

## Button control applications

category	content
Key words	Button control panel configuration controls serial summary

## revise history

version	date	the reason	prepared by	Examine
V1.0	2016/02/18	Create documents	Chien	
V2.0	2016/08/31	Add button state, multi-language capabilities	Chien	
V2.1	2017/05/06	Increase the sub-screen, password protection	Xie upheld as	
V2.2	2017/06/03	Modify the document, increase the sprite engineering, password protection project	Chien	

## Sales and Service

Guangzhou color Optoelectronics Technology Co., Ltd.

phone: 020-82186683

fax: 020-82187676

Email : hmi@gz-dc.com (Public Service) website: [www.gz-dc.com](http://www.gz-dc.com)

Ground Address: Guangzhou High-tech Industrial Development Zone, Yushu Industrial Park, Beverly West 8 number

C Building 303 Housing official website Taobao retail shop: <https://gz-dc.taobao.com>

## table of Contents

1. Scope .....	5
2. Development Environment version .....	6
3. Functional Overview .....	7
3.1 Category button .....	7
3.2 Property set .....	7
3.3 Pop / picture when pressed .....	8
3.4 Crop function .....	9
3.5 View ID .....	11
4. Technical realization .....	12
4.1 Changing Screens .....	12
4.1.1. The sprite .....	12
4.1.2 password protection .....	13
4.2 Switch Description .....	14
4.3 Custom Key .....	16
4.4 Custom command .....	18
4.5 Pop-up menu .....	18

## 1. Scope

Documentation for budget, basic, were linked, 86 Boxes and other serial-screen products.

## 2. Development Environment version

1. VisualTFT Software version: V3.0.0.749 And above;

View version: ( 1 ) Open the software, the software version number displayed in the lower right corner. ( 2 ) turn on VisualTFT Click Help ->

About VisualTFT You can view the current software version number. The latest version can be found at [www.gz-dc.com](http://www.gz-dc.com) Download



2. Serial screen hardware version: V2.22.915.XXX And above.

View version:

(1) Check the version number sticker on the back screen.

(2) VisualTFT After the success of the online screen, the version number displayed in the lower right corner.

### 3. Functional Overview

#### 3.1 Category button

Button, the same as the life of the switch, i.e., may be achieved by pressing its control action. Different buttons, has a different purpose, will be described herein using the buttons and some of its composite functions implemented.

The touch button can be divided into five purposes: to switch the screen, a switch is described, the custom buttons, custom instructions, popup menu.

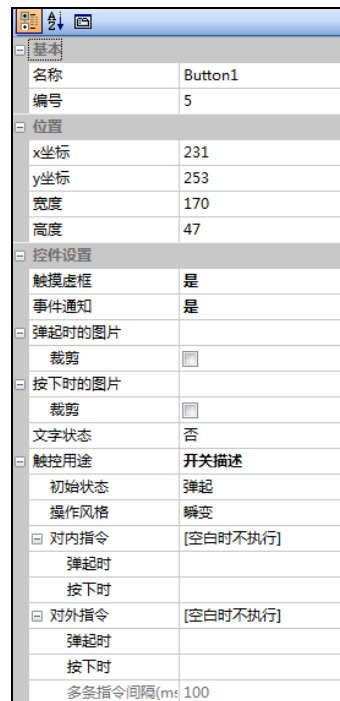
Figure 3-1 Fig. Just placed default button switch is described, to achieve different functions of the button, the touch switch can use.



Map 3-1 Category button

#### 3.2 Property set

Properties window is a control interface to change the attributes of a familiar Properties window for better application control functions. Attempt to 3-2 Window switching described as an example to explain the properties, other properties similar to the setup uses the touch.



Map 3-2 Property set

- 1 , Touch dashed box: select "Yes", the imaginary box around the flash button is pressed button; select "No" off.
- 2 , Event Notification: select "YES" button is pressed, the system makes a corresponding response message; select "No" off.
- 3 , When the pop-up (when pressed), and picture cropping function: the user can set the pop-up (when pressed) images; hook the crop, the crop picture display.
- 4 , Text Status: Select "YES", the display may be provided when pressed bounce and text display attributes, when the need to use multiple languages, different language text separated by a semicolon.

a ) Font: Select the font size and style;

b ) When the pop-up (pressed) Color: The user can select pops up (when pressing) of the color display;

c ) When the pop-up (pressed) text: Text displayed when the button is bounced (pressed).

