# Sample Templates Document: GPS_7_Seg_Int01.blu



Please enter a value from -32768 to 32767.

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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.

## 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

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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.

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### ⚠ 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.**

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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

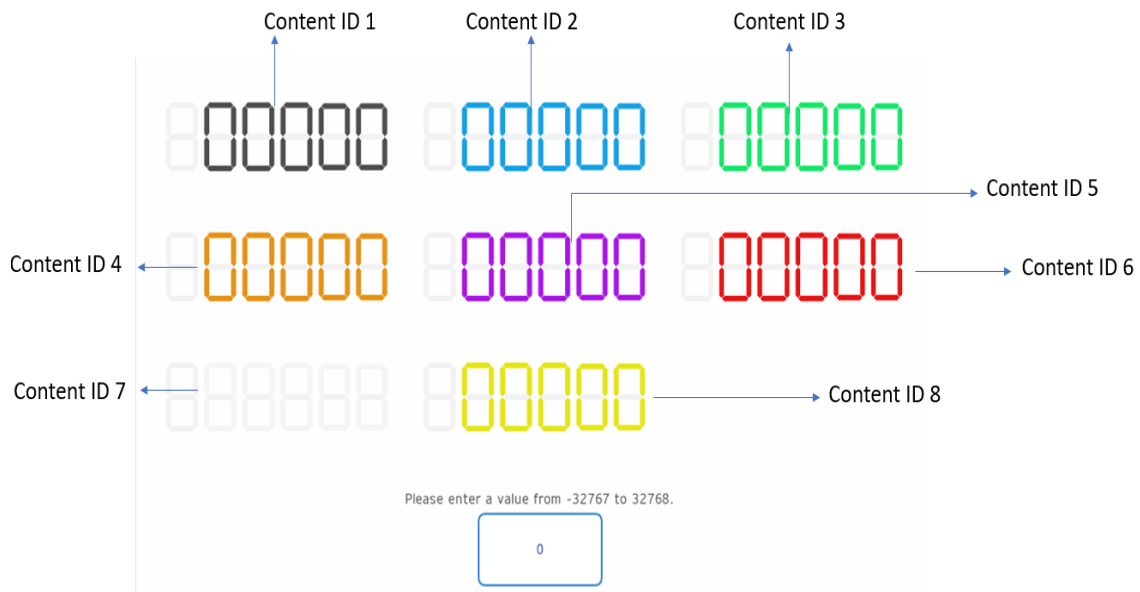Target: ST-6500WAD

Driver: None

BLUE version 3.3 or later

## Template Overview

This template has 8 Numeric displays displayed in 7 segment pattern, different colors and in integer (value ranges from -32768 to 32767) format.

## Project structure

On Simple_Demo, 8 content displays are placed and different contents (Content1 to Content8, based on requirement) are called in Simple_Demo screen.

