



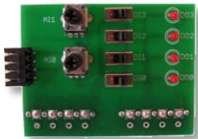
PG5 Starter Training
PG5 Core and Web Editor 5

Daniel Ernst | EN02 | 2013-02-25



Lesson 4 - PG5 Core Web Editor 5

Introduction



Material required:

- Notebook or computer
- PCD1 E-Controller
- USB cable
- Training board
- Ethernet cable

Software required

- PG5 Core at least Version 2.1.027
- Saia® Web Editor 5 (contained in PG5 Core)
- Java at least Version XXX

Lessons required

- Lesson 1
- Lesson 2
- Lesson 3 PG5 Core

Aims of the PG5 Core Web Editor 5 course

- Visualization of program created in Lesson 3
- Basic understanding of Saia® Web Editor 5



Lesson 4 - PG5 Core Web Editor 5

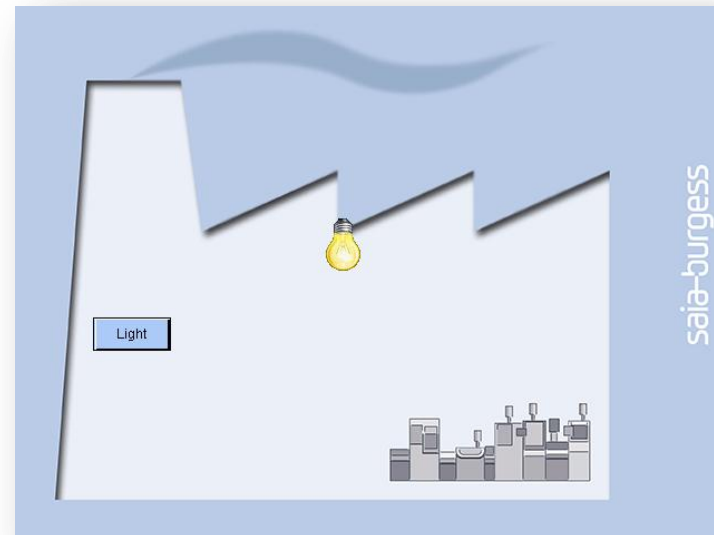
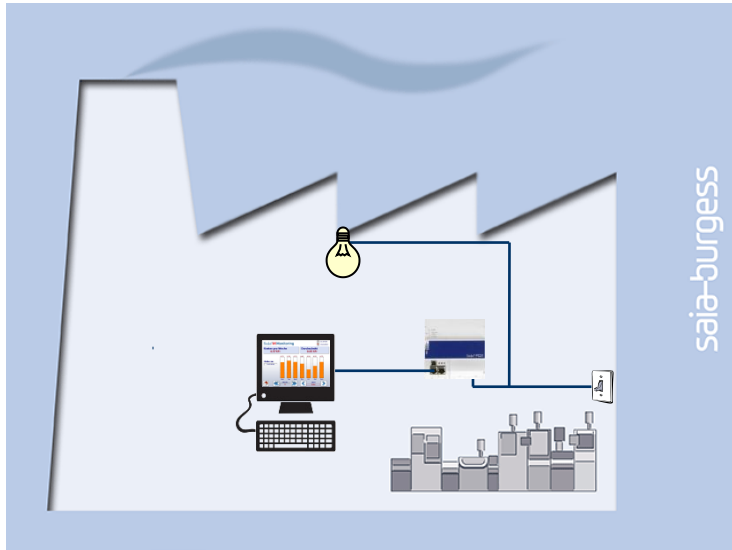
Introduction

Explanation / Introduction

- The light in the cellar must be switchable not only using switches, but also via a web browser
- In addition, the current status of lamp and digital inputs must be shown in the visualization

What is necessary to achieve this?

- Program produced in Lesson 3
- Ethernet connection to Saia® PCD1 E-Controller
- Monitor with web browser

