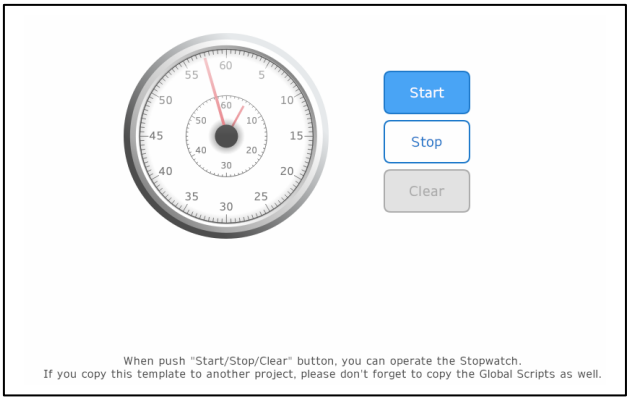
Sample Templates Document: GPC_Stopwatch01.blu



All pertinent state, regional, and local safety regulations must be observed when installing and using this product. For reasons of safety and to help ensure compliance with documented system data, only the manufacturer should perform repairs to components.

When devices are used for applications with technical safety requirements, the relevant instructions must be followed.

Failure to use Schneider Electric software or approved software with our hardware products may result in injury, harm, or improper operating results.
Failure to observe this information can result in injury or equipment damage.

Safety Information

Important Information

NOTICE

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of this symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result** in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

PLEASE NOTE

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and its installation, and has received safety training to recognize and avoid the hazards involved.

About the Book

At a Glance

Document Scope

This manual describes how to use this product.

Validity Note

This documentation is valid for this product.
The technical characteristics of the device(s) described in this manual also appear online at *http://www.pro-face.com*.

The characteristics presented in the present document should be the same as those that appear online. In line with our policy of constant improvement we may revise content over time to improve clarity and accuracy. In the event that you see a difference between the document and online information, use the online information as your reference.

Registered Trademarks

Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries.

Product names used in this manual may be the registered trademarks owned by the respective proprietors.

Related Documents

You can download the manuals related to this product, such as the software manual, from our support site at *http://www.pro-face.com/trans/en/manual/1001.html*.

Product Related Information

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

In the event this product does not run properly due to whatever reason, it may be difficult or impossible to identify a function. Functions that may present a hazard if not immediately executed, such as a fuel shut-off, must be provided independently of this product. The machine's control system design must take into account the operator being unable to control the machine or making mistakes in the control of the machine.

⚠ WARNING

UNINTENDED EQUIPMENT OPERATION

The application of this product requires expertise in the design and programming of control systems. Only persons with such expertise should be allowed to program, install, alter, and apply this product.

- Follow all local and national safety standards.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

For additional information, refer to NEMA ICS 1.1 (latest edition), "Safety Guidelines for the Application, Installation, and Maintenance of Solid State Control" and to NEMA ICS 7.1 (latest edition), "Safety Standards for Construction and Guide for Selection, Installation and Operation of Adjustable-Speed Drive Systems" or their equivalent governing your particular location.

Table of Content

Target: ST-6500WAD
Driver: None
BLUE version 3.3 or later

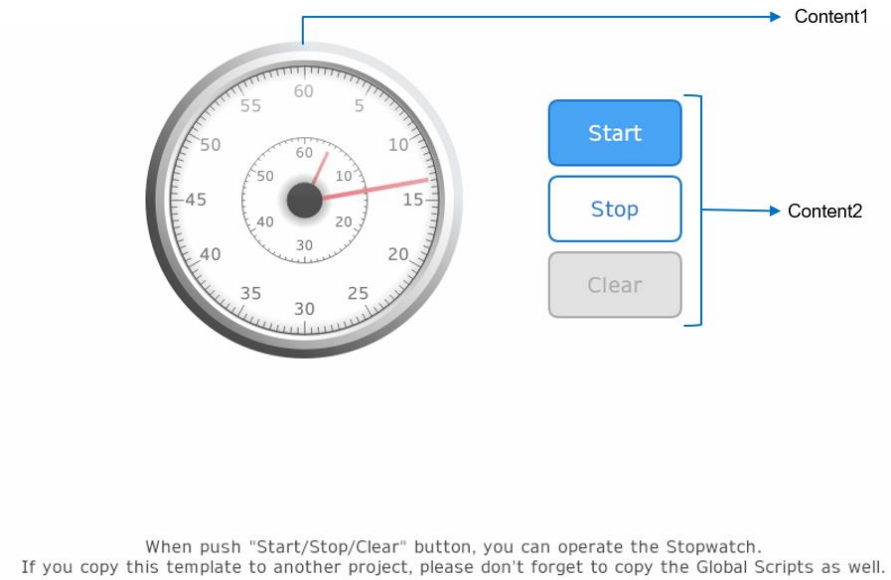
Template Overview

This template has stopwatch with display range from 0seconds to 60minutes with Start, Stop and Clear buttons.

Project structure

- On Combination_Demo screen, 2 Content displays are placed. One content display for Stopwatch Gauge (Content607) and other content display for Stopwatch switch (Content608) are called in Combination_Demo screen.

Screen			
Combination_Demo	ContentsDisplay1 (Contents ID: 607)	GPC_Stopwatch01_Gauge	Stopwatch Gauge
	ContentsDisplay2 (Contents ID: 608)	GPC_Stopwatch01_Switch	Stopwatch Switch



Run Time Behavior

Runtime/Simulation of this template displays a Stopwatch (with display range from 0seconds to 60minutes) with Start, Stop and Clear buttons.

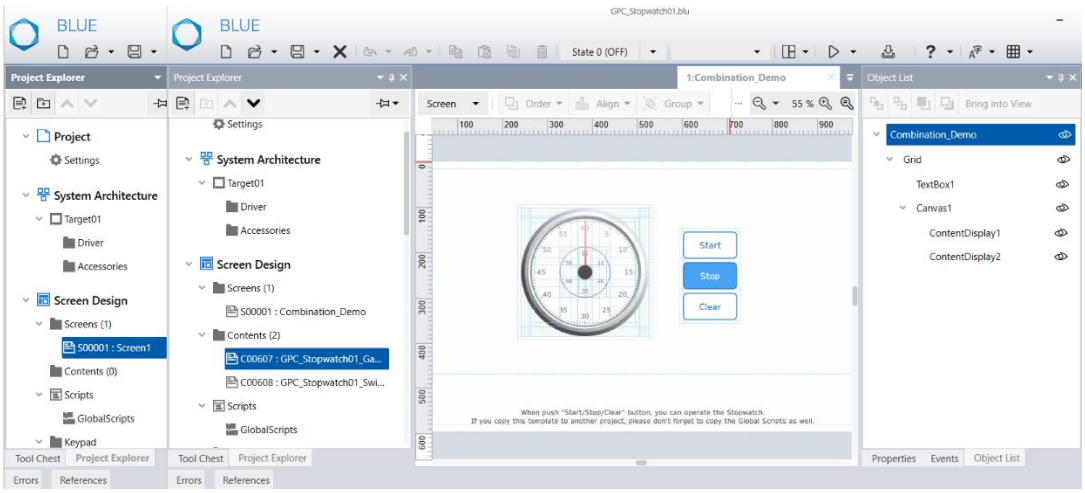
Click on Start button to start the stopwatch.

