

Instrument control applications

Engineering notes



category	content		
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summary screen			



revise history

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1. Scope

Documentation for budget, basic, business type, object linking, 86 Serial screen box series products.

2. Development Environment version

1. VisualTFT Software version: V3.0.0.749 And above; versions View: (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 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. Properties window

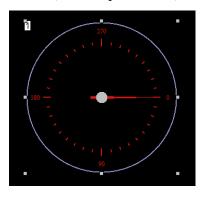
Instrument control, you can use the instrument in the form of instruments to reflect the data changes on the user's host. Many instruments and control properties provided methods, powerful, flexible configuration, can be configured to meet the basic instrumentation interface, as 3-1 As shown in the Properties window for the text control.



Map 3-1 Properties window

1. Numerical

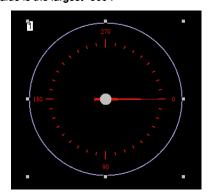
1) Start value: the minimum value range of the instrument, can be set. Figure 3-2 As shown, " 0 "As the start value.



Map 3-2 Start value

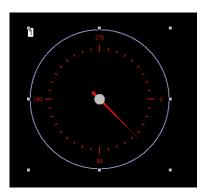
2) Stop value: the maximum value range of the instrument, can be set. Turn the meter pointer 360 After $^{\circ}$, FIG. 3-3

, The point is also " $\bf 0$ "But this time value is the largest" $\bf 360$. "



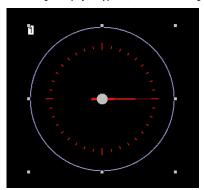
Map 3-3 Termination value

3) Initial value: a pointer pointing to the start value. For example, we keep the other values unchanged, set the initial value 45, A pointer pointing to the start of FIG. 3-4 Fig.



Map 3-4 The initial value 45

4) Display values: the digital dial. Close value of the digital display disappears, as shown in 3-5 Fig.

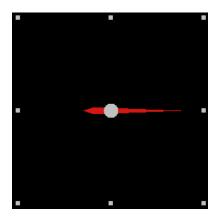


Map 3-5 No values

- 5) Font Size: Set the font size on the dial.
- 6) Font color: set the color of the font on the dial.
- 2. dial
- 1) Dial Style: divided into " Self-painted dial, "" background image "," transparent ", as 3-6 Fig. When the background image
- $\,\rightarrow\,$ When transparent, the dial is removed, leaving only the pointers, as shown in 3-7 Fig.

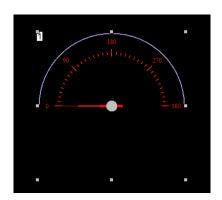


Map 3-6 Dial Style



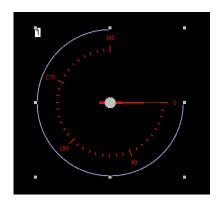
Map 3-7 Transparent Background

2) Start angle: a pointer to the starting point to the start angle, for example, holding the other constant value, set the starting angle 180 °, FIG. 3-8 Fig.



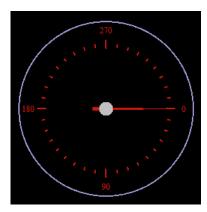
Map 3-8 Starting angle 180 °

3) End angle: angle of the final point of the pointer dial, for example, other values remains unchanged, end angle is set 270 °, FIG. 3-9 Fig.



Map 3-9 End angle 270 $^{\circ}$

- - 4) Direction of rotation: divided into "clockwise" and "counterclockwise."
 - A: Select "clockwise": go pointer clockwise direction along a large value, as shown in 3-10 Fig.
 - B: Select "counterclockwise": go pointer counterclockwise direction along a large value, as shown in 3-11 Fig.

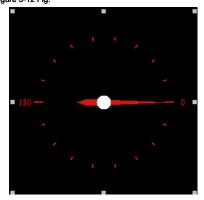


Map 3-10 Clockwise



Map 3-11 CCW

- 3. Graduation
- 1) Background color: Select "yes" or "no." Select "Yes" you can set the background color scale.
- 2) Display lines: the main line is the instrument that the outermost circle, choose "yes" or "no." Select "YES" and the main line may be provided in the width of the main colors. No selection results in Figure 3-12 Fig.