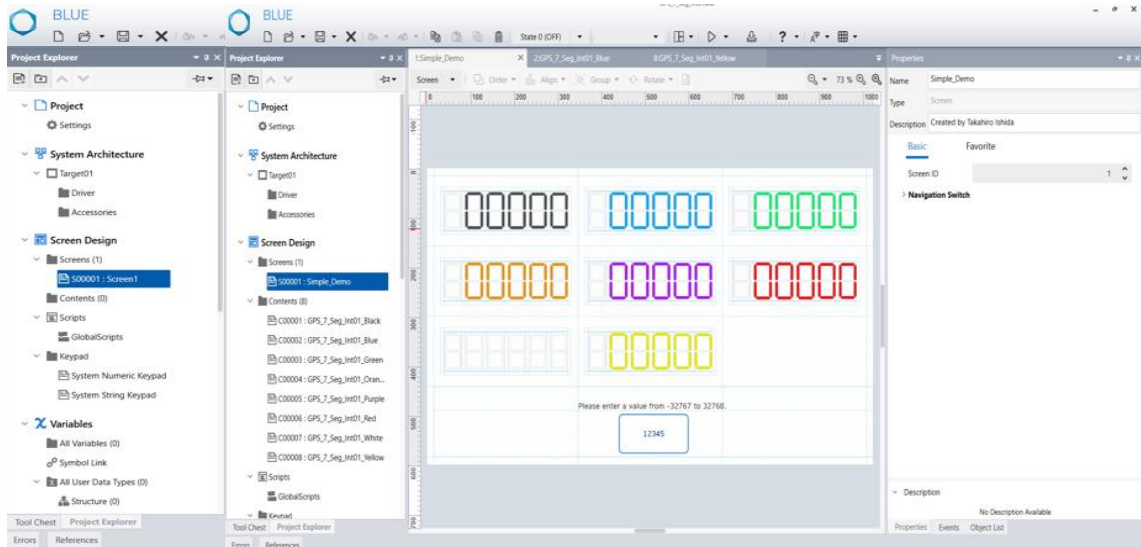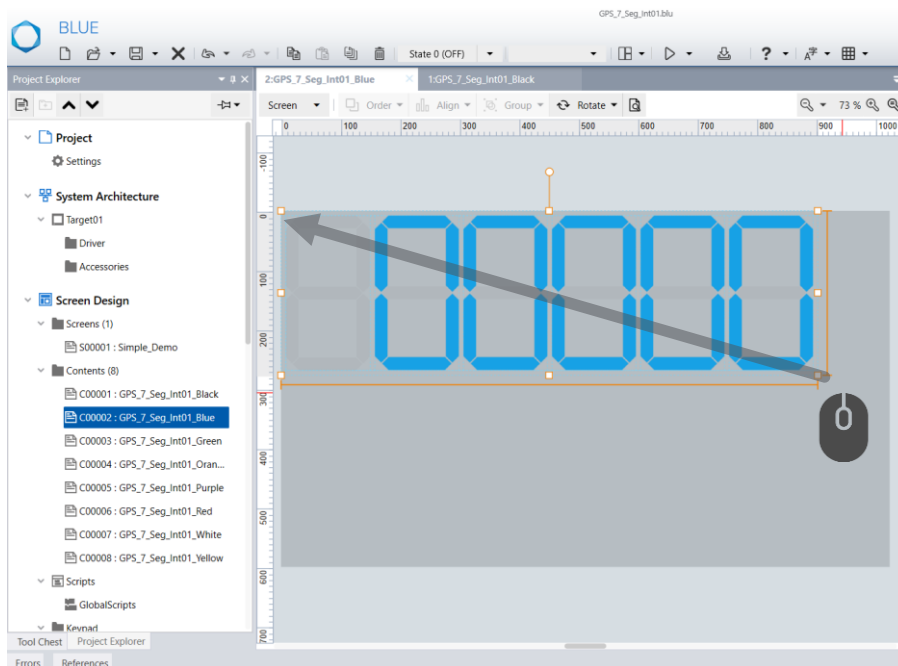| Screen | | | |
|---|---|---|---|
| Simple_Demo | ContentsDisplay1 (Contents ID: 1) | GPS_7_Seg_Int01_Black | Black |
| | ContentsDisplay2 (Contents ID: 2) | GPS_7_Seg_Int01_Blue | Blue |
| | ContentsDisplay3 (Contents ID: 3) | GPS_7_Seg_Int01_Green | Green |
| | ContentsDisplay4 (Contents ID: 4) | GPS_7_Seg_Int01_Orange | Orange |
| | ContentsDisplay5 (Contents ID: 5) | GPS_7_Seg_Int01_Purple | Purple |
| | ContentsDisplay6 (Contents ID: 6) | GPS_7_Seg_Int01_Red | Red |
| | ContentsDisplay7 (Contents ID: 7) | GPS_7_Seg_Int01_White | White |
| | ContentsDisplay8 (Contents ID: 8) | GPS_7_Seg_Int01_Yellow | Yellow |

## Run Time Behavior

Runtime/Simulation of this template displays 8 Numeric displays displayed in 7 segment pattern, different colors and in Integer (value ranges from -32768 to 32767) format. Click the Numeric Display in the bottom and edit the value between -32768 to 32767 to display value change in the Numeric displays.

