PG5 Starter Training Email application Daniel Ernst | EN02 | 2013-02-26



Email application Introduction













Material required

- Notebook or computer
- PCD1 E-Controller
- USB cable
- Training board
- Ethernet cable
- (Energy Meter starter box)

Software required

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

Lessons required

- Lesson 1
- Lesson 2
- Lesson 3 PG5 Core
- Lesson 4 Web Editor
- (Energy Meter application)
- (File system application)

Aims of the email application

Send an email with data from the controller



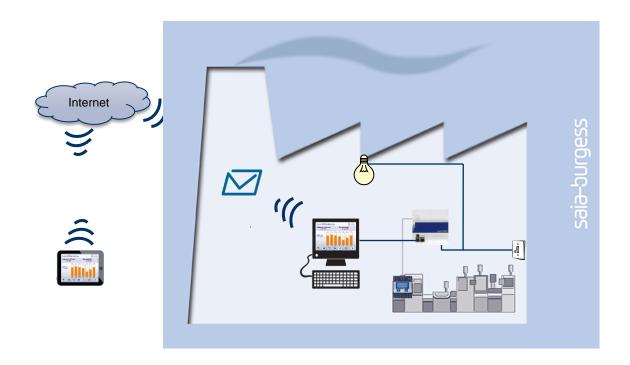
Email application Introduction



Explanation / Introduction

What is necessary to achieve this?

- Program produced in Lessons 3 and 4
- Ethernet connection to Saia® PCD1 E-Controller
- Monitor with web browser
- (Energy Meter starter box)
- (Program from Energy Meter application)





Email application Introduction



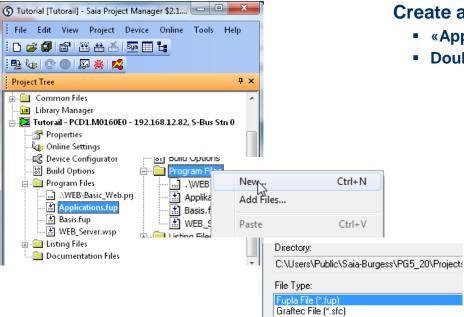
AutomationServer

- The PCD's integral AutomationServer includes, among other things, the possibility of sending emails
- This feature lets you send files with log data or alarms by email

The sending of emails must be permitted in the network. Most company networks are too restrictive. Therefore, clarify in advance if this is permitted.



Project Manager



Create a new Fupla file

- «Applications.fup»
- Double click to open the file

If this step has already been done in another application tutorial, it may be skipped.



Email application Project Manager

Generate a new Fupla page

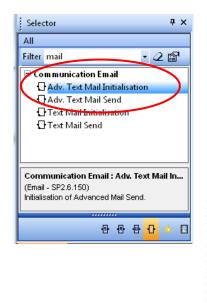
- Select «Page» tab
- Right click and select «Insert Page»
- Rename page as «Email»

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COB Applications 1: Energy Meter; Capture data			A Page			•									
2: File_System; Log in CSV			8. 2↓	»								Works			
3: Email; Send Data			🗉 Genera	al								Snap t		Yes	
			() fame)	Email							Keep o	lefault ratio	No	
			= Comm	ent	Send Data							Horizo	ntal move	Yes	
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			Descrip	otion								Adjust	dialog and 2D drawing	No	
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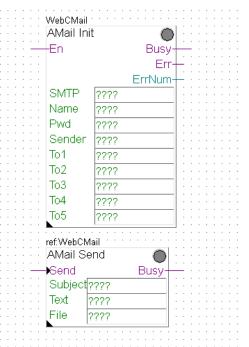


Program email transmission



Position email FBoxes

- Put in place FBox «Adv. Text Mail Init», which stores the data used for email transmission, such as SMTP server and password
- Put in place FBox «Adv. Text Mail Send», which sends an email with text and file attachment to the addresses in the "Init" FBox





Program email transmission

Create symbols

- Email FBoxes need symbols to contain the data for email transmission, such as address, SMTP server password, etc.
- Create symbols as shown in the illustration and make them public. This will enable them to be called from the web project.