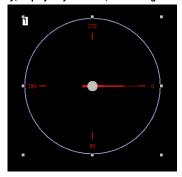


Map 3-12 Hide the main line

3) Scale: the number of scale may be provided, the default is 4 Scales. Color scale may also be provided in the width of the numerical scale.

4) Display sub-scale: select "yes" or "no." The number can also set the sub-scale, color scale sub-set of numerical scale width.

After selecting "No" to close the sub-scale display, display only 4 Scales, as 3-13 Fig.



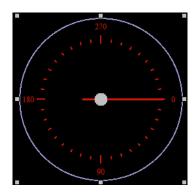
Map 3-13 Does not display sub-scale

- 4. Hands
- 1) Hands Type: type of hands can be disposed of, into "straight line", "triangle", "quadrilateral." Figure

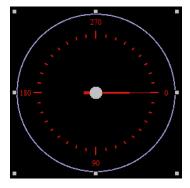
3-14 Map 3-14 Fig. 3-15 Fig. 3-16 Fig. 3-17 Map 3-14 Fig.



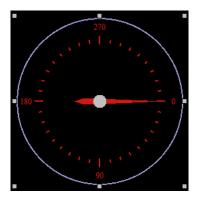
Map 3-14 Type hands



Map 3-15 Straight hands

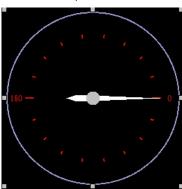


Map 3-16 Triangle hands



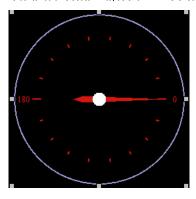
Map 3-17 Quadrilateral hands

2) Hands Color: The color of hands. The hands color to white, as shown in FIG effect 3-18 Fig.



Map 3-18 White hands

3) Center Color: The color pointer centers. The center color is set to white, as shown in FIG effect 3-19 Fig. $\,$



Map 3-19 White Center

4. Function example

4.1 Setting numerical gauge controls

Note: Set it to other parts leaving only a pointer, the dial, etc. may all be done in a picture, and then this image as a background of this picture, so that operation speed can be increased.

1, A new screen, provided good background screen, as shown in 4-1 Fig.



Map 4-1 New Screen

2 , Inserting a control instrument, the instrument set attributes: start value → " 0 "; Termination value →" 10 "; Initial value → " 0 "; Dial type → transparent; start angle →" 160 "; End angle →" 20 "; → clockwise rotation direction in FIG. 4-2

Fig.



Map 4-2 Meter property is set

3 , Compiled correctly, run the simulator test results. Figure 4-3 Fig.

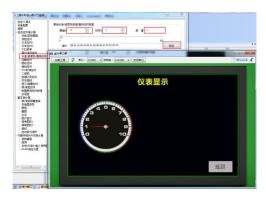


Map 4-3 Virtual Serial Port screen



4.2 Update instrument control value

1 Use instruction assistant, click on the instrument, the input screen ID, Instrument control ID, Enter the value 1 Click transmission, as shown in FIG display hands 4-4 Fig.



Map 4-4 Send value

2 When the input value is greater than the stop value, the value of hands termination point. send 11 Results in Figure 4-5 Fig.



Map 4-5 Enter the value of cross-border

NOTE: When the input value is greater than the value of the termination, the termination hands point value; when the input value is less than the starting value, the hands point to the starting value.

4.3 Meter reading value Controls

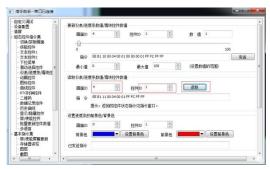
When the control value need to read the meter, by the following method.

1 , Hands point to the current value 1 , As 4-6 Fig.



Map 4-6 Virtual Serial Port screen

2 Use instruction assistant, click on the instrument, the input screen ID , Control ID Click to read. Figure 4-7 Fig.



Map 4-7 Instruction assistant

3 The return instruction in FIG. 4-8 Fig.



Map 4-8 Command window

NOTE: The last input value is read.

A, when the last input value is greater than the termination value, the return value of the input value. Value, for example, 10 is terminated, the last input 100, 100 is also read.

B, when the last time the input value is less than the starting value, the input value is returned. For example, the start value is 0, the last input-1, the value read is also -1.