# 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 the Grid parts by dragging the mouse.



Or

- In Object List, select Grid_GPS_7_Seg_Int01_Blue object.



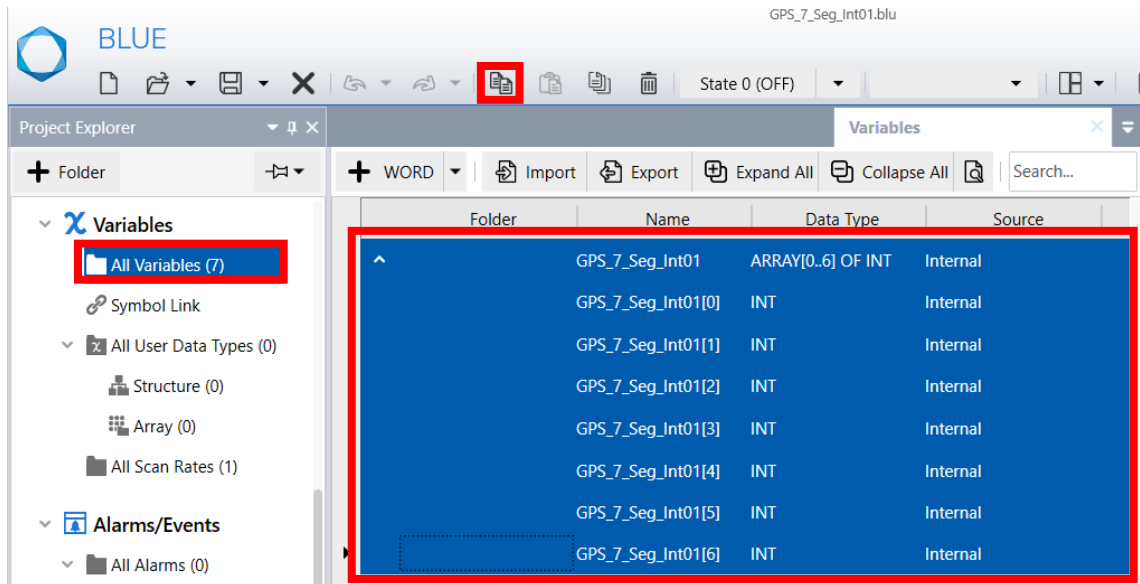3. Copy the selected Grid object in content using 📋 copy icon in global Toolbar.

4. Open your project file.

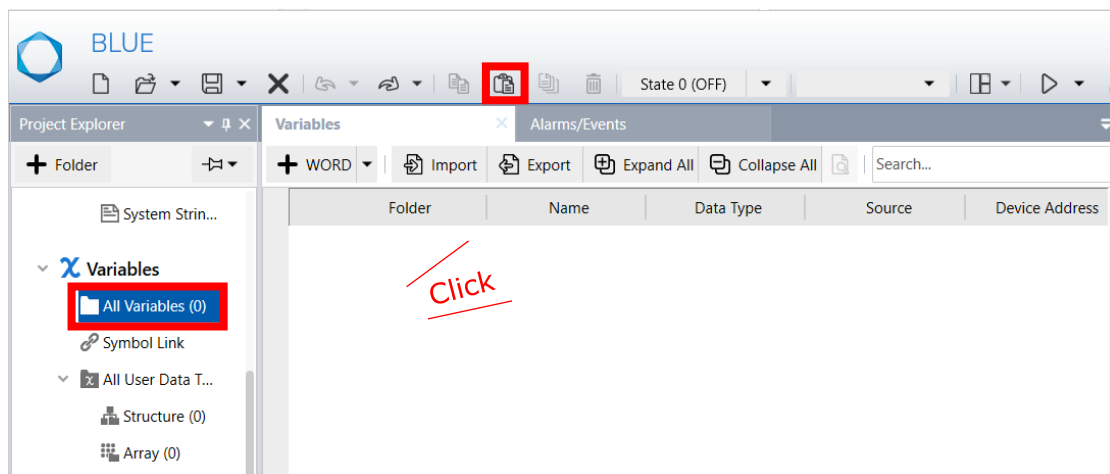    Select the desired Screen/Content and click the paste 📋 icon in global Toolbar.



