PG5 Starter Training PG5 Core and WebEditor 8 Daniel Ernst | EN02 | 2013-03-14



# 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® WebEditor 5 (contained in PG5 Core)

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Java at least Version XXX

### Lessons required

- Lesson 1
- Lesson 2
- Lesson 3 PG5 Core

### Aims of the PG5 Core WebEditor 5 course

- Visualization of program created in Lesson 3
- Basic understanding of Saia® WebEditor 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

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### What is necessary to achieve this?

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





# **Create web project file**

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### b project

- click on file folder  $\rightarrow$  New
- ile Basis\_Web
- WebEditor 8 project (\*.sln) and confirm with OK
- standard project

g on the newly created file Basic\_Web.sln will open the ditor automatically

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# **Create project**

lay Device Options he display resolution to match your Sala Web-Panel.	
Target <u>R</u> esolution	Custom Resolution
Target Resolution QVGA VGA SVGA  Vrientation: O Portrait O Landscape	Width: 640 ♥ Height: 480 ♥

### **Project resolution**

 When the project is opened for the first time, a resolution must be set for pages

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Select resolution VGA



# Lesson 4 - PG5 Core WebEditor 8 WebEditor structure



Saia<sup>®</sup> PCD



# Create background page

Elation Be Basic_W Start. Variab	tic W time P R C C C C C C C C C C C C C	eb ghuild Basic_Web gbuild Basic_Web lean Basic_Web re pen Containing Fo opy ut elete ename ename ptions isplay Options	F2 Ctrl+F2 Ider Ctrl+C Ctrl+X F2	New J	iles iles from Folder xisting Folder Golder
Rew File General WebEditor	>	Empty W Constraints Alarm Tr Templat	/ebEditor View File anguage (CSV) File ext (ASV) File :e HTML File		Empty WebEditor View File Creates an empty WebEditor View file. NOTE: View file names may not exceed 24 characters (incl. extension) and may only consist of the characters (a'-2,' 0'-9' and '_).

### Create a background page

- Select resolution VGA
- Right click on Basic\_Web project

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- Select Empty Webeditor View File
- Enter name «Background»
- Confirm with «New»

# CODE C

# Lesson 4 - PG5 Core WebEditor 8

# Create background page



### Insert background image

- Open page Background.wev
- Select Image Tool
- Place an image object by clicking on the workspace
- Click on image object to display settings on right (if the window cannot be seen, it may be opened via View/Windows/Properties)

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# Create background page

### Insert background image

- Select image in Content window
- Insert the image factory.gif (images for the project can be downloaded from the site <u>www.saia-support.com</u>)
- By right clicking on the image window → Adjust Size to Fit content, it is possible to adjust the size of the image window to fit the size of the complete image.

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# Create background page



### Place image

 Using the mouse, the image can be moved to the middle of the workspace

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Save changes and close page





### **Create start page**

### Insert background on other pages

- Select page Start.wev
- Double click on workspace to open page options
- At Background view, select the page «Background»
- The page Background.wev will automatically be integrated and displayed as the background

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### **Create button**

### Create a button to be used for switching the DO0 lamp

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Select a button from the toolbar and place it





# **Configure the button**

General Ations	Access Other
Default	• + - 🕅
Content	
Content	= V Light
Style	
Flags	Hidden Disable events
🔽 Outline	
Fill color	
Font	Arial Normal 🛛 11 🖪 🖪 🖶 🐈
Text alignment	Center
Use 3D frame	

General Actions	Access Other			
On press	Toggle			
	Destination 💌	D		
	Between values 📃 👻 🛛 and			
On release	Do Nothing	1		×
Function key	filter by name			
•	Name	Туре	Address	
	🗄 🛄 A	GROUP		
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				•
	All Variables : Device1 Used Variables	-	<b>_</b>	
		Select	t Can	cel

### Open the button settings

Open by clicking on button

### **Change button name**

Enter the name «Light» in the Content field

### **Change switch colour**

- Select Fill colour
- Click on colour field and select appropriate colour

### Configure button as switch

- Click on Action tab
- Select On press → Toggle
- Set «PCD» as the destination and select symbol Basic.Switch

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- Select: «Basic.Switch» (symbol from Fupla project)
- Enter between Values 0 and 1
- Every time it is pressed, the PCD variable Basic.Switch will now change from 0 to 1

