etic TELECOM

EticDISPLAY : user guide

INDUSTRIAL NETWORKING

Dashboard visualization from the WEB

EticDISPLAY is dedicated to managers of industrial equipment and processes.

This software option of RAS or IPL boxes allows the collection and the display of industrial data from a client customized dashboard.

The dashboard can be easily consulted an the Internet from a PC, a tablet or a smartphone.

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ETIC DISPLAY

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1. SUMMARY

- Purpose of the document
- Operation
- Solution description
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- Documentation

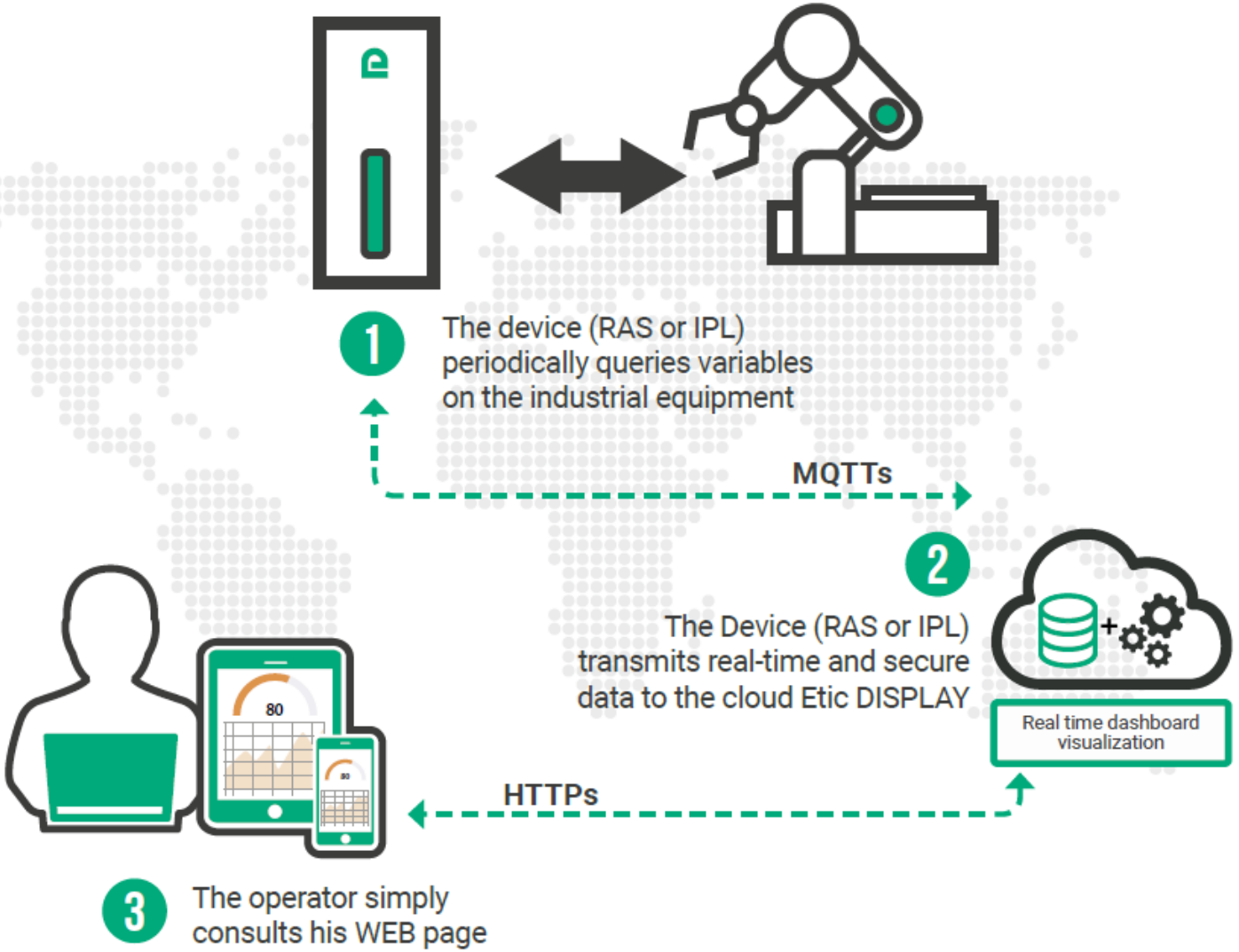
PURPOSE OF THE DOCUMENT

The aim of this document is to present EticDISPLAY solution in order to create and implement functional dashboards.

At the end of the document you will discover tutorials to take in hand the tool dedicated to WEB pages creation (EticDISPLAY editor).

For any inquiry concerning the EticDISPLAY solution, please write to us at contact@etictelecom.com.

OPERATION


1
The device (RAS or IPL) periodically queries variables on the industrial equipment
MQTTs
2
The Device (RAS or IPL) transmits real-time and secure data to the cloud Etic DISPLAY
Real time dashboard visualization
HTTPs
80
3
The operator simply consults his WEB page

OPERATION: VIDEO PRESENTATION

SOLUTION DESCRIPTION

The EticDISPLAY solution has 3 elements:

- **The Collect & Alert module**
  - It is a software module installed on your Etic box (RAS or IPL) allowing to collect variables of your process in Modbus TCP.
- **The Data Manager**
  - This is the system for transferring data to a cloud managed by Etic Telecom.
- **The EticDISPLAY Editor**
  - This is the graphical interface for creating and viewing dashboards in the form of WEB pages.

COMPATIBILITY

EticDISPLAY solution is compatible with RAS (Machine Access Devices) and IPL (Interconnection Routers) product families.

In this document RAS or IPL boxes are designated by the term "Etic box".

DOCUMENTATION

DOC_DEV_EticDISPLAY_User guide_A

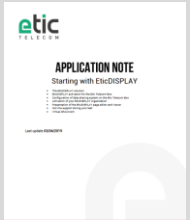
EticDISPLAY

EticDISPLAY Data sheet

PDF

Commercial Video

EticDISPLAY Application note



PDF

Collect & Alert

Collect&Alert Data sheet

PDF

Collect & Alert Application note

PDF

Boîtiers RAS / IPL

IPL box Data sheet

PDF

RAS box Data sheet

PDF

RAS box User guide

PDF

2. COLLECT & ALERT

- Introduction
- Configuration
- Diagnostic

2. COLLECT & ALERT

- New name of Alert & Display option.
- Module to be installed onto Etic Box.

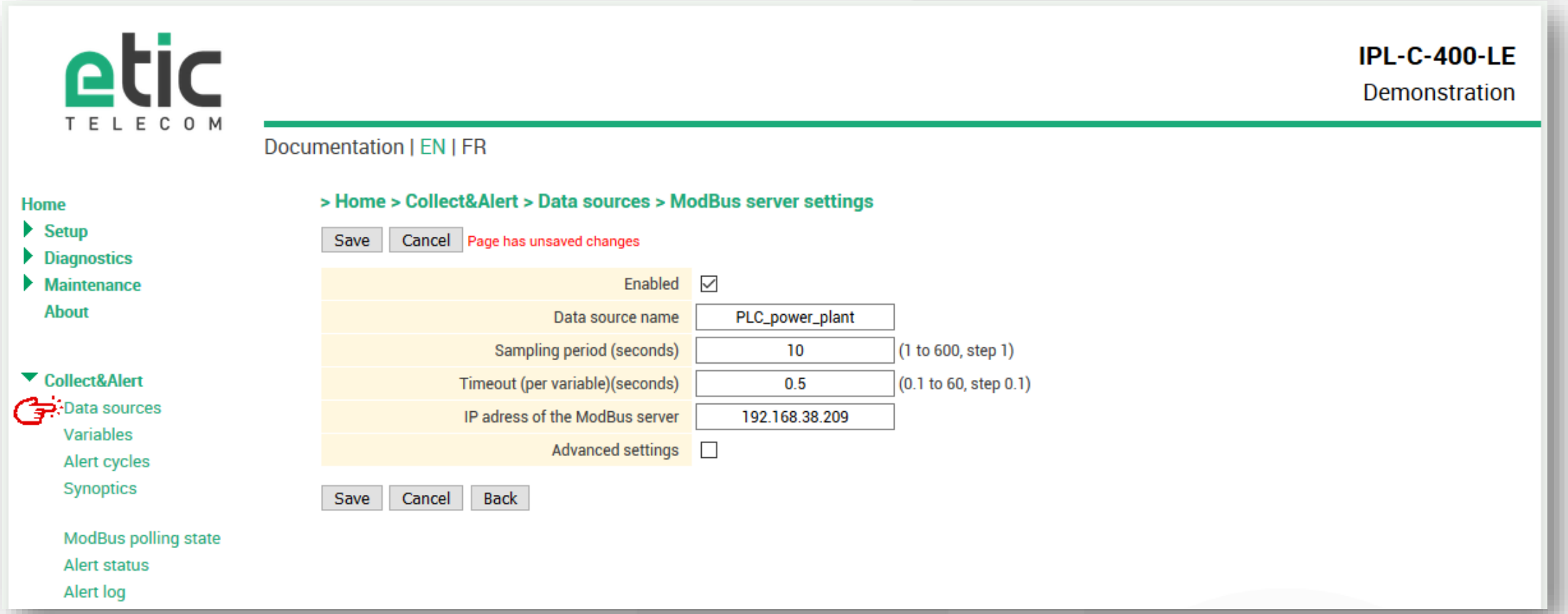
- Allows data collection on a Modbus TCP device.
- Triggers alerts on events sent:
  - By e-mail
  - By SMS (with cellular subscription or via our SMS service)
  - Via e*message

- Allow data sending to a Cloud in MQTTs or push HTTPs.

- For installation refer to the application note.

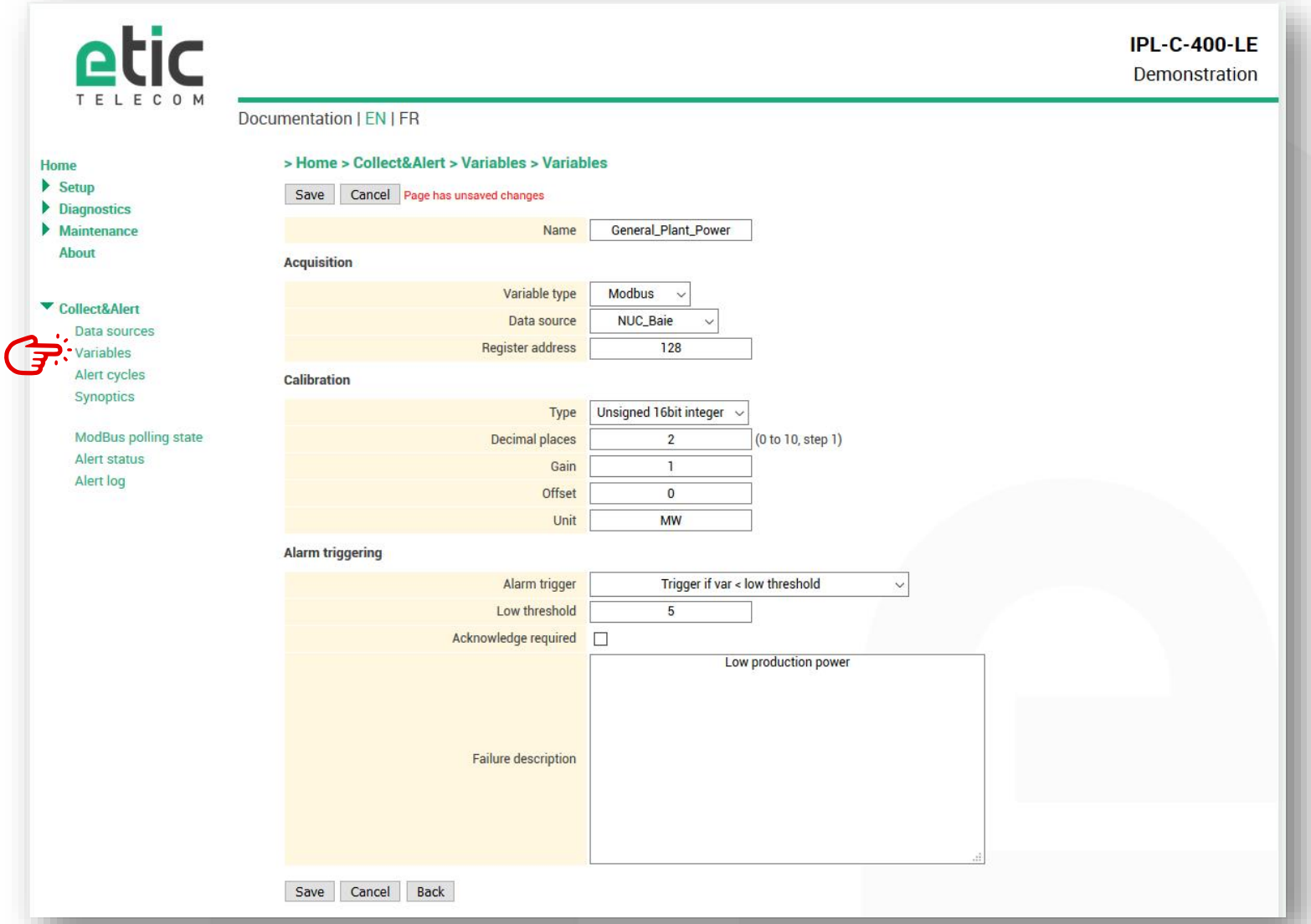
2. COLLECT & ALERT

- Create a data source (equipment on which you want to record variables in Modbus TCP)



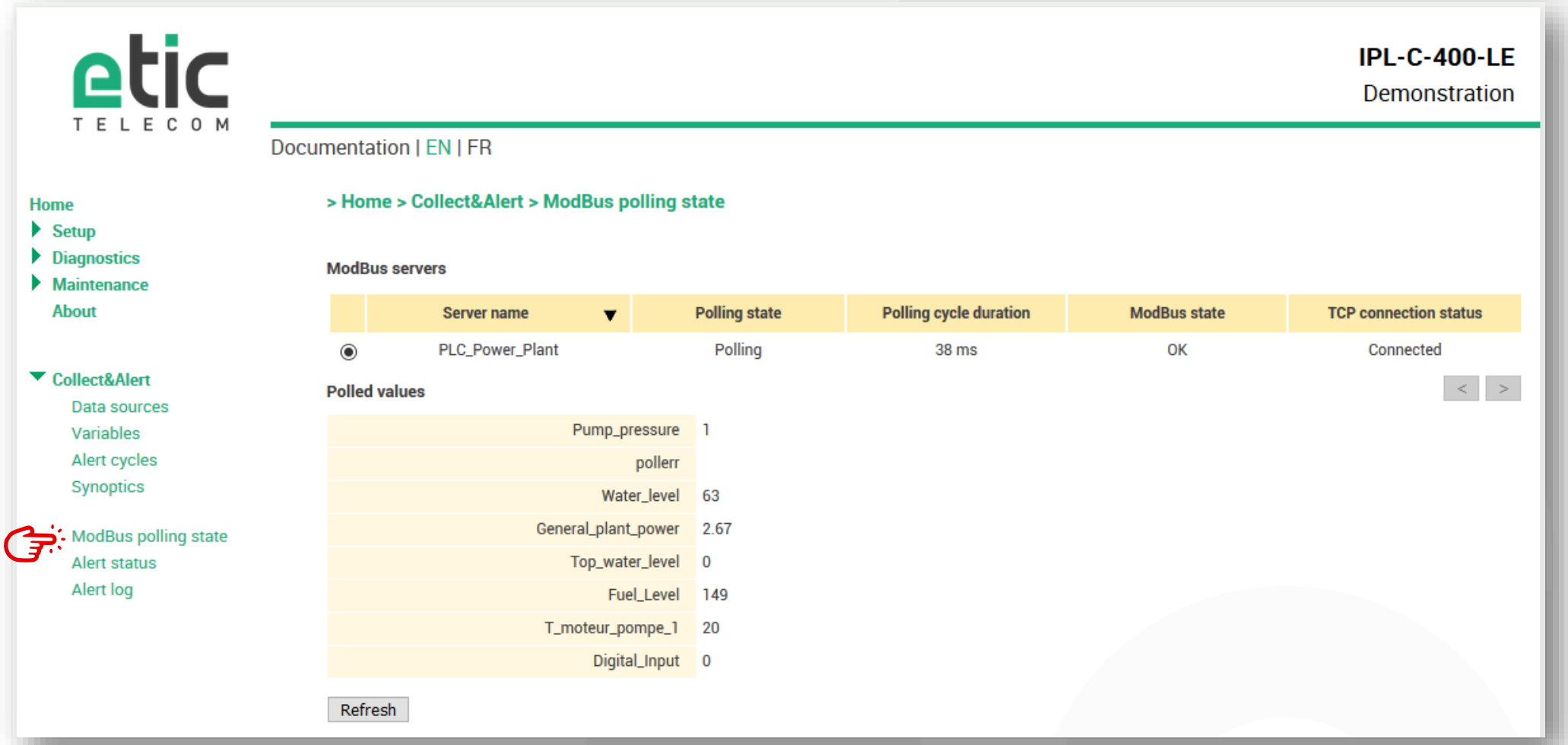
2. COLLECT & ALERT

- Variables creation



Diagnostic:

- You can check the status of the ModBus collection.



3. THE DATA MANAGER

- Data management
- On the Customer area
- On the Etic Box: prerequisites
- On the Etic Box: configuration
- On the Etic Box: diagnostic

3. THE DATA MANAGER

Data management:

- The Etic box pushes data to the EticDISPLAY cloud.
- The EticDISPLAY cloud is partitioned into several entities called “organizations"
- The Etic box is configured to determine to which organization the data shall be pushed (“organization ID" field).
- Access to the data is only for the users of the « organization ».
- It is not possible to visualize data from another organization
- Your will receive your organization ID when using you starter Kit

- Historical data will be available from Q4 2019
- Currently only a buffer of 3600 points is available for graphs.

3. THE DATA MANAGER

On the Customer area(https://customer.etictelecom.com) :

- In the section « Site Management » :
  - Declare the Etic Box that you want to connect to the service
  - Apply purchase codes "pack_EticDisplay_XY" to Etic Boxes

On the Etic Box :

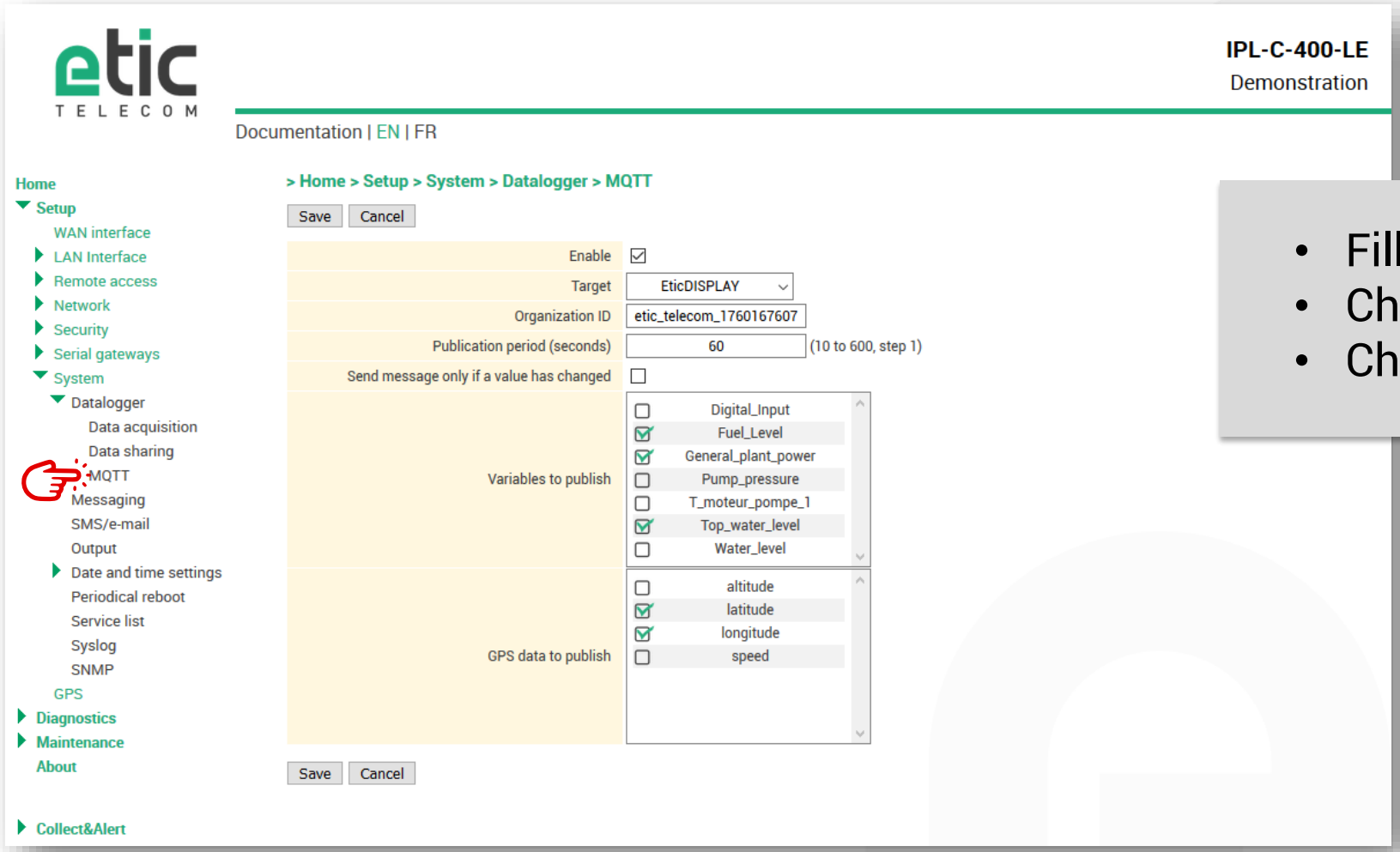
Prerequisites:

- An Etic Box connected to Internet
- TCP 8883 port to **devices.eticdisplay.com** shall be open.
- MQTTs protocol is used.

3. THE DATA MANAGER

On the Etic Box

- Configure the data sending to the EticDISPLAY cloud

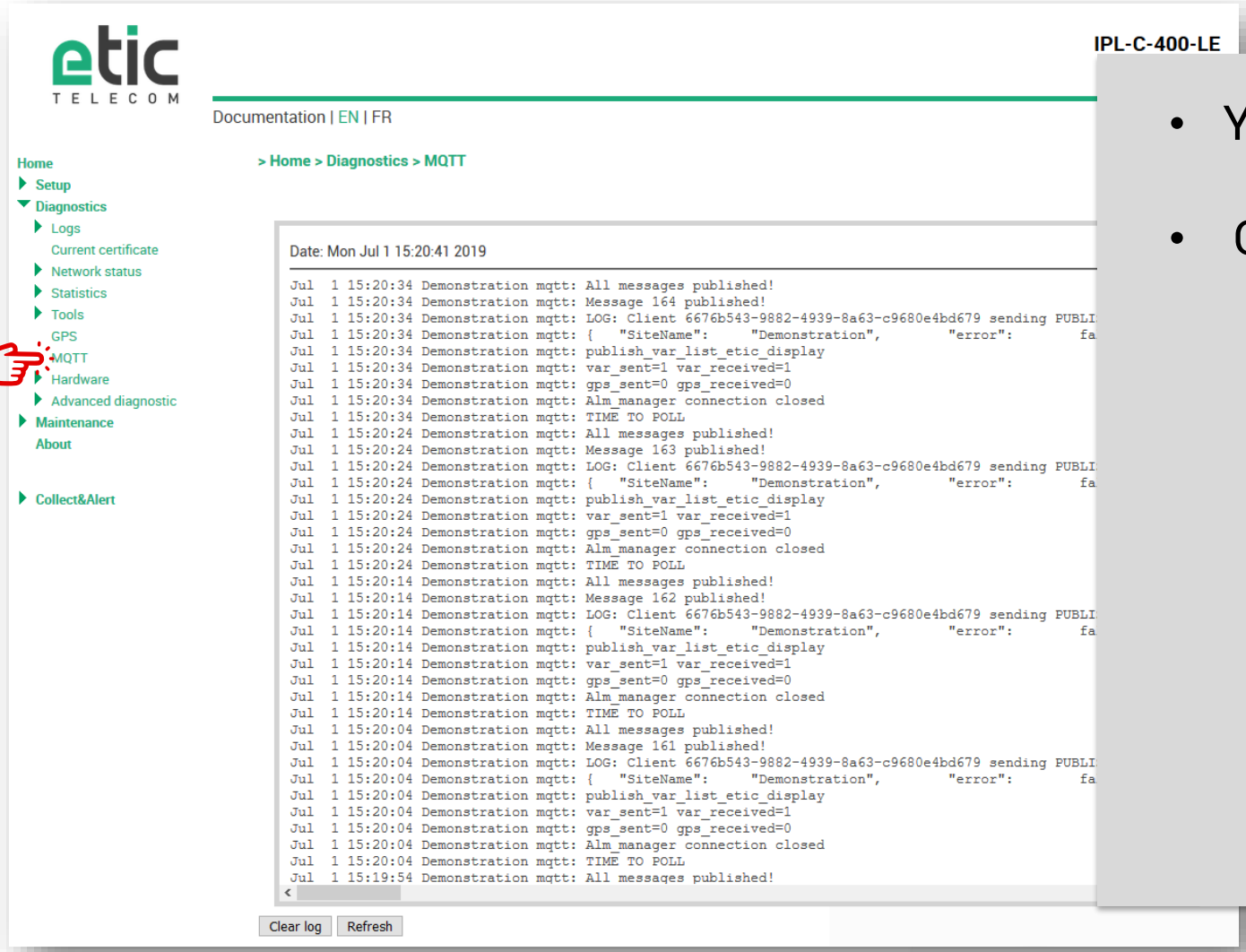


- Fill in your organization ID
- Choose the period of data sending
- Choose the variables to be sent

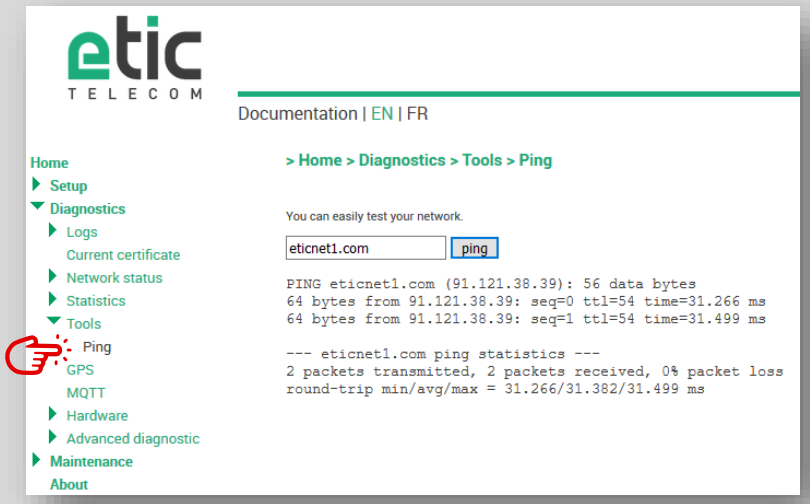
3. THE DATA MANAGER

On the Etic Box

- You can verify that the data is sent to the EticDISPLAY cloud.



