

USER MANUAL - SH_EXPORT/ LIBRARY (EXPORT COMPONENT)

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1 User Manual

1.1 Purpose

The purpose of this document is to guide the user through the features of data export in the library named SH_EXPORT/.

1.2 Application field

The Supervisor Version 11.2.6027.19200 and above

1.3 Description of the document

This document is divided into the following main parts:

- Installation
- Introduction
- Symbols

2 Installation

Prior to running The Supervisor, all important files need to be installed to function.

2.1.1 Delivered Folders

The related files are stored in **SH_EXPORT.zip**; unzip the zip folder into The Supervisor's Libraries folder (i.e. C:\ARC Informatique\The Supervisor xx.x\Lib).

2.1.2 Add the Library to your project

Run The Supervisor, open Application Explorer, under the current project tree-view, select the <Project Name> project.Libraries.Shared libraries and choose "Add an existing shared library..."

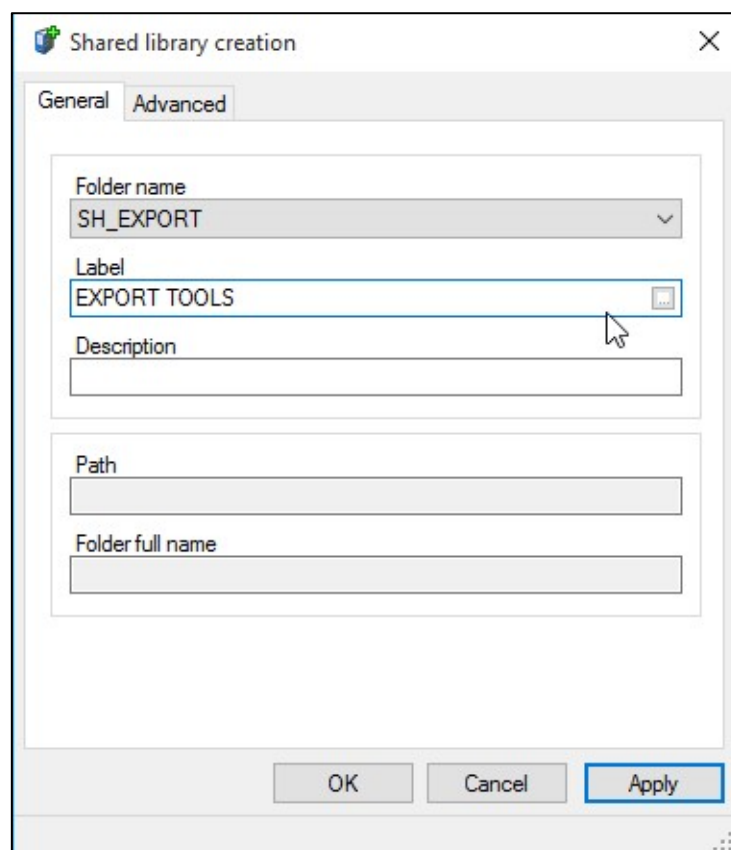


Figure 1 SH_EXPORT/ library creation

Select "SH_EXPORT" in the Folder name combo-list and fill as much information permitted. Click Apply and SH_EXPORT/ library are created. **Restart** The Supervisor before any further action.

2.1.3 Initial Program

2.1.3.1 SCADA Basic

Some data must be initialized. That's done by the SCADA Basic program SETUP.SCB and INIT.SCB

You have to execute this program on start-up of your project in sequence:-

1. /SH_EXPORT/EXPORT_SETUP.SCB
2. /SH_EXPORT/EXPORT_INIT.SCB

To make things easier, please find the mimic EXPORT_LIB_READ_BEFORE_USE and follow the instructions shown in that mimic.

