

Composite Screen Configure Manual

Since mt_driver_kit_v4.1005beta, the multi touch platform support composite touch screens with a single PC.

Composite screen need to be configured in “mtsvrset.xml”. Below is the detailed configuration.

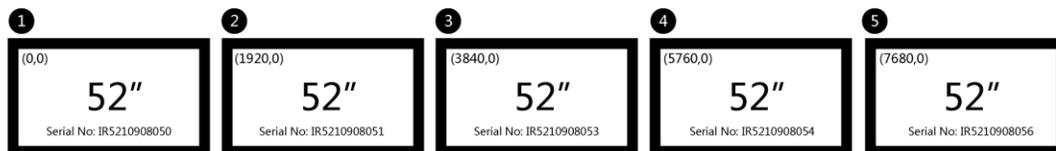
Organization of Composite Screen configure

The composite screen is organized with configuration in mtsvrset.xml.

You can find <composite_screen ...> element as below in the file:

```
<composite_screen total_row="1" total_col="5">
```

The “total_row” and “total_col” indicates how the 5 screens splicing, take “total_row=1 total_col=5” as an example, the screens will look as below:



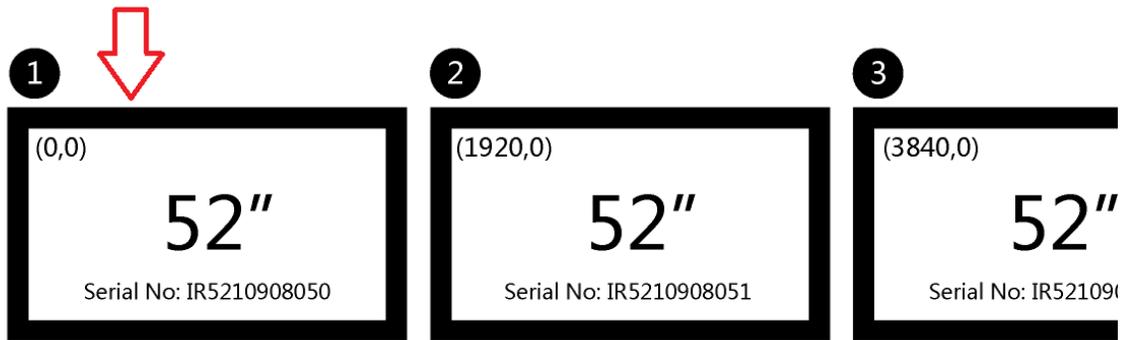
Graph 1. Sample of composite-screen’s arrange

```
<physical_screen serial_number="IR5210908050" row_in_matrix="0" col_in_matrix="0">
```

<physical_screen ...> element is the configuration for the single screen which splice as a composite-screen. The “row_in_matrix” and “col_in_matrix” indicate the relative position of the single screen in the matrix of composite-screen. The “serial_number” is the serial number of the screen.

For example, the “serial_number=IR5210908050 row_in_matrix=0 col_in_matrix=0” is the first screen in the matrix.

serial_number=IR5210908050 row_in_matrix=0 col_in_matrix=0



Modification of “mtsvrset.xml” when replacing physical screen

For example: replacing the “ir5210908050” with “ir5210908049”.

Step1. Exit the “MultiTouchplatform.exe”.

Step2. Go to the setup directory of MultiTouchPlatform, find the original “mtsvrset.xml”, open it with “notepad.exe”. Find the “<composite_screen...>” element, then find “<physical_screen serial_number”IR5210908049...> like below:

```
mtsvrset.xml - Notepad
File Edit Format View Help
<?xml version="1.0" encoding="utf-8" ?>
<multitouch>
  <!--record_option: to record the log or the hardware data, 0 for not record;-->
  <!-- for pr1004: 5 screens composite -->
  <composite_screen total_row="1" total_col="5">
    <physical_screen serial_number="IR5210908050" row_in_matrix="0" col_in_matrix="0">
```