General Actions	Access Other	
On press	Toggle	•
	Destination 💌 Basic.Switch	
	Between values of and 4	
On release	Do Nothing	-

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# **Display lamp states**



### s of Image: 'Background\Itlain Layer\Picture (I)' General Actions Access Other • 🔶 🚥 . 1600. Default Data Content 🔛 Select File - 🕝 🌶 📂 🛄+ Suchen in: 🔒 Basic Web 9 Zuletzt besucht Desktop bulb\_VGA.gi factory.gif -----Bibliotheken Computer (î house VGA a mail.gr Netzwerk bulb off VGA.gif Öllnen Dateiname Picture file Abbreche

### Insert an image

- Use Image tool to place the image
- Click on it to open options

### Display light (status: switched off)

- Select image object
- Insert the image bulb\_off\_VGA.gif at Data / Content
- The image of the switched off lightbulb will now be displayed as standard

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## **Display lamp states**

Properties of Image	e: 'Background\Main Layer\Picture (1)' X
General Actio	ns Access Other
Default	
Data	La create New Credition
Content	Media/bulb_off_VGA.gif
Style	
Flags	Hidden Disable events



If PCD symbol IO.DigitalOutput0 = 1, carry over the settings for this condition (image bulb\_VGA.gif will be uploaded)

### Display light (status: switched on)

- Conditions may be added to image objects
  - Depending on these conditions, images can be changed
  - If digital output 0 is switched on, the lightbulb should be colored yellow

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- Use the + symbol to add a condition
- Change condition name to: Light on
- Set symbol type as PCD and select the symbol IO.DigitalOutput0
- Insert condition = 1
- Settings made under this condition will be carried over, if the condition applies.
- Enter the image bulb\_VGA.gif at Data Content



# **Display lamp states**

	Properties of Image: 'Background', Main Layer, Pictu = 🕺						
目虹 防北部岸	General Actions	Access Other					
	Default		- +				
	Data						
	Content	Media/bulb_off_	VGA.gif				
• • • • • • • • • • • • • • • • • • • •	Style						
• 🙆 •	Flags	🔲 Hidden	📃 Disable				
0	🔲 Outline		<b>— •</b> 1				
	🔲 Fill color	= -					
	Position and siz	e	Ers				
	Bounds	X: 276	🗘 W: 43				
Properties of Image: 'Background	\Main Layer\Pictu	-	1004				
General Actions Access	Other		₩¥				
			13				

# Default Light on Content Madia/hulb\_off\_VGA\_aif

	Properties of Image: '	Background\Main Layer\Pictu 🚊 💥
	General Actions	Access Other
1, 300, 1, <del>4</del> , 1, 1	Light on	•
	Data	
	Content	Media/bulb_VGA.gif
	Style	
· 💍 •	Flags	🔲 Hidden 📃 Disable
• •	🔲 Outline	
	🔲 Fill color	= -

Check that it works

 $\rightarrow$  Lightbulb off

 $\rightarrow$  Lightbulb on

Default (no condition met)

Light on (Digital Output0 = 1)

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Colour change can be checked by selecting the condition

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# **Project settings**

Pro	ject	<u>B</u> uild	<u>T</u> ools	<u>W</u> indow	<u>H</u> elp	
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2	Cros	s- <u>R</u> efere	ence	Ctrl+Sł	nift+R	
	Upd	ate CSV	files for	Basic <u>W</u> eb		

### **Change settings**

- Open under Project / BasicWeb Options
- In Build options it is possible to set which HTML file will be generated as the start page. If the start page is called start.htm, it will be called automatically when the controller address is entered in the browser (e.g. http://192.168.0.10)
   If the page has a different name, it must be specified after the address (e.g. http://192.168.0.10/Basic\_Web.html)

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# **Project settings**

### **Runtime settings**

Set Main View Start.teq

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### **Project settings**

### **Download settings**

- Download settings indicate the interface to be used for uploading data to the controller
- If the controller is connected via USB, you can select PG5 Device (S-Bus)

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- Standard User Name: root
- Standard Password: rootpasswd