5 , Touch purposes: to achieve a different function buttons control can be switched.

6 , Initial State: The initial setting button to pop up or pressed.

7 , Touch operating style:

a) Transient: After pressing, the switch automatically pops up, similar touch switch function.

b) Switch: press, press the switch by the bounce into or pressed into a pop-up, similar to a lock switch function.

c) Set: Press the switch only by a bounce into.

d) Reset: Press the switch only by bounce into.

e) Press: button with similar transient, but every pressing 100 Ms notification once.

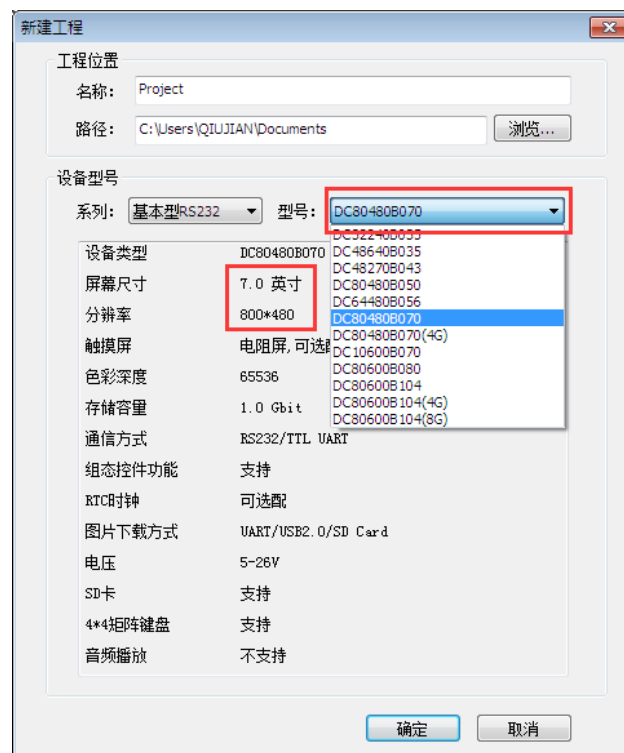
8 , Internal instruction: button is pushed or popped, the internal instruction execution.

9 , External commands: button is pushed or popped, it sends the command, any command preparation, but not containing " FF FC FF FF ", Or conflict with the conventional instruction, you can set the interval.

### 3.3 Pop / picture when pressed

When pressed or set bounce UI You can enhance the user experience, but care must be taken when the resolution set by the user. The new project size and picture resolution must be UI Same size resolution as 3-3 As shown, the new project selection is basic 7 Inch resolution 800 \* 480 .

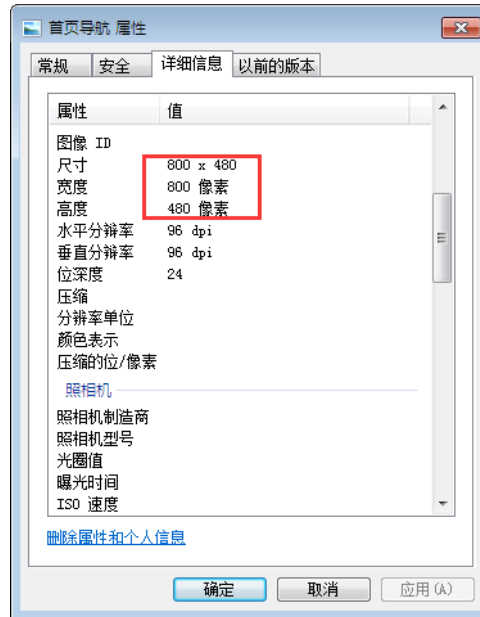
For example, we set the home page navigation map resolution, and when you press the Home map resolution must be consistent.



Map 3-3 Project Resolution

If we are not sure whether the picture resolution is consistent with the construction of the project, we can open the image properties to view the picture resolution, as 3-4 Home navigation resolution shown in FIG. 800 \* 480 .

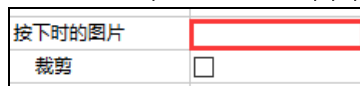




Map 3-4 Picture resolution

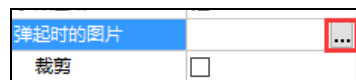
Picture bounce when setting method (when pressed) of:

- 1 In the Button Properties window, click the left mouse button map 3-5 Marked area will pop up. "... "The expansion symbol.