Modify the “serial_number = IR5210908050” to be “serial_number=IR5210908049”, the result should look like below:

```
mtsvrset.xml - Notepad
File Edit Format View Help
<?xml version="1.0" encoding="utf-8" ?>
<multitouch>
  <!--record_option: to record the log or the hardware data, 0 for not record;-->
  <!-- for pr1004: 5 screens composite -->
  <composite_screen total_row="1" total_col="5">
    <physical_screen serial_number="IR5210908049" row_in_matrix="0" col_in_matrix="0">
```

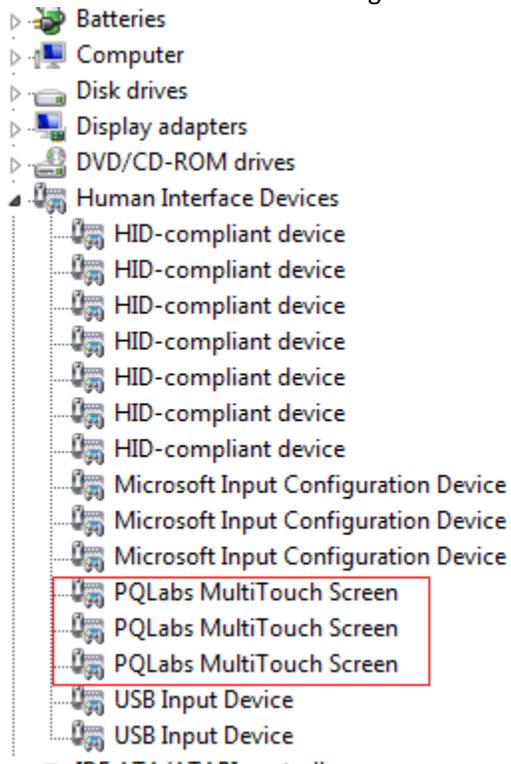
Ok, save it.

Step3. Start the MultiTouchPlatform.exe and enjoy it.

Add display or touch screen

If you want to add display, for example, you want to map the touch screen over **3** displays, you need to :

- Find "PQIntallTouch.exe" in the driver setup directory (usually be "C:\Program Files\PQLabs\MultiTouchDriver"), run it once(there is already 2 installed as default).
- After run the PQInstallTouch.exe, you should find **3** "PQLabs Multi Touchscreen" in the "Human interface devices" of "device manager".



- Exit the "MultiTouchPlatform.exe" and modify the "mtsvrset.xml" in the MultiTouchPlatform setup directory. Take the "group_id=1" composite_screen for example. Modify the

```
<composite_screen group_id="1" digitizer_mode="separate" total_row="1" total_col="2">  
  
  <physical_screen serial_number="ir32**" row_in_matrix="0" col_in_matrix="0">  
  
    <calibration param0="1.000000" ... />  
  
  </physical_screen>  
  
  <physical_screen serial_number="ir22**" row_in_matrix="0" col_in_matrix="1">  
  
    <calibration param0="1.000000" ... />  
  
  </physical_screen>  
  
</composite_screen>
```