5. You can resize the Numeric Display. For more details, refer How to Resize Grid Parts

6. Open the downloaded project file and select "All variables". Select the displayed variables and click the copy icon from global Toolbar.
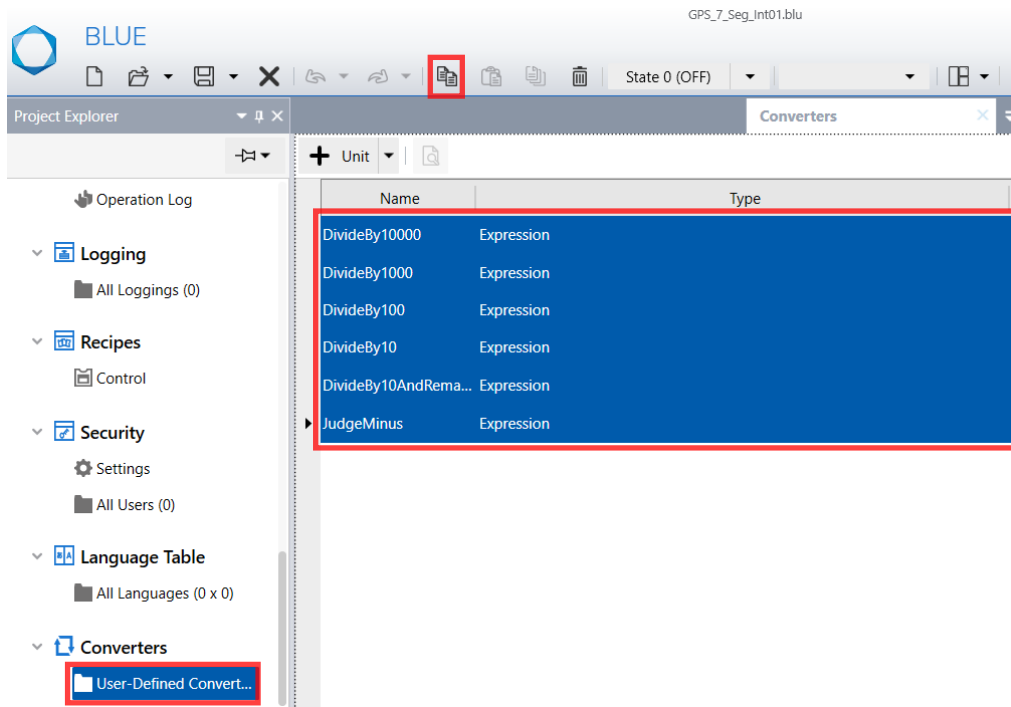


