

# 12. Keyboard Design and Usage

This chapter explains how to design and use keyboard in EasyBuilder Pro.

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## 12.1. Overview

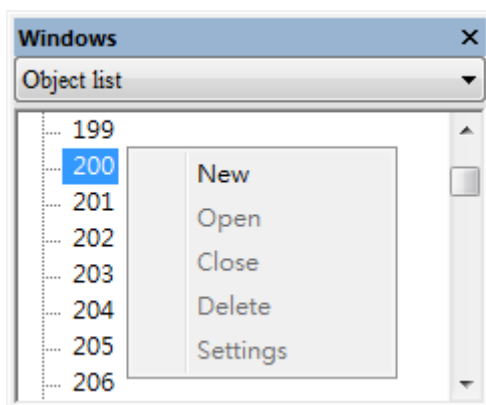
Numeric Input and ASCII Input objects need keyboard as an input tool. Both numeric keyboard and ASCII keyboard are created with Function Key object. Apart from the keyboards provided by EasyBuilder Pro, you can create the keyboard if needed. System keyboard is available on cMT / cMT X Series models.

The types of the keyboards are:

- Popup Keyboard (with or without title bar)
- Fixed Keyboard
- Unicode Keyboard
- System Keyboard (available on cMT / cMT X models)

## 12.2. Steps to Design a Popup Keyboard

1. Create and open a window for the new keyboard. For example, set to “window no. 200”.



2. Adjust the height and width of “window no. 200” and create a variety of Function Key objects in [ASCII/Unicode mode].



Set one of the Function Key objects as the [Esc] key.

Keyboard input

[Esc]

Set another Function Key object as the [Enter] key.

Keyboard input

[Enter]

The rest are mostly used to enter numbers.

Keyboard input

[ASCII] / [Unicode] 1

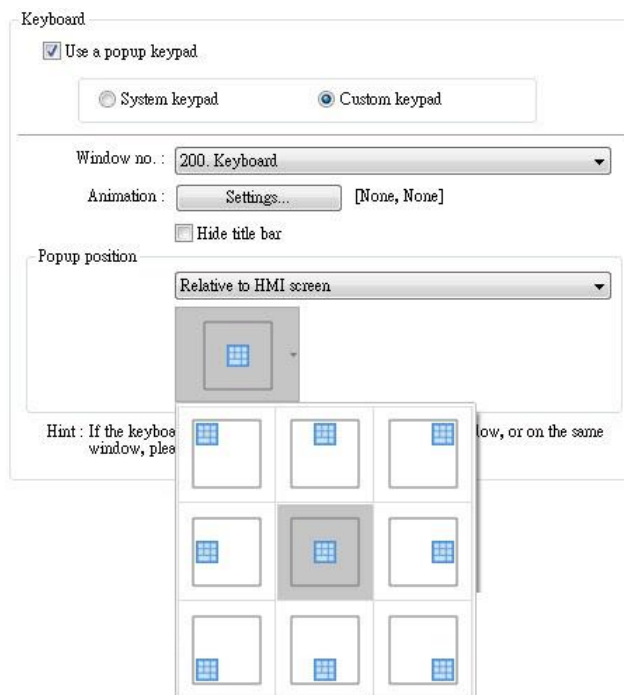
3. Select a suitable picture for each Function Key object.



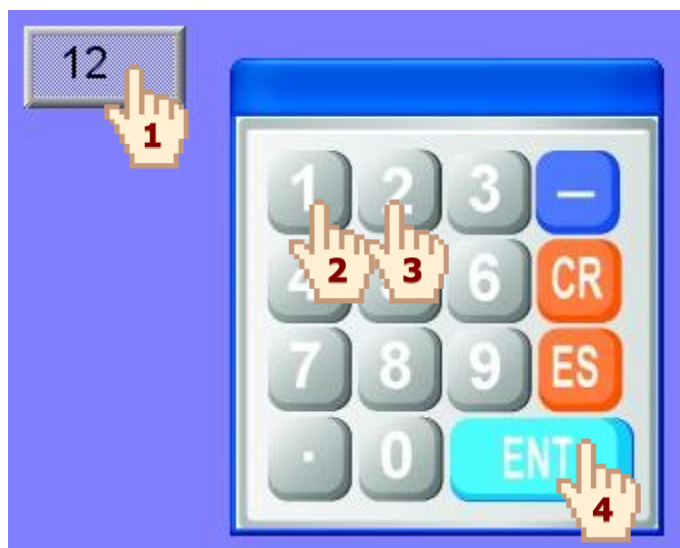
4. Select [System Parameter Settings] » [General] » [Keyboard] » [Add] to add “window no. 200”. Up to 32 keyboards can be added.