- You must see the message:
  « All messages published! »
- Otherwise:
  - Check that you have good Internet access
  - Check that your DNS configuration is good



4. THE EDITOR : INTRODUCTION

- Opening your publishing space
- Login to the editor
- Applications
- Pages
- Data Sources
- Assets
- Editor

Opening your publishing space:

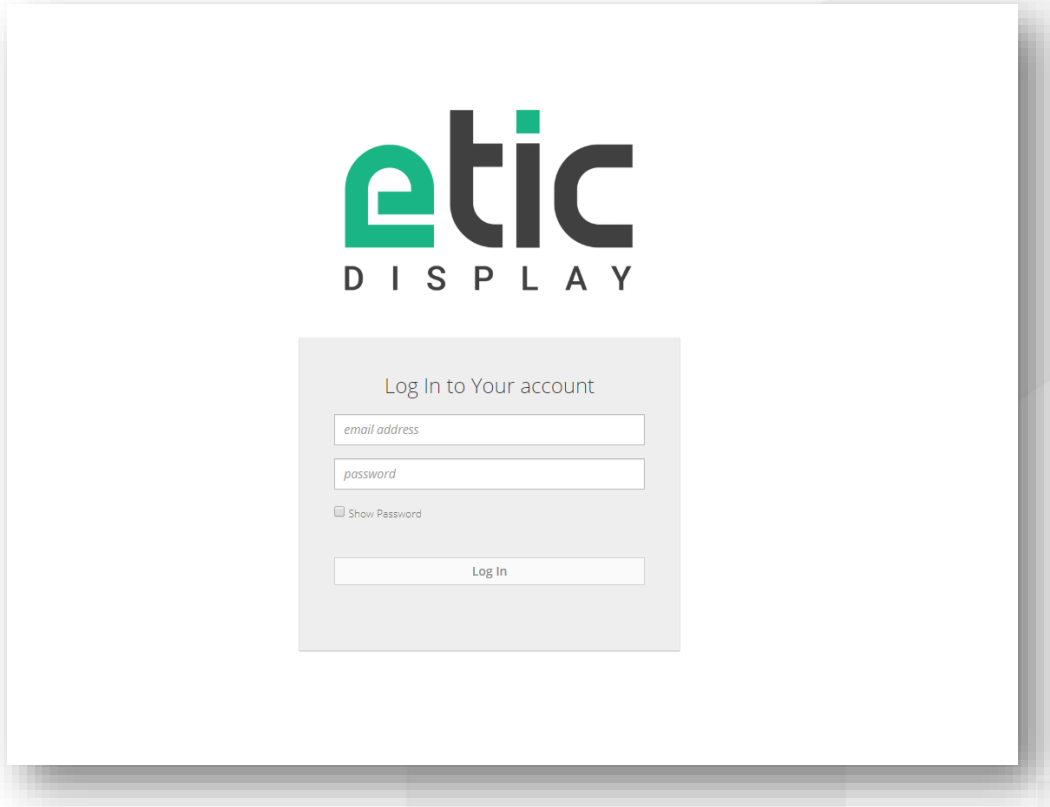
On the customer area (https://customer.etictelecom.com) :

- In the EticDISPLAY section:
- Apply the StarterKit purchase code
  - You will receive back your service login credentials and your organization ID by email.

4. THE EDITOR : INTRODUCTION

Login to the editor:

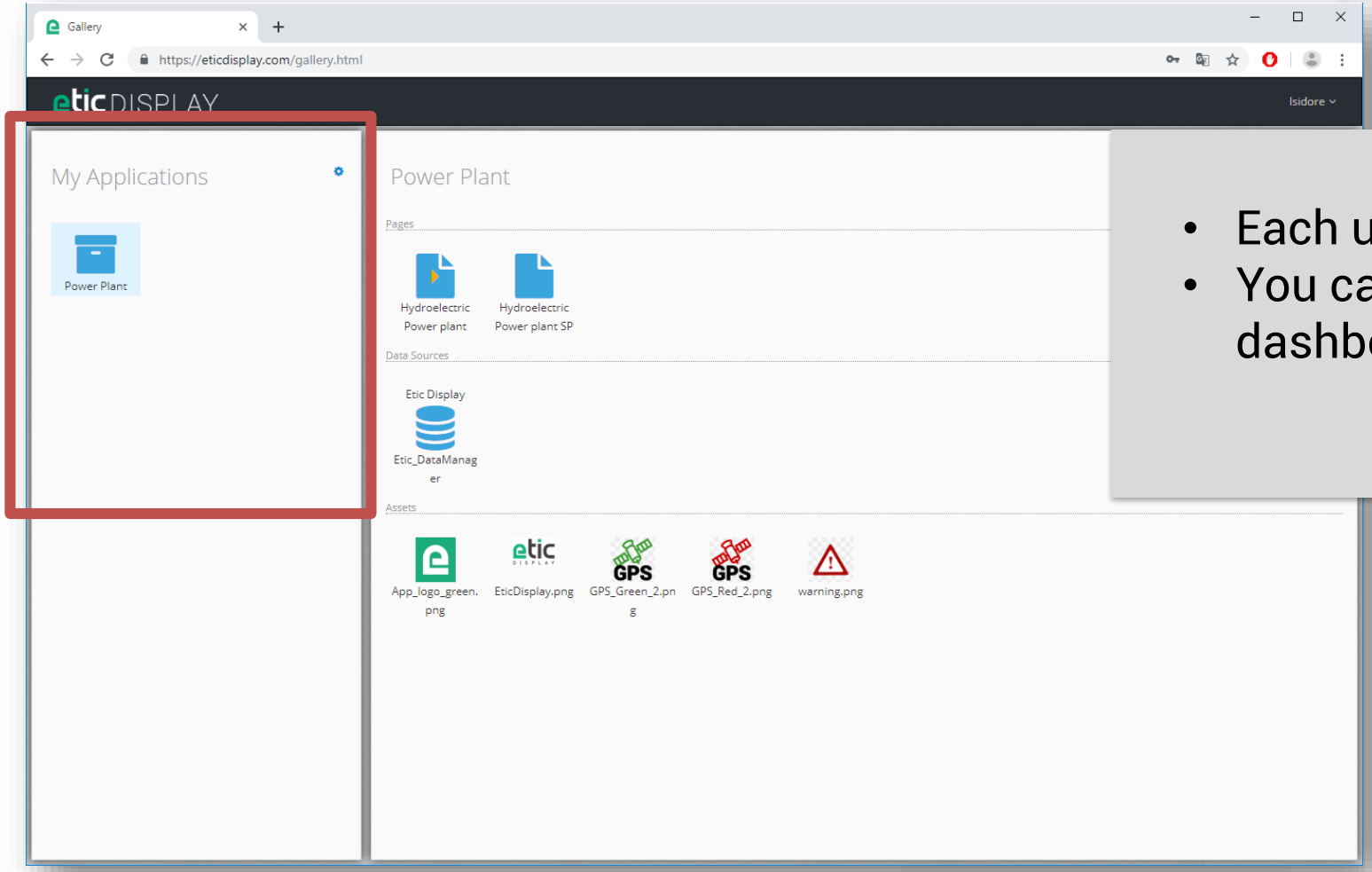
Use the credentials obtained to login on https://eticdisplay.com.



- It is advisable to change your password the first time you use it.

4. THE EDITOR : INTRODUCTION

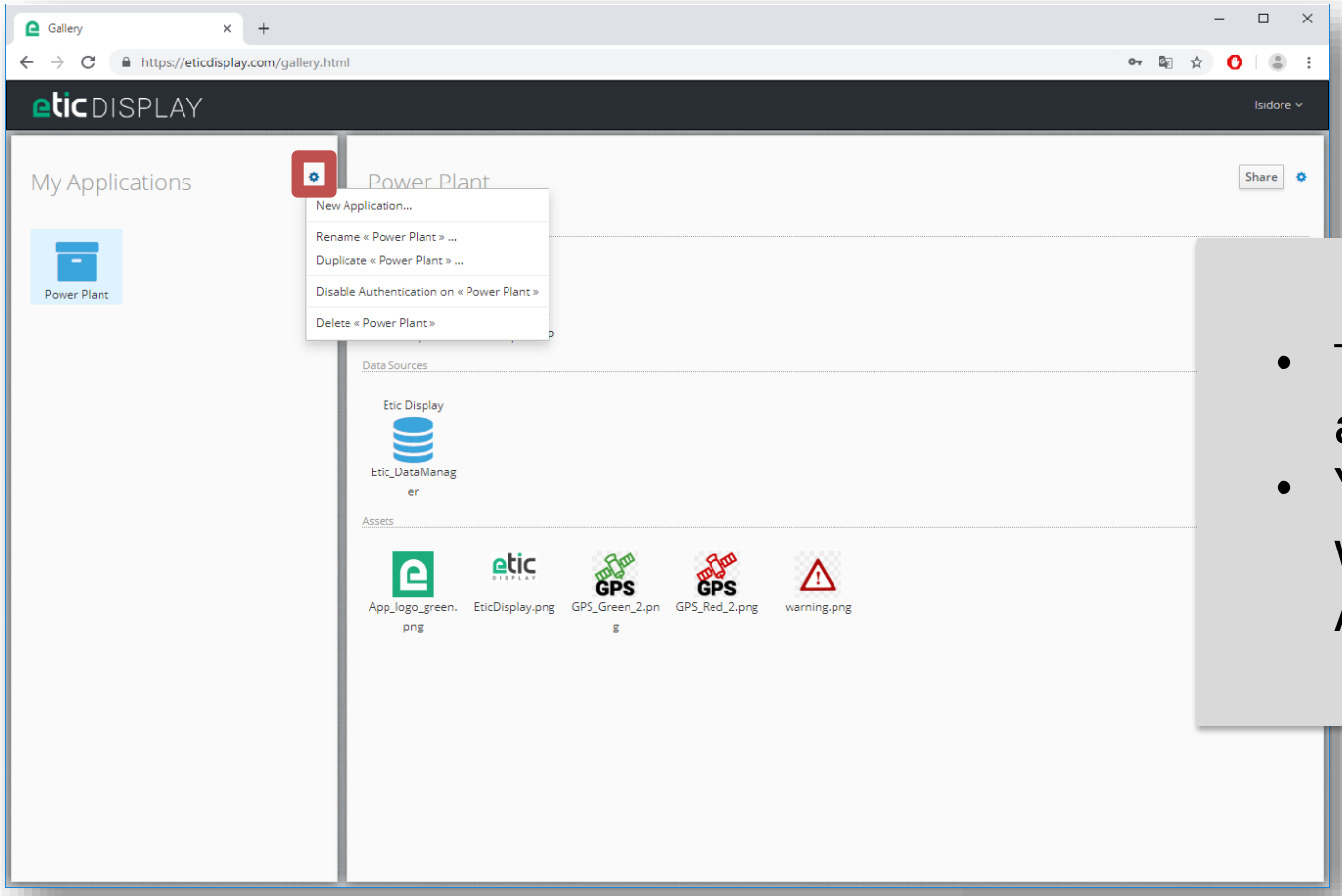
Applications :



- Each user can create his own applications.
- You can structure your work by creating a dashboard application.

4. THE EDITOR : INTRODUCTION

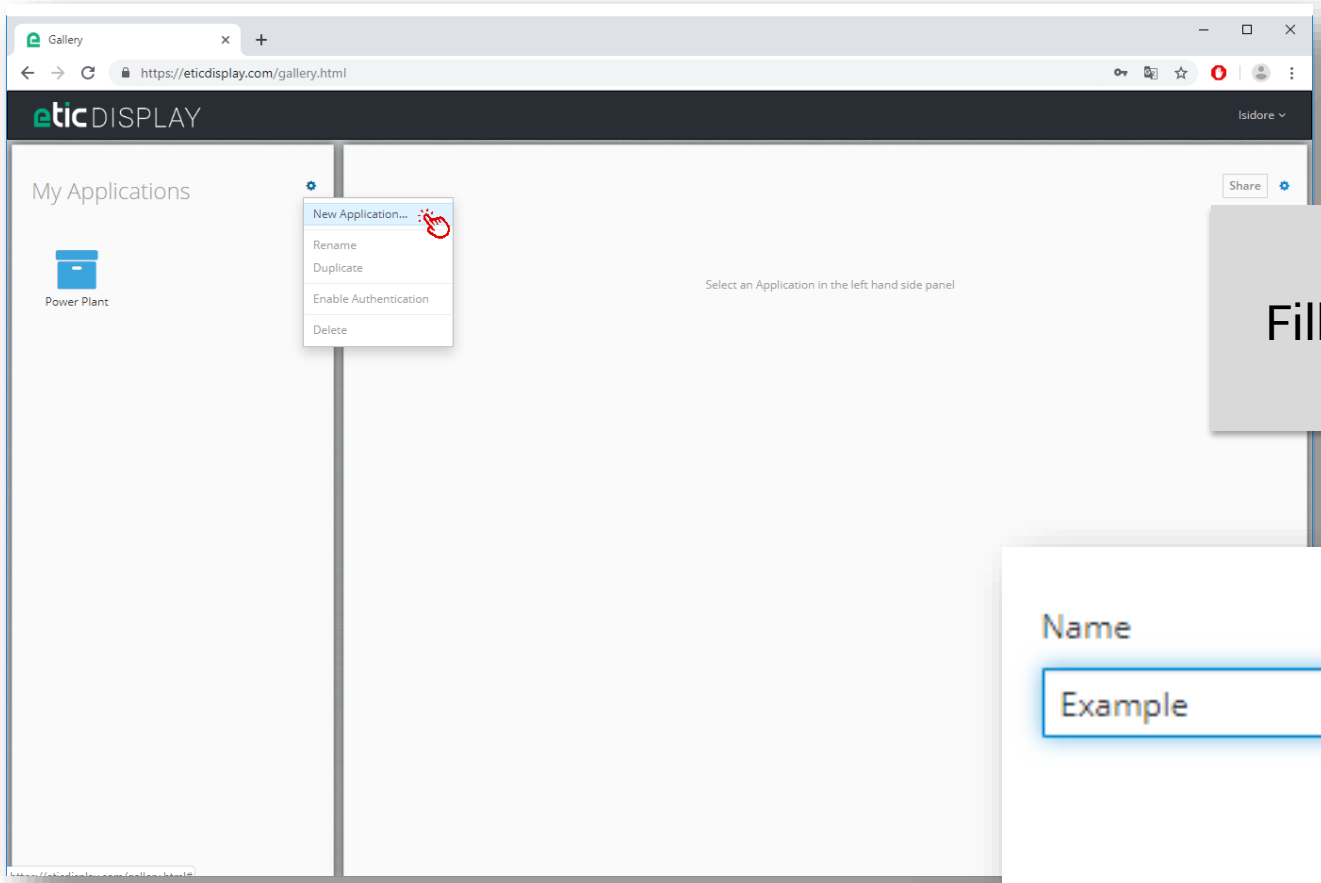
Applications :



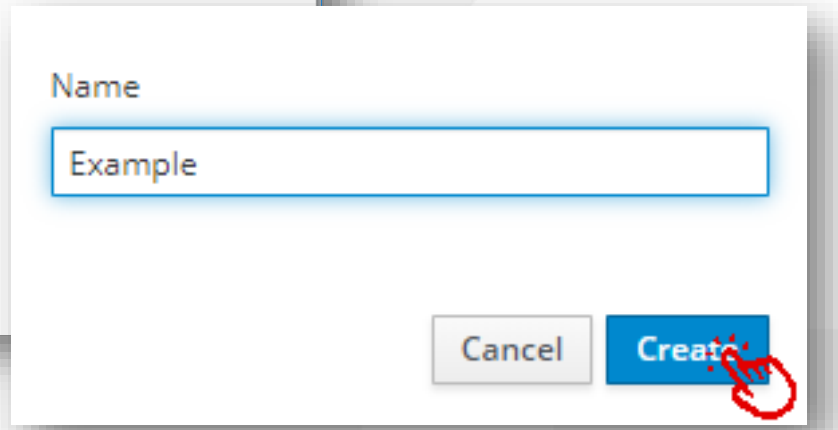
- This button is used to manage the different actions related to the selected application.
- You can make your dashboards accessible without authentication by selecting "Disable Authentication".

4. THE EDITOR : INTRODUCTION

Create your application:

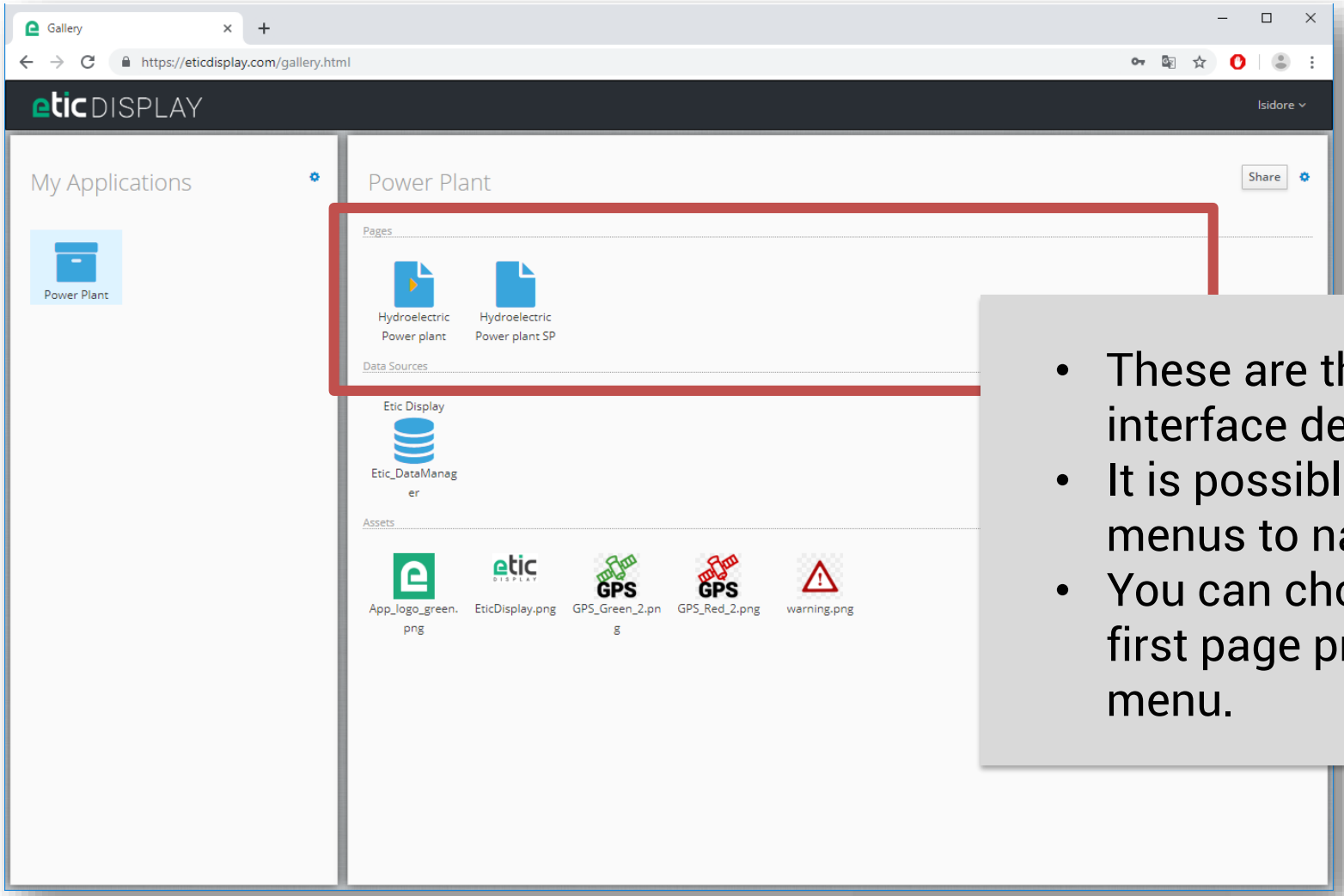


Fill in the "name" field and click "Create".



4. THE EDITOR : INTRODUCTION

Pages :

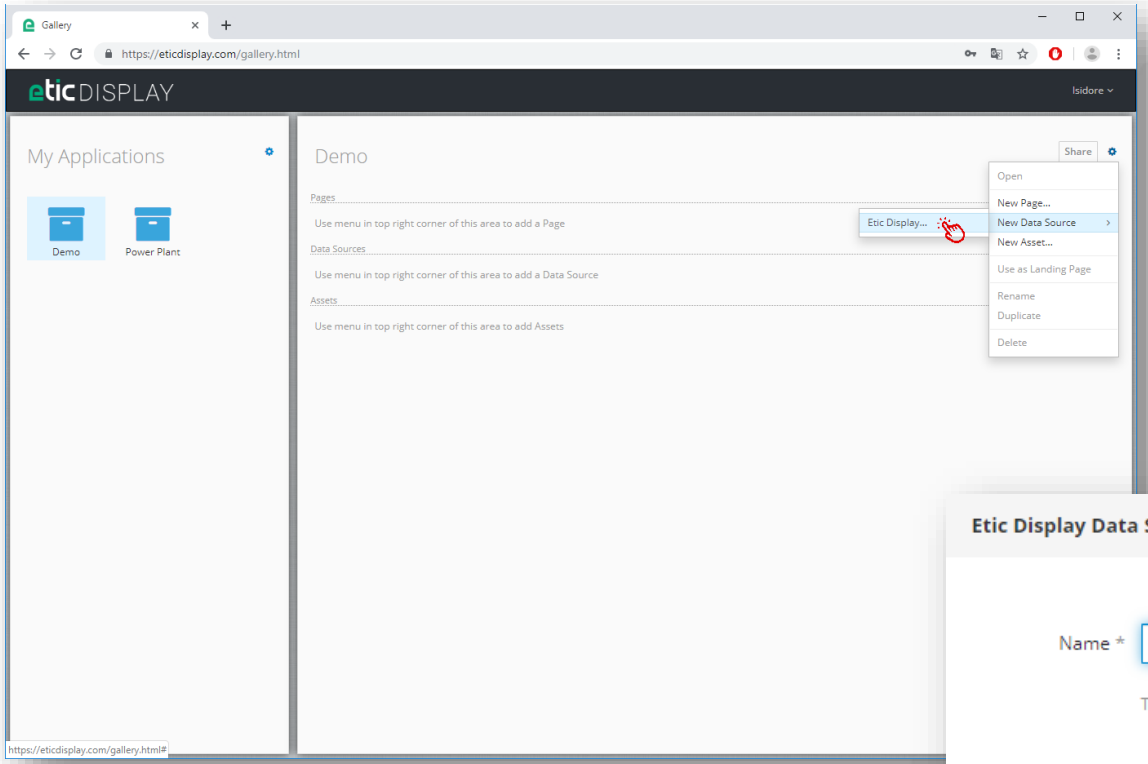


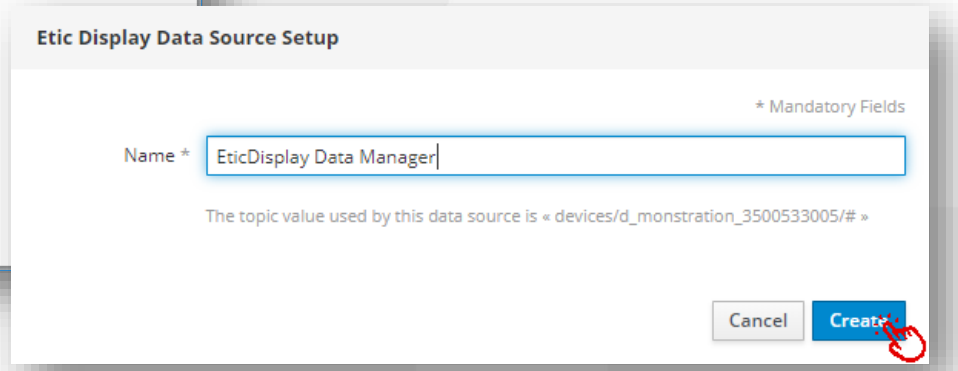
- These are the different pages of the visualization interface describing your process.
- It is possible to create links between pages or menus to navigate from one page to another.
- You can choose a home page which will be the first page presented using the link of the "Share" menu.

4. THE EDITOR : INTRODUCTION

Create your data source:

- The EticDisplay data source create the link to the data manager
- You just need to create a data source by application

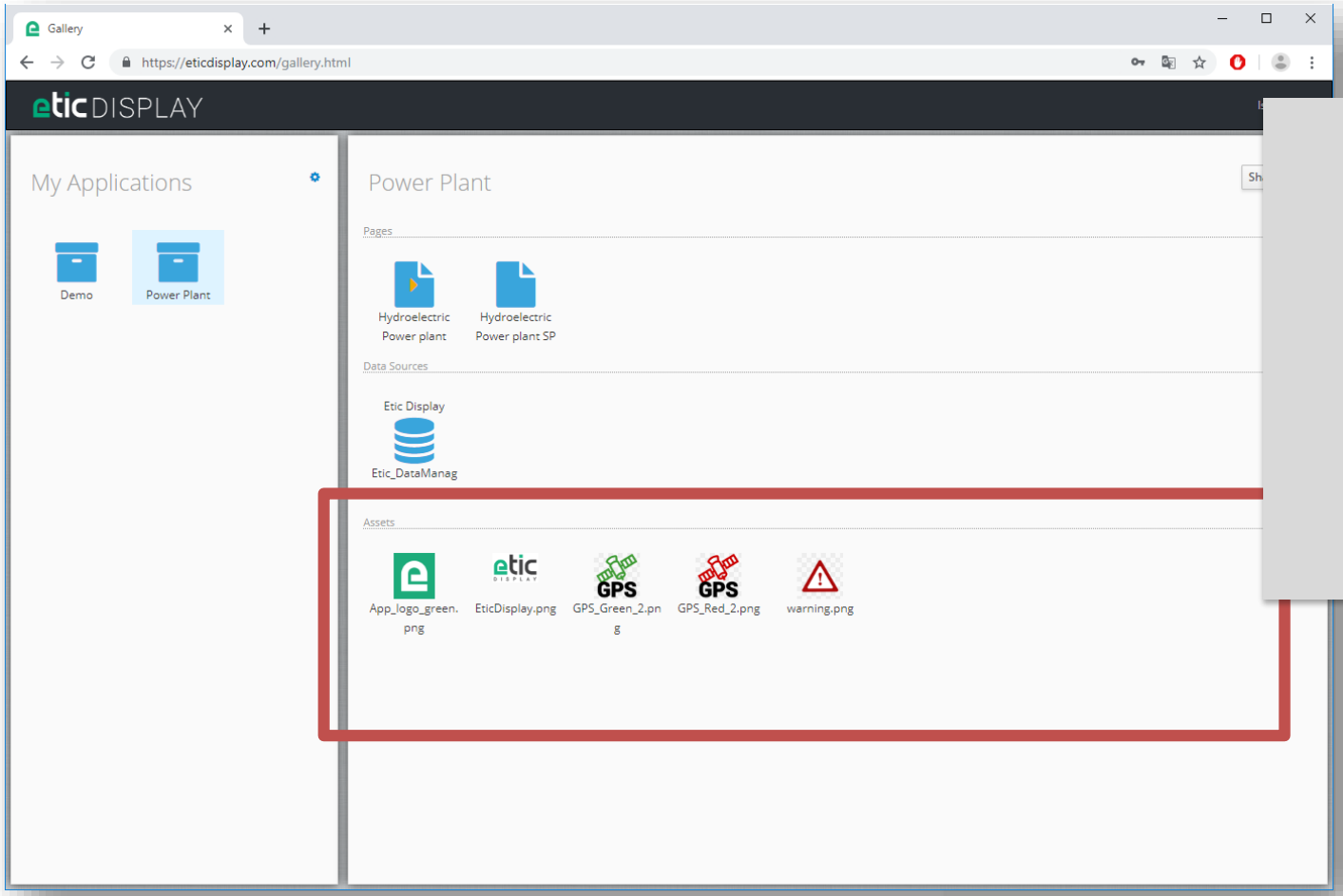




Fill in the "Name" field and click on "Create".