Project Options - Basic_Web	
🗉 General	s Download (Web)
Main Settings	
🖃 Project	PG5 Device (S-Bus) ×
Configuration	
Build	Destination Type PG5 Device (S-Bus)
Runtime	
🐁 Download (Web)	<u>U</u> ser name root
Web View Editor	Pass <u>w</u> ord rootpasswd
🛄 Grid	Destination Internal Flash
🖃 Data	
User Groups	Files to Include
	<u> </u>
	✓ Pictures ✓ Languages
	🗹 Java Runtime
	Eiles matching:
	Download Options
	Cle <u>a</u> n Destination Upda <u>t</u> e if Possible
	Add Target



# **Compile project**

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					1.					1.4.	~ ~~

### **Compile project**

- Press Build all
- Press Download Project

### HTML file

- The save will automatically generate a start.htm.
- The htm file will be called later in the web browser as the start page

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Close the WebEditor

Downloading to PG5 Project Device	Const
Downloading to PG5 Project Device Downloading: '\$CL 4qcxck6.gif' Downloading: '\$CL 4qcxck6.gif' Downloading: '\$Cl 5a6eky.gif' Downloading: '\$CL 5zd9jt.gif' Downloading: '\$CL 5zd9jt.gif' Downloading: '\$CL 5zz8ke.itq' Downloading: '\$CL 5zz8ke.itq' Downloading: '\$CL 5zz8ke.itq' Downloading: '\$CL 5zz8ke.itq' Downloading: '\$CL 5zz8ke.itq'	



### **Configure Ethernet**

### Set IP

- Open Device Configurator
- Select Ethernet
- Enter IP address and Subnet Mask

# On the computer, the IP must be the same down to the last character as well as the Subnet Mask

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	New Olar		⊿ TCP/IP	
	Memory Slots		Ethernet RIO Network	None
	Slot Type	Description	IP Address	192.168.12.82
	M1		Subnet Mask	255.255.255.0
			Default Router	192.168.12.221
	Monitoring		DHCP Client Fosbled	No
			Automatic Gateway IP Settin	r No
	Section Description	on	Automatic DNS IP Setting	No
	Monitoring Monitorin	g and logging of meter data. Automatical scanning of S-Bus meters and gateways.	DHCP Server IP to Reject 1	0.0.0.0
			DHCP Server IP to Reject 2	0.0.0.0
	Onboard Communica	ions	Host Name	
	Location Type	Description	Fully Qualified Domain Name	
	Onboard BS-485/S-1	Jet BS-485 port for Profi-S-Bus or general-purpose communications		
	Onboard LISP	Liniversal Serial Rus part PCL or general-purpose	Channel Number	9
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	IP Protocols	DNS. SNTP. SNMP protocols.	First S-Bus Station	0

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# **Compile and download project**

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	<b>T</b>			
Messages P	×			
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Build successful. Total errors: 0 Total warnings: 0				
Generating Block Information files Block Information Files complete	_			
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compile, assemble and link al TYOM DOLD OK OFFLINE	1.11			

### Compile with «Rebuild all Files»

Check whether any errors have occurred

### **Download project**

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

Tutorial [Tutorail] - Saia Project Manager V2.0.220	h 🗆 🔲 🔀 litätsmodus] - Microsoft PowerP Tools Help n Bildschirmpräsentation
Project Tree	🕂 🗙 Absatz
S Download Program [Tutorail]	×
Program File Name:	
C:\Users\Public\Saia-Burgess\PG5_20\Projects\Tutoria	l\Tutorail\Tutorail.pcd
Destination Device:	
PCD3.M5560, on USB (S-Bus USB)	
Before Download     After Download       Storpin Pun     Image: Comparison of the program       Image: Halt the PCD     Storpin Storpin	Backup To Flash Backup to Onboard Flash Delete backup from Onboard Flash Backup to Flash Card
Options	Default [by Priority - see Help]
<ul> <li>✓ Download First-time Initialization Data</li> <li>✓ Clear Media (R F T C)</li> </ul>	File Format (.sbak) Image Format
Don't Clear Outputs	Delete old backups from All Flash Cards
Help Set Defaults Options	Download Cancel

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## **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 Controller»/«startpage.html» (start page is not needed, when it's named start.htm)
  - In this example: http://192.168.12.82/
  - The light can be controlled via the switch or with the web button





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