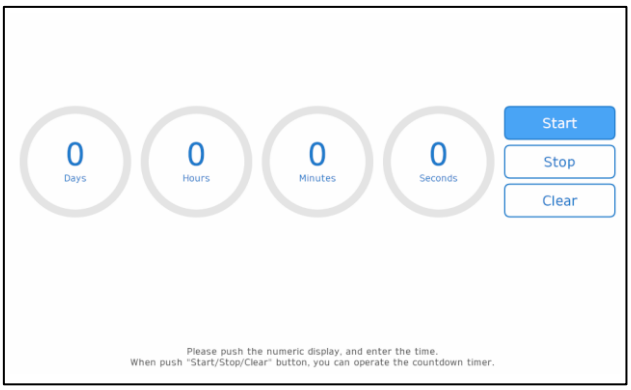
Sample Templates Document: GPS_Countdown_Timer01.blu



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 3.2 SP1 or later

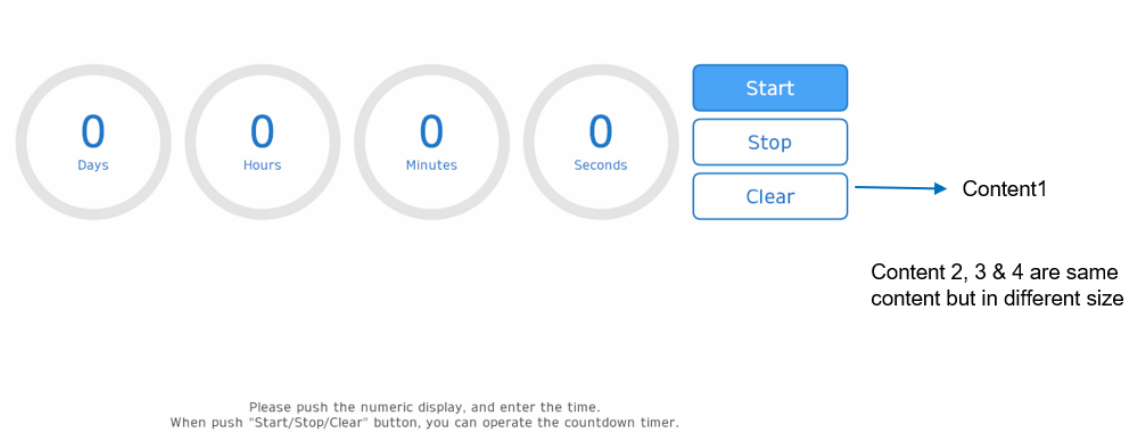
Template Overview

This template has Countdown Timer of different time units with Start, Stop and Clear buttons, for 4 different sizes.

Project structure

- On Simple_Demo screen, 1 Content display is placed and a content (GPS_Countdown_Timer01_U) is called in Simple_Demo screen.

Screen			
Simple_Demo	ContentsDisplay1 (Contents ID: 1)	GPS_Countdown_Timer01_U	Ultra size
	(Contents ID: 2)	GPS_Countdown_Timer01_L	Large size
	(Contents ID: 3)	GPS_Countdown_Timer01_M	Medium size
	(Contents ID: 4)	GPS_Countdown_Timer01_S	Small size



Run Time Behavior

Runtime/Simulation of this template displays a Countdown Timer of different time units (Days, Hour, Minutes and Seconds) with Start, Stop and Clear buttons.

Click on Days/Hours/Minutes/Seconds to enter the time.

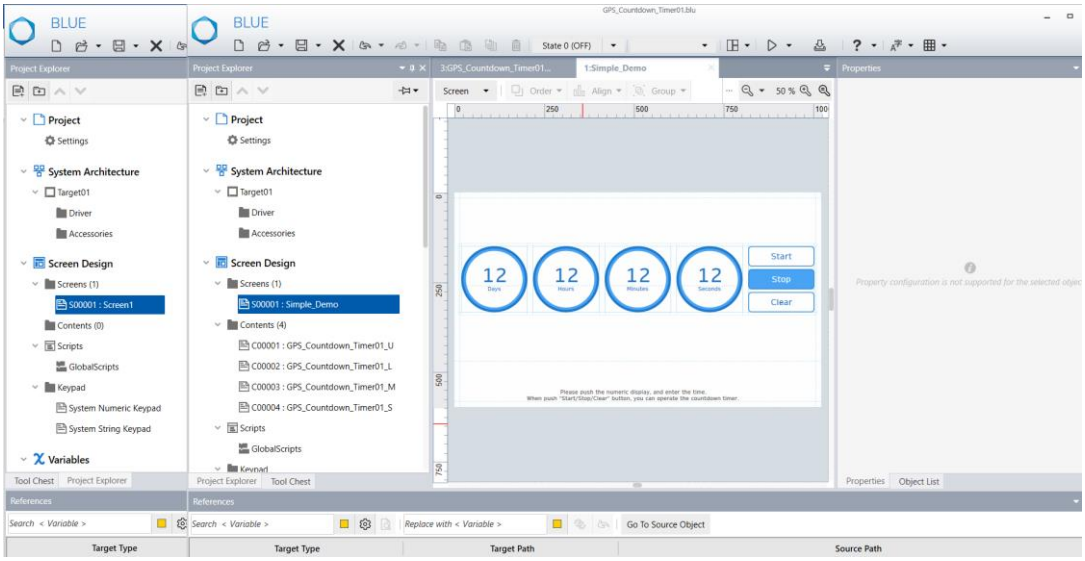
Click on Start button to start the countdown timer.

Click on Stop button to stop the countdown timer.

