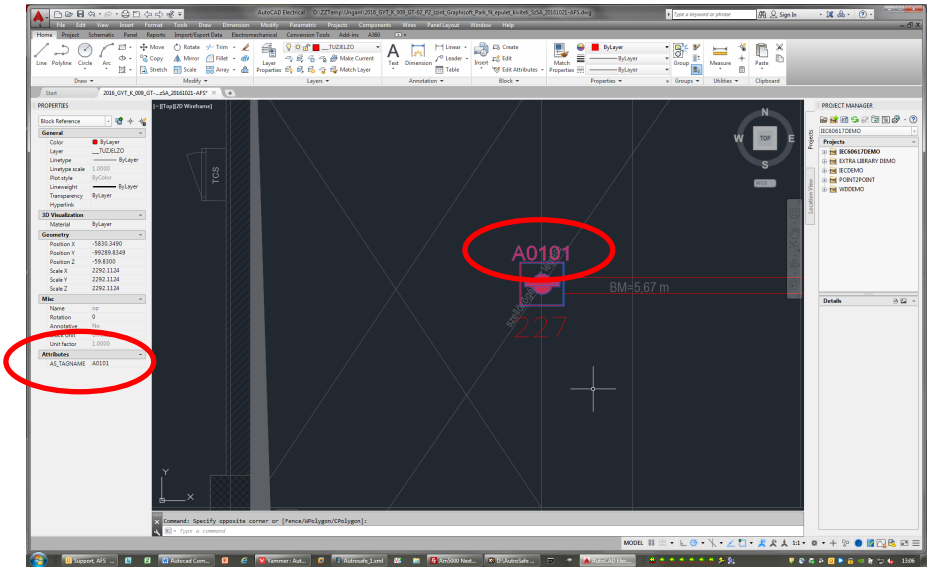
The AutroMaster system uses a symbol's (or block's) attribute in AutoCAD drawings to identify the corresponding unit's tagname in the configuration files. In this way, automatic detector addressing is achieved.

An attribute consists of an attribute name (for example, AS_TAGNAME) and an attribute value (for example A0101). The attribute value for a specific symbol (block) must be identical to the tagname for this unit in the configuration files (AutroSafe and Autroprime).

The attribute name for AutroSafe is AS_tagname.
The attribute name for Autroprime is AP_tagname.
The attribute name for Gessler is gessler_tagname.

### 5.1.3 Example

In the example below, AutroMaster is to be connected to an AutroSafe system. The symbol's attribute value is A0101 in AutoCAD, identical to the tagname for this unit in the AutroSafe configuration files.
All detectors must be added on a dedicated layer (symbol layout is not critical).



## 5.2 Configuration Files (AutroSafe and Autroprime)

The necessary configuration files (xml.) must be prepared and generated from the fire detection system (xml. files from the AutroSafe configuration tool or Config.xml file from the Autroprime fire detection panel) and copied to a USB memory stick.
The files must then be copied to the AutroMaster disk directory.
These include:

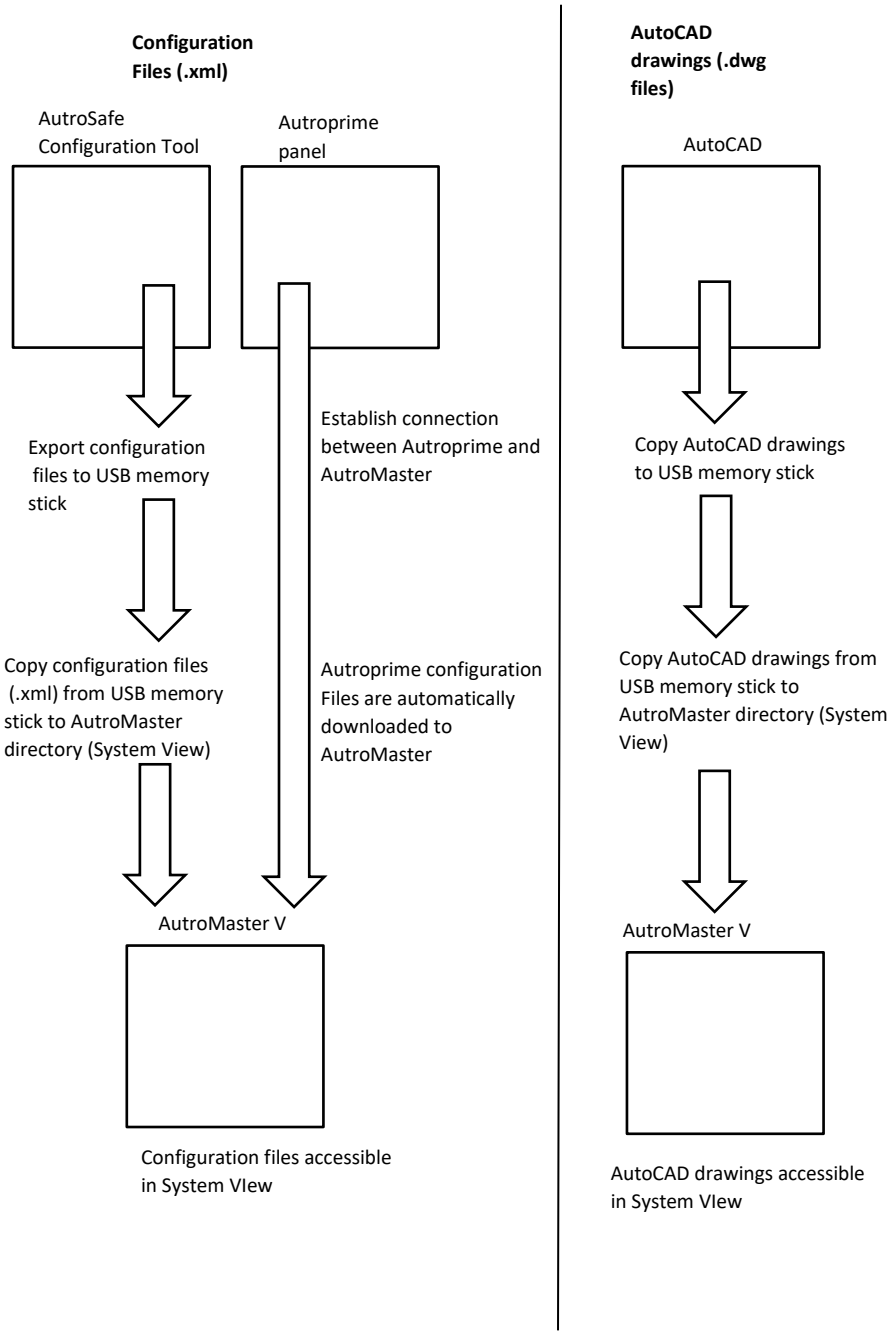
- autrosim.xml*, including information on points, AZs, DZs, OZs, Controll outputs, FADs
- classreason.xml, including information on fault text and descriptions

* Note that for AutroSafe versions earlier than 4.7.1, this file was named *autrosim.xml.* In AutroSafe version 4.7.1 and more recent versions, the file is named Config_Autronica_Fire_and_Security_1.2.2.xml (default). If the site name is changed to, for example, General Hospital, Hicksville, the file will automatically be renamed to Config_General_Hospital_Hicksville_1.2.2.xml.

# 6. Overview File Handling

The overview below shows the handling of the following files before the first time startup:

- Configuration files from the fire detection system
- AutoCAD drawings prepared in AutoCAD



# 7. First Time Startup of AutroMaster V

## 7.1 Logging In

Enter the required information in the login window:

- Type the name or the IP address of the host
- Type the port number (10002)
- Type the user name and password (the default user name is “default”, and the default password is “user”)
- Click OK

## 7.2 Uploading Configuration Files

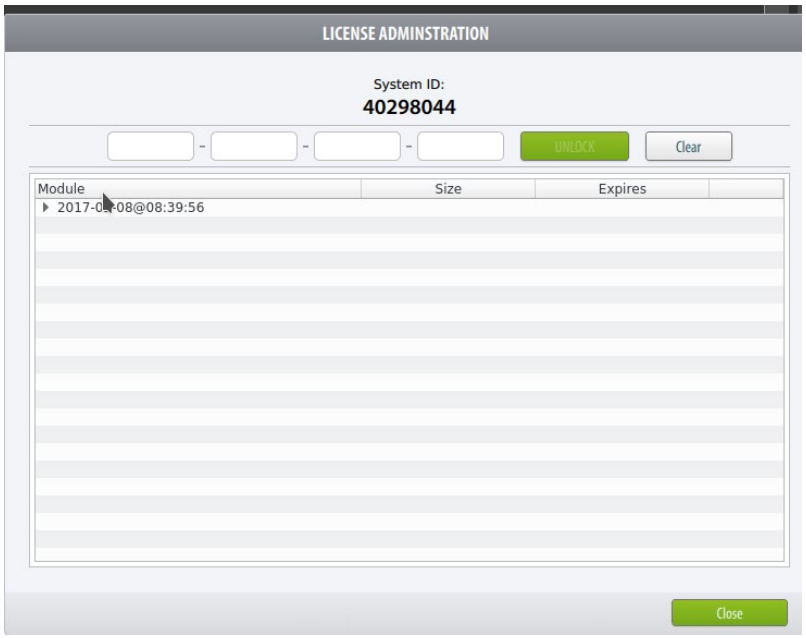
When starting up AutroMaster V the first time, the user will be prompted to start a new system (default) or upload an existing system (Master Configuration file).


An initial default system startup will include default system custom files only. The client role must be configured (see chapter 8).
An existing system (Master Config) will in most cases include all files; both configuration files, AutoCAD drawings and system custom files (symbols, reports, language, etc.). The client roles are already configured in an existing system.

## 7.3 AutroMaster V License Registration

AutroMaster V is delivered with a software license key, consisting of a series of numbers and/or letters. This software license key certifies that the copy of the software is original, and is required in order to use the system.

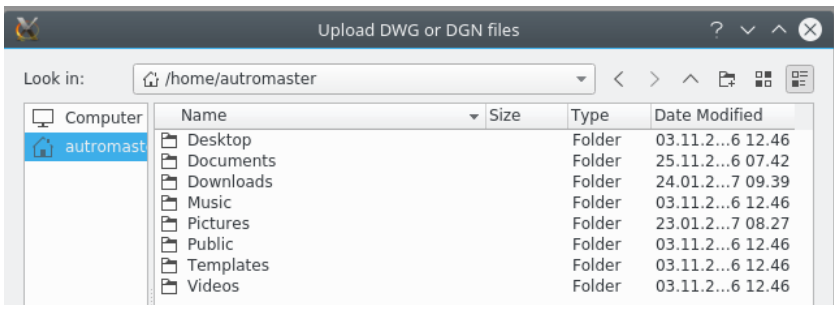
- From the SERVICE menu, click License Administration




- Verify the System ID
- Enter the license key
- Click the UNLOCK button
- Click the Close button

## 7.4 Copying AutroSafe Configuration Files to AutroMaster Disk Directory

If AutroSafe is used, the following applies:
When an AutroMaster system is to be configured or modified, the necessary AutroSafe configuration files (Config_Autronica_Fire_and_Security_1.2.2.xml* and classreason.xml) must be copied from the USB memory stick to the AutroMaster disk directory.




* Note that for AutroSafe versions earlier than 4.7.1, this file was named *autrosim.xml.* In AutroSafe version 4.7.1 and more recent versions, the file is named Config_Autronica_Fire_and_Security_1.2.2.xml (default). If the site name is changed to, for example, General Hospital, Hicksville, the file will automatically be renamed to Config_General_Hospital_Hicksville_1.2.2.xml.

## 7.5 Copying AutoCAD Drawings to AutroMaster Disk Directory

If a new system is to be configured or modified, the necessary AutoCAD drawings (.dwg files) must be copied from the USB memory stick to the AutroMaster disk directory.

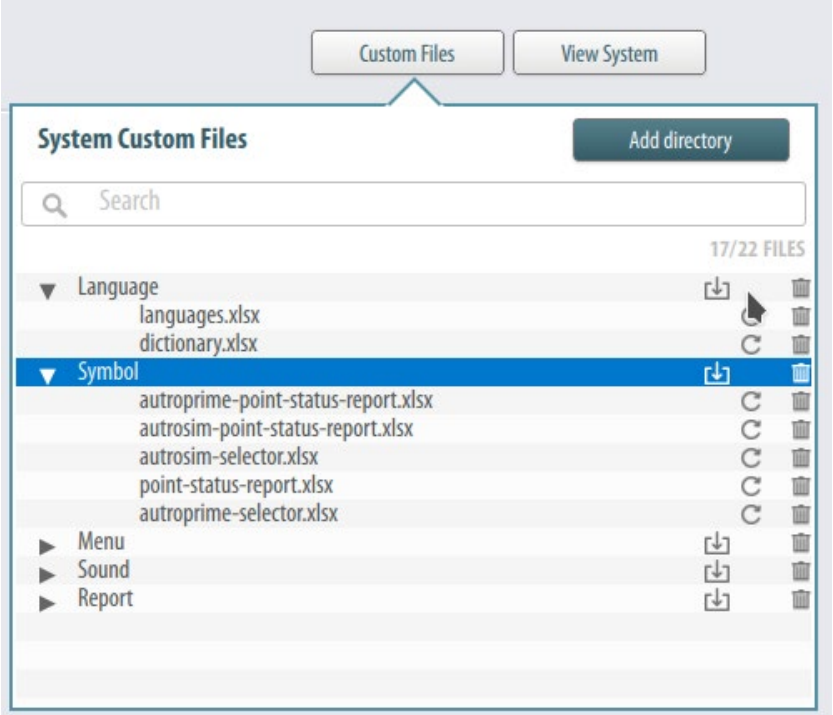
# 7.6 System Custom Files (Excel files)

## 7.6.1 Introduction

Default system custom files (Excel files) are already uploaded during the first startup of AutroMaster, including:

- Language
- Symbol
- Menu
- Sound
- Report

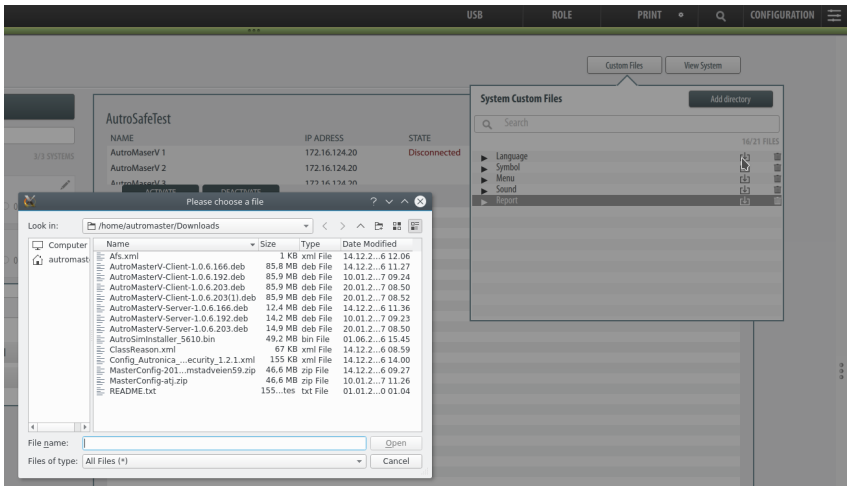
- To access SYSTEM view, click the SYSTEM button in the left vertical bar.
- To view all existing directories, the click the Custom Files button



### 7.6.2 Viewing System Custom Files

- In SYSTEM view, to view system custom files, click the directory in question (for example, Report), then click the browser button to the right

A browser will appear, showing all files in the selected directory.




- Select the file in question, then click Open

If files are missing, these files must be added to the directory in question.

- To add a new directory, click the Add directory button, then type in a directory name and click the Create button
- To search for specific files, enter the file name in the Search field

### 7.6.3 Modifying and Uploading System Custom Files

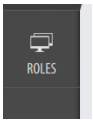
System custom files can be modified and uploaded at any later point.

- To modify a system custom file, extract the file from the MasterConfig, remove the number prefix from the filename.
- Use “localc” to modify the configuration file and use the Custom Files button in the System View to upload the modified file
- Make sure to delete the old one before uploading the modified file to the relevant category

# 8. Configuring Client Roles

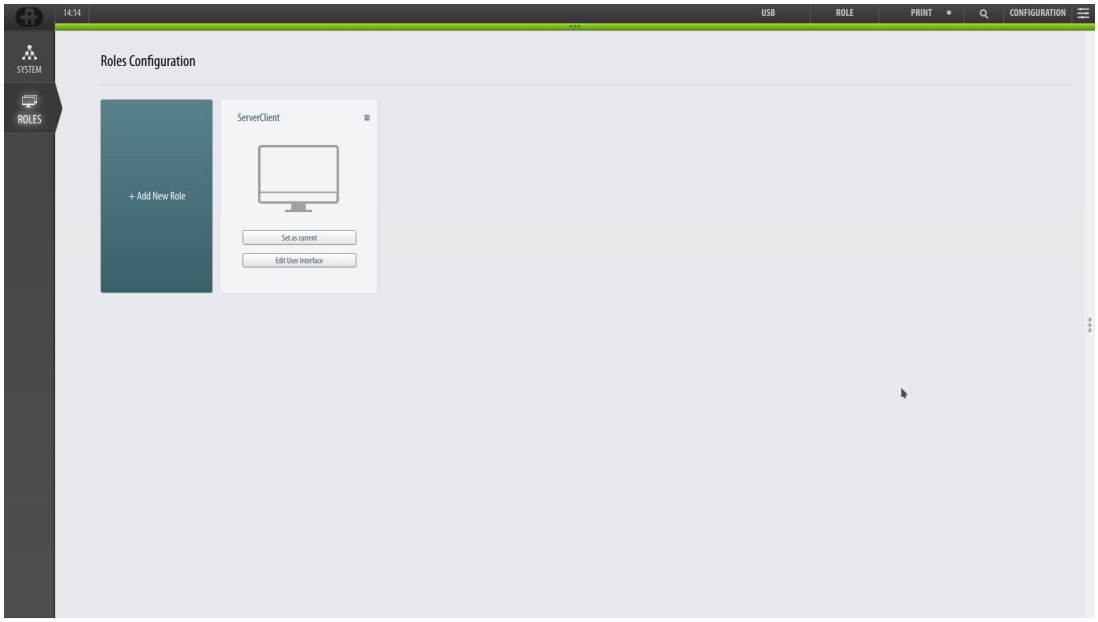
## 8.1 Client Role

A Client Role defines all properties and the layout of a Client, including the type/number of buttons in the left vertical bar and the status views in the horizontal top bar.