Click on Stop button to stop the stopwatch.

Click on Clear button to reset the stopwatch.

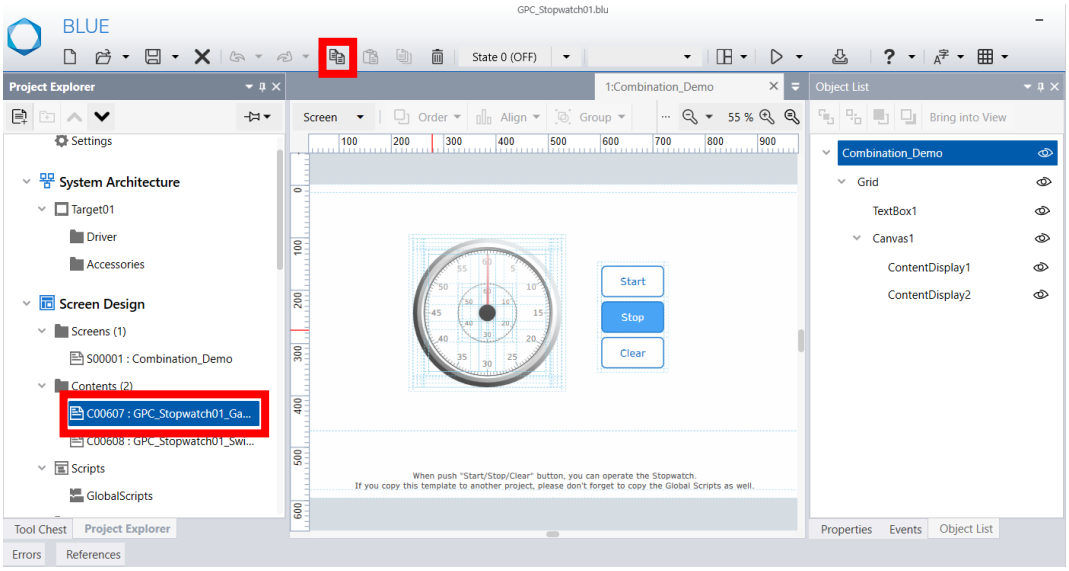
How to copy the objects to your project file

1. Open your project file and downloaded project file simultaneously.



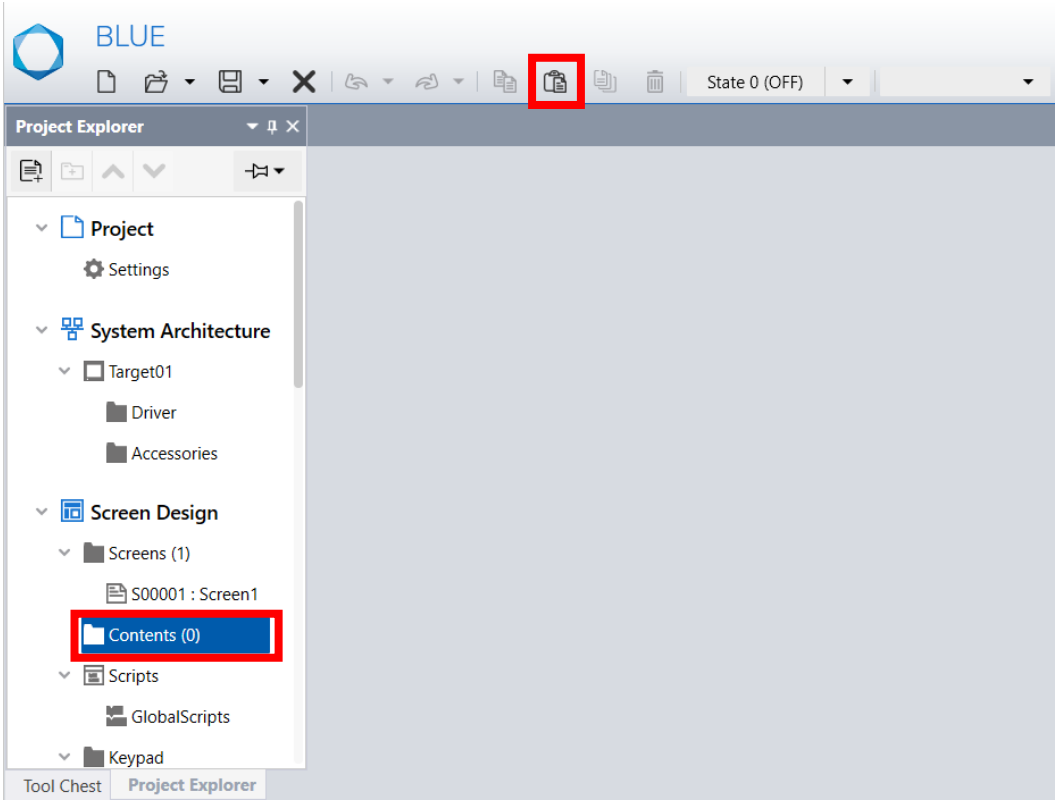
2. Open the downloaded project file.

   Click the Content:C00607 from “Contents” and copy the content using  copy icon from the global Toolbar.



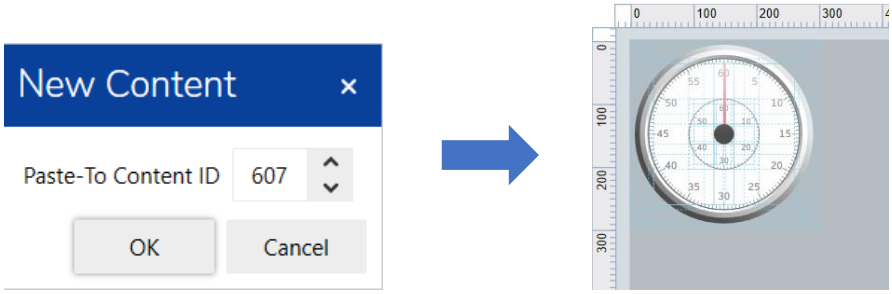
3. Open your project file.

   Click “Contents” and then click on the paste icon from the global Toolbar.