5. After the keyboard window is added, when you create Numerical Input and ASCII Input objects, “200. Keyboard” can be found in [Data Entry] » [Keyboard] » [Window no.]. The [Popup position] is for designating the display position of the keyboard on the HMI screen. The system divides the screen into 9 areas.

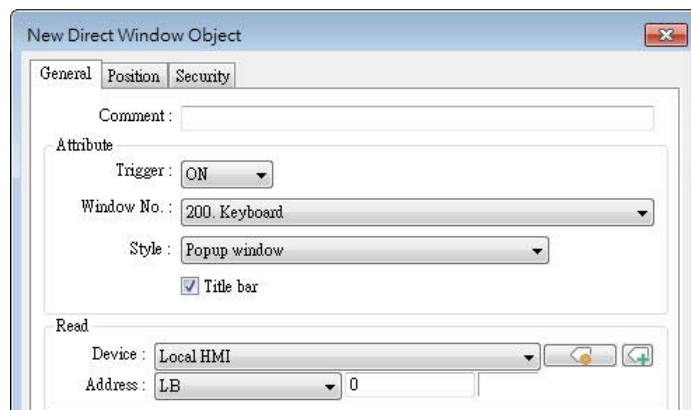


6. Select "200.Keyboard". When you press Numerical Input or ASCII Input objects on the screen, "window no. 200" will pop up. You can press the keys on the keyboard to enter data.

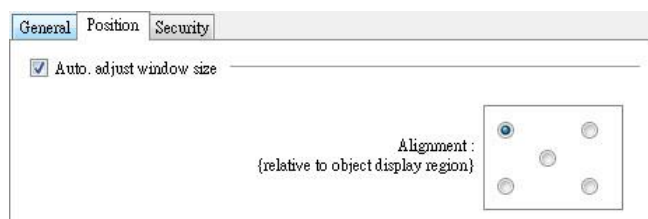


### 12.3. Steps to Design a Keyboard with Direct Window

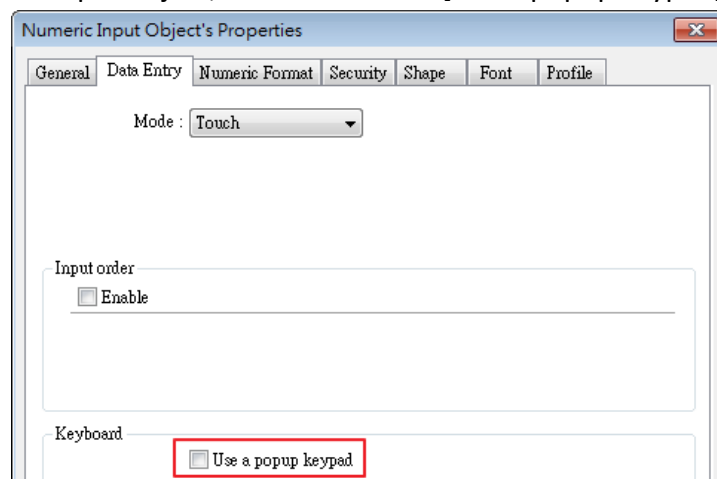
1. Create a Direct Window object and set a read address to activate it.  
In [General] » [Attribute] select [Title bar] and the correct [Window No.].