4. THE EDITOR : INTRODUCTION

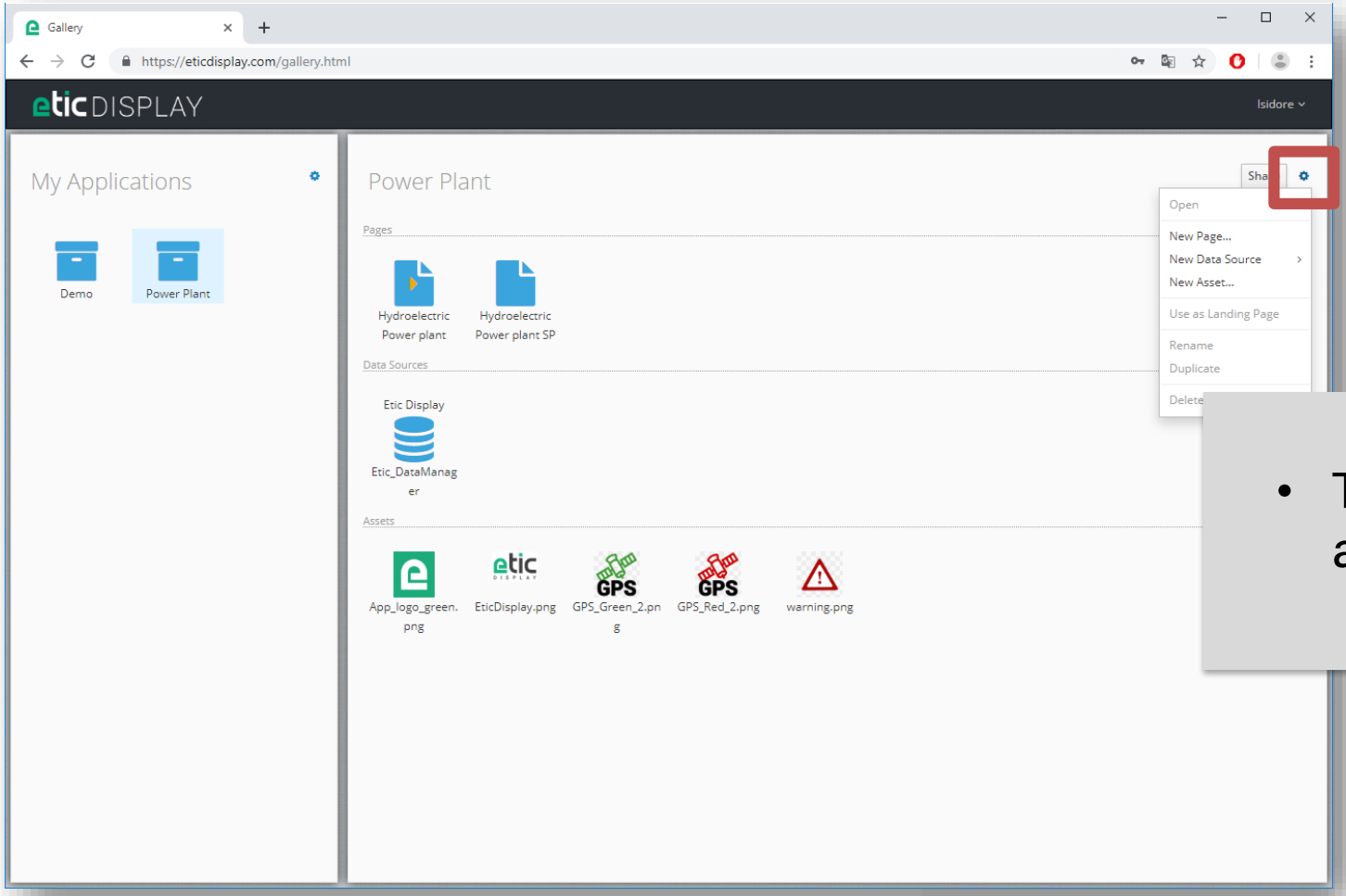
Assets :



- These are elements that can be integrated in the pages or used as attribute of different objects (background image ...)
- Logos
- Images
- Sounds
- ...

4. THE EDITOR : INTRODUCTION

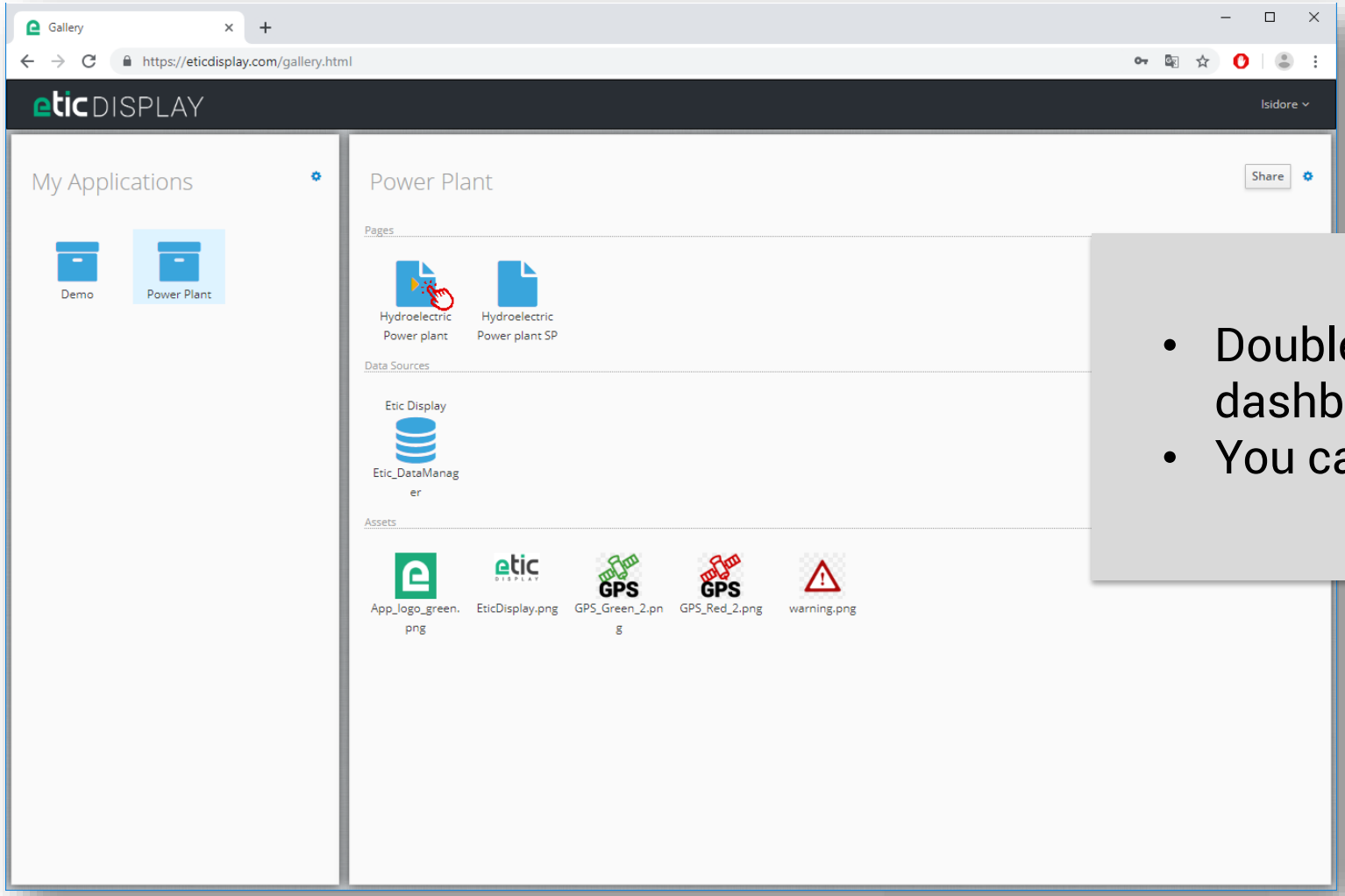
Pages / Assets :



- This button is used to manage the different actions related to the selected page / asset.

4. THE EDITOR : INTRODUCTION

Dashboard editor:



- Double-clicking on a page will launch the dashboard editor.
- You can start creating your dashboards.

5. THE EDITOR: USER MANAGEMENT

- Privilege levels
- Users management
- Create an user
- Change a password
- User modifications
- Disable / Enable an user

5. THE EDITOR: USER MANAGEMENT

- The EticDISPLAY editor integrates a user management system.
- You can create, delete, and edit users.
- You can give different access rights to users.

There are 3 levels of privileges:

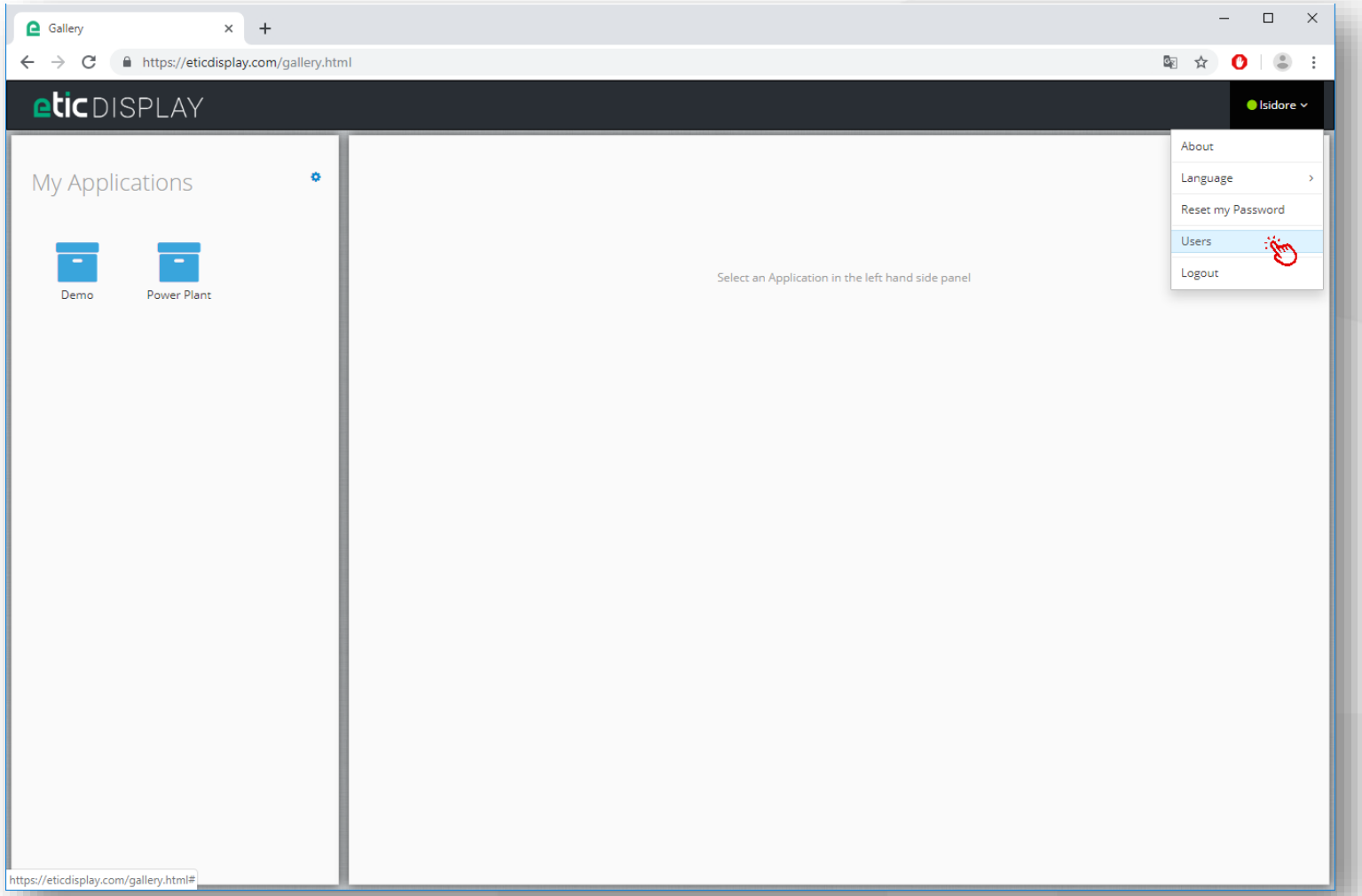
- Reader :
  - Can view all pages of the organization
- Editor :
  - Can view all pages of the organization
  - Can create and edit pages
- Administrator :
  - Can view all pages of the organization
  - Can create and edit pages
  - Can manage users in the organization

It is not possible, at this time, to manage access rights per page. You can, however, transmit to the end user only the link to the page that concerns them.

5. THE EDITOR: USER MANAGEMENT

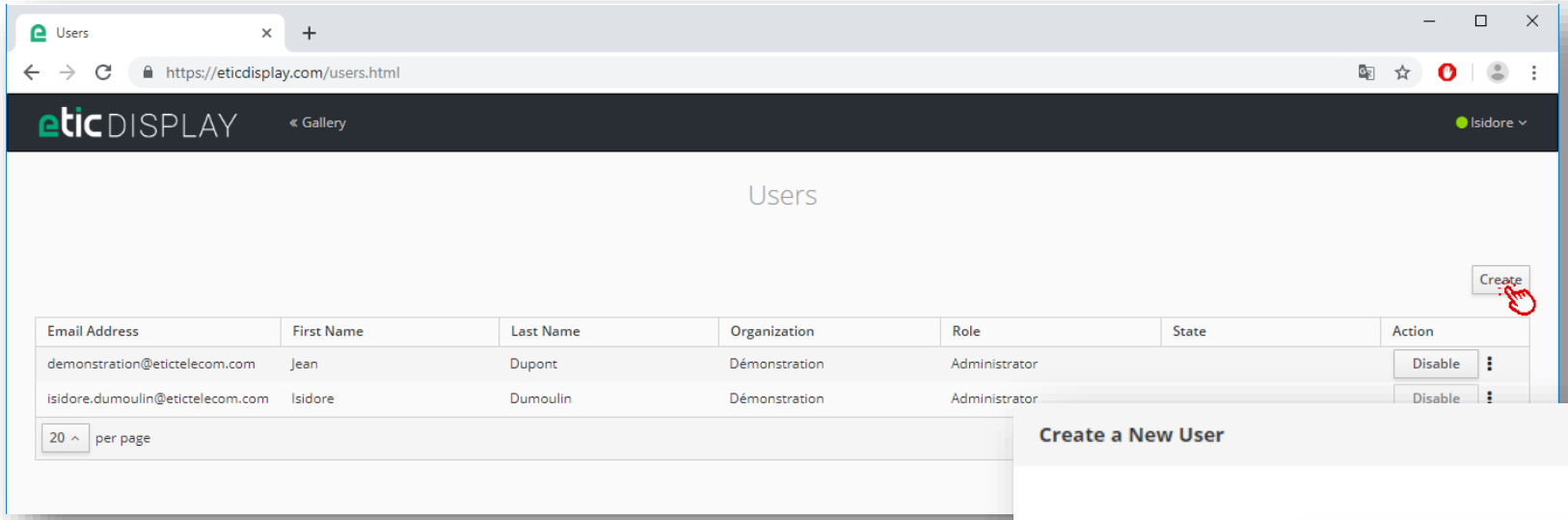
Users management:

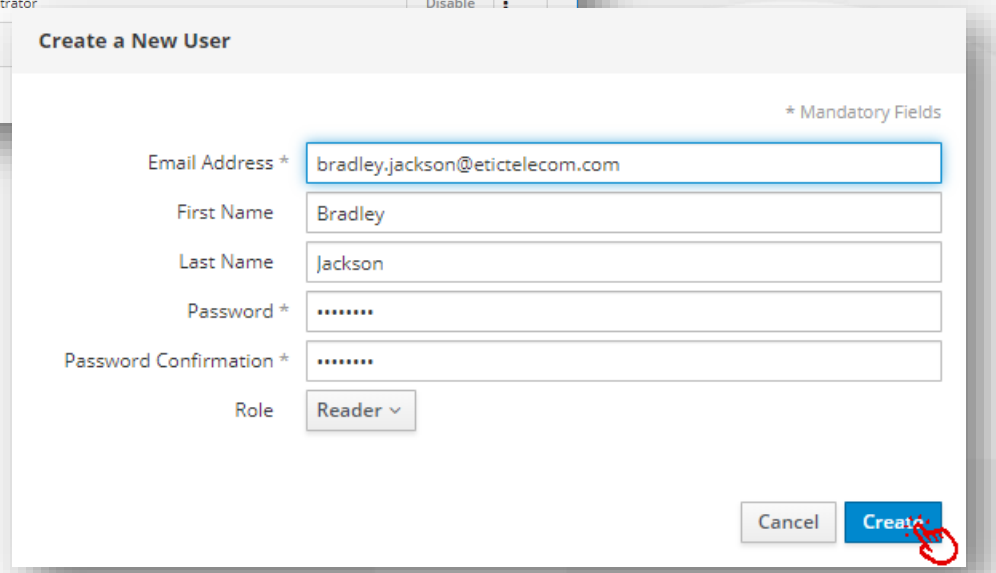
- Only an administrator in the organization can create, edit, or delete a user



5. THE EDITOR: USER MANAGEMENT

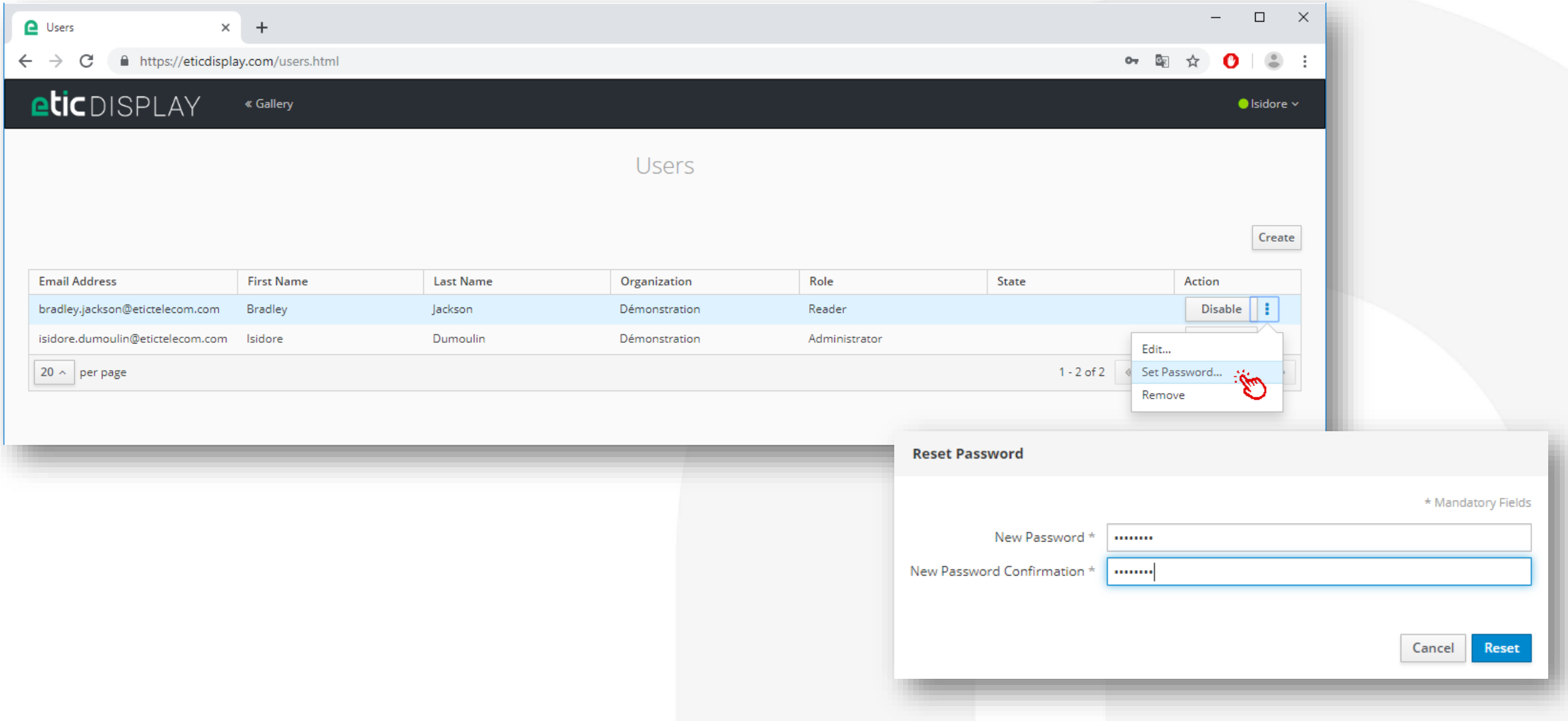
Create an user:





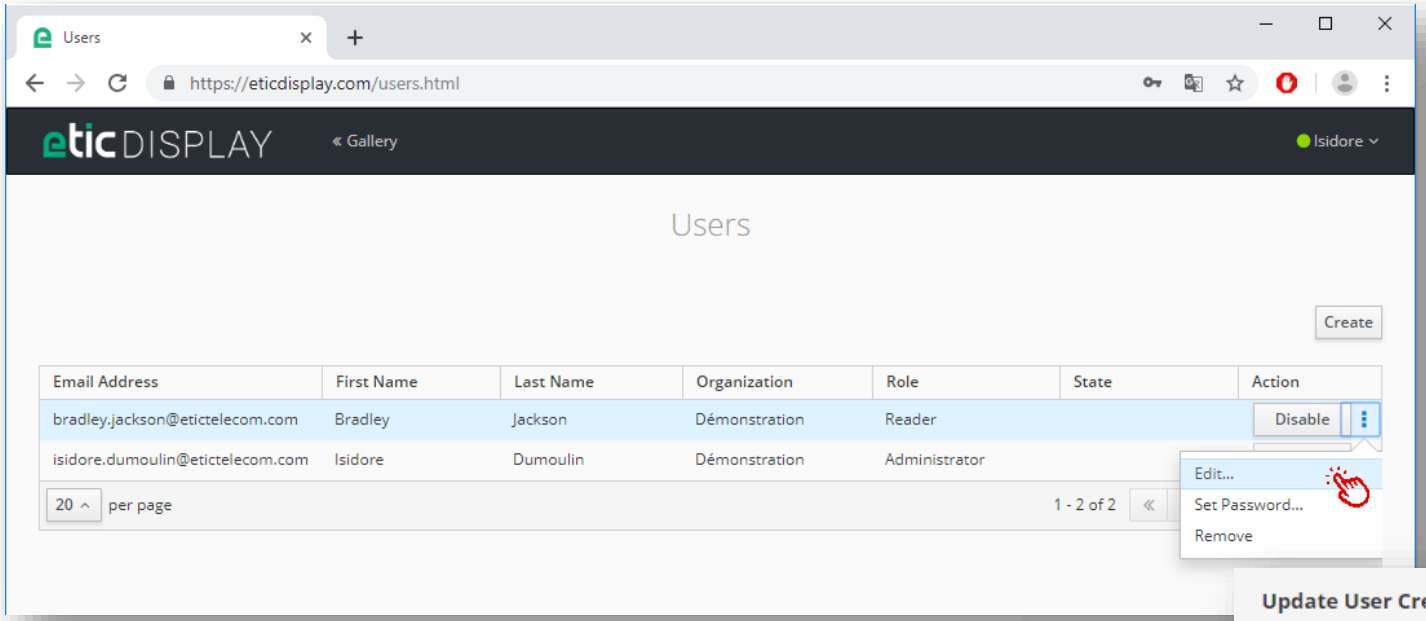
5. THE EDITOR: USER MANAGEMENT

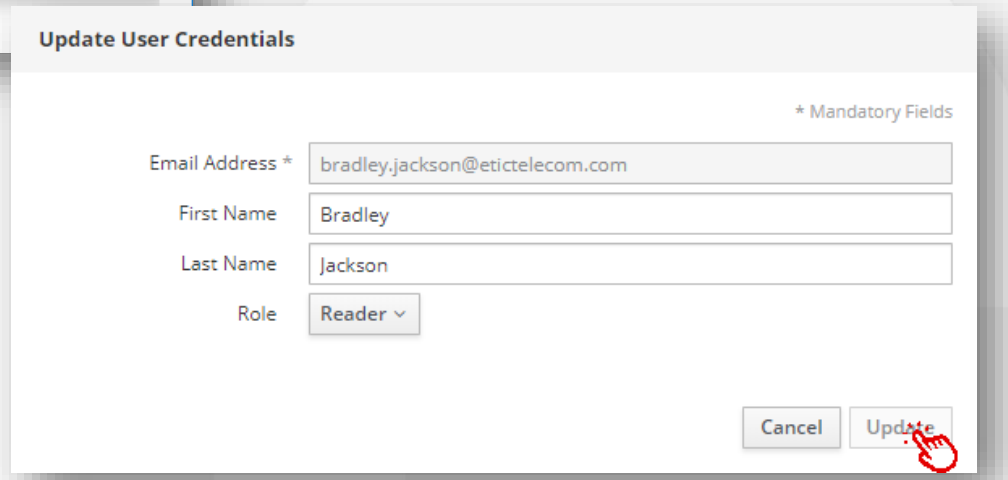
Change a password:



5. THE EDITOR: USER MANAGEMENT

User modification:



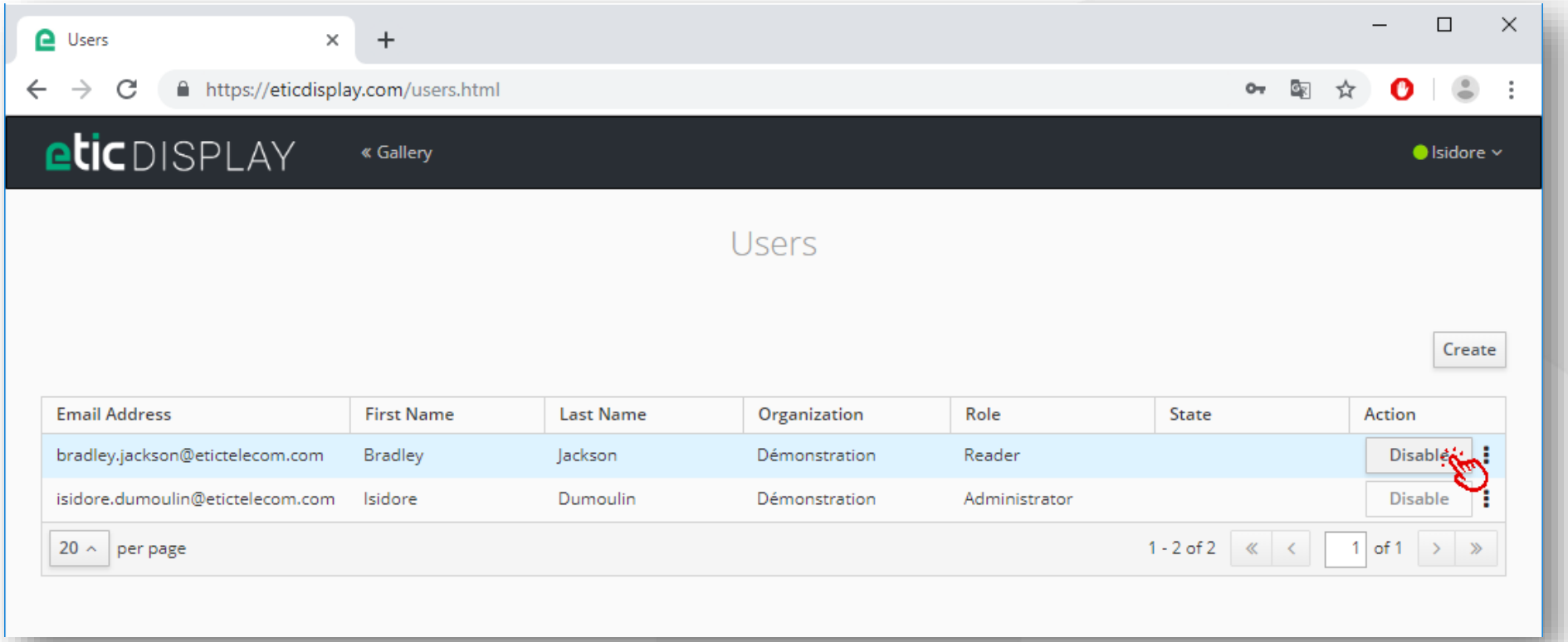


You can modify:

- The name
- The first name
- The rights (Role)

5. THE EDITOR: USER MANAGEMENT

Disable / Enable an user:



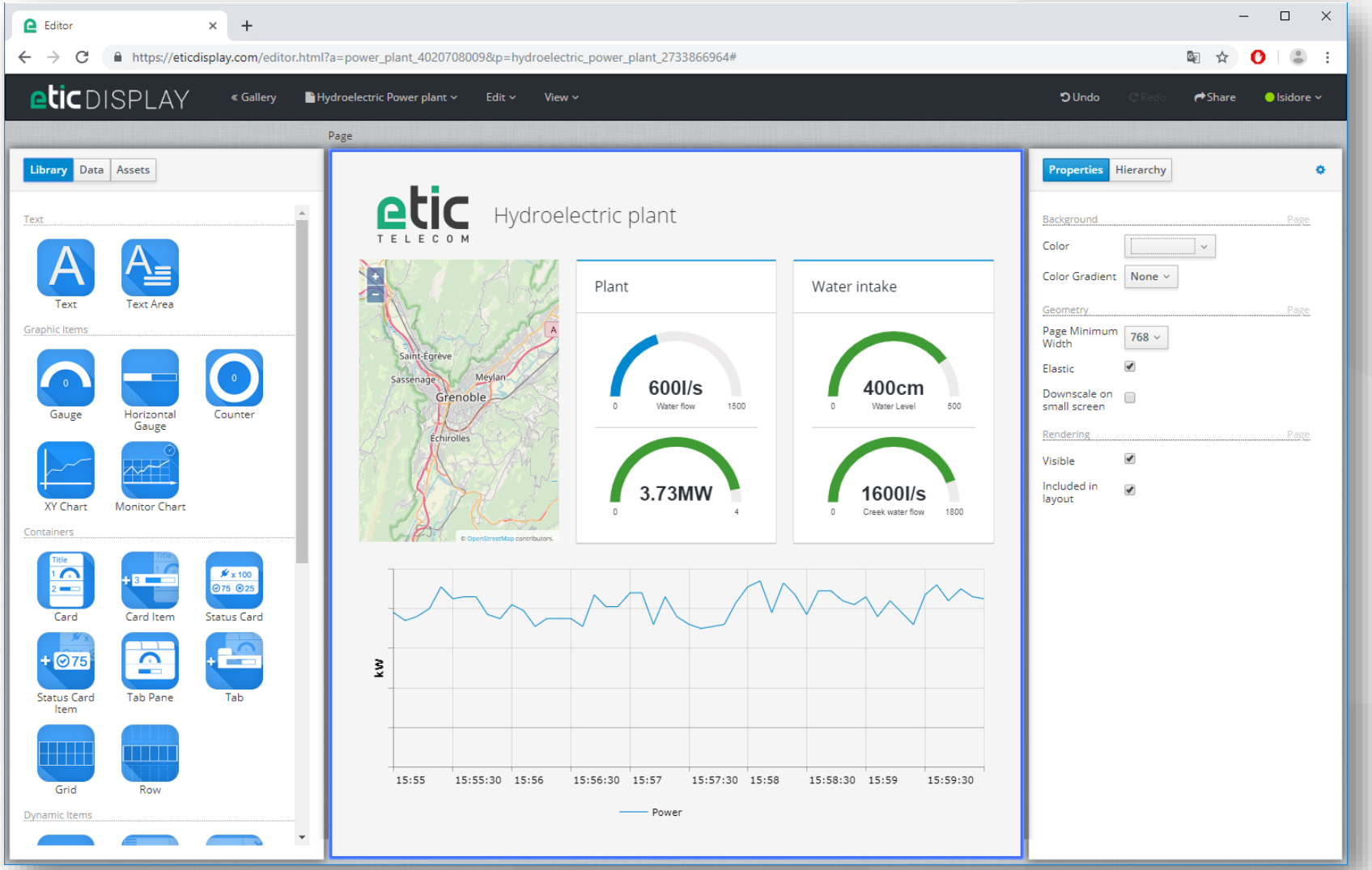
A disabled user can no longer connect to the service

6. THE EDITOR: UTILIZATION

- Presentation of the dashboard editor
- Toolbar
- Page size
- “Library” Tab
- “Data” Tab
- “Assets” Tab
- “Properties” Tab
- “Hierarchy” Tab
- Description of the data available
- Data selection
- Data formatting
- Positioning: align elements

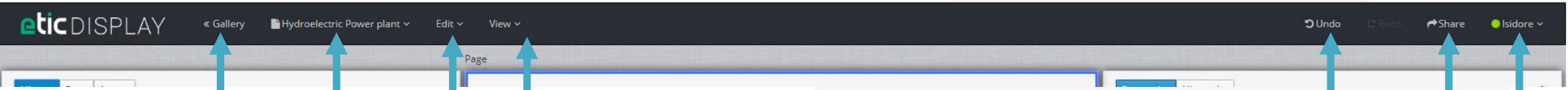
6. THE EDITOR: UTILIZATION

Presentation of the dashboard editor:



6. THE EDITOR: UTILIZATION

Toolbar:



Undo / redo latest actions

Publish a URL to the current page

General settings of the user

Current page settings

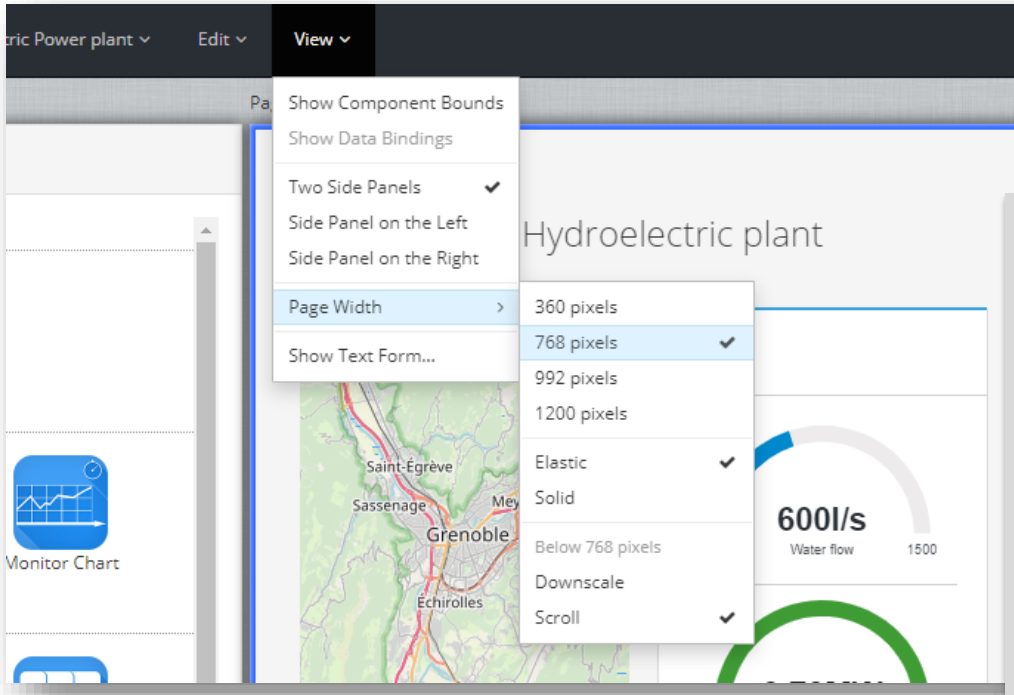
Settings related to the selected item

Navigating the pages

Back to the gallery (application / page management)

6. THE EDITOR: UTILIZATION

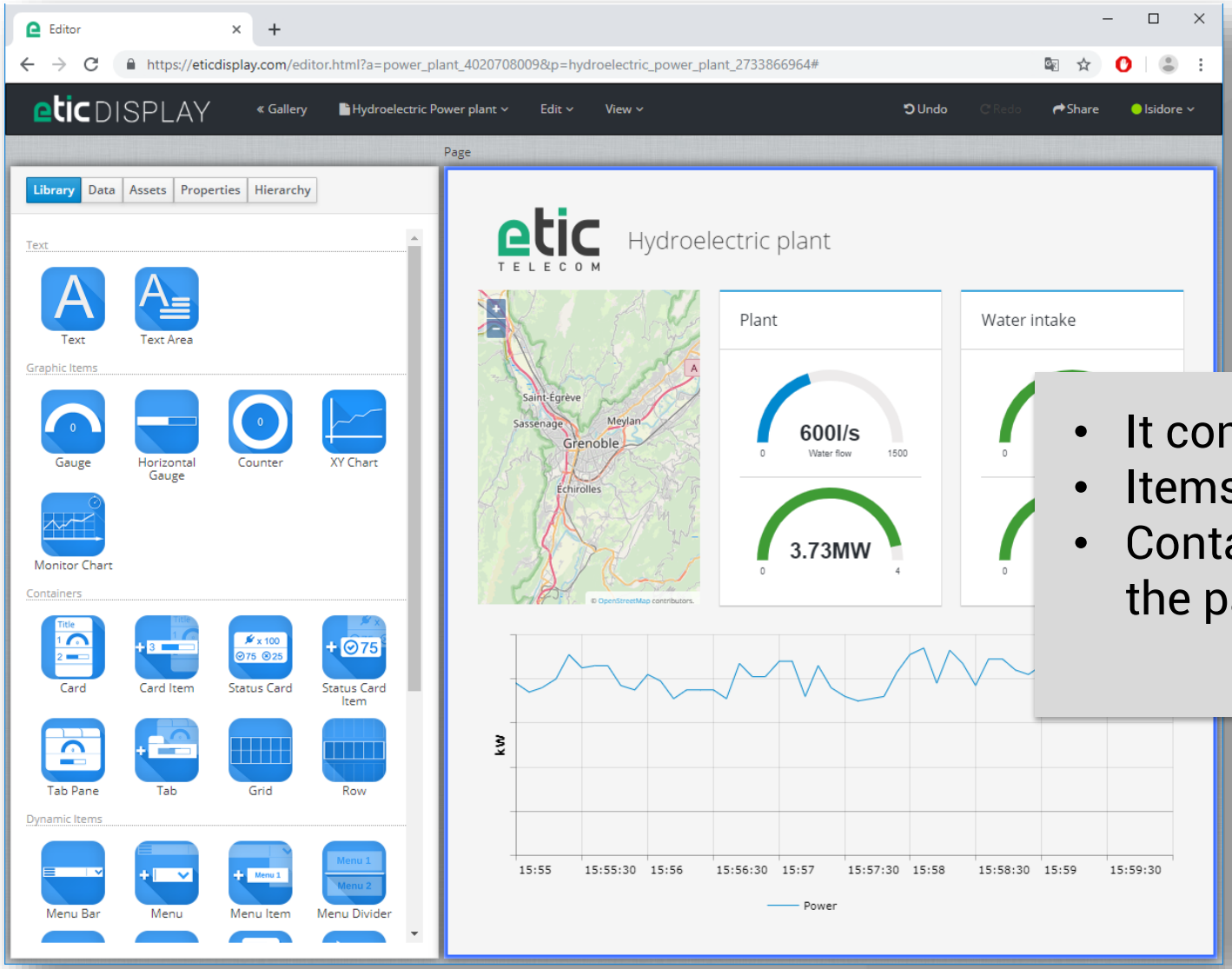
Page size:



- Pages are created in fixed width.
- You can select the width of the page.
- You can choose the behavior of the page when the space provided by the browser differs from the defined size.
  - Elastic: The dimensions of objects change to fit the width of the page to the available width.
  - Solid: The page keeps the value set regardless of the available space.
- For optimal navigation on smartphone create a specific page with a width of 360 pixels.

6. THE EDITOR: UTILIZATION

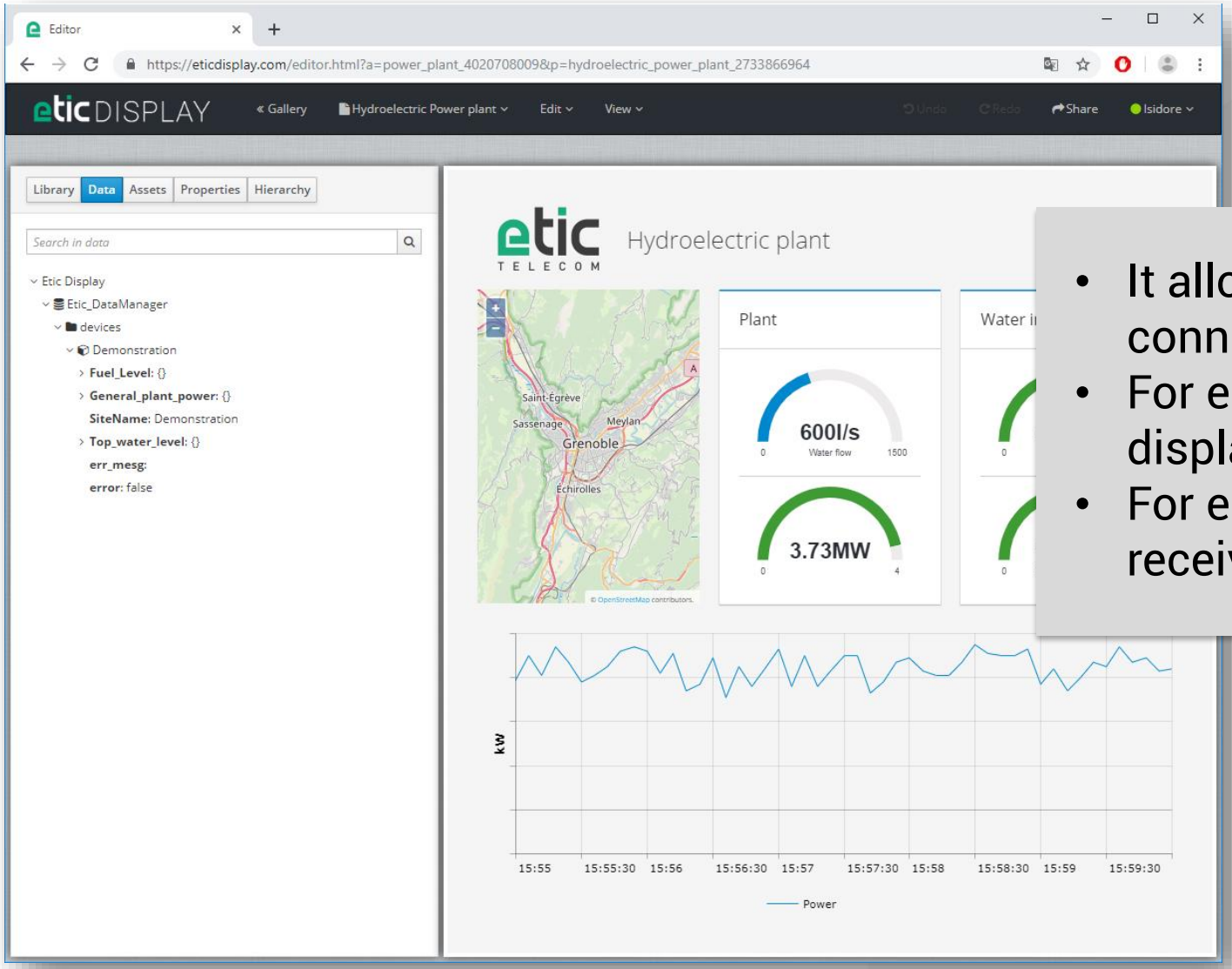
"Library" tab:



- It contains the different graphic elements.
- Items can be added to the page by drag and drop.
- Containers are graphic elements for structuring the page.

6. THE EDITOR: UTILIZATION

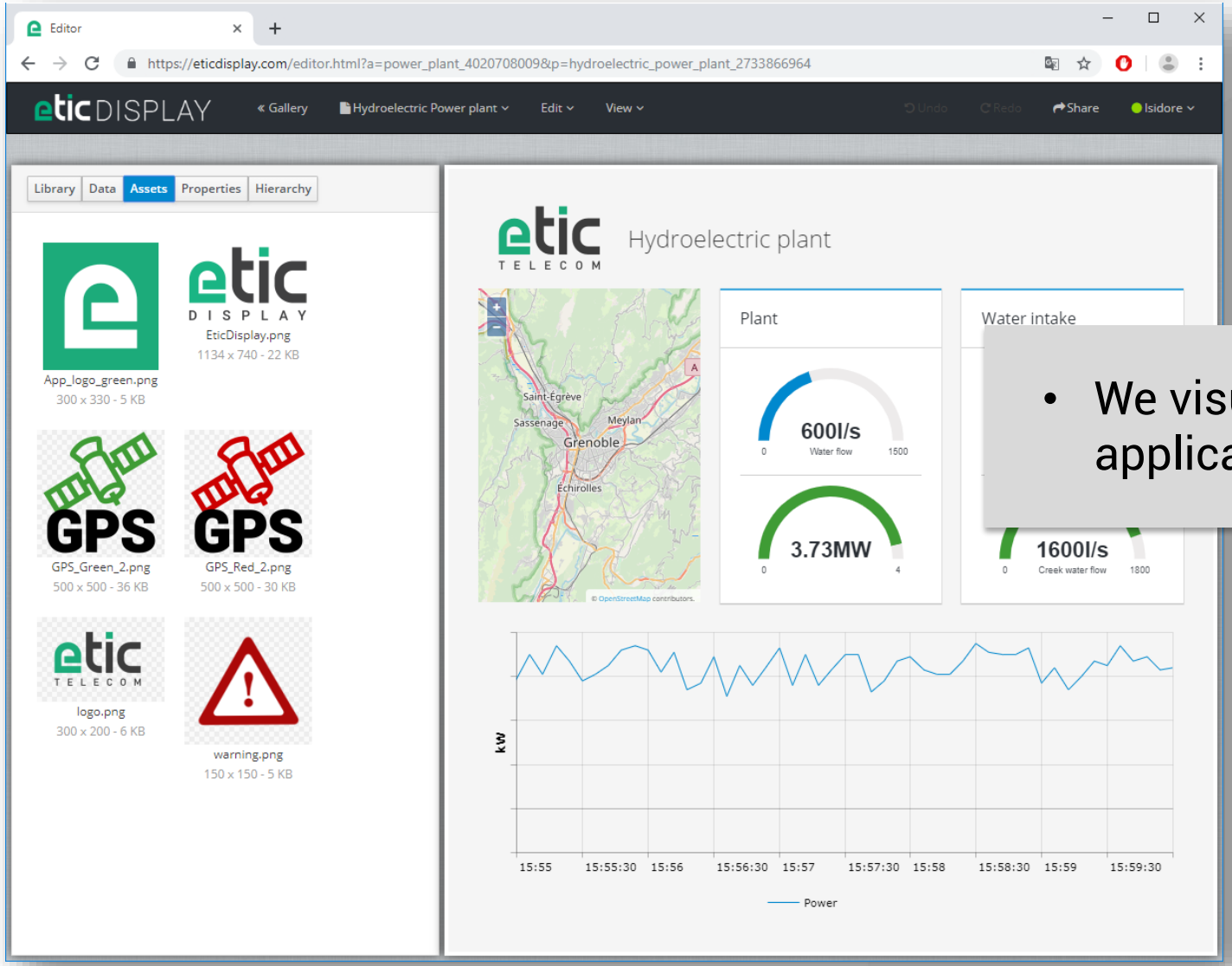
“Data” tab:



- It allows to visualize the different equipment connected to this organization.
- For each device, the configured variables are displayed.
- For each variable we display the last value received by EticDISPLAY.

6. THE EDITOR: UTILIZATION

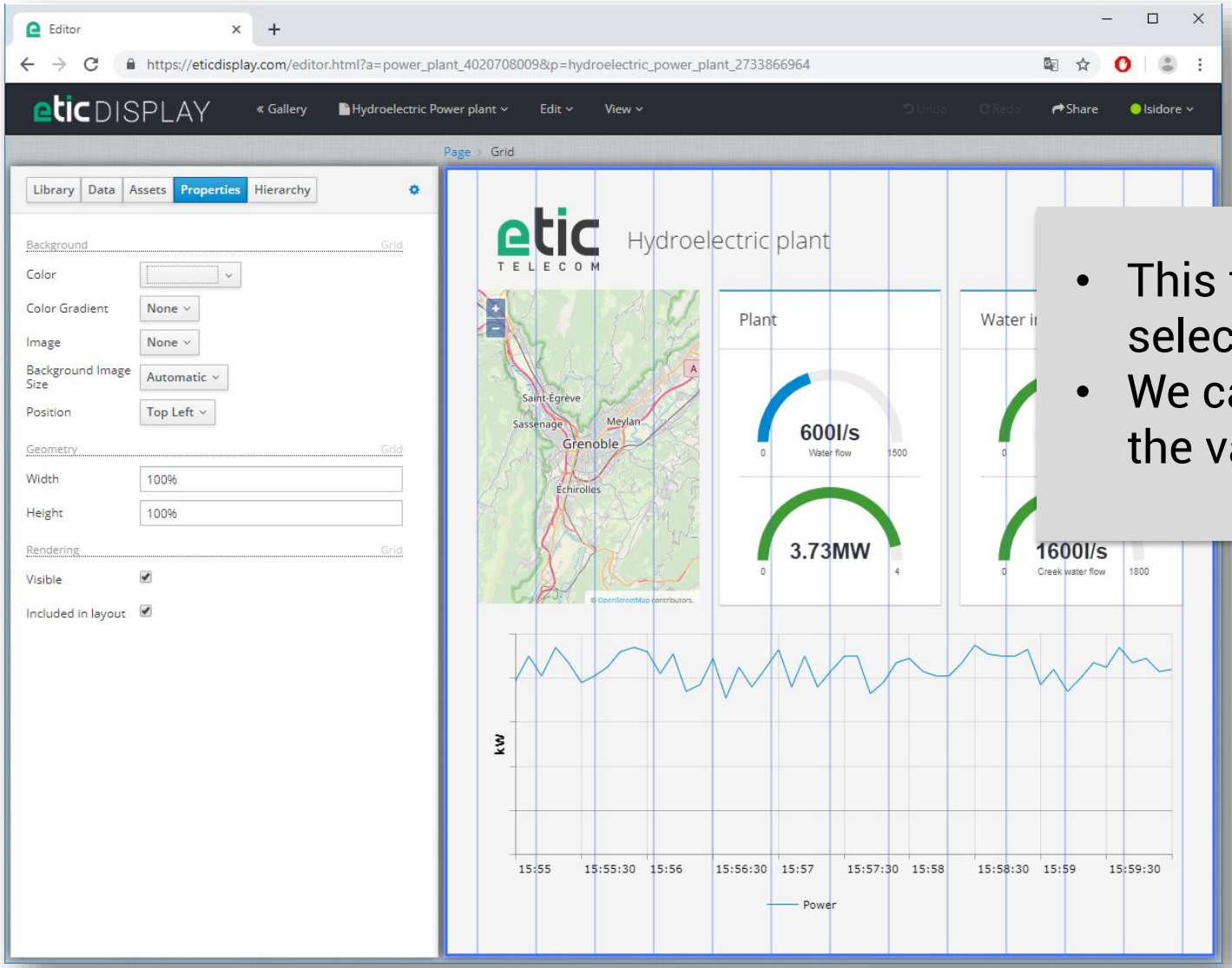
“Assets” tab:



- We visualize here the various elements added to the application in the gallery (images, logos, sounds, ...).

6. THE EDITOR: UTILIZATION

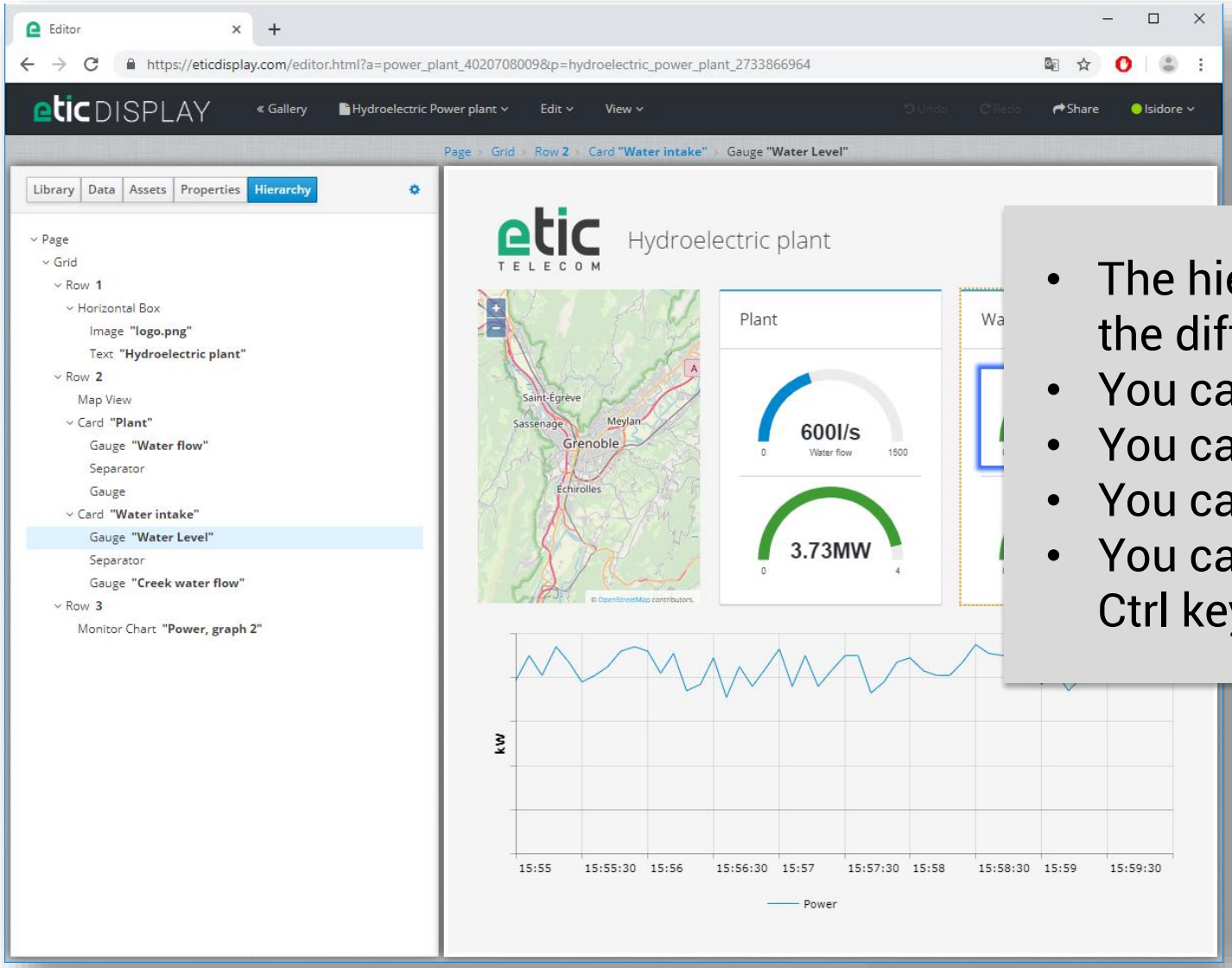
“Properties” tab:



- This tab is used to display the properties of the selected element.
- We can change its attributes statically or link it to the value of a variable.