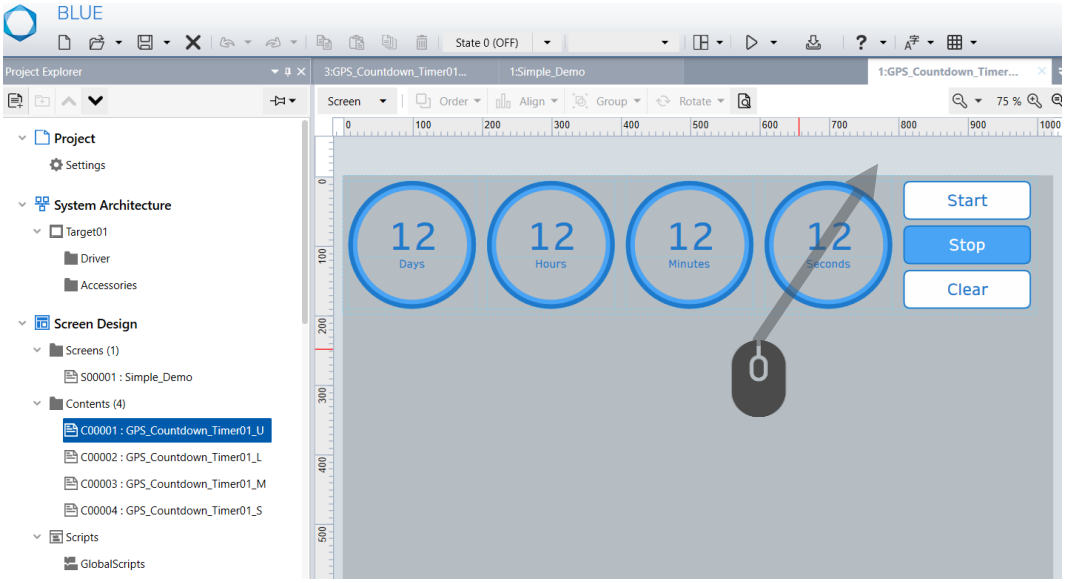
Click on Clear button to clear the value entered.

How to copy the objects to your project file

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

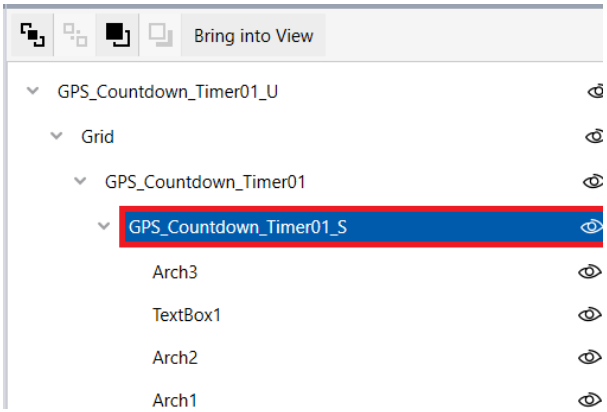


2. Open the downloaded project file and select the Grid object.
   - Click the desired Content from “Contents” and select desired Grid parts by dragging the mouse.