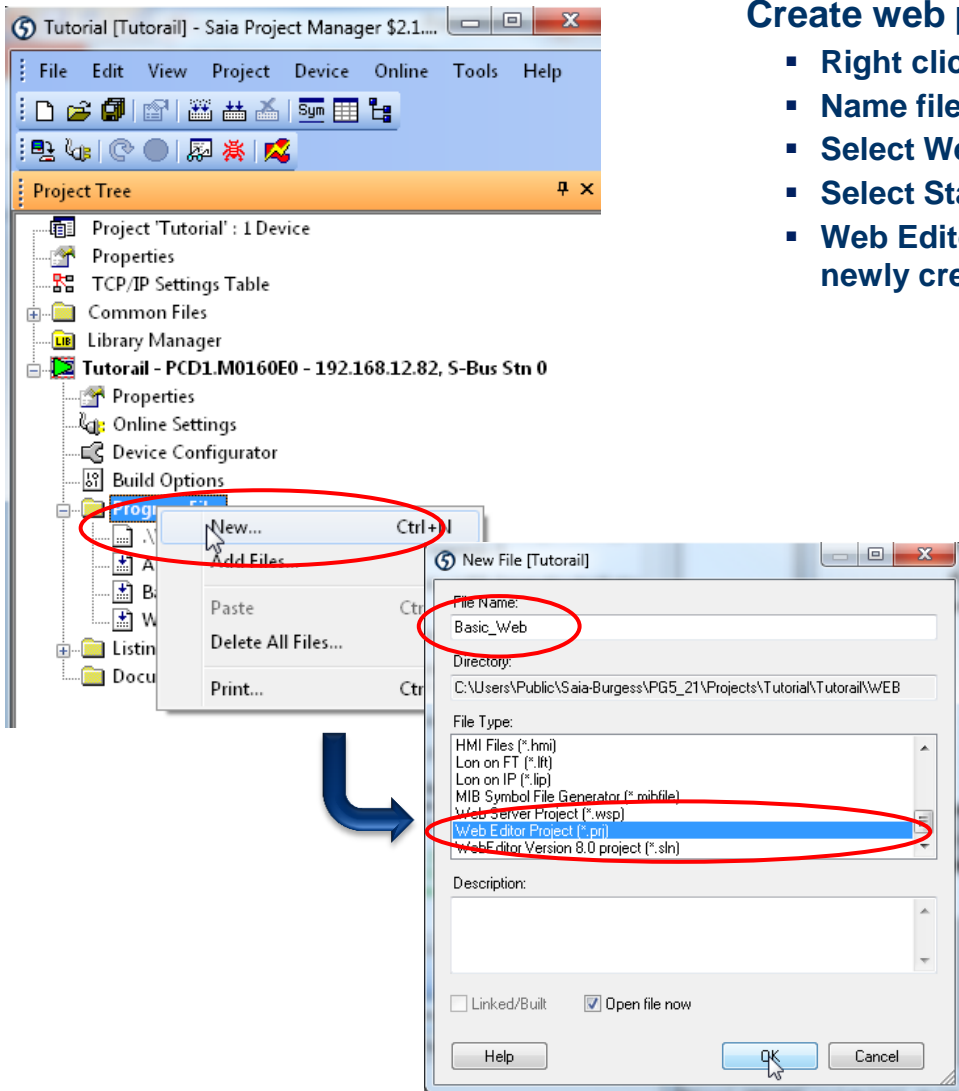


Lesson 4 - PG5 Core Web Editor 5

Create web project file

Create web project

- Right click on file folder → New
- Name file Basic_Web
- Select Web Editor Project (*.prj) and confirm with OK
- Select Standard Project
- Web Editor opens automatically when you double click on the newly created file Basic_Web.prj