Map 3-5 Set the picture when you press

- 2 , As 3-6 As shown, then click on the "... " sign of expansion.



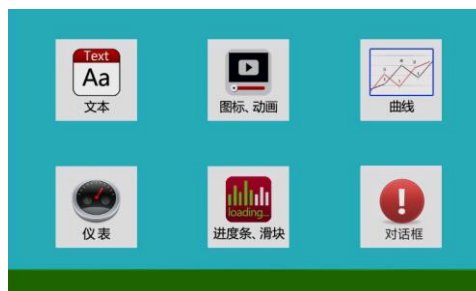
Map 3-6 Select Image

- 3 Select pre-prepared art.

### 3.4 Crop function

1. Do not check the crop function

Routine, as shown in FIG art home navigating 3-7 As shown, the picture is assumed that the user wants to set up press the "Text" icon.



Map 3-7 Home map

If unchecked cropping function, the effect is equivalent to pressing the picture directly filled into the coverage area of the button control, the user can

As shown in the picture made with art 3-8 Fig.

Note: The artwork must be pressed when the resolution and the resolution of the "Text" icon of the same, in order to achieve a good effect Press



Map 3-8 When pressed artwork

## 2. Check the Crop function

Home navigation artists shown in Figure 3-9 As shown in the picture if we want to set press the "Text" icon.



Map 3-9 Home map

At this time we are ready to Figure 3-10 When pressed as shown in FIG art.

Note: the artwork resolution when the resolution must be pressed and consistent navigation artwork home, and coordinates of all icons, width, height map must be consistent with home, or not pressed when the corresponding position corresponds.



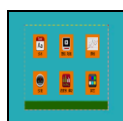
Map 3-10 When pressed artwork

At this time, when pressing the "Text" icon, as shown in FIG effect 3-11 Fig.



Map 3-11 Press effect

Error Model: If we're going is shown in Figure 3-12 When the press illustrated in FIG art, but do not check the cropping function, then the effect is pressed like this, at this time when pressing the "Text" icon, as shown in FIG effect 3-12 Shown, corresponding to the entire FIG. 3-12 Filled into the coverage area of the button control, this arrangement typically leak check cropping function.

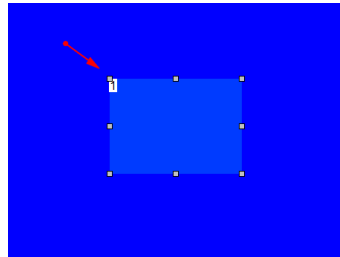


Map 3-12 Error Model

### 3.5 View ID

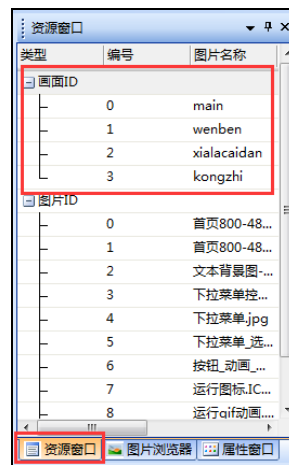
To complete the control function of technology, we need to know how to view and control the screen ID .

1 , View the controls ID Method: FIG. 3-13 As shown in the upper left corner of the controls is the digital control ID .



Map 3-13 Controls ID

2 View the picture ID Method: FIG. 3-14 As shown, click the Resources window, you can view each picture corresponding ID .



Map 3-14 Picture ID

## 4. Technical realization

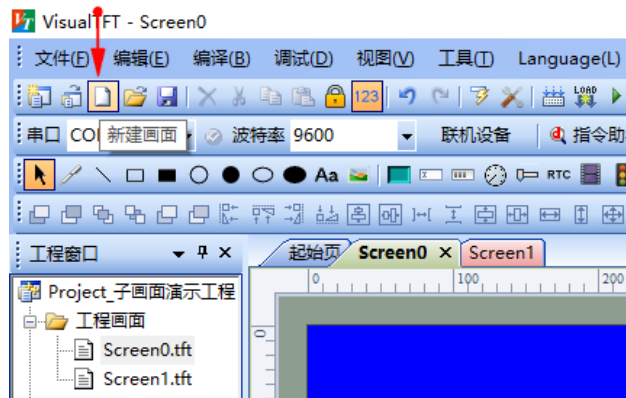
### 4.1 Changing Screens

Switching the screen, press the button to switch to the specified screen.