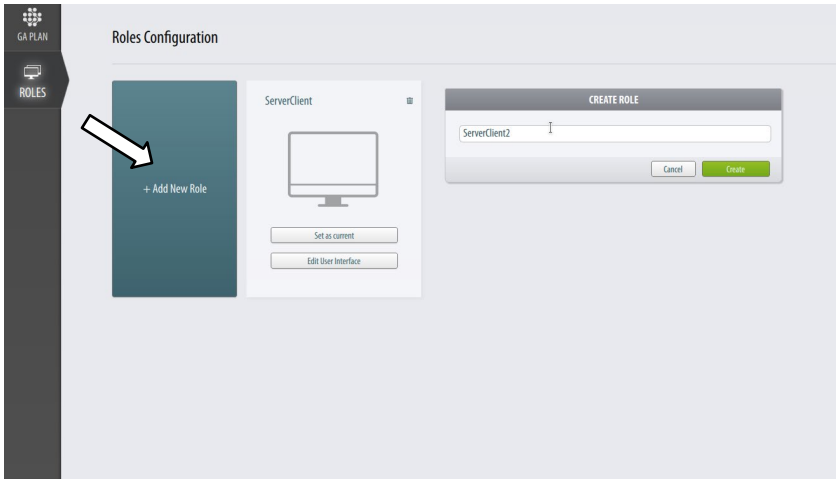

To configure client roles, Configuration or Service Access Level is required (the button is shown only in these access levels – password required).

- To access ROLES view, click the ROLES button in the left vertical bar.

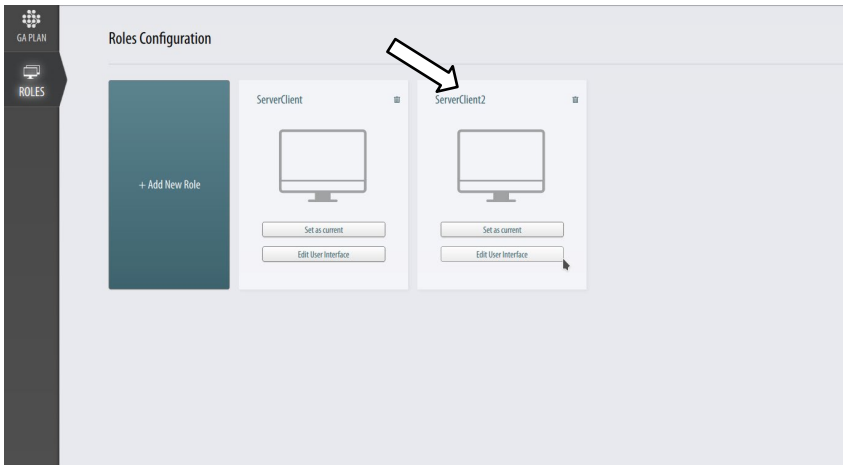


## 8.2 Adding a Client Role

- To add a new role, click the + Add New Role button, then enter a name and click the Create button



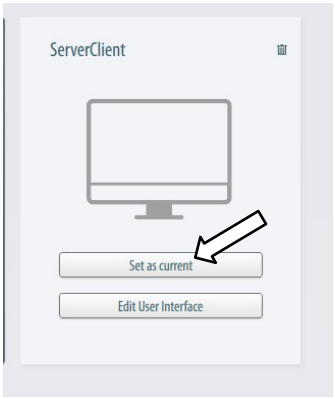

The new role will appear in the window.



## 8.3 Selecting a Client Role

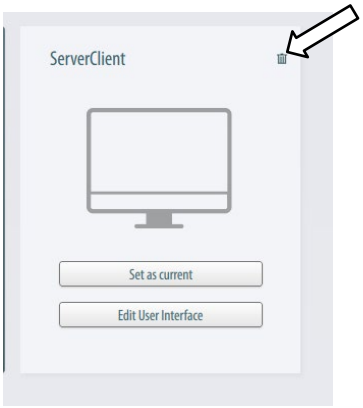
- To select a Client Role, simply click the one in question
- Click the Set as current button to load the selected client configuration (if already configured)

If the client role has been configured, the system will load the properties (layout, vertical buttons, statusbar etc.) for the selected client role.




## 8.4 Deleting a Client Role

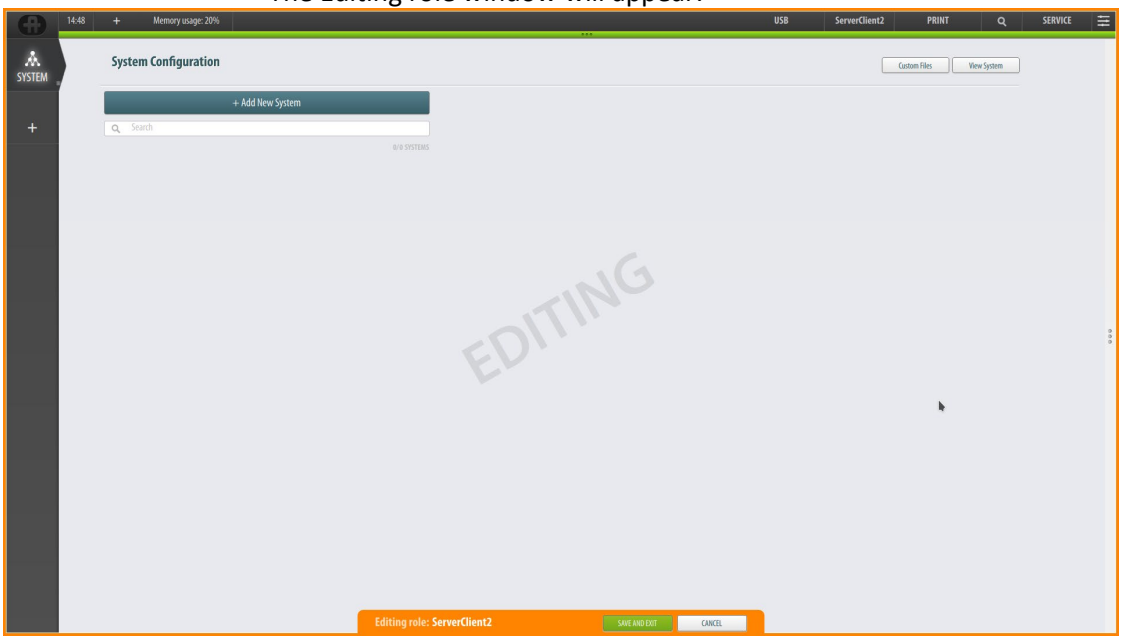
- To delete a client role, click the thrash can button on the upper right hand side of the client role in question



## 8.5 Configuring the User Interface for a Client Role

- First, select the client role in question (the name of the Client Role will appear on the horizontal status bar (to the right)
- Click the Set as current button, then click the Edit User Interface button to edit the user interface for this client Role


The Editing role window will appear:

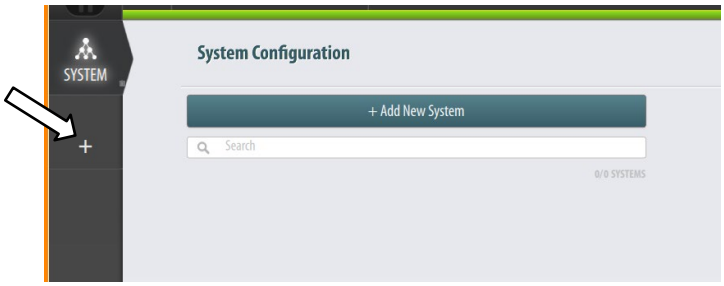



From this window the selected client role can be configured, including:

- Adding main view buttons (vertical bar to the left)
- Adding status view buttons in the status bar (horizontal top bar)
- Changing the order of buttons in the status bar

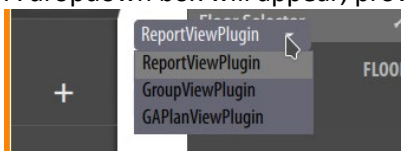
## 8.6 Adding Main View Buttons

| | Short description of views |
|---|---|
| ReportViewPlugin (REPORT view button) | Provides different reports (preview, print and save) |
| GroupViewPluging (GROUP view button) | Group management (groups, members, group properties) |
| GAPlanViewPlugin (GA PLAN view button) | The General Arrangement Plan (GA PLAN) – the main view |

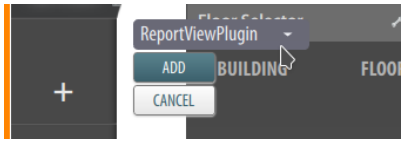



- Click the "+" button on the left button bar to add Main View buttons to the client
- Click the arrow down button

A dropdown box will appear, providing the available options




- Select the button you want to add, then click the ADD button
- Continue adding all Main View buttons that are to be added to the client

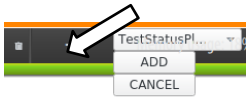



The button will be added and will appear on the vertical button bar on the left hand side.

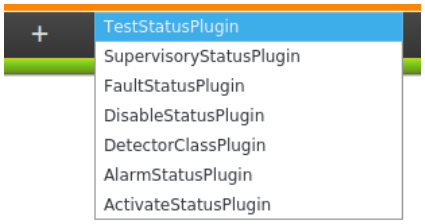
## 8.7 Adding Buttons for Status Views

Similar to adding main view buttons, status views can be added to the uppermost horizontal status information bar in order to get, for example, Alarms and Faults views.


In the top bar, there is a + button (if there are no status views added, the button is just to the right of the clock on the leftmost side of the status bar).



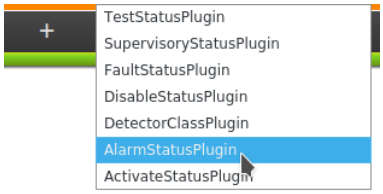

- Click the + button
- Click the arrow down icon to get a selection of status views that can be added



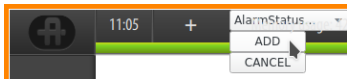

A dropdown box will appear, providing the available options:

| | |
|---|---|
| Alarms | provides a list of activated alarms (pressing the small wheel on the right side of the status view Alarms allows you to configure the default sorting order) |
| Faults | provides a list of faults |
| Disabled | provides a list of all disabled points |
| Class | provides a list of all detectors that temporarily have class settings (Performance Class / Operation Class) different from the default class settings (fire detection system configuration) |
| Activated | provides a list of all activated control outputs |
| Supervisory | provides the status of technical alarms |
| Test | provides a list of all detection zones in test mode |

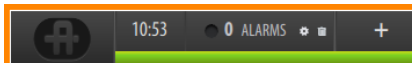
- Select the status views in the order they should have in the top bar, typically Alarm and Fault first.




- Select AlarmStatusPlugin



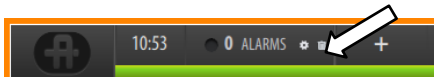

- Click Add




The Alarms status view will now appear on the top horizontal bar.

## 8.8 Deleting Buttons for Status Views

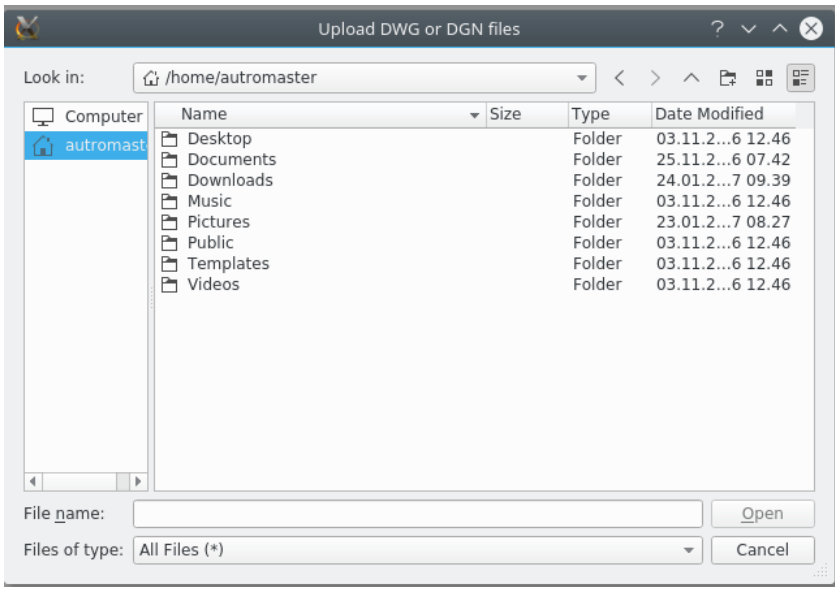
When a button is added, a trash icon will appear, allowing you to delete the button if required.



# 9. Importing Configuration Files

## 9.1 File Location / Directory

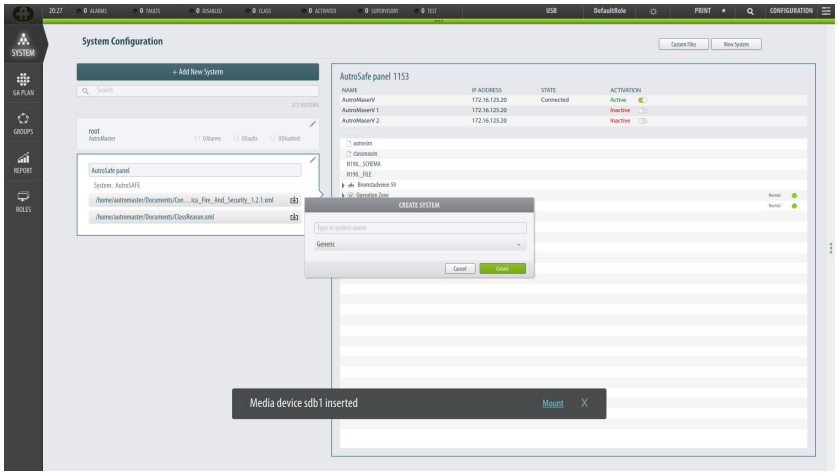
All files that are copied to the AutroMaster disk directory are easily accessible from the “Resources” window in the GA Plan when configuring AutroMaster V. The standard directories are shown below.



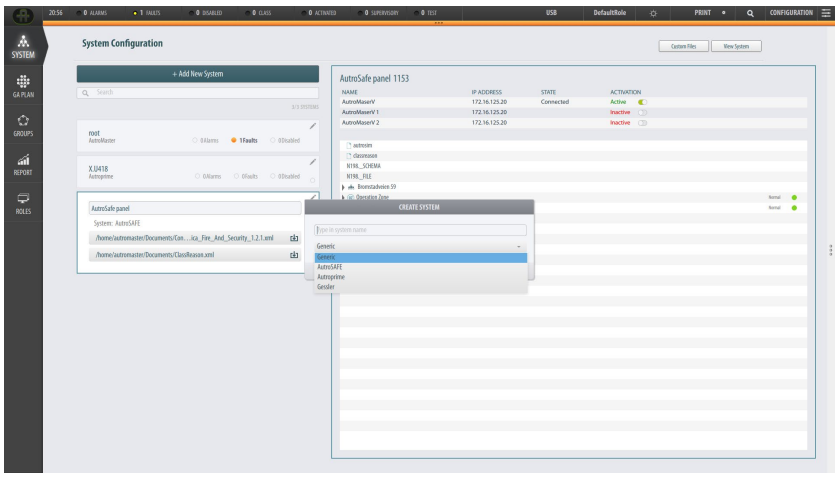

## 9.2 Importing AutroSafe Configuration Files

The Configuration Files (related to the fire detecton system) can easily be imported to the system (license agreement required). One or several independent systems running on different networks can be connected to AutroMaster (applies to AutroSafe). The xml files for each and every system must be uploaded.

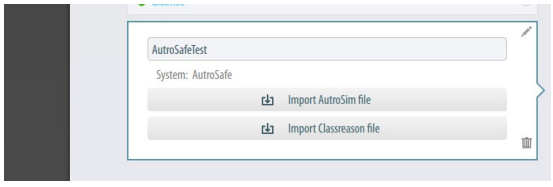
- To enter SYSTEM view, click the left vertical SYSTEM button.
- To add a new system, click the +Add New System button




A new window will appear, where you can add a system name and scroll in a dropdown box to select either Generic, AutroSafe, Autroprime or Gessler.