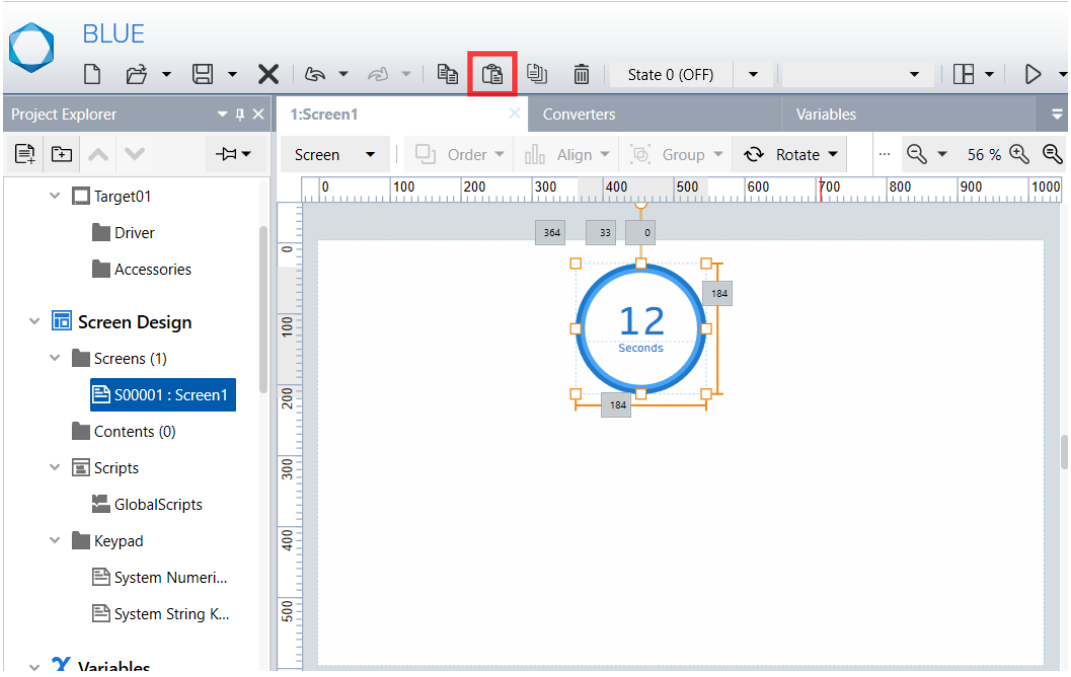
Or

- In Object List, select desired Grid object



3. Copy the selected Grid object in content using copy icon in global Toolbar.

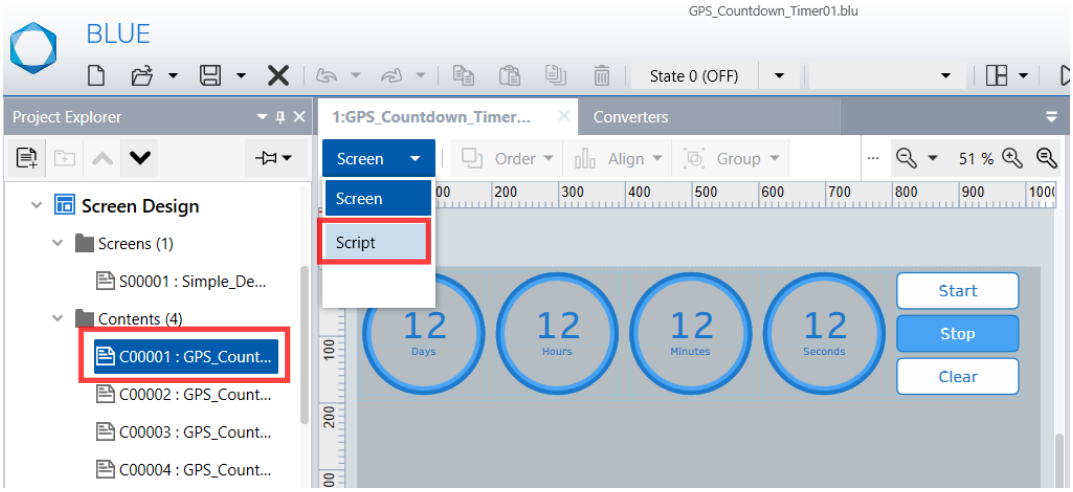
4. Open your project file.
   Select the desired Screen/Content and click the paste icon in global Toolbar.



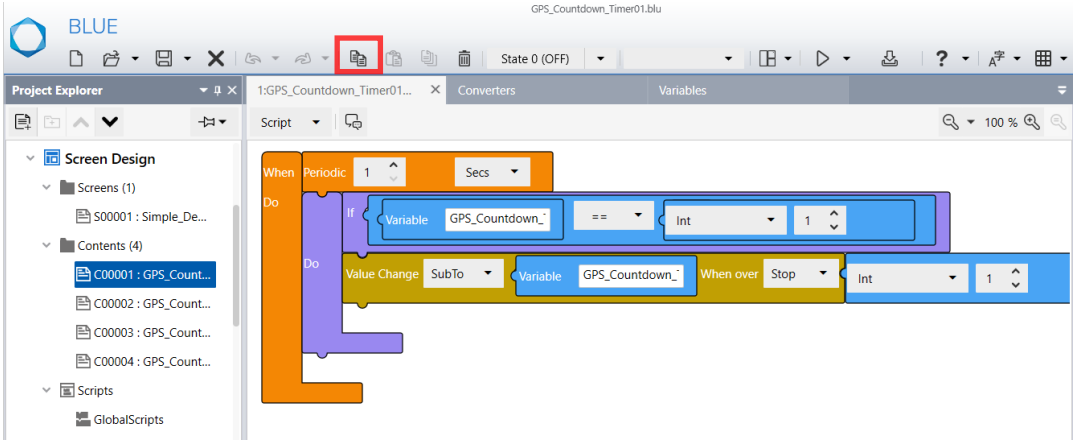
5. Repeat step 2, 3 & 4 for Grid2 to copy start, stop and clear buttons.
   Note1: You can also copy multiple grid objects for different units, as per your requirement.
   Note2: You can copy all countdown timer grid objects of different time units and Grid2 object at the same time in your project.

6. You can resize the Grid object. For more details, refer [How to Resize Grid Parts.]

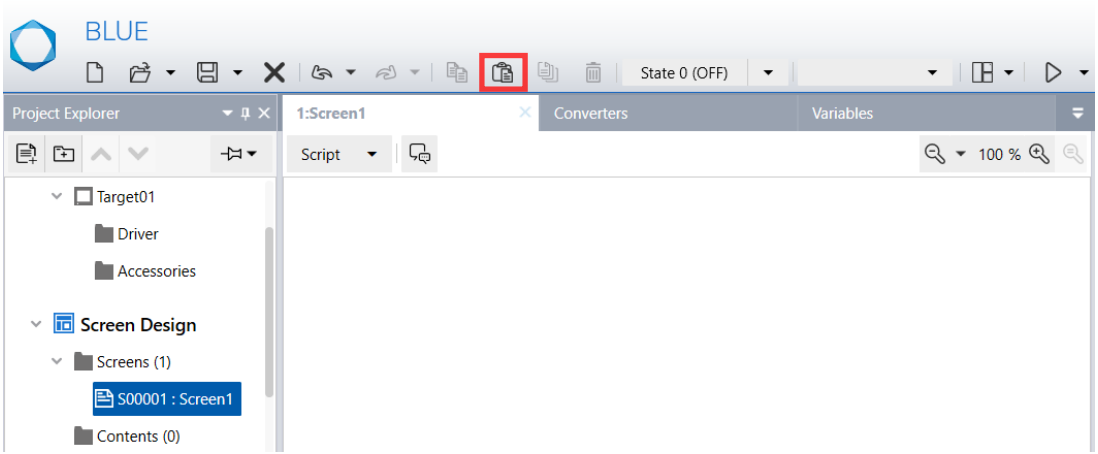
7. Open the downloaded project file.
   Click the Content from “Contents” and select Script from the dropdown.