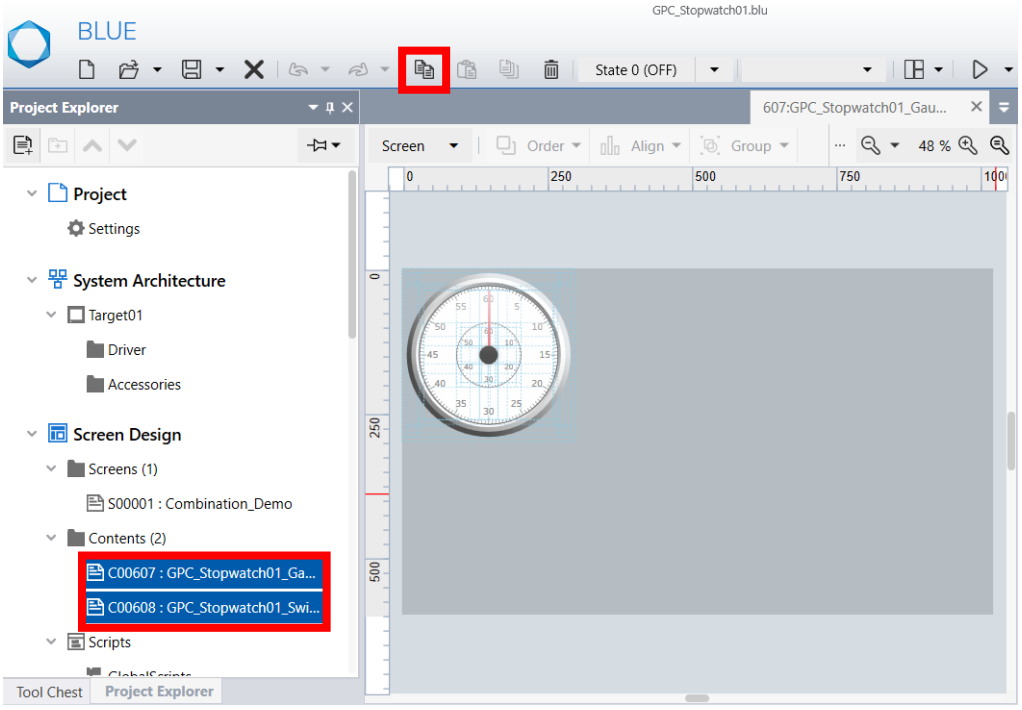


4. Select desired content ID and click “OK”.

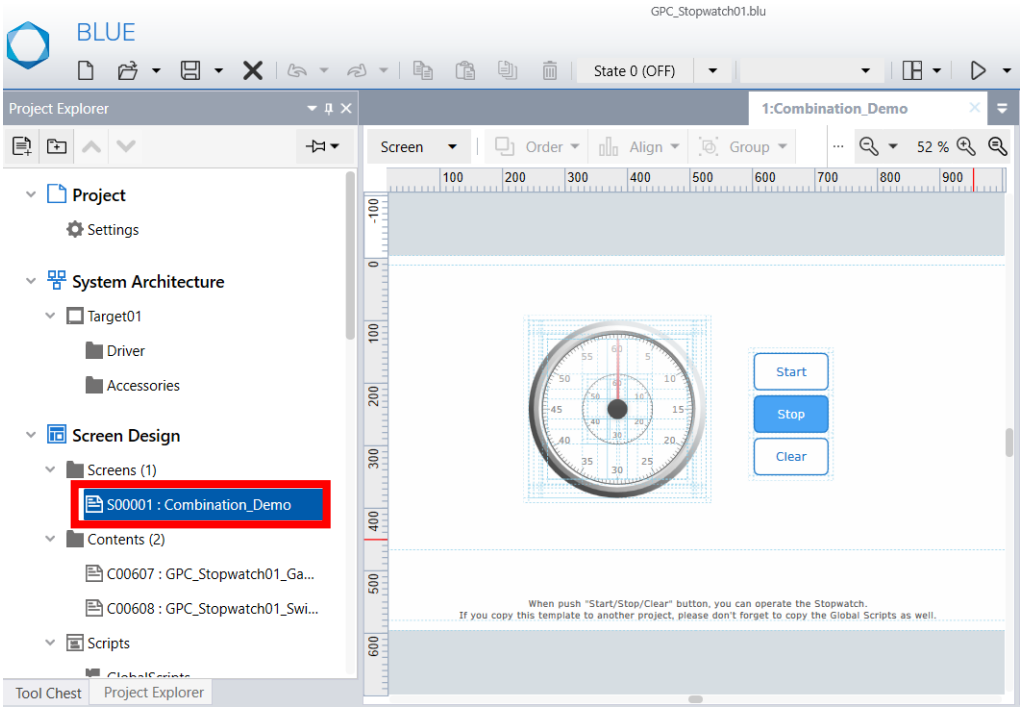
   Result: Copied content is successfully pasted in your project.



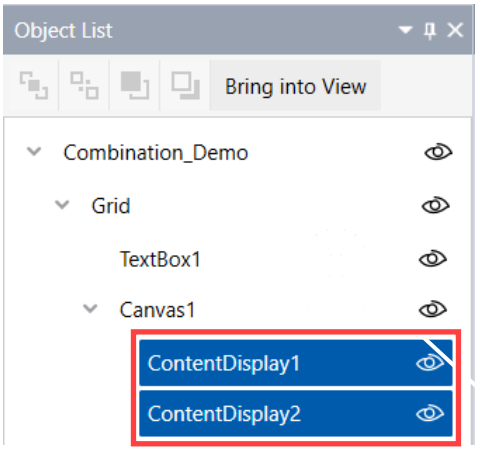
5. Repeat Step 2, 3 & 4, to copy the content for Stopwatch switch (Content:C00608).
Note: You can also copy both Stopwatch Gauge and switch content at a time and paste in your project.



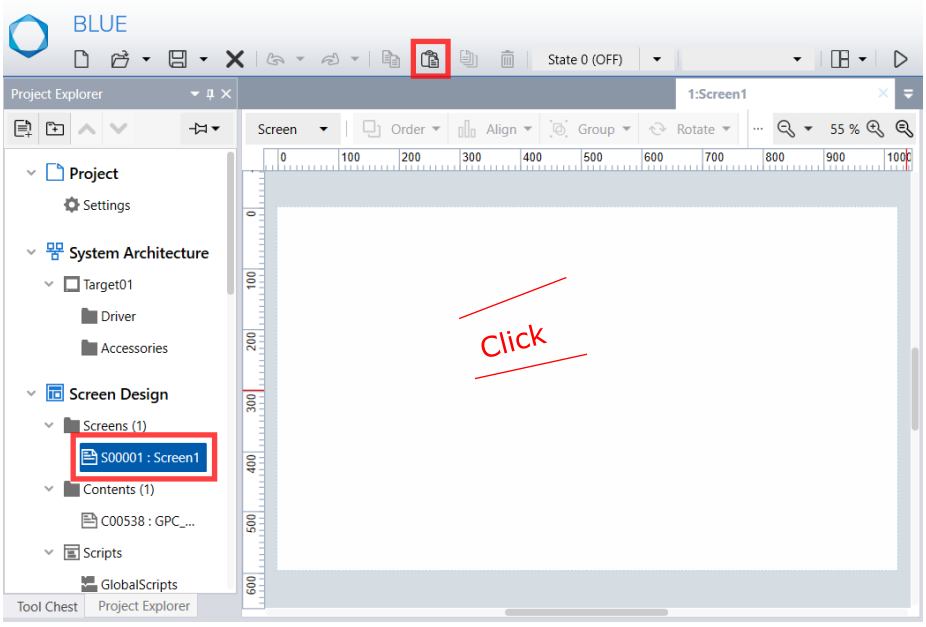
6. Open the downloaded project file and select the Combination_Demo Screen.



