



## **GO.VariableExport V1.6.4**

---

User guide  
2018

## Table of contents

Introduction .....	3
Installation .....	4
Prerequisites .....	5
Installer.....	6
Operation .....	7
GUI .....	9
Link List.....	10
Basic .....	11
Spreadsheet.....	12
Variables .....	14
Advanced .....	15
Row/Column Increment .....	16
Sheet Increment .....	18
Sheet Template.....	19
Advanced Automation.....	20
Simple Program Example.....	21
Advanced Program Example.....	22
Advance Program Example 2 .....	25
Configuration.....	29

## Introduction

GO.VariableExport allows the user to export ranges of Common Variables to a file in the Open XML spreadsheet format. This spreadsheet can be opened in Products like Microsoft Excel, or Open Office Spreadsheets. No other software is required on the machine to generate the spreadsheet.

## Installation

Installation

## Prerequisites

OSP P200A or Above  
Windows 7  
.Net Framework 4.5.2  
THINC API V1.18.0

## Installer

To Install GO.VariableExport run the setup file and follow the instructions. By default the application will be installed @ D:\Program Files\Gosiger. GO.VariableExport will also automatically register itself with the Thinc Startup Service.

## Operation

GO.VariableExport allows the user to specify a range of variables to export and the name of the spreadsheet file. You can also specify the name of the sheet within the workbook and the address of the cell to write to. When the specified trigger variable (VC5 in the example below) is set to 100 the values of the specified range are used to create a spreadsheet file in the Open XML format. The spreadsheet file can be an existing template file. You can also specify another spreadsheet file to use as a template.

The screenshot shows the 'VARIABLE EXPORT' application window with the 'Basic' tab selected. On the left, a 'Links' panel contains a list with 'VC1-VC4'. Below this panel are 'Add' and 'Remove' buttons. The main area is divided into two sections: 'Spreadsheet' and 'Variable Range'. The 'Spreadsheet' section includes a 'Target Path' field with 'VariableTest.xlsx', a 'Sheet Name' field with 'Test1', a 'Direction' dropdown menu set to 'Vertical', and a 'Start Cell' field with 'A2'. There are '...' and 'Open Folder' buttons next to the target path. The 'Variable Range' section includes three dropdown menus: 'Start' set to 'VC1', 'End' set to 'VC4', and 'Trigger' set to 'VC5'. A 'Save' button is located at the bottom right of the interface.

Below is an example of a simple variable range transfer.

As soon as the machine sets the **VC5** trigger to **100** the range of variables **VC1-VC4** will be written to the Spreadsheet vertically beginning with **A2**. When the operation is complete the trigger variable returns to 0.

S.T.M 2018/02/20 10:03:01

Actual Load

X 0% 100 200 0% C  
Y 0% 100 200 0% C  
Z 0% 100 200 0% C  
A 0 100 200 300 0 300 200 100 0

White Board

PARAMETER 4325 ALARM-D Main  
COMMON VARIABLES

VARIABLE EXPORT V1.5.0.0

Links VC1-VC4

Basic Advanced

Spreadsheet

Target Path VariableTest.xlsx

Sheet Name Test1 Direction Vertical Start Cell A2

Variable Range

Start VC1 End VC4 Trigger VC5

NO	
1	12.55
2	55.22
3	1234.567
4	0.0005
5	0
6	EMPTY(*)
7	0
8	EMPTY(*)
9	EMPTY(*)
10	EMPTY(*)

Add Remove Save

VariableT...