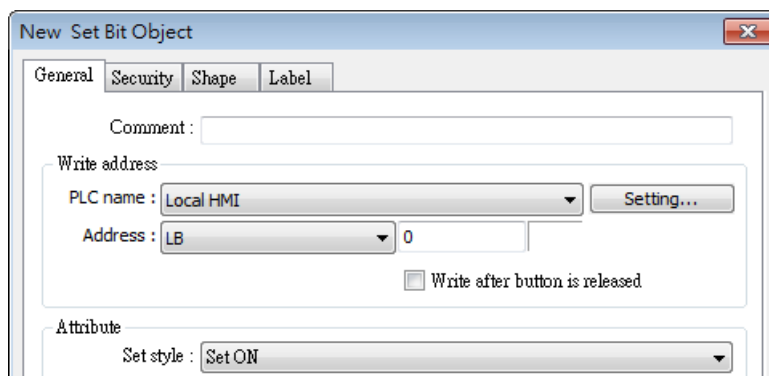
2. Open the [Position] tab and select [Auto. adjust window size].



3. Create a Numeric Input object, and don't select [Use a popup keypad] check box.



4. Create a Set Bit object, set address to [LB-0] and set [Set style] to [Set ON]. Overlay it on the Numeric Input object. Pressing the Numeric Input object will open the keyboard window.



5. Add Set Bit objects on the [Enter] and [ESC] Function Key objects respectively. Set address to [LB-0] and [Set style] to [Set OFF]. In this way when pressing either [Enter] or [ESC] key will close the keyboard window.

#### 12.4. Steps to Design a Fixed Keyboard on Screen

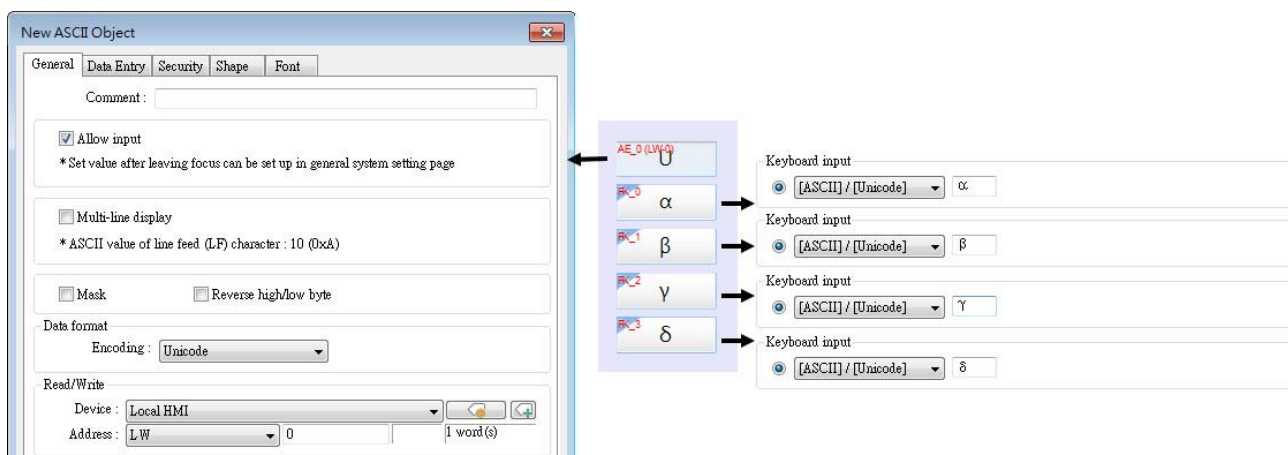
You can also place a fixed keyboard on the screen instead of popup keyboard or Direct Window. This type of keyboard can't be moved or closed.

1. Create a Numeric Input object, in [Data Entry] » [Keyboard] don't select [Use a popup keypad] check box.
2. Use Function Key objects to design the keyboard and place it on the screen.
3. Press the Numeric Input object and enter a value with Function Key objects directly.

## 12.5. Steps to Design a Unicode Keyboard

The following steps explain how to create a Unicode keyboard with Function Key objects.

1. Place an ASCII Input object on the window and select [Unicode].
2. Create Function Key objects as shown in the following figure. A simple UNICODE keyboard is created.



### Note

- You can group up the elements of the designed keyboard and save to Group Library for future use.
- ↓ Click the icon to download the demo project. Please confirm your internet connection before downloading the demo project.