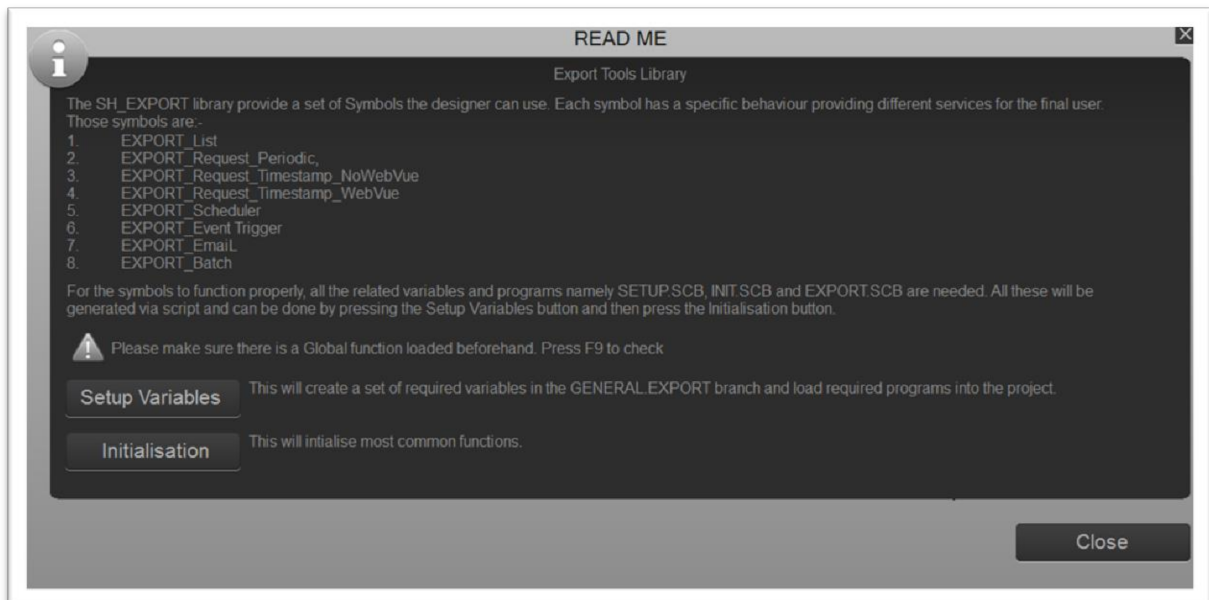


Figure 2 The mimic EXPORT_LIB_READ_BEFORE_USE

3 Introduction

The SH_EXPORT/ library provide a set of Symbols the designer can use. Each symbol has a specific behaviour providing different services for the final user. Those symbols are:-

1. EXPORT_List
2. EXPORT_Request_Periodic,
3. EXPORT_Request_Timestamp_NoWebVue
4. EXPORT_Request_Timestamp_WebVue
5. EXPORT_Scheduler
6. EXPORT_Event Trigger
7. EXPORT_Email
8. EXPORT_Batch

Any symbols created for this feature will have the same naming rule: It must start by the suffix EXPORT_

Symbols will have several dependencies like SCADA Basic functions, Variables, Images, etc...

All functions used by these symbols are declared in the SCADA Basic program SH_EXPORT/INIT.SCB and SH_EXPORT/EXPORT.SCB

All Variables name used by these symbols will start with the branch GENERAL.EXPORT

3.1 Export List

EXPORT_List: Display the export list. Allow the user to select the required Export or ALL EXPORTS (by default).

3.2 Export Request

EXPORT_Request_Periodic: Request an export with a Period from a specific timestamp to Now.

EXPORT_Request_Timestamp_NoWebVue & Timestamp_WebVue : Request an export between 2 specific timestamps.

3.3 Export Scheduler

EXPORT_Scheduler: Create a periodic trigger and trigger an export once at a specified time and date.

EXPORT_Event Trigger: Trigger an expert on the event.

3.4 Export Email

EXPORT_Email : Send an email upon successful generation.

3.5 Environment

Available in The Supervisor archive server, The Supervisor archive client and WebVue client.