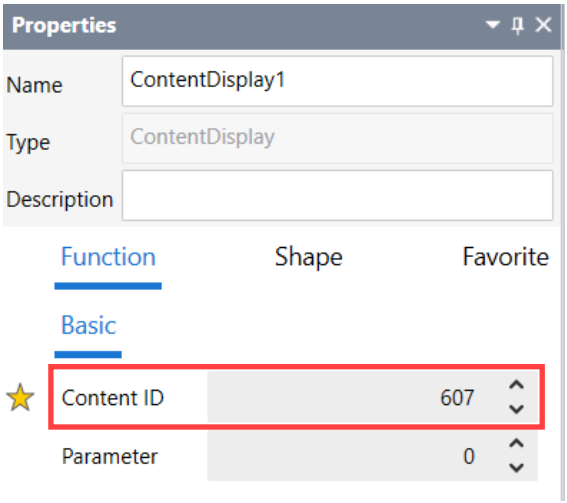
7. In Object List, select the ContentDisplay1 and ContentDisplay2 and click the copy icon from the global Toolbar.



8. Open your project file, Select the screen that you want to paste it.
Click on the screen area and then paste it using the paste icon from the global Toolbar.



9. In Object List, Select ContentDisplay1.
   In Properties tab, Select the Content ID of Stopwatch Gauge (GPC_Stopwatch01_Gauge).

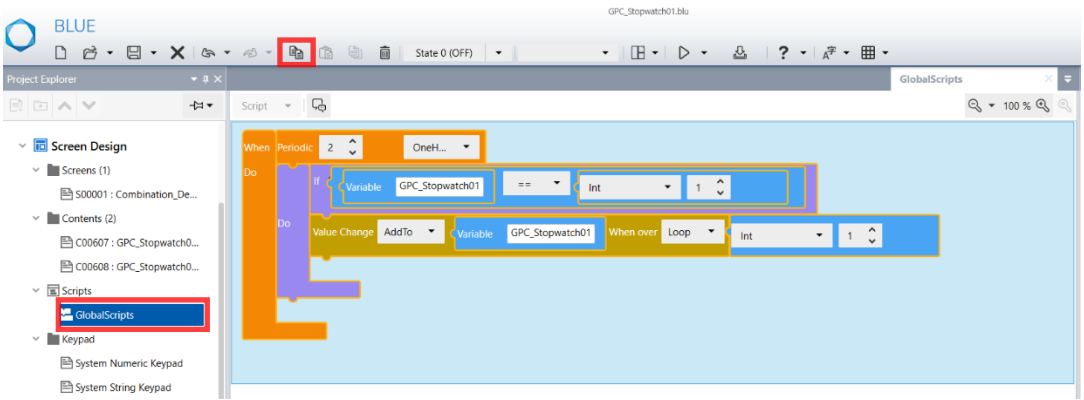


   Note: You can skip this step, if Content ID of copied stopwatch gauge (GPC_Stopwatch01_Gauge) is same as downloaded project file.

10. Repeat the above step (9) for ContentDisplay2 (with Stopwatch switch content).

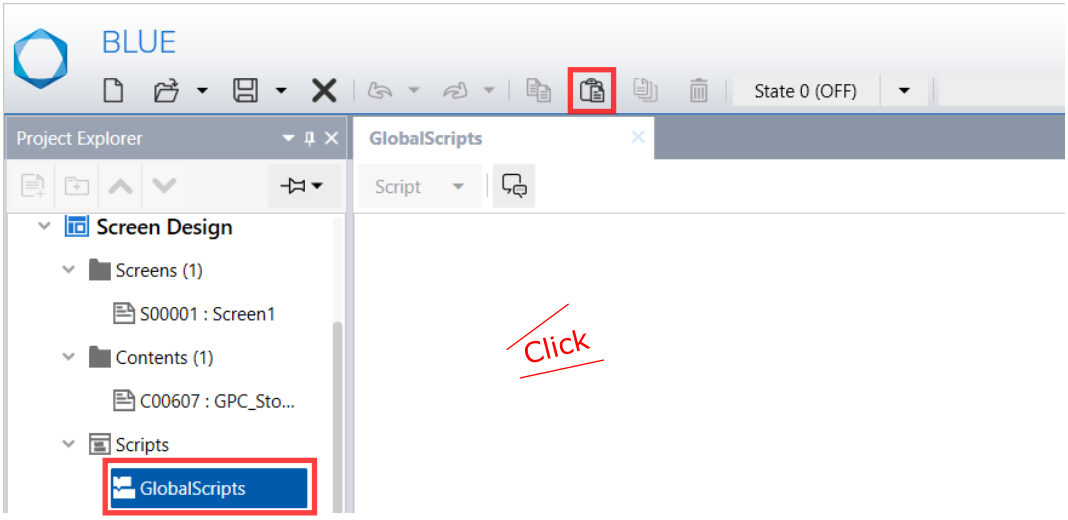
11. You can resize the Stopwatch. For more details, refer [How to Resize Stopwatch.]

12. Open the downloaded project file.
    Click the “GlobalScripts” and select the displayed script and copy it using icon from the global Toolbar.