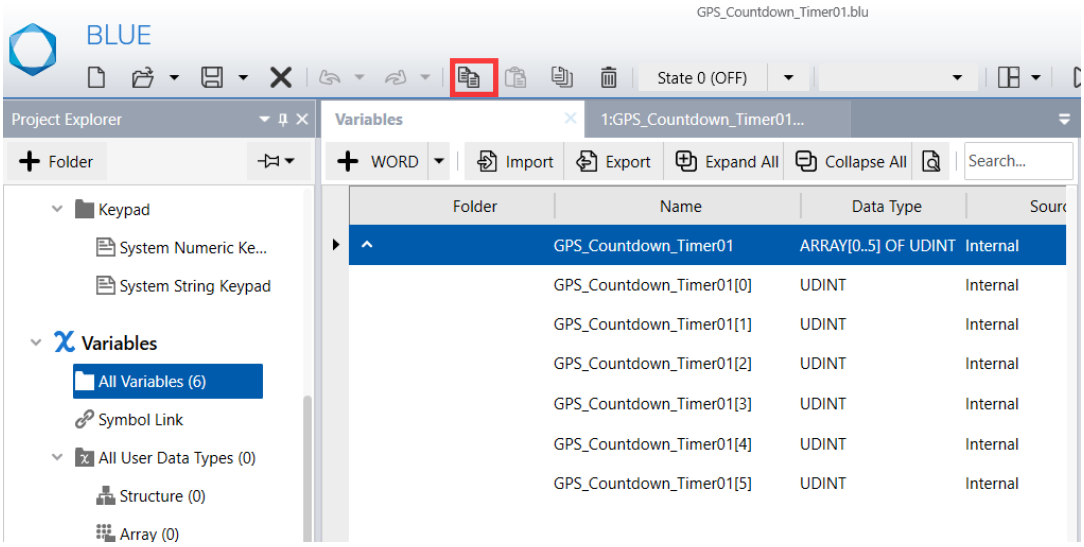
8. Select the displayed script and copy it using  icon from the global Toolbar.



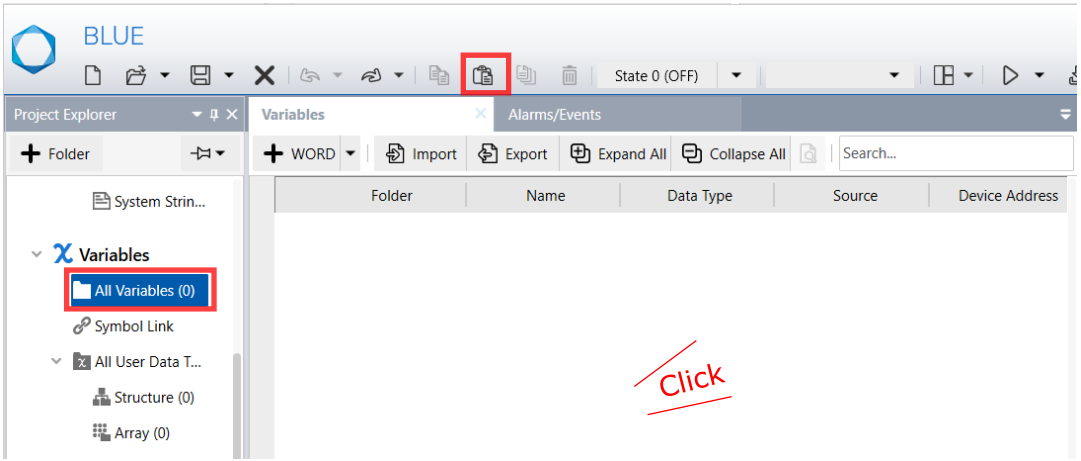
9. Open your project file.
   In the screen (Where Countdown timer grid is placed), select Script from dropdown and click paste icon from the global Toolbar.



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

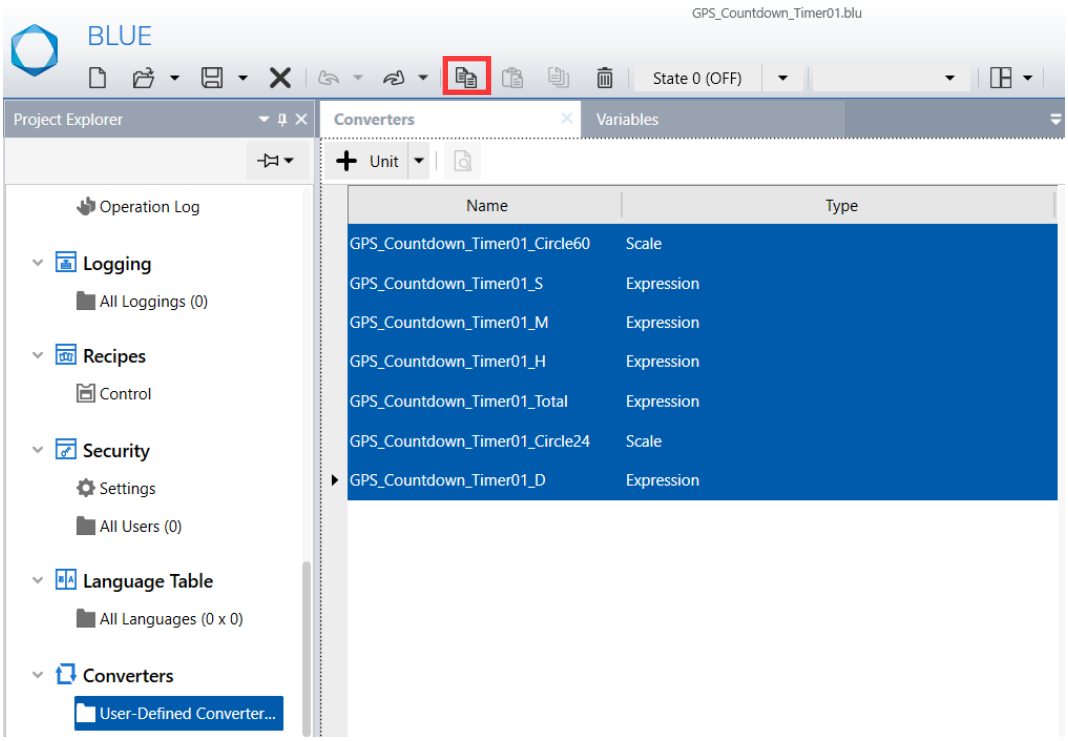


11. Open your project file and select “All variables”.
    Click an existing variable or a blank Variable screen and click paste icon from the global Toolbar.