#### 4.1.1. The sprite

Sprite generally small window with a transparent background, when used as a switching dialog screen; open sub-picture function, when the sub-picture screen is switched to the original still picture data to monitor changes. Dialog box function implemented, proceed as follows:

1. New construction, two new pictures "Screen0", "Screen1", such as Map 4-1 Fig.



Map 4-1 New Project screen

2. Creating a button control in Screen0 screen, as 4-2 Fig.



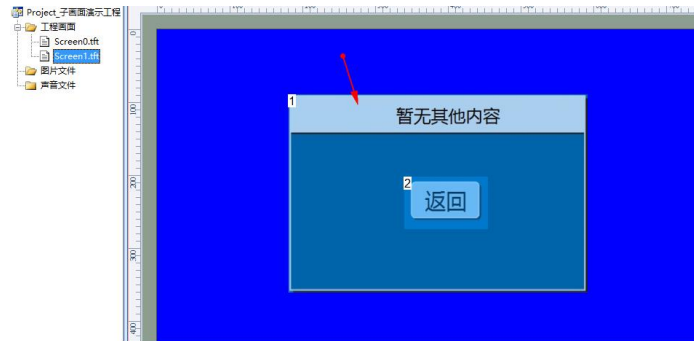
Map 4-2 Create a sub-screen button

3. Button control attribute setting window shown in Figure 4-3: The pop-up text → type "switching sub Screen "; the use of the touch screen → switch; destination screen → Screen1 ; Sprite → Yes.

控件设置	
触摸虚框	是
事件通知	是
弹起时的图片	
裁剪	<input type="checkbox"/>
按下时的图片	
裁剪	<input type="checkbox"/>
文字状态	是
字体	GB2312-32*32
弹起时的颜色	<input type="checkbox"/> 255; 255; 255
按下时的颜色	<input type="checkbox"/> 255; 255; 255
弹起时的文字	切换子画面
按下时的文字	
触控用途	切换画面
目标画面	Screen1
子画面	是
密码保护	否

Map 4-3 Sub-picture attribute

3 Insert a picture in PNG Screen0 screen, as 4-4 Fig.



Map 4-4 Insert Picture

4 , Compiled error-free run "virtual serial port panel" in effect validation, switch to sub-screen click on the button, as 4-5 Fig.



Map 4-5 Sub-screen simulation run

#### 4.1.2 password protection

Password protection is turned on when this feature, you must type the correct password to switch the screen, the password can be VisualTFT Set.

1 , Control window button attribute set, as shown in 4-6 : In the above basic switching sub-picture attribute set

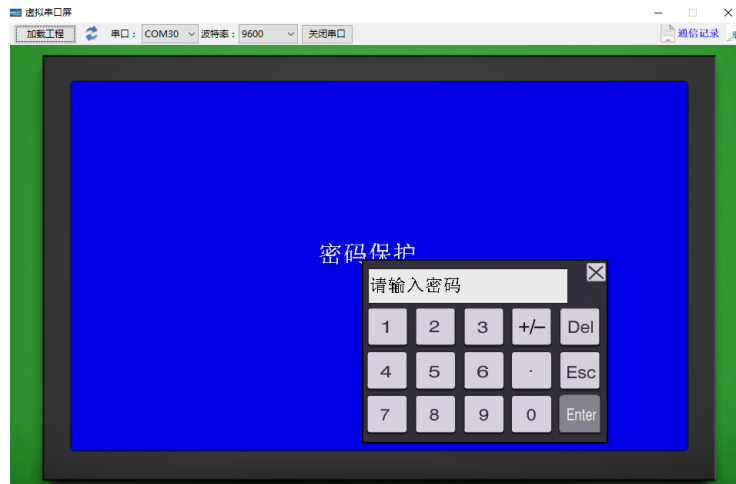
On → is password protected; password → 888888 .

触控用途	切换画面
目标画面	Screen1
子画面	是
密码保护	是
密码	888888

Map 4-6 Password protection of property

2 , After compiling correct, run the "Virtual Serial Port screen" in effect verification, click the button, then you can see the number of pop-up

Numeric keypad, only enter the correct password to enter the sub-setting screen, as shown in 4-7 Fig.