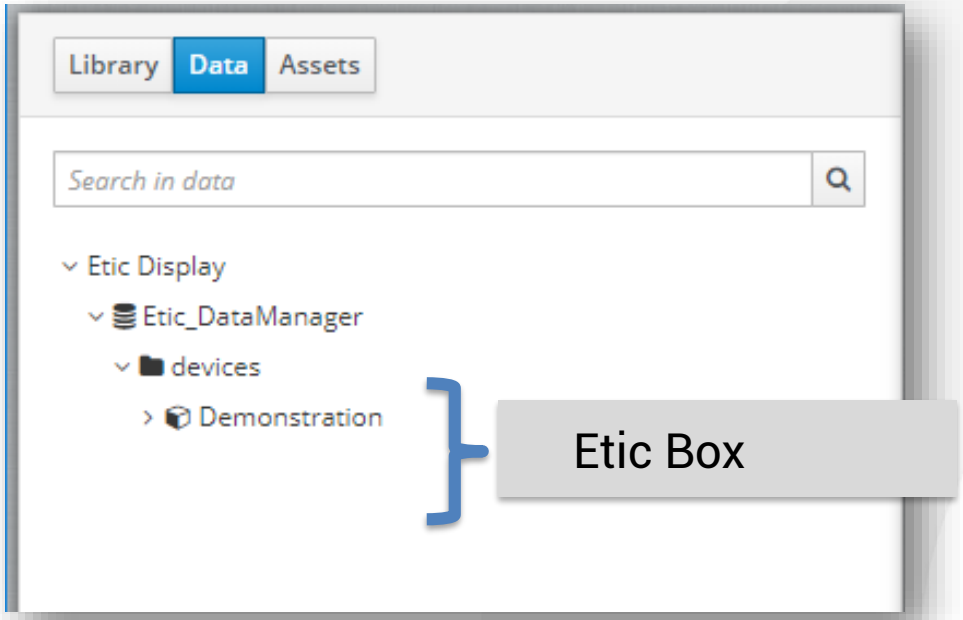
6. THE EDITOR: UTILIZATION

"Hierarchy" tab:

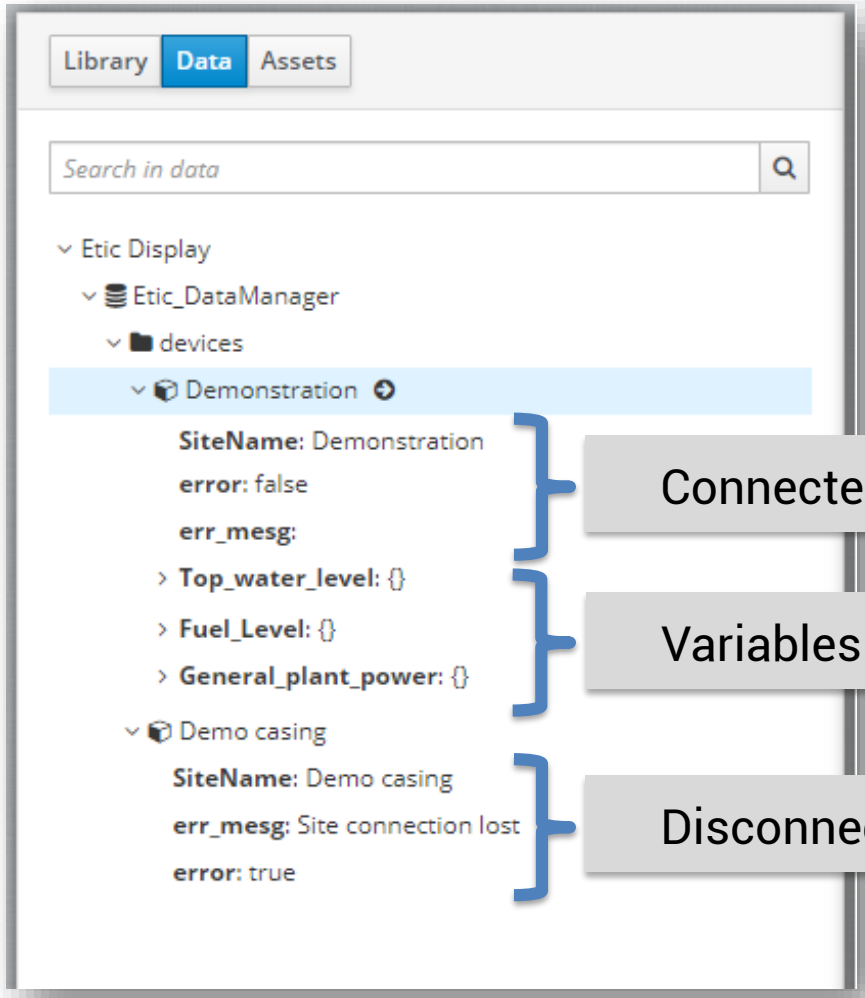


- The hierarchy corresponds to the organization of the different elements in the page.
- You can select hidden elements.
- You can select the menu items.
- You can move elements on the hierarchy.
- You can select multiple items by holding down the Ctrl key.

Description of the data available:



Description of the data available:



Status of the Etic Box:

- SiteName = name configured in the box (Configuration> LAN Interface> Equipment List)
- Presence of connection error and associated message

Connected Box

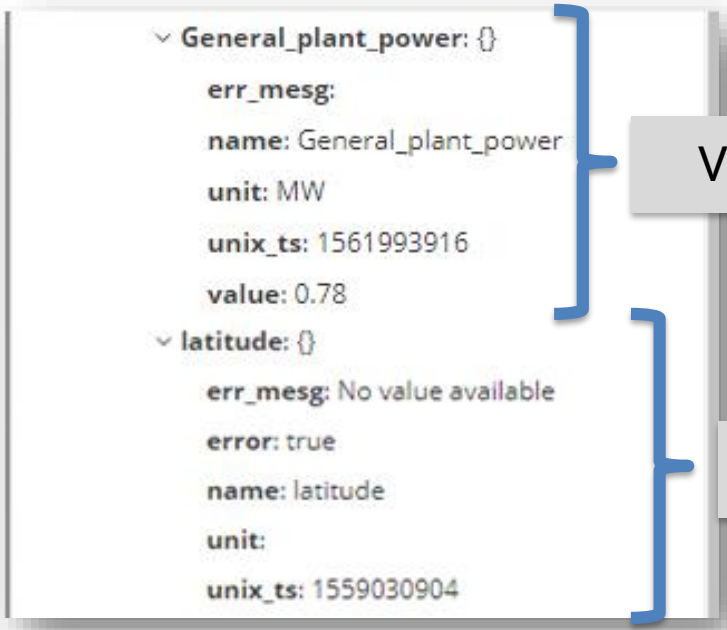
Variables configured in the box

Disconnected Box

Description of the data available:

Status of a variable:

- name = name of the variable configured in the box
- unit = unit of the variable configured in the box
- error and err_mesg = Presence of connection error and associated message
- value = last value received for this variable
- unix_ts = unix timestamp indicating the time the value was retrieved from the ModBus device

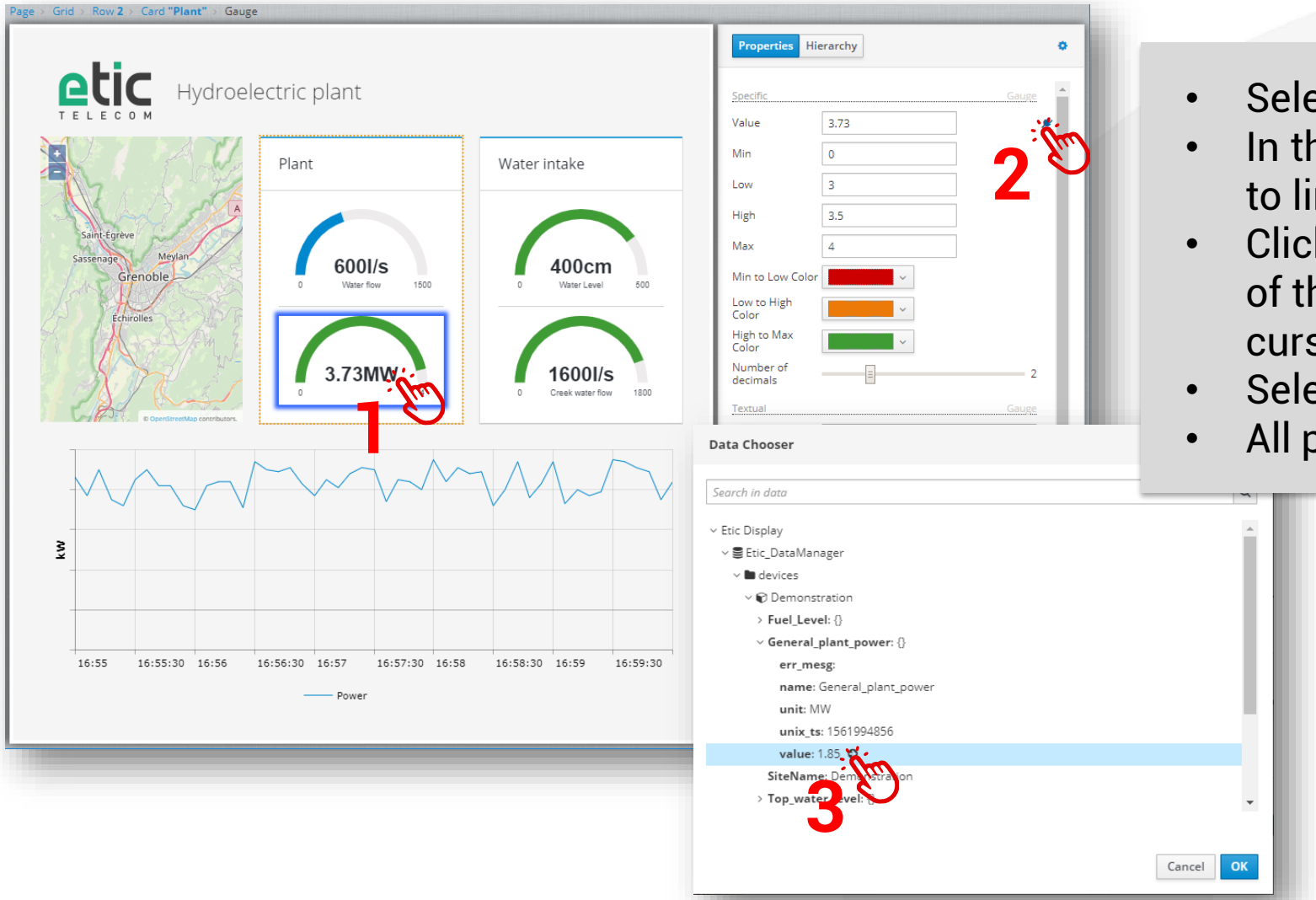


Variable and its value

Variable error (here the GPS is not connected)

6. THE EDITOR: UTILIZATION

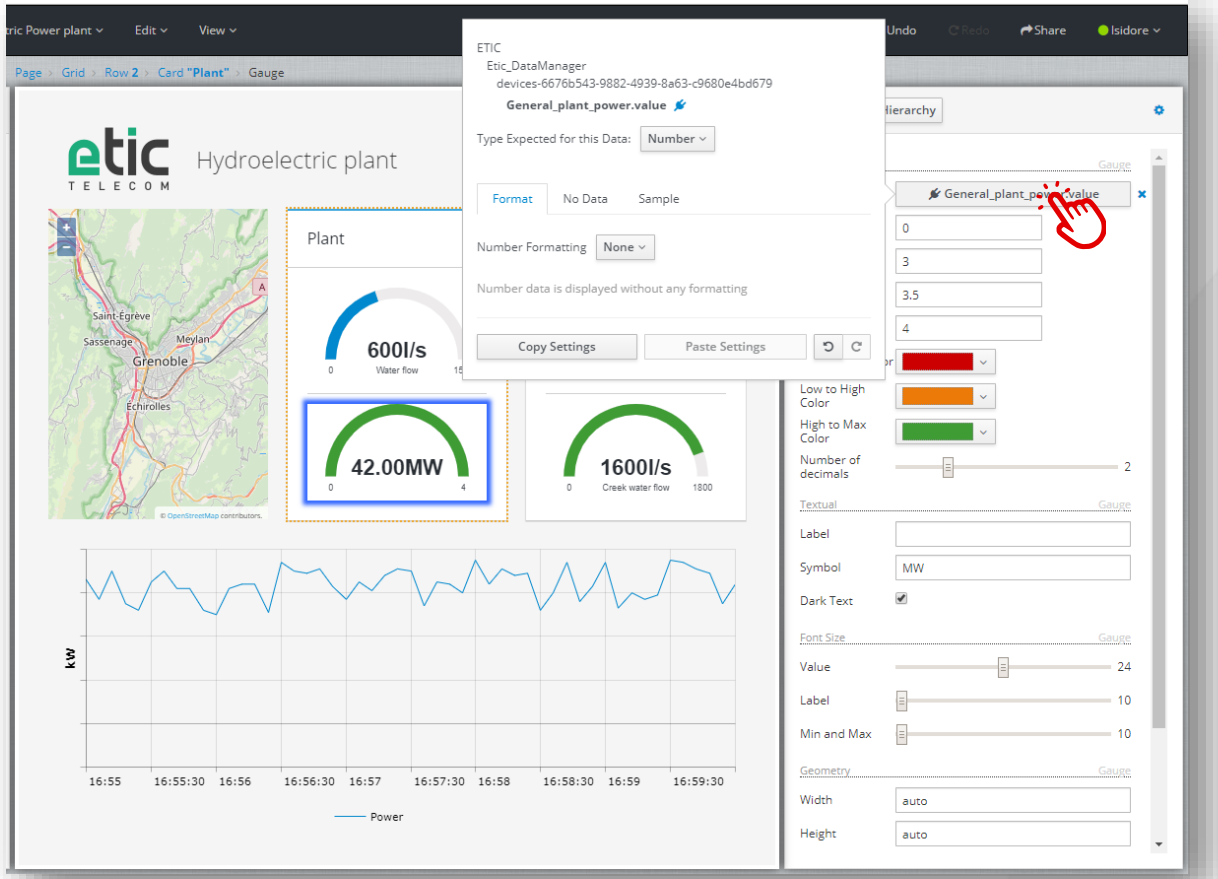
Data selection:



- Select a graphic element
- In the properties tab choose the field you want to link to a variable
- Click on the small plug that appears to the right of the field when you hover over it with the cursor
- Select the data and confirm
- All properties can be linked to data.

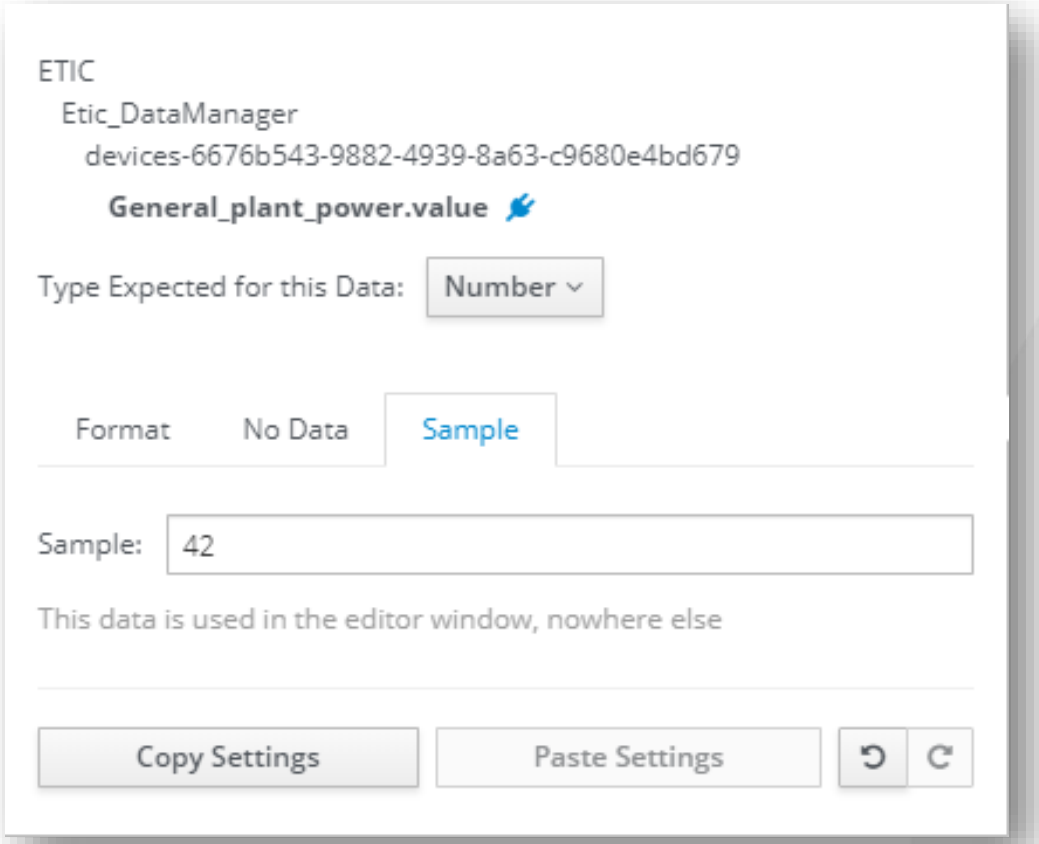
6. THE EDITOR: UTILIZATION

Data formatting:



- Click on the field to format this data
- This menu allows you to convert any type of data to evolve the selected field.
- For example:
  - you can convert a number to color if you have chosen a color field.
  - you can make an element disappear according to a Boolean value.
  - you can change text by setting thresholds for a number variable.
  - you can display a date from a unix timestamp.
  - ……

Data formatting:

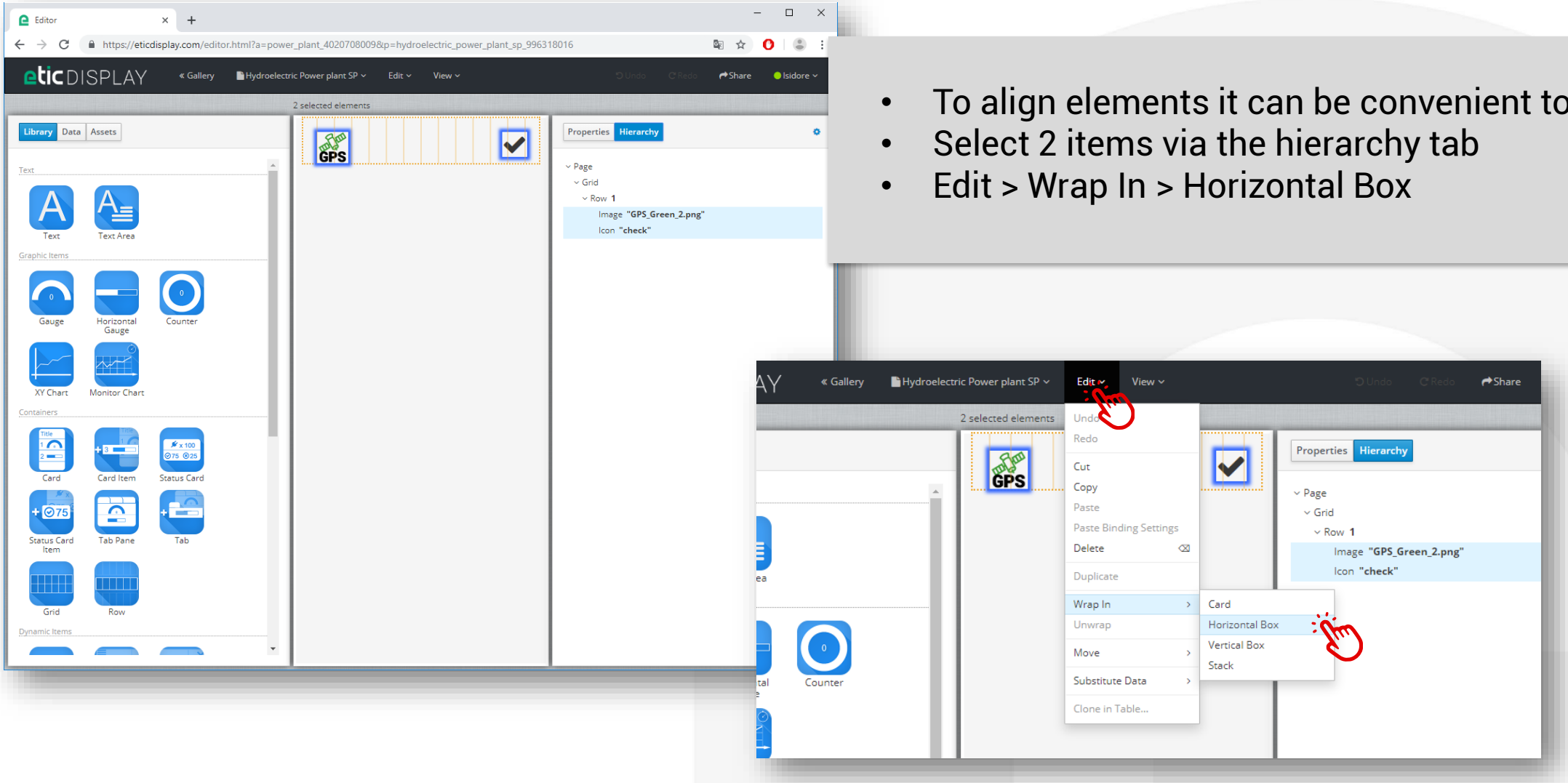


- The Sample tab allows you to set a test value to check the behavior of objects when the value varies.

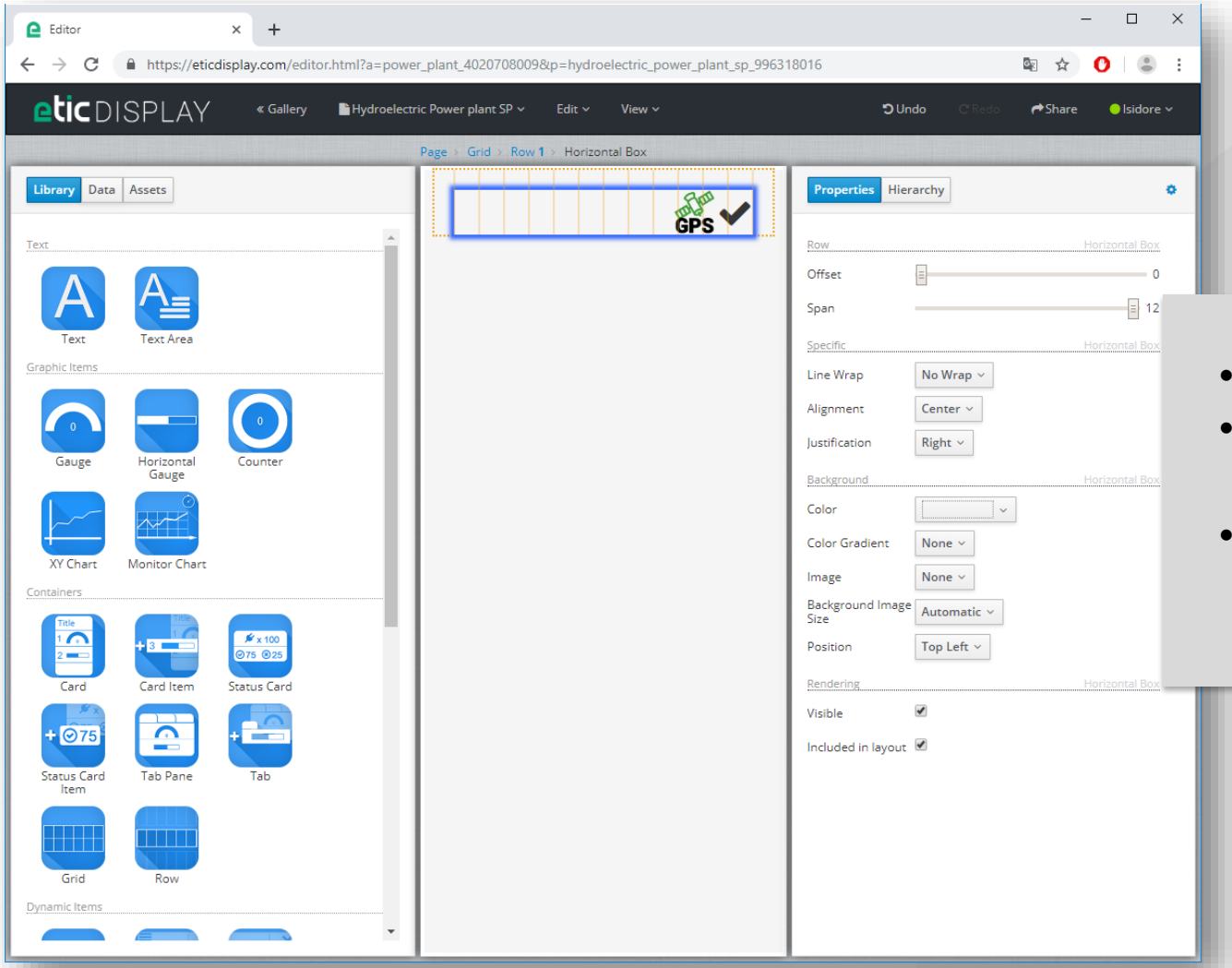
6. THE EDITOR: UTILIZATION

Positioning: align elements

- To align elements it can be convenient to use “Boxes”.
- Select 2 items via the hierarchy tab
- Edit > Wrap In > Horizontal Box



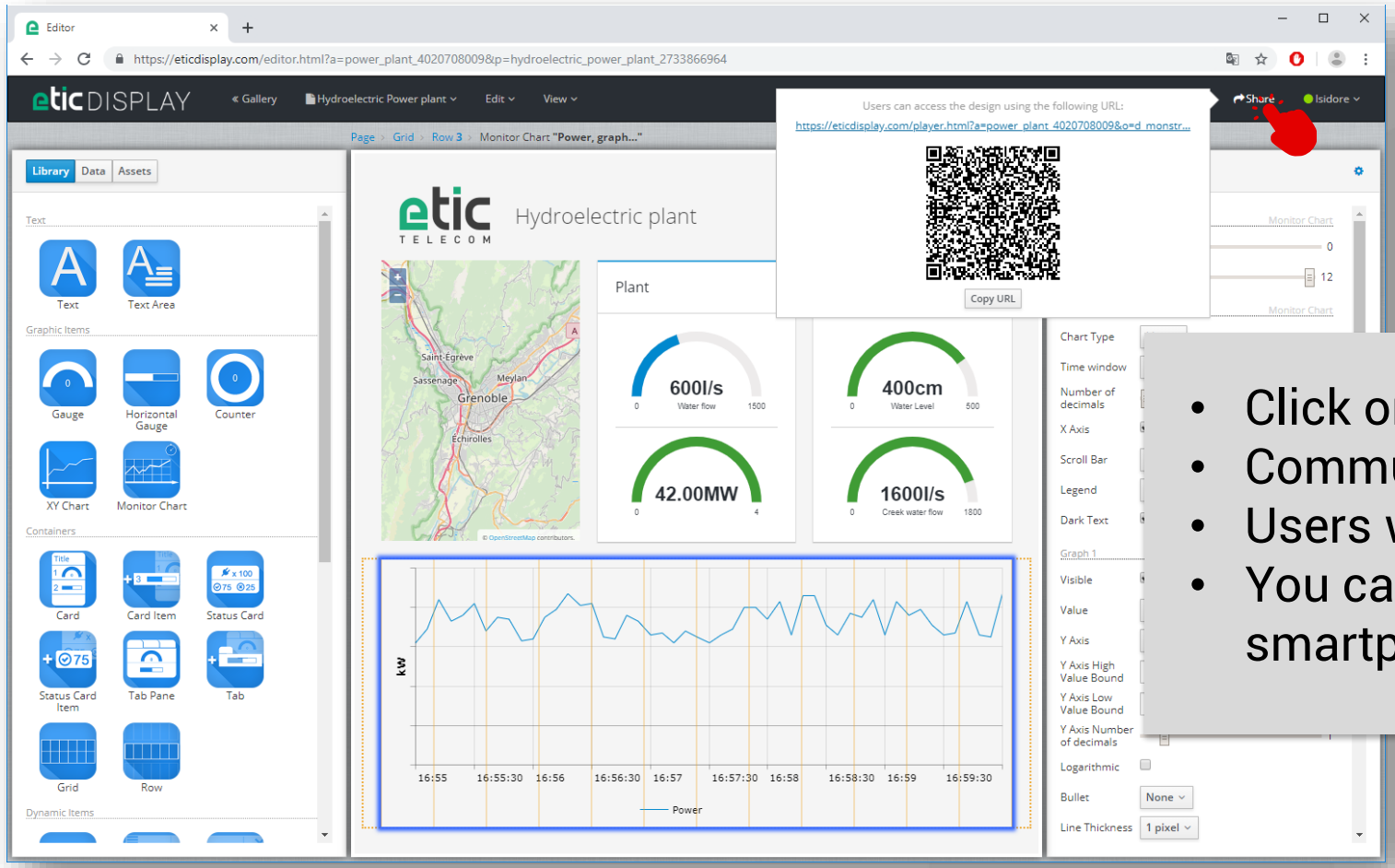
Positioning: align elements



- You can set the width of the container in “Span".
- You can adjust the vertical alignment of elements in the container via the "alignment" field.
- You can adjust the horizontal positioning of items in the container via the "justification" field.