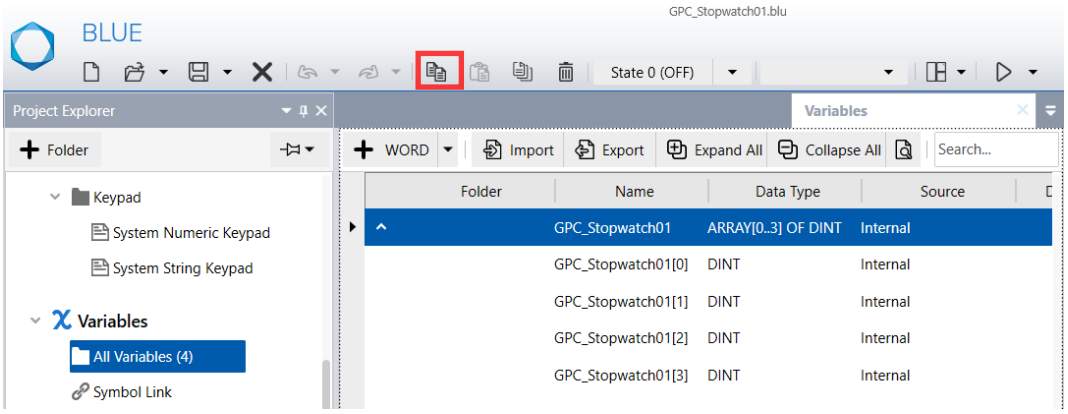


13. Open your project file.

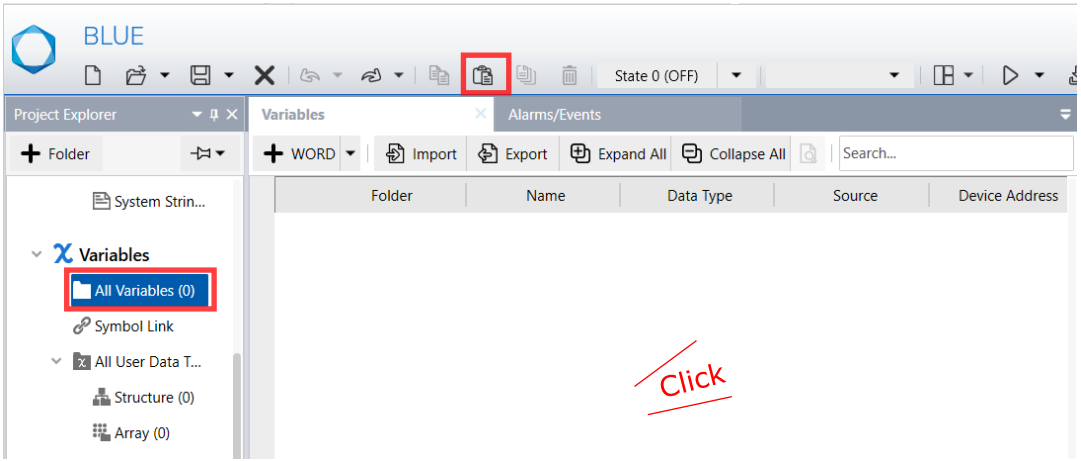
    In the Globalscripts, select existing script or a blank script screen and click paste icon from the global Toolbar.



14. Open downloaded project file and select “All variables”. Select the displayed variables and click the copy icon from global Toolbar.

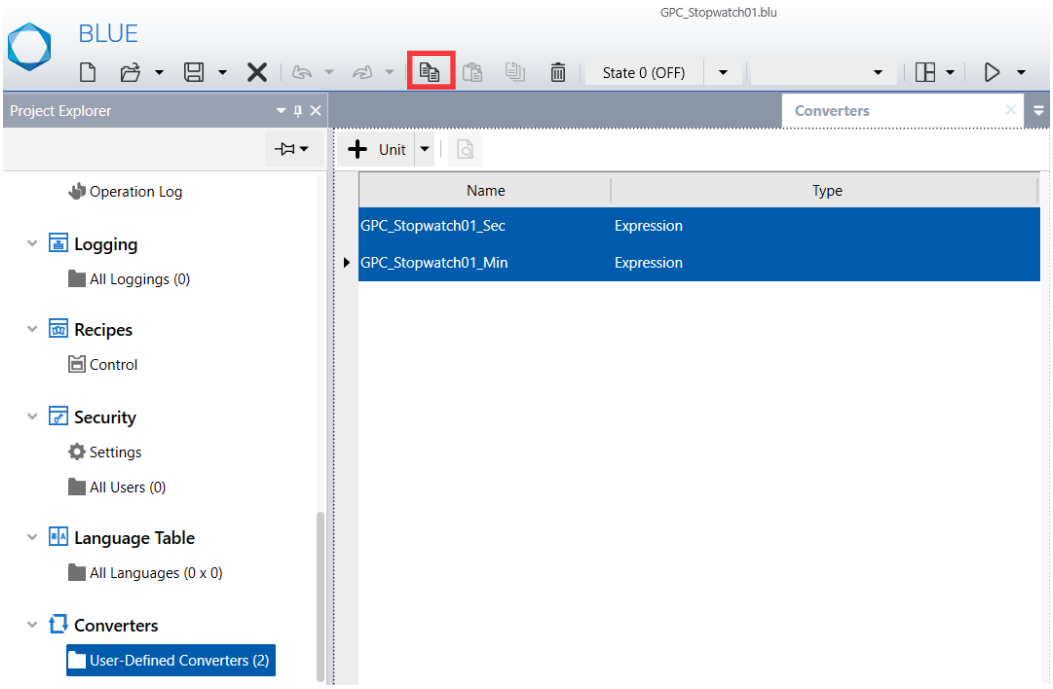


15. Open your project file and select “All variables”.
    Click an existing variable or a blank Variable screen and click paste icon from the global Toolbar.

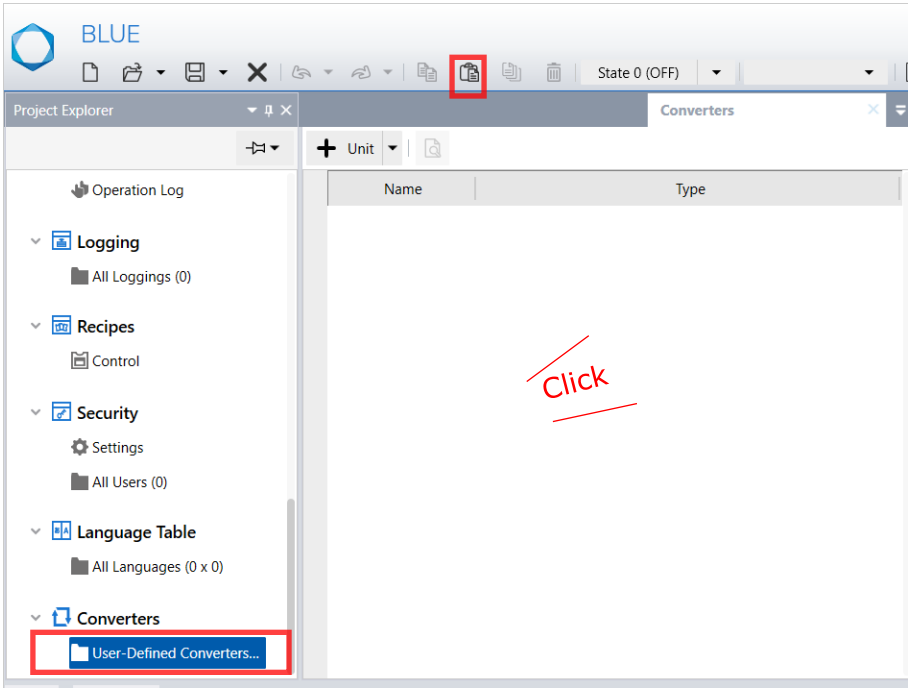


Note: You can also create your own variables. For more details, refer [How to change Stopwatch Variables.]

16. Open the downloaded project file, select “User-Defined Converters”.
    Select the displayed converters and click the copy icon from the global Toolbar.



17. Open your project file, select “User-Defined Converters”.
    Click on the Converter screen and click paste icon from the global Toolbar.