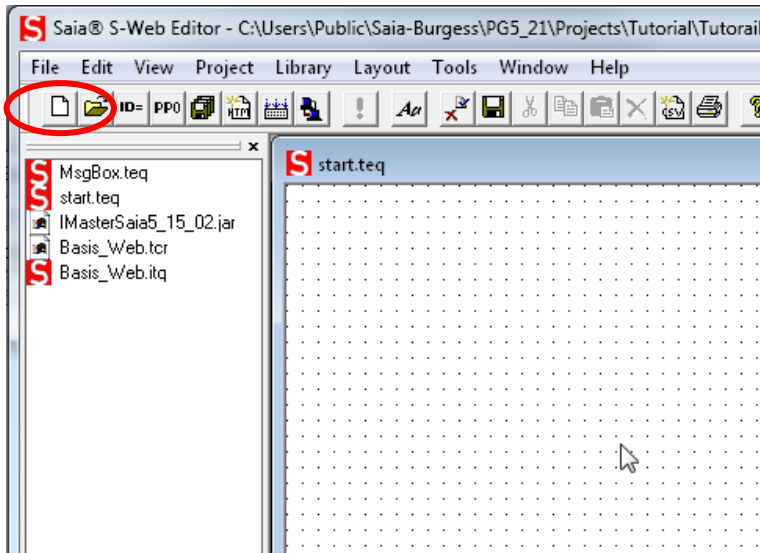


Lesson 4 - PG5 Core Web Editor 5

Create new page

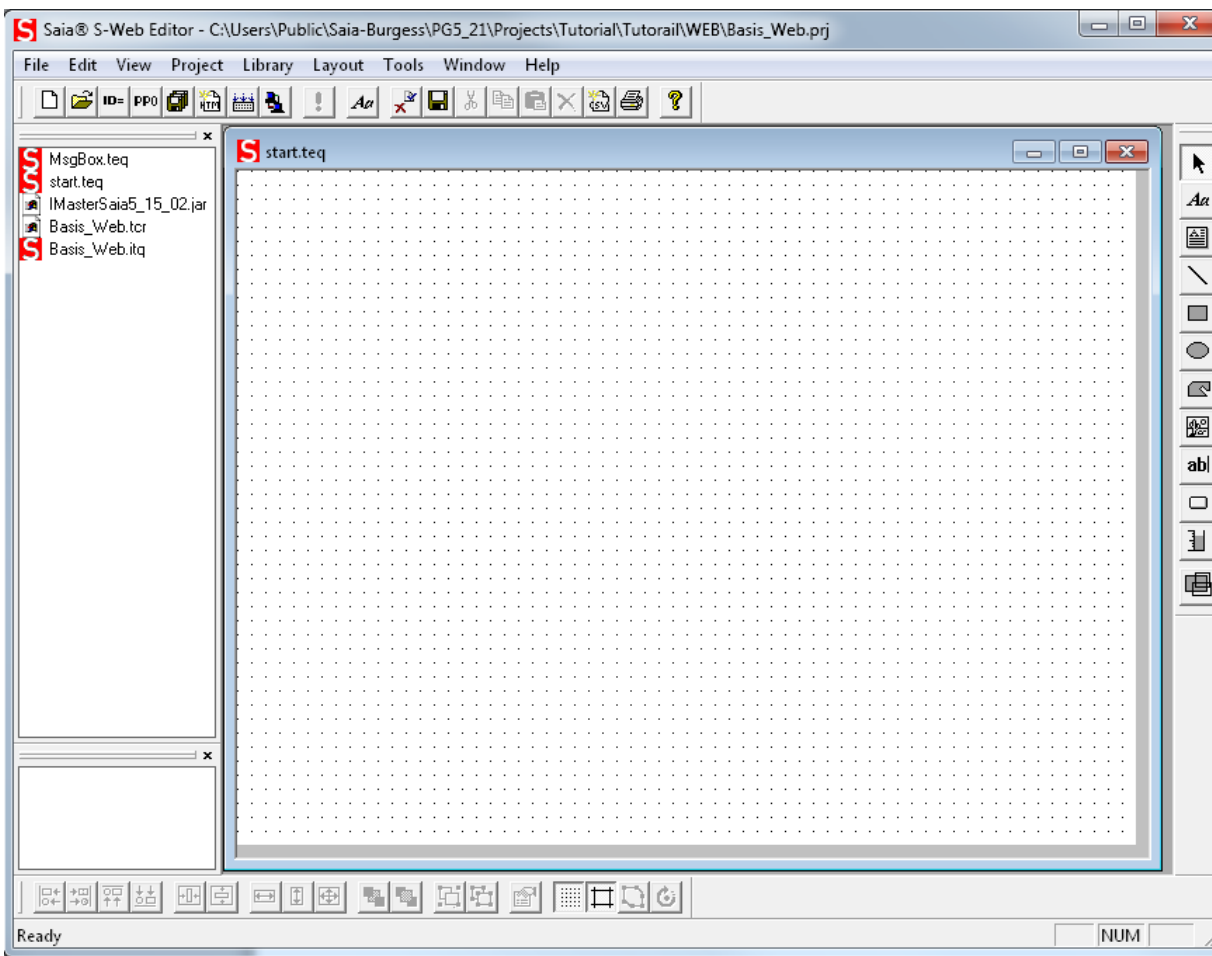
Create a new page

- Click on «New file» icon
- Select *.teq file
- Create Start.teq page
(The first page created is defined automatically as the start page. This can be modified under Project/Project Configurations/Applet Advanced / Main TEQ)



Lesson 4 - PG5 Core Web Editor 5

Web Editor Workspace



Lesson 4 - PG5 Core Web Editor 5

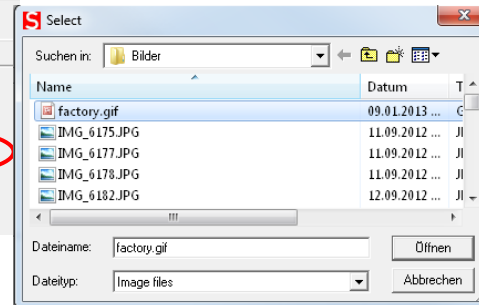
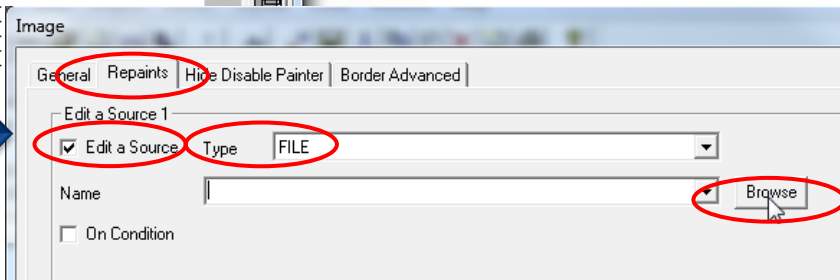
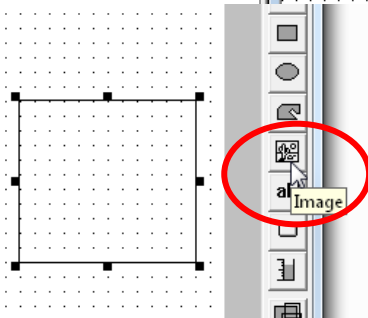
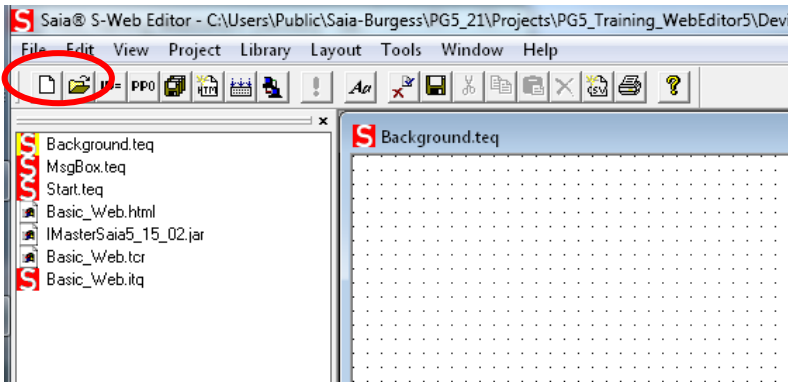
Create background page