4 Symbols

4.1 Export Selection

4.1.1 Export List

This symbol will list all current exports created on Application Explorer. If you have just created an export, please restart The Supervisor before any further action.

Insert this symbol navigating Insert.Symbol... then select SH_EXPORT/ library, pick EXPORT_List.

Property	Value
Name	SH_EXPORT//SH_EXPORT/EXPORT_List
Look and Feel	Export Name:
Prerequisite	1. Data Exports (Application Explorer) 2. SH_EXPORT//Init.scb (SCADA Basic) 3. SH_EXPORT//Export.scb (SCADA Basic)

This component shall read the file **<Project>\C\DataExportsConf.xml**, extract all Export (the XML tag representing an Export is <Export> with the XML Attribute 'Name') and populate the combo-box by reading the created file **\SH_EXPORT/\Export_List.txt** .

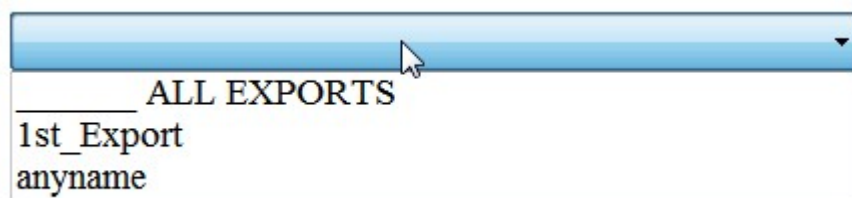


Figure 3 selecting one of the export names.

Whenever a selection has been made, the selected index and user data are passed on to respective variables.

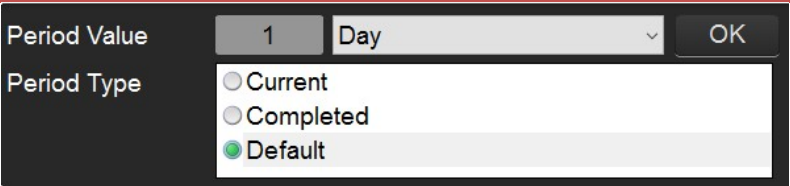
Variables	Type	Command
GENERAL.EXPORT.Export_Selected_Index	Register	Enabled
GENERAL.EXPORT.Export_Selected_Name	Text	Enabled

4.2 Export Request

4.2.1 Request Periodic

This symbol will generate an export based on periodic values (such as an hour, minute, day) with reference to current date and time.

Insert this symbol by navigating Insert.Symbol... then select SH_EXPORT/library, pick Export_Request_Periodic.

Property	Value
Name	SH_EXPORT//SH_EXPORT/EXPORT_Request_Periodic
Look and Feel	
Prerequisite	1. SH_EXPORT/SH_EXPORT//EXPORT_List (Symbol) 2. SH_EXPORT//Init.scb (SCADA Basic) 3. SH_EXPORT//Export.scb (SCADA (Basic))

This component shall read the **@GENERAL.EXPORT.Export_Selected_Name** from the EXPORT_list symbol, after the user clicked the button, the specified export is generated within the specified time value and time interval.

If ALL option is selected, all exports are created with the same specified configurations.

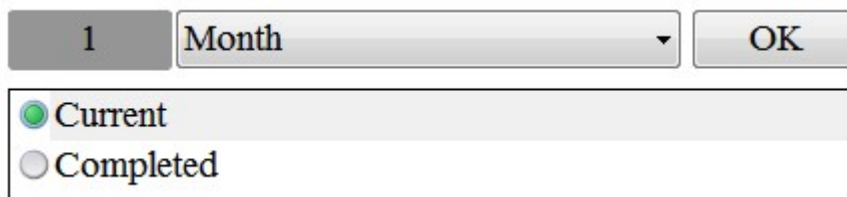


Figure 4 request an export from 1 month ago.

