

Sample Templates Document: GPS_7_Seg_Hex01.blu

88888 88889 88889
Please enter a value from 0 to 65535.



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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.



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

A 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 <u>http://www.pro-face.com</u>.

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.

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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 themachine.

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.



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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 hexadecimal (value ranges from 0 to FFFF) 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	GPS_7_Seg_Hex01_Black	Black
	(Contents ID: 1)		
	ContentsDisplay2	GPS_7_Seg_Hex01_Blue	Blue
	(Contents ID: 2)		
	ContentsDisplay3	GPS_7_Seg_Hex01_Green	Green
	(Contents ID: 3)		
	ContentsDisplay4	GPS_7_Seg_Hex01_Orange	Orange
	(Contents ID: 4)		
	ContentsDisplay5	GPS_7_Seg_Hex01_Purple	Purple
	(Contents ID: 5)		
	ContentsDisplay6	GPS_7_Seg_Hex01_Red	Red
	(Contents ID: 6)		
	ContentsDisplay7	GPS_7_Seg_Hex01_White	White
	(Contents ID: 7)		
	ContentsDisplay8	GPS_7_Seg_Hex01_Yellow	Yellow
	(Contents ID: 8)		





Run Time Behavior

Runtime/Simulation of this template displays 8 Numeric displays displayed in 7 segment pattern, different colors and in hexadecimal (value ranges from 0 to FFFF) format. Click the Numeric Display in the bottom and edit the value between 0 to FFFF 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 GPS_7_Seg_Hex01_Black object.



- 3. Copy the selected Grid object in content using a 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 <u>How to Resize Grid</u> <u>Parts</u>



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 <u>How to</u> <u>Change Numeric Display Variable</u>



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

BLUE					GPS_7_Se	g_Hex01.blu			
► C C - C -	$\mathbf{X} \mid c$	5 • B • 📭		State 0 (OFF)	•		• 🛛 •	▷ -	盘 │?
Project Explorer	- û ×						Converters		× =
	-□-	🕂 Unit 🔻 🔤							
🌢 Operation Log		Name				Туре			
u 🗖 La saina		DivideBy4096	Expression						
		DivideBy256	Expression						
All Loggings (0)		▶ DivideBy16	Expression						
 Recipes 		DivideBy16AndRem	a Expression						
🗎 Control									
Security									
Settings									
All Users (0)									
_									
👻 👫 Language Table									
All Languages (0 x 0)									
🗸 🔁 Converters									
User-Defined Converte	er								

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	Value binding
		Range	
	GPS_7_Seg_Hex01[0]	0 to 65535	_
Source			
	GPS_7_Seg_Hex01[1]	-	Variable:
Fourth Digit			GPS_7_Seg_Hex01[0]
i ourtir Digit			Converter:
			DivideBy16AndRemainder
	GPS_7_Seg_Hex01[2]	-	Variable:
Third Divit			GPS_7_Seg_Hex01[0]
i nira Digit			Converter:
			DivideBy16
	GPS_7_Seg_Hex01[3]	-	Variable:
Casard Digit			GPS_7_Seg_Hex01[0]
Second Digit			Converter:
			DivideBy256
	GPS_7_Seg_Hex01[4]	-	Variable:
			GPS_7_Seg_Hex01[0]
First Digit			Converter:
			DivideBy4096



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_Hex01[0]).
- In Properties, select Basic > Input Range > Minimum (& Maximum) and edit the range as 0 to 65535.
- 4. Select the variable used for Fourth Digit display (GPS_7_Seg_Hex01[1]).