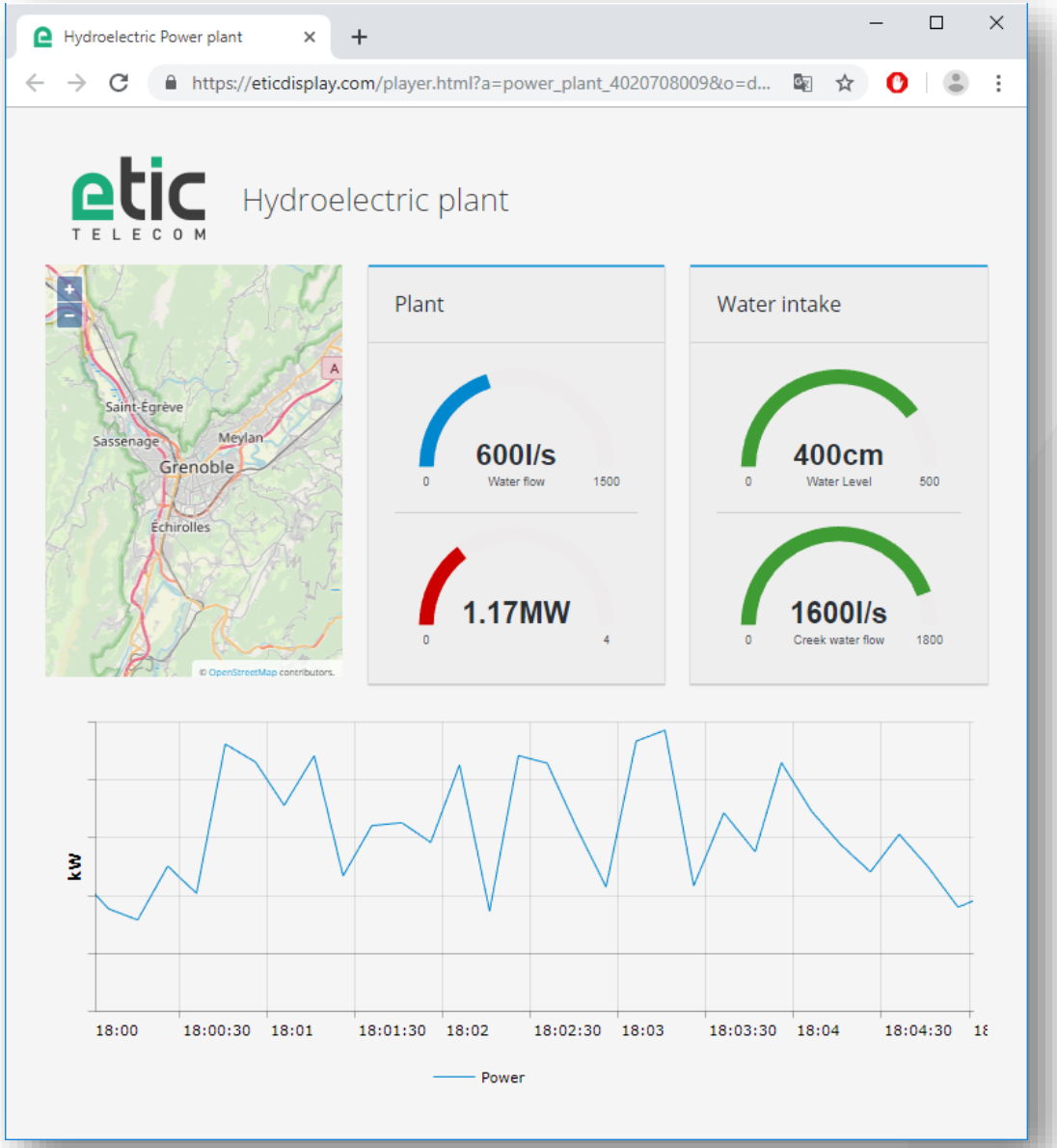
7. THE EDITOR: DASHBOARDS VISUALIZATION

7. THE EDITOR: DASHBOARDS VIZUALISATION



- Click on “share”
- Communicate the URL of the page to users
- Users will need to authenticate.
- You can also access the page from your smartphone by scanning the QR code.

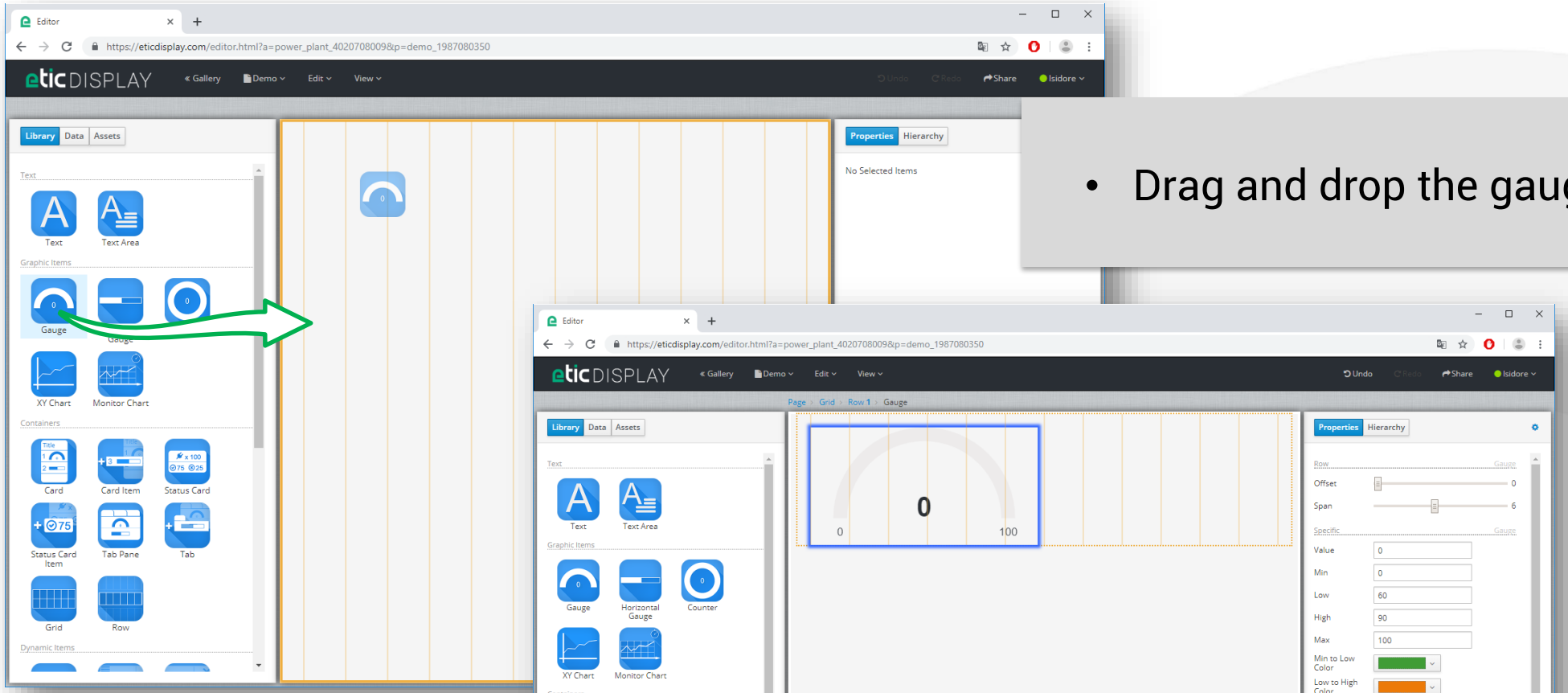
7. THE EDITOR: DASHBOARDS VIZUALISATION

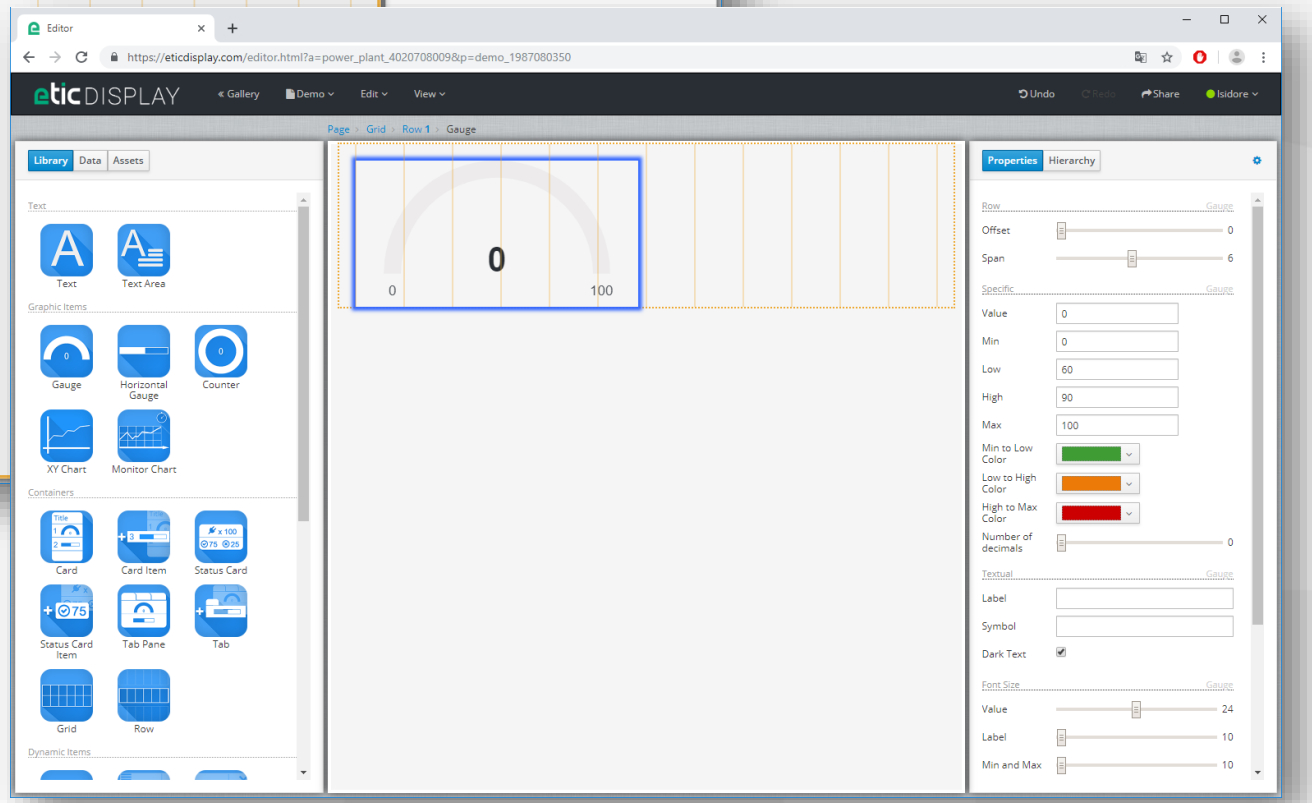


- You can view your dashboard.
- Values are updated live without reloading the page.

TUTORIAL 1
EDITOR:
ADDING A GAUGE

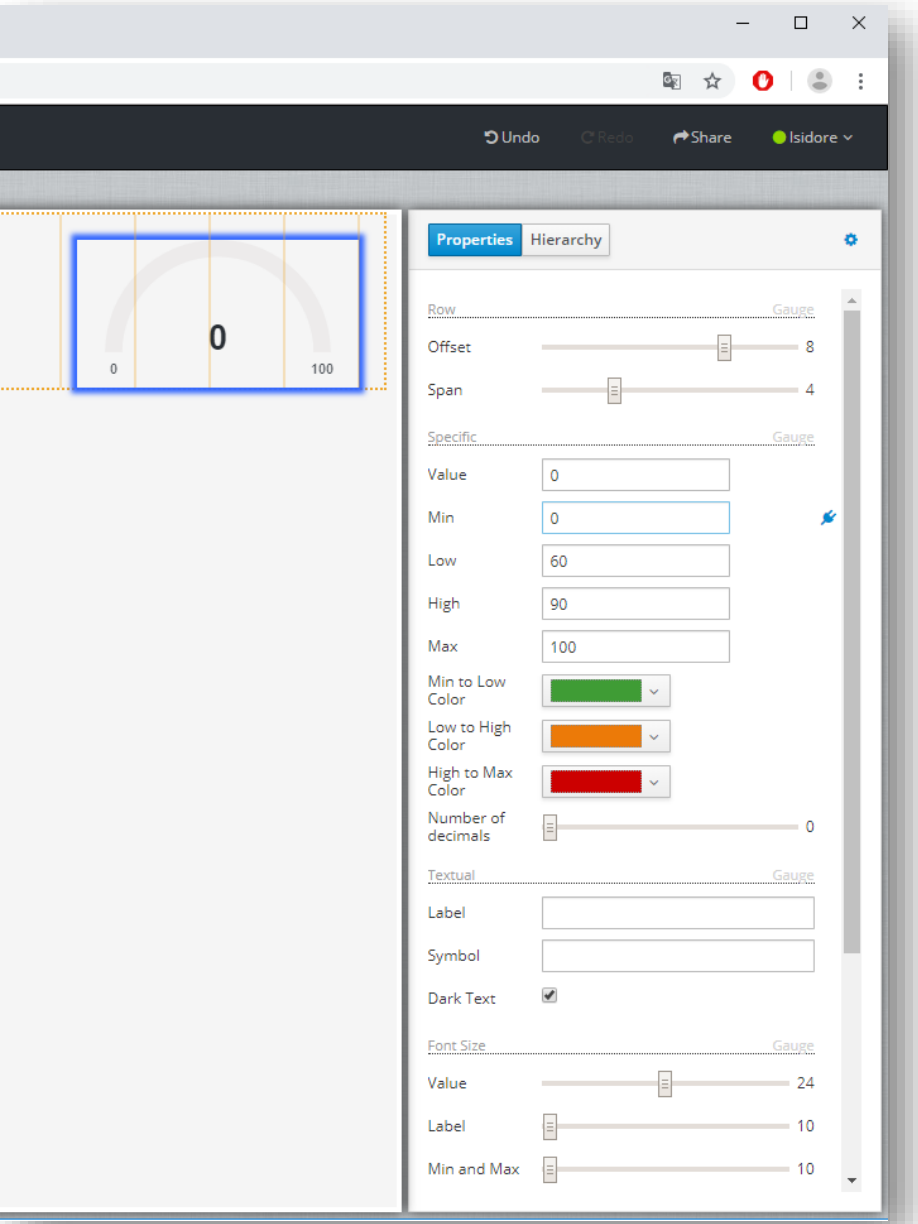
TUTORIAL 1. ADDING A GAUGE





- Drag and drop the gauge on your page

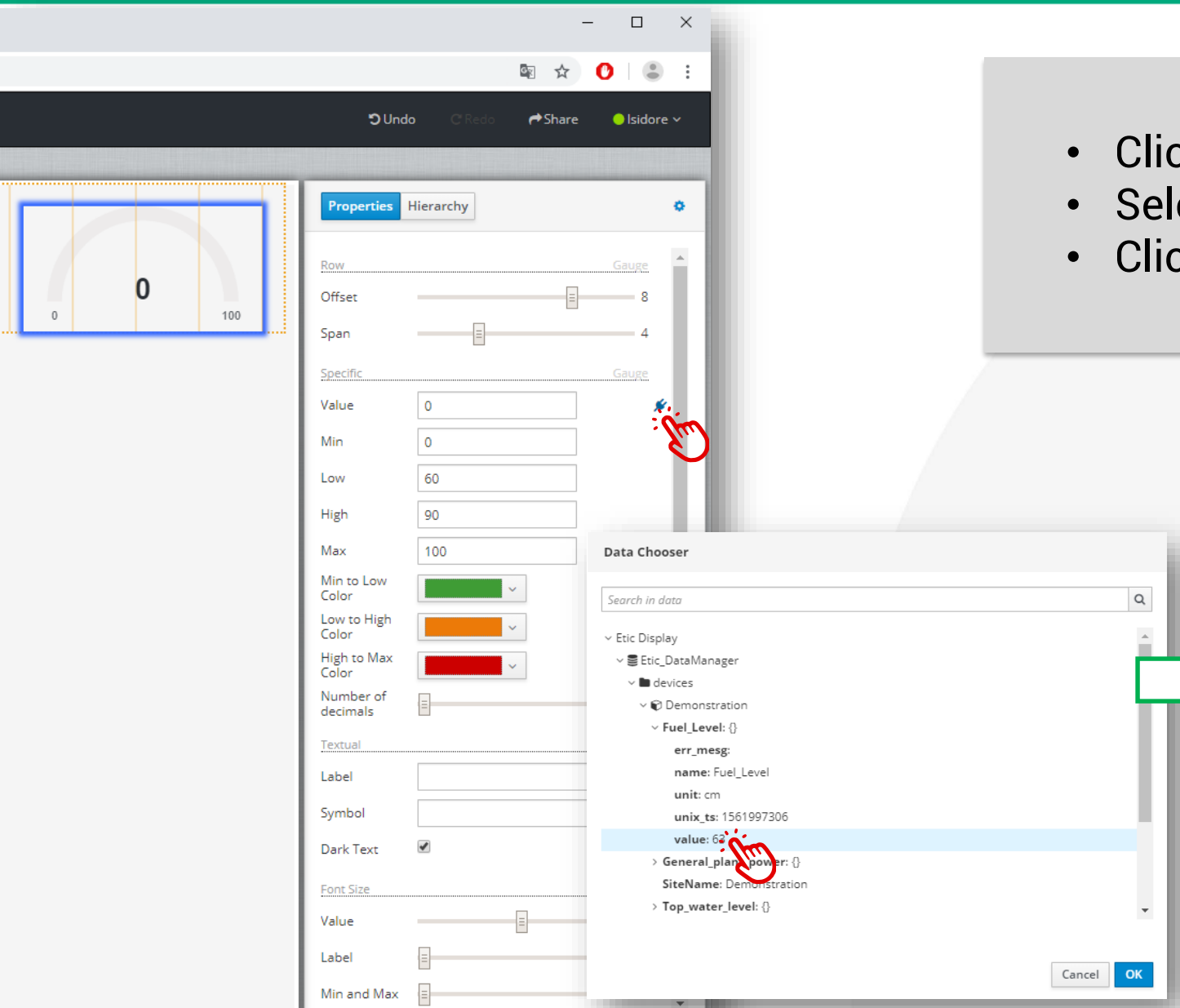
TUTORIAL 1. ADDING A GAUGE

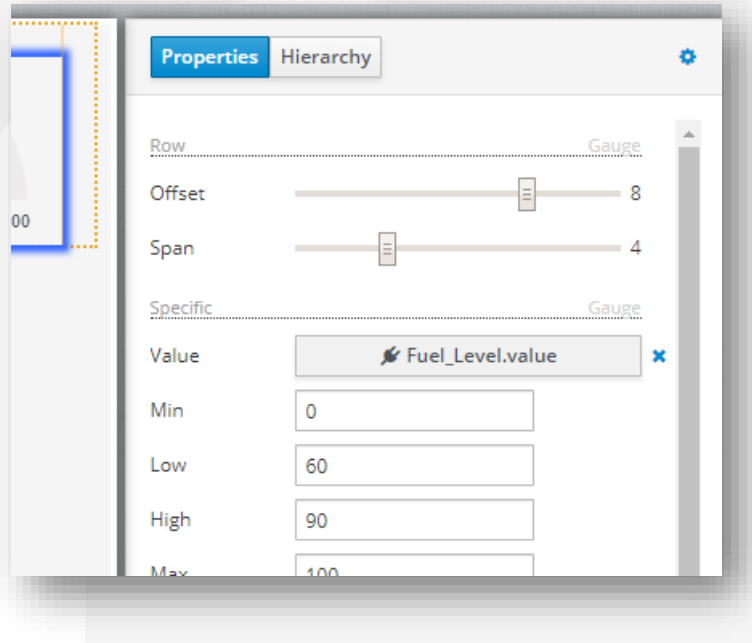


- Drag and drop the gauge on your page
- In the property tab you have access to all the settings concerning the gauge.
- You can link each of the properties to a variable.
- We will link the field "value"

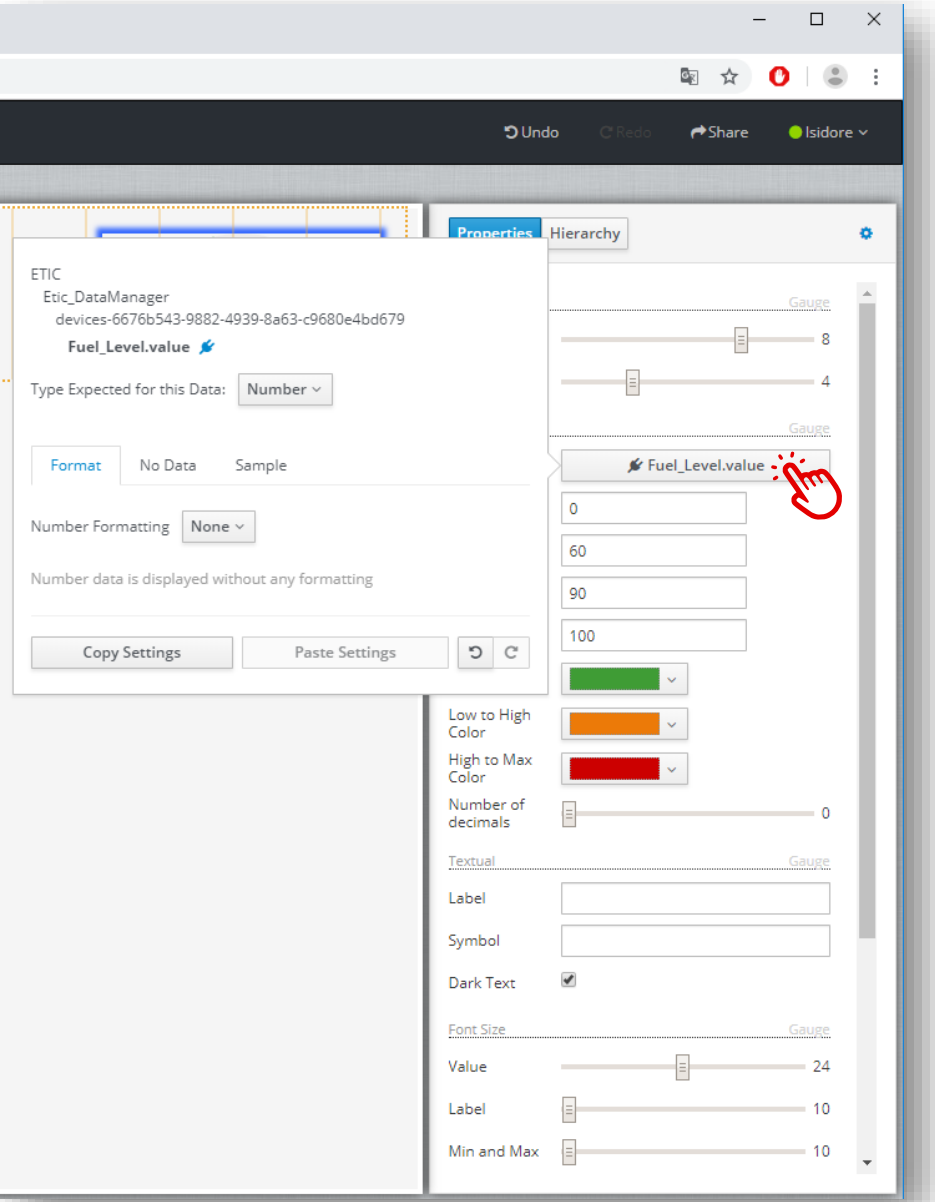
TUTORIAL 1. ADDING A GAUGE

- Click on the small socket on the right of the field
- Select the data to which you want to link the field
- Click on “OK”