File Home Insert Page Layout Formulas Data Review View

Paste Font Alignment Number Styles Cells

Clipboard

A1

	A	B	C	D
1				
2	12.55			
3	55.22			
4	1234.567			
5	0.0005			
6				
7				
8				
9				
10				
11				
12				

Test1

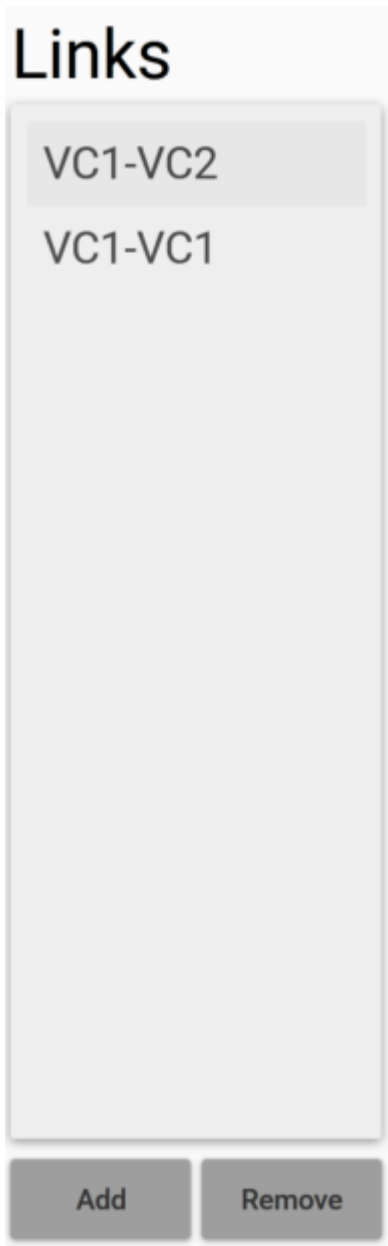
Ready 100%



## GUI

## Link List

The Links list shows all of the defined variable exports. Using the Add button you can define new ranges of variable to export using the same or a different variable trigger.

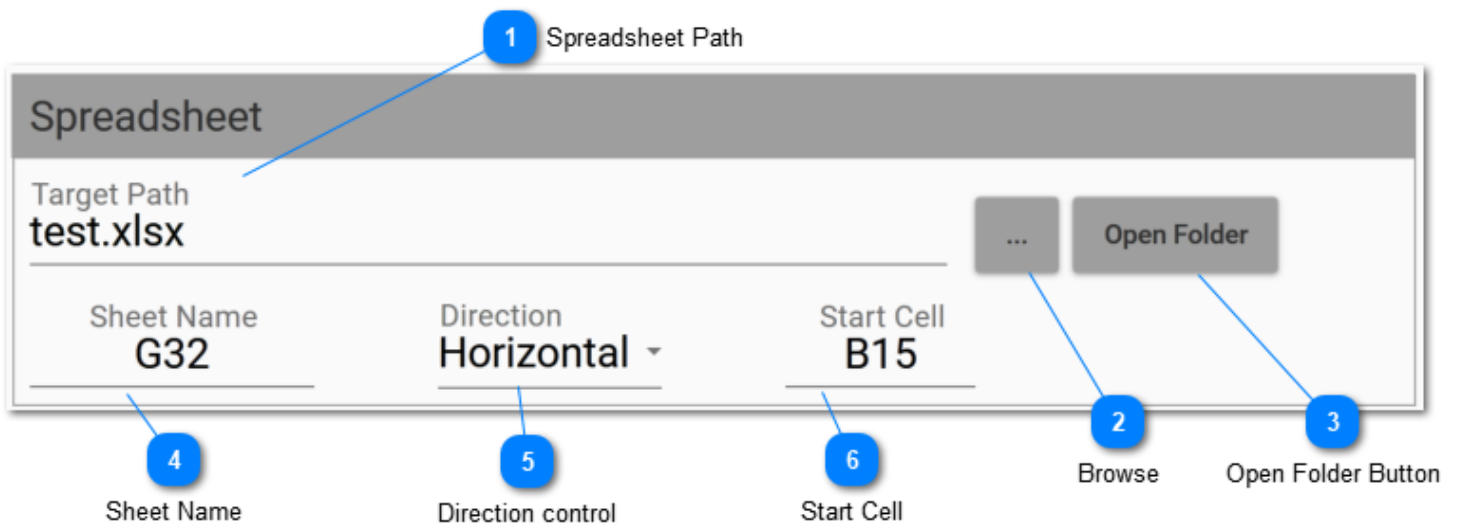


## Basic

The basic settings are all that are required for a simple scenario

## Spreadsheet

The Spreadsheet section is used to describe the target spreadsheet that will be created, or added to.



### 1 Spreadsheet Path



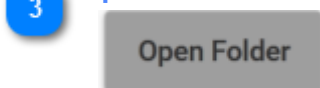
The path to the target spreadsheet. If an existing file is selected the variable range will be added to it, otherwise the file will be created.

### 2 Browse



Browse the path to a new or existing workbook file.

### 3 Open Folder Button



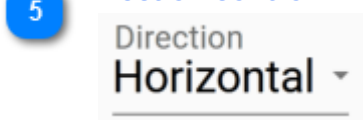
This will open the folder of the target file. This is useful if you want to quickly navigate to the target directory.