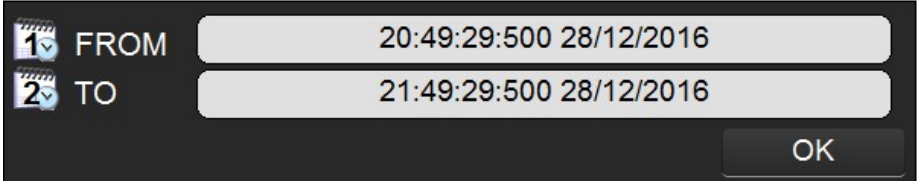
Whenever a selection has been made, the selected index and user data are passed on to respective variables.

Variables	Type	Command
GENERAL.EXPORT.Export_Period_Interval	Register	Enabled
GENERAL.EXPORT.Export_Period_Type	Register	Enabled
GENERAL.EXPORT.Export_Period_Value	Register	Enabled

4.2.2 Request by Timestamps (WebVue)

This symbol will generate an export based on the difference between two timestamps.

Insert this symbol by navigating Insert.Symbol... then select SH_EXPORT/library, pick EXPORT_Request_Timestamp_WebVue

Property	Value
Name	SH_EXPORT//SH_EXPORT/ EXPORT_Request_Timestamp_WebVue
Look and Feel	
Prerequisite	1. SH_EXPORT//EXPORT_List (symbol) 2. SH_EXPORT//Init.scb (SCADA Basic) 3. SH_EXPORT//Export.scb (SCADA Basic)

Request selected exports made on previous EXPORT_List Symbol.
Both timestamps has an Input Format of HH: MM: SS: MSc dd/mm/yy

Legend	Definition
HH	Hour (e.g. 23 hr)
MM	Minute (e.g. 30 mins)
SS	Second (e.g. 30 secs)
MSc	Microseconds (e.g. 500 micro secs)
dd	Day (e.g. day 20)
mm	Month (e.g. month 12)
yy yy	Year (e.g. the year 2014)

Input both timestamps and make sure the value of  second timestamp is later than the  first timestamp.

Variables	Type	Command
GENERAL.EXPORT.Export_Request_TS1	Register	Enabled
GENERAL.EXPORT.Export_Request_TS2	Register	Enabled

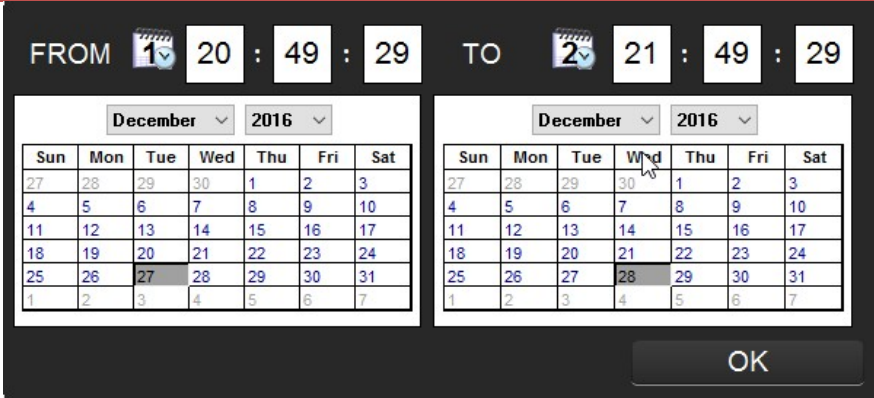
This component shall read the @GENERAL.EXPORT.Export_Selected_Name from the Export_list symbol.

After user clicked the ok button, the specified export is generated.

4.2.3 Request by Timestamps (not-WebVue)

This symbol will generate an export based on the difference between two timestamps.

Insert this symbol by navigating Insert.Symbol... then select SH_EXPORT/library, pick EXPORT_Request_Timestamp_NoWebVue

Property	Value
Name	EXPORT_Request_Timestamp_NoWebVue
Look and Feel	
Prerequisite	1. SH_EXPORT//EXPORT_List (symbol) 2. SymbolProject(SH_EXPORT//SH_EXPORT/export_request_timestamp_nowebvue) (VB) 3. SH_EXPORT//Init.scb (SCADA Basic) 4. SH_EXPORT//Export.scb (SCADA Basic)

Request selected exports made on previous Export Selection Symbol.
Both timestamps have an Input Format of HH: MM and the date picker.