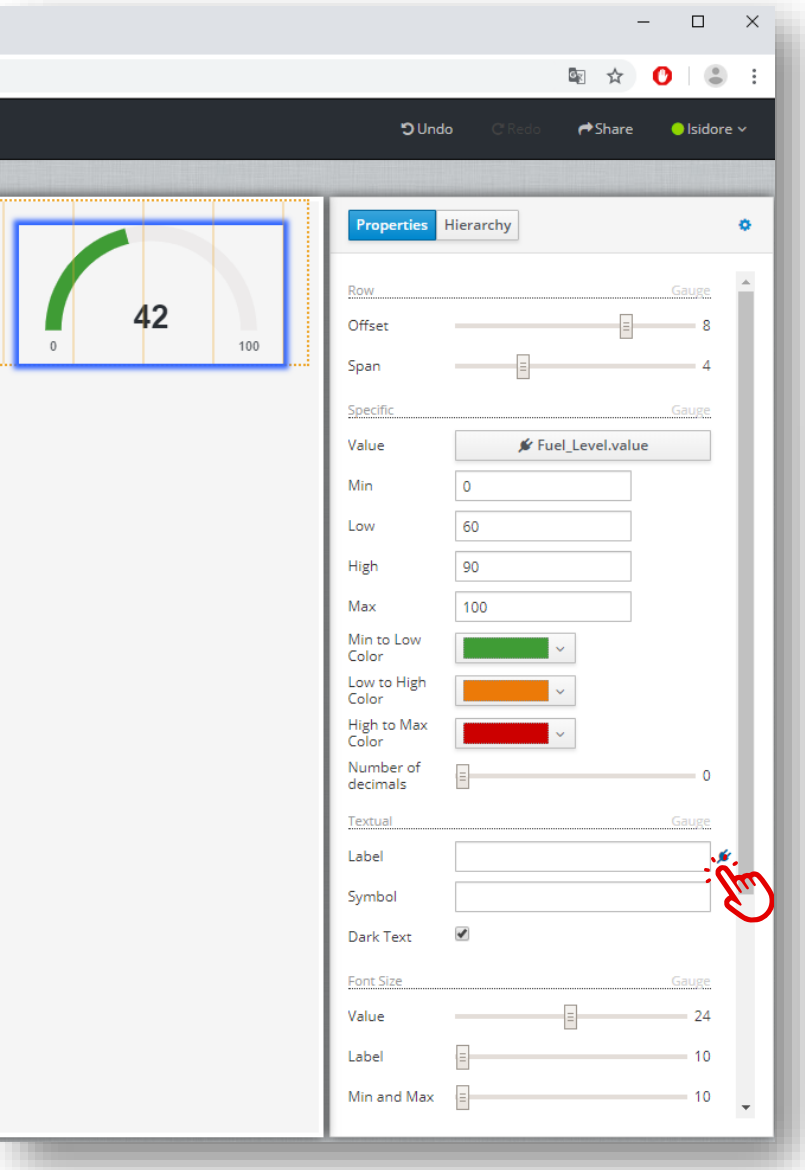
TUTORIAL 1. ADDING A GAUGE



Choose the format of the data

- Click on the field
- Choose the “type expected” (here a Number)

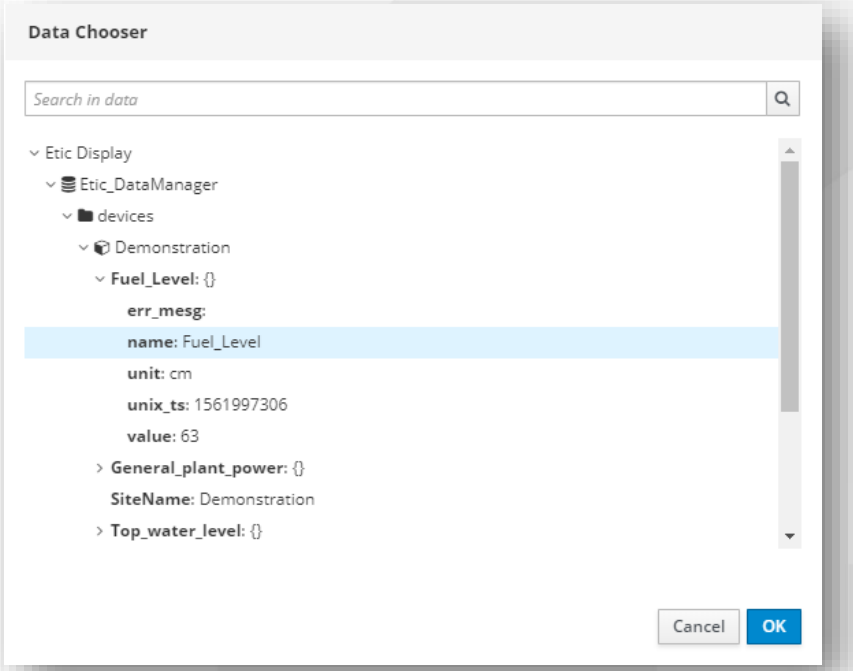
TUTORIAL 1. ADDING A GAUGE

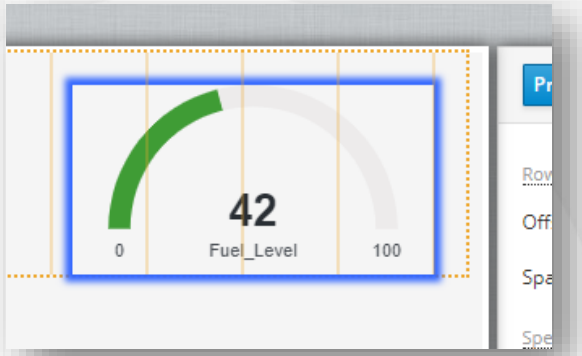


We can change the label of the gauge:

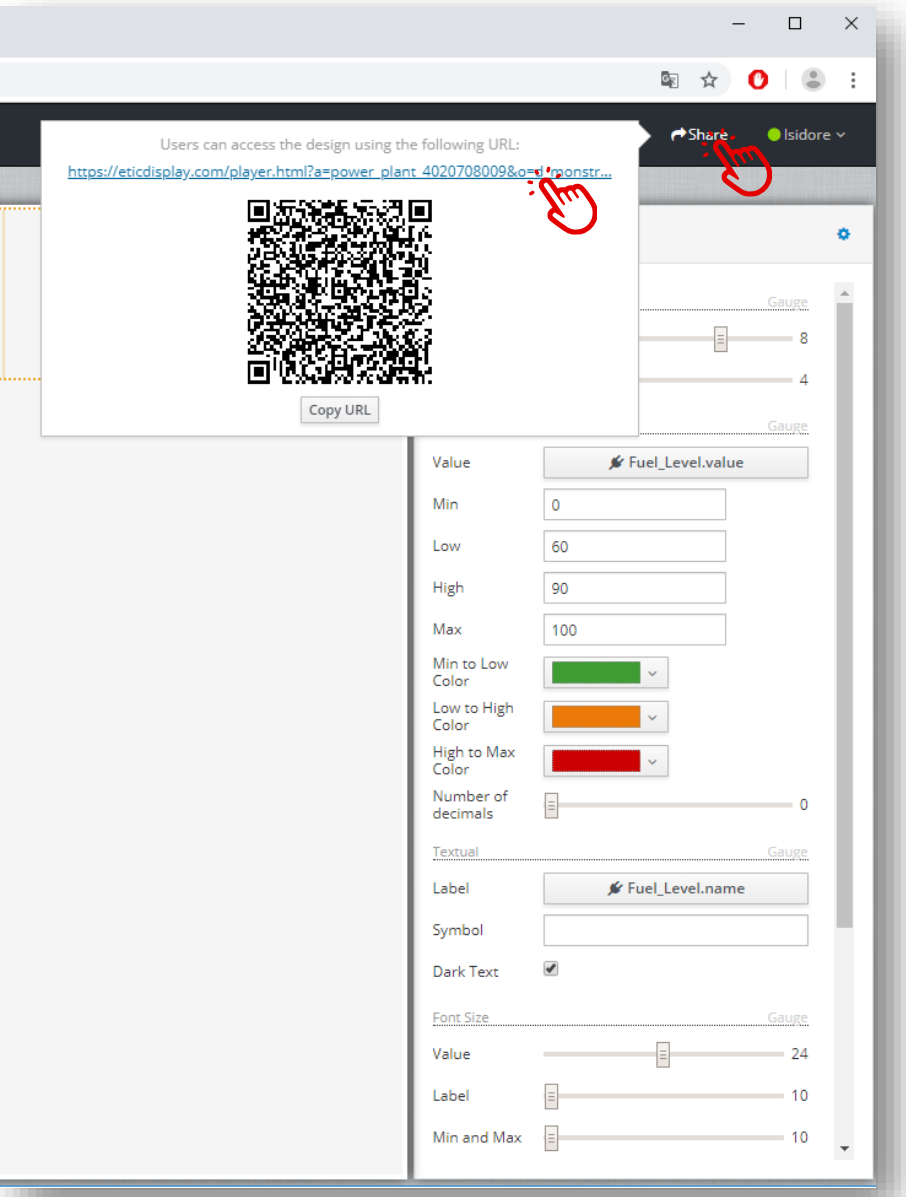
You can:

- Enter a free text
- Link the label to the name of the variable

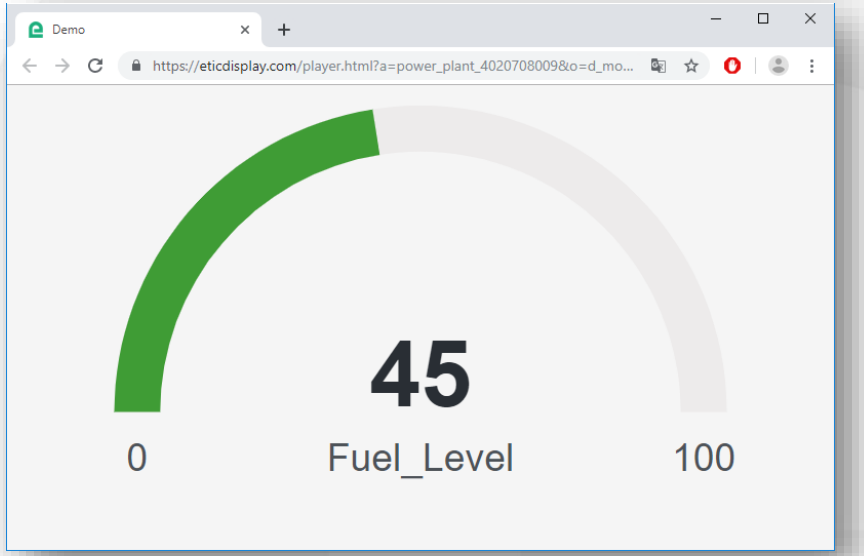




TUTORIAL 1. ADDING A GAUGE

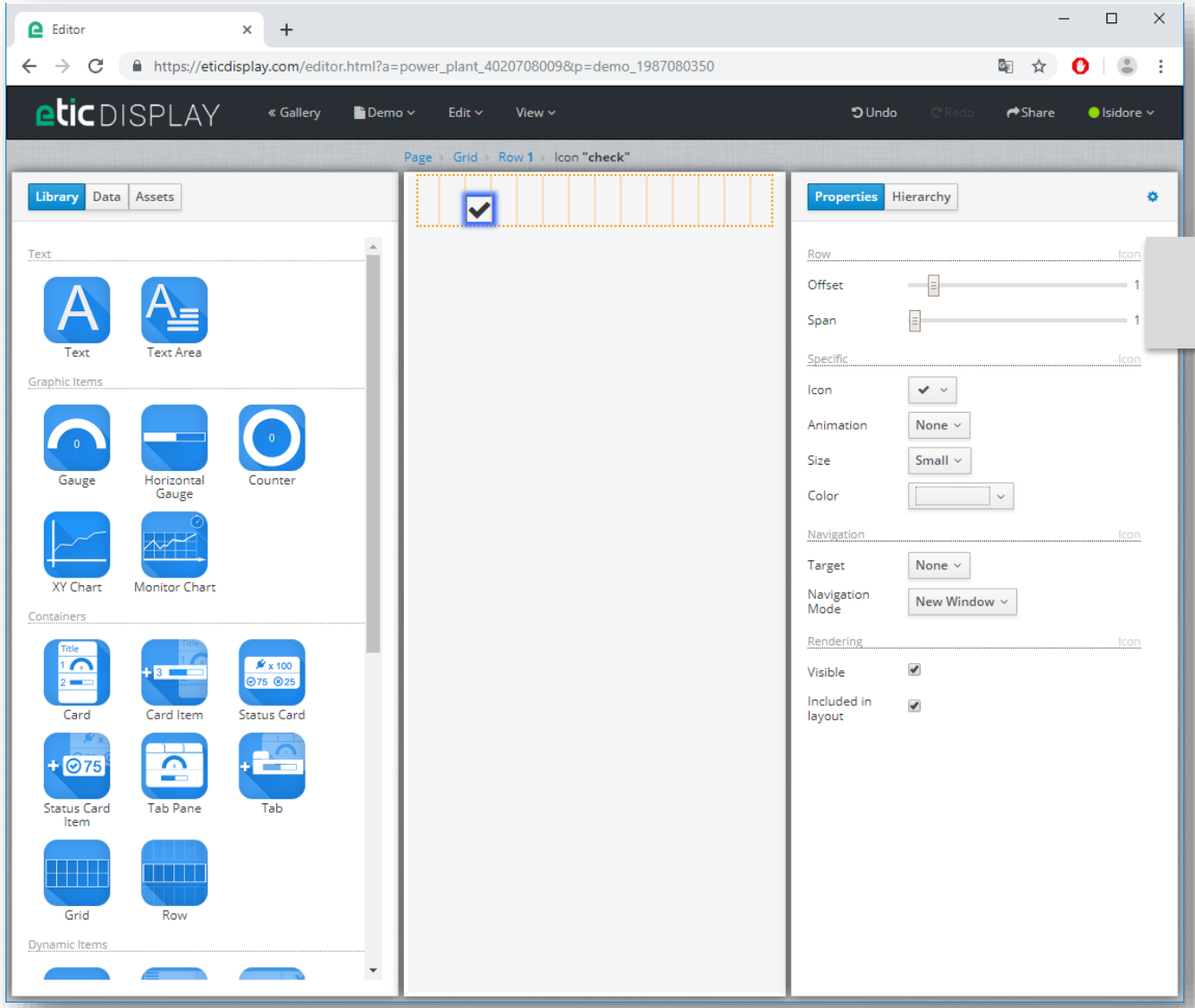


- You can view the page by clicking on share and then on the URL of the page.



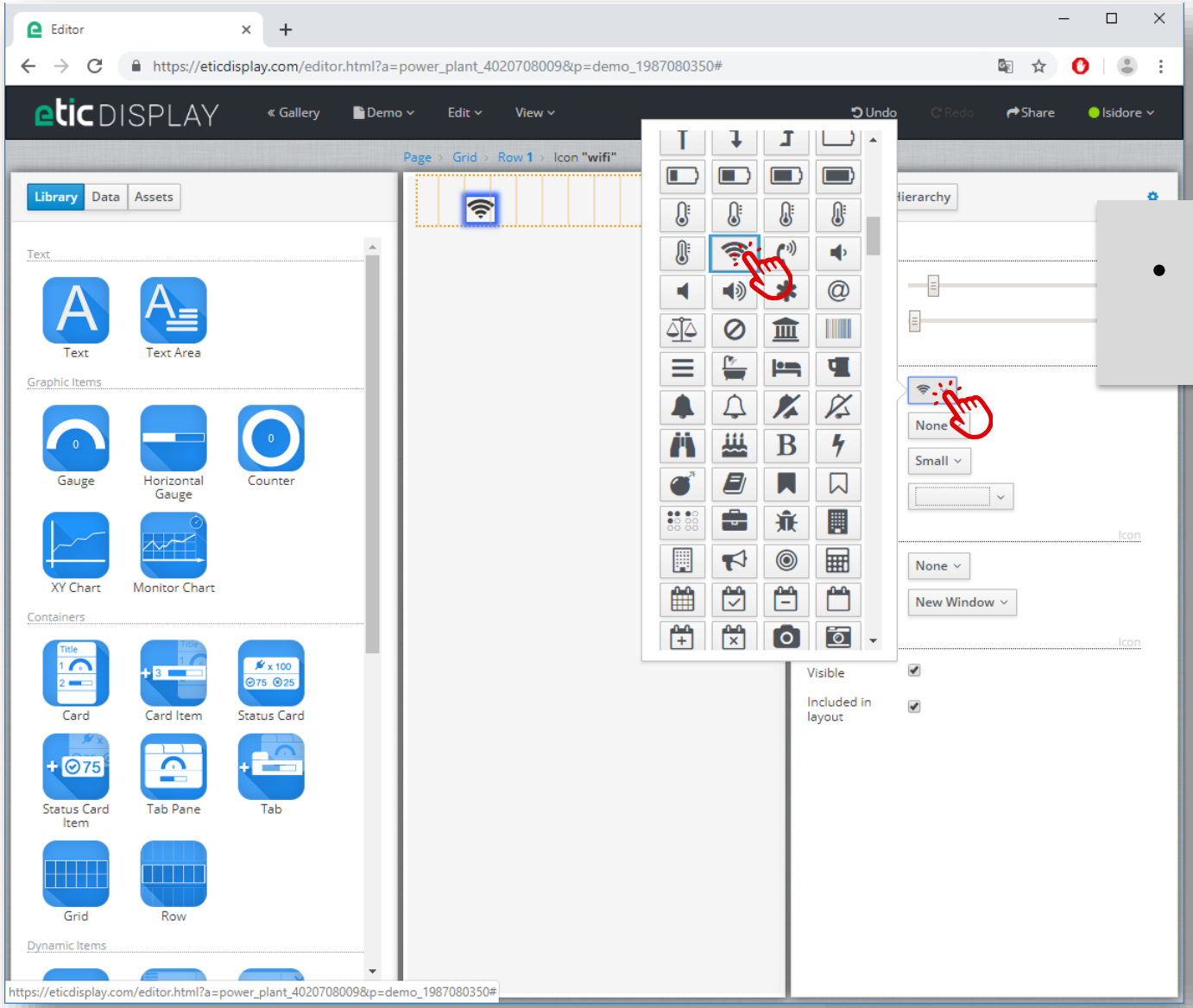
TUTORIAL 2
EDITOR:
CREATING AN INDICATOR LIGHT

TUTORIAL 2. CREATING AN INDICATOR LIGHT



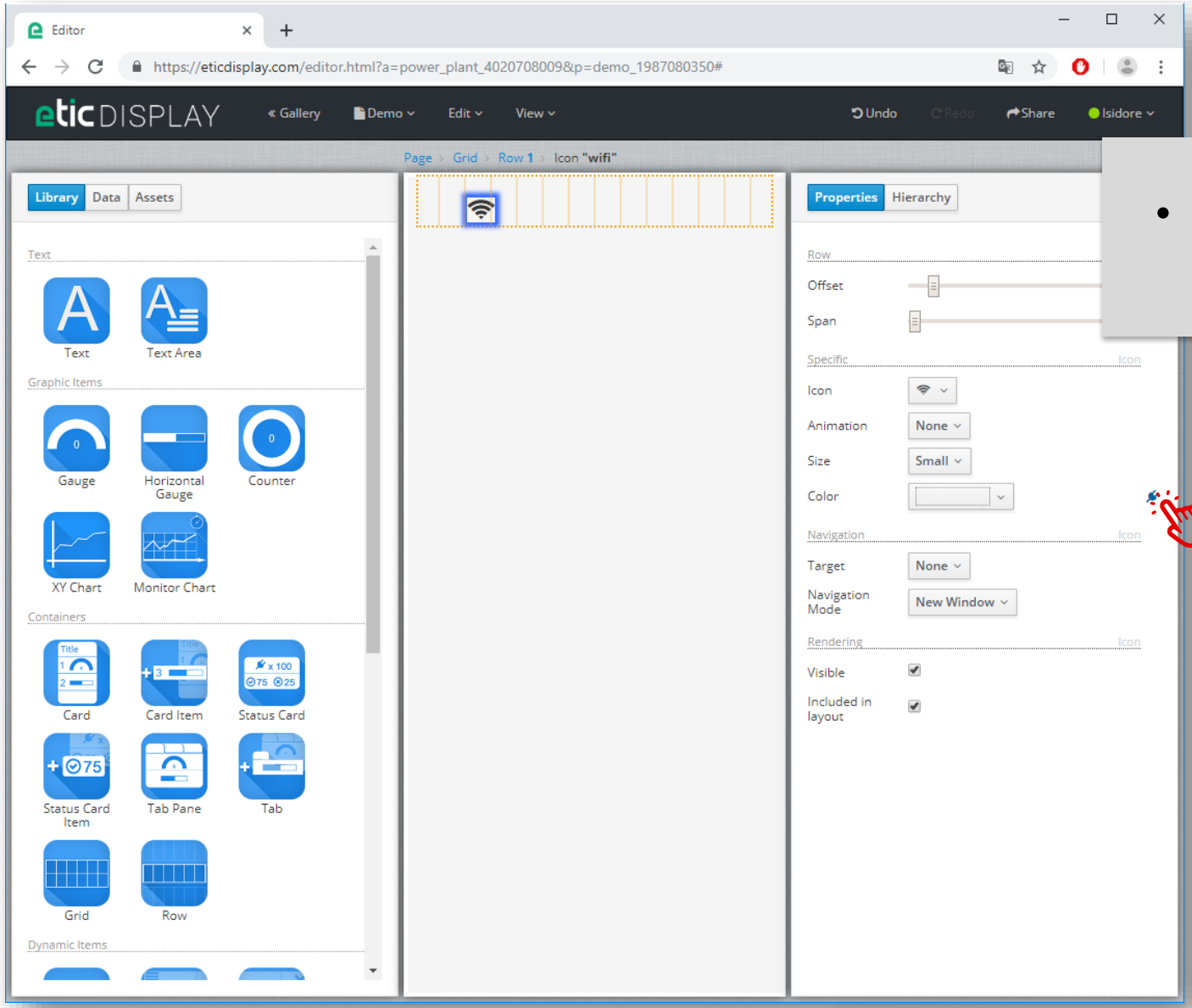
- Drag and drop an object of "Icon“ type