### 4 Sheet Name



The name of the sheet used to record the Variable Range Values. If the sheet does not exist it will be created. It is also possible to prompt the operator to enter the name of the sheet (see [Advanced Automation](#))

### 5 Direction control



Select which direction the series of variable values should be recorded.

6

### Start Cell

Start Cell  
**B15**

The cell to start with when recording the series of values from the common variables.

## Variables

The Variables section describes the range of variables to record and the variable to use as the Trigger.

The screenshot shows a 'Variables' section with three dropdown menus. The first dropdown is labeled 'Start' and has 'VC1' selected. The second dropdown is labeled 'End' and has 'VC2' selected. The third dropdown is labeled 'Trigger' and has 'VC5' selected. Below each dropdown is a blue circle with a white number: '1' under 'Start', '2' under 'End', and '3' under 'Trigger'. Lines connect these numbers to their respective dropdowns. Below the circles are the labels 'Start Variable', 'End Variable', and 'Trigger Variable'.

### 1 Start Variable

A close-up of the first dropdown menu. It shows the text 'Start' above 'VC1' and a small downward arrow on the right side.

This is the start of the range. It must be less than or equal to the End Variable.

### 2 End Variable

A close-up of the second dropdown menu. It shows the text 'End' above 'VC2' and a small downward arrow on the right side.

This is the end of the range. It must be greater than or equal to the Start Variable.

### 3 Trigger Variable

A close-up of the third dropdown menu. It shows the text 'Trigger' above 'VC5' and a small downward arrow on the right side.

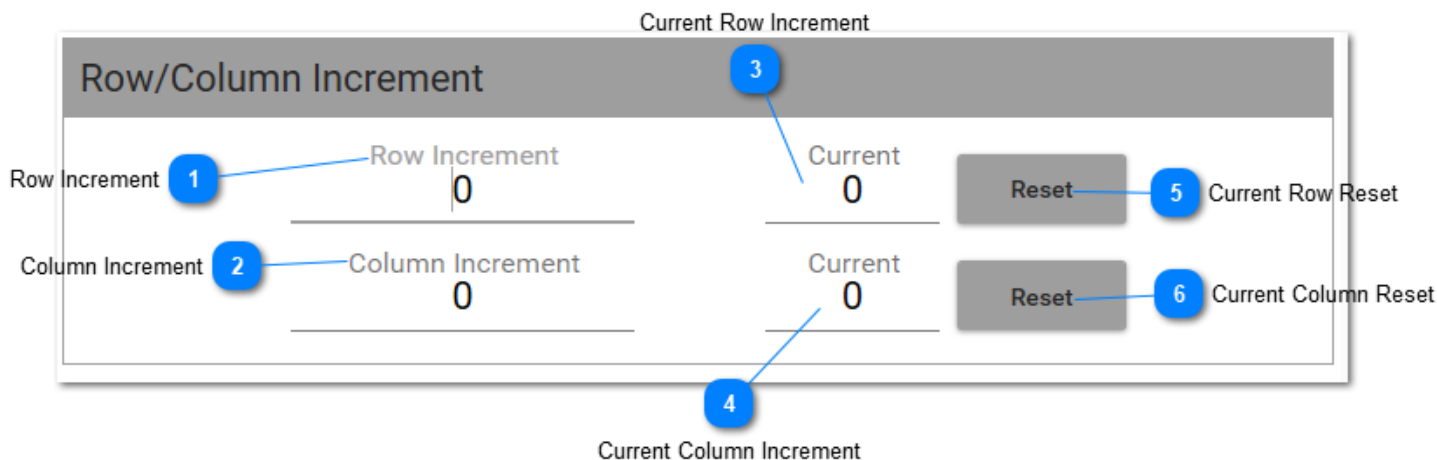
The trigger variable is the variable that when set to 100 will initiate the recording of the range to the spreadsheet. The trigger variable is also used for other functions in advanced scenarios (see [Advanced Automation](#))

## Advanced

The advanced section allows you to configure various settings which control the way the variable values are recorded in the spreadsheet.

## Row/Column Increment

The row/column increment settings will allow you to add a row or column of data to the current sheet every time the trigger value is set.