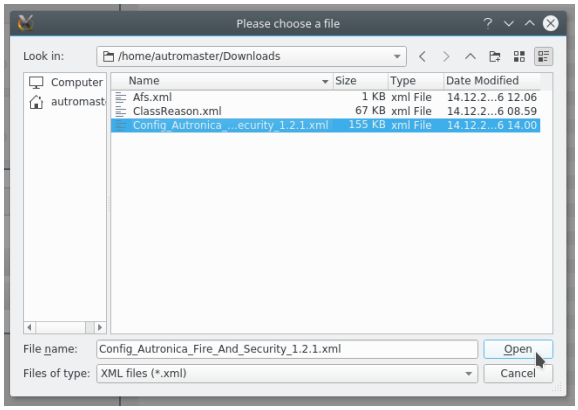

- Type a system name (in this example, AutroSafeTest), select the system in question (in this example, AutroSafe), then click Create.
- Click the window for this system




Two buttons will appear; “Import AutroSim file” and “Import Class Reason file”

- To import the configuration file(s) for the selected system (in this example Config_Autronica_.xml and the Class Reason file), click the “Import AutroSim file” button

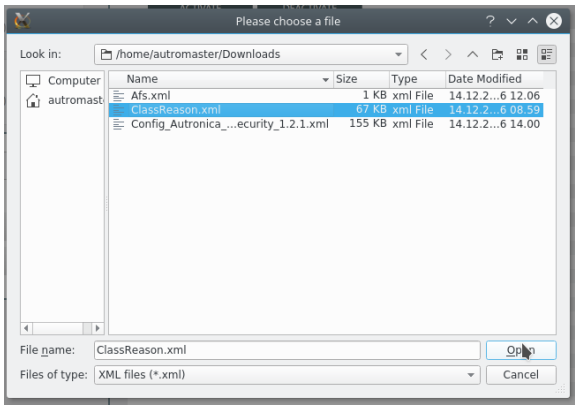
A browser will appear on the screen.



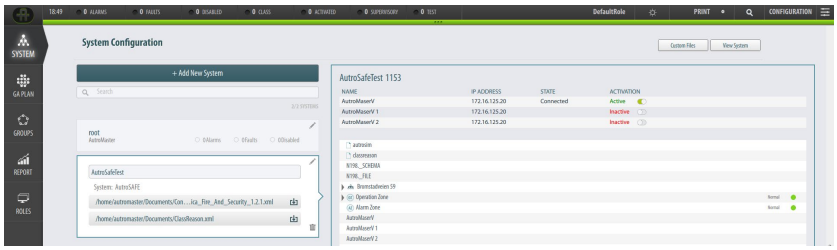

- Select the “autromaster” home catalogue, select “Downloads” and the xml file in question, then click Open

After a short moment, the file will be uploaded (the progress of the uploading is indicated on the “Import AutroSim file” button).

- When the uploading of this file is completed (a green arrow check mark will appear for a slight moment), select the Class Reason file in question, then click Open



- When both configuration files are uploaded, in the window to the right, select the system in question (according to the IP address), then click the ACTIVATE button to activate the system



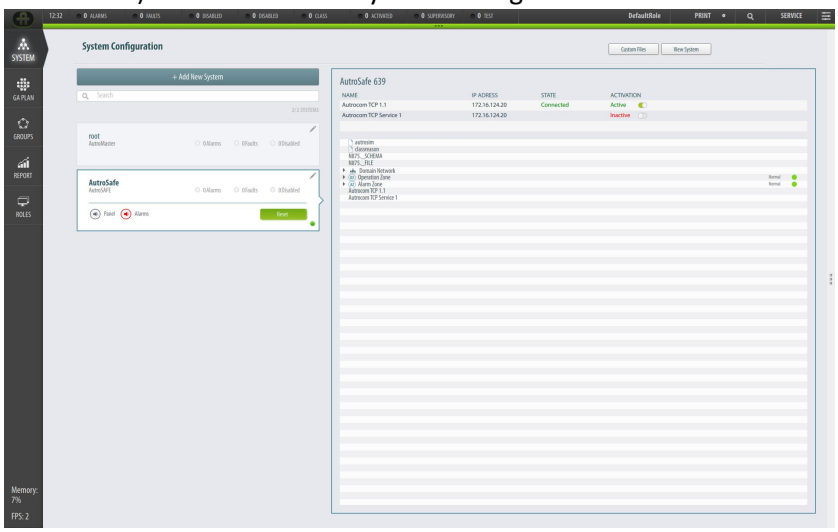

The message “You have successfully connected a system” will appear on screen.

- Create a unique name for each system by adding a “System Name Prefix” (if there are several systems) and repeat the uploading of AutroSafe Configuration Files for each system.

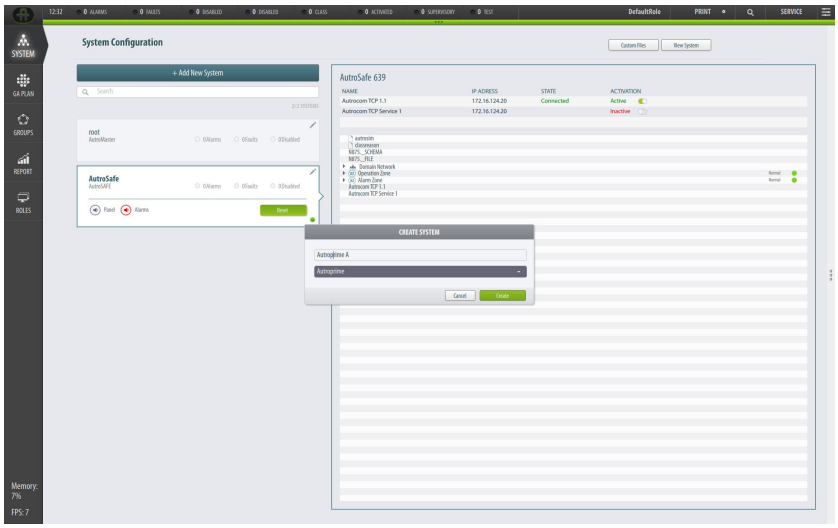
Adding System Name Prefixes is described in chapter 11

# 10. Configuring Autroprime Communication

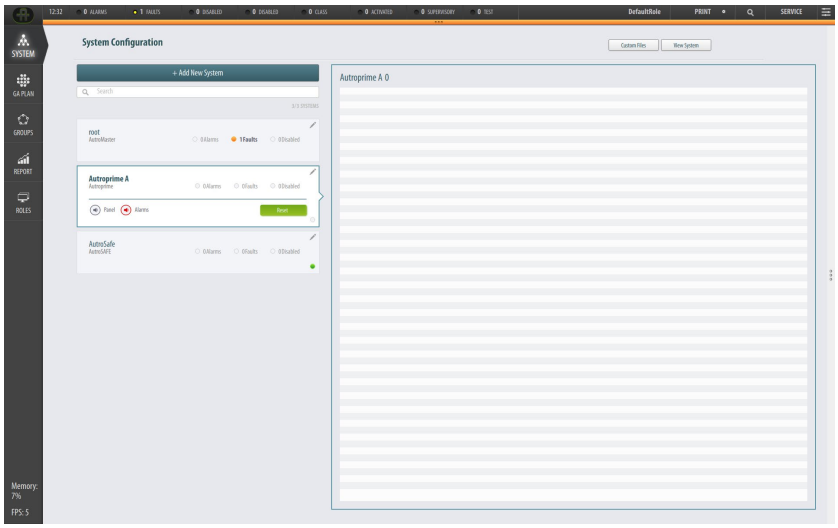
When configuring Autroprime communication, no configuration files are to be added. Instead, the *user name* and *password* that are used during configuration of Autroprime (in the Service Menu; Unit Configuration/External Interfaces/Remote Access/User Management and Clients) are added in the System Configuration window.



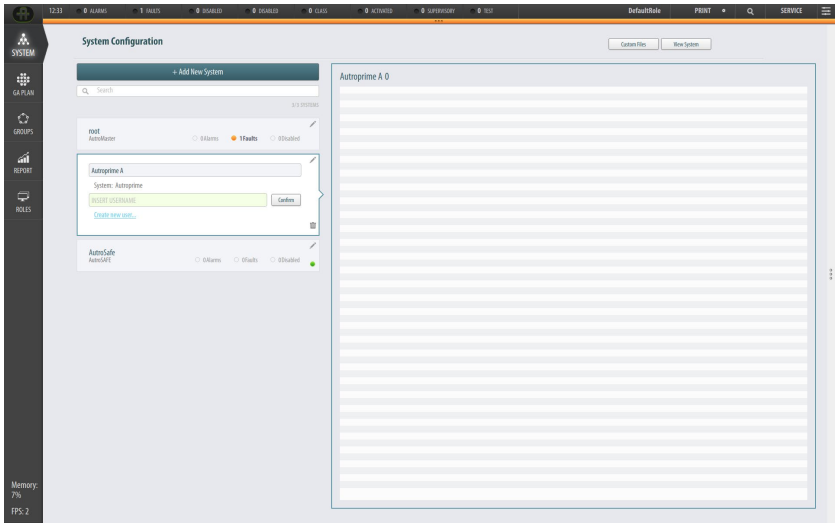

- From the System Configuration view, click + Add New System



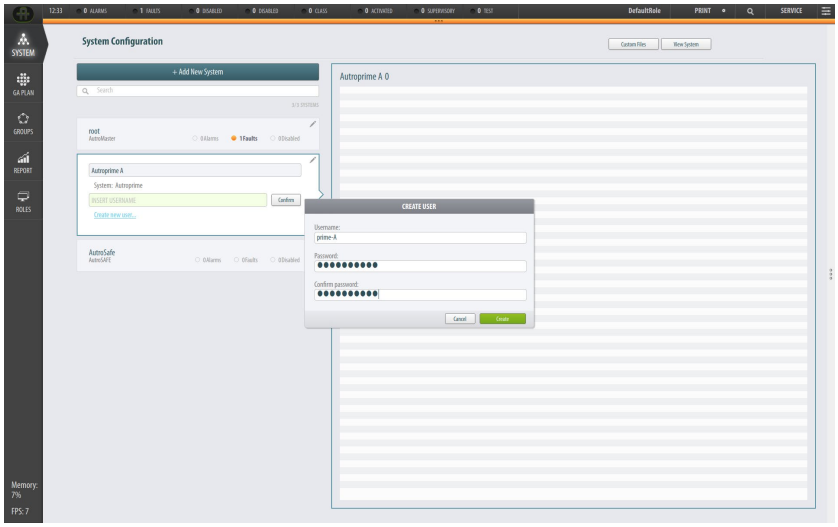

- Specify a system name
- From the dropdown list, select Autroprime




- Select the box for the newly created Autroprime system, click the Edit icon (pencil) in the rightmost upper corner of this box

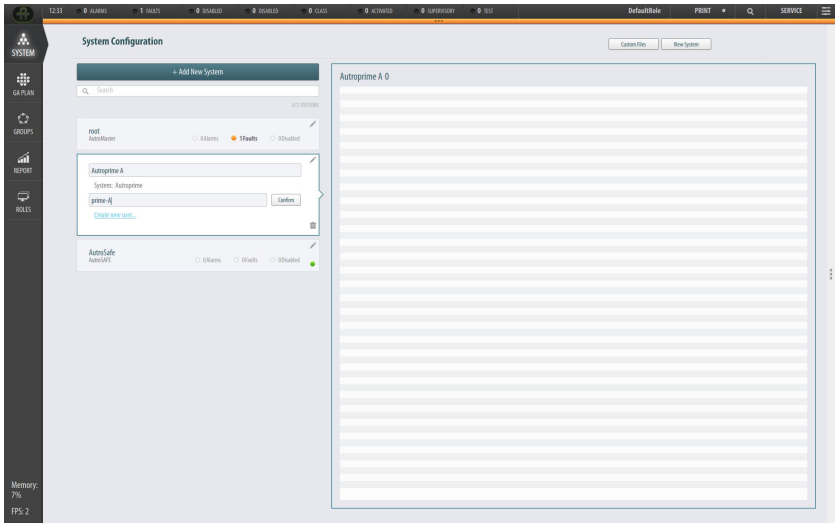



- Click “Create new user” (blue text)




- Enter the username as configured in the Autroprime

- Enter the password as configured in the Autroprime, confirm the password
- Click Create




- In the system box, enter the username (in the INSERT USERNAME field)
- Click Confirm
- After a couple of minutes a tree structure will appear in the window on the right hand side

For details on the configuration of Autroprime, refer to Remote Access, chapter 5.13.6 and its subchapters in the Autroprime Configuration Handbook.

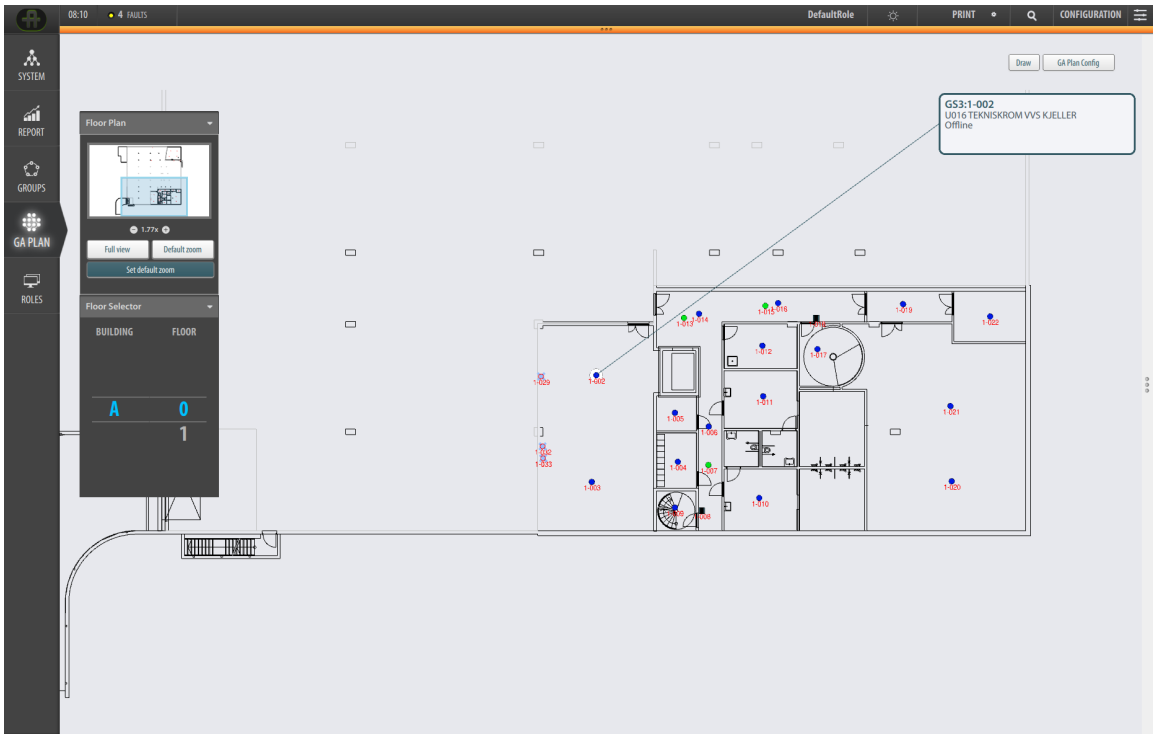
# 11. System Name Prefixes

## 11.1 Scenario Description – Several Systems Connected

If, for example, several Autroprime systems with the same default configuration are connected to AutroMaster V, both systems will use the same name sequence for the loop units. The loop units on the first loop will have the prefix A giving the names A1001, A1002, A1003, etc. The loop units on the second loop will have prefix B giving the names B1001, B1002, B1003, etc.

These names are used for mapping the position of each loop unit plotted in the AutoCAD drawings.

When several systems are connected to a server and you have imported AutoCAD drawings for the site showing the location of all loop units, it will be difficult to map the units correctly, as both systems use the same name sequence for loop units. A unique System Name Prefix can be added to each imported system. See next chapter.