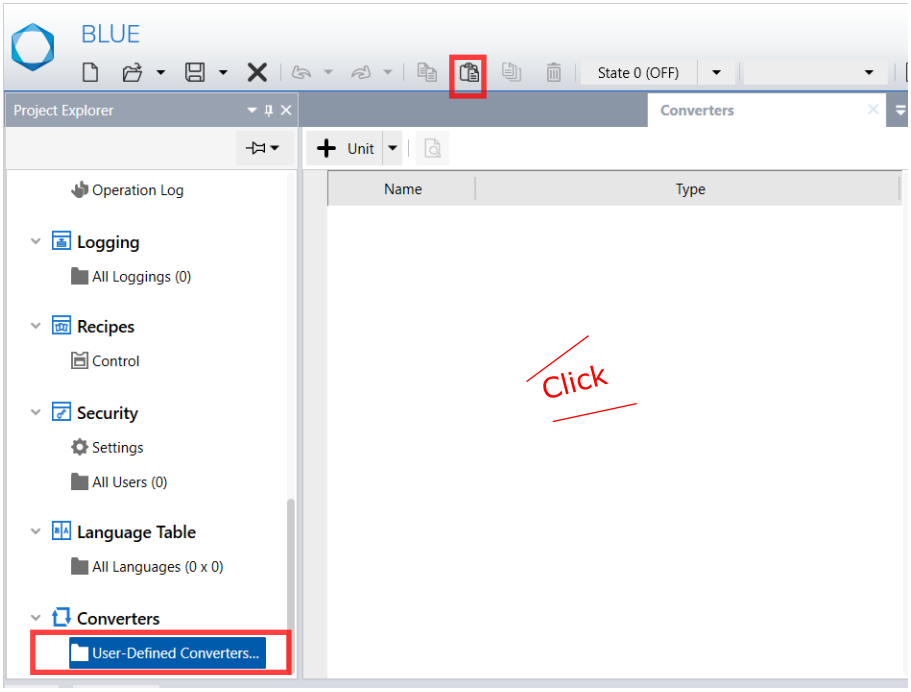


    Note: You can also create your own variables. For more details, refer [How to change Countdown timer Variables.]

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



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



How to Change Countdown Timer 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:

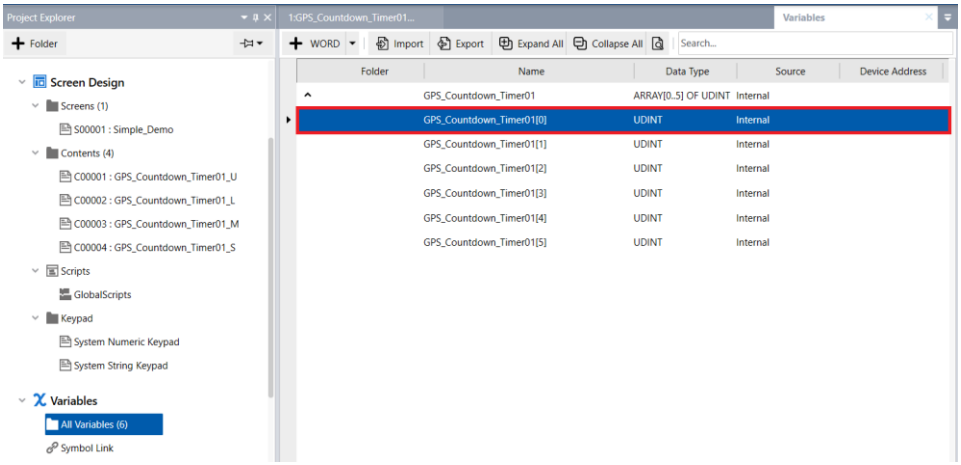
Table1

Purpose		**Variable**	**Input Range**	**Value binding**
For Total		GPS_Countdown_Timer01[0]	0 to 5183999	Variable: GPS_Countdown_Timer01[0] Converter: GPS_Countdown_Timer01_Total
Unit	Seconds	GPS_Countdown_Timer01[1]	0 to 59	Variable: GPS_Countdown_Timer01[0] Converter: GPS_Countdown_Timer01_S
	Minutes	GPS_Countdown_Timer01[2]	0 to 59	Variable: GPS_Countdown_Timer01[0] Converter: GPS_Countdown_Timer01_M
	Hours	GPS_Countdown_Timer01[3]	0 to 23	Variable: GPS_Countdown_Timer01[0] Converter: GPS_Countdown_Timer01_H
	Days	GPS_Countdown_Timer01[4]	0 to 59	Variable: GPS_Countdown_Timer01[0] Converter: GPS_Countdown_Timer01_D
For Start/Stop		GPS_Countdown_Timer01[5]	0 to 1	-

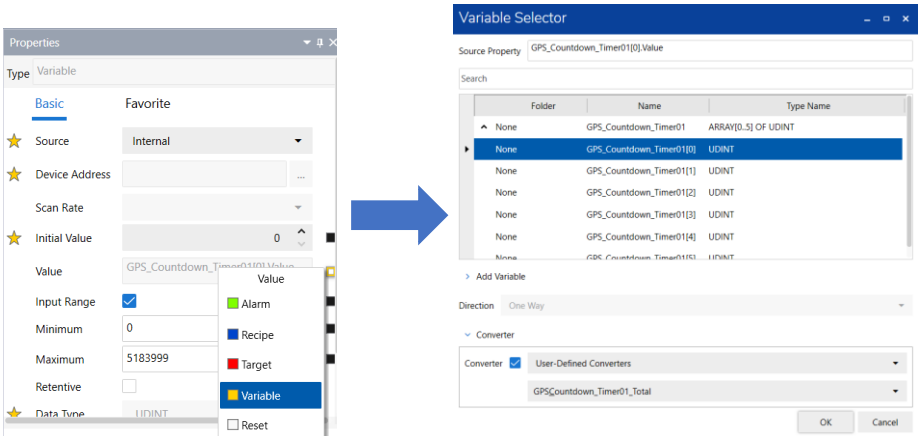
Follow below steps for Variable binding,

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

2. Select the variable used for Total.



3. In Properties, select **Basic** > **Value** and select the variable and converter used for total from variable selector.