### 1 Row Increment

Row Increment  
0

The number of rows to increment at each successive trigger. Can also be set programmatically (see [Advanced Automation](#) )

### 2 Column Increment

Column Increment  
0

The number of Columns to increment at each successive trigger. Can also be set programmatically (see [Advanced Automation](#) )

### 3 Current Row Increment

Current  
0

The number of rows currently skipped.

### 4 Current Column Increment

Current  
0

The number of columns currently skipped

### 5 Current Row Reset

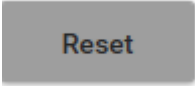
Reset

Reset the current row counter. Can also be reset programmatically (see [Advanced Automation](#) )



6

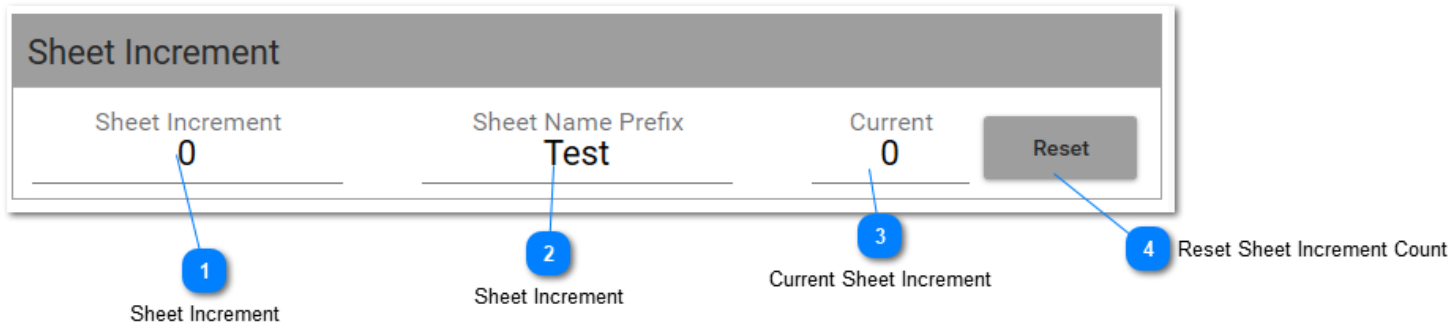
## Current Column Reset



Reset the current column counter. Can also be reset programmatically (see [Advanced Automation](#) )

## Sheet Increment

The sheet increment settings will allow you to generate a new sheet every time the trigger value is set.



### 1 Sheet Increment

Sheet Increment  
0

<TODO>: Insert description text here...

### 2 Sheet Increment

Sheet Name Prefix  
Test

Sets the text used to create the incremental sheets. For example if the Sheet Name Prefix is 'Test' and the Current Sheet Increment is 4 the next time the trigger variable is set a new sheet called 'Test4' will be created.

### 3 Current Sheet Increment

Current  
0

The current number added to the sheet name

### 4 Reset Sheet Increment Count

Reset

Resets the counter

## Sheet Template

If you specify the path to an existing workbook every time a sheet is created the first sheet of the specified template will be used to create the new sheet.

### Sheet Template

Template Path



## Advanced Automation

Setting specific values in the Trigger Variable will perform different actions

For example if you have a Variable Range Link that uses VC5 as the trigger variable you can:

Set VC5 = 100 is the default that will command the values to be written as programmed in the app. (this is the default mode).

Set VC5=-1 to reset the row increment (same as pushing [Row Counter Reset](#))

Set VC5 =-2 to reset the column increment (same as pushing [Column Counter Reset](#))

Set VC5 = -3 to reset the sheet increment (as as pushing [Sheet Increment Reset](#))

Set VC5 = 10x where x is the number of lines to skip before writing e.g. VC1=112 would skip 12 lines before writing the specified variable range

Set VC5 = 200 to prompt the operator to input the Sheet Name to write to (same as entering text in the [Sheet Name](#))

Set the sheet name of a link to 'Last' in order to write to the last sheet of the workbook

Target Path BSM-UNIV-00032-IPQC	...	Open Folder
Sheet Name Last	Direction Horizontal	Start Cell C9

Set the sheet name to 'First' to write to the first sheet of the workbook

Target Path BSM-UNIV-00032-IPQC	...	Open Folder
Sheet Name First	Direction Horizontal	Start Cell C9

## Simple Program Example

```
VC5 = -1 (RESET ROW INCREMENT)
(ADD VALUES TO VARS FOR TEST)
VC1=VC1+.01
VC2=VC2+.01
VC3=VC3+.01
VC4=VC4+.01
VC5=100 (SET TRIGGER)
M2
```