Legend	Definition
HH	Hour (e.g. 23 hr)
MM	Minute (e.g. 30 mins)
Calendar Date Picker	dd/mm/yyyy

Input both timestamps and make sure the value of  second timestamp is later than the  first timestamp.

Variables	Type	Command
GENERAL.EXPORT.Export_TS1_HH	Text	Enabled
GENERAL.EXPORT.Export_TS1_MM	Text	Enabled
GENERAL.EXPORT.Export_TS1_HH	Text	Enabled
GENERAL.EXPORT.Export_TS1_MM	Text	Enabled
GENERAL.EXPORT.Export_TS1_DATE	Text	Enabled
GENERAL.EXPORT.Export_TS2_DATE	Text	Enabled
GENERAL.EXPORT.Export_Request_TS1_NWV	Register	Enabled
GENERAL.EXPORT.Export_Request_TS2_NWV	Register	Enabled

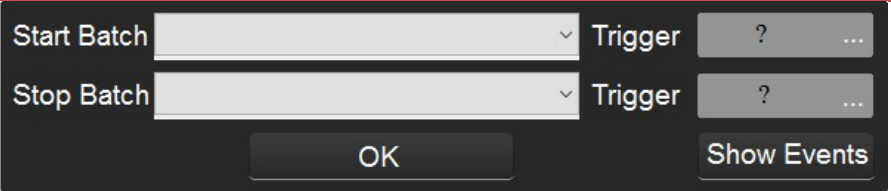
This component shall read the @GENERAL.EXPORT.Export_Selected_Name from the Export_list symbol.

After user clicked the ok button, the specified export is generated.

4.2.4 Request by Batch

This symbol will generate an export based on the change of event of a start and stop batch bits.

Insert this symbol by navigating Insert.Symbol, then select SH_EXPORT/ library, pick EXPORT_Batch

Property		Value	
Name		EXPORT_Batch	
Look and Feel			
Prerequisite		1. SH_EXPORT//EXPORT_List (symbol) 2. SH_EXPORT//Init.scb (SCADA Basic) 3. SH_EXPORT//Export.scb (SCADA Basic) 4. TP/Export_Batch_Bits.txt (Text File)	

Note: This symbol is unable to trigger an event if the user selected "ALL" on export selections.

Potential variables are needed to be clearly identified before using the symbol, in the project's TP folder, create a text file called **"Export_Batch_Bits.txt"**.

Once created, edit the text file and add texts of the full path name of the variable.

Select the desired variable that will trigger the event based on a specified expression. All SENSE Expressions are shown on a list box and select the appropriate expression to trigger the desired event.

4.3 Export Scheduler

4.3.1 Event Trigger

This symbol will generate an export based on the change of event of a variable.

Insert this symbol by navigating Insert.Symbol, then select SH_EXPORT/ library, pick EXPORT_Event_Trigger

Property	Value
Name	EXPORT_Event_Trigger
Look and Feel	Variables Expression Export Length ##### ... OK Show Events ☒ Default Setting ☐ Periodic
Prerequisite	5. SH_EXPORT//EXPORT_List (symbol) 6. SH_EXPORT//Init.scb (SCADA Basic) 7. SH_EXPORT//Export.scb (SCADA Basic) 8. TP/Export_TriggerVariables.txt (Text File)

Note: This symbol is unable to trigger an event if the user selected "ALL" on export selections.

Potential variables are needed to be clearly identified before using the symbol, in the project's TP folder, create a text file called **"Export_TriggerVariables.txt"** with a new line for every variable.

Once created, edit the text file and add texts of the full path name of the variable.