Create a background page

- Click on «New file» icon
- Select *.teq file
- Create page Background.teq

Insert graphics

- Select «Image» from toolbar and put in place
- Double click on «Image» frame to open options
- Under Repaints «Edit a Source», select Type=File
- Insert the background image factory.gif with Browse
- Exit options with OK



Lesson 4 - PG5 Core Web Editor 5

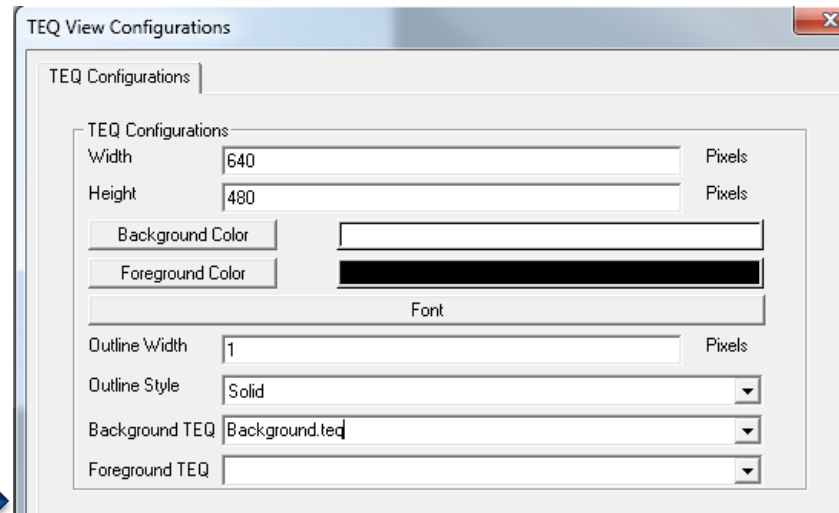
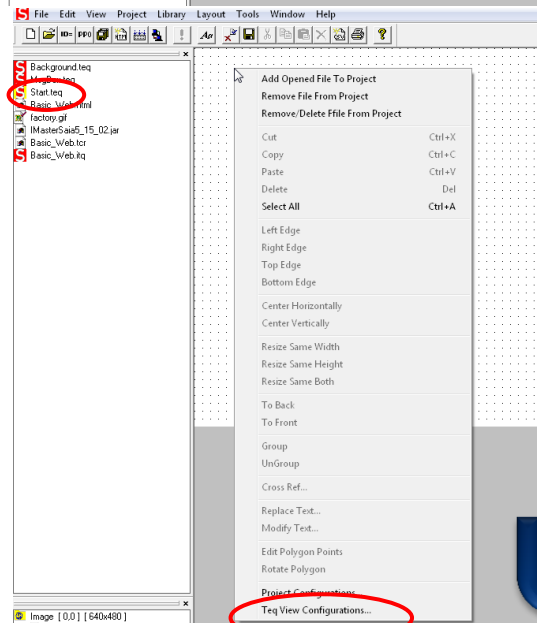
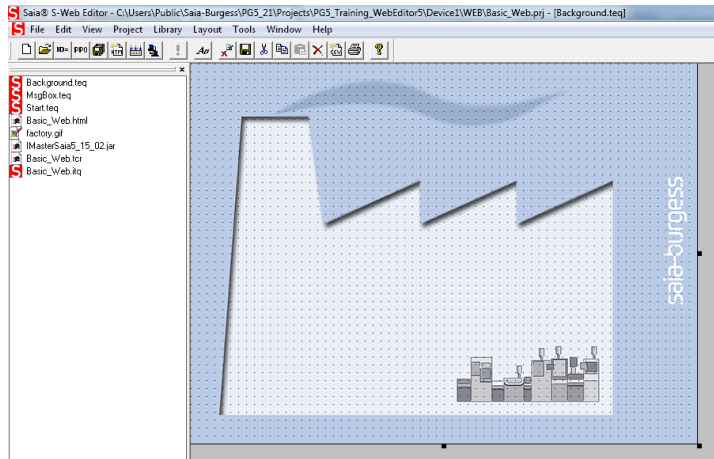
Create background page

Create a background page

- Drag inserted image to correct position
- All modifications are applied globally with Build

Insert background on other pages

- Select page Start.teq
- Right click on drawing area and select Teq View Configurations
- At Background, select the page Background.teq