## Advanced Program Example

This program demonstrates the following automatable features:

Reset row increment counter (Trigger variable = -1)

Prompt operator for sheet name (Trigger Variable = 200)

print out a series of variables (using VC5 as a trigger)

skip 8 lines every 5 triggers (Trigger variable = 100 + number to skip)

```
(START WITH BLOCK SKIP ON TO LOOP)
(VC5 IS THE TRIGGER VAR)
VC5=-1 (CLEAR OUT THE ROW INC COUNTER)
CALL OSSN (PROMPT OPERATOR FOR SHEET NAME)
CALL OLAC (LOOK AHEAD CANCEL)
CNT = 0 (INIT COUNTER)
NLP10 (LOOP)
CALL OLAC
CNT=CNT+1
CALL OLAC
VC1=VC1+.01
VC2=VC2+.01
VC3=VC3+.01
VC4=VC4+.01
CALL OLAC
IF[CNT GT 5]NJMP10
CALL OSTGR (TRIGGER)
/GOTO NEND
GOTO NLP10
NJMP10
CALL OSTGR PS=8 (TRIGGER SKIP 8 LINES)
CNT=0 (RESET COUNTER)
/GOTO NEND
GOTO NLP10
NEND
M2
```

```
OSTGR
(SET TRIGGER)
(INPUT PS = SKIP)
CALL OLAC
VC5 = 100 + PS
G4 F1. (ALLOW TIME TO WRITE)
NLP10
CALL OLAC
IF[VC5 NE 0]NLP10 (LOOP TILL 0)
G4 F1.
RTS
```

```
OSSN
(SET SHEET NAME)
VC5=200
NLP10
CALL OLAC
```

```
IF[VC5 NE 0]NLP10 (LOOP TILL 0)  
G4 F1.  
RTS
```

```
OLAC  
(LOOK AHEAD CANCEL)  
VDOUT[14]=0  
PDMY=VDIN[1000]  
PDMY=VDIN[1000]  
RTS
```

26	318.36	1263.36	50.865	51.3852
27	318.37	1263.37	50.875	51.3952
28	318.38	1263.38	50.885	51.4052
29	318.39	1263.39	50.895	51.4152
30	318.4	1263.4	50.905	51.4252
31				
32				
33				
34				
35				
36				
37				
38				
39	318.41	1263.41	50.915	51.4352
40	318.42	1263.42	50.925	51.4452
41	318.43	1263.43	50.935	51.4552
42	318.44	1263.44	50.945	51.4652
43	318.45	1263.45	50.955	51.4752
44	318.46	1263.46	50.965	51.4852
45				
46				
47				
48				
49				
50				
51				
52				
53	318.47	1263.47	50.975	51.4952
54	318.48	1263.48	50.985	51.5052



## Advance Program Example 2

The following example will write 4 ranges of variables to a sheet and then increment to the next sheet the next time it run.

### Link 1

Link 1 is setup to write the first series of 3 variables 800-802 to the workbook. The sheet increment is set to 1 so every time the trigger is set to 100 a new sheet will be created and Variables 800-802 will be written horizontally starting at C3.

