



# User Guide Belimo SelectPro™

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## Information

Belimo is an innovative technology company listed on the stock exchange with more than 1400 employees world-wide and numerous foreign subsidiaries and distribution companies. We have been developing, producing and distributing electric actuators for air dampers and fittings for heating, ventilation and air-conditioning technology since 1975. Belimo is world-wide market leader with a comprehensive product range in this specific market.

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## Document Information

Date	Version	Performed action
Jan 23, 2015	0.1	Draft
Apr 24, 2015	1.0	Modification for SelectPro™ 3.3
Aug 13, 2015	1.1	Modification for SelectPro™ 3.4
Mar 17, 2016	1.2	Modification to fit for SelectPro EU and SelectPro AP
Jun 24, 2016	1.3	Modification for SelectPro 3.5 (Chapter Manual Selection)

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## **Belimo SelectPro™ – Information for Use**

The most important functions of the Belimo SelectPro™ software are described in this document. If you have any further questions, please consult our Customer Service or contact your responsible Belimo partner.

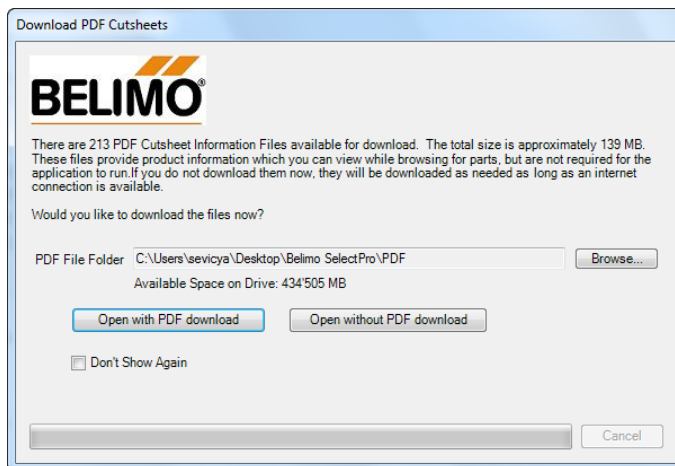
Link to Asia/ Pacific [Contact Information](#)

Link to Europe [Contact Information](#)

## 1 Start of Belimo SelectPro™

When the software is started, you will be offered the option of downloading all the PDF data sheets for offline operation of all the products included in the scope of the software. In the event that you do not download the data sheets, the program will attempt to download them from the internet each time the respective data sheet is opened (assuming that there is an active internet connection available).

The download of the data sheets can however also be carried out later at any time.



## 2 Central Functions of Belimo SelectPro™

You can use the menus **File**, **Settings** and **Help** to call up additional help features and to access the most important functions.

### 2.1 File



<b>New</b>	Start a new project
<b>Open</b>	Open an existing project that has been saved
<b>Save / Save as</b>	Save a project as a .bel file
<b>Export to Excel</b>	Export data from Belimo SelectPro™ to an Excel file.
<b>Download PDFs</b>	Download the PDF data sheets; insofar as this has not already happened at the time the tool was first opened.
<b>Print</b>	Call up print menu
<b>Exit</b>	Exit SelectPro

### 2.2 Settings



<b>Edit customer information</b>	The contact information for the customer and for Belimo. This is where the contact data for the customer is to be entered. This data will be used for the printouts which you compile with the aid of the program. If you do not know your customer number, please contact us. The customer number is not required to use this tool.
<b>Change calculation units</b>	Units for flow and pressure can be selected.
<b>Change language</b>	Selection of program language
<b>Options</b>	Possibility of setting to a proxy server

## 2.3 Help



<b>Belimo SelectPro Instructions</b>	Download of the Belimo SelectPro™ user guide.
<b>Info</b>	Version information
<b>Steam Calculation</b>	Enter your data here for steam calculation.
<b>Contact us</b>	Link to Belimo contacts via Webpage

### 3 Belimo SelectPro™ – Operation

#### 3.1 Project Reference, Project Name, Created by



Project Reference

Project Name

Created By

Free text for attribution purposes can be entered in the fields **Project Reference**, **Project Name** and **Created by**.

#### 3.2 Specification of valves



Project Reference

Project Name

Created By

File Settings Help

Preselection

Pattern

Application

Clear All

<input type="checkbox"/> PIQCV Pressure-independent zone valve	<input type="checkbox"/> PI6WCCV Pressure-independent zone valve	<input type="checkbox"/> PICCV Pressure-independent characterized control valve	<input type="checkbox"/> EPIV Electronic pressure-independent characterized control valve	<input type="checkbox"/> EV Pressure-independent Belimo Energy Valve™
<input type="checkbox"/> QCV Zone Valve	<input type="checkbox"/> CCV 6-way characterized control valve	<input type="checkbox"/> CV / QCV Shut-off and change-over ball valve/ Zone Valve	<input type="checkbox"/> CCV Characterized control valve	<input type="checkbox"/> H Globe valve
				<input type="checkbox"/> BFV Butterfly valve

Application Parameter

Medium  Water

Flow  m<sup>3</sup>/h

Differential Pressure  bar

Kv

Valve Selection

Clear Valve Selection

- The use of dropdowns and input fields need not follow a sequence.
- Not all fields need to be filled out, although the valve suggestions can be further limited by more complete entries in the fields.
- The entries and selections can be modified or cancelled.



### 3.3 Steam application design

The screenshot shows the Belimo SelectPro software interface for steam application design. At the top, there are fields for Project Reference, Project Name, and Created By. Below this is a blue navigation bar with 'File', 'Settings', and 'Help' options. The main area is titled 'Preselection' and contains a grid of valve types with checkboxes and icons: PIQCV (Pressure-independent zone valve), PI6WCCV (Pressure-independent zone valve), PICCV (Pressure-independent characterized control valve), EPIV (Electronic pressure-independent characterized control valve), EV (Pressure-independent Belimo Energy Valve™), QCV (Zone Valve), CCV (6-way characterized control valve), CV / QCV (Shut-off and change-over ball valve/ Zone Valve), CCV (Characterized control valve), H (Globe valve), and BFV (Butterfly valve). A 'Clear All' button is in the top right. Below the grid is the 'Application Parameter' section, which includes a dropdown for 'Medium' (set to 'Steam'), 'Flow' (Kg/h), 'Inlet Pressure' (bar), 'Outlet Pressure' (bar), and 'Kv'. A 'Valve Selection' section at the bottom has a 'Clear Valve Selection' button.

The user interface for steam applications differs only slightly from water application. It is equipped with additional entry fields, such as inlet pressure (absolute) and output pressure (absolute).

### 3.4 Design of 6-way characterized control valve

The screenshot shows the Belimo SelectPro software interface for 6-way characterized control valve design. The layout is similar to the steam application design, but the 'Application Parameter' section is expanded to include two sequences. 'Sequence 1' and 'Sequence 2' each have dropdowns for 'Medium' (set to 'Water'), 'Flow' (m3/h), 'Differential Pressure' (bar), and 'Kv'. The 'Valve Selection' section at the bottom has a 'Clear Valve Selection' button. In the 'Preselection' grid, the 'CCV' (6-way characterized control valve) is highlighted with a red box.

The user interface 6-way characterized control valves offers the option to enter flow, differential pressure and kv-value for both sequences.

### 3.5 Design of pressure-independent characterized control valve

**BELIMO** Project Reference  Project Name  Created By

File Settings Help

**Preselection** Pattern  Application **Pressure Independent**

☐ PIQCV Pressure-independent zone valve  
☐ PI6WCCV Pressure-independent zone valve  
☐ PICCV Pressure-independent characterized control valve  
☐ EPIV Electronic pressure-independent characterized control valve  
☐ EV Pressure-independent Belimo Energy Valve™  
☐ QCV Zone Valve  
☐ CCV 6-way characterized control valve  
☐ CV / QCV Shut-off and change-over ball valve/ Zone Valve  
☐ CCV Characterized control valve  
☐ H Globe valve  
☐ BFV Butterfly valve

**Application Parameter**

Medium  Flow  l/s  Differential Pressure  bar

**Valve Selection**

The user interface for pressure-independent applications differs slightly from all other applications.

### 3.6 Valve Selection

**Valve Selection**

Connection  Max Temp  ps (PN)  DN  Leakage Rate / Leakage Class

**Valve Results**

Type	Pattern	ps	Flange PN	Max Temp	Kvs=16 m³/h DN = 20	Kvs=16 m³/h DN = 32	Kvs=16 m³/h DN = 40	Kvs=25 m³/h DN = 40	Kvs=25 m³/h DN = 50
CCV	2W	600 kPa	PN6	100 °C		R6032R16-B3		R6040R25-B3	
CCV	3W	600 kPa	PN6	100 °C			R7040R16-B3		R7050R25-B3
CCV	2W	1600 kPa		100 °C			R438	R439	R448
CCV	3W	1600 kPa		100 °C			R538		R548
CCV	2W	1600 kPa		120 °C			R2040-16-S3	R2040-25-S3	R2050-25-S4
CCV	3W	1600 kPa		120 °C			R3040-16-S3	R3040-25-S4	R3050-25-S4
CCV	2W	2700 kPa		130 °C	R419D				

- All of the suggested valves are displayed and can be selected by clicking on them.
- If several products are displayed, then the arrows to the left (◀) and to the right (▶) can be used to navigate.

### 3.7 Selection of actuators

#### Select Suitable Actuator for R3040-25-S4

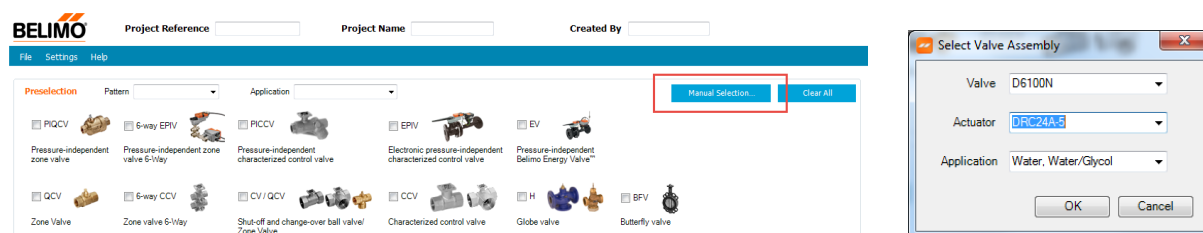
**Actuator Selection**  
 Control Type  Built-In Aux Switch  Safety Function  Nominal Voltage   
 Running Time  Close Off

Part Number	Nominal Voltage	Control Type	Torque/Force	Running Time / Actuating Time	IP Protection	Safety Position	Auxiliary Switch(es) Internal	Closing Pressure
SR230A	230 VAC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR230A-S	230 VAC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe	One	1400 kPa
SR230P	230 VAC	Open/Close, 3-point	20 Nm	90 s	IP 66/67	Non-Fail Safe		1400 kPa
SR24A	24 VAC/VDC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24ALON	24 VAC/VDC	LON	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24A-MP	24 VAC/VDC	MP Bus	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24A-S	24 VAC/VDC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe	One	1400 kPa
SR24A-SR	24 VAC/VDC	DC 2-10 V	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24P	24 VAC/VDC	Open/Close, 3-point	20 Nm	90 s	IP 66/67	Non-Fail Safe		1400 kPa
SR24P-SR	24 VAC/VDC	DC 2-10 V	20 Nm	90 s	IP 66/67	Non-Fail Safe		1400 kPa
SR24A-SR	24 VAC/VDC	DC 2-10 V	20 Nm	35 s	IP 54	Non-Fail Safe		1400 kPa

- Only those actuators are displayed which are appropriate for the valve that has been selected.
- Not all fields need to be filled out, although the actuator suggestions can be further limited by more complete entries in the fields.
- The entries and selections can be modified or cancelled.

### 3.8 Manual Selection

Via the menu "Manual Selection" experienced SelectPro users may choose their valve by label and combine the valve with a suitable actuator. The selected combination will be added to the product list (including the option actuator fitted or actuator supplied).



### 3.9 Project list

Select Suitable Actuator for R3040-25-S4

Clear Actuator Selection

Actuator Selection

Control Type  Built-In Aux Switch  Safety Function  Nominal Voltage

Running Time  Close Off

Part Number	Nominal Voltage	Control Type	Torque/Force	Running Time / Actuating Time	IP Protection	Safety Position	Auxiliary Switch(es) Internal	Closing Pressure
SR230A	230 VAC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR230A-S	230 VAC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe	One	1400 kPa
SR230P	230 VAC	Open/Close, 3-point	20 Nm	90 s	IP 66/67	Non-Fail Safe		1400 kPa
SR24A	24 VAC/VDC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24ALON	24 VAC/VDC	LON	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24A-MP	24 VAC/VDC	MP Bus	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24A-S	24 VAC/VDC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe	One	1400 kPa
SR24A-SR	24 VAC/VDC	DC 2-10 V	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24P	24 VAC/VDC	Open/Close, 3-point	20 Nm	90 s	IP 66/67	Non-Fail Safe		1400 kPa
SR24P-SR	24 VAC/VDC	DC 2-10 V	20 Nm	90 s	IP 66/67	Non-Fail Safe		1400 kPa
SRC24A-SR	24 VAC/VDC	DC 2-10 V	20 Nm	35 s	IP 54	Non-Fail Safe		1400 kPa

Add To Schedule Update Schedule

Product Schedule

Water Steam Pressure Independent														
Pos	Material No.	Qty	Tag	Datasheet	Valve Pattern	Flow	dpv	Req. Kv [m <sup>3</sup> /h]	DN Size	Valve Kvs	Actual dpv	Close Off Pressure [kPa]	Valve Material No.	Actuator Material No.
1	R3040-25-S4+SR230A	1			3W	9.00 m <sup>3</sup> /h	15.0 kPa	23.24	40	25	13.0 kPa	1400 kPa	R3040-25-S4	SR230A

The combination can be added to the project list by selecting the desired actuator by double-clicking or with the "Add to project list" button.

### 3.10 Water, Steam, Pressure Independent

Product Schedule

Water Steam Pressure Independent														
Pos	Material No.	Qty	Tag	Datasheet	Valve Pattern	Flow	dpv	Req. Kv [m <sup>3</sup> /h]	DN Size	Valve Kvs	Actual dpv	Close Off Pressure [kPa]	Valve Material No.	Actuator Material No.
1	R3040-25-S4+SR230A	1			3W	9.00 m <sup>3</sup> /h	15.0 kPa	23.24	40	25	13.0 kPa	1400 kPa	R3040-25-S4	SR230A

The project form contains three tabs – **Water**, **Steam** and **Pressure Independent**. The valves selected for these applications are displayed in the respective forms.

### 3.11 Merged Product Schedule

Product Schedule

☒ View Merged Schedules Show Valve Selection Criteria Select Custom Attributes



Combined

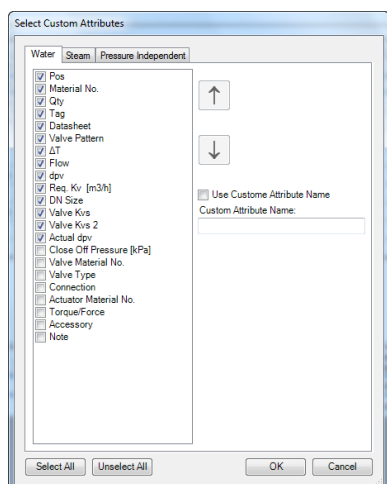
Material No.	Qty	Tag	Datasheet	Valve Pattern	Flow	dpv	Req. Kv [m <sup>3</sup> /h]	DN Size	PN	Valve Kvs	Factory Setting	Actual dpv	Closing Pressure	Valve Material No.	Actuator Material No.

From version 3.4 the product schedule offers the option to merge all forms. By clicking the check box on the top all three product schedules (water, steam and pressure independent) will be merged in one single form.

## 3.12 Show custom attributes

### Product Schedule

Water															Steam															Pressure Independent															Show Custom Attributes															Select Custom Attributes														
		Pos		Material No.		Qty		Tag		Datasheet		Valve Pattern		Flow		dpv		Req. Kv [m3/h]		DN Size		Valve Kvs		Actual dpv		Close Off Pressure [kPa]		Valve Material No.		Actuator Material No.																																												
 		1		R3040-25-S4+SR230A		1						3W		9.00 m3/h		15.0 kPa		23.24		40		25		13.0 kPa		1400 kPa		R3040-25-S4		SR230A																																												

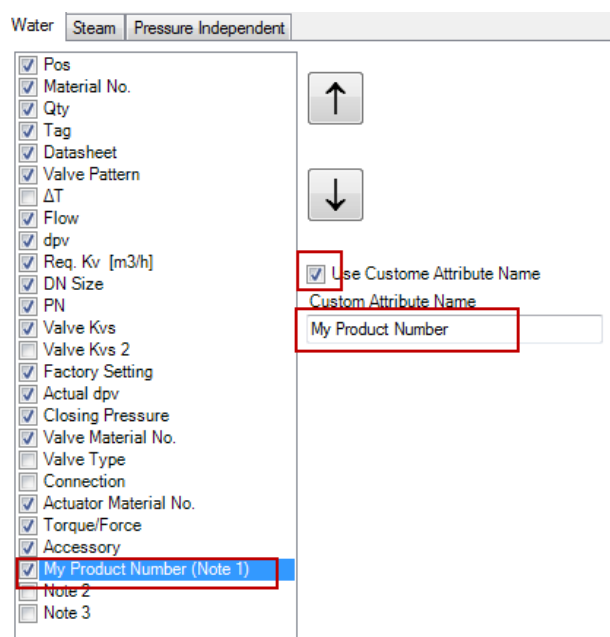


Users can use this option to select which of the available attributes will be displayed. You can change the sequence of the attributes in the project form at any time by clicking in the attribute list on the "Up" or "Down" arrow keys. The attributes will then be automatically resorted in the project form afterwards.

### Be aware:

Only selected attributes will be printed and exported towards Excel.

## 3.13 Personalize attribute name



From SelectPro 3.4 it is offered to personalize attributes (e.g. your internal product number). There are three attributes with default value Note 1, Note 2 and Note 3. Select one of these attributes and enter your custom attribute name. By clicking the check box "Use Custom Attribute Name" the name will be changed.

### 3.14 Selectable accessories

In addition, Belimo SelectPro™ includes accessories for the articles. When an accessory part is selected, it will be displayed as a separate item.

The screenshot shows the 'Water' tab selected. The main table lists two identical valve entries. The 'Accessory' column for both entries contains a link labeled 'Select Accessories...'. An 'Add Accessory' dialog box is open in the foreground, displaying a list of available accessories. The following table represents the data shown in the 'Add Accessory' dialog:

Part Number	Description
<input type="checkbox"/> P1000A	Feedback potentiometer 10 kOhm, add-on
<input type="checkbox"/> P1000A	Feedback potentiometer 1 kOhm, add-on
<input type="checkbox"/> P140A	Feedback potentiometer 140 Ohm, add-on
<input type="checkbox"/> P200A	Feedback potentiometer 200 Ohm, add-on
<input type="checkbox"/> P2800A	Feedback potentiometer 2.8 kOhm, add-on
<input type="checkbox"/> P5000A	Feedback potentiometer 5 kOhm, add-on
<input type="checkbox"/> P500A	Feedback potentiometer 500 Ohm, add-on
<input type="checkbox"/> S1A	Auxiliary switch add-on, 1x SPDT

Example: Valve / actuator in Position 1, accessories in Position 1.1.

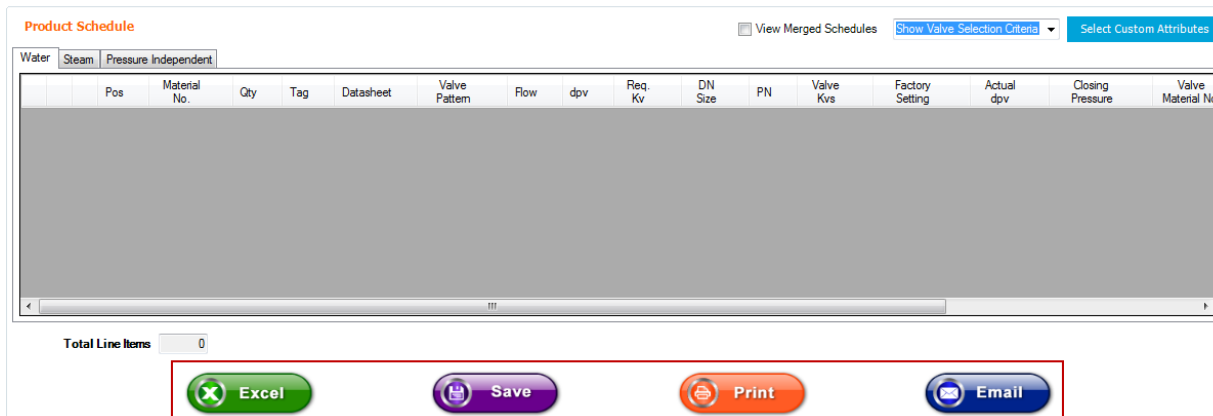
#### Product Schedule

The screenshot shows the 'Water' tab selected. The 'Product Schedule' table is displayed with the following data:

	Pos	Material No.	Qty	Tag	Datasheet	Valve Pattern	Flow	dpv	Req. Kv [m³/h]	DN Size	Valve Kvs	Actual dpv	Close Off Pressure [kPa]	Valve Material No.	Actuator Material No.
	1	R3040-25-S4+SR230A	1			3W	9.00 m...	15.0 k...	23.24	40	25	13.0 kPa	1400 kPa	R3040-25-S4	SR230A
	1.1	P140A	1												
	2	R3040-25-S4+SR230A-S	1			3W	9.00 m...	15.0 k...	23.24	40	25	13.0 kPa	1400 kPa	R3040-25-S4	SR230A-S

## 4 Share Product Schedule

Any product schedule can be shared in several formats. These formats are XLS, BEL via Print or sent via E-Mail.



### 4.1 Excel Download

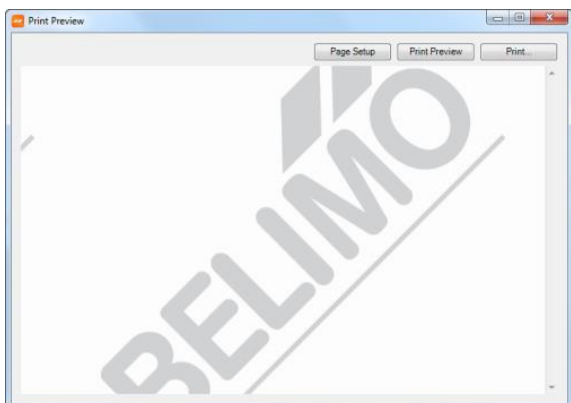
Product schedules can be saved as Microsoft Excel Workbook (xls-file). Each tab in SelectPro (Water, Steam, Pressure Independent) will also be show in Excel as separate tab. Furthermore, all customer information and "My Belimo Partner" information will also be exported to Excel.

### 4.2 Save as Belimo SelectPro File

SelectPro offers the possibility to save product schedules as Belimo SelectPro File (bel-file). These files can be opened in any SelectPro application.

### 4.3 Print Product Schedule

Product schedules can be printed. By clicking on the print button, a print preview pop-up opens. This allows also setting up the page and modifying print options.



## 4.4 Send Product Schedule via E-Mail

Product schedules can be sent via the defined default e-mail client. Clicking on the print button opens a new e-mail and attaches by default the project schedule as bel-file.