How to Change Stopwatch Variables

When you replace default variable with other variable, make sure their input range and value bindings are same as source. They are as below:

Table1

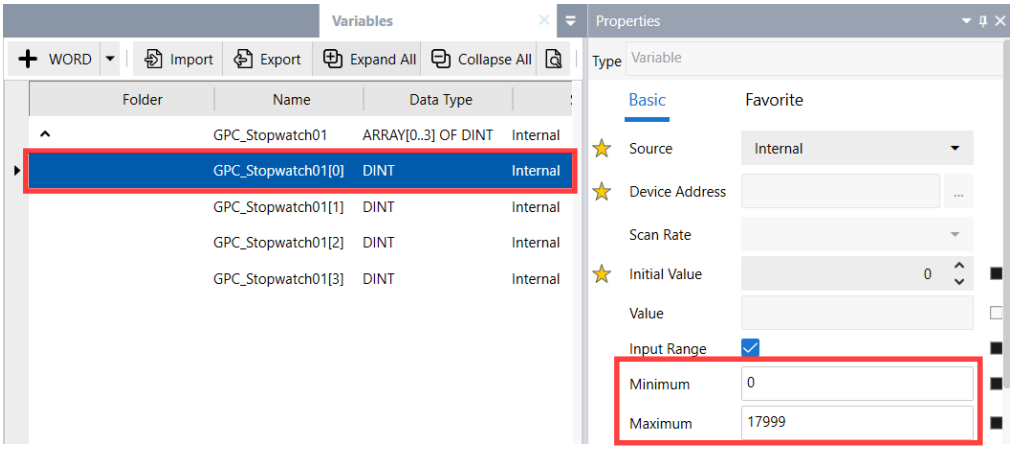
Purpose	Variable	Input Range	Value binding
For Angle calculation	GPC_Stopwatch01[0]	0 to 17999	-
Seconds	GPC_Stopwatch01 [1]	-	Variable: GPC_Stopwatch01[0] Converter: GPC_Stopwatch01_Sec
Minutes	GPC_Stopwatch01 [2]	-	Variable: GPC_Stopwatch01[0] Converter: GPC_Stopwatch01_Min
For Start/Stop	GPC_Stopwatch01[3]	-	-

Follow below steps for Variable binding,

1. Open your project file and select “All variables”.

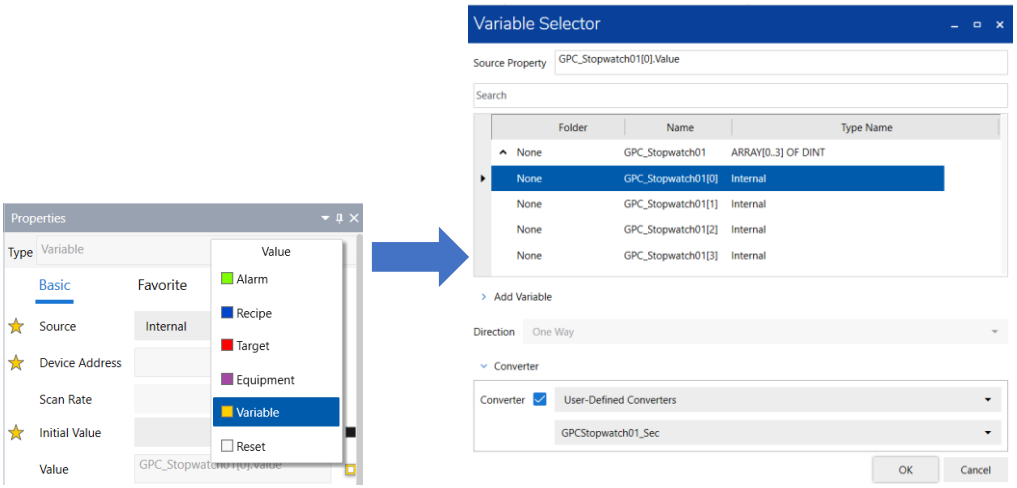
2. Select the variable used for angle calculation (GPC_Stopwatch01[0]).

3. In Properties, select **Basic** > **Input Range > Minimum (& Maximum)** and edit the range as 0 to 17999.



4. Select the variable used for seconds needle rotation (GPC_Stopwatch01[1]).

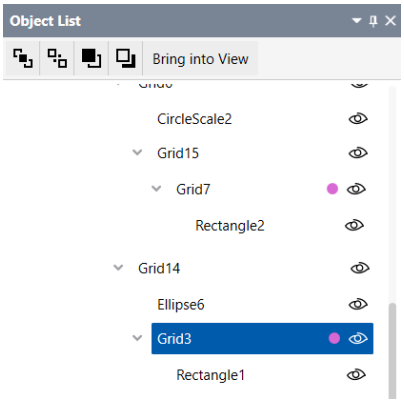
5. In Properties, select **Basic** > **Value** and select the variable and converter used for angle calculation from variable selector.



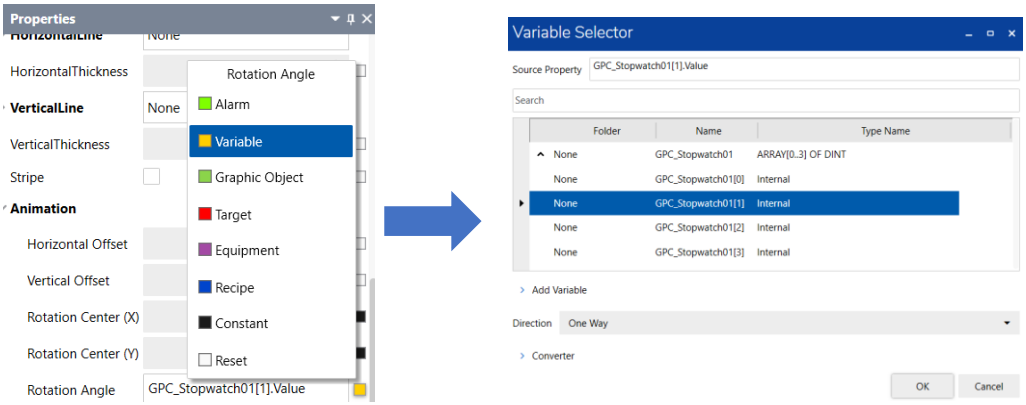
6. Repeat Step 4 & 5 for minutes variable (GPC_Stopwatch01[2] as per the detail provided in Table1.

Follow below steps for Object & Script Variable binding,

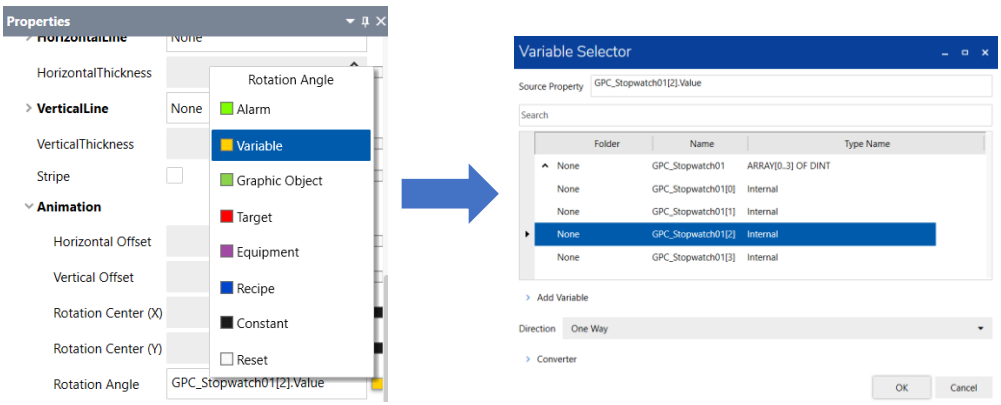
1. Open your project, in Stopwatch gauge content (GPC_Stopwatch01_Gauge), click on Object List and select Grid3.