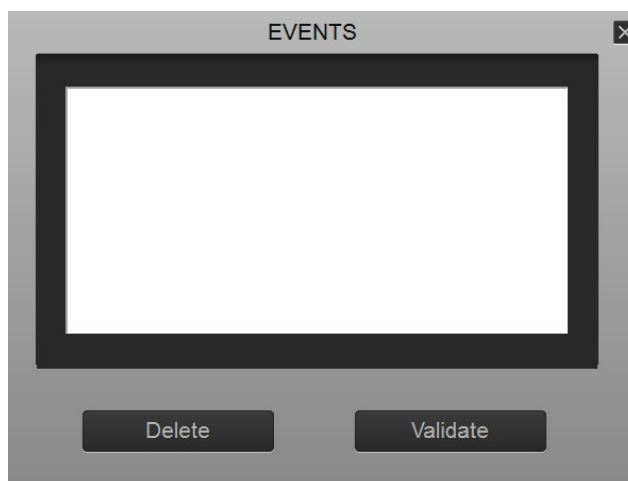


Figure 5 Full path name of the variables are required

Select the desired variable that will trigger the event based on a specified expression. All SENSE Expressions are shown on a list box and select the appropriate expression to trigger the desired event.

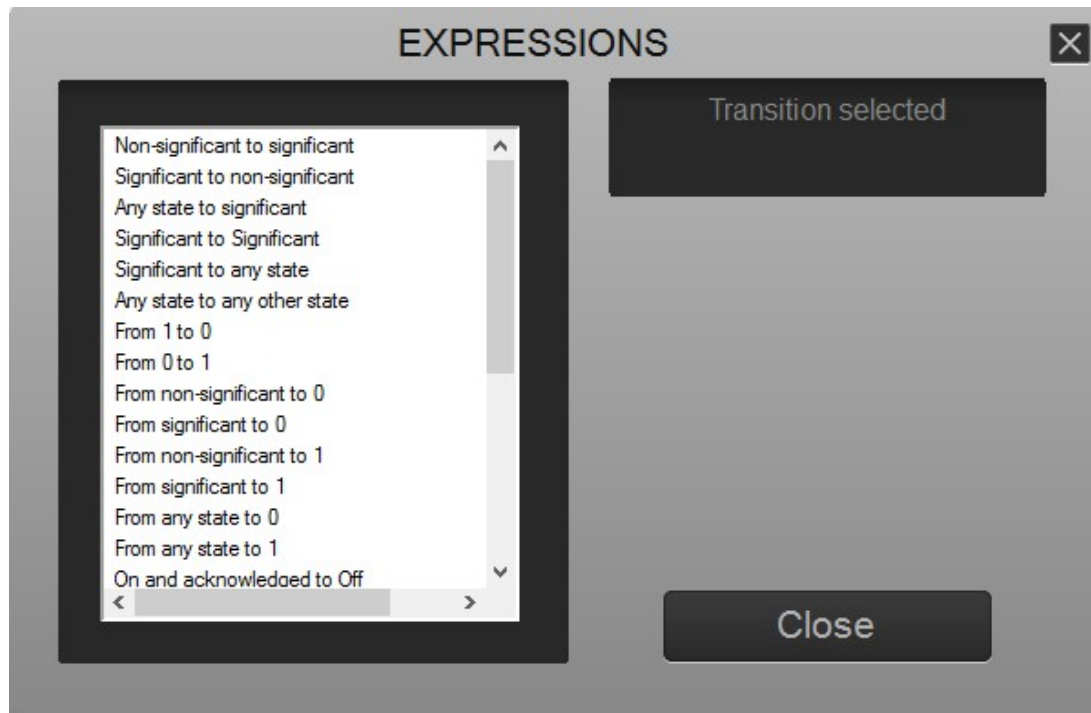
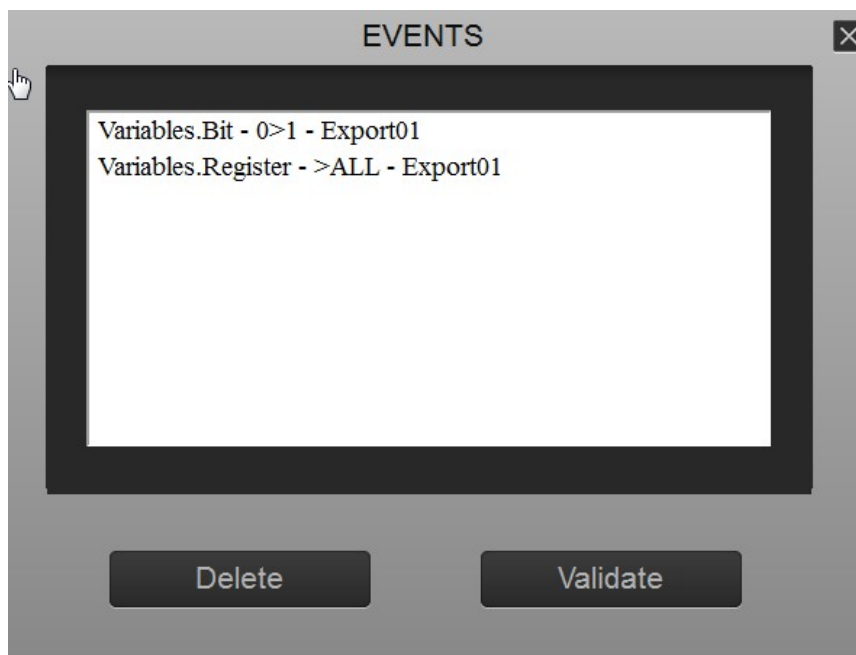