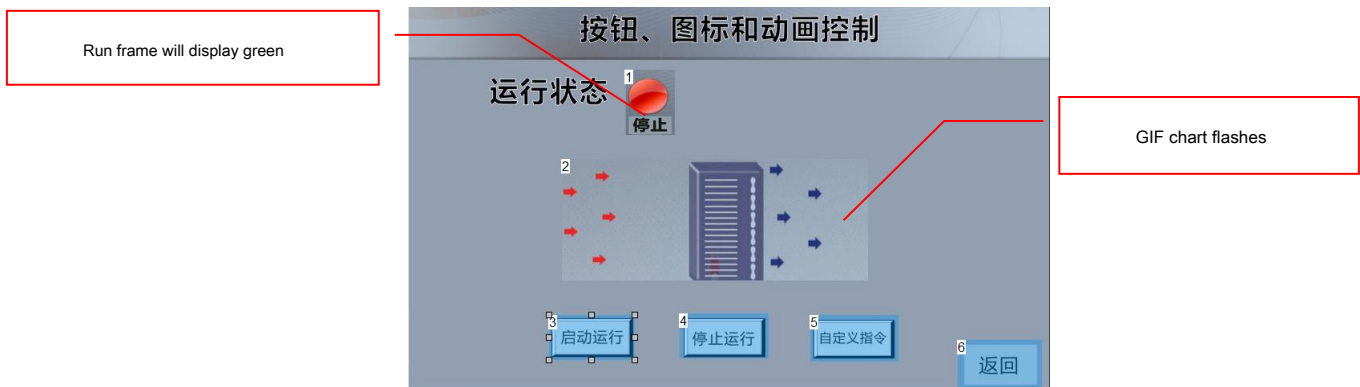


Map 4-7 Password Protection Simulation

## 4.2 Switch Description

Description switch, i.e. the button is pressed as a bounce or switching functions, various operations selectable styles. Figure 4-8

As shown in the user presses the icon "up and running", the icon will show the controls run frame, GIF Figure flashes up.

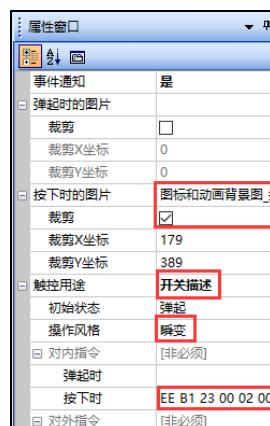


Map 4-8 Switch Description

Proceed as follows:

1 The entire "up and running" icon to the touch area.

2 , As 4-9 Shown in the properties window settings: the picture of the picture selected by pressing the pressing → UI ; Selected crop; touch switch → purposes described; style → transient operation; internal instructions (explained in detail below) is disposed is pressed.



Map 4-9 Button Properties

Internal instruction set is pressed: ( 1 ) Button in the Properties window, click the left mouse button Fig. 4-10 Marked area, will pop up "..." sign of expansion.

触控用途	开关描述
初始状态	弹起
操作风格	瞬变
<input type="checkbox"/> 对内指令	[空白时不执行]
弹起时	
按下时	

Map 4-10 Click area

( 2 ) Figure 4-11 As shown, then click on the "..." expand button.

触控用途	开关描述
初始状态	弹起
操作风格	瞬变
<input type="checkbox"/> 对内指令	[空白时不执行]
弹起时	
按下时	

Click on

Map 4-11 Open the command box

( 3 ) Expanded Figure 4-12 , The instructions may be input, add, delete, determining operation. Assistant recall command from a copy instruction to FIG. 4-12 Input box, as shown in FIG instruction input 4-12 As shown, after adding click OK.

指令

指令

EE B1 23 00 03 00 01 01 FF FC FF FF

EE B1 20 00 03 00 02 FF FC FF FF

添加

删除

确定

Finished filling must be confirmed

Map 4-12 Edit command

Note: The instructions can be called up from the instruction assistant, you can refer to our official website relevant information. As used herein

instruction: instruction execution display frame: EE B1 23 00 03 00 01 01 FF FC FF FF. Animation control start command: EE B1 20 00 03 00 02 FF

FC FF FF.

3 "Out of service" icon set as above.

4 , Compiled error-free run "virtual serial port screen" to verify, as 4-13 Fig.



Map 4-13 Virtual Serial Port screen

### 4.3 Custom Key

Custom key, i.e. converted into a corresponding key button input. With the need to customize the keyboard input text using the control button controls can be designed as a custom keyboard, the user needs to as custom key button control, proceed as follows:

- 1, A new screen, place a picture control on the screen, insert the prepared keyboard graphic material, as 4-14

Fig.