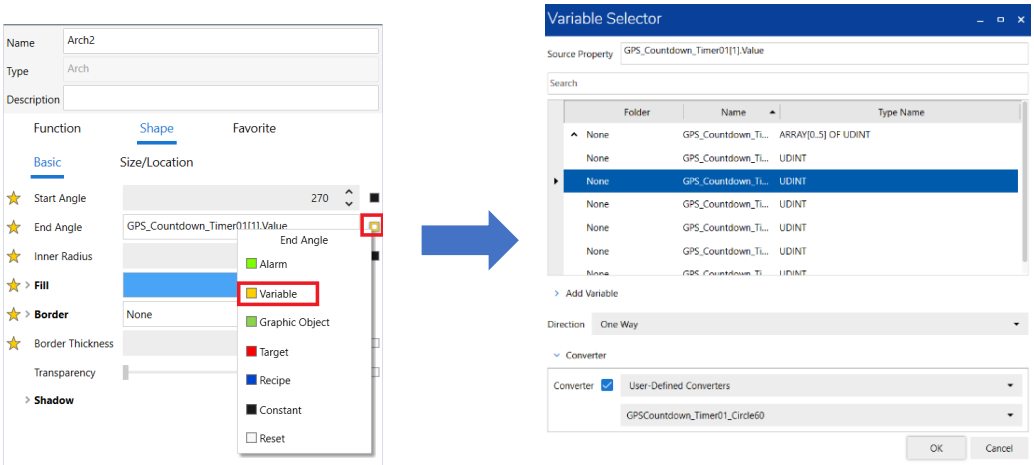
4. In Properties, select **Basic** > **Input Range > Minimum(& Maximum)** and edit the range as 0 to 5183999.

5. Repeat Step 2, 3 & 4 for other unit & start/stop variable as per the detail provided in Table1.

Follow below steps for Object & Script Variable binding,

1. Open your project, in screen (where countdown timer grid is placed), click on Object List and select Arch1 in Grid object.

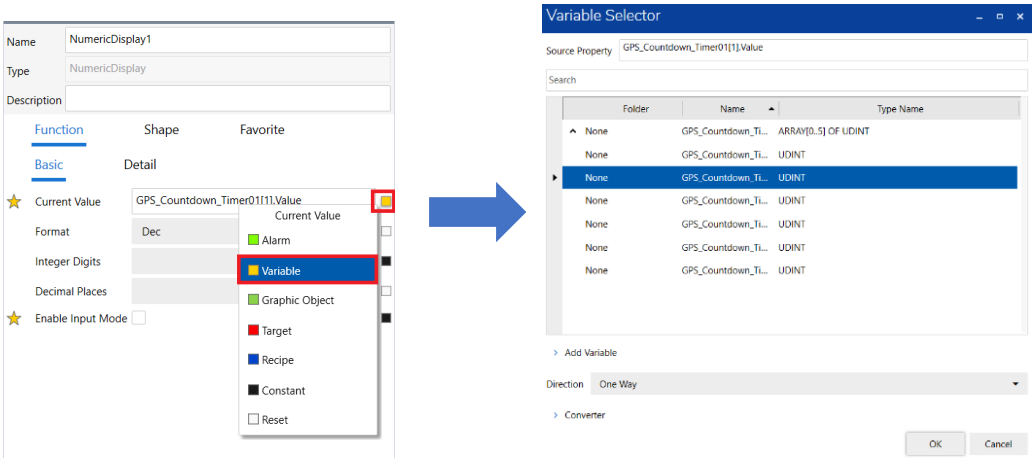
2. In Properties tab, select **Shape** > **Basic** > **End Angle** and select the desired variable used for unit from variable selector.