Symbol Editor							
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→ To4	TEXT				Public		
↓ - ◆ To5	TEXT				Public		
Subject	TEXT				Public		
→ MailText	TEXT				Public		
File	TEXT				Public		

Nice to know:

Multiple consecutively numbered symbols can be generated automatically by attaching start and end numbers:

Symbol Name	Туре	Address/
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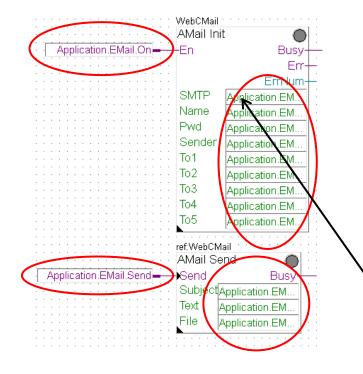
Saia[®] PCD



Program email transmission

Link symbols with FBoxes

- Connect symbols created to inputs and outputs as shown
- Drag the text symbols created into the appropriate green FBox fields



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			- •	To1	TEXT		Public
				To2	TEVT		Dublia



Program email transmission

[213.165.64.20] mit 32 Bytes Daten

Email parameters for email transmission

- Various parameters are needed to set up email transmission:
 - SMTP: IP address of SMTP server
 - Name: Login name of email account
 - Pwd: Password for email account
 - Sender: Email address of sender
- For test purposes, a free mail address has been set up with GMX. Access data is as follows:

Name: 1st_day@gmx.ch Pwd: log4saia

Find out SMTP server address

- GMX SMTP server has address: mail.gmx.net
 → F-Box requests IP of SMTP server
- Open the Command window in Windows (cmd.exe)
- Enter <<ping mail.gmx.net>>
- The response shows the IP address of the SMTP server 213.165.64.20

SMTP server must allow unencrypted authentication (no SSL)!

213.165.64.20: Bytes=32 Zeit=44ms ITL=47

rlust) gaben in Millisek.: m = 40ms, Maximum = 142ms, Mittelwert = 66ms

Administrator: C:\Windows\system32\cmd.exe

NUsers/ch2erda0/



Program email transmission

Enter email parameters

 Email parameters are entered in the text symbols created. (Text must always be contained within speech marks "")

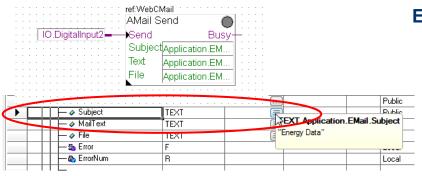
SMTP:	213.165.64.21 \rightarrow country-specific, so must be checked
Name:	1st_day@gmx.ch
Pwd:	log4saia
Sender:	1st_day@gmx.ch

- "To" symbols contain the email addresses, to which an email will be sent
- Indicate your own email address at "To1", e.g. Firstname.Surname@saia-burgess.com

Symbol Editor					_
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Program email transmission



Enter email text and data

- In F-Box "Adv. Text Mail Initialisation", configure text and data for transmission.
- As "Subject", select "Energy Data"
- As "Text", select "New energy data"

🤣 MailTex TEXT TEXT 🛆 Eile F - • • × Text Edit : Application.EMail.File TEXT Definition Fixed size Character Set ANSI Content 'INTFLASH:/Webpages/logfile.csv" Help ΠК Cancel - O X Text Edit : Application.EMail.File TEXT Definition Fixed size Character Sel ANSI Content

""

Help

If the file system application has already been completed:

- The file saved containing log data can be attached to the email
- Enter path and filename from file system application at "File" symbol
- The path created in the file system application is: "Intflash:/Webpages/logfile.csv"

If the file system application has <u>not</u> yet been completed:

- There is no file available for attachment to the email
- The "File" symbol is left blank. Two <u>speech marks</u> "" must be <u>entered</u> in the symbol

ПK

Cancel

Program email transmission

Configure Mail Init F-Box

- Port: 25
- Use authentication: Yes

Compile and download project

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ere Pwd	Application.EM		Port	25	=
Sender	Application.EM	=	Use authentication	Yes	
To1	Application.EM		Text limits		
111 То2	Application.EM		Subject	40	
111 To3	Application.EM		Text	80	
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Program email transmission

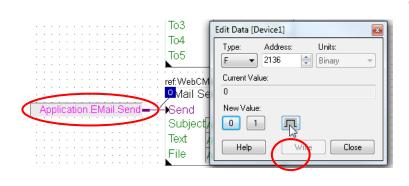
Send email

- Go online
- Zoom to view values at inputs and outputs
- Double click to open "Application.Email.On" and set as 1. This switches on the email function.