Map 4-14 Insert artwork

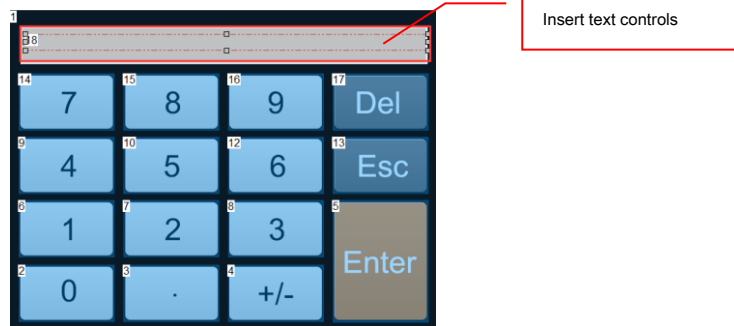
- 2, Insert the picture control must be set to the original size of the picture, otherwise, the choice of when using the cropping function will find that the resolution does not match, as 4-15 Fig.



Map 4-15 display image

- 3, Were placed on the OK button controls artwork, and text control insert a red mark as 4-16
- Fig.

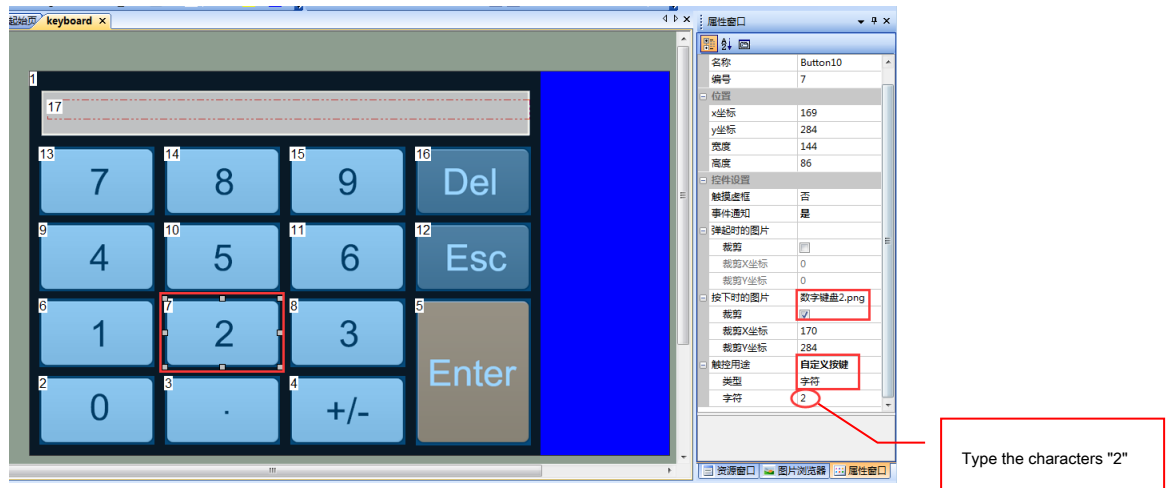




Map 4-16 Insert Control

4 , All buttons are set the properties as 4-17 Fig. For example, make a custom keyboard key is set to 2 In the properties window settings: the picture of the picture selected by pressing the pressing → UI ; Crop → "tick in"; the use of the touch key custom →; → character type; character → " 2 . "Other buttons value is set as above.

Note: In addition to the types of key characters, you can also choose "Enter", "Clear", "Backspace", "Esc" or "Shift" special function keys.



Map 4-17 Button Properties

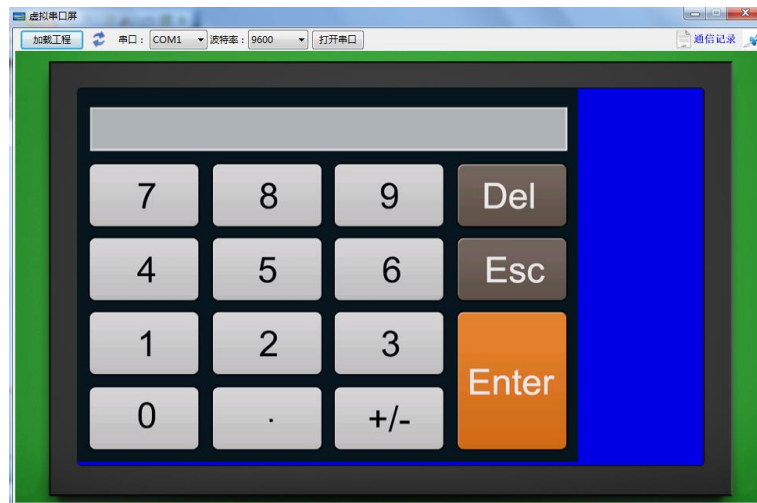
5 , Set the text control properties as 4-18 Shown: Clear text; input mode → custom key input.