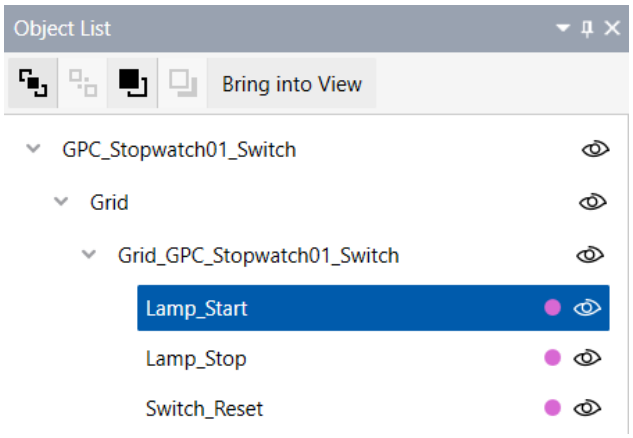
2. In Properties tab, select **Basic** > **Animation** > **Rotation Angle** and select the desired variable used for seconds from variable selector.



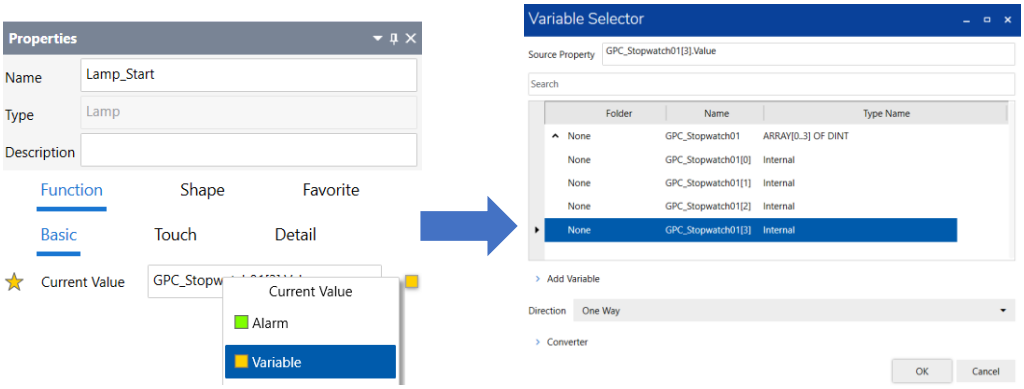
3. Repeat above step for Grid7 with Minutes variable.



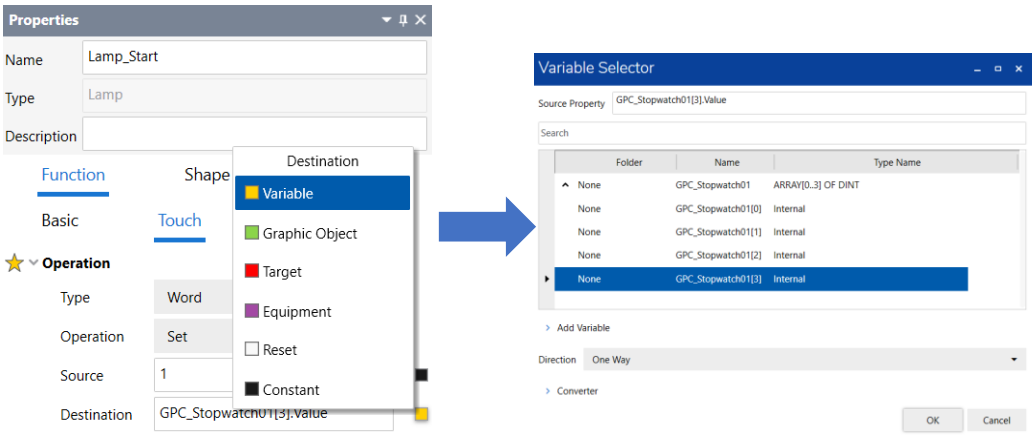
4. Select Stopwatch switch content (GPC_Stopwatch01_Switch), click on Object List and select Lamp_Start.



5. In Properties tab, select **Function** > **Basic** > **Current Value** and select variable used for start/stop from variable selector.

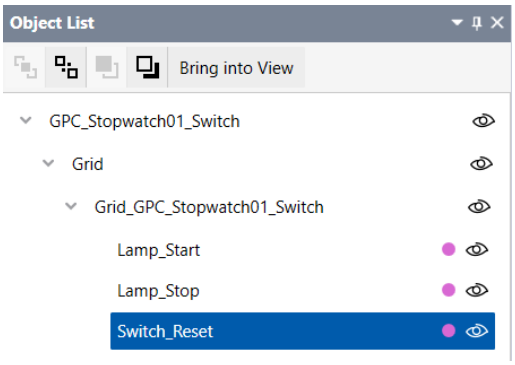


6. In Properties tab, select **Function** > **Touch** > **Operation** > **Destination** and select variable used for start/stop from variable selector.