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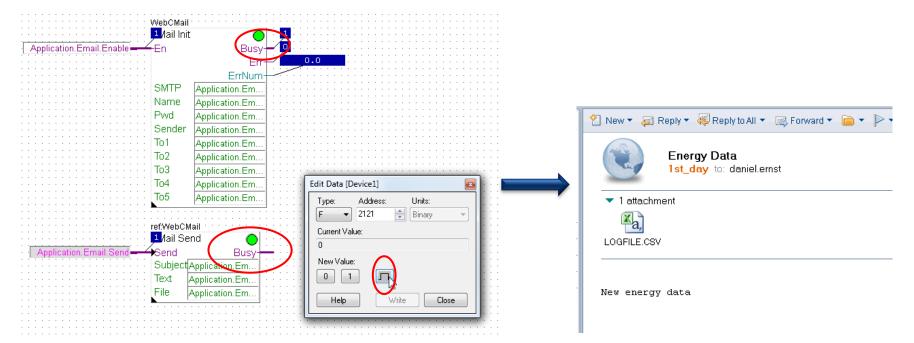


Program email transmission



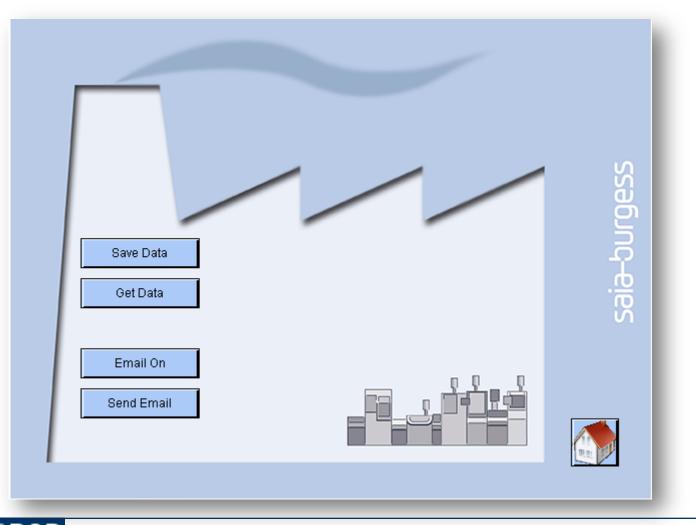
Send email

- Double click to open "Application.Email.Send" and start email transmission with the pulse button
- Email transmission is indicated by a 1 at the "Busy" outputs
- If no error occurs, the F-Box status indicator will remain green
- Within a short time, the email and attached *.csv file will appear in the mailboxes at the addresses indicated





Email transmission via web interface should be possible



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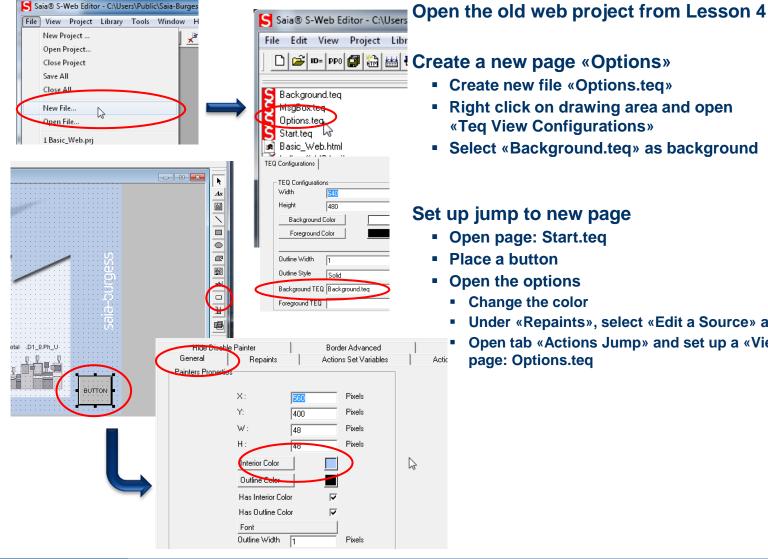
This step may be

skipped if it has

already been

completed.