Project Explorer	- ù ×								Variables		× Ŧ
+ Folder	-≒ ▼	+ WORD -) Impor	t 👌 Export	⊕ы	kpand All	Collapse	All 🖪	Search		
🖹 System String Key	pad		Folder	Name		Da	ita Type	5	Source	Device Address	
 X Variables 	_	^		GPS_7_Seg_Hex0)1	ARRAY[0	4] OF WORD	Internal			
All Variables (5)		_		GPS_7_Seg_Hex(1[0]	WORD		Internal			_
Symbol Link	- 1	•		GPS_7_Seg_Hex(01[1]	WORD		Internal			
🗸 🔀 All User Data Types ((0)			GPS_7_Seg_Hex0	1[2]	WORD		Internal			
Structure (0)				GPS_7_Seg_Hex0	1[3]	WORD		Internal			
Array (0)				GPS_7_Seg_Hex(1[4]	WORD		Internal			

 In Properties, select Basic > Value and bind the variable and converter used for binding 4th digit display from variable selector and click ok.

0	perties			≠ů×
e	Variable			
	Basic	Favorite		
k	Source	Internal		•
	Device Address			
	Device Address			
	Scan Rate			*
In	itial Value		0	^
		CDC 7 C		*
	Value	GPS_7_Seg_	Value	۳
	Input Range		Alarm	- Þ
	Retentive			- 1
k	Data Type	WORD	Recipe	- 1
	Data Sharing	None	Target	
			Equipment	ſ
	Comments		Variable	
			Recet	
			L Reset	

6. Repeat Steps 4 and 5 for first, second and third digit display as per the detail Provided in <u>Table1.</u>



Follow below steps for Object Variable binding,

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

Object List	- ₽ ×
Bring into View	
∽ Grid	0
Grid_GPS_7_Seg_Hex01_Black	0
✓ Grid_OFF	Ø
Image1	0
Image2	0
Image3	0
Image4	0
✓ Grid_ON	0
N_StateLamp1	0
N_StateLamp2	0
N_StateLamp3	0
N_StateLamp4	٩
NumericDisplay1	0

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

	erties		• 1
	NumericDi	splay1	
	NumericDi	splay	
sci	iption		
	Function	Shape	Favorite
	Basic	Detail	
7	Current Value	GPS_7_Seg	Hex01[0].Value
	Format	Hey	Current Value
ľ	onnac	TIEX	Alarm
ļ	integer Digits		Variable
	Enable Input Mod	e 🗸	_
			Graphic Object
			Target
			Equipment
			Recipe
			Constant
			Reset

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9. Select N_StateLamp1 from object list.



10. In Properties tab, select **Function** > **Basic** > **Variable** and bind the desired variable used for 4th digit display from variable selector and click ok.

Pro	perties			~ ‡ ×
Nam	e	N_StateLamp1		
Туре		N-StateLamp		
Desc	ription			
	Funct	ion Sl	nape Fav	vorite
	Basic	Touch	n Detail	
★	Туре		Word	Variable
	State (Change Condition	State	Reset
☆	Numb	er of States		Constant
	Variab	le	GPS_7_Seg_Hex01[1]	.value

11. Repeat Step 9 and 10 for N_StateLamp2, N_StateLamp3 & N_StateLamp4 with variable used for 3rd, 2nd & 1st digit 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 Hex01 Black).
- 2. In properties tab, change the value of Width and Height.

Pro	perties	;				- ù ×
Nam	e	Grid_GPS_7_S	eg_Hex01_Black			
Туре		Grid				
Desc	ription					
	Basic	Fa	avorite			_
>	Locati	on				
	Width			(724)		≎ □
	Heigh	t		(332)		≎ □
	Angle				0	≎ □

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 Hex01 Black) 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".

Duplicate			
Duplicate Settings			
Specify Range	Set Up In	nterval	•
X Direction			
Count		4 🐤	
Spacing		• Ĵ	Pixels
Y Direction			
Count		5 🗘	
Spacing		• ()	Pixels
Copy Direction	Z		-
Duplicate Description	🛛 Yes 🔾	No	



<u>Result:</u> The Grid Parts (Grid_GPS_7_Seg_Hex01_Black) 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 <u>How to copy the objects to your project file</u>.

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.