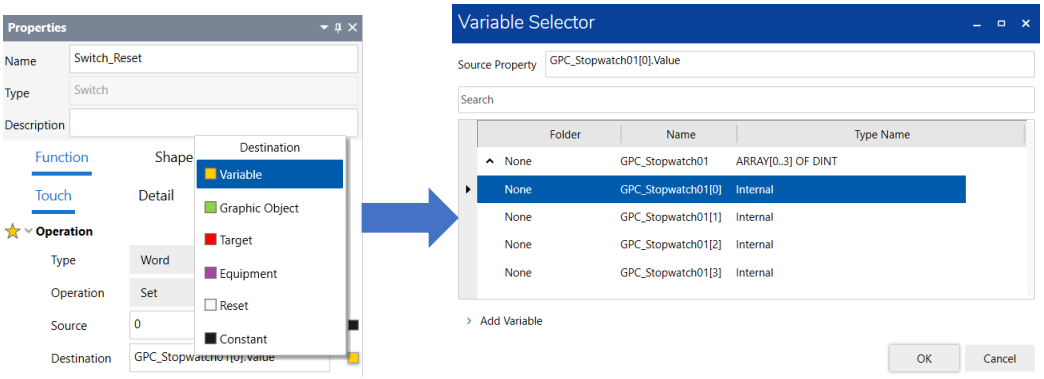


7. Repeat above step for Lamp_Stop.

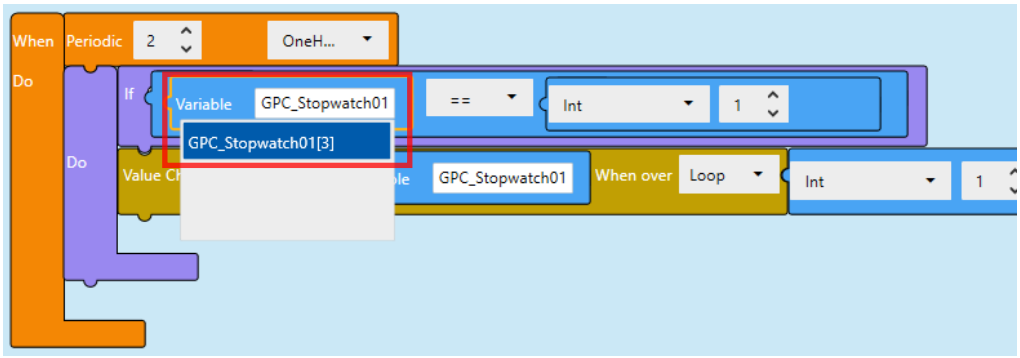
8. Select Switch_Reset.



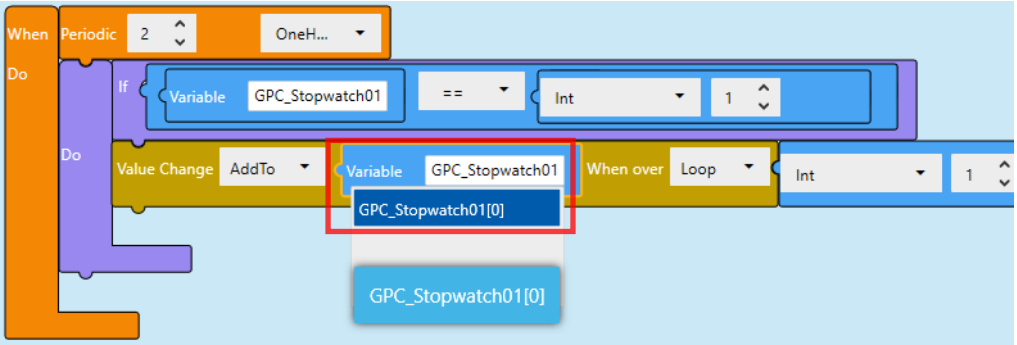
9. In Properties tab, select **Function** > **Touch** > **Operation** > **Destination** and select variable used for angle calculation (GPC_Stopwatch01[0]) from variable selector.



10. In GlobalScripts, select the variable used for start/stop in If condition.



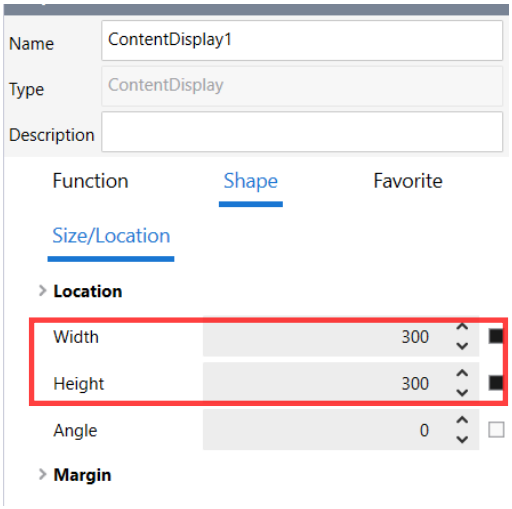
11. Select the variable used for total in Value Change condition.



How to Resize Stopwatch

1. Select Screen (where stopwatch is placed) and then select the ContentDisplay1.

2. In properties tab, change the value of Width and Height.

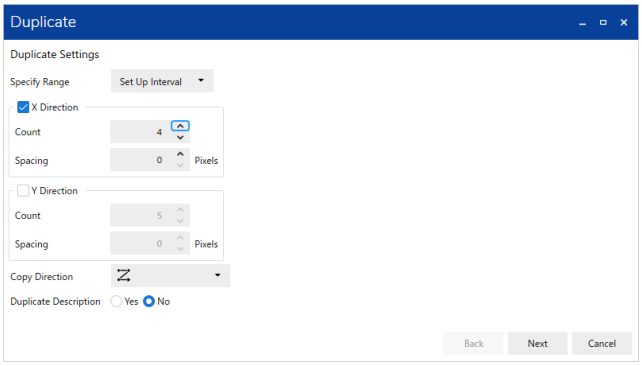


3. Repeat above step for ContentDisplay2.
   Note:
   1. Set same value of width and height for gauge to maintain the shape.
   2. Modify the font size of gauge & switch text in contents to fit as per the new size change.

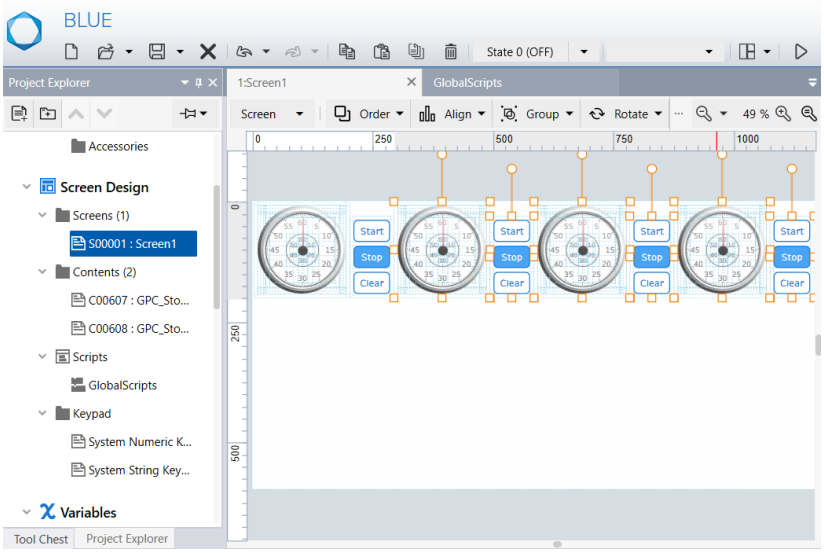
How to Duplicate Stopwatch

1. In screen, select the ContentDispay1 and ContentDisplay2 and click the duplicate icon.
   Result: Duplicate window appears

2. Select all desired fields (direction to copy, the number, increment source property ….) and click “Duplicate”



Result: The ContentDispay1 and ContentDisplay2 are duplicated.



Note:

Duplicate feature can be used, only if common variable/converter is used.

To use an independent stopwatch object, repeat the below steps,

- Rename the Variable and converter of first stopwatch object.
- Execute Copying of stopwatch Object again from template project. For more details, refer How to copy the objects to your project file.