#### Basic

VARIABLE EXPORT V1.6.1.0

Links

- V800-V802
- V803-V805
- V806-V808
- V809-V811

Basic Advanced

Spreadsheet

Target Path  
BSM-UNIV-00032-IPQC

Sheet Name  
BSM1

Direction  
Horizontal

Start Cell  
C3

Variable Range

Start  
V800

End  
V802

Trigger  
V700

Add Remove Save

#### Advanced

VARIABLE EXPORT V1.6.1.0

Links

- V800-V802
- V803-V805
- V806-V808
- V809-V811

Basic Advanced

Row/Column Increment

Row Increment  
0

Column Increment  
0

Current  
0

Current  
0

Reset

Reset

Sheet Increment

Sheet Increment  
1

Sheet Name Prefix  
BSM

Current  
2

Reset

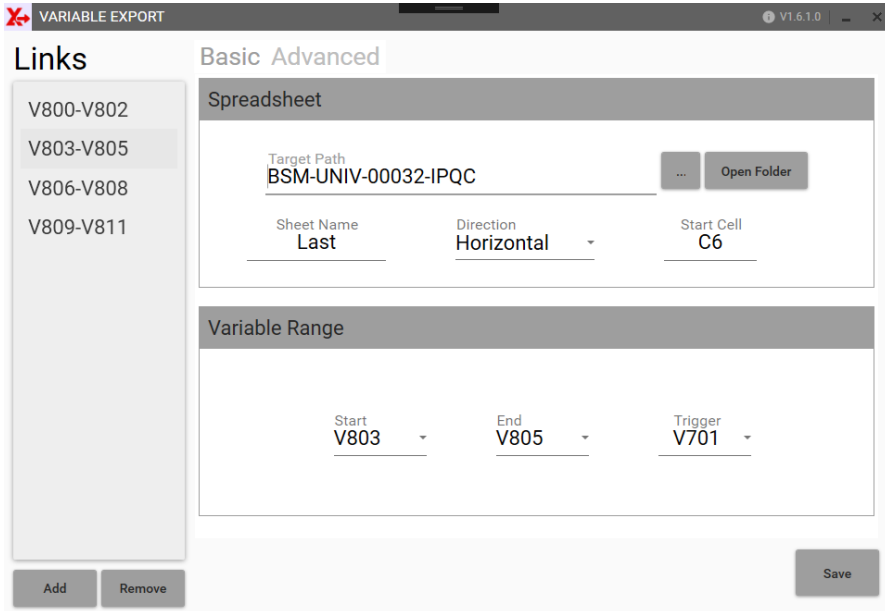
Sheet Template

Template Path  
Template.xlsx

Add Remove Save

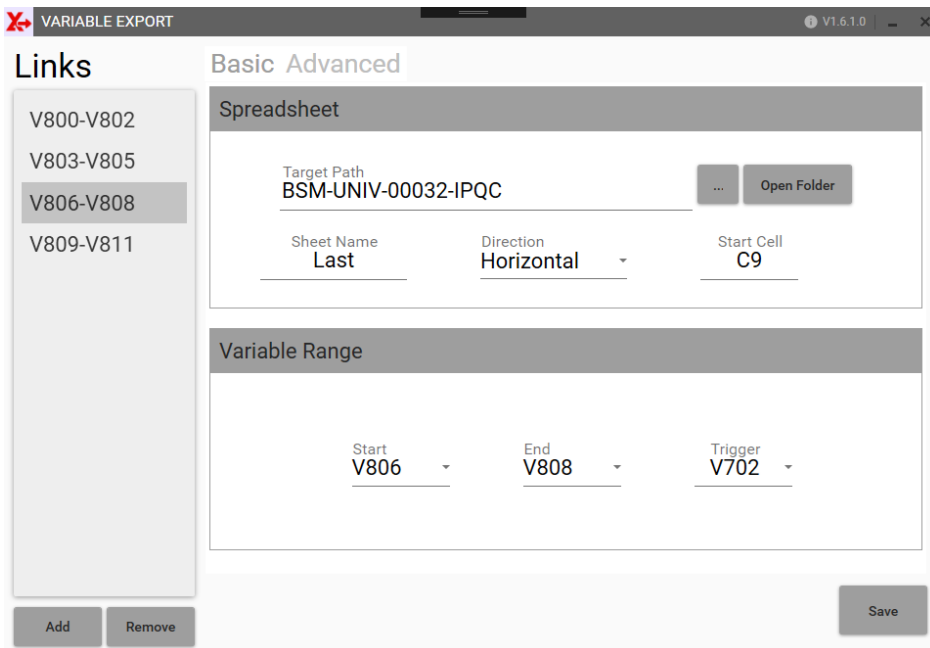
### Link 2

Link 2 is set to record variables 803-805 to the last sheet of the workbook starting at cell C6. Link 2 is triggered with V701