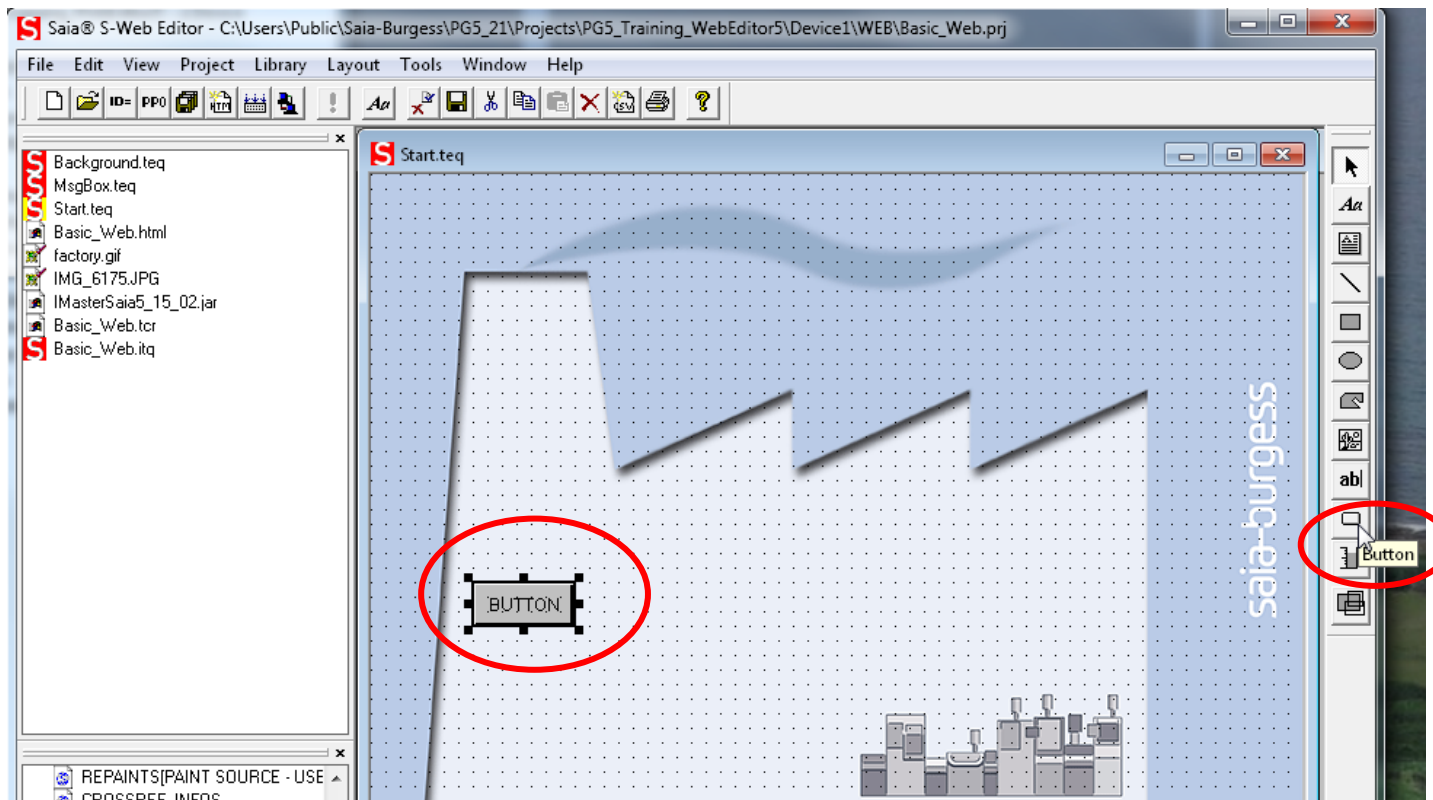


Lesson 4 - PG5 Core Web Editor 5

Create button

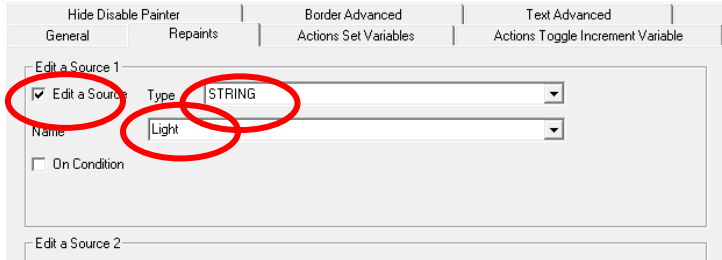
Create a button to be used for switching the DO0 lamp

- Choose a button from the tool bar and put in place



Lesson 4 - PG5 Core Web Editor 5

Button configuration

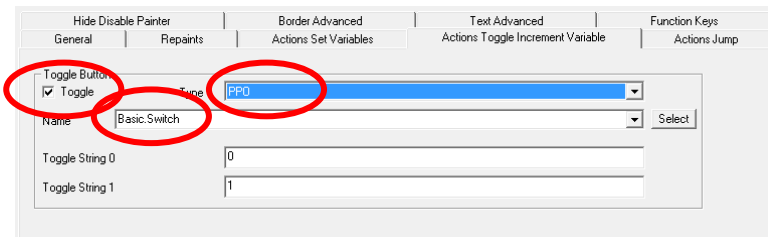


Open button settings

- Double click on button

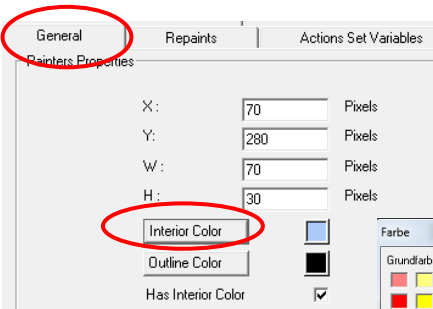
Change name of button

- Click on tab «Repaints»
- Enter name «Light»