3. Repeat above step for Arch2.

4. In Object List, Select NumericDisplay1.

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

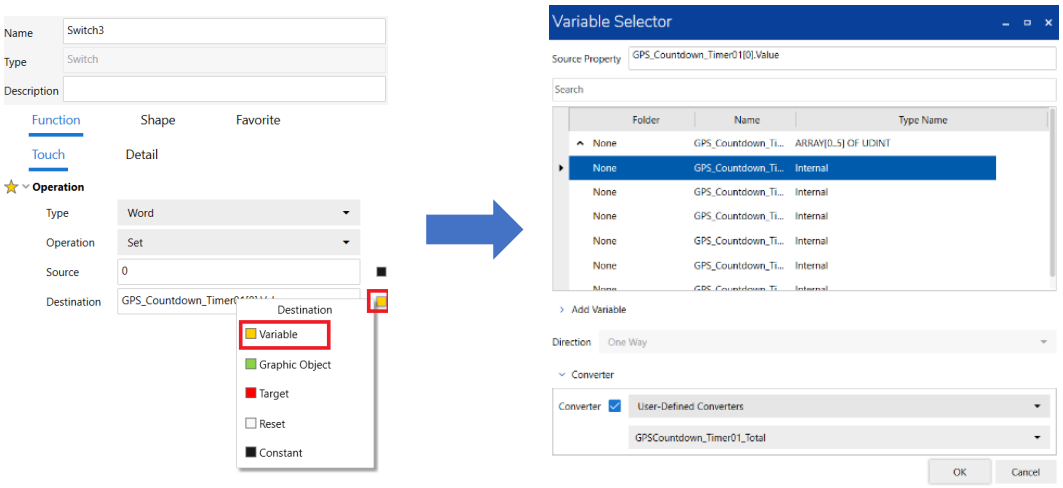


6. Repeat above step for NumericDisplay2.

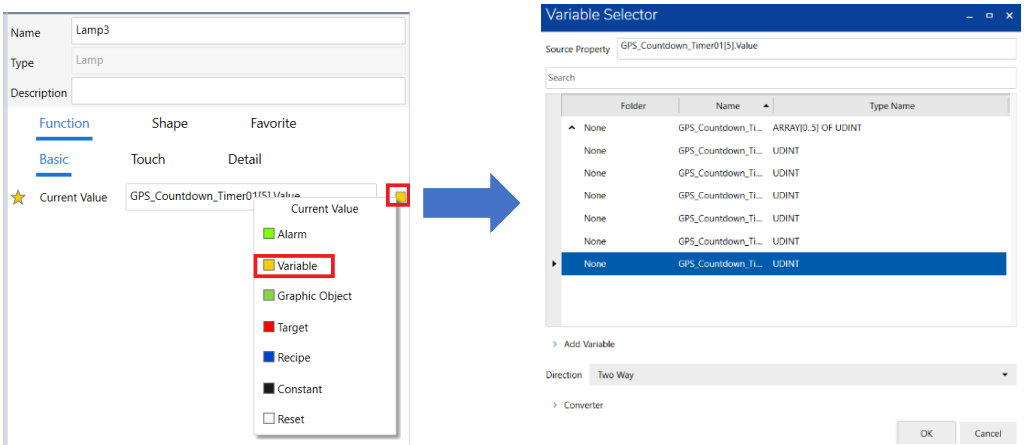
7. Repeat step 1 to 6, if any other units are used in project.
   Note: Object names used in above steps varies depending on the unit selected.
   - Seconds – Arch1, Arch2, NumericDisplay1, NumericDisplay2
   - Minutes – Arch5, Arch6, NumericDisplay3, NumericDisplay4
   - Hours – Arch8, Arch9, NumericDisplay5, NumericDisplay6
   - Days – Arch11, Arch12, NumericDisplay7, NumericDisplay8

8. In Object List, Select Switch3 in Grid2 Grid object.

9. In Properties tab, select **Function** > **Touch** > **Operation** > **Destination** and select variable used for Total from variable selector.



10. Select Lamp3.
    In Properties tab, select **Function** > **Basic** > **Current Value** and select variable used for Start/Stop from variable selector.

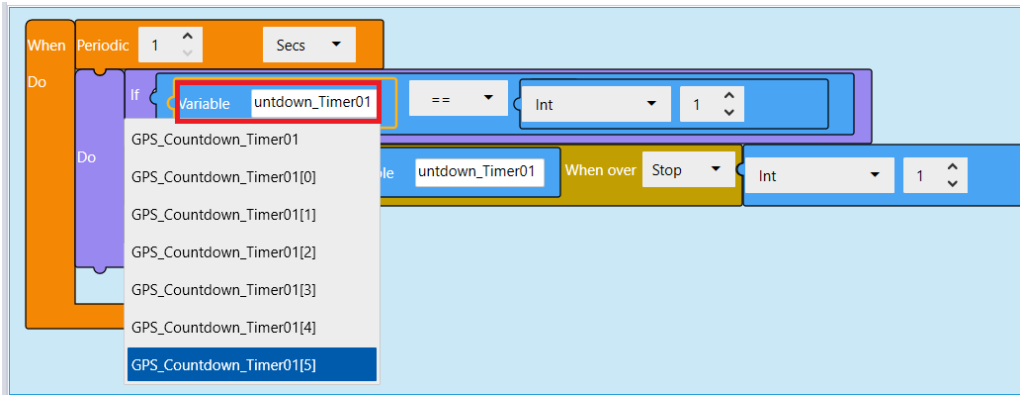


11. In Properties tab, select **Function** > **Touch** > **Operation** > **Destination** and select variable used for Start/Stop from variable selector.

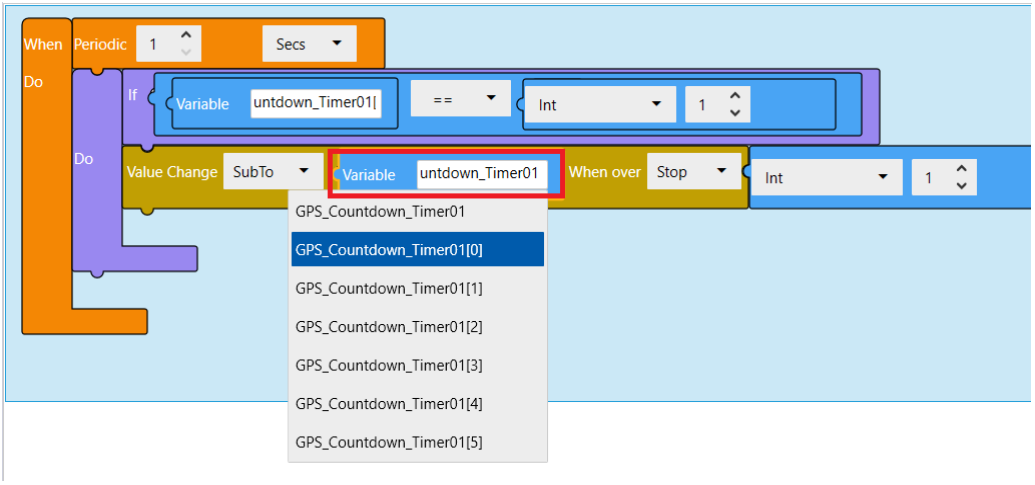
12. Repeat step 10 &11 for Lamp4.