7. Open your project file and select "All Variables".

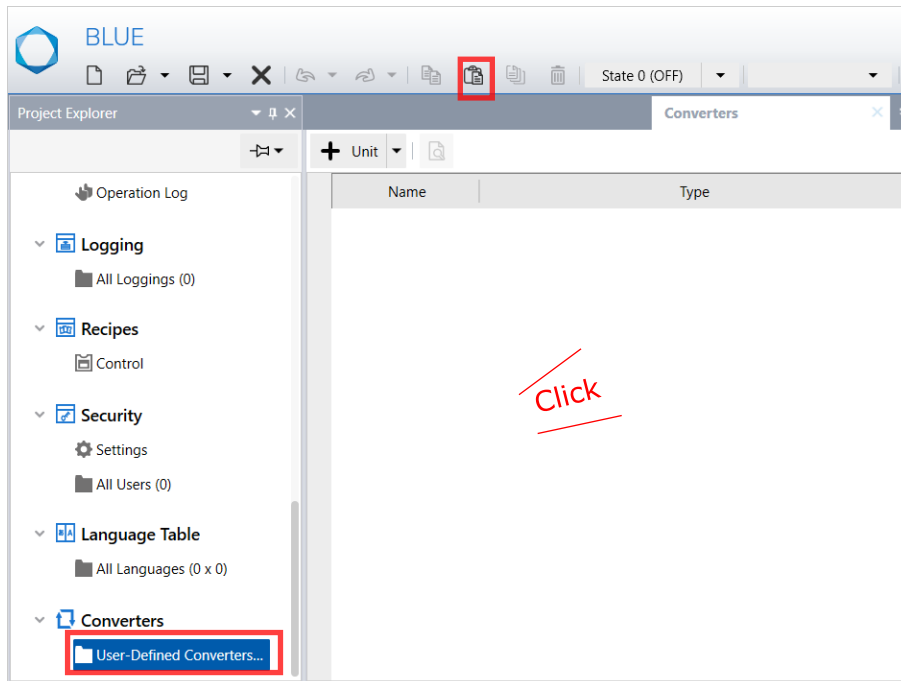Click an existing variable or a blank Variable and click paste icon in global toolbar.



The copied variable is pasted in your project.

Note: You can also create your own variables. For more details, refer How to change Numeric Display Variable

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



9. Open your project file, select "User-Defined Converters". Click on the Converter screen and click paste icon from the global Toolbar.
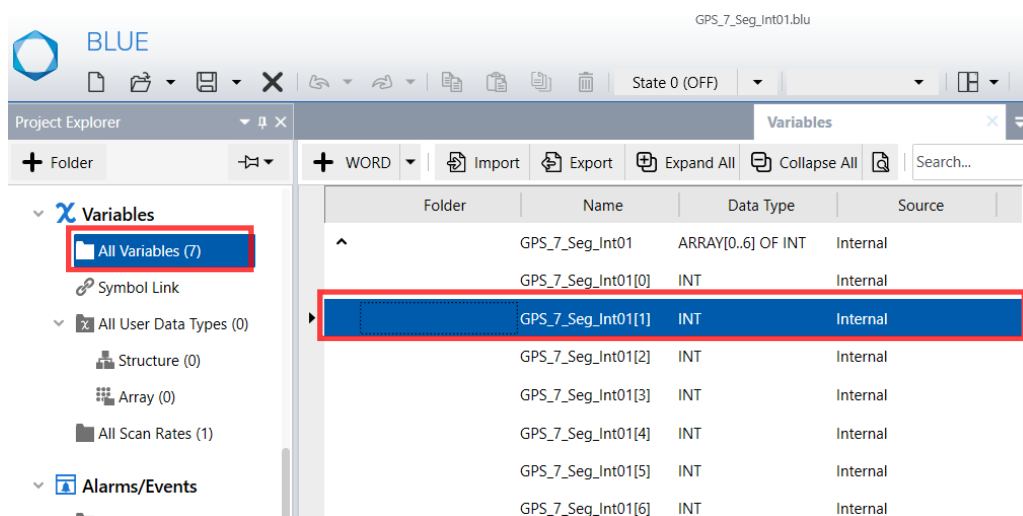
# How to change Numeric Display Variable