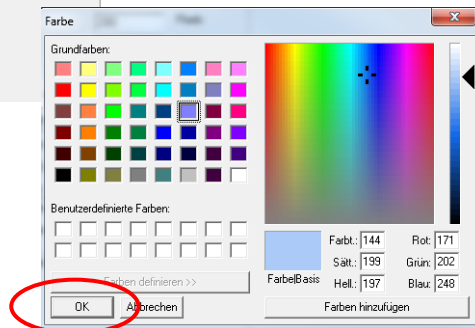
Configure button as switch

- Click on «Actions Toggle Increment Variable»
- Activate «Toggle» checkbox
- Select Type ppo
- Select Name: «Basic.Switch» (symbol from Fupla project)



Change switch colour

- Click on «General»
- Select «Interior Color» and set required colour
- Confirm with OK
- Exit options with OK



Lesson 4 - PG5 Core Web Editor 5

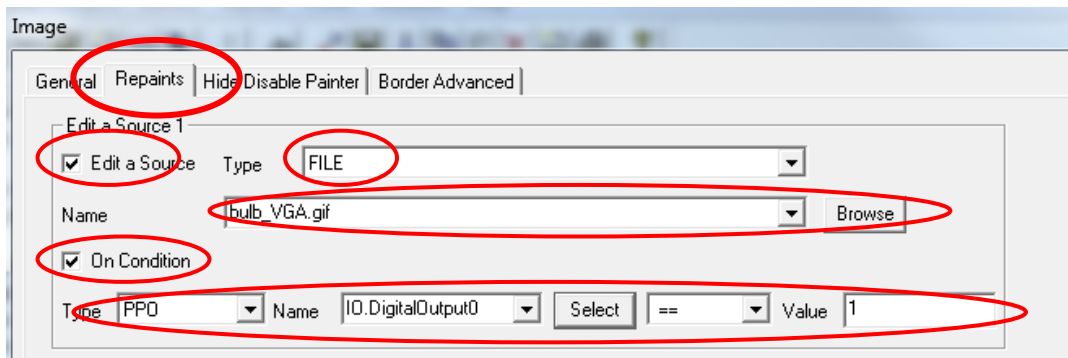
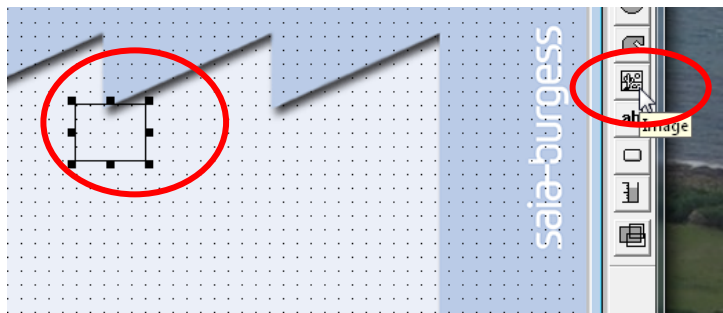
Display lamp states

Insert graphics

- Put graphics in place with «Image» tool
- Double click to open options

Display light (status: switched on)

- Select «Repaints» tab
- Activate «Edit a source» and select Type = File
- Use «Browse» function to select file bulb_VGA
- Activate «On condition»
 - Select Type ppo
 - Select «IO.DigitalOutput0»
 - Set Value == 1



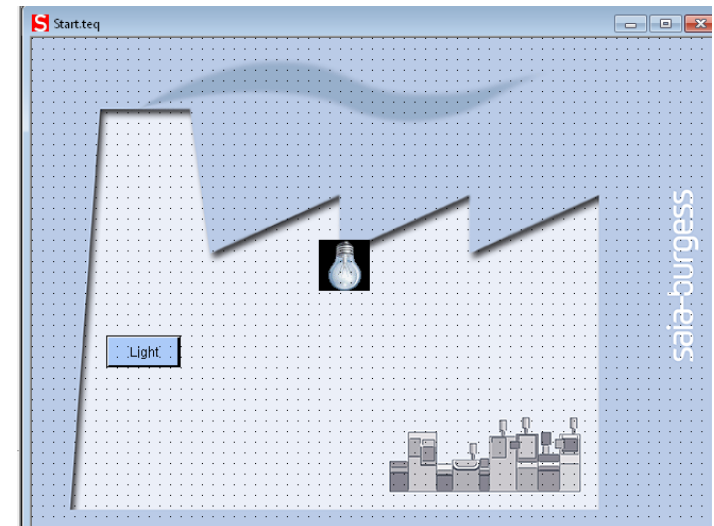
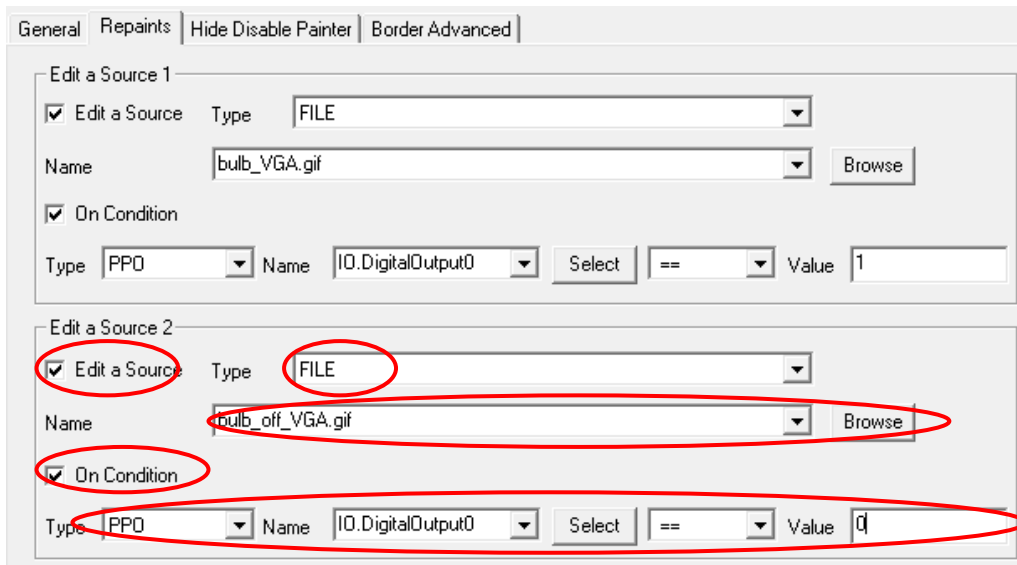