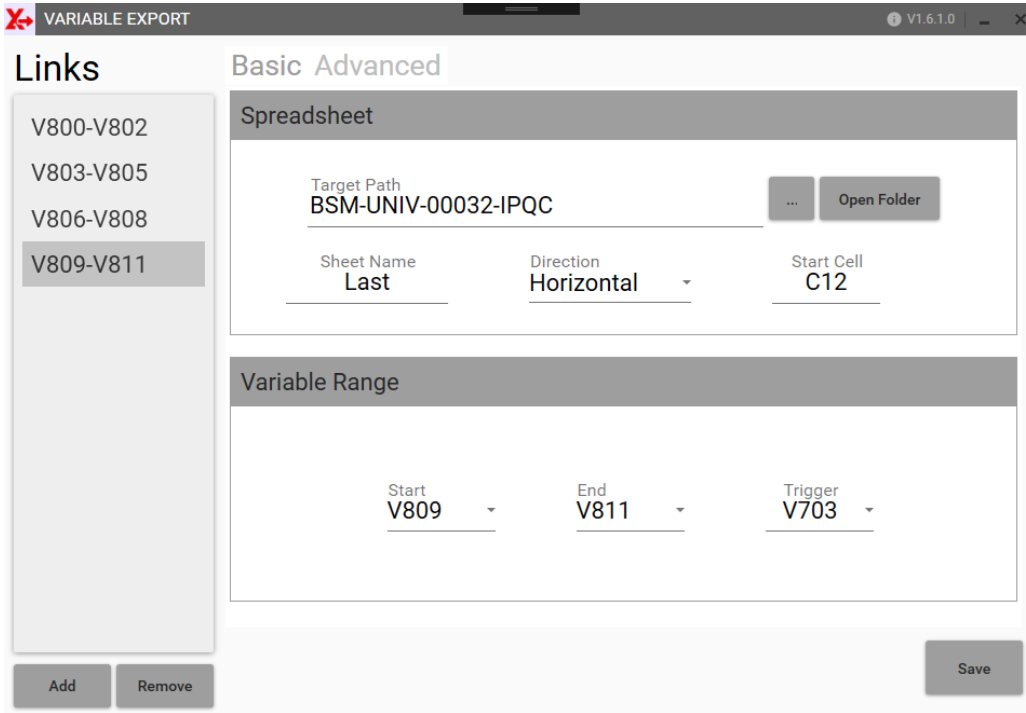
### Link 3

Link 3 is set to record variables 806 to 808 to the last sheet of the workbook starting at cell C9. It uses V702 as the trigger



### Link 4

Link 4 is set to record variable 809 to 811 to the last sheet of the workbook starting at cell C12



The program used to generate the workbook looks like this:

G13  
G140

(LINK 1)  
V800=2.3120 (ACTUAL PRINT DIMENSION)  
V801=V138 (ACTUAL MEASURED DIMENSION)  
V802=V143 (DEVIATION)  
V700=100 (CREATE SHEET AND WRITE FIRST 3 POINTS)  
M1

(LINK 2)  
V803=1.310 (ACTUAL PRINT DIMENSION)  
V804=V138 (ACTUAL MEASURED DIMENSION)  
V805=V143 (DEVIATION)  
V701=100 (WRITE NEXT 3 TO LAST SHEET)  
M1

(LINK 3)  
V806=1.072 (ACTUAL PRINT DIMENSION)  
V807=V137 (ACTUAL MEASURED DIMENSION)  
V808=V142 (DEVIATION)  
V702=100 (WRITE NEXT 3 TO LAST SHEET)  
M1

(LINK 4)  
V809=2.480 (ACTUAL PRINT DIMENSION)  
V810=V138 (ACTUAL MEASURED DIMENSION)  
V811=V143 (DEVIATION)  
V703=100 (WRITE LAST 3 POINTS TO LAST SHEET)  
G14  
M30

After running the program 2 times the output workbook looks like this:

Clipboard Font Alignment Number Styles							
A1 FEATURE#							
A	B	C	D	E	F	G	H
FEATURE#		NOMINAL (V800)	ACTUAL (V801)	DEVIATION (V802)		DESCRIPTION	PART NUMER
1		2.312	2.31	0.002			BSM-UNIV-00032
2							
3	1	2.312	2.31	0.002			
4							
5							
6	2	1.31	1.313	0.999			
7							
8							
9	3	1.072	1.05	0.999			
10							
11							
12	4	2.48	2.5	-0.188			
13							
14							
15	5						
16							
17							
18	6						
19							
20							
21	7						
22							
23							
24	8						
25							
26							
27	9						
28							
29							
30	10						
31							
32							
33	11						
34							
35							
36	12						
37							
38							
39	13						
40							
41							
42	14						

## Configuration

The configuration file for the application is stored @ D:\AppData\Gosiger\Go.VariableExport\Config. The configuration file for the defined variable ranges is located @ D:\AppData\Gosiger\Go.VariableExport\VariableRanges.json. Both of these file are portable and can be used to match configuration between machines.