When you replace default variable with other variable, make sure their input range and value bindings are same as source. They are as below:
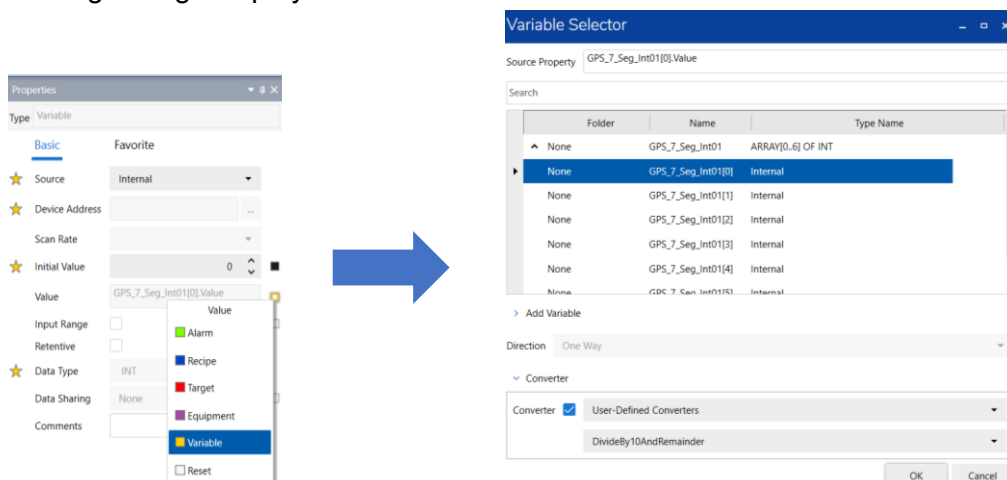
Table1

| Purpose | Variable | Input Range | Value binding |
|---|---|---|---|
| Source | GPS_7_Seg_Int01[0] | -32768 to 32767 | _ |
| Fifth Digit | GPS_7_Seg_Int01[1] | - | Variable: GPS_7_Seg_Int01[0] Converter: DivideBy10AndRemainder |
| Fourth Digit | GPS_7_Seg_Int01[2] | - | Variable: GPS_7_Seg_Int01[0] Converter: DivideBy10 |
| Third Digit | GPS_7_Seg_Int01[3] | - | Variable: GPS_7_Seg_Int01[0] Converter: DivideBy100 |
| Second Digit | GPS_7_Seg_Int01[4] | - | Variable: GPS_7_Seg_Int01[0] Converter: DivideBy1000 |
| First Digit | GPS_7_Seg_Int01[5] | - | Variable: GPS_7_Seg_Int01[0] Converter: DivideBy10000 |
| Minus Sign | GPS_7_Seg_Int01[6] | - | Variable: GPS_7_Seg_Int01[0] Converter: JudgeMinus |

Follow below steps for Variable binding,

1.  Open your project file and select "All variables".

2.  Select the variable used for Source (GPS_7_Seg_Int01[0]).

3.  In Properties, select **Basic** > **Input Range > Minimum (& Maximum)** and edit the range as -32768 to 32767.

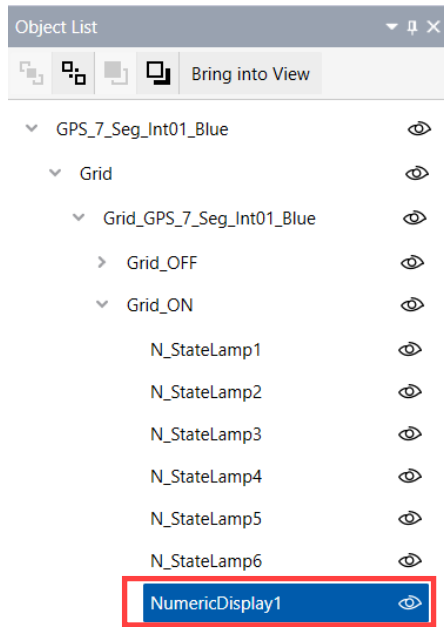4.  Select the variable used for Fifth Digit display (GPS_7_Seg_Int01[1]).