Lesson 4 - PG5 Core Web Editor 5

Display lamp states

Display light (status: switched off)

- Select «Repaints» tab
- Activate «Edit a source 2» and select Type = File
- Use «Browse» function to select file bulb_off_VGA
- Activate «On condition»
 - Select Type ppo
 - Select «IO.DigitalOutput0»
 - Set Value == 0
- Exit options with OK



Lesson 4 - PG5 Core Web Editor 5

Compile project

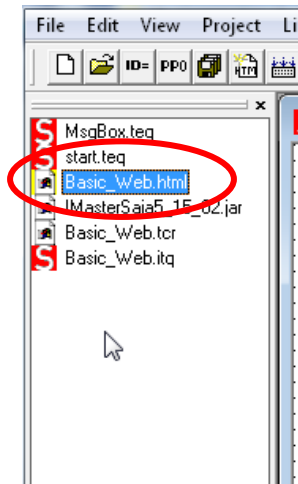
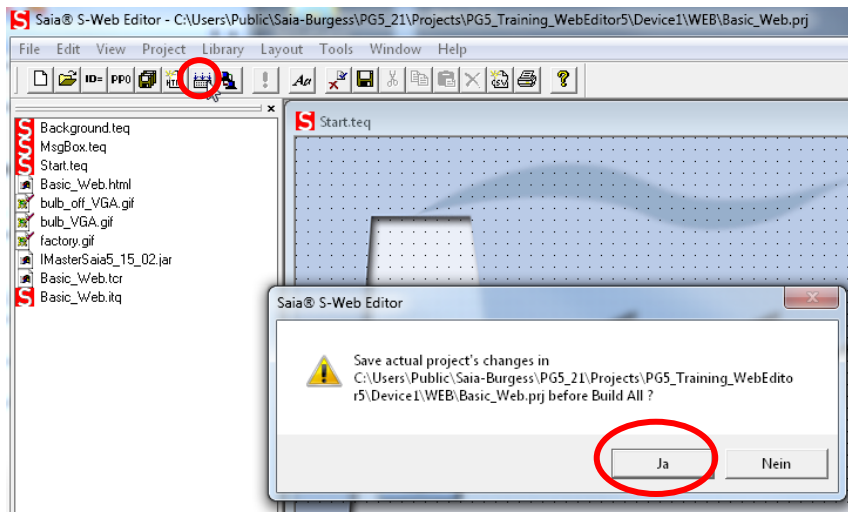
Compile project

- Press «Build all»
- Save

HTML file

- The Save automatically generates a Basic_Web.html file.
- The HTML file will be called later as the start page in the web browser

Exit Web Editor





Lesson 4 - PG5 Core Web Editor 5

Create the Web Build

Web Builder

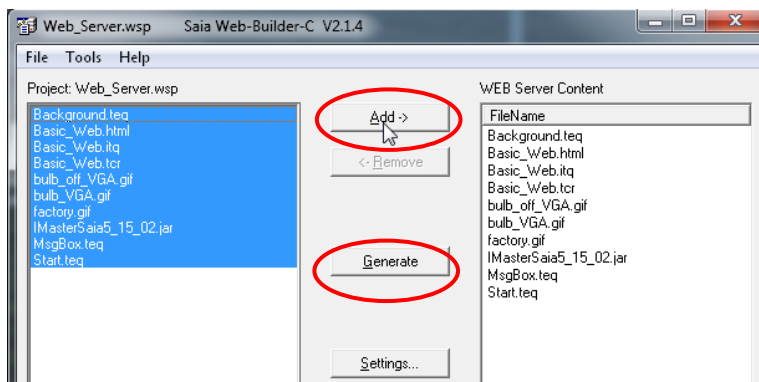
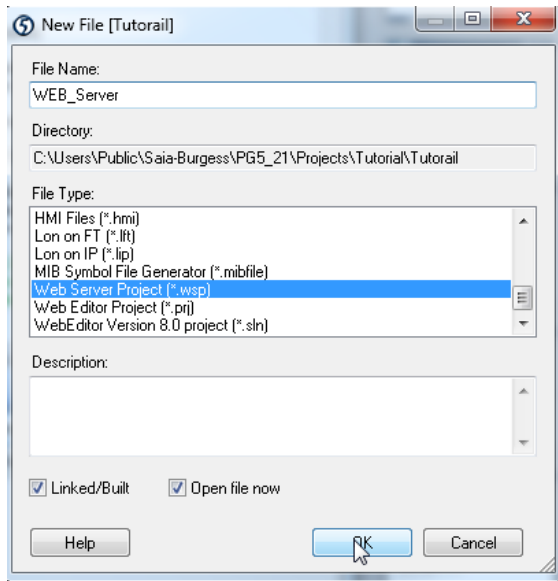
- The Web Builder is used to define which files are loaded onto the controller's internal web server
- A Build must take place after each change in the web project
- The Build links the web project to the Fupla project