To be

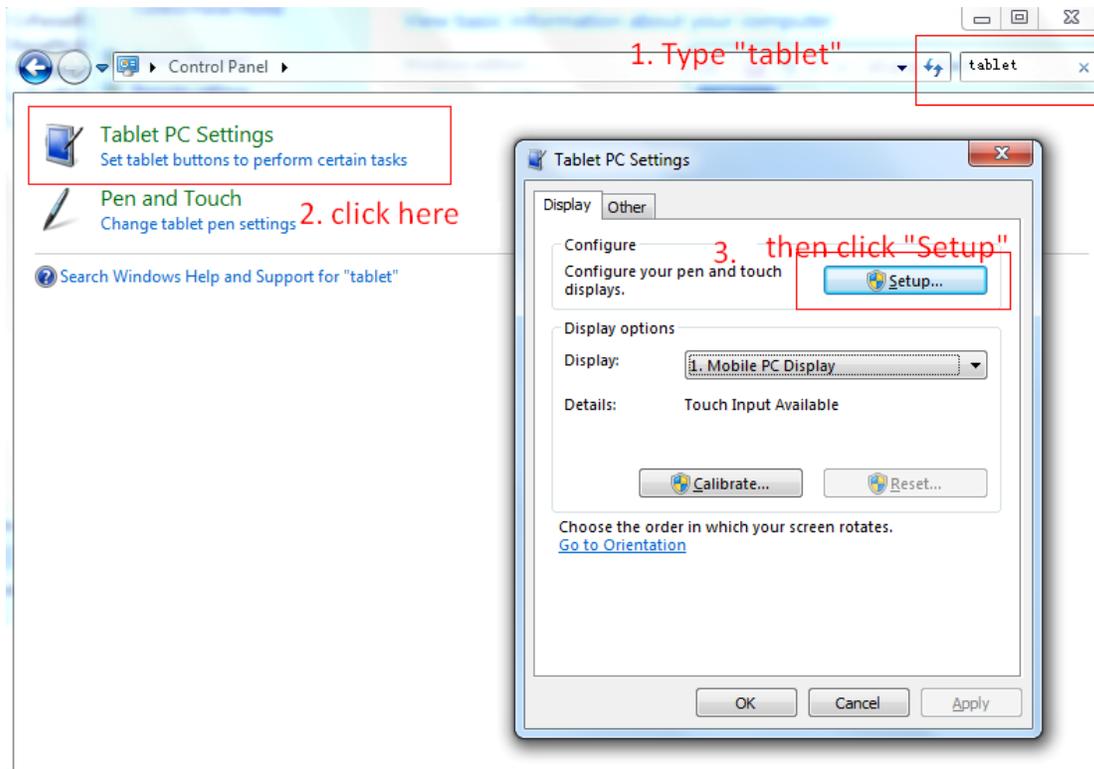
```
<composite_screen group_id="1" digitizer_mode="separate" total_row="1" total_col="3">  
  <physical_screen serial_number="ir32**" row_in_matrix="0" col_in_matrix="0">  
    <calibration param0="1.000000" ... />  
  </physical_screen>  
  <physical_screen serial_number="ir22**" row_in_matrix="0" col_in_matrix="1">  
    <calibration param0="1.000000" ... />  
  </physical_screen>  
  <physical_screen serial_number="ir**" row_in_matrix="0" col_in_matrix="2">  
    <calibration param0="1.000000" ... />  
  </physical_screen>  
</composite_screen>
```

- d. Restart the computer and start the MultiTouchPlatform.

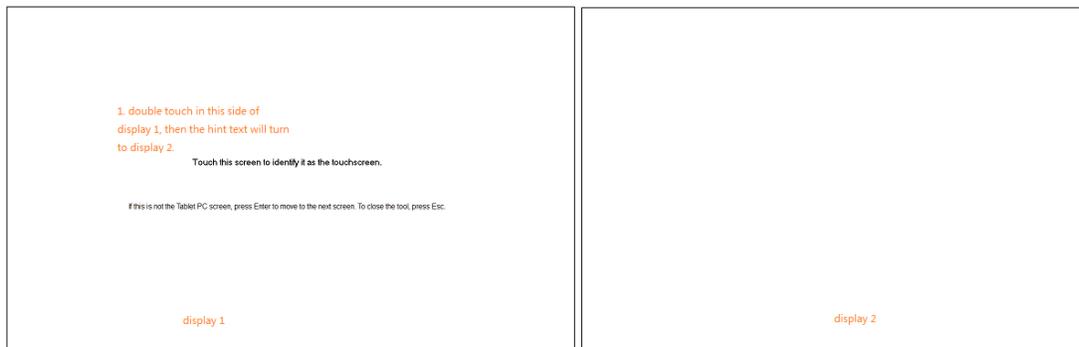
Configure Windows 7 to support multi digitizer