13. In screen, select Script from the dropdown.

14. In Script, select the variable used for start/stop in If condition.



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

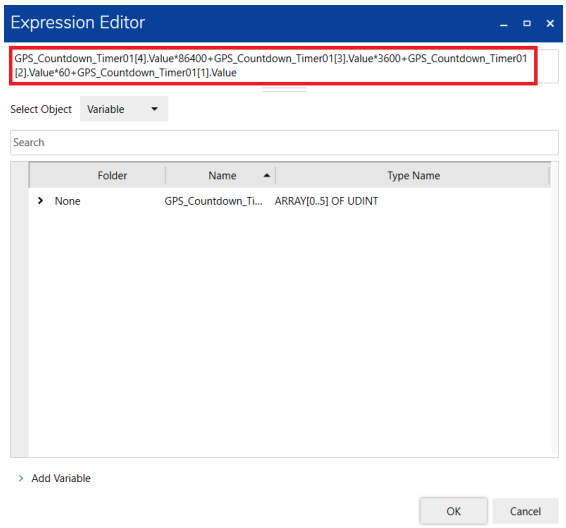


Follow below steps for Converter Variable binding,

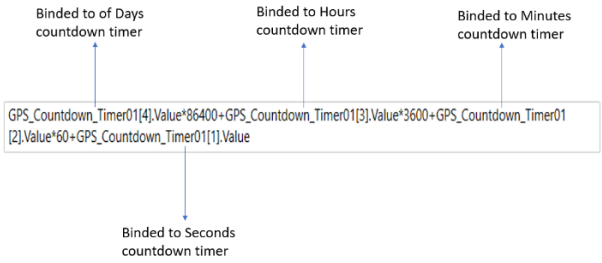
1. In Project Explorer, select “User-Defined Converters”.

2. Select GPS_Countdown_Timer01_Total converter.

3. In Properties, Click ... icon to open Expression Editor.

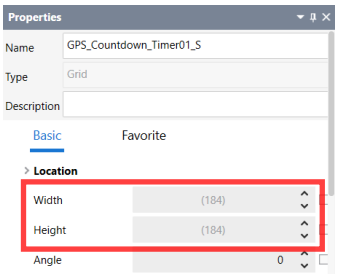


4. In the expression all the 4 units variables are used. Replace it with the variable created in your project.



How to Resize Grid Parts

1. Select Screen (where Grid part is placed) and then select the grid object.
2. In properties tab, change the value of Width and Height.

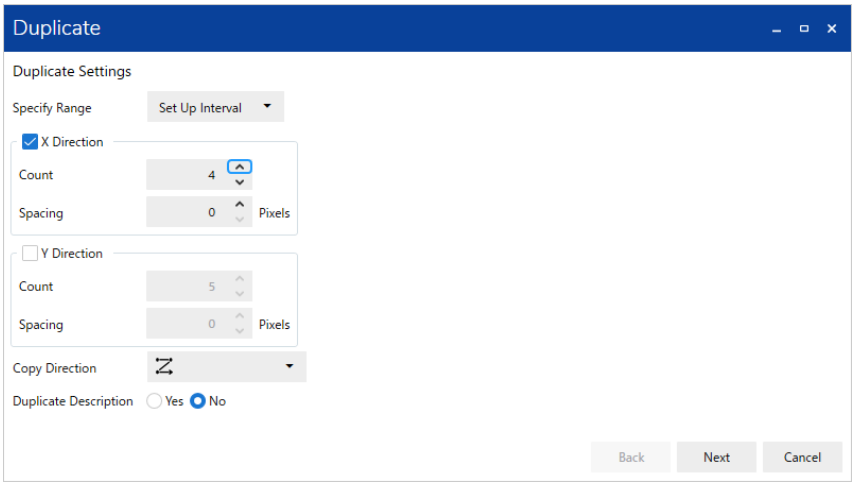


Note:

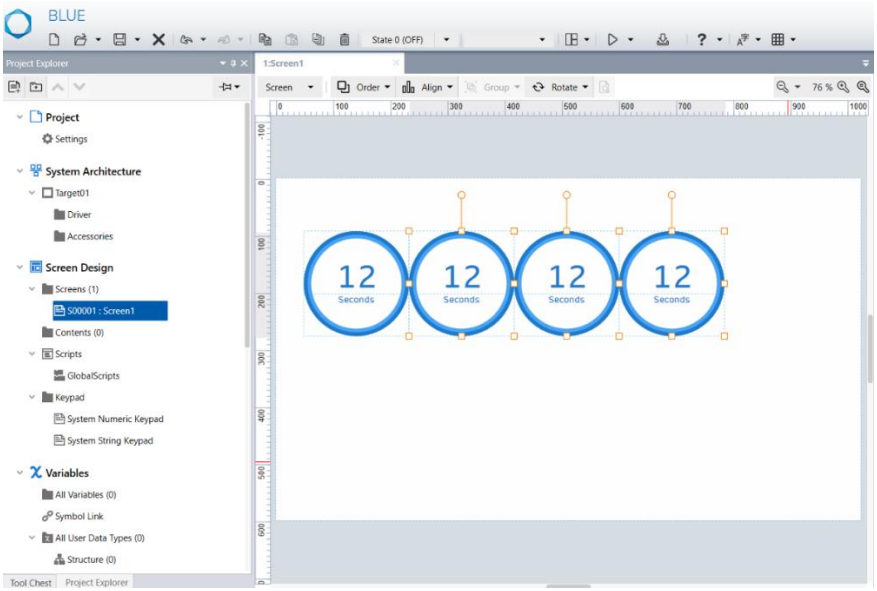
1. Set same value of width and height to maintain the shape.
2. Modify the font size of Grid parts text in content to fit as per the new size change.

How to Duplicate Grid Parts

1. In screen, select the Grid Parts 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 Grid Parts are duplicated.



Note:

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

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

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

How to Move the Grid Parts

To move the Grid Parts, select the Grid Parts by dragging a mouse and click the outside frame (within 8 pixels) and move it. Else, the form of the Grid Parts will not be kept.