TUTORIAL 2. CREATING AN INDICATOR LIGHT

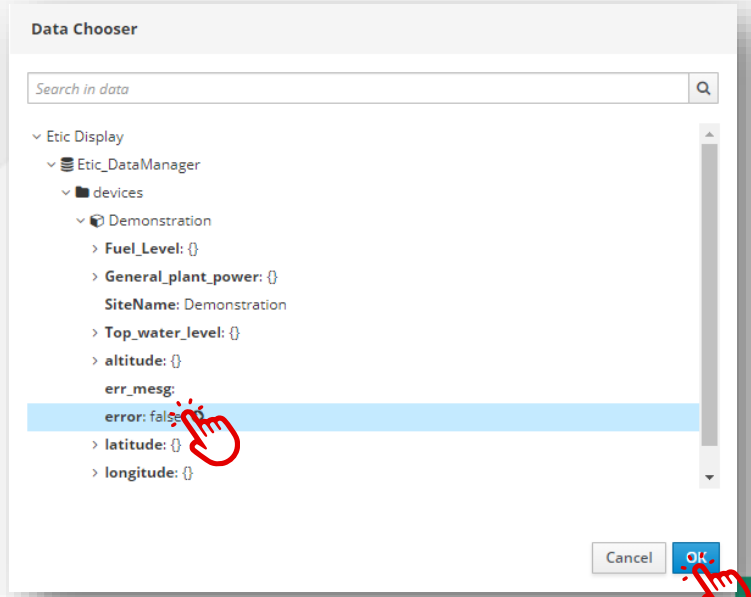


- Choose the desired icon from the icon bank

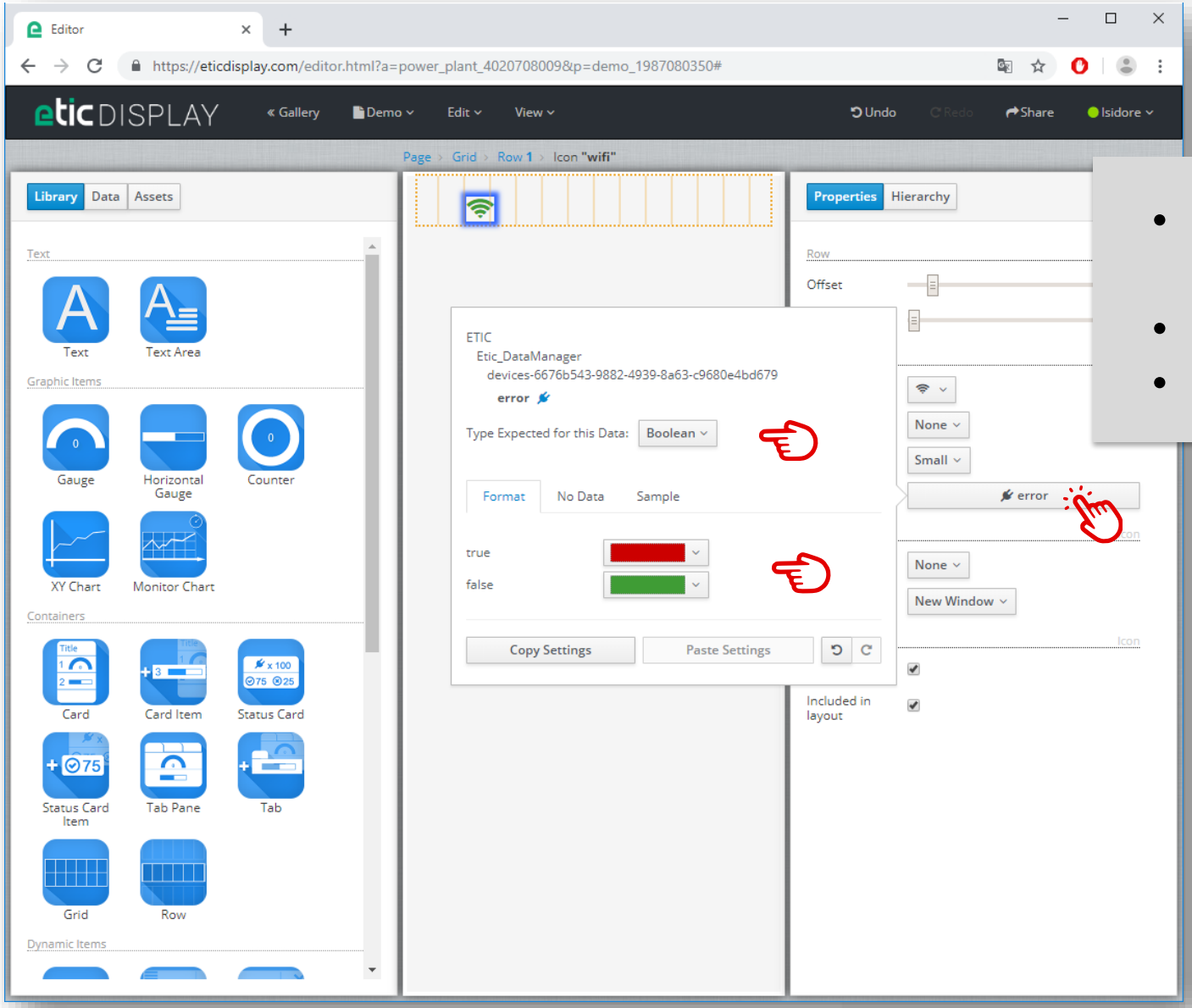
TUTORIAL 2. CREATING AN INDICATOR LIGHT



- Link the color attribute to the data indicating if the box is connected

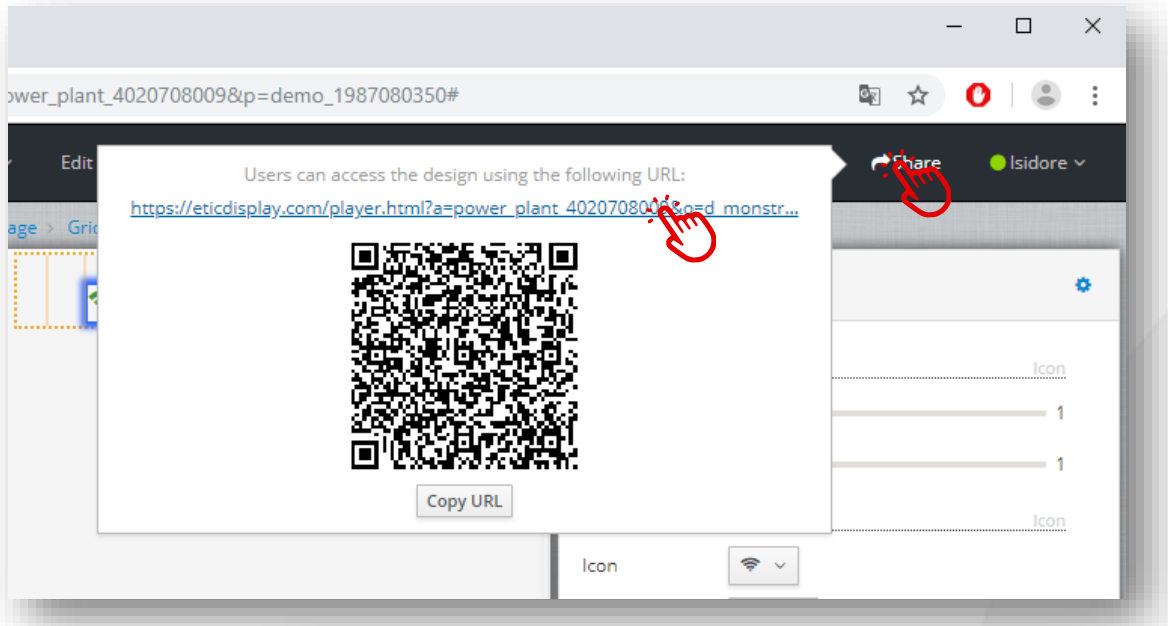


TUTORIAL 2. CREATING AN INDICATOR LIGHT

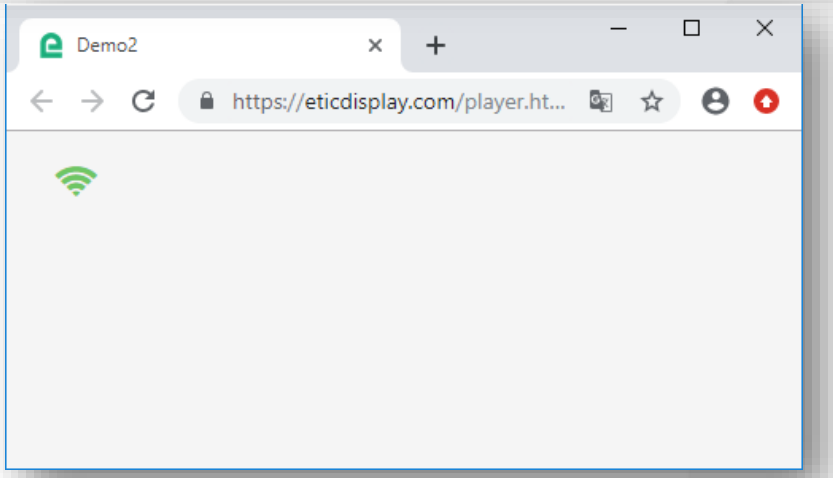


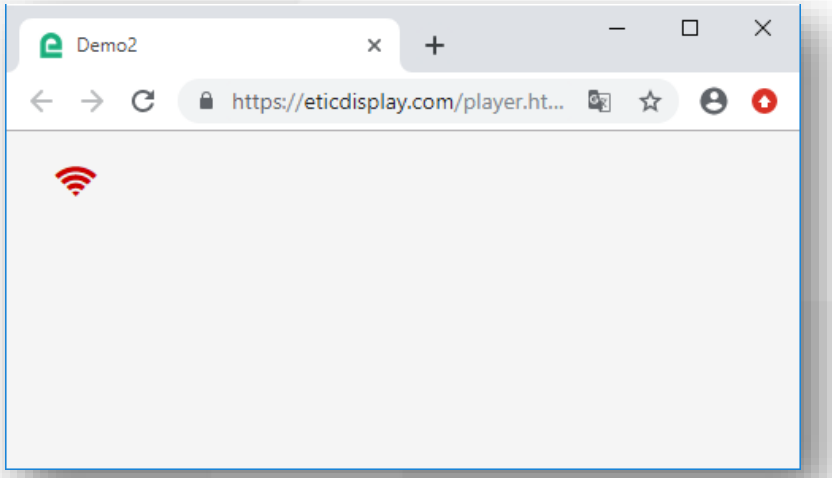
- Configure the data to choose the color according to the state of the error variable
- Red for “true”
- Green for “false”

TUTORIAL 2. CREATING AN INDICATOR LIGHT



- You now have a light that tells you if the box is connected to EticDISPLAY.

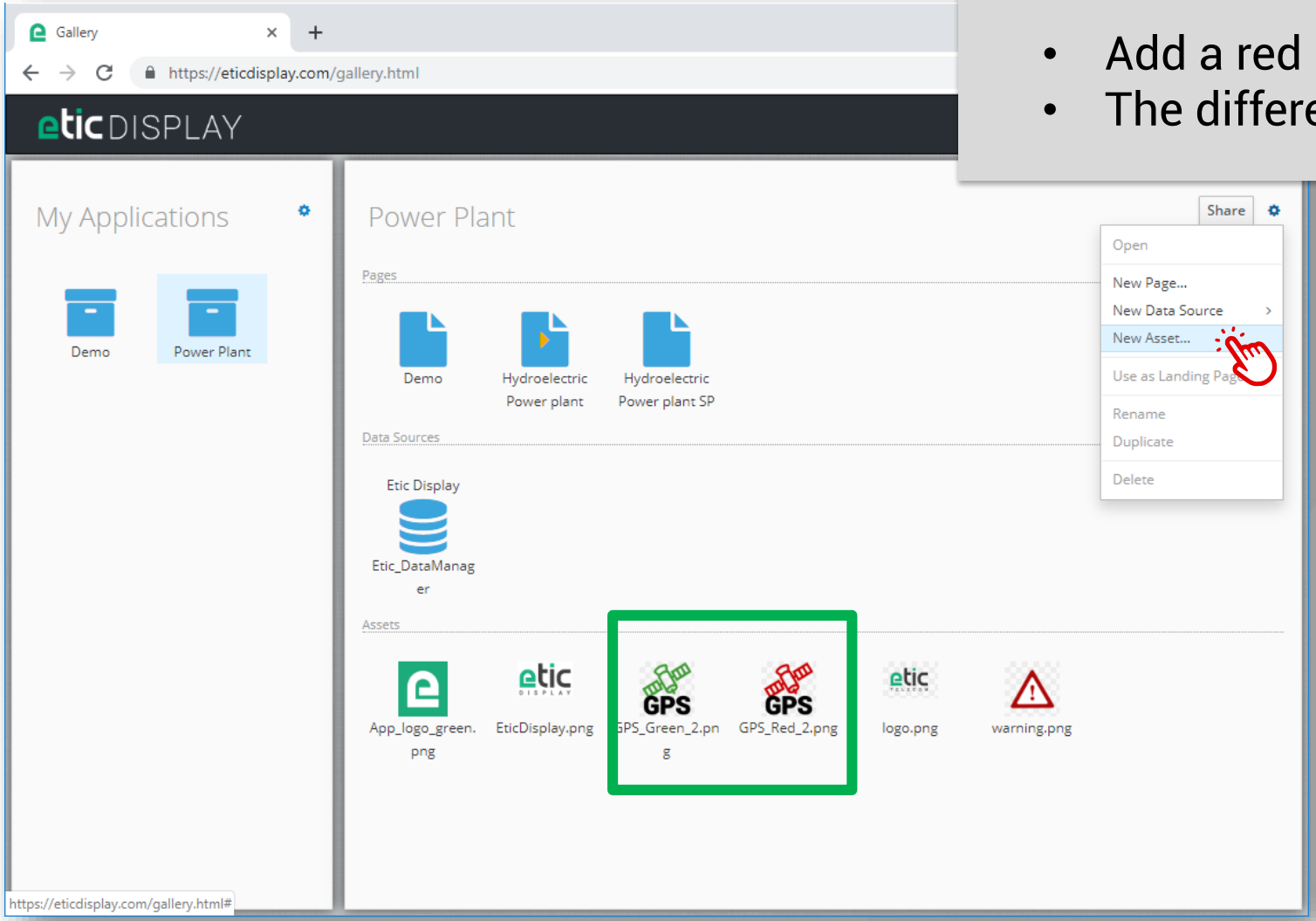




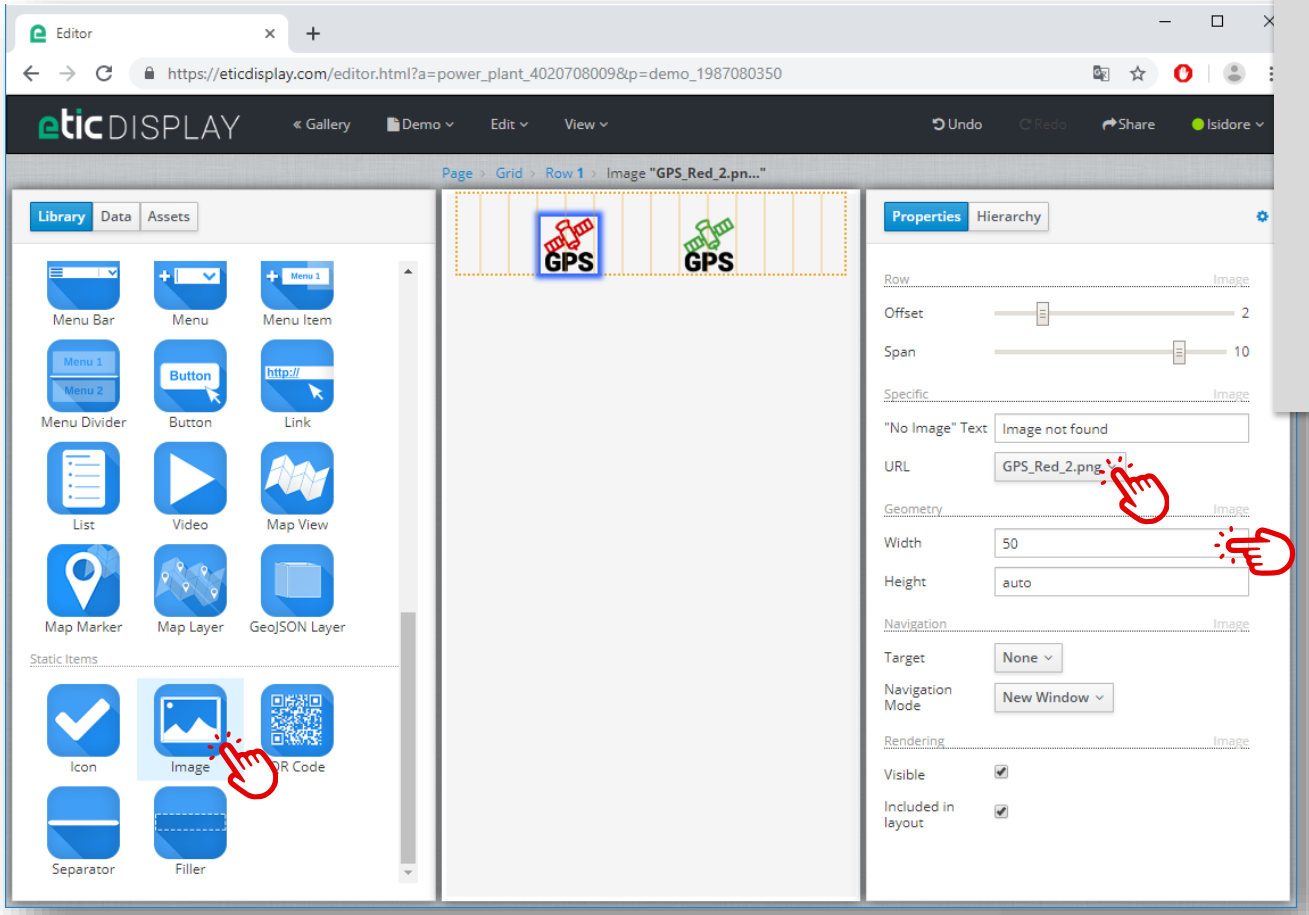
TUTORIAL 3
EDITOR:
CREATING A CUSTOM INDICATOR LIGHT

TUTORIAL 3. CREATING A CUSTOM INDICATOR LIGHT

- Add a red image and a green image in the assets
- The different assets can be used in graphic objects



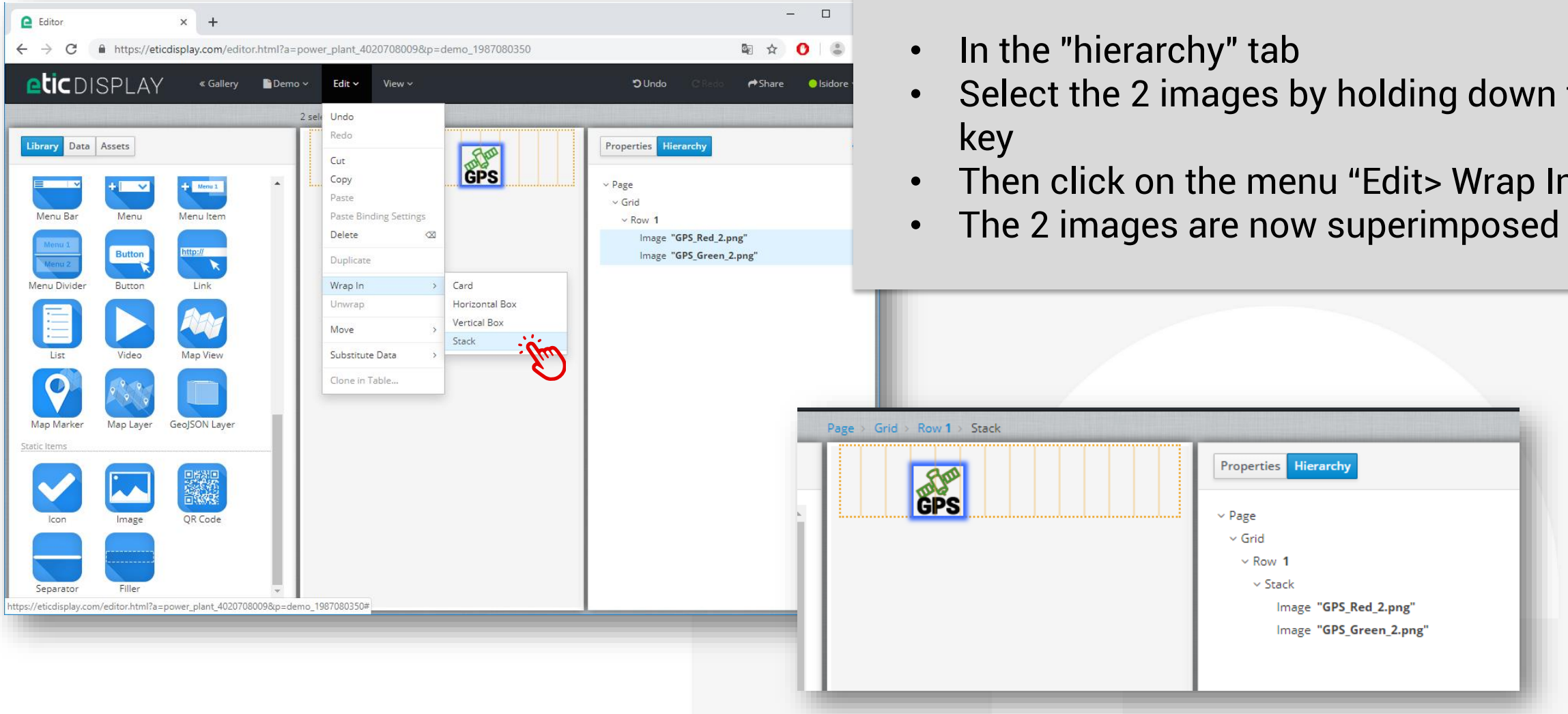
TUTORIAL 3. CREATING A CUSTOM INDICATOR LIGHT



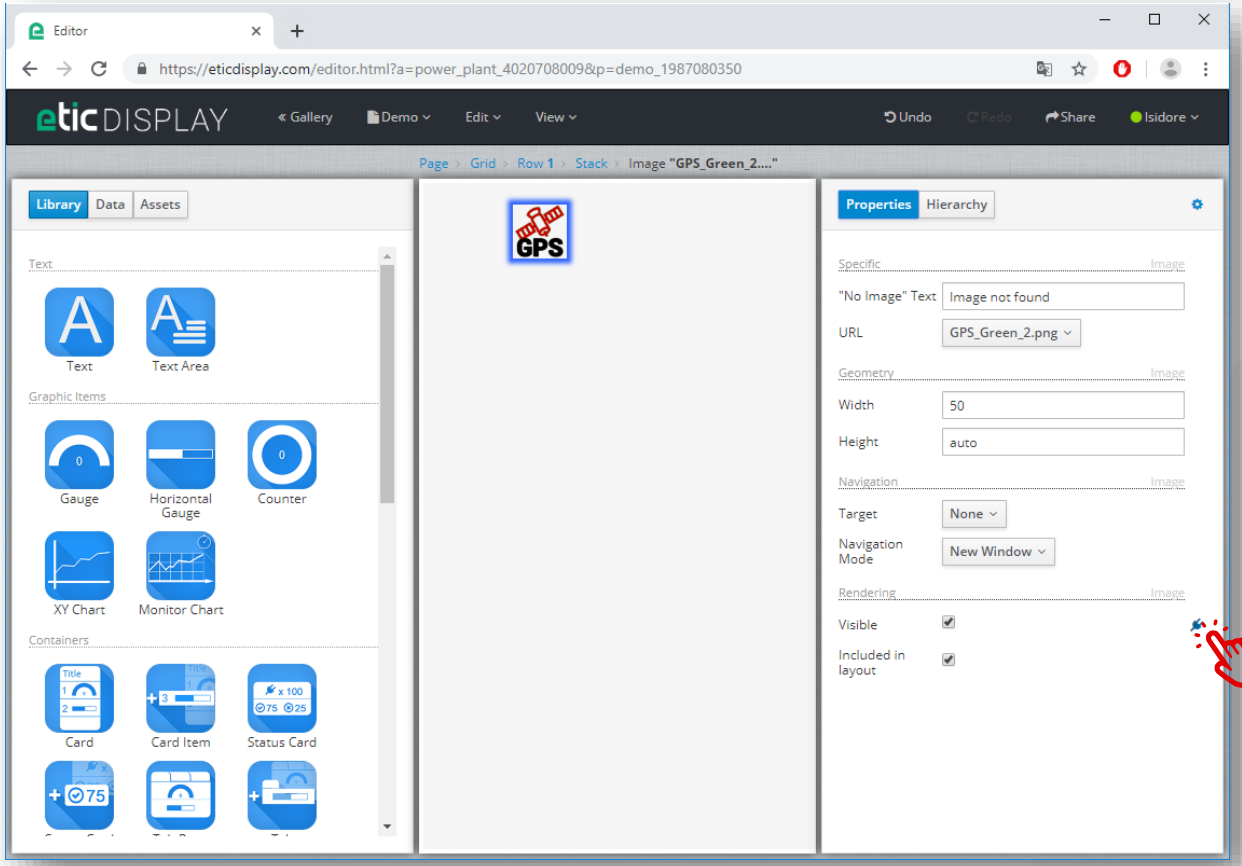
- Drag and drop 2 "Image" items from the library
- Choose the image in the "URL" field
- Choose the green GPS image for one of the images and the red one for the other
- Set the width of the images to 50 using the "Width" field

TUTORIAL 3. CREATING A CUSTOM INDICATOR LIGHT

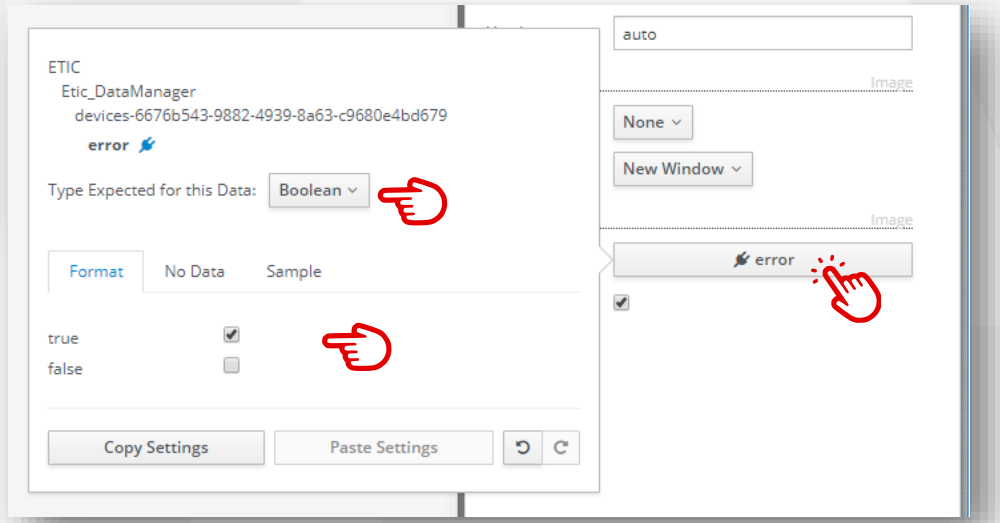
- In the "hierarchy" tab
- Select the 2 images by holding down the "ctrl" key
- Then click on the menu “Edit> Wrap In> Stack“
- The 2 images are now superimposed



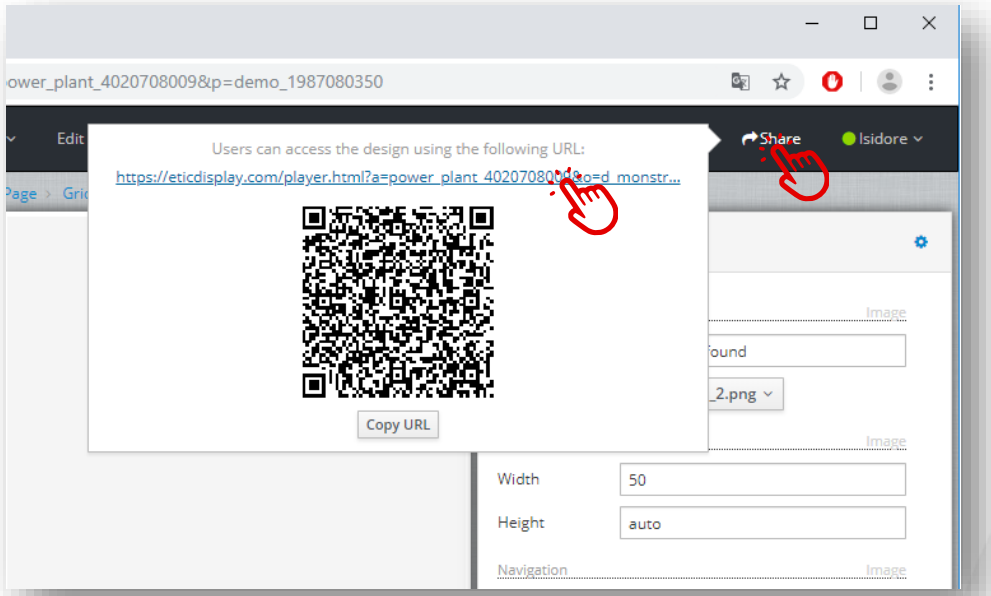
TUTORIAL 3. CREATING A CUSTOM INDICATOR LIGHT



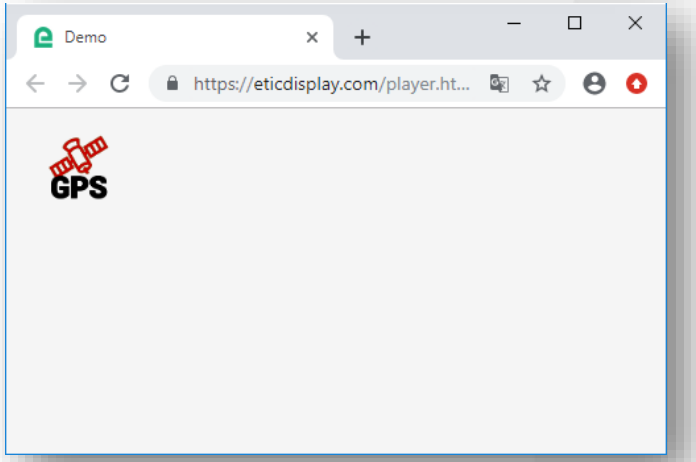
- Select the picture on top
- In the properties tab, link the attribute "Visible" to the "error" field of the variable "latitude“
- Click on the visible field to configure the Boolean logic
- In our case we want to display the red image only if the latitude variable is in error.

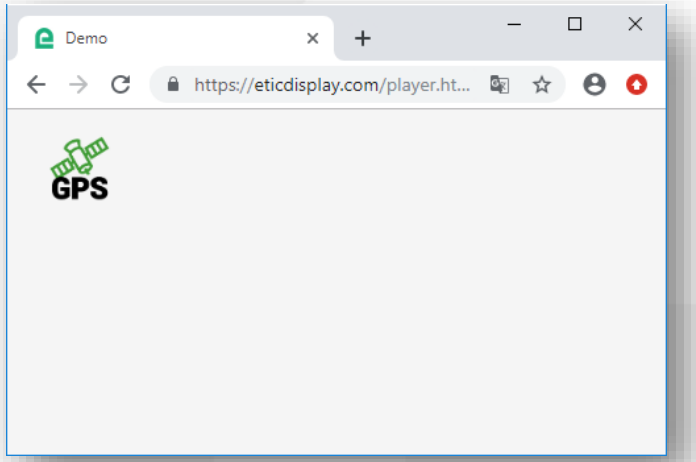


TUTORIAL 3. CREATING A CUSTOM INDICATOR LIGHT



- The indicator is red when GPS is not available.
- The indicator is green when GPS is available.





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