5.  In Properties, select **Basic** > **Value** and bind the variable and converter used for binding 5<sup>th</sup> digit display from variable selector and click ok.
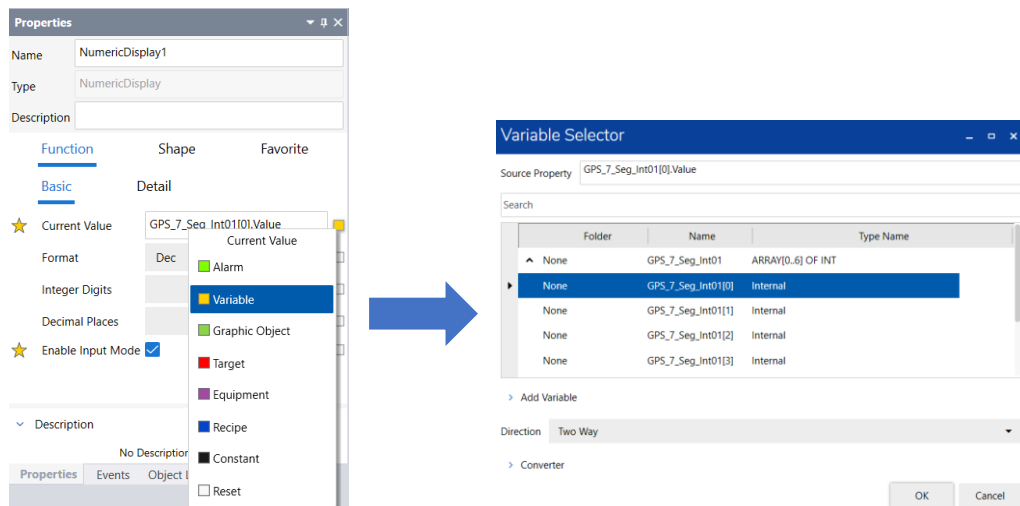


6.  Repeat Steps 4 and 5 for other Variables as per the detail provided in Table1.
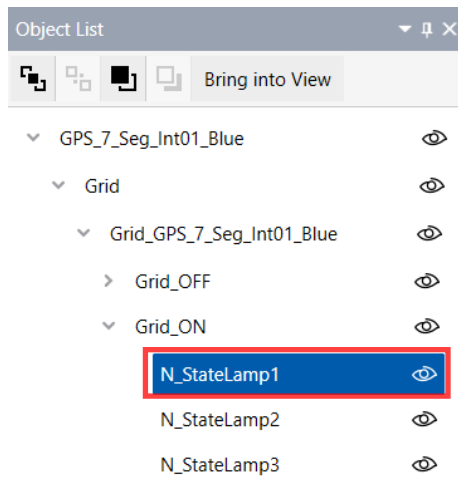
Follow below steps for Object Variable binding,

7.  Open your project, in the screen (where Grid object is placed), select NumericDisplay1 from object list.
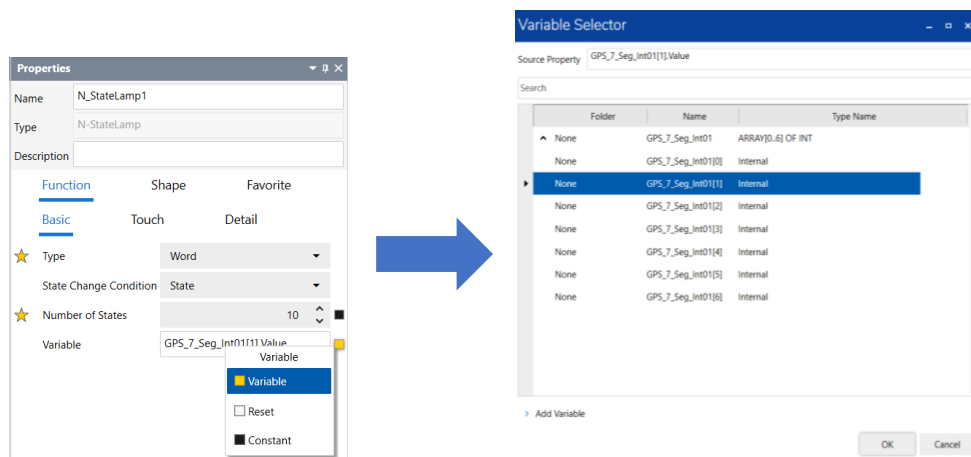