Create the Build file

- Right click on Program Files → New
- Name the file
- Select file type Web Server Project (*.wsp) and confirm

Set up the Build file

- Double click to open Build file
- Select all files and click on «Add» to add to web server content
- Click on «Generate» to generate the web server Build and exit Web Builder



Lesson 4 - PG5 Core Web Editor 5

Configure Ethernet

Set IP

- Open the Device Configurator
- Select Ethernet
- Enter IP address and subnet mask

On the computer the IP must be identical down to the last character, similarly the subnet mask

The screenshot shows the Saia Device Configurator interface. On the left, the 'Selector' pane shows 'Onboard Communications Modules PCD7 for PCD1'. The main area is divided into several sections:

- Device:** PCD1.M0160E0 CPU with 1 MByte code/text/DB flash memory and 1 MByte extension memory (RAM).
- Memory Slots:** M1
- Monitoring:** Monitoring and logging of meter data. Automatic scanning of S-Bus meters and gateways.
- Onboard Communications:** A table with columns Location, Type, and Description. The 'Ethernet' row is circled in red.

Location	Type	Description
Onboard	RS-485/S-Net	RS-485 port for Profi-S-Bus or general-purpose communications.
Onboard	USB	Universal Serial Bus port, PGU or general-purpose.
Onboard	Ethernet	Ethernet port. IP Settings, DHCP.
Socket A		
- Ethernet Protocols:** IP Transfer Protocols (FTP, HTTP Direct Protocols, ODM), IP Protocols (DNS, SNMP, SNMP protocols).

The right-hand pane shows the 'Properties' for 'Onboard : Ethernet'. Under the 'TCP/IP' section, the 'IP Address' is set to 192.168.12.82 and the 'Subnet Mask' is 255.255.255.0. Both are circled in red. A red arrow points from the text above to the IP address field.


Lesson 4 - PG5 Core Web Editor 5

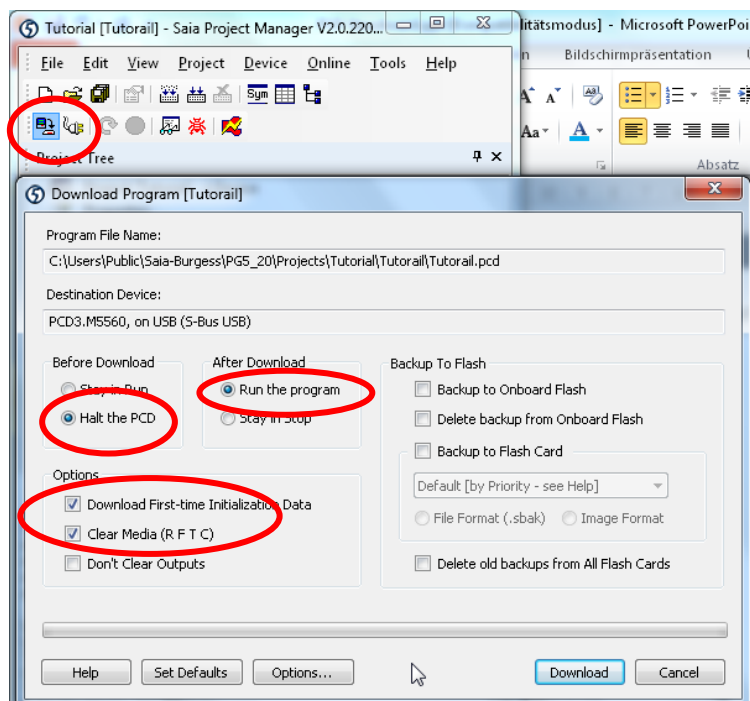
Compile and download project

Compile with «Rebuild all Files»

- Check whether any errors have occurred

Download the project

- Plug USB cable into controller
- Press Download button 
- Download program



Lesson 4 - PG5 Core Web Editor 5

Call project in browser

Establish Ethernet connection

- Connect Ethernet cable
- The flashing LED indicates that communication is working

Call web visualization

- Open browser
- Enter web project address
 - `http://«IP Steuerung»/«Startseite.html»`
 - In this example: `http://192.168.12.82/Basic_Web.html`
- The light can be controlled via the switch or with the web button