Email application Create web project

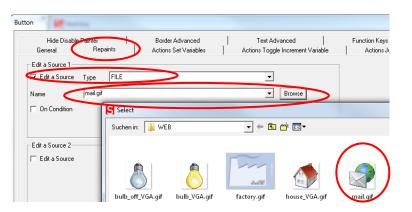


🗅 🖆 🚥 🕬 🕼 🛗 ł Create a new page «Options»

- Create new file «Options.teg»
- Right click on drawing area and open «Teq View Configurations»
- Select «Background.teg» as background

Set up jump to new page

- **Open page: Start.teg**
- Place a button
- **Open the options**
 - Change the color
 - Under «Repaints», select «Edit a Source» and link to file: mail.gif
 - Open tab «Actions Jump» and set up a «View Jump» to the new page: Options.teg



- Open tab «Repaints»
 - Select «Edit a Source», Type = File
 - Browse to select file: mail.gif
- Open tab «Actions Jump»
 - Set up a «View Jump» to the new page: Options.teq

This step may be skipped if it has already been completed.

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			(Select Cancel



Activate email function at click of button

- Open page «Options.teq»
- Insert a button
- Double click to open button options
- Rename button as «Email On»
- Select the option «Actions Toggle Increment Variable» and activate toggle checkbox
- Select symbol «Application.EMail.Enable» and type «PPO»
- Select border color under «Border Advanced»
- Select «Interior Color == 1», green color
- Select symbol «Application.EMail.Enable» in «Color Conditions»

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Toggle String 0

Toggle String 1

Send email at click of button

- Open page «Options.teq»
- Insert a button

Select

- Double click to open button options
- Rename button as «Send Email»
- Select the option «Actions Toggle Increment Variable» and activate toggle checkbox
- Select symbol «Application.EMail.Send» and type «PPO»

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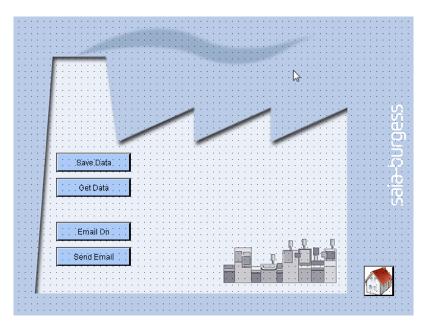


Set up a jump back to the start page

- Open page: FileSystem.teq
- Place a button and specify image: house_VGA.gif
- Set up a «View Jump» to page: Start.teq

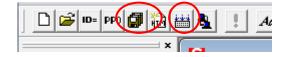
This step may be skipped if it has already been completed.

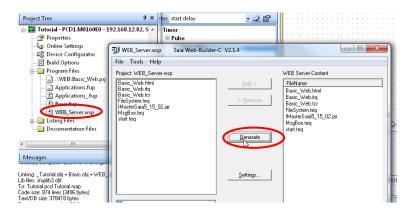
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Email application Download project





Compile Web Editor project

- Save and compile the web project
- Exit the Web Editor

Add new files to Web Build

- Open WEB_Server.wsp
- Add all files to WEB Server Content
- Create with «Generate Build»
- Exit

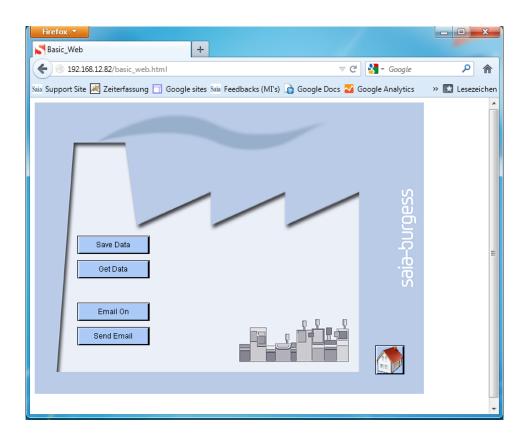
Compile and download project



Email application Open web project

Call web project from browser

- Enter IP/basic_web.html in browser
- Open email application page
- Press the «Email On» button
- Send an email with «Send Email»



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