8.  In Properties tab, select **Function** > **Basic** > **Current Value** and bind the desired variable used for source from variable selector and click ok.
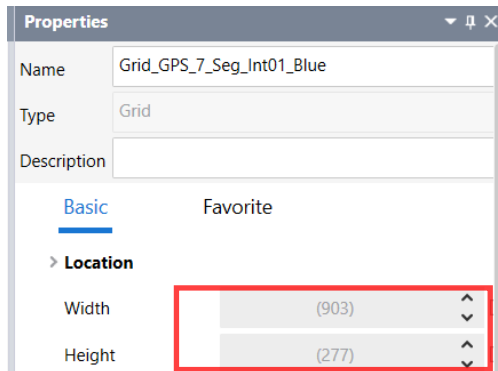
9. Select N_StateLamp1 from object list.



10. In Properties tab, select **Function** > **Basic** > **Variable** and bind the desired variable used for 5th digit display from variable selector and click ok.



11. Repeat Step 9 and 10 for N_StateLamp2, N_StateLamp3, N_StateLamp4, N_StateLamp5, N_StateLamp6 with variable used for 4th, 3rd, 2nd, 1st digit and minus sign display respectively.

## How to Resize Grid Parts

1. Select content/screen (where numeric display Grid Object is placed) and then select the Grid object (Grid_GPS_7_Seg_Int01_Blue).

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



Note:
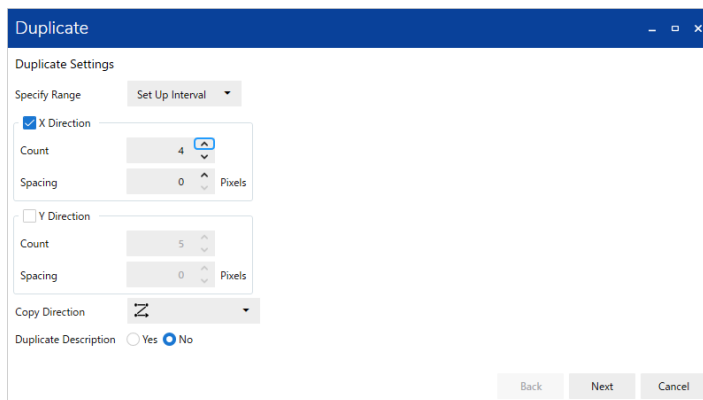
Modify the font size of text to fit as per the new size change.

## How to Duplicate Grid Parts

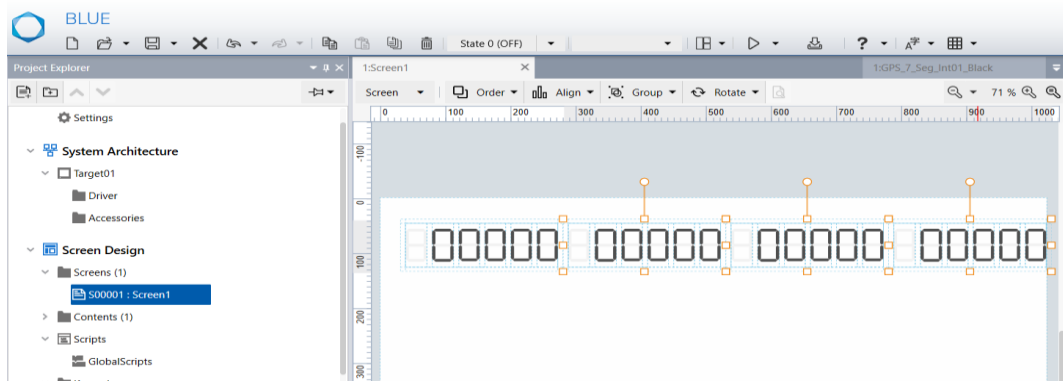1. In screen, Select the Grid object (Grid_GPS_7_Seg_ Int01_Blue) and click the duplicate icon.
   Result: Duplicate window appears

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



Result: The Grid Parts (Grid_GPS_7_Seg_Int01_Blue) 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,

- o Rename the Variable and converter of first Grid object.
- o 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.