Map 4-18 Text property

6 , Compiled error-free run "virtual serial port panel" in effect verification, as 4-19 Fig.

Note: As users use different art images, we built the system keyboard will not perfectly match user art, this time we can use to customize the keyboard to replace the system's keyboard, the specific operation refer to our official website Download column "How to modify the system pop-up keyboard."



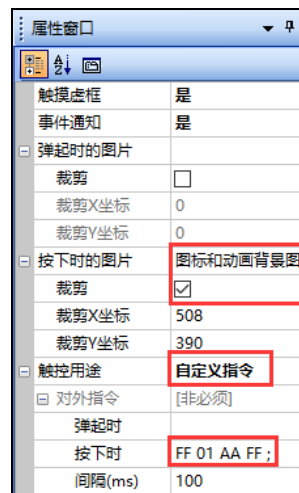
Map 4-19 Customize Keyboard

#### 4.4 Custom command

Custom command, which the user presses a button settings, upload custom device serial data, user settings such as pressing the "custom instruction" button, the screen commands to be transmitted: FF 01 AA FF . Proceed as follows:

1 , The entire "Custom command" icon to the touch area.

2 , Custom attribute set command buttons, as shown 4-20 Shown: the picture of the picture selected by pressing the pressing → UI : Crop → "tick in"; the use of the touch → custom instruction; External command when pressed → " FF 01 AA FF . "



Map 4-20 Custom command

NOTE: Custom commands can not include FF FC FF FF combination of characters, otherwise it will conflict with the regular instruction.

#### 4.5 Pop-up menu

Note: The serial port hardware version V2.22.793.XXX screen before, including 793 products, including pop-up menu function is not supported directly use touch button control to "pop-up menu", or download the project will lead to the pop-up menu function to hardware not working; for normal use pop-up menus, using the described switching function described above is set.

Pop-up menu, you need the collaborative menu controls and text controls used to achieve click the button pop-up menu, select the user in the pop-up menu, with the text control, the selected data is displayed in the function.

1 Set prepared background artwork, in Figure 4-21 A marking area, were placed ID for 1 Button controls, a ID for 2 Text control, a ID for 3 Menu controls.

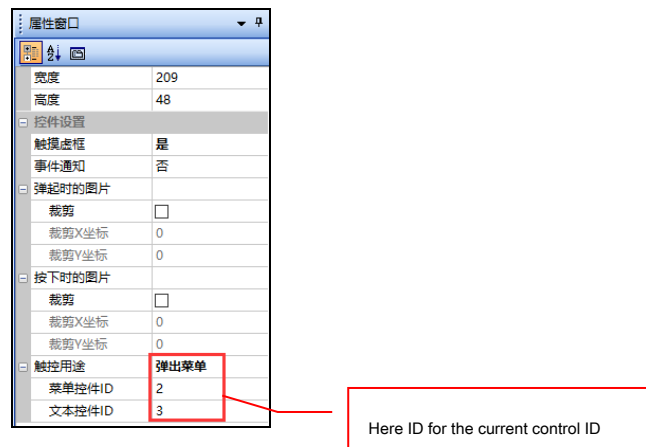


Map 4-21 Insert Control

2, The placement of the three controls were set properties window. ( 1 ) To set the properties window button control, as shown in 4-22 FIG: Touch

→ use pop-up menu; menu control

ID → " 2 "; Text control ID → " 3 . "



Map 4-22 Button Properties

( 2 ) Text properties window controls are provided, as shown in 4-23 Shown: Clear text; alignment → Align; input mode input → hosts.



Map 4-23 Text property

( 3 ) For menu control attribute setting window, as shown in 4-24 : Menu → style pop-up menu; menu direction

→ Level; the number of menu item → " 4 "; Menu data → " 1 ; 2 ; 3 ; 4 ; . "



Map 4-24 Menu Properties

3 , Compile error-free run "virtual serial port screen" to verify, as 4-25 Fig.



Map 4-25 Drop-down menu