Figure 6 SENSE Expression shown based on type of variable selected

All created event triggers are listed on a list-box; the user can select and delete the created event by clicking appropriate buttons.



Variables	Type	Command
GENERAL.EXPORT.Export_Event_Transition	Text	Enabled
GENERAL.EXPORT.Export_Selected_Variable_Trigger	Text	Enabled

This component shall read the @GENERAL.EXPORT.Export_Selected_Name from the Export_list symbol.

When the variable changes its states, the specified export is generated.

4.3.2 Event Scheduler

This symbol will generate an export based on the schedule.

Insert this symbol by navigating Insert.Symbol... then select SH_EXPORT/ library, pick Export_Scheduler

Property	Value
Name	EXPORT_Scheduler
Look and Feel	Schedule Period Daily OK Show Schedules Schedule Detail Time 21 HH : 49 MM Export Length ☒ Default Setting ☐ Periodic
Prerequisite	1. SH_EXPORT//EXPORT_List (symbol) 2. SH_EXPORT//Init.scb (SCADA Basic) 3. SH_EXPORT//Export.scb (SCADA Basic)

There are 5 options to choose on during scheduling such as Once, Hourly, Daily, Weekly, and Monthly. All created schedules are listed on a list-box; the user can select and delete the created schedule by clicking the appropriate buttons.