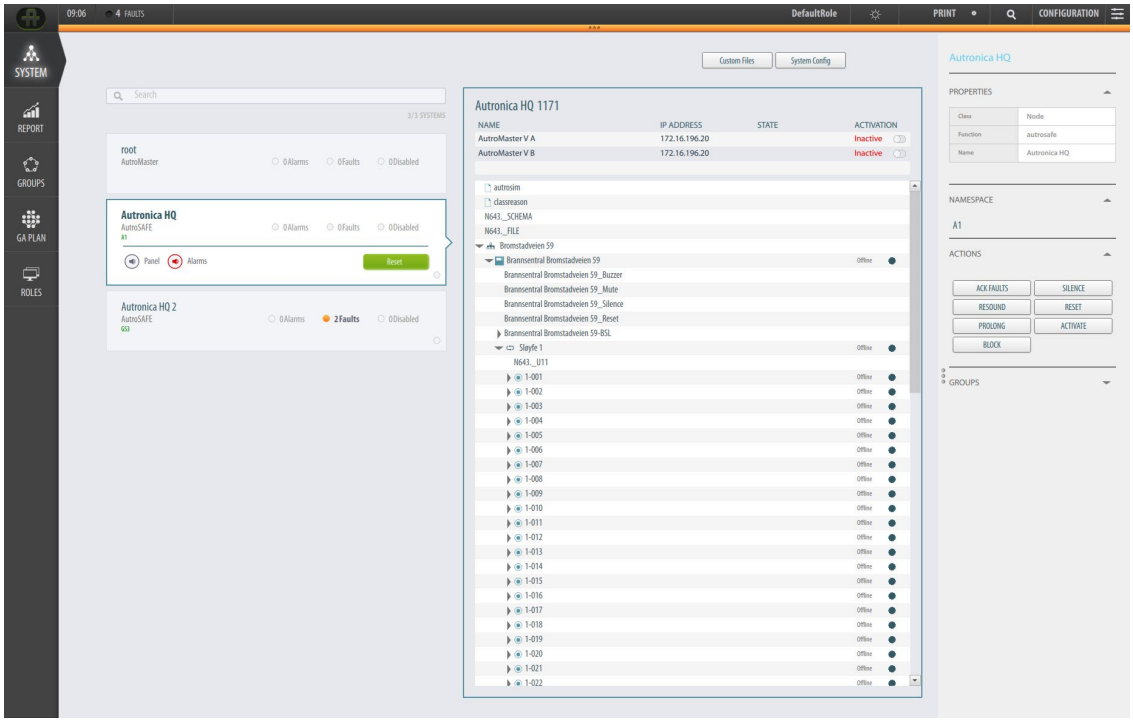
## 11.2 System Name Prefixes

To easily identify the system and the loop units belonging to each unique system when several systems with the same configuration are connected to AutroMaster V, a unique System Name Prefix can be added to each imported system and to the defined units in the AutoCAD drawings, as for example plotted detectors. This is referred to as NAMESPACE in AutroMaster V.

The System Name Prefix will be an extra property for system units and units defined in AutoCAD. In this way, the system units will be unique and you will get a match which will plot the correct units in the GA Plan.

## 11.3 Adding System Name Prefixes

The configuration of System Name Prefixes in AutroMaster V client is quite flexible. It is easy to update/change the System Name Prefixes after all systems and AutoCAD drawings are imported.

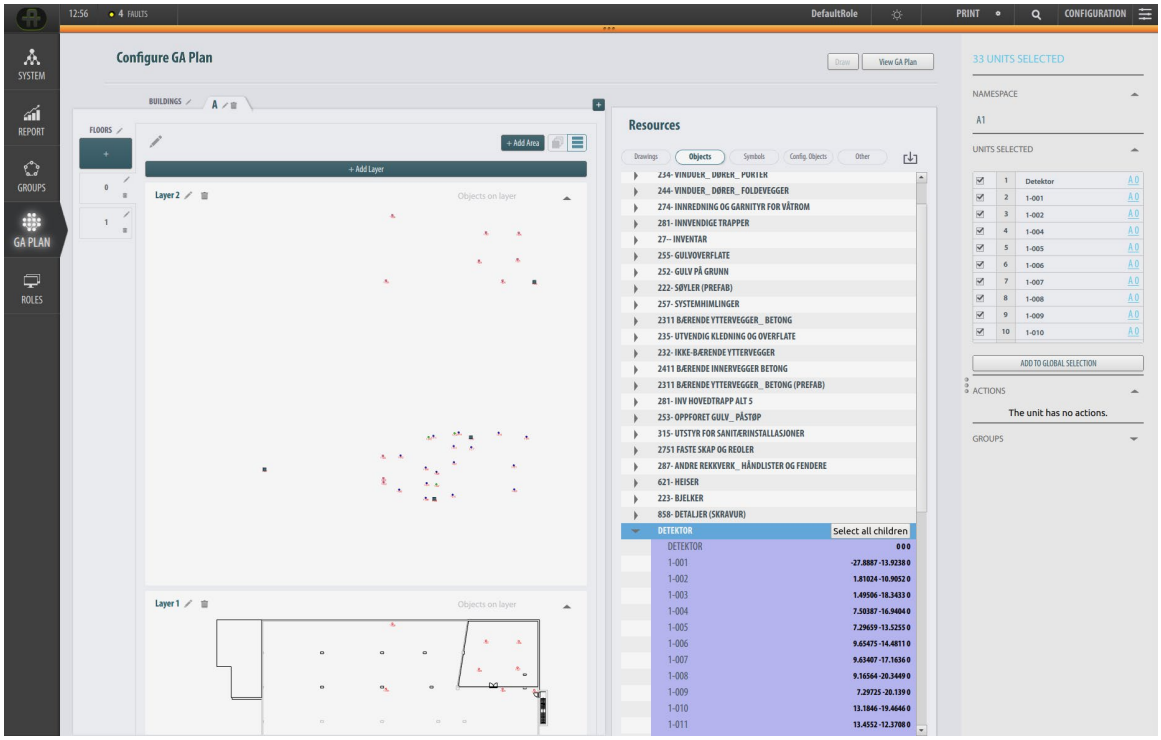



The procedure below shows you how to set System Name Prefixes:

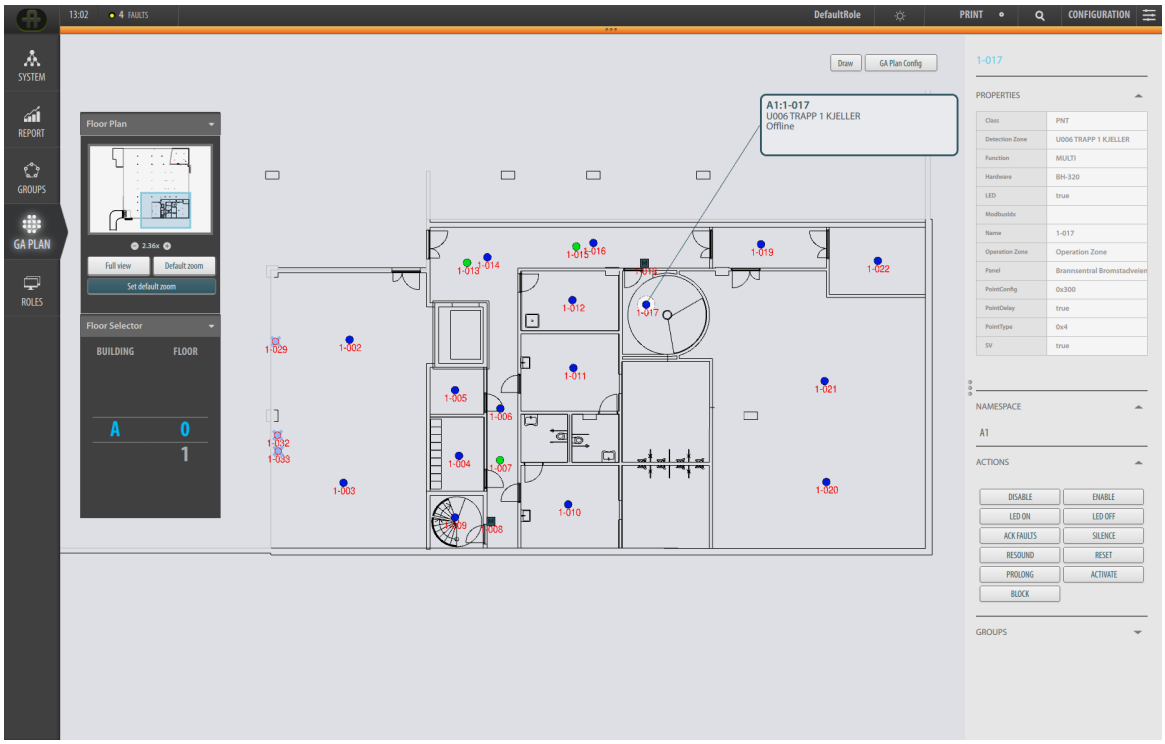
1. In the AutroMaster V client set the access level to Configuration
2. Open the System View and import an AutroSafe system, if not already imported
3. Select the AutroSafe system and open the Palette view
4. Open the NAMESPACE area to set the System Name Prefix for the system

After setting the System Name Prefix, each unit belonging to the system will have the same System Name Prefix

5. Open the GA Plan View and select the GA Plan Config button to open the GA Plan configuration view
6. Import the AutoCAD drawing for the system installed
7. Select the Objects tab in the Resource view, select the units defined in the AutoCAD file, and open the Palette view to set the System Name Prefix (NAMESPACE) for the selected units




8. Drag the selected units to the layer and they will match the imported system
9. Exit the GA-Plan configuration view, and select a unit in GA Plan (there you will see the match of name and System Name Prefix)




10. Do the same for other imported systems and AutoCAD files that needs to have a unique System Name Prefix.

## 11.4 Changing the System Name Prefix

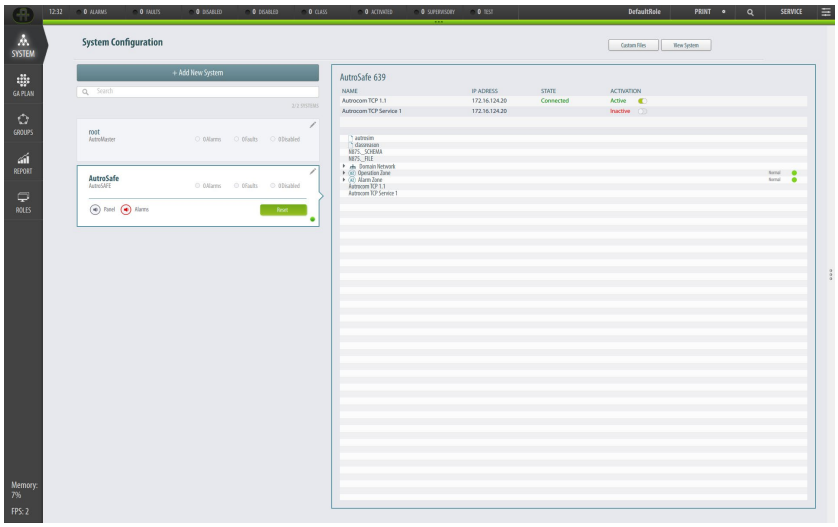
If you need to change the System Name Prefix after matching the system and importing the AutoCAD drawing, you need to do the following:

1. Go to the System view and rename the System Name Prefix (NAMESPACE) to the new System Name Prefix
2. Go to the GA-Plan configuration view and delete the layer with the imported units
3. Repeat step 7 and 8 to rename the System Name Prefix and import the units to a new layer

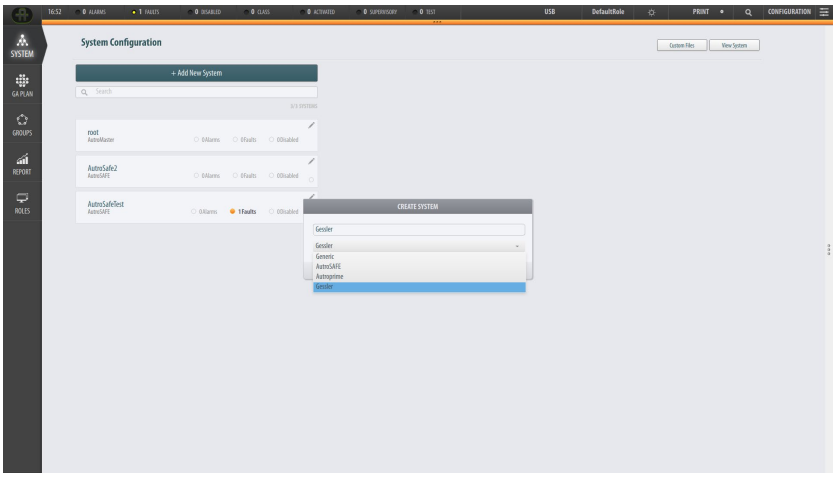
This is a flexible way to make the name of each system and AutoCAD units unique.

# 12. Configuring Gessler Merlin

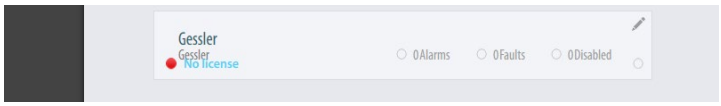
## 12.1 Adding a New Gessler System



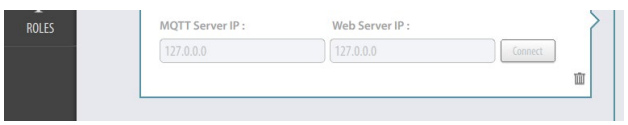

- From the System Configuration view, click + Add New System




- Specify a system name for the Gessler (for example, Gessler)
- From the dropdown list, select Gessler
- Click Create

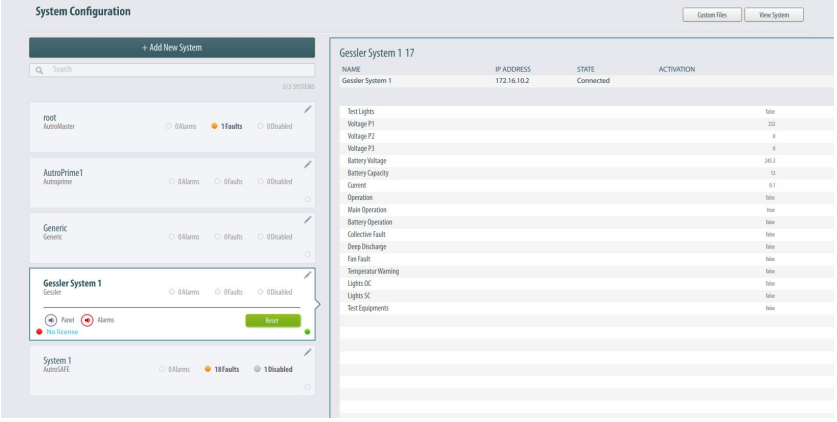



- Select the box for the newly created Gessler system
- Type the MQTT Server IP address (represents the communication protocol between Gessler and AutroMaster V), then click Connect




(disregard the Web Server IP as this is intented for test purposes only)

Once the system is connected, the window to the right will show all the subscribed status information from the Gessler Merlin system (in this example, for Gessler System 1).




Also the rightmost pane will show all control options, for example, on/off lights and start/stop test (in this example, for Gessler System 2).


For further information on status information and a description of the different control options, refer to Operator's Handbook and the Gessler Merlin documentation provided by Gessler Gmbh.

## 12.2 Tagnames in the Gessler System

The tagnames in the Gessler system consist of the following (*example*):
00: the Gessler system's master address
03: the end line address (which has 4 end line circuits)
3: end line circuit number 3 (3 of 4 end line circuit numbers)
4: luminary number 4 (4 of 20)

The Gessler system has the default numbering structure, where x is a number between 1 and 20 (normally starting with the end line address **03**):
End line circuit 1: 00-03-1-x
End line circuit 2: 00-03-2-x
End line circuit 3: 00-03-3-x
End line circuit 4: 00-03-4-x

End line circuit 5: 00-04-1-x
End line circuit 6: 00-04-2-x
End line circuit 7: 00-04-3-x
End line circuit 8: 00-04-4-x

End line circuit 9: 00-05-1-x
End line circuit 10:00-05-2-x
End line circuit 11: 00-05-3-x
……(continues……..)

Each end line module has 4 end line circuits, and each end line module has its own address.

## 12.3 Adding a Name for a Unit in AutroMaster

In AutroMaster V, tagnames for units in a Gessler Emergency Lighting System appear automatically in the pane on the right hand side (see screenshot on next page). These tagnames are automatically derived from the Gessler system, for example, "00-03-3-4". In addition, if other more intuitive names are added in the Gessler system, these will also appear in AutroMaster V.

If other more intuitive/user friendly names are not added in the Gessler system , you can add these in AutroMaster V.

- From the list of lights or from the GA Plan for the Gessler System, select the unit in question.
- In the pane on the right hand side, type the correct name in the Unit Name field

**NOTE**: The customer specified name that you can add in the Unit Name field is only a reference for AutroMaster V and does not affect the

tagname or AutoCAD symbol, nor the relationship between these. The original tag name in the Properties window (derived from the Gessler system) will remain unaffected.

## 12.4 Defining the Type of Luminary

The type of luminary is defined as follows:

- From the list of lights or from the GA Plan for the Gessler System, select the unit in question (in this example, Office-04, see example in screen dump below)
- In the pane on the right hand side, check “Exit Sign Luminary” or “Escape Route Luminary” depending on the type of luminary in question

# 13. Configuring Gessler GV1500

AutroMaster V integrates with Gessler GV1500 with a CANBus interface, in the same way as AutroMaster 4 integrates with GV1500. You must reuse the the configuration files made for AutroMaster 4 with AutroMaster V. You also must install the AM 4 Gessler Service to communicate with GV1500. Please refer to the AutroMaster 4 documentation on how to prepare the Gessler GV 1500 files. The AutroMaster 4 documentation also describe how to set up the Anagate CAN-bus adapter.
This chapter will only describe how to utlize the files to present this on AutroMaster V. You need knowledge of

## 13.1 Preparation

The system needs to have a working internet connection to do these steps.

- Download the needed AutroMaster 4 file (**file name**) from the product web.
- Unzip the file and follow the instructions in the readme.md from the directory: AM4/autromaster-sustaining/AutroMaster/am5000/autrod directory.
- Run “sudo apt install zlib1g-dev”
- Run "sudo make olib json autrod" to compile the autrod service (autromaster-sustaining/AutroMaster/am5000)
- Test that it is working with “autrod -h”
  The output should be similar to this:

```
autromaster@AM-V-manual:~$ autrod -h
Allowed options:
  -h [ --help ]                 produce help message
  -v [ --version ]              print version number
  --debug-level arg (=1)        debug level
  --debug-header arg (=autrod)  debug header
  --pid-file arg                pid file
  --set-timeref-type arg (=1)   set timeref type
  --set-timeref-res arg (=0.01) set timeref resolution
```

## 13.2 Configure communication for AM4 Service

```
<autrod user-db="config/user-db.json">
   <remote-server-list>
      <remote-server name="amv-qi">        <location xlink:href="http://127.0.0.1:10001"/>  </remote-server>
   </remote-server-list>

   <queue name="Command" id="command" proxy="0">
      <remote-link-list>
         <remote-link server="amv-qi" xlink:href="/queue/command/update" uplink="0" downlink="1" timeout="60" user-name="gessler-A"/>
      </remote-link-list>

      <server>
         <buffer>
            <status  enable="0"/>
            <history enable="1" limit="1000"/>
         </buffer>
         <query      limit="1000"/>
      </server>
   </queue>

   <queue name="Status" id="status" proxy="0">
      <remote-link-list>
         <remote-link server="amv-qi" xlink:href="/queue/status/update" uplink="1" downlink="0" timeout="60" user-name="gessler-A"/>
      </remote-link-list>

      <server>
         <buffer>
            <status  enable="1"/>
            <history enable="1" limit="1000"/>
         </buffer>
         <query      limit="1000"/>
      </server>
   </queue>
```

## 13.3 Adding Gessler panels to user database

We recommend setting up the user database before making the backup from AM 4.

1. To add more clients to GV1500 on AM4, add extra entries for "remote-server-name" and "remote-link" (Command & Status).

2. Get Gessler user name and Password from user-db.json. You can find the user-db.json fil in the /home/spefun/config directory:

```
{
  "userDatabase" :
  {
    "digestPassword" : true,
    "realm" : "autrod@autro.net",

    "users" :
    [
       { "user" : {  "name" : "prime-A",   "password" : { "raw" : "primePRIME" } } },
       { "user" : {  "name" : "prime-B",   "password" : { "raw" : "primePRIME" } } },
       { "user" : {  "name" : "prime-C",   "password" : { "raw" : "primePRIME" } } },
       { "user" : {  "name" : "prime-D",   "password" : { "raw" : "primePRIME" } } },
       { "user" : {  "name" : "prime-E",   "password" : { "raw" : "primePRIME" } } },
       { "user" : {  "name" : "prime-F",   "password" : { "raw" : "primePRIME" } } },
       { "user" : {  "name" : "prime-G",   "password" : { "raw" : "primePRIME" } } },
       { "user" : {  "name" : "prime-H",   "password" : { "raw" : "primePRIME" } } },
       { "user" : {  "name" : "prime-I",   "password" : { "raw" : "primePRIME" } } },

       { "user" : {  "name" : "gessler-A",  "password" : { "raw" : "gessLER" } } },

       { "user" : {  "name" : "autro-1",   "password" : { "raw" : "autroNET" } } },
       { "user" : {  "name" : "autro-2",   "password" : { "raw" : "autroNET" } } },
       { "user" : {  "name" : "autro-3",   "password" : { "raw" : "autroNET" } } },

       { "user" : {  "name" : "root",   "password" : { "base64" : "aHZhZm9ybm8=" } } }
    ]
  }
}
```

3. Backup config files from AM4 GUI (Maintenance tool - Backup to USB disk)

4. Copy config folder to direction where run "autrod" and then run "autrod -c config/autrod-gesslerA.conf"
5. Check http://127.0.0.1:9090/ see if AM4 server running (default user name: root / password: hvaforno) (in user-db.json)

## 13.4 Configure GV1500 Menu and Status and symbol style in AMV config Excel files

Files used for configuration:

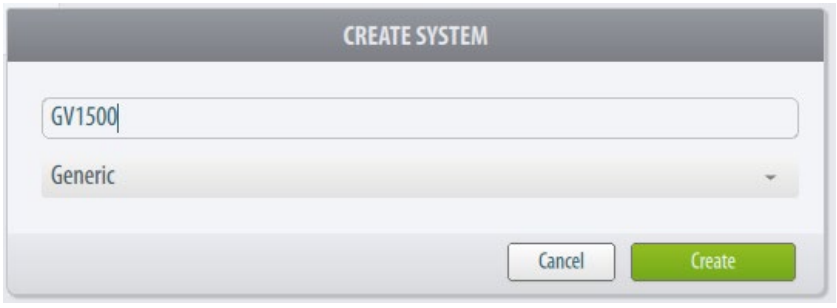
Menus: menu.xlsx

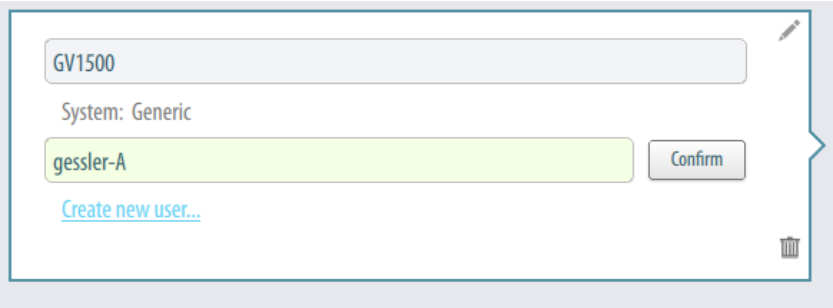
Symbol styles: autrosim-selector.xlsx

Status: point-status-report.xlsx

## 13.5 Add GV1500 in AMV client

1. Add user via User Management window, use the same user name and password as in user-db.json (For example name:"gessler-A", password:"gessLER" ), disable password policy if necessary.
2. Add new system in system view use type "Generic".
3. Config the new system with the user name as in user-db.json (For example "gessler-A"), wait a while for connection.
4. For config GA plan, tag the unit name in .dwg file with the same name as property.name from Gessler GV1500.

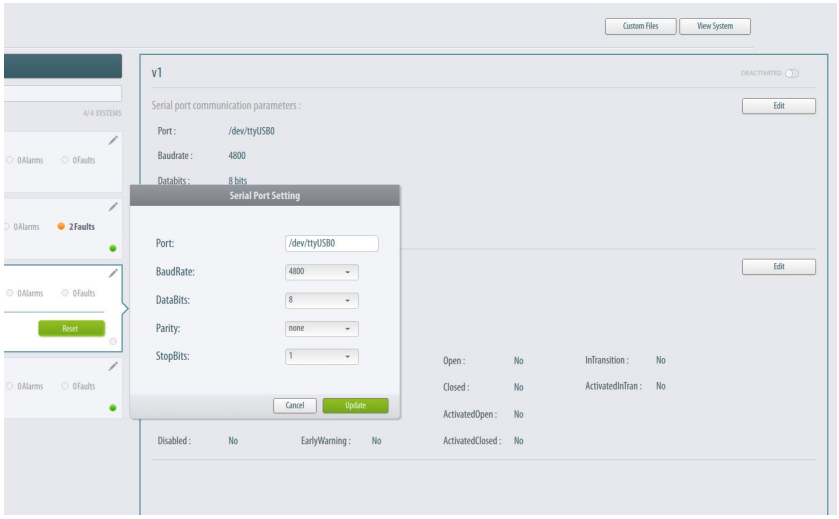



GV1500
System: Generic
gessler-A
Confirm
Create new user...

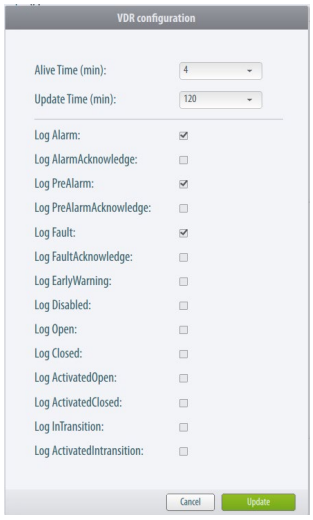
# 14. VDR

## 14.1 Add VDR connection

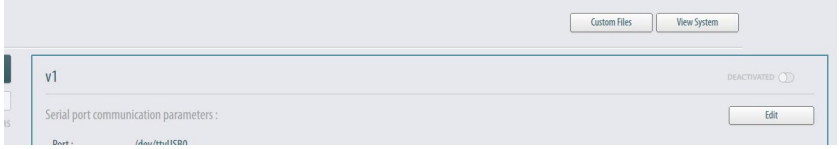
Create system by open AutroMaster V client and select "Configuration" access level and configure a new VDR system. (Only one VDR system is allowed)




Configure log info:




Manually start / stop VDR log:

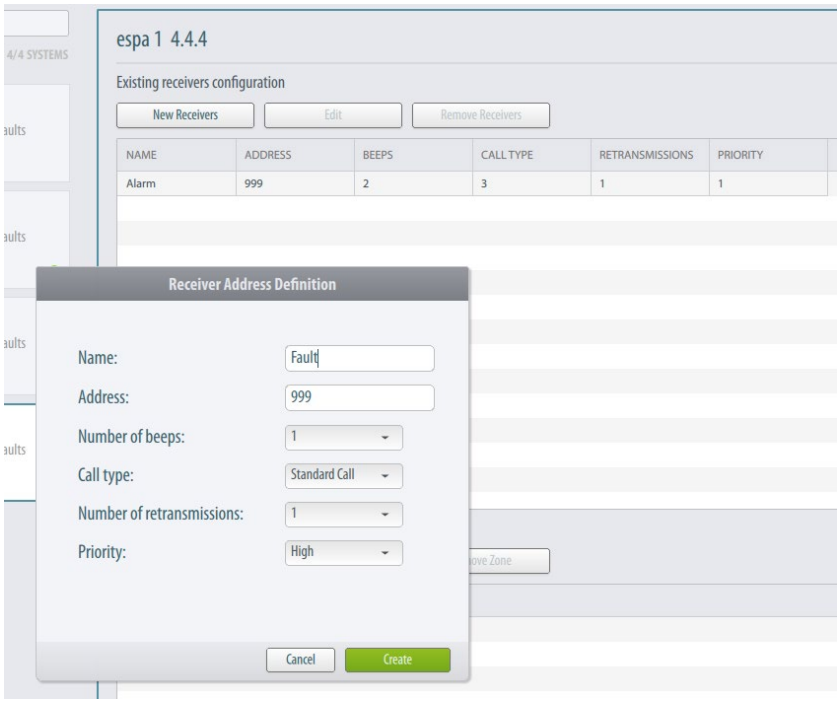


# 15. ESPA

## 15.1 Configure Client

Create system by open AutroMaster V client and select "Configuration" access level and configure a new ESPA system. (Only one ESPA system is allowed)

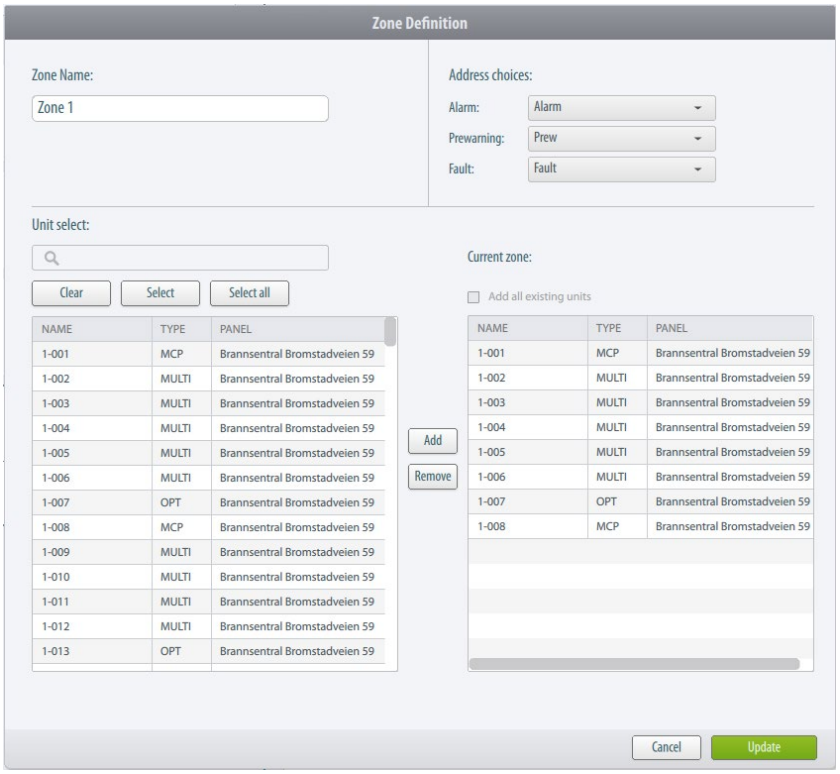
Config receiver:



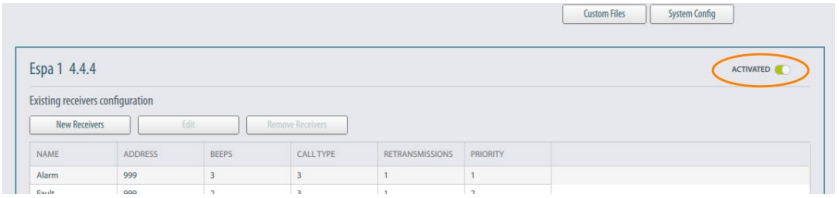

Allowed values:

| | | | |
|---|---|---|---|
| Call address | '1' | max 16 Characters | Address of the pager or a group of pagers |
| Display message | '2' | max 128 Characters | The message to be displayed |
| Beep coding | '3' | '0'<br>'1' to '9' | Reserved<br>System dependant |
| Call type | '4' | '0'<br>'1'<br>'2'<br>'3' | Reserved<br>Reset (cancel) call<br>Speech call<br>Standard call |
| Number of transmissions | '5' | '0'<br>'1'<br>'2'<br>etc | Reserved<br>1 transmission<br>2 transmissions<br>etc |
| Priority | '6' | '0'<br>'1'<br>'2'<br>'3' | Reserved<br>Alarm (Emergency)<br>High<br>Normal |

Configure Zone:




Manually connect/disconnect the ESPA System:



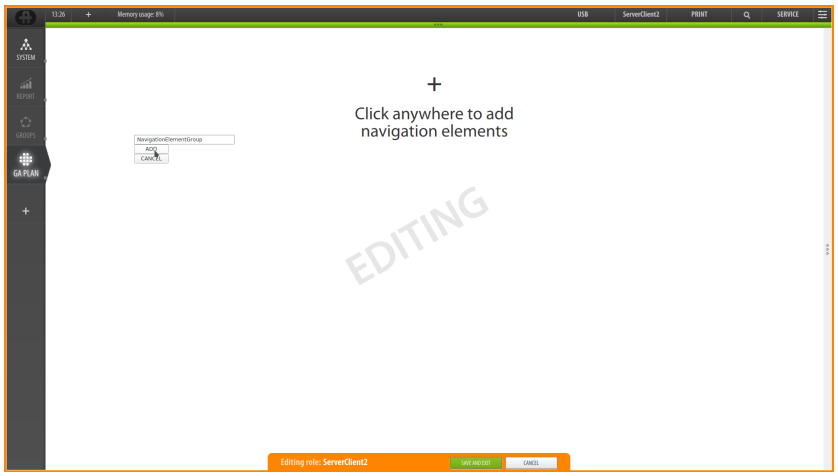
# 16. Configuring the GA Plan

## 16.1 Adding Navigation Elements

### 16.1.1 Adding the Navigation Element Group

When all main view buttons are added (including the GA Plan button, see chapter 0), Navigation Elements can be added to a Role.

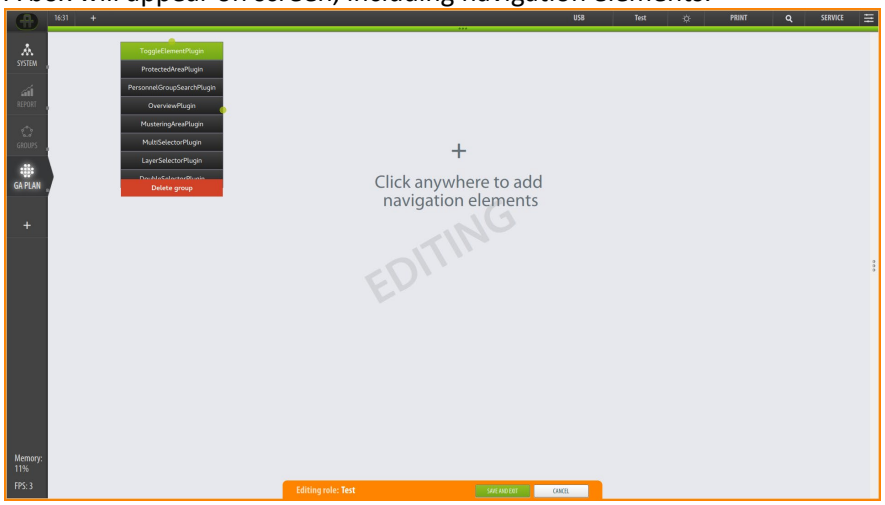
- Click the GA Plan button (the vertical bar to the left)





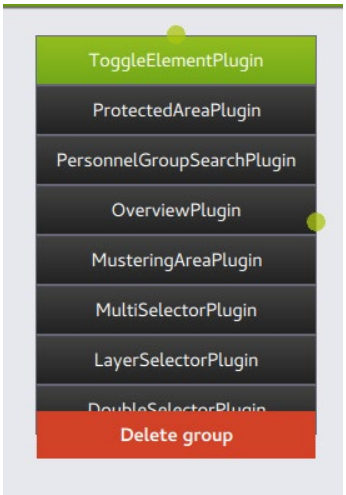
- Click anywhere to add the Navigation Element Group, then click ADD

A box will appear on screen, including navigation elements.



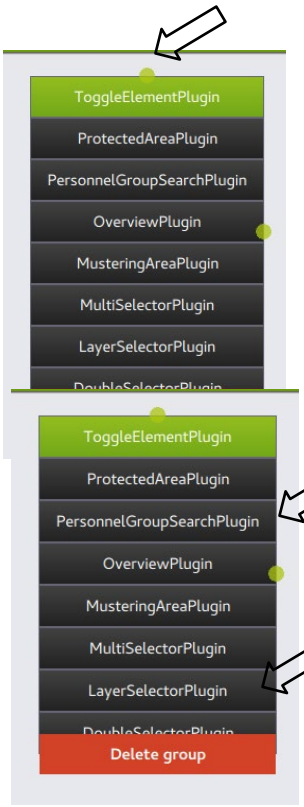
### 16.1.2 Navigation Elements

The table below provides a description of the different Navigation Elements.




| |
|---|
| Toggle Element (not implemented) |
| (not yet implemented) |
| (not yet implemented) |
| Overview zooming and panning view (Floor Plan) |
| (not yet implemented) |
| Building/Floor selector |
| Toggle the visibility of a selected layer On and Off |
| Building/Floor selector |
| |

### 16.1.3 Moving, Resizing and Deleting a Navigation Element Group

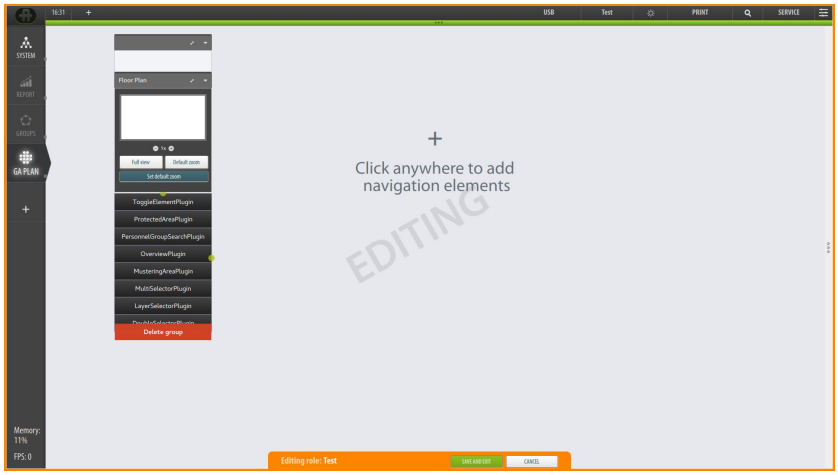



- To move the Navigation Element Group on screen, position the mouse pointer in the green circle on the top of the box, click and hold down the mouse button and move the box to the desired position.
- To resize the Navigation Element Group, position the mouse pointer in the green circle on the right hand side of the box), click and hold down the mouse button, move the mouse to resize the box to the desired size.
- To delete the entire Navigation Element Group, click Delete Group.

### 16.1.4 Adding Navigation Elements

- Add a Navigation Element Group (if not already done) as shown in chapter 13.1.1
- Add the desired navigation elements one by one by simply clicking on the one in question

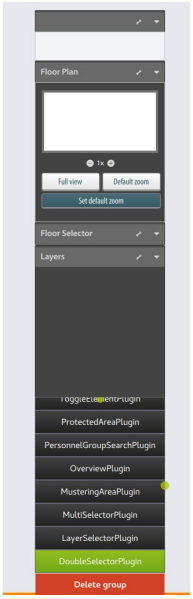
Each selected navigation element will be added on the top of the box.



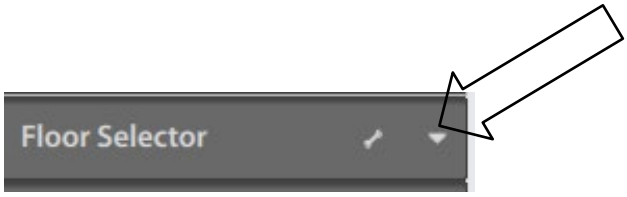

### 16.1.5 Collapsing Navigation Elements

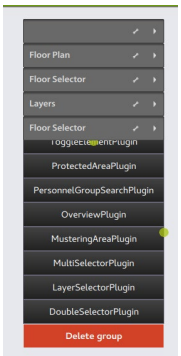
A navigation element can be collapsed.

- To collapse the navigation element in question, click the arrow down button on the right hand side of the element




Expanded view



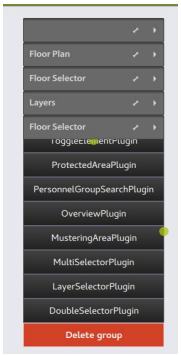




Collapsed view

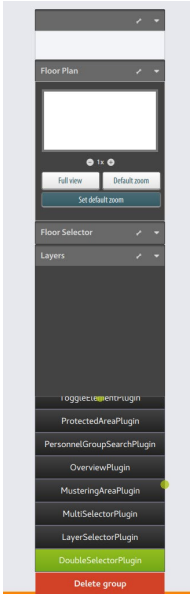
### 16.1.6 Expanding Navigation Elements

A navigation element can be expanded.

- To expand the navigation element in question, click the arrow right button




Collapsed view


Expanded view

### 16.1.7 Deleting a Navigation Element

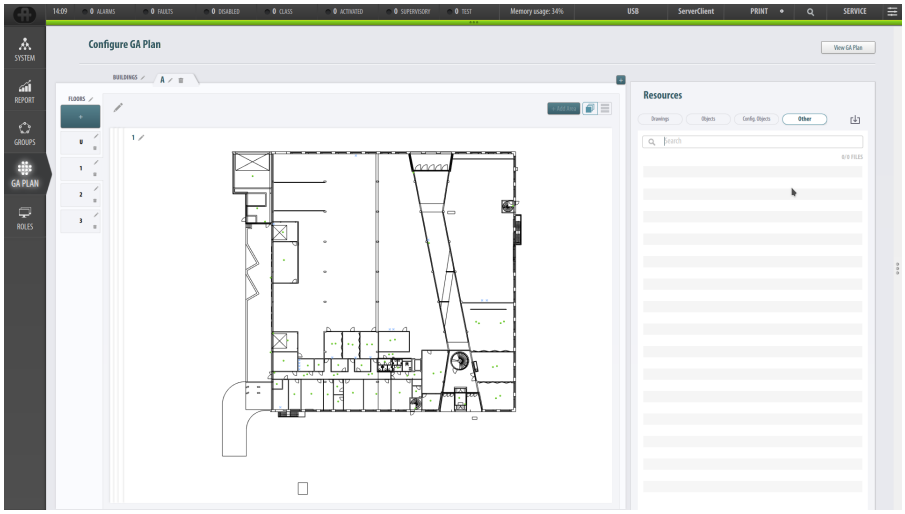
- A navigation element can be deleted by clicking the wrench/settings icon, then clicking the thrash can

### 16.1.8 Saving the Configuration

- To save the configuration for the Role in question (see chapter 8), click the SAVE AND EXIT button at the bottom of the screen

## 16.2 Overview «Configure GA Plan»

An example of the “Configure GA Plan” window is shown below (the main view button GA Plan has been selected). The basic navigation elements have been added for the selected Role. In the example below, building A includes a total of four different floors (U, 1, 2 and 3)



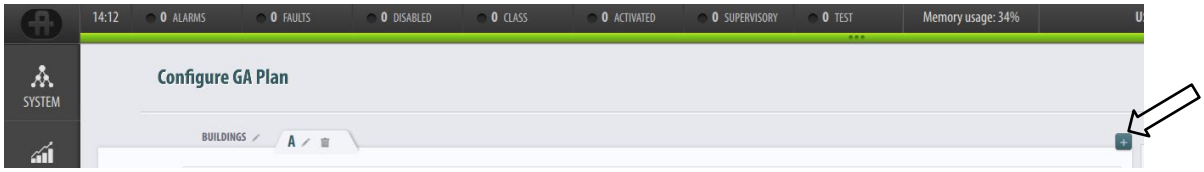
# 16.3 Buildings

## 16.3.1 Adding Buildings

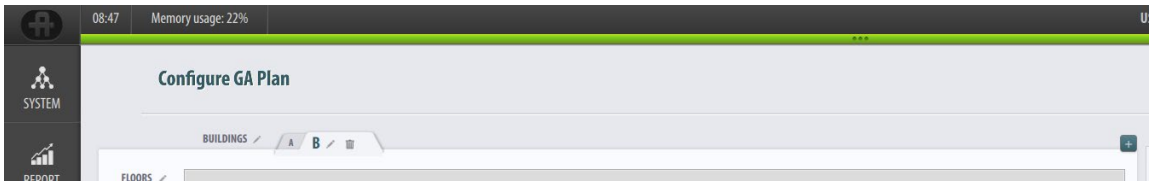
In the GA Plan view, buildings (sites) are indicated with the letters A, B, C….and so on a tab (as shown).

The default configuration after the first time commissioning provides one building; “A”.

- To add a building, click the + button as shown below



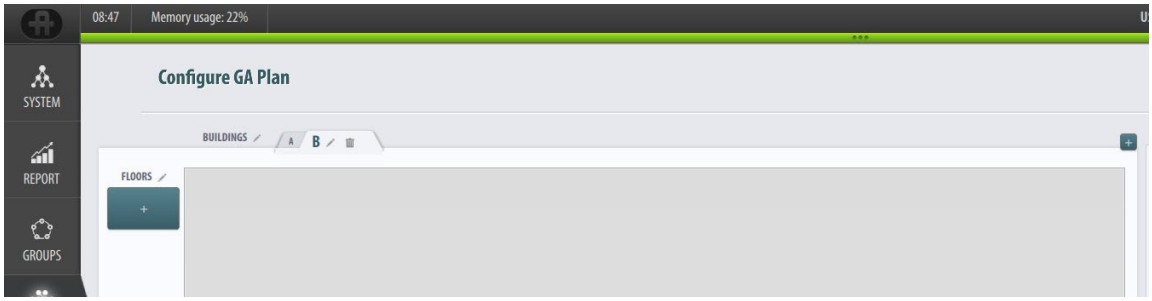

A new tab “B” will appear.




## 16.3.2 Selecting a Building

- To select a building, click the tab in question.

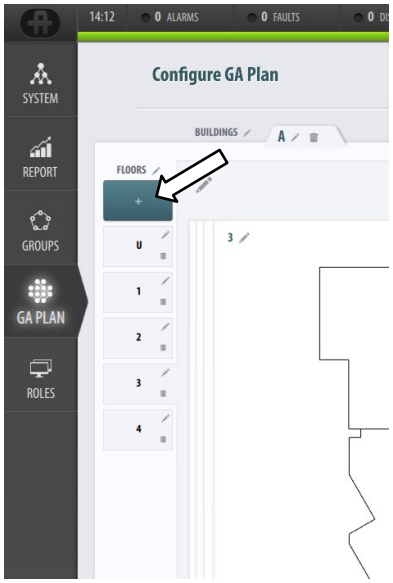
Building B is selected below. Now you can add floors to the building.



# 16.4 Floors

## 16.4.1 Adding Floors

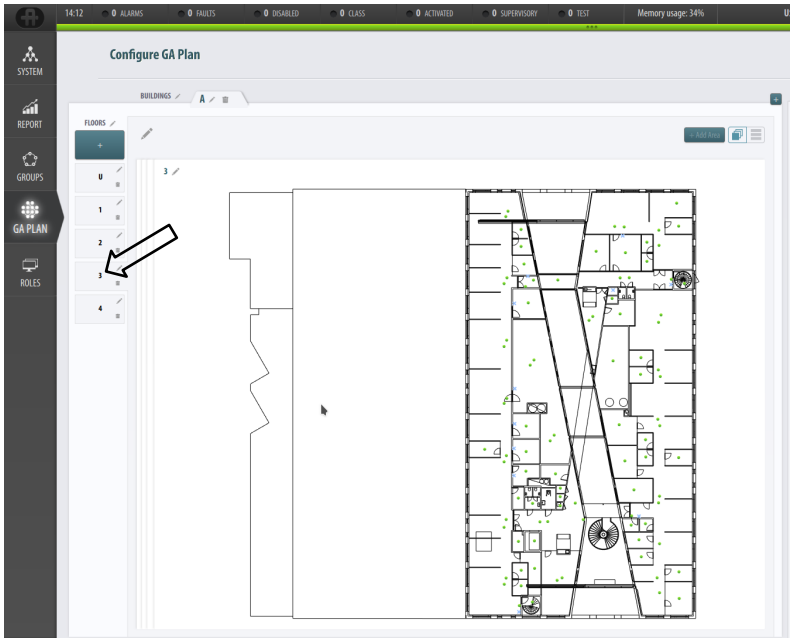
- To add a floor for a selected building, click the + button to the left




The added floor will appear at the bottom of all existing floors.

## 16.4.2 Selecting Floor

- To select a floor among several floors, simply click the floor in question to the left (for example, floor 3 as shown below)



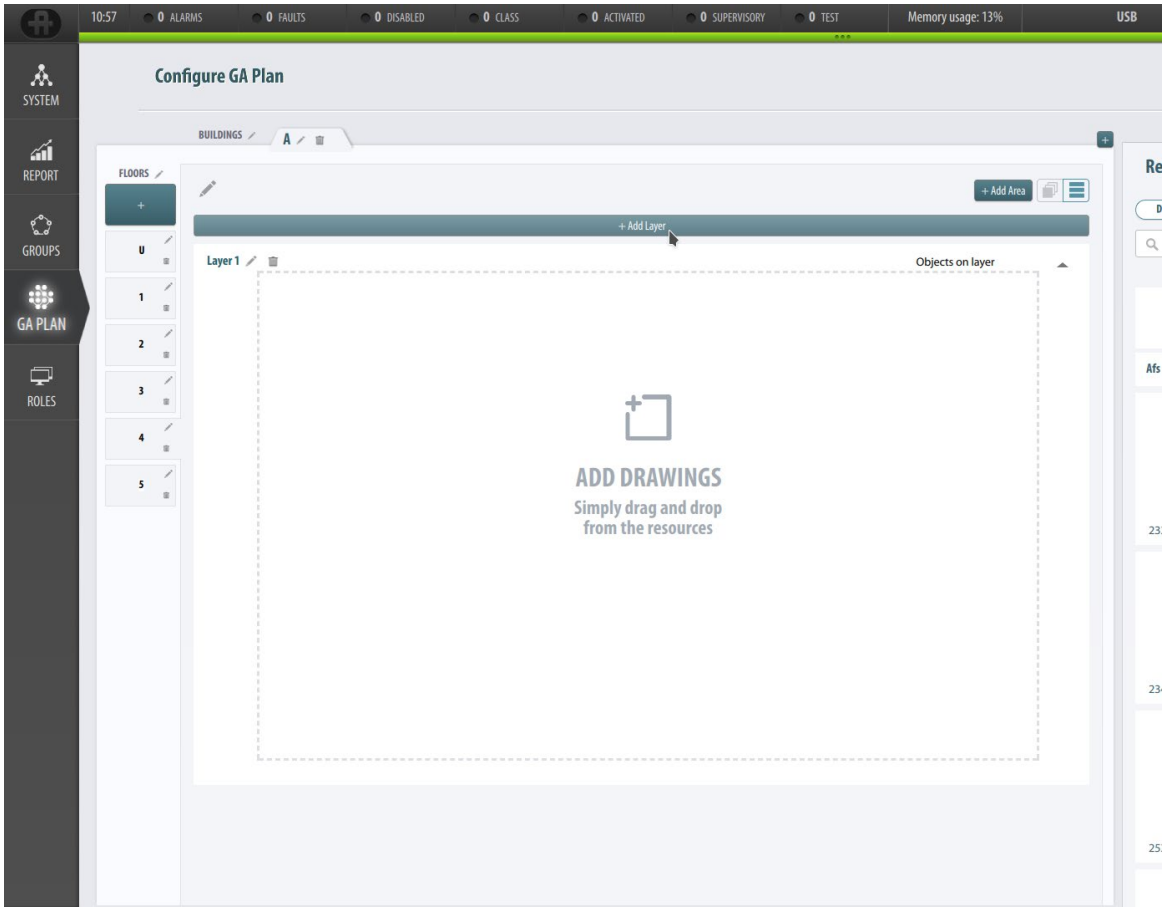
# 16.5 Layers

## 16.5.1 Adding AutroMaster Layers to a Floor

Each floor can include several different AutroMaster layers.
At least two different AutroMaster layers must be added to a floor; one for drawings and one for detectors.

- To add a layer to a selected floor, click the + Add Layer button (the horizontal heading).

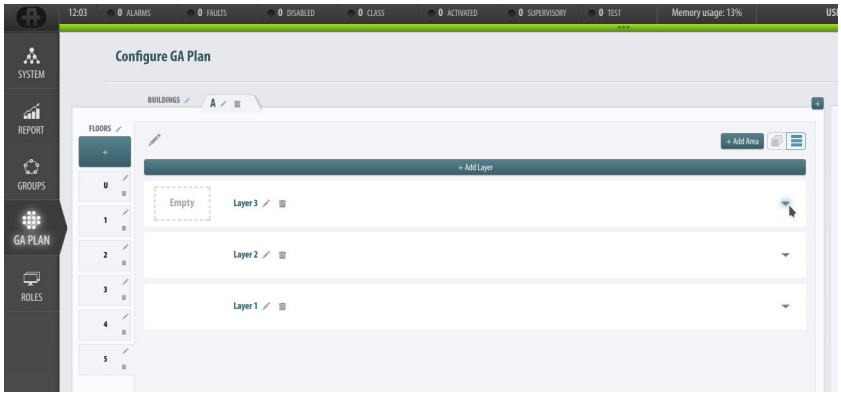
The new layer will always appear on the upper part of the screen.



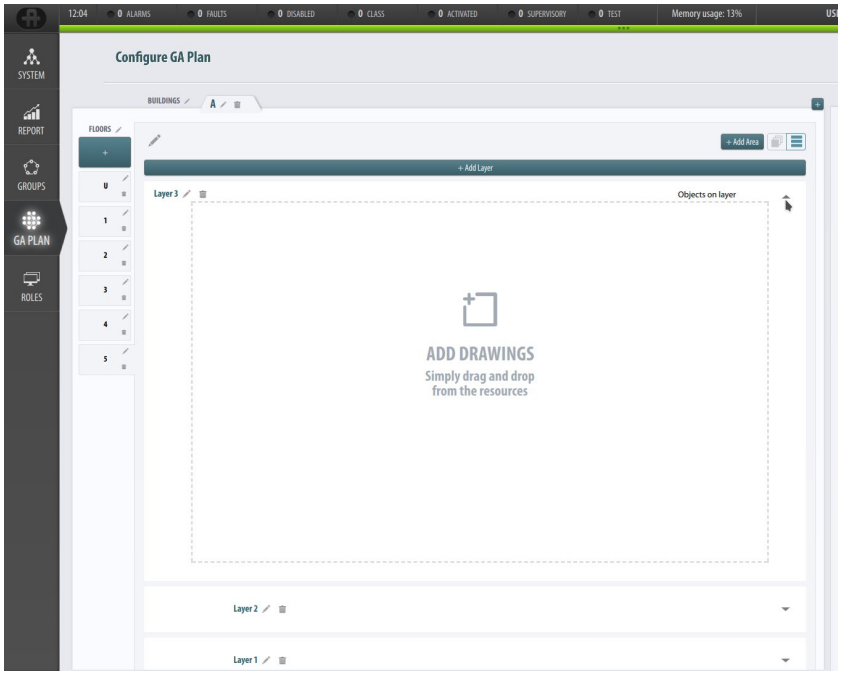
### 16.5.2 Expanding and Collapsing an AutroMaster Layer

It is possible to expand or collapse each layer.

- To expand a layer, click the arrow down button for the layer in question.



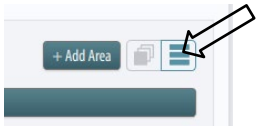

- To collapse a layer, click the arrow up button for the layer in question.

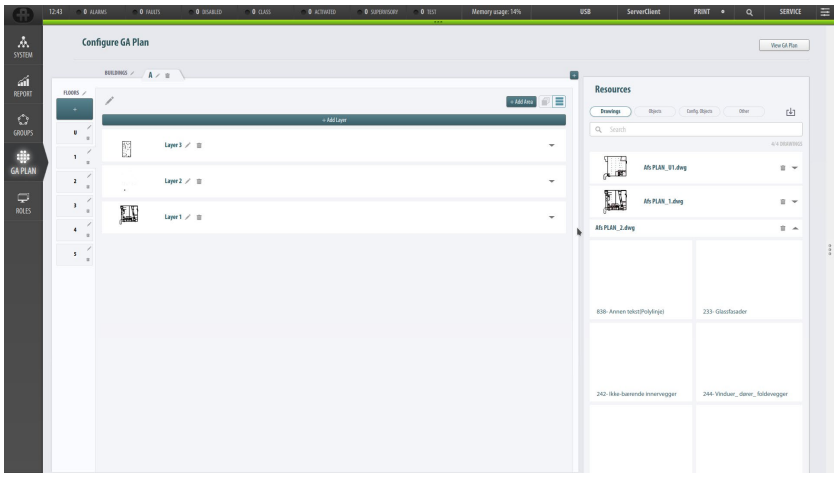


### 16.5.3 Viewing AutroMaster Layers – One Selected Layer or All Layers Merged

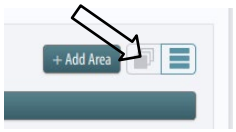
If a floor consists of several layers, you can either view a list of all layers (expanded or collapsed), or you can choose a view where all layers are merged into one layer.

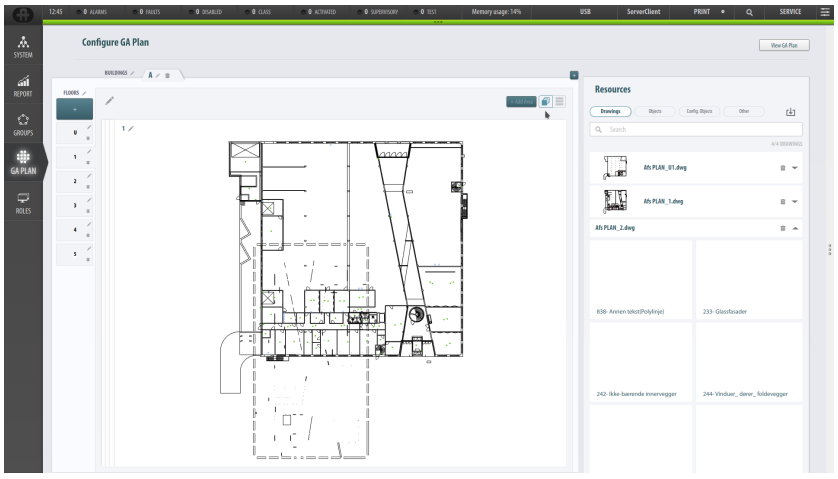
- To select a list of all layers, click the button as shown




- To select a list where all layers are merged into one layer, click the button as shown



## 16.6 Adding Area

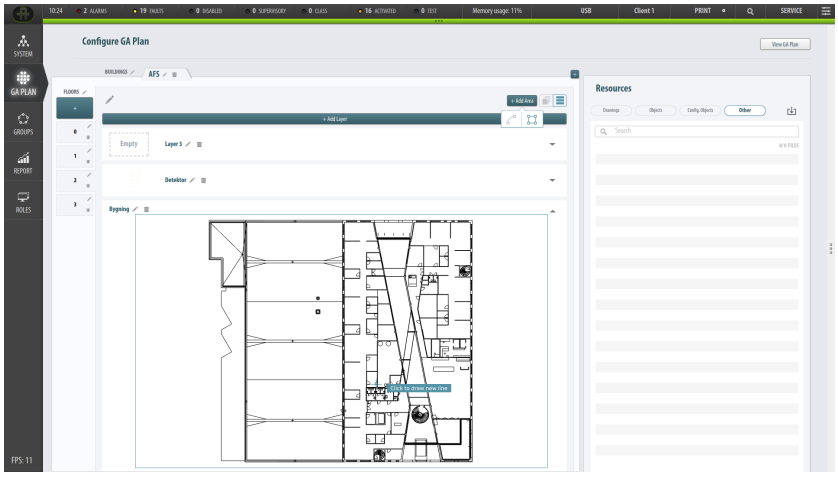
In order to easily access a specific floor or detection zone in the GA Plan, it is possible to configure a predefined area to the GA Plan. The following two configuration options are possible:

- Adding an area link to a building/floor;
  configuring this option allows the user to quickly view the building/floor that is linked to the area by selecting the area link
- Creating a link to a detection zone;
  configuring this option allows the user to quickly view the detection zone in question by selecting the link

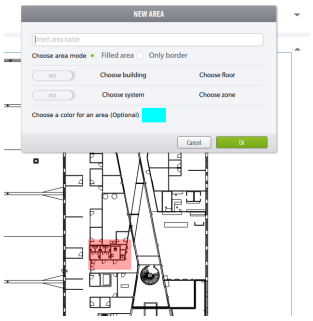
To configure an area in the GA Plan, do as follows:

- Select the Configuration access level
- Select the GA Plan view (if not already selected)
- Select the building and floor where the area is to be added
- Select the +Add Area button (top right corner of the floor area)


- Select line or square drawing type to draw the area

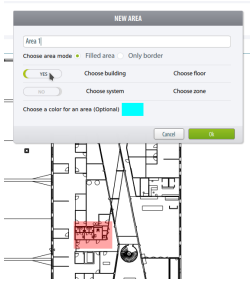



- Draw the area
  When the area is completed, the NEW AREA dialog will appear

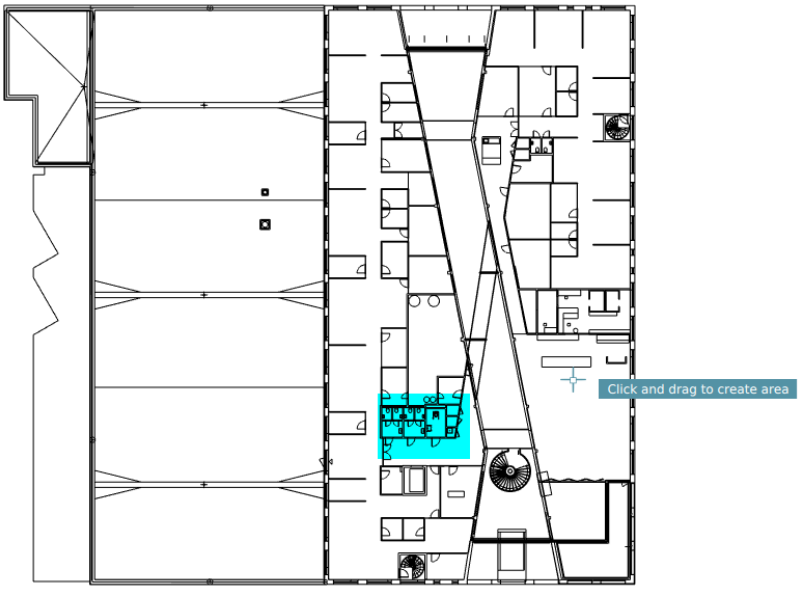



- Type a name for the area

- Select Filled area or Only border



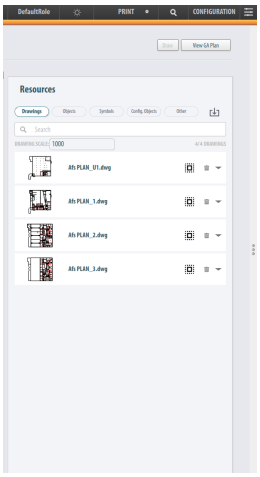

- Choose a link (Choose building and floor) or zone area (Choose system and zone)
- Select a color for the area
- Select OK and the area will be created

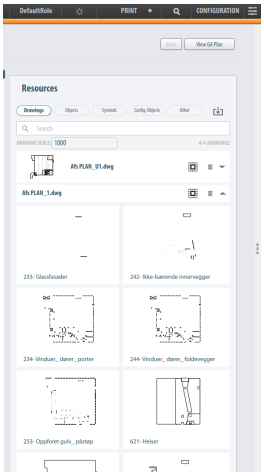


# 16.7 Resources Window

## 16.7.1 Resources Drawings

- To view and make all drawings available (drawings that have been copied to the AutroMaster disk), click the Drawings button

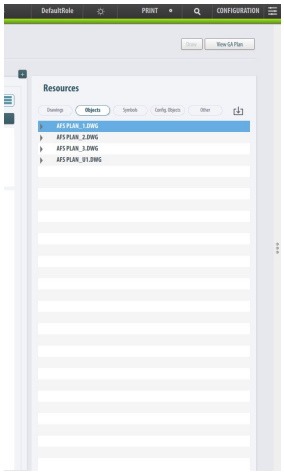


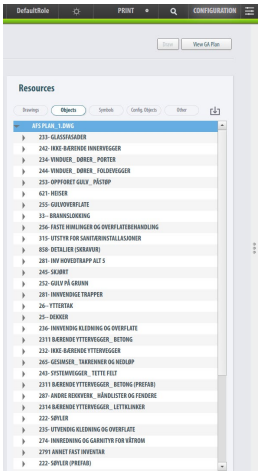




## 16.7.2 Resources Objects

- To view and make all objects available, click the Objects button

The examples below show two views, the rightmost in expanded view.

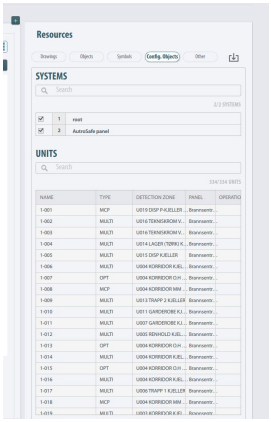


### 16.7.3 Resources Configuration Objects

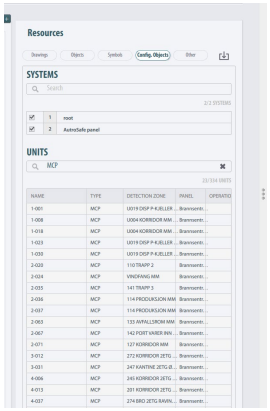
#### 16.7.3.1 Systems Search

- To search for configuration objects belonging to a system, type the system name in question in the Systems search field



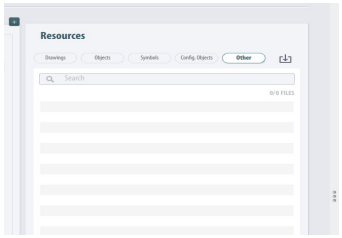
### 16.7.3.2 Units Search

- Select the system(s) by clicking the checkbox in question (in this example, only “Afs” is shown)
- To search for units belonging to this system, enter the type of unit (for example, Manual Call Point, MCP) in the Units search field




### 16.7.4 Other

Used for other files with descriptions, for example, internal descriptions.

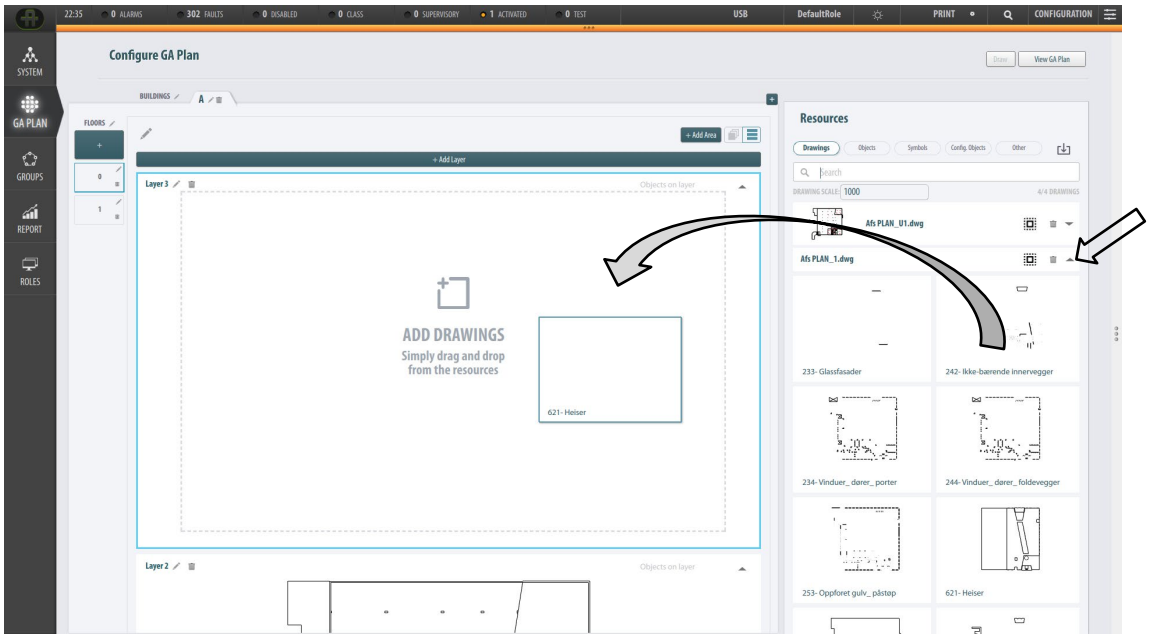


# 16.8 Adding AutoCAD Drawings to an AutroMaster Layer

Each AutroMaster layer can include a single layer of an AutoCAD drawing, or multiple layers of an AutoCAD drawing.

## 16.8.1 Adding a Single Layer of an AutoCAD Drawing to an AutorMaster Layer

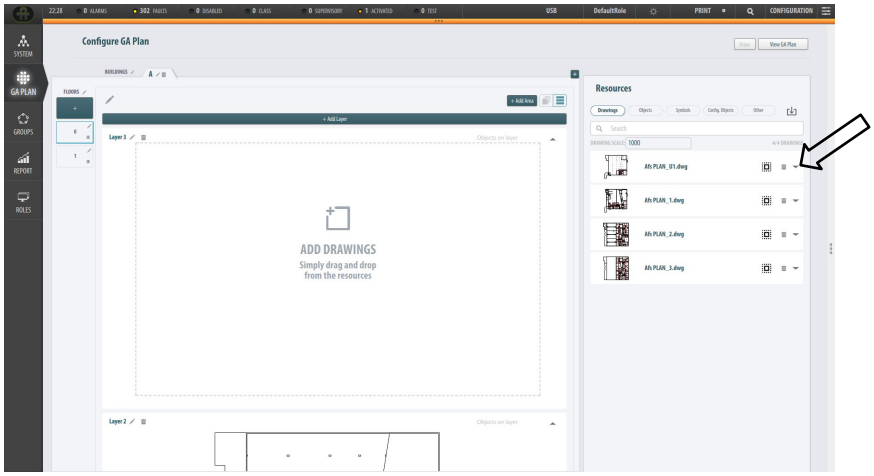
- Click +Add Layer to add a new AutroMaster layer, or select an existing one
- In the Resources window, select Drawings and the floor plan in question, then click the triangle symbol (pointing downward) ▼ (which then will point upward) to expand and reveal the available layers of AutoCAD drawings
- Simply drag and drop the selected drawing into the AutroMaster layer



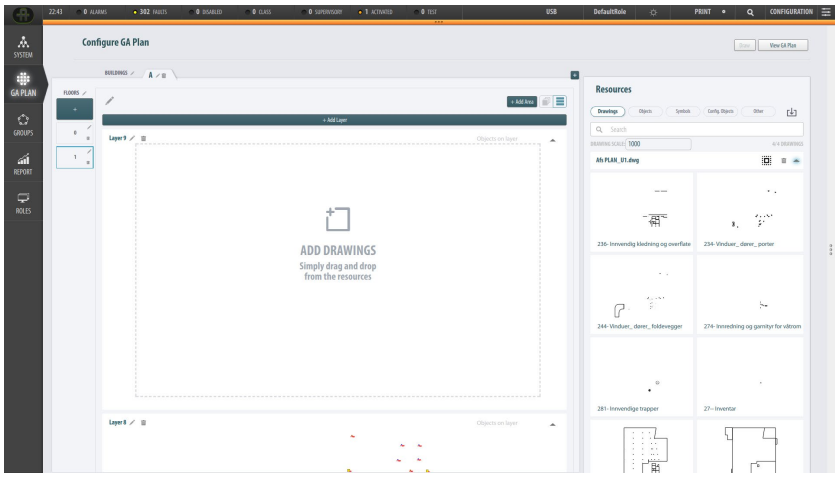

The selected drawing will appear in the AutroMaster layer.

### 16.8.2 Adding Multiple Layers or All layers of AutoCAD Drawings to an AutroMaster Layer

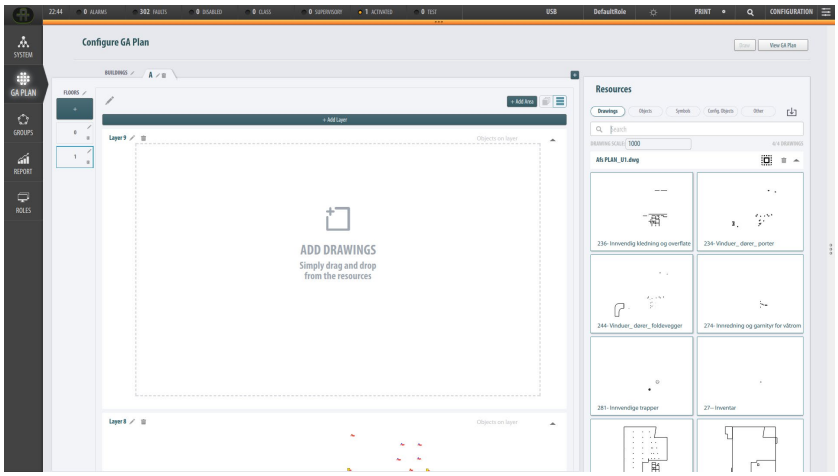
- Click +Add Layer to add a new AutroMaster layer, or select an existing one
- In the Resources window, select Drawings and the floor plan in question



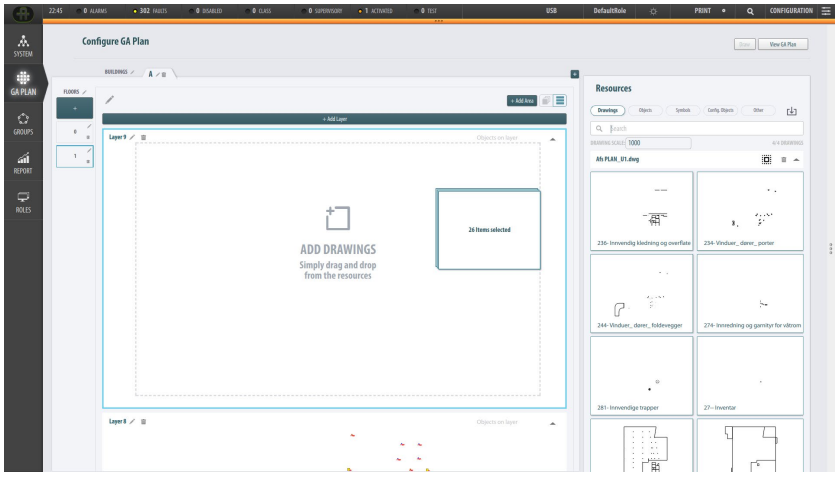

- Click the triangle symbol (pointing downward) ▼ (which then will point upward) to expand and reveal the available layers of AutoCAD drawings

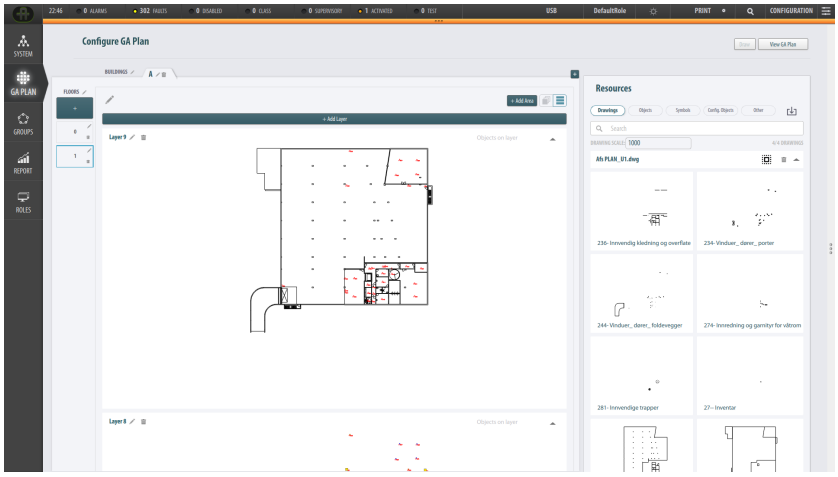



- Multi-select AutroCAD drawings one by one (select several by pressing and holding down the Ctrl button) or select all of them by clicking the Select All Layers button ⧈ (as shown below)




- Simply drag and drop the selected layers of the drawings into the AutroMaster layer



# 16.9 Adding Objects to an AutroMaster Layer

Each floor can include several different AutroMaster layers.

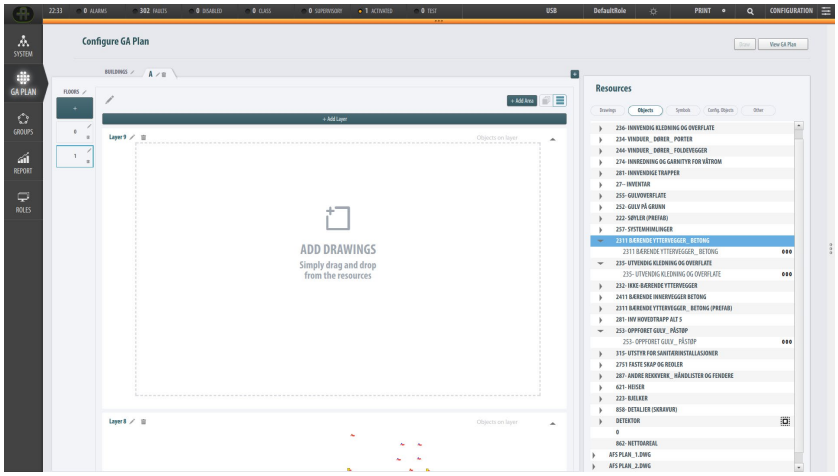
- Click +Add Layer to add a new AutroMaster layer, or select an existing one

One layer should be used for objects, meaning detectors, manual callpoints and other inventory.

- To add an object or several objects to a layer, determine the AutroMaster layer you want to add the object(s) to (for example, Layer 2)

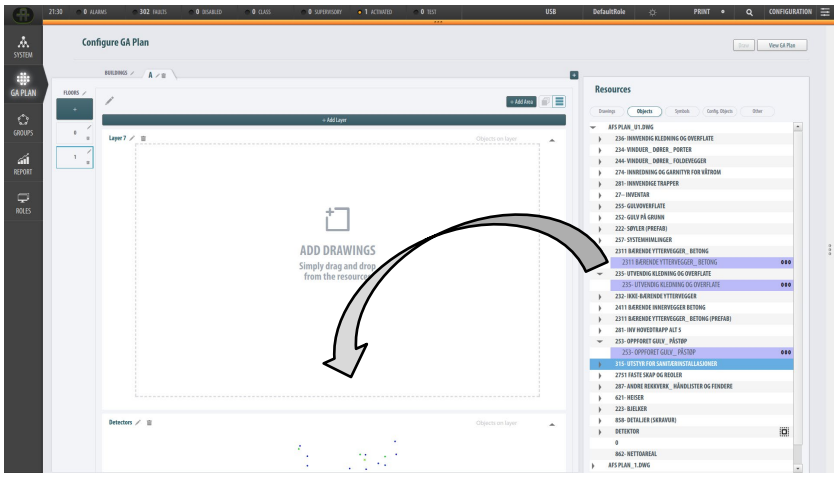
### 16.9.1.1 Expanding an object to reveal available objects

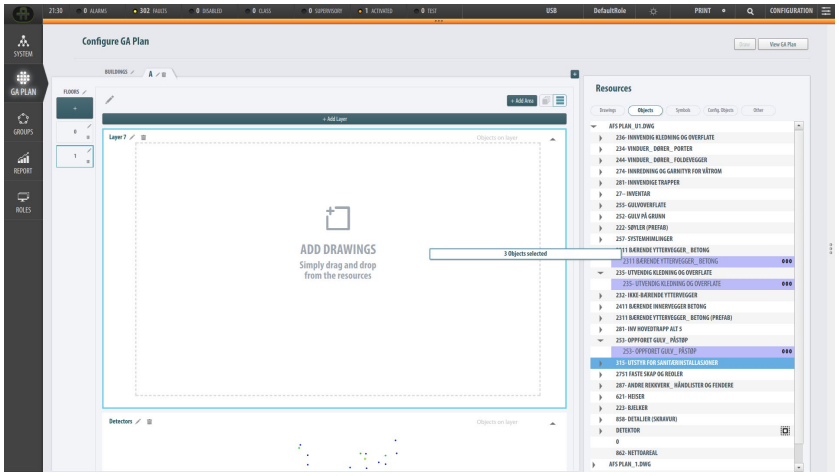
- Click the triangle button in front of an object (pointing to the right) (which then will point downward) to expand the main object and reveal all available objects



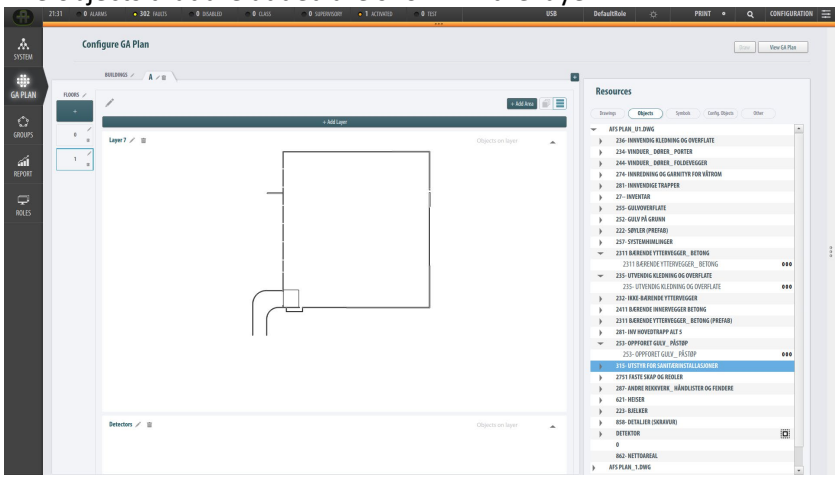
### 16.9.1.2 Selecting/Multi-selecting objects

- Select or multi-select (using the Ctrl key) the objects in question, then simply drag and drop the selected objects into the selected AutroMaster layer



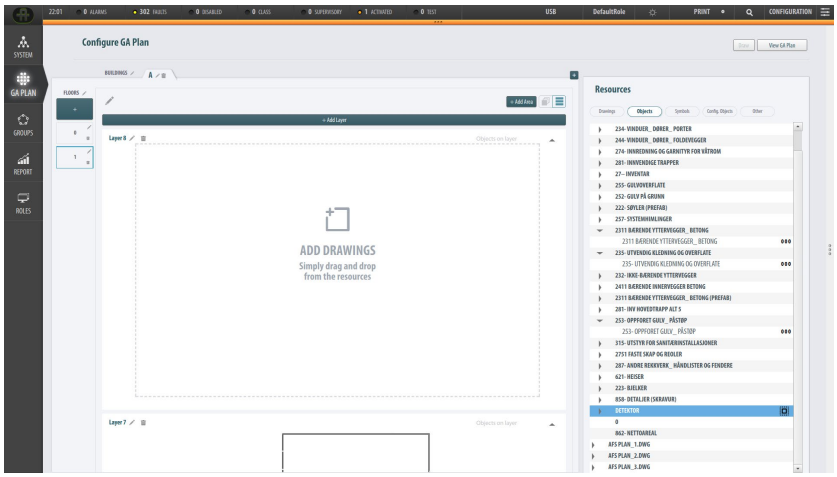




The objects that are added are shown in the layer.

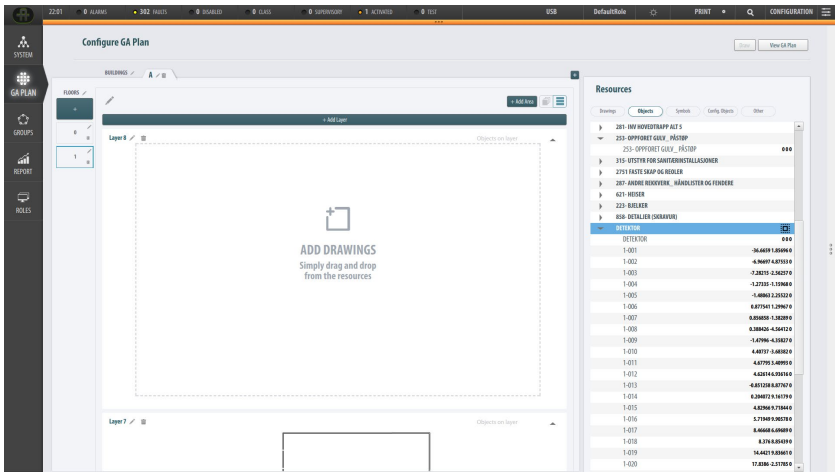


### 16.9.1.3 Selecting All Available Detectors

- Click DETECTOR

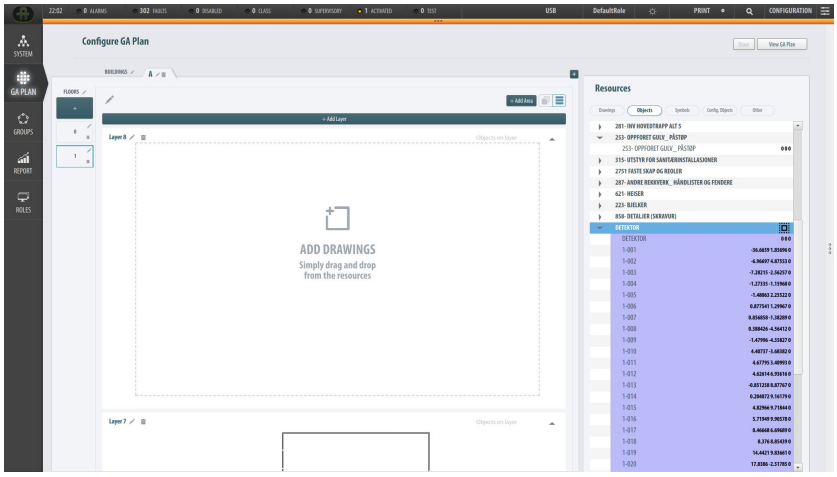



- Click the triangle button in front of DETECTOR (pointing to the right) ▶ (which then will point downward) to reveal all available detectors



You can either multi-select detectors one by one or select all of them as shown below.

- Select all detectors clicking the Select All Layers button 




- Simply drag and drop the selected detectors into the AutroMaster layer