

easYview

Customize your easYview-xx-150 Rel. 3.0 or higher

Optional Supplementary Information

Alert boxes

The following alert boxes can be used in this publication:



“DANGER” indicates a hazardous situation which, if not avoided, will result in death or serious injury.



“WARNING” indicates a hazardous situation which, if not avoided, could result in death or serious injury.



“CAUTION”, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



“NOTICE” is used to address practices not related to personal injury.



“IMPORTANT” is used to address practices not related to personal injury.

Personnel



WARNING!
Hazards due to insufficiently qualified personnel!

If unqualified personnel perform work on or with the control unit hazards may arise which can cause serious injury and substantial damage to property.

- **Therefore, all work must only be carried out by appropriately qualified personnel.**

For further Product Support Options, Product Service Options, Returning Equipment for Repair, and/or Engineering Services please [download application note #37573](#).

Documentation itself



Read this entire application note and all other publications pertaining to the work to be performed before installing, operating, or servicing this equipment. Practice all plant and safety instructions and precautions.

Failure to follow instructions can cause personal injury and/or property damage!

Any unauthorized modifications to or use of this equipment outside its specified mechanical, electrical, or other operating limits may cause personal injury and/or property damage, including damage to the equipment.

Any such unauthorized modifications: constitute "misuse" and/or "negligence" within the meaning of the product warranty thereby excluding warranty coverage for any resulting damage and invalidate product certifications or listings.



This publication may have been revised or updated since this copy was produced. If the cover of the publication states "Translation of the Original Instructions", the original source may have been updated since this translation was made.

The latest version of most publications is available on the publications page.

www.woodward.com/publications

If a specific publication is not there, please contact a customer service representative to get the latest copy.

1 Contents

2	General	4
3	Software Tools	4
3.1	Atvise Server.....	4
3.2	Atvise builder software	5
3.3	Atvise Connect.....	11
3.4	File System (SFTP).....	13
4	Example: Add a new page	19
4.1	Create a new page.....	19
4.2	Add a value to a page	19
5	Example: Add new datapoint from Modbus list	25
6	Example: Adjust the existing easYgen page	27
7	Example: Add a new device to the project	32
7.1	Create a new connection	32
7.2	Avoid connection override	34

2 General

This document contains instructions that enable you to customize the Many-2-One (mini-SCADA) visualization of your easYview-10-150 or 15-150 Release 3.x

NOTICE

Please read the Technical Manual of the easYview (37945) before reading this document.

The used integrated development environment (IDE) is the Atvise Toolset from Bachmann Visutec GmbH.

This document will give a short overview of the Atvise software tools. Additional, some examples shall help to do small modifications without spending too much time in learning the IDE.

We still recommend participating in an Atvise training course and working with the existing Atvise help and training material available on the Atvise homepage.

3 Software Tools

3.1 Atvise Server

The Atvise Server is pre-installed on the easYview and already licensed. The Atvise Server is mainly responsible for sending and receiving data to external devices over OPC.

For Modbus connection to the easYgen-XT/LS6-XT, the Atvise connect software must be used. The atvise connect software is a Modbus-to-OPC interface and is described under chapter 3.3.

3.2 Atvise builder software

The Atvise builder software must be used to modify the existing mini-SCADA visualization. The installation file can be downloaded direct from <https://customer.atvise.com/> → atvise® download → atvise® → atvise® 3.9, or from the easYview documentation site, <http://wwdmanuals.com/easYview>. Run the installation file and follow the instruction of the installation wizard. For the installation, administrator rights are required.

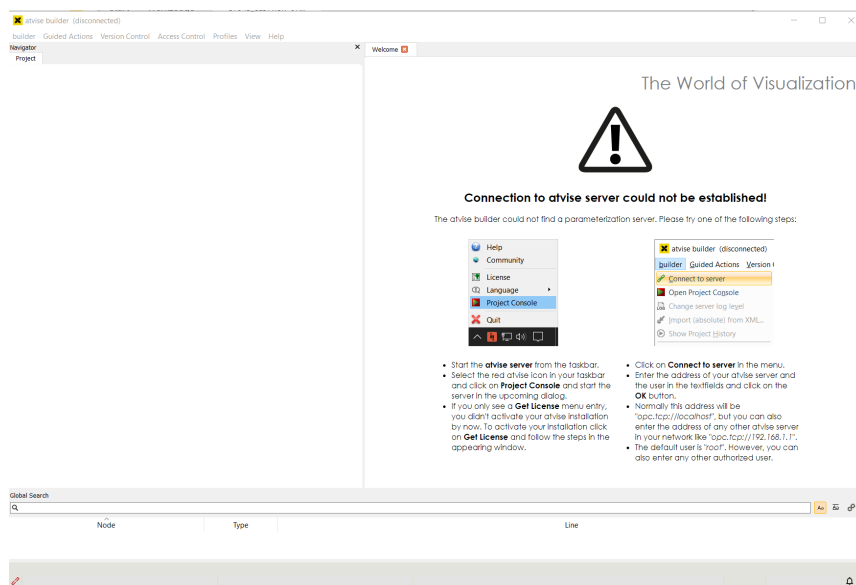
NOTICE

To avoid incompatibility issues, ensure the Atvise builder software version is 3.9.1

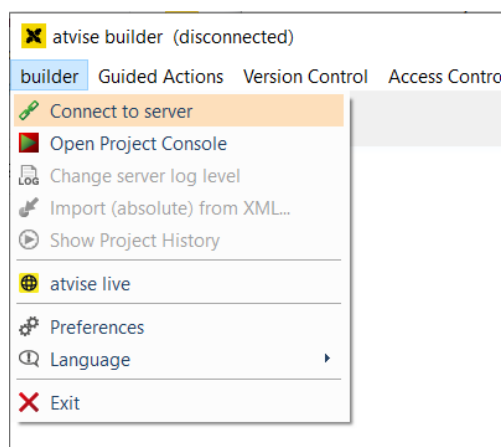
Open the atvise builder software



atvise builder

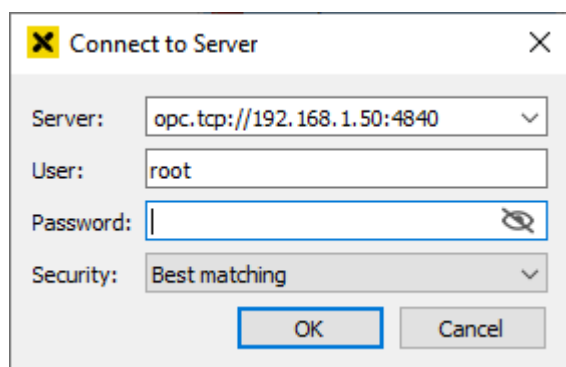


To connect to the easYview go to tab “builder” and select “Connect to server”.



To establish the connection, enter the following parameters and press “Ok”:

- Server: “opc.tcp://<IP address of easYview>:4840”
- User: “root”
- Password: no password needed
- Security: Best matching



After connecting to the Atvise server, the Atvise builder tree is shown on the left as shown below.

The window on the left shows the content of the selected node in the tree.

This tree represents the whole content of the mini-SCADA visualization which is also saved in one file (nodes.db). More details about the nodes.db are described in [File System \(SFTP\)](#). Open a node (double click) in the atvise builder tree will open the content in the right window and can be directly modified.

How to use the atvise builder is explained below in the Example chapters.

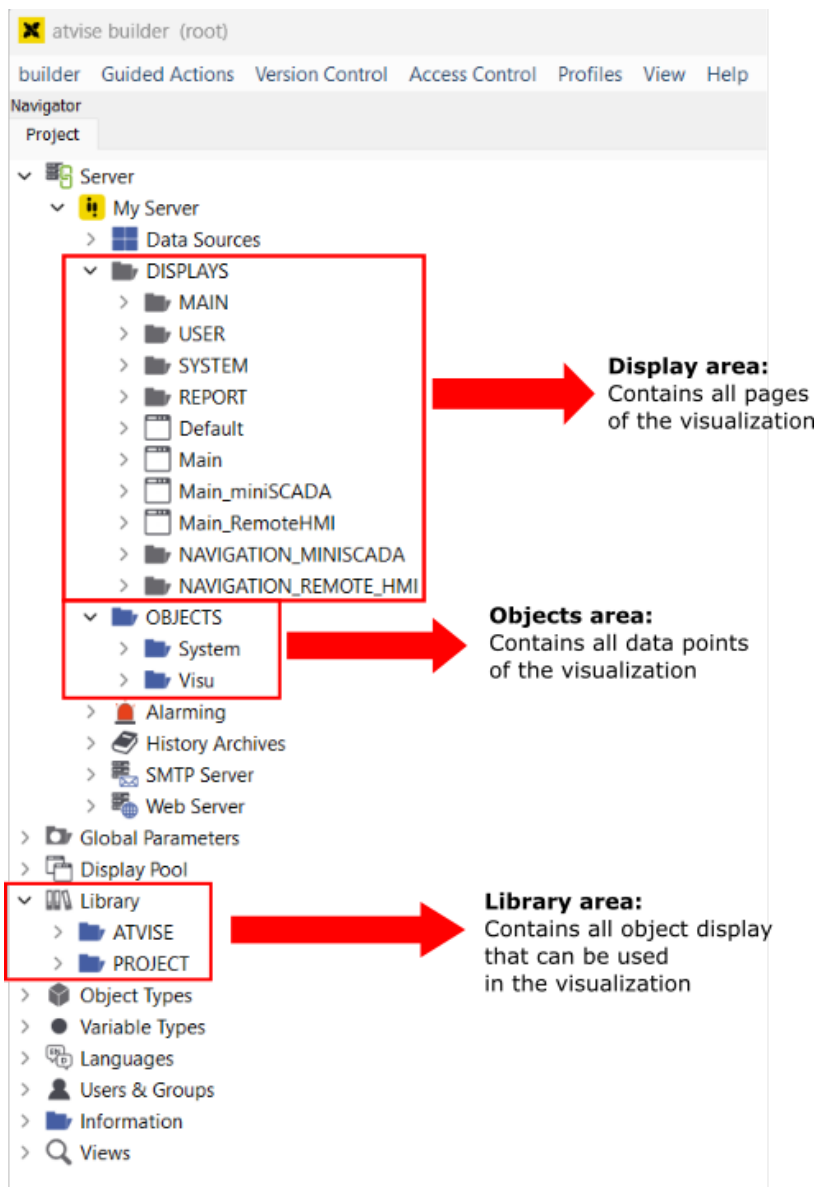


Figure 1 Atvise builder project tree with the most important areas

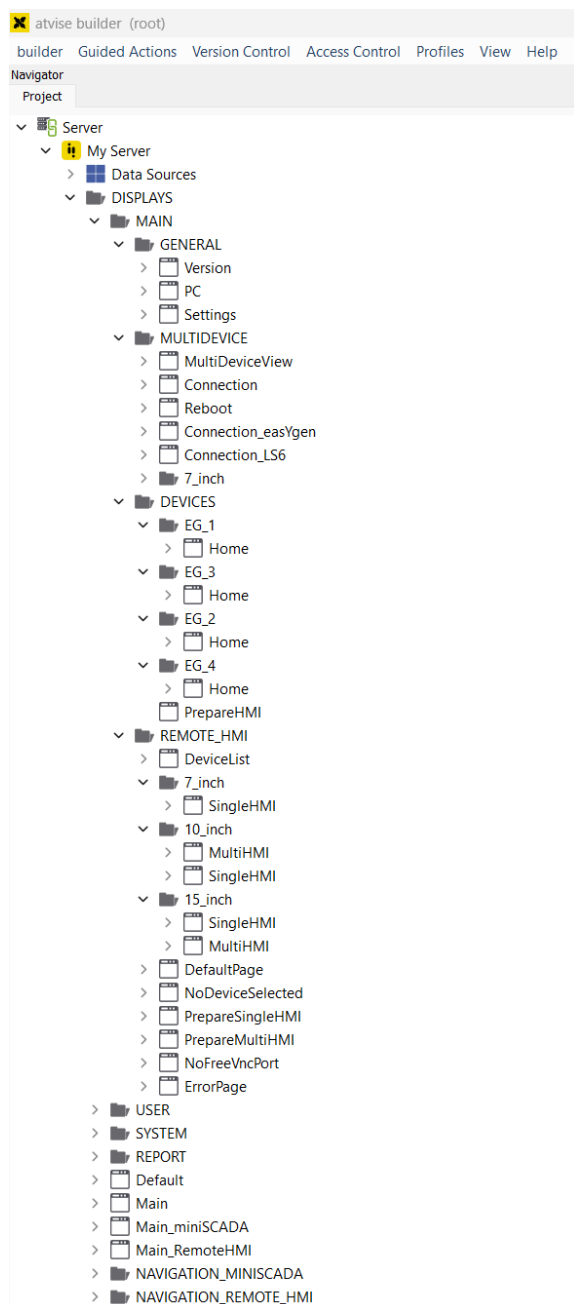
The following three areas are the most important parts in the atvise builder project tree.

There are some more areas which have different functionalities. To fully understand how to work with the atvise builder we recommend participating in a training course at Bachmann Visutec GmbH and to use the atvise builder help and trainings material. In this document, only parts of the atvise builder are explained to understand the following example chapters.

Display area:

In this area, all pages of the visualization are located. Each page can be individually filled with values, texts, colors and other various display objects. A page is not automatically shown in the visualization, there must be also a reference created which allows to navigate to it. This can be through the navigation or any button of any other page. The "Default" page defines the frame of the visualization. It is always shown around the actual pages.

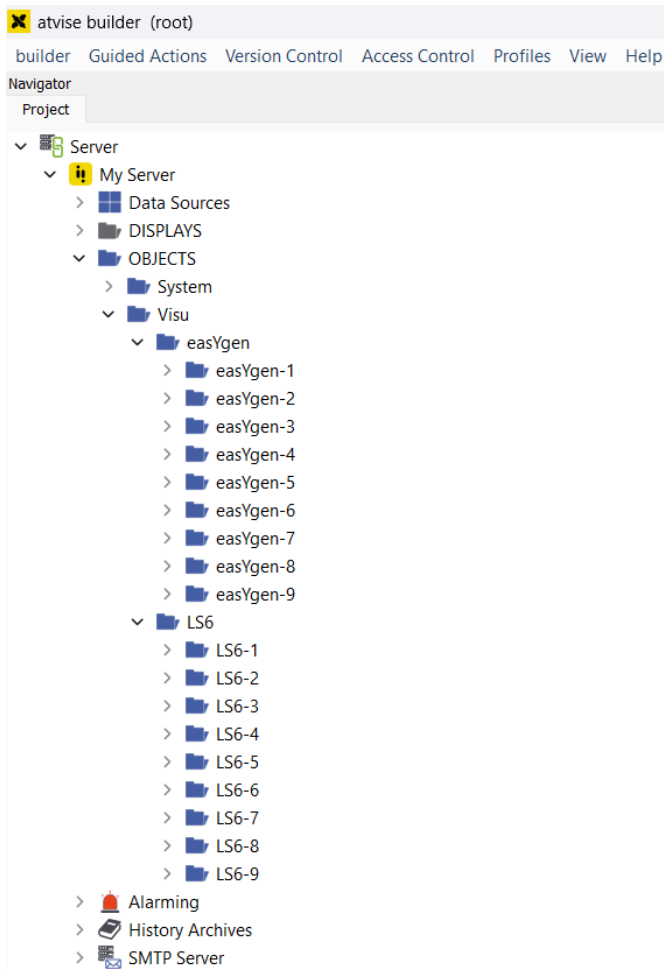
Each page in this folder structure is somewhere used in the visualization. Some will be launched through the navigation, some through a button from the frame or from other pages.



Object area:

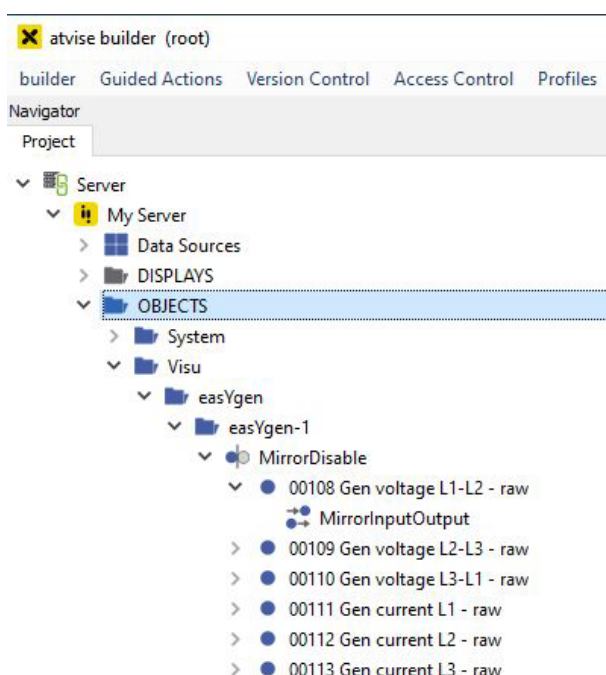
In the Object area are all available datapoint located. A datapoint is a node which saves data. These data are mostly measurement values which are received via Modbus. But it can also be values which are created internally. For example, any configuration settings which need to be saved.

In the “Visu” folder, all data points are located which save the received Modbus values from 1-9 easYgens. The structure and the Modbus connections are also prepared for 1-9 LS6-XT devices. But no LS6 datapoint is created because LS6 devices are not used in the default visualization. Refer to [Example: Add new datapoint from Modbus list](#) for more information about how to add easYgen or LS6 datapoints.

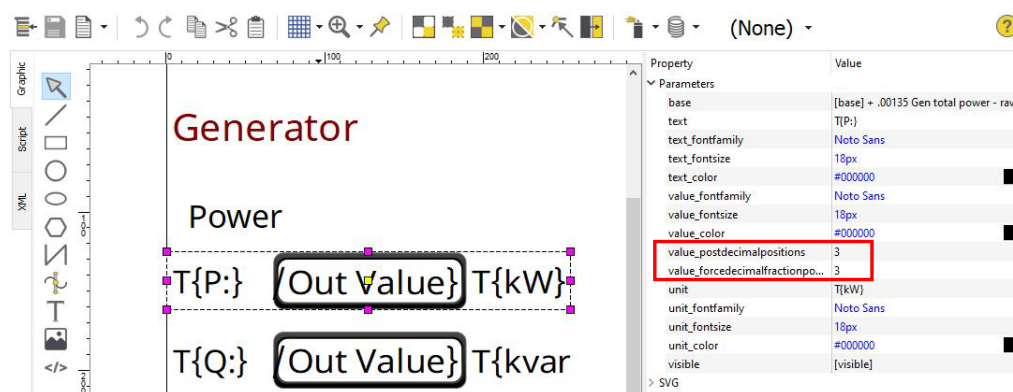


The used Modbus protocol for receiving easYgen data is 5016 and for LS6 data 5300. The nodes in the easYgen 1-4 folders are activated by default because they are used in the default visualization. All other data folder (easYgen 5-9 and LS6 1-9) are disabled by default. Refer to the easYview manual on how to enable additional device connections.

In each easYgen folder there is the same list of datapoints which are sorted by database index.



Data points with the extension “- raw” are the main data points which have exact the value like transmitted from the easYgen-3000XT. These data points may need to be formatted to match the easYgen data before transmitted via Modbus. To show the data formatted, use the parameter “value_postdecimalposition” and “value_forcedecimalfractionposition”. For details about the data format, refer to the easYgen manual→Protocol 5016.



The MirrorInputOutput subnode defines the reference to the according Modbus address.

In the “**System**” folder are all datapoint located which are internally used or for saving configuration settings.

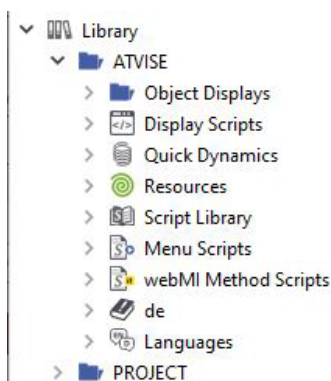
Library area:

The Library area contains mostly visualization object (Object Displays) and scripts (Display scripts). Object Display are needed to show the value of a datapoint on a page. Therefore, an Object Display must be placed on a page and referenced to a datapoint. This can be a simple object which just shows a value as text or a more complex object like Gauge or Bar-graph. Each object can be modified and changed to the desired view and functionality. To add functionality to an object, JavaScript code can be added directly

to the objects. If there is functionality which want to be used in different kind of objects, a Display script can be created which can then be reused multiple times.

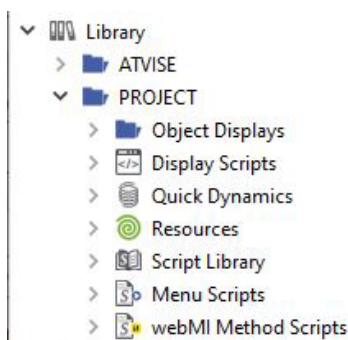
In the “ATVISE” folder all standard Atvise objects and scripts are located.

Note: Do not change here anything because with an update to a newer Atvise version this folder will be overridden, and all changes are lost.



The “PROJECT” folder is the place where to start modifying objects and scripts.

A common use-case would be to copy an object from the “Atvise” folder which is like what is needed and paste it into the “Project” folder where it can be modified to the appropriate needs.



3.3 Atvise Connect

With the Atvise Connect software from Bachmann Visutec GmbH all Modbus connections to external devices like easYgen-XT, LS6-XT etc can be modified. The atvise connect software also converts the received Modbus data to OPC which can then be processed by the atvise server on the easYview.

For each external device at least one connection must be created. If different sample rates are needed multiple connections per device must be created because every connection has only one fix defined sample rate. This will be explained more in [Example: Add a new device to the project](#).

Installing Atvise connect software on your PC

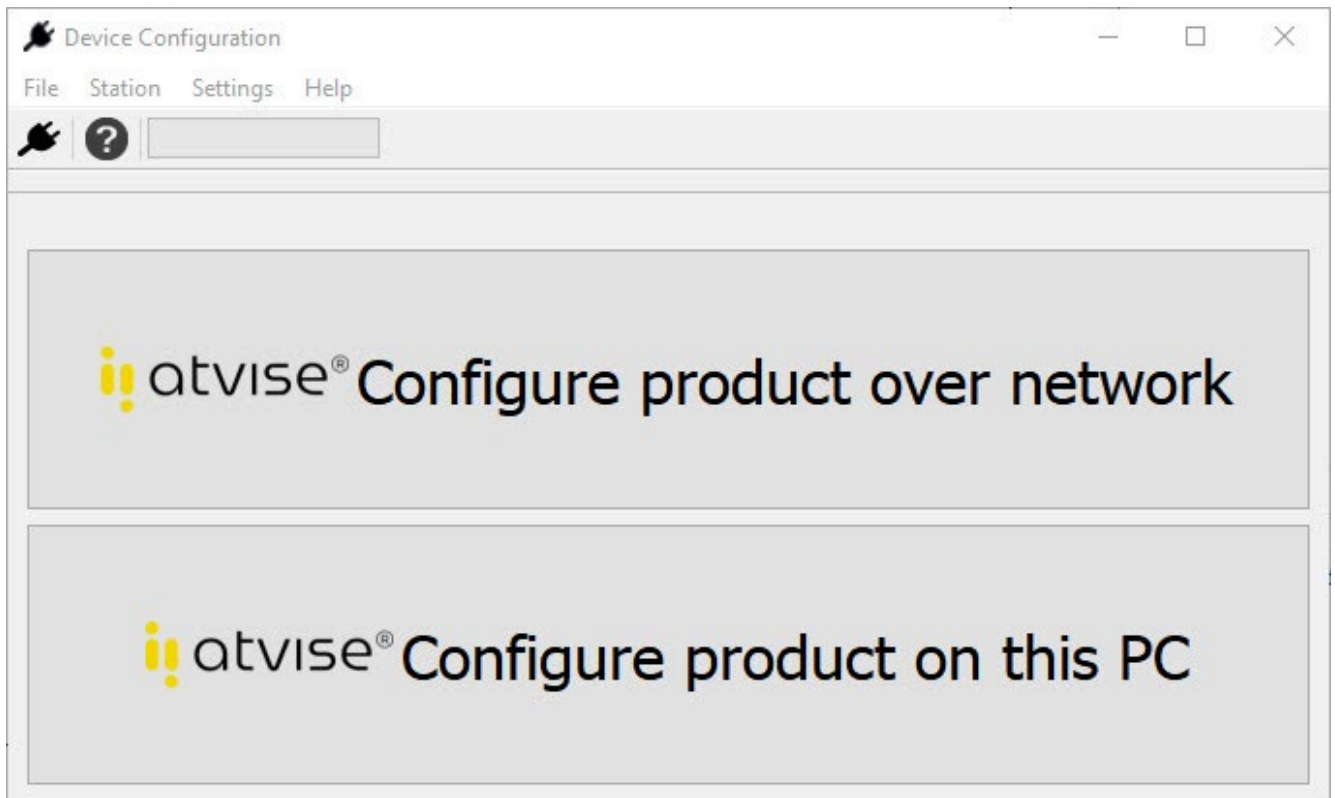
Note: This software only needs to be installed for changes on device connections and/or Modbus variable lists.

The installation file can be downloaded direct from <https://customer.atvise.com/> → atvise® download → atvise® connect → atvise® connect 2.6.7, or from the easYview documentation site, <http://wwdmanuals.com/easYview>.

Note: To install Atvise connect on your PC you need Administrator rights.

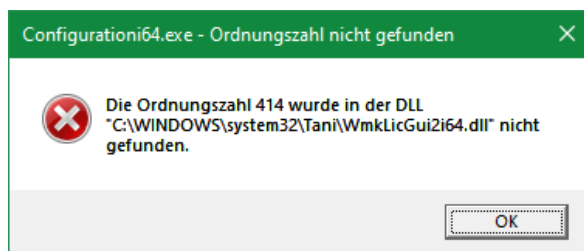


After launching it the following window is shown.



Troubleshooting

If the error message „The ordinal number 414 could not be found in DLL“ pops-up instead when starting the software.

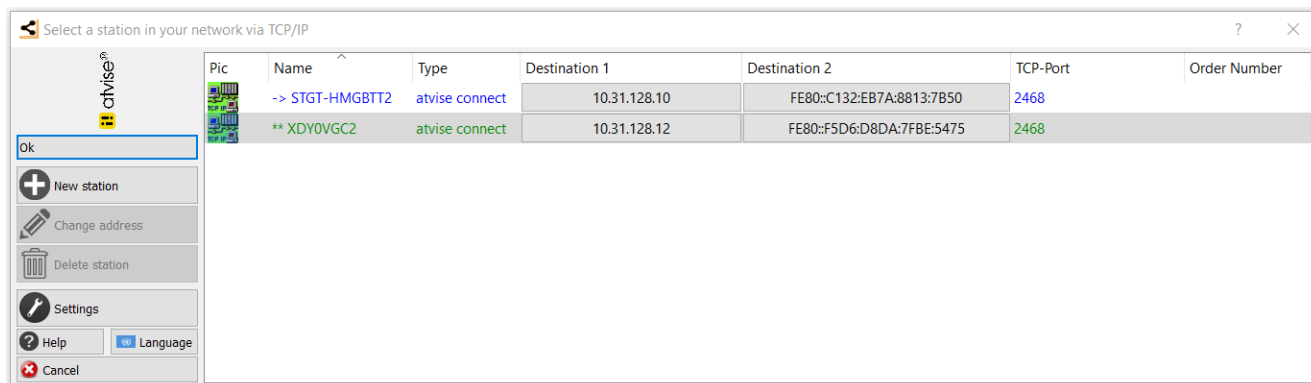


Delete folder "C:\WINDOWS\System32\Tani", uninstall the software, restart the PC, and install it again.

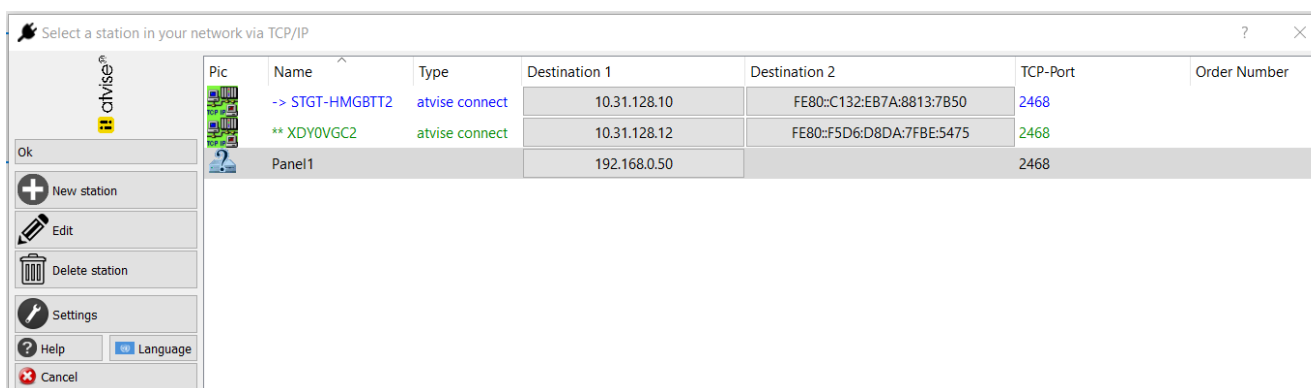
First time start

When starting atvise connect, select “Configure product over network”.

A list of available stations is shown. If atvise connect is started the first time, the list of stations is empty.



Define the easYview as a station and set its IP address by clicking the “New station” button, here the easYview is named “Panel1”.



In the EasYview there are 6 atvise connect instances running. For each instance a separate station can be created. Each instance can have up to three active Modbus connections. The instances are differentiated by their TCP-Port. How the 6 atvise instances are predefined is listed below.

Atvise connect 1 (miniScada): TCP-Port 2468, Modbus connection easYgen-1, easYgen-2, easYgen-3

Atvise connect 2: TCP-Port 2469, Modbus connection easYgen-4, easYgen-5, easYgen-6

Atvise connect 3: TCP-Port 2470, Modbus connection easYgen-7, easYgen-8, easYgen-9

Atvise connect 4: TCP-Port 2471, Modbus connection LS6-1, LS6-2, LS6-3

Atvise connect 5: TCP-Port 2472, Modbus connection LS6-4, LS6-5, LS6-6

Atvise connect 6: TCP-Port 2473, Modbus connection LS6-7, LS6-8, LS6-9

NOTE: If creating a new Modbus connection, an existing connection must be disabled or deleted.

How to use the Atvise connect software is explained in [Example: Add a new device to the project](#).

3.4 File System (SFTP)

It is possible to connect to the easYview via SFTP client.

On the file system there are some areas which are free accessible.

The default username and password are:

Username: user

Password: user

We highly recommend changing the default password to have a better protection and to avoid unintended changes. How to change the password is described in the easYview manual, see <http://wwdmanuals.com/easYview>.

/userdata/user/				
Name	Größe	Geändert	Rechte	Besitzer
..		24.03.2021 11:28:06	rwXr-Xr-X	root
DeviceScanner		24.03.2021 11:28:15	rwXr-Sr-X	root
etc		24.03.2021 11:28:15	rwX--S--X	root
project		15.12.2023 11:34:00	rwXr-Xr-X	user
Vnc2Web1		31.10.2023 11:21:49	rwXr-Sr-X	root
Vnc2Web2		24.03.2021 11:28:15	rwXr-Sr-X	root
Vnc2Web3		24.03.2021 11:28:15	rwXr-Sr-X	root
Vnc2Web4		24.03.2021 11:28:15	rwXr-Sr-X	root
Vnc2Web5		31.10.2023 11:21:59	rwXr-Sr-X	root
copyConnectini	1 KB	24.03.2021 11:28:15	r-Xr-Xr-X	root
setDate	1 KB	24.03.2021 11:28:15	r-Xr-Xr-X	root
startWebApi	1 KB	24.03.2021 11:28:15	r-Xr-Xr-X	root
stopWebApi	1 KB	24.03.2021 11:28:15	r-Xr-Xr-X	root

Under **/home/user** there are three important files located which can be used as ssh commands.

1. **copyConnectini**: is used to create a copy of the DeviceConfig.ini file from the restricted area to the /home/user folder. The DeviceConfig.ini file contains all connections to external devices. The original file is still in restricted area. This command is needed if the connections to external devices are changed with the atvise connect tool, see [Example: Add a new device to the project](#).
2. **startWebApi**: starts the atvise server and the visualization. This is needed after the application was updated (nodes.db)
3. **stopWebApi**: is used to stop the atvise server and the visualization. This is needed before updating the application (nodes.db).


To run one of the commands, follow these instructions:

1. Open the command window (cmd)
2. Establish a ssh connection:
 - a. Enter the command 'ssh user@<ip-address>' (replace <ip-address> by the IP address of the easYview)
 - b. Enter the default password "user" (if not changed).
3. Enter "." followed by the command to use.
 - a. Example: user@tcp71wn10pa:~\$./copyConnectini
→ this will copy the file 'DeviceConfig.ini' to the folder /home/user folder.

In the **/home/user/project** folder are the following files which can be used/updated:

1. **atserver_std.log**: is the server log file. This may be helpful to look at in case of troubleshooting.
2. **atserver.ini**: This file contains server parameter. For more information refer to the atvise help.
3. **Symbol.png**: Is the logo in the upper left corner of the Remote HMI screen.

4. **Logo.png**: Is the logo in the upper left corner of the visualization. This can be replaced by a customized logo. Therefore, refer to personalization application note under <http://wwdmanuals.com/easYview>
5. **nodes.db**: This is a database file which has the whole application of the visualization included. If this file gets deleted a new empty nodes.db is generated after boot up. The nodes.db can be replaced by another nodes.db to update/change the mini-SCADA visualization. Before replacing the node.db the server and the application must be stopped, like described above (stopWebApi) and started afterwards (startWebApi).
6. **TempDeviceConfig.ini**: This file is needed if there was a change made in the connection page (changed IP address of an easYgen, for instance). The TempDeviceConfig.ini has the same structure like the DeviceConfig.ini (which is the actual config file). But the TempDeviceConfig.ini has some variable names (for IP, Slave ID, enable flag) inside. When a reboot is triggered over the connection page the variables in the TempDeviceConfig.ini gets replaced with the actual values and the original DeviceConfig.ini gets replaced. The DeviceConfig.ini is not free accessible but can be copied to the free accessible area like described above.
7. **VncSettings.json**: Saves the settings for the VNC connection. This file must not be changed.
8. **Connection.json**: Saves the settings of the easYgen connections. This file must not be changed.
9. **Configuration.json**: Saves the settings of the EasYview (Ip address, Brightness, etc.).
10. **GetSettings.json**: Has same information about the Device. This file may gets deleted and created internally. This file must not be changed.
11. **ModeSettings.json**: Saves the application mode settings including the Auto Connection.
12. **index.html**: Start page which is shown during boot up. This file must not be changed.

/userdata/user/project/				
Name	Größe	Geändert	Rechte	Besitzer
		24.03.2021 11:28:15	rw-r--r--	root
database		24.03.2021 11:29:45	rw-r--r--	user
lost+found		24.03.2021 11:28:15	rw-r--r--	user
trunk		07.12.2023 08:34:01	rw-r--r--	user
atserver.ini	1 KB	24.03.2021 11:28:15	rw-r--r--	user
atserver_cnv.log	86 KB	13.12.2023 14:22:54	rw-r--r--	user
atserver_std.log	810 KB	13.12.2023 14:23:06	rw-r--r--	user
Configuration.json	1 KB	21.11.2023 10:45:57	rw-r--r--	user
Connection.json	2 KB	08.12.2023 15:03:31	rw-r--r--	user
GetSettings.json	1 KB	13.12.2023 14:34:01	rw-r--r--	root
hardwarecode.txt	1 KB	24.03.2021 11:29:29	rw-r--r--	user
index.html	3 KB	12.10.2023 08:39:55	rw-r--r--	user
Logo.png	18 KB	02.10.2023 11:15:09	rw-rw-rw-	user
ModeSettings.json	1 KB	12.12.2023 15:24:09	rw-r--r--	user
nodes.db	30,356 KB	15.12.2023 11:33:57	rw-r--r--	user
Symbol.png	36 KB	02.10.2023 11:15:09	rw-r--r--	user
TempDeviceConfig.ini	15 KB	13.12.2023 14:22:21	rw-r--r--	user
VncSettings.json	1 KB	12.12.2023 15:24:09	rw-r--r--	user

In the **/home/user/etc** folder are subfolders for each available atvise connect instance:

1. **miniScada**: In this subfolder are files for the atvise server and the first atvise connect instance
2. **connect2**: In this subfolder are files for the second atvise connect instance
3. **connect3**: In this subfolder are files for the third atvise connect instance
4. **connect4**: In this subfolder are files for the fourth atvise connect instance
5. **connect5**: In this subfolder are files for the fifth atvise connect instance
6. **connect6**: In this subfolder are files for the sixth atvise connect instance

In each atvise connect subfolder there are the configuration files for three Modbus connections:

miniScada: Modbus connection easYgen-1, easYgen-2, easYgen-3

connect2: Modbus connection easYgen-4, easYgen-5, easYgen-6

connect3: Modbus connection easYgen-7, easYgen-8, easYgen-9

connect4: Modbus connection LS6-1, LS6-2, LS6-3


connect5: Modbus connection LS6-4, LS6-5, LS6-6

connect6: Modbus connection LS6-7, LS6-8, LS6-9

/userdata/user/etc/				
Name	Größe	Geändert	Rechte	Besitzer
..		24.03.2021 11:28:41	rwXr-sr-x	root
connect2		24.03.2021 11:29:54	rwXr-sr-x	user
connect3		24.03.2021 11:29:54	rwXr-sr-x	user
connect4		24.03.2021 11:29:56	rwXr-sr-x	user
connect5		24.03.2021 11:29:56	rwXr-sr-x	user
connect6		24.03.2021 11:30:00	rwXr-sr-x	user
miniScada		14.08.2025 14:02:56	rwXr-sr-x	user

NOTE: Do not delete or rename any subfolder or file in this area. This may lead to unexpected behavior of the device.

In the **/home/user/etc/miniScada** folder are the following files:

/userdata/user/etc/miniScada/				
Name	Größe	Geändert	Rechte	Besitzer
		24.03.2021 11:28:41	rw-r--r--	user
ctrl		24.03.2021 11:31:32	rw-r--r--	root
trusted		24.03.2021 11:31:32	rw-r--r--	root
untrusted		24.03.2021 11:31:32	rw-r--r--	root
atserver.lic	2 KB	24.03.2021 11:30:54	rw-r--r--	user
AtviseVisulInfo.json	1 KB	09.10.2025 14:09:39	rw-r--r--	root
clientCert.pem	2 KB	09.10.2025 14:15:01	rw-rw-rw-	root
clientKey.pem	2 KB	09.10.2025 14:15:01	rw-rw-rw-	root
Conn-easYgen-1.Symbol	18 KB	24.03.2021 11:28:41	rw-r--r--	user
Conn-easYgen-2.Symbol	18 KB	24.03.2021 11:28:41	rw-r--r--	user
Conn-easYgen-3.Symbol	18 KB	24.03.2021 11:28:41	rw-r--r--	user
DeviceConfig.ini	4 KB	18.09.2025 18:09:45	rw-r--r--	user
DeviceInfo.json	1 KB	09.10.2025 14:09:39	rw-r--r--	root
DockerImageAtviseServerInfo.json	1 KB	09.10.2025 14:09:39	rw-r--r--	root
DockerImageDebianInfo.json	1 KB	09.10.2025 14:09:39	rw-r--r--	root
DockerImageDeviceScannerInfo.json	1 KB	09.10.2025 14:09:39	rw-r--r--	root
DockerImageWebVncServerInfo.json	1 KB	09.10.2025 14:09:39	rw-r--r--	root
Logger.ini	1 KB	24.03.2021 11:31:31	rw-rw----	root
serverCert.pem	2 KB	09.10.2025 14:14:59	rw-rw-rw-	root
serverKey.pem	2 KB	09.10.2025 14:14:59	rw-rw-rw-	root

Atserver.lic:


This file is the atvise server license file. Do not rename or delete this file.









Conn-easYgen-X.Symbol:

The Symbol files contain the Modbus list with all available datapoints the easYgen sends out. Each of the datapoints can be added to the visualization project. Each symbol file is assigned to a specific Modbus connection used by atvise connect. Therefore, the naming of these files are dedicated. The name of the symbol file has to be "Conn-" + "Connection name" + ".Symbol". The Connection names are shown in the atvise connect in the "Name" column, see below.

atvise connect [eamb9918-cc827f395515] Connection Paths

File View Connection Diagnostics Variables Station Settings Help




Pic	Name	Typ	Parameters
	Configuration	Config functions	Read/write, OPC Read 7 Write 7
	easYgen-1	Ip Modbus	TCP/IPClient 192.168.10.111 Port 502 Tcp Polltime 1000, Read/write, OPC Read 7 Write 7
	easYgen-2	Ip Modbus	TCP/IPClient 192.168.10.102 Port 502 Tcp Polltime 1000, Read/write, OPC Read 7 Write 7
	easYgen-3	Ip Modbus	TCP/IPClient 192.168.10.103 Port 502 Tcp Polltime 1000, Read/write, OPC Read 7 Write 7
	Memory	Memory	Read/write, OPC Read 7 Write 7
	OPC UA Server	OPC UA Server	TCP/IPServer localhost Port 4855 Tcp Write
	OPC UA System Items	UA Item access	Read/write, OPC Read 7 Write 7
	System	System data	Read/write, OPC Read 7 Write 7

DeviceConfig.ini:

The DeviceConfig.ini file contains the parameter for each connection which is configured in this atvise connect instance. This file gets overridden if making changes on the connection page (IP address of the easYgens, for instance) followed by a apply/reboot.

In the **/home/user/etc/connect2-6** folder are the following files:

/userdata/user/etc/connect2/				
Name	Größe	Geändert	Rechte	Besitzer
		24.03.2021 11:28:41	rw-r--r--	user
cr1		24.03.2021 11:29:54	rw-r--r--	user
trusted		24.03.2021 11:29:54	rw-r--r--	user
untrusted		24.03.2021 11:29:54	rw-r--r--	user
clientCert.pem	2 KB	09.10.2025 14:09:53	rw-rw-rw-	user
clientKey.pem	2 KB	09.10.2025 14:09:53	rw-rw-rw-	user
Conn-easYgen-4.Symbol	18 KB	24.03.2021 11:28:41	rw-r--r--	user
Conn-easYgen-5.Symbol	18 KB	24.03.2021 11:28:41	rw-r--r--	user
Conn-easYgen-6.Symbol	18 KB	24.03.2021 11:28:41	rw-r--r--	user
DeviceConfig.ini	4 KB	18.09.2025 18:09:45	rw-r--r--	user
Logger.ini	1 KB	24.03.2021 11:29:51	rw-rw-r--	user
serverCert.pem	2 KB	09.10.2025 14:09:48	rw-rw-rw-	user
serverKey.pem	2 KB	09.10.2025 14:09:48	rw-rw-rw-	user

Conn-easYgen-X.Symbol:

The Symbol files contain the Modbus list with all available datapoints the easYgen sends out. Each of the datapoints can be added to the visualization project. Each symbol file is assigned to a specific Modbus connection used by atvise connect. Therefore, the naming of these files are dedicated. The name of the symbol file has to be "Conn-" + "Connection name" + ".Symbol". The Connection names are shown in the atvise connect in the "Name" column, see below.

DeviceConfig.ini:

The DeviceConfig.ini file contains the parameter for each connection which is configured in this atvise connect instance. This file gets overridden if making changes on the connection page (IP address of the easYgens, for instance) followed by a apply/reboot.

4 Example: Add a new page

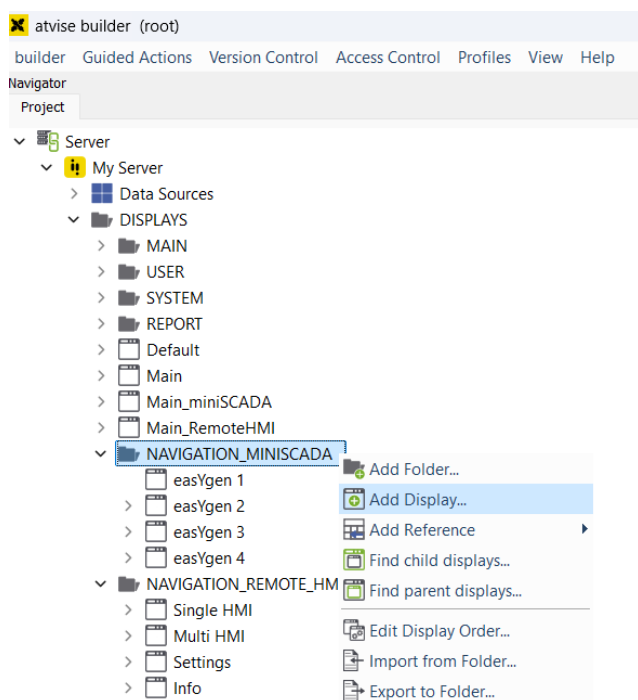
The following steps will show how to create a new page to the visualization, add a value to it and include it to the navigation.

Note: If creating any node, please consider the naming restrictions of atvise (not allowed are "?", "." and "/")

4.1 Create a new page

Step 1:

Create a new Display (page) by right click on the folder "NAVIGATION_REMOTE_HMI" or "NAVIGATION_MINISCADA" and select "Add Display" and enter the name of the page. Here we name it "LS6".

















If adding a page to the "NAVIGATION_MINISCADA" folder, the new page is automatically added to the navigation bar in the mini-SCADA mode.

If adding a page to the "NAVIGATION_REMOTE_HMI" folder, the new page is automatically added to the navigation bar in the Remote HMI mode.

4.2 Add a value to a page

Double click on the just created page.

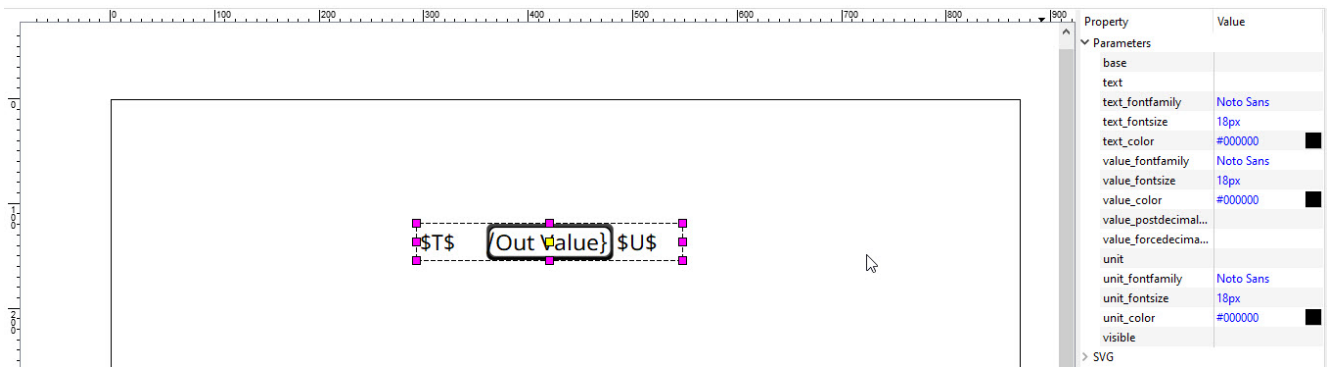
- >  Main_RemoteHMI
- ▼  NAVIGATION_MINISCADA
 -  easYgen 1
 - >  easYgen 2
 - >  easYgen 3
 - >  easYgen 4
 -  LS6
- ▼  NAVIGATION_REMOTE_HMI
 - >  Single HMI
 - >  Multi HMI
 - >  Settings
 - >  Info
- ▼  OBJECTS
 - ▼  System

Now we want to place a new datapoint on the page.

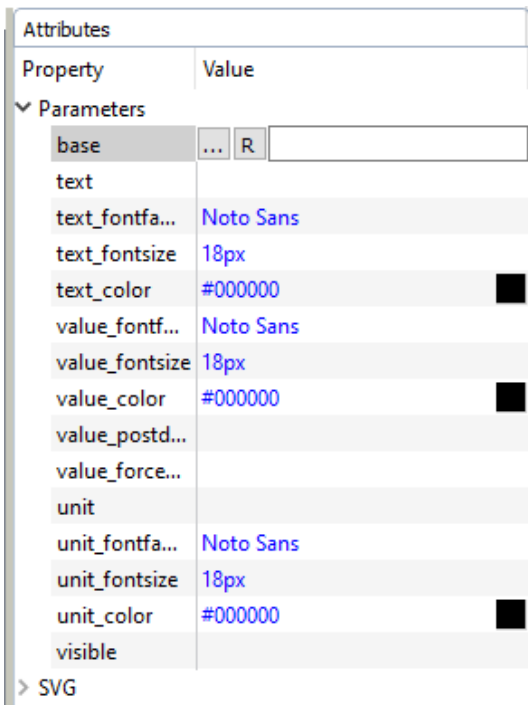
Drag and Drop a new “text_in_out_value_unit” object into the new page. The object can be found at “PROJECT\Object Displays\WWDDisplays”.

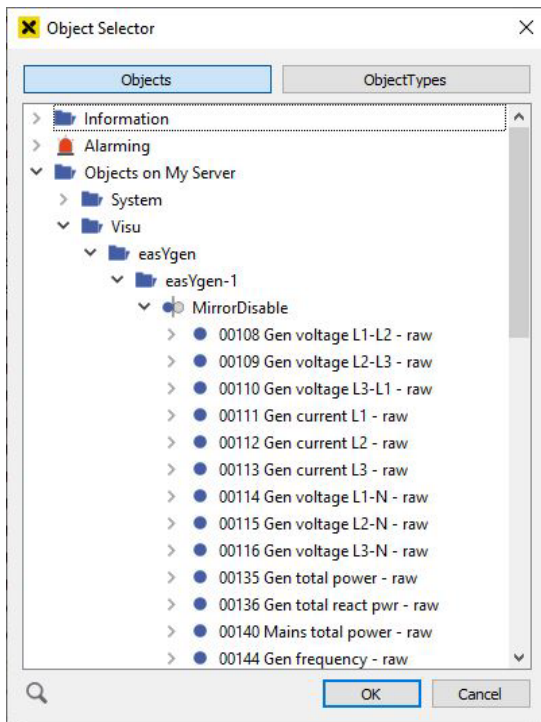
- ▼ PROJECT
 - ▼ Object Displays
 - > AtviseDisplays
 - > LAYOUTS
 - ▼ WWDDisplays
 - > alarm_common
 - > alarm_leds
 - > breaker
 - > busbar_line
 - > button_back
 - > button_connection
 - > button_forward
 - > button_info
 - > button_long
 - > button_pc_mode
 - > button_settings
 - > button_short
 - > button_vnc
 - > container_busbar
 - > container_genset
 - > container_mains
 - > device_connection_settings
 - > dialog_apply
 - > dialog_config
 - > dialog_reboot
 - > easYgen_home
 - > navigation
 - > navigation_prepare
 - > select_device
 - > select_device_full
 - > select_device_full_7_inch
 - > system_home
 - > text_4_toggle_radiobutton
 - > text_combobox
 - > text_in_out_value_IP
 - > text_in_out_value_Name
 - > text_in_out_value_unit
 - > text_rocker_switch
 - > text_text
 - > text_toggle_radiobutton
 - > text_toggle_radiobutton_2
 - > text_toggle_radiobutton_2_row
 - > text_toggle_radiobutton_3_row
 - > VNC_View
 - > VNC_View_Single

If the Object Display is placed and selected the Attribute window is shown to right.



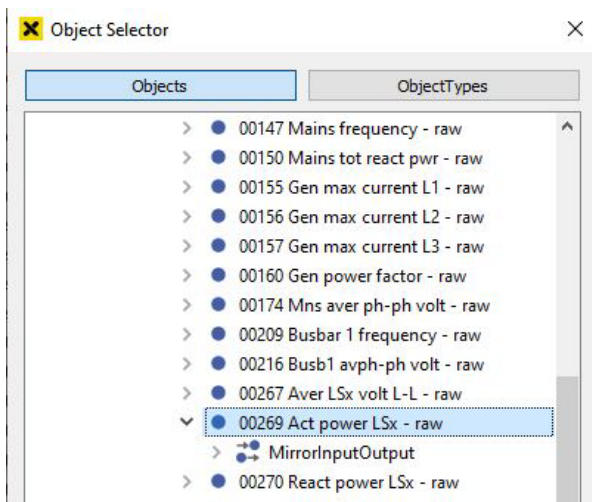
Enter the needed attributes for “base”, “text” and “unit”. To enter the “base” (reference to the datapoint) click on the three dots to select a datapoint from a list.





Here we choose the datapoint “00269 Act power LSx”.

Refer to [Example: Add new datapoint from Modbus list](#) how to add a new Modbus value to the project.



At “text” and “unit” we entered here: “P” and “kW”. For the formatting we enter to “value_postdecimalposition” the value 3 and for “value_forcedecimalfractionposition” also the value 3. This will divide the value by 1000 and show 3 decimal positions after the comma. Finally, the attributes look like this.


Property	Value
Parameters	
base	AGENT.OBJECTS.Visu.easYgen.easYgen-1.MirrorDisable.00269 Act power LSx - raw
text	T{P}
text_fontfamily	Noto Sans
text_fontsize	18px
text_color	#000000
value_fontfamily	Noto Sans
value_fontsize	18px
value_color	#000000
value_postdecimalpositions	3
value_forcedecimalfraction...	3
unit	T{kW}
unit_fontfamily	Noto Sans
unit_fontsize	18px
unit_color	#000000
visible	
> SVG	






Save the “Home” page.


Refresh the device by clicking on the Woodward logo.


By selecting the arrows down in the navigation bar, the new LS6 navigation appears.

After clicking on the LS6 Button the result is then shown like this:


WOODWARD

 Mini-Scada




easYgen 2

easYgen 3

easYgen 4

LS6



P kW

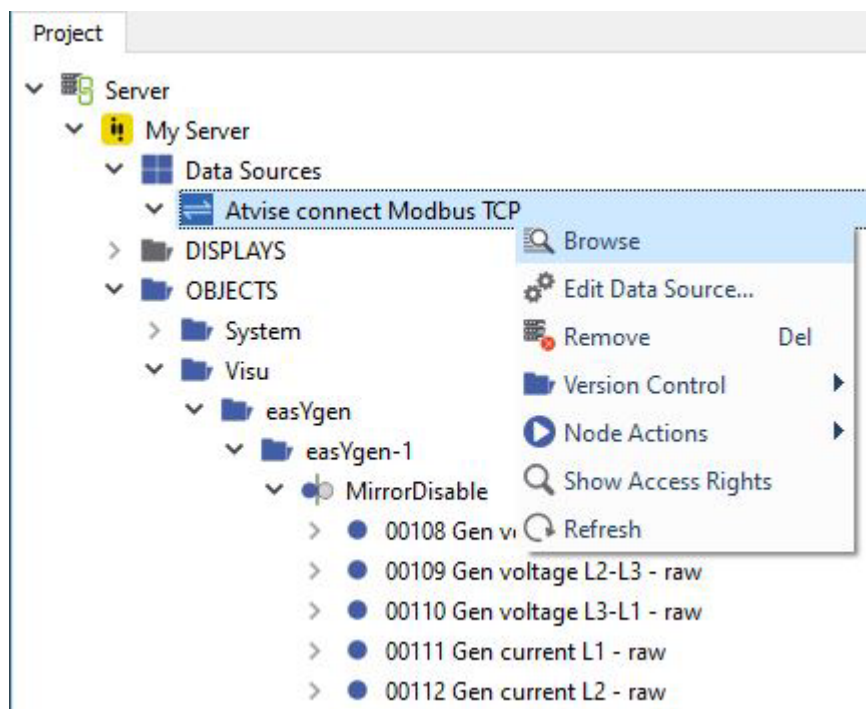
5 Example: Add new datapoint from Modbus list

In this example we want to add a new easYgen Modbus value to the project.

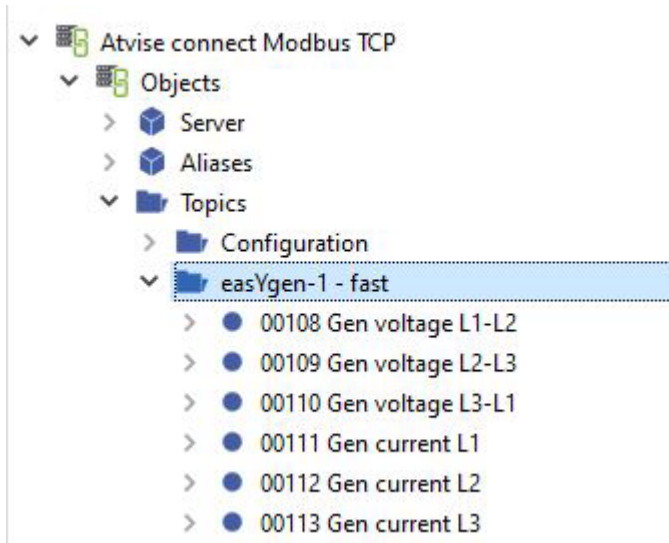
In the easYview there are 6 predefined connection (3 for easYgen-XT devices and 3 for LS6-XT devices). By default, only the connections for easYgen 1-3 are enabled because they are used in the visualization. In this example we show how to add a new Modbus datapoint from the easYgen-1 connection. The steps are the same for adding a datapoint for any other easYgen or LS6-XT device. Disabled connections must be enabled first over the Connection Settings Page (refer to Technical Manual of the easYview) before the steps of this example can be done. Please be aware that in total only 3 connections (3 easYgen-XT or 2 easYgen-XT with 1 LS6-XT, etc.) can be enabled.

Step 1:

Right click on Server\My Server\Atvise connect Modbus TCP.

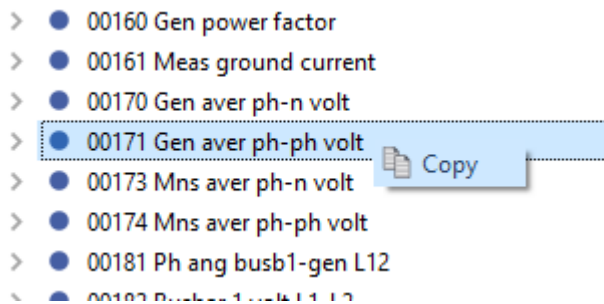


Select "Browse" and navigate the Modbus list of easYgen – 1 fast. This list shows all Modbus values from the 5016 Protocol.

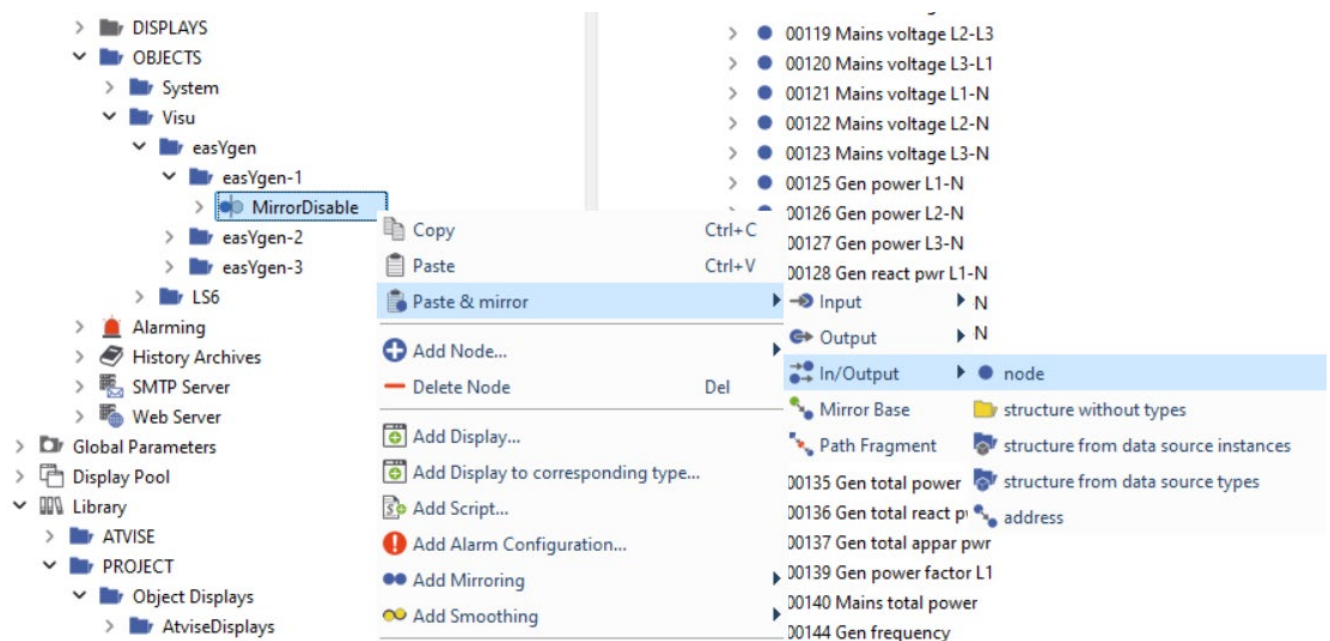


In this example we want to add the Generator average voltage.

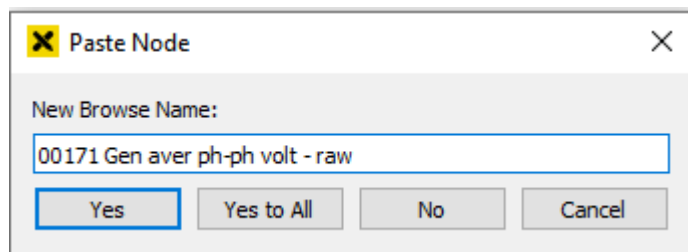
Right click on "00171 Gen aver ph-ph volt" and select "Copy".



Right click on OBJECTS\Visu\leasYgen\leasYgen-1\MirrorDisable.
Select Paste & Mirror → In/Output → node

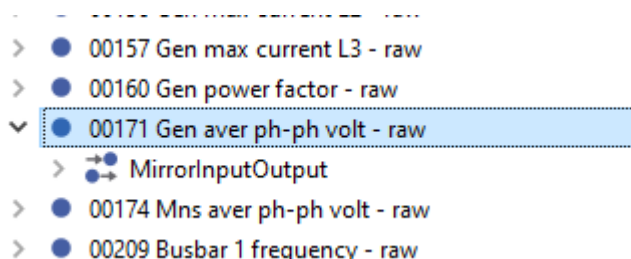


Enter a name for the new datapoint. In this example, we take the same name from the Modbus list and add the extension “- raw” because it is the raw Modbus value without formatting.



Step 2:

Now we have created a new datapoint which refers to an easYgen Modbus value.



This datapoint has the raw Modbus value without formatting. For a nice value representation, we need to adjust the format parameters, refer to [Example: Adjust the existing easYgen page \(Step 3\)](#).

Step 3:

Repeat **Step 1** and **Step 2** for easYgen 2 – 3 if needed.

6 Example: Adjust the existing easYgen page

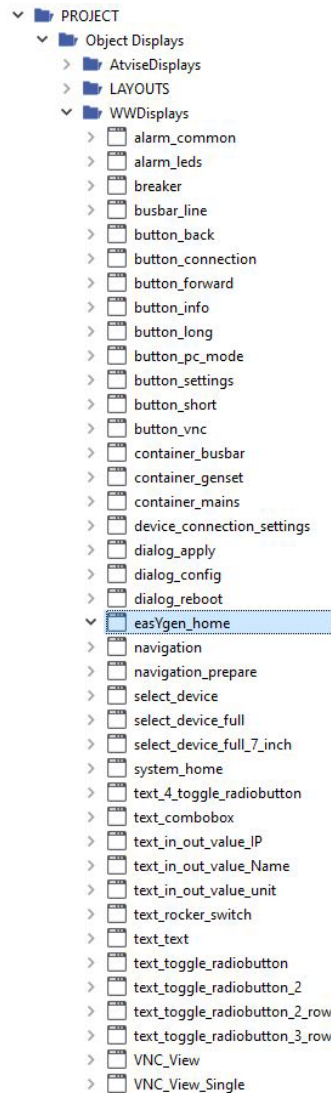
This example will show how to add an additional datapoint to the existing easYgen home page.

Pre-Information:

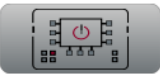
There are three easYgen home pages available (1-3). To avoid the maintenance effort of three pages, there is an object display created under Library\PROJECT\Object Display\WWDisplays\easYgen_home. The object display contains all values which are shown on the easYgen home page with relative addresses. This object display is added to each easYgen home page. To distinguish between the three easYgens only a few parameters must be adjusted. That way a change in the object display will automatically update all three easYgen home pages (Object Orientated Programming).

Step 1:

Open (double click) the object display “easYgen_home” from Library\PROJECT\Object Display\WWDDisplays\easYgen_home.



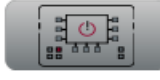
It opens the Object Display for editing, see below.

Generator			\$title\$					
Power			Voltage phase-phase			Voltage phase-neutral		
T{P:}	<input type="text" value="Out Value"/>	T{kW}	T{L1-L2}	<input type="text" value="Out Value"/>	T{V}	T{L1-N}	<input type="text" value="Out Value"/>	T{V}
T{Q:}	<input type="text" value="Out Value"/>	T{kvar}	T{L2-L3}	<input type="text" value="Out Value"/>	T{V}	T{L2-N}	<input type="text" value="Out Value"/>	T{V}
T{PF:}	<input type="text" value="Out Value"/>		T{L3-L1}	<input type="text" value="Out Value"/>	T{V}	T{L3-N}	<input type="text" value="Out Value"/>	T{V}
Frequency			Current			max. Current		
T{f:}	<input type="text" value="Out Value"/>	T{Hz}	T{L1:}	<input type="text" value="Out Value"/>	T{A}	T{L1:}	<input type="text" value="Out Value"/>	T{A}
Device name			T{L2:}	<input type="text" value="Out Value"/>	T{A}	T{L2:}	<input type="text" value="Out Value"/>	T{A}
<input style="background-color: #cccccc;" type="text" value="T{In/Out Value}"/>			T{L3:}	<input type="text" value="Out Value"/>	T{A}	T{L3:}	<input type="text" value="Out Value"/>	T{A}

Step 2:

Add an object display which shall show the new value to the easYgen_home object display. In this example we choose the object "text_in_out_value_unit". It can be found under "PROJECT\Object Displays\WWDDisplays\text_in_out_value_unit". This object display shows a text followed by the actual value and units. This is already used multiple time in the easYgen_home object.

Drag and drop the object to the desired place of the eaYgen_home object, see below.

Generator			\$title\$					
Power			Voltage phase-phase			Voltage phase-neutral		
T{P:}	<input type="text" value="Out Value"/>	T{kW}	T{L1-L2}	<input type="text" value="Out Value"/>	T{V}	T{L1-N}	<input type="text" value="Out Value"/>	T{V}
T{Q:}	<input type="text" value="Out Value"/>	T{kvar}	T{L2-L3}	<input type="text" value="Out Value"/>	T{V}	T{L2-N}	<input type="text" value="Out Value"/>	T{V}
T{PF:}	<input type="text" value="Out Value"/>		T{L3-L1}	<input type="text" value="Out Value"/>	T{V}	T{L3-N}	<input type="text" value="Out Value"/>	T{V}
Frequency			Current			max. Current		
T{f:}	<input type="text" value="Out Value"/>	T{Hz}	T{L1:}	<input type="text" value="Out Value"/>	T{A}	T{L1:}	<input type="text" value="Out Value"/>	T{A}
Device name			T{L2:}	<input type="text" value="Out Value"/>	T{A}	T{L2:}	<input type="text" value="Out Value"/>	T{A}
<input style="background-color: #cccccc;" type="text" value="T{In/Out Value}"/>			T{L3:}	<input type="text" value="Out Value"/>	T{A}	T{L3:}	<input type="text" value="Out Value"/>	T{A}

SYSTEM.LIBRARY.PROJECT.OBJECTDISPLA

Step 3:

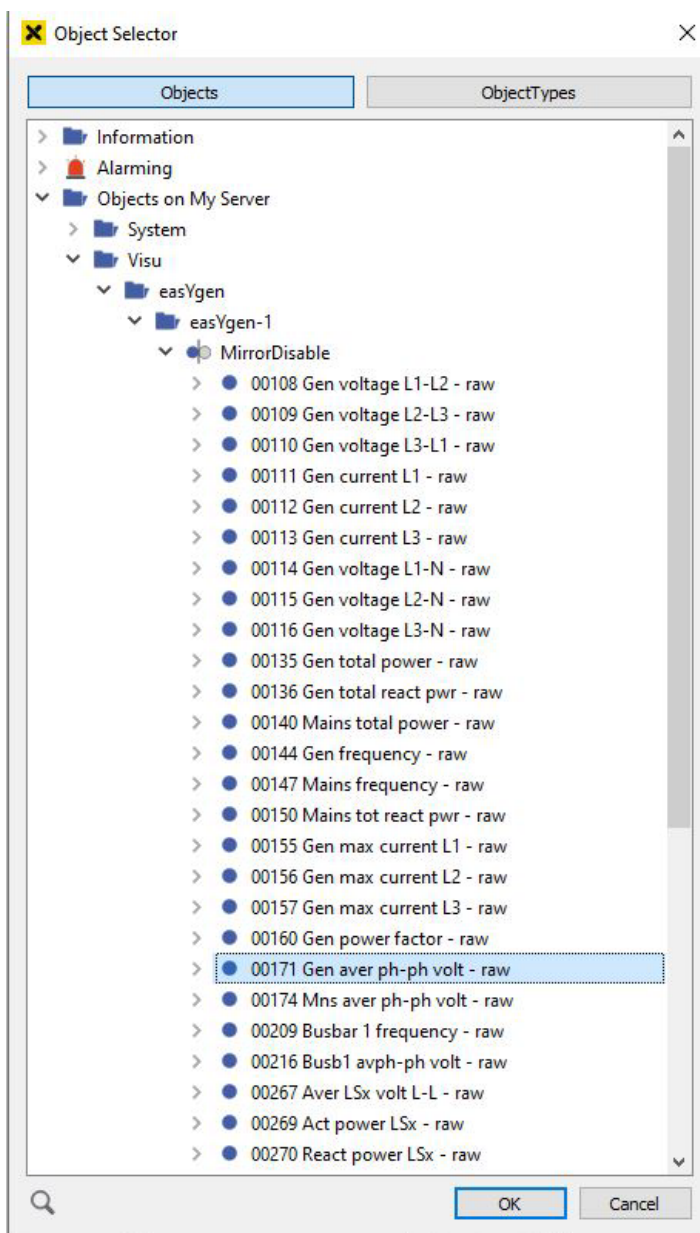
If the new Object is selected the properties are shown in the "Property" view.

Under "base" we must define the reference to the datapoint:

Press the three "..." to open the Object Selector.

Property	Value
Parameters	
base	... R
text	
text_fontfamily	Noto Sans
text_fontsize	18px

Choose the new created datapoint “0071 Gen aver ph-ph volt” of [Example: Add new datapoint from Modbus list](#).



We need a relative address because we have three easYgens. Delete the part “AGENT.OBJECTS.Visu.easYgens.Fast.easYgen-1.MirrorDisable” of the reference.

Property	Value
▼ Parameters	
base	... R AGENT.OBJECTS.Visu.easYgen.easYgen-1.MirrorDisable.00171 Gen aver ph-ph volt - raw
text	
text_fontfamily	Noto Sans
text_fontsize	18px
text_color	#000000

Press R and select “base”. This defines a relative reference. The “base” parameter is already defined in the single easYgen home pages where the easYgen_home object is added. It is the first part of the full path of the datapoint which depends on easYgen 1-3.

Under “text” we type “Avg”.

Under “unit” we type “V”.

For the same format representation like in the easYgen-XT need to divide the value by 10 with one decimal position. Therefore, under “value_postdecimalpositions” and “value_forcedecimalfractionpostion” we type “1”.

The attributes look then like:

Property	Value
▼ Parameters	
base	[base] + .00171 Gen aver ph-ph volt - raw
text	T{Avg}
text_fontfamily	Noto Sans
text_fontsize	18px
text_color	#000000
value_fontfamily	Noto Sans
value_fontsize	18px
value_color	#000000
value_postdecimalpositions	1
value_forcedecimalfraction...	1
unit	T{V}
unit_fontfamily	Noto Sans
unit_fontsize	18px
unit_color	#000000
visible	[visible]

> SVG

Note: The “[”, “]” and “+” at the base parameter will be added automatically.


Note: The “T{ }” at the text parameter (text, unit) will be added automatically.

Step 4:

The last step is then just to move the objects around for better appearance, see below.

Save everything. After refreshing the easYview, by switching between pages, the new datapoint is shown on each easYgen home page.

Note: If there is an easYgen home page open in the atvise Builder, it will not refresh it automatically. Opened pages in the atvise builder needs to be closed and re-open to see effecting changes.

Generator			\$title\$					
Power			Voltage phase-phase			Voltage phase-neutral		
T{P:}	<input type="text" value="Out Value"/>	T{kW}	T{L1-L2}	<input type="text" value="Out Value"/>	T{V}	T{L1-N}	<input type="text" value="Out Value"/>	T{V}
T{Q:}	<input type="text" value="Out Value"/>	T{kvar}	T{L2-L3}	<input type="text" value="Out Value"/>	T{V}	T{L2-N}	<input type="text" value="Out Value"/>	T{V}
T{PF:}	<input type="text" value="Out Value"/>		T{L3-L1}	<input type="text" value="Out Value"/>	T{V}	T{L3-N}	<input type="text" value="Out Value"/>	T{V}
			T{Avg}	<input type="text" value="Out Value"/>	T{V}			
Frequency			Current			max. Current		
T{f:}	<input type="text" value="Out Value"/>	T{Hz}	T{L1:}	<input type="text" value="Out Value"/>	T{A}	T{L1:}	<input type="text" value="Out Value"/>	T{A}
Device name			T{L2:}	<input type="text" value="Out Value"/>	T{A}	T{L2:}	<input type="text" value="Out Value"/>	T{A}
<input type="text" value="T{In/Out Value}"/>			T{L3:}	<input type="text" value="Out Value"/>	T{A}	T{L3:}	<input type="text" value="Out Value"/>	T{A}

7 Example: Add a new device to the project

7.1 Create a new connection

To create a new connection to an external device the atvise connect must be used.

Note: Make sure the easYview is connected to the same network as the PC where atvise connect is installed.

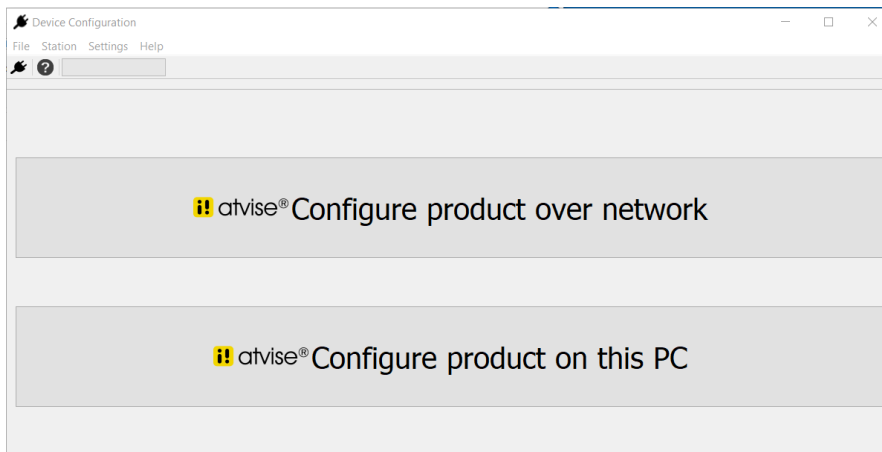
Step 1:

Open atvise connect.

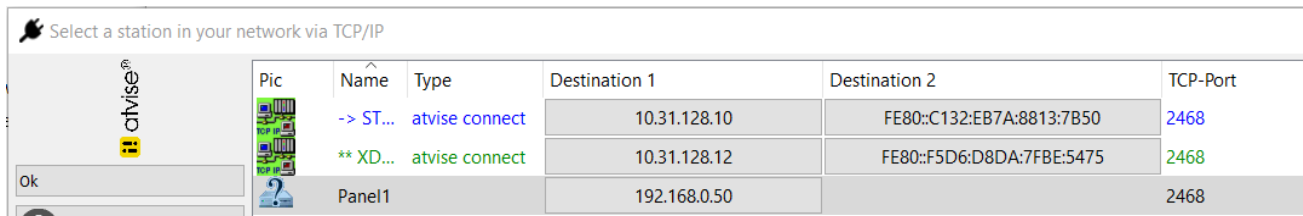


atvise
connect
Konfiguration

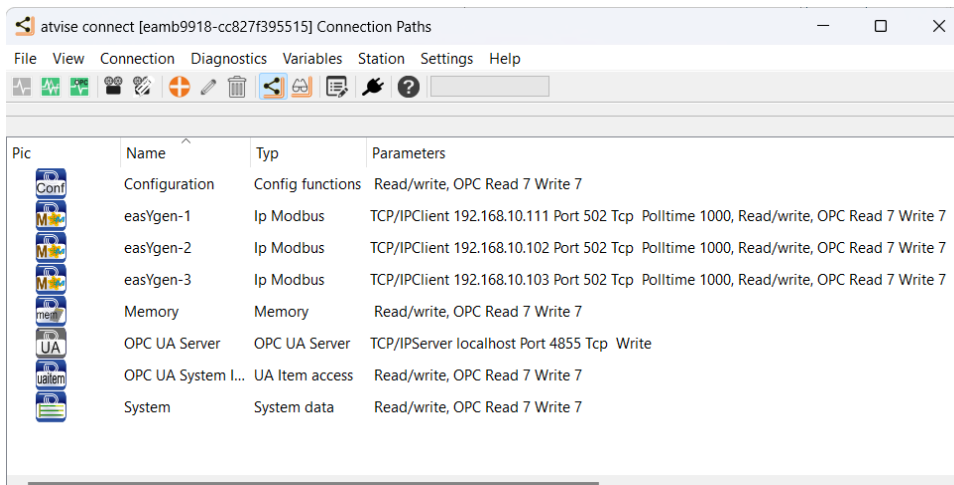
Select 'Configure product over network'.



To connect to the easYview, double click on the row which represents the easYview, here it is “Panel1”.



After connected all existing connections are shown.



If the connection view is not shown, click on the connection icon.

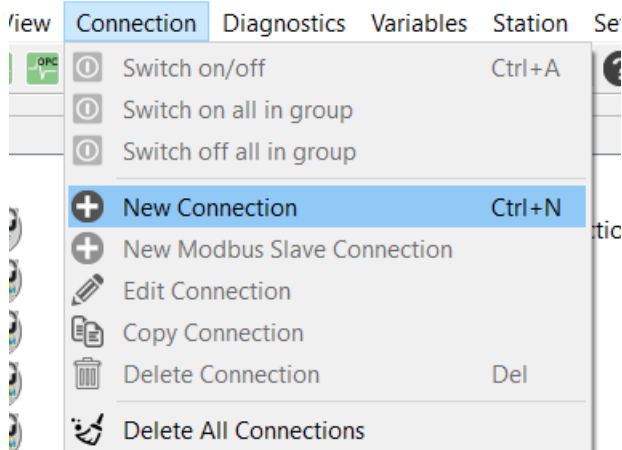


The connection view shows all available easYgen and LS6 connections. Enabled connections are shown in black and disabled connections are shown in gray.

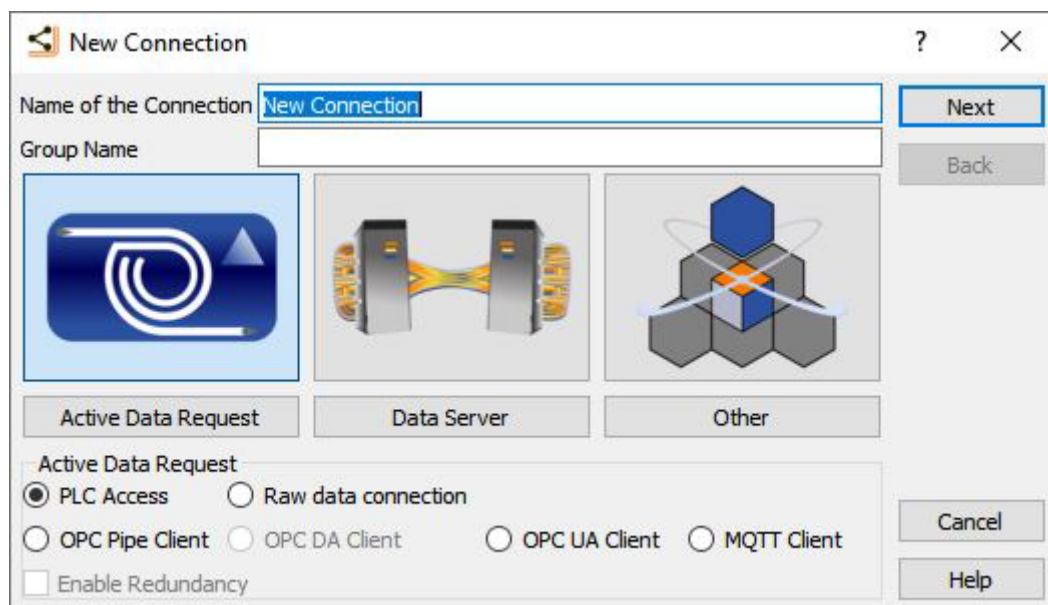
To add a new connection for any external device click the plus icon or use the Connection tab and select “New connection”:



...Or...



...and follow the instruction of the New Connection Wizard, refer to the Atvise help for more information.

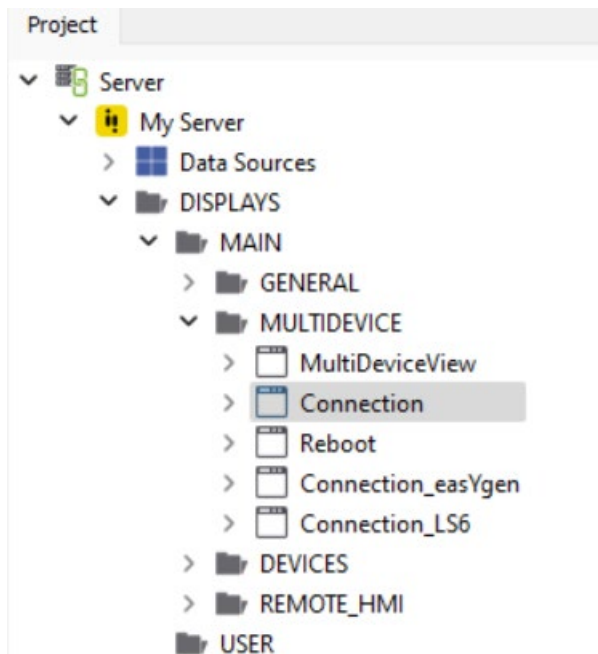


7.2 Avoid connection override

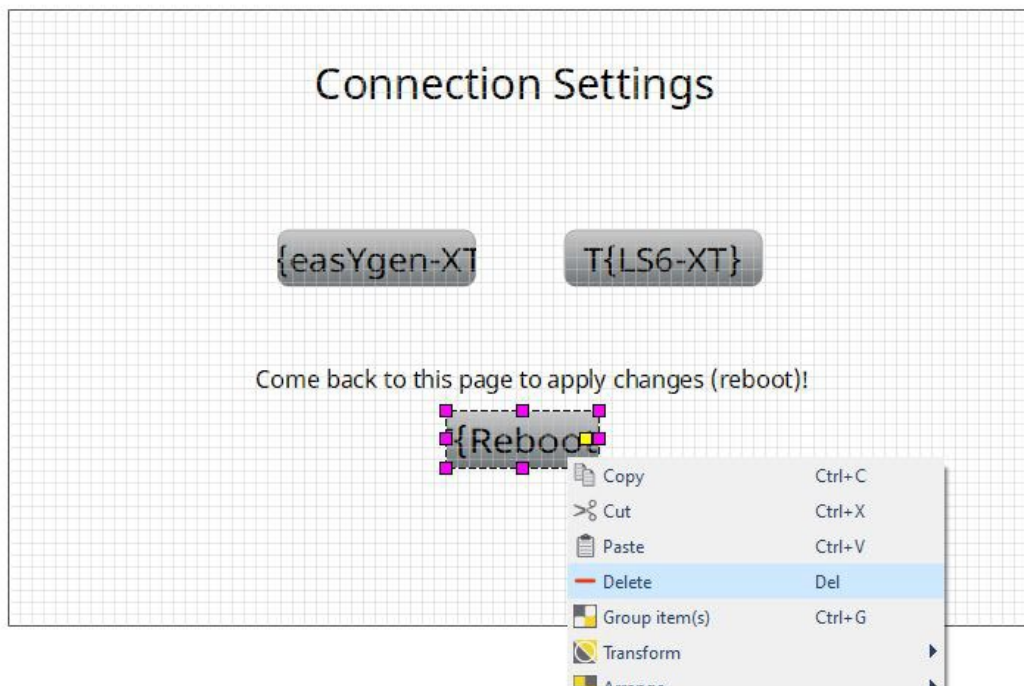
If there was a new connection added to the project, the DeviceConfig.ini file has changed (it includes all connections). That means it doesn't match with the TempDeviceConfig.ini anymore. If now a reboot is triggered from the “Connection Page”, the DeviceConfig.ini gets replaced by the TempDeviceConfig.ini (like described in [File System \(SFTP\)](#)). This will lead to lose the new created LS6 connection. To avoid an override through an accidentally triggered reboot, it is recommended to delete the reboot button from the Connection Page.

Note: All future changes to the connections must be done by atvise connect (also means IP address changes, Slave ID, etc).

Open the Connection Page by double click on DISPLAY\MAIN\MULTIDEVICES\Connection.



Select the Reboot button, right click and select "Delete Item". The description text on the left side of the button can be deleted the same way.



Now it is still possible to show the Connection Page with the actual connection settings (at least for the easYgens) but they cannot be changed anymore.

Of course, it is possible to adjust the Connection Page for the new created connection. But this is not described in this document. Contact your local support for more information.

We appreciate your comments about the content of our publications.

Please send comments to: marketing_PG@woodward.com

Please reference publication 37949.

Homepage
www.woodward.com

**Woodward has company-owned plants, subsidiaries, and branches,
as well as authorized distributors and other authorized service and sales facilities throughout the world.
Complete address / phone / fax / email information for all locations is available on our website.**

THE INFORMATION CONTAINED IN THIS APPLICATION NOTE IS PROVIDED AS IS WITHOUT REPRESENTATIONS OR WARRANTIES OF ANY KIND EXPRESSED OR IMPLIED. THE ADHERENCE TO THE INFORMATION CONTAINED IN THIS APPLICATION NOTE SHALL BE AT THE USER'S OWN RISK. WOODWARD EXPRESSLY DISCLAIMS ANY REPRESENTATIONS OR WARRANTIES CONCERNING WHETHER THE DELIVERABLES, OR SOFTWARE WILL PRODUCE ANY SPECIFIC RESULT OR PERFORM ANY PARTICULAR FUNCTION. WOODWARD FURTHER EXPRESSLY DISCLAIMS ANY LIABILITY FOR DAMAGES, LOSSES, COSTS OR EXPENSES ARISING DIRECTLY OR INDIRECTLY FROM THE USE OF THIS APPLICATION NOTE, UNLESS WOODWARD HAS PROVABLY ACTED WITH WILLFUL MISCONDUCT OR GROSS NEGLIGENCE.

WOODWARD RESERVES THE RIGHT TO UPDATE ANY PORTION OF THIS PUBLICATION AT ANY TIME. INFORMATION PROVIDED BY WOODWARD IS BELIEVED TO BE CORRECT AND RELIABLE. HOWEVER, NO RESPONSIBILITY IS ASSUMED BY WOODWARD UNLESS OTHERWISE EXPRESSLY INDICATED.