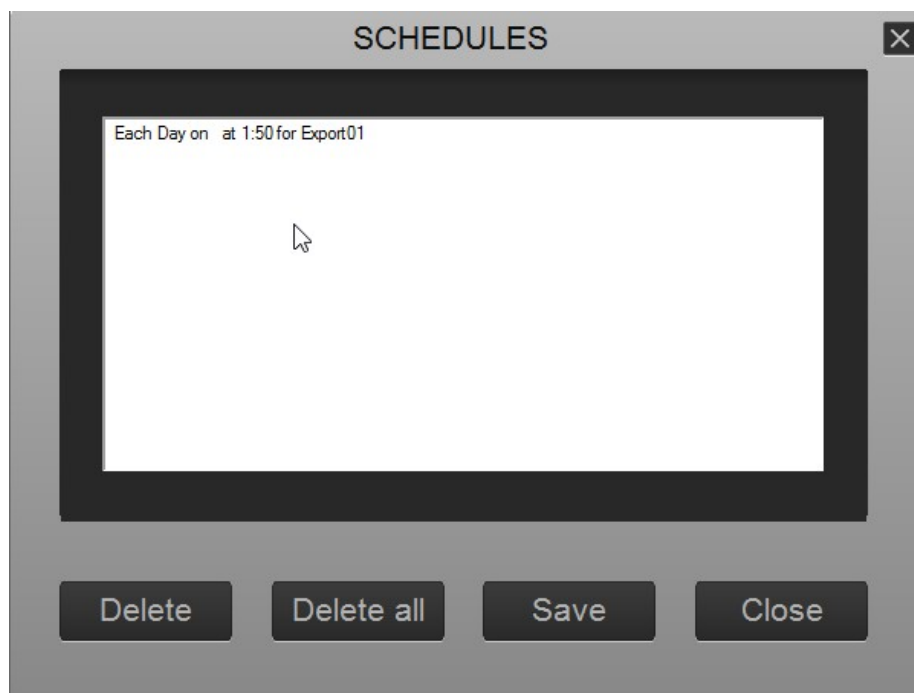


Figure 7 Current scheduled program are stored in this list.

Variables	Type	Command
GENERAL.EXPORT.Export_Scheduler_Agenda	Register	Enabled
GENERAL.EXPORT.Export_Scheduler_Day	Text	Enabled
GENERAL.EXPORT.Export_Scheduler_Month	Text	Enabled
GENERAL.EXPORT.Export_Scheduler_Time_HH	Text	Enabled
GENERAL.EXPORT.Export_Scheduler_Time_MM	Text	Enabled
GENERAL.EXPORT.Export_Scheduler_Year	Text	Enabled

This component shall read the @GENERAL.EXPORT.Export_Selected_Name from the Export_list symbol.

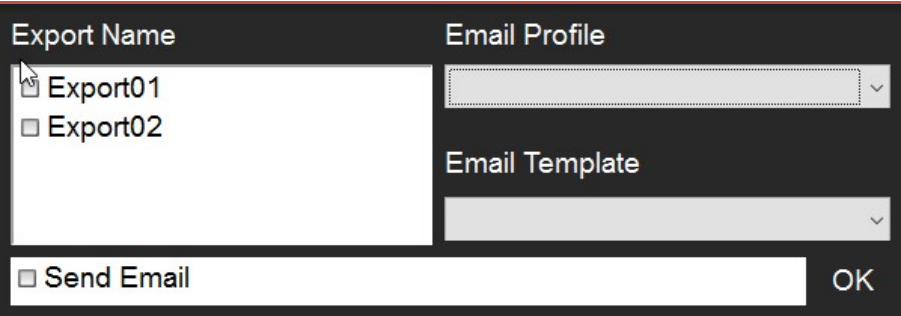
When the time comes, the specified export is generated.

4.4 Export Email

4.4.1 Send Email Option

This symbol will send an email after a successful data export generation.

Insert this symbol by navigating Insert.Symbol... then select SH_EXPORT/library, pick Export_Email

Property	Value
Name	EXPORT_Email
Look and Feel	
Prerequisite	1. Data Export 2. Export Status Variables 3. SH_EXPORT//Init.scb (SCADA Basic) 4. SH_EXPORT//Export.scb (SCADA Basic) 5. E-Mail Profile 6. E-Mail Template

This symbol will send an email using specified mail profile and mail template upon successful report generation based on each data export status variable.

Insert this symbol by navigating Insert.Symbol, then select SH_EXPORT/library, pick EXPORT_Email

Select the desired variable that will trigger the event based on a specified expression.

Variables	Type	Command
GENERAL.EXPORT.Export_Mail_Enable	Register	Enabled
GENERAL.EXPORT.Export_Selected_Mail_Export Name	Text	Enabled
GENERAL.EXPORT.Export_Scheduler_Profile	Text	Enabled
GENERAL.EXPORT.Export_Scheduler_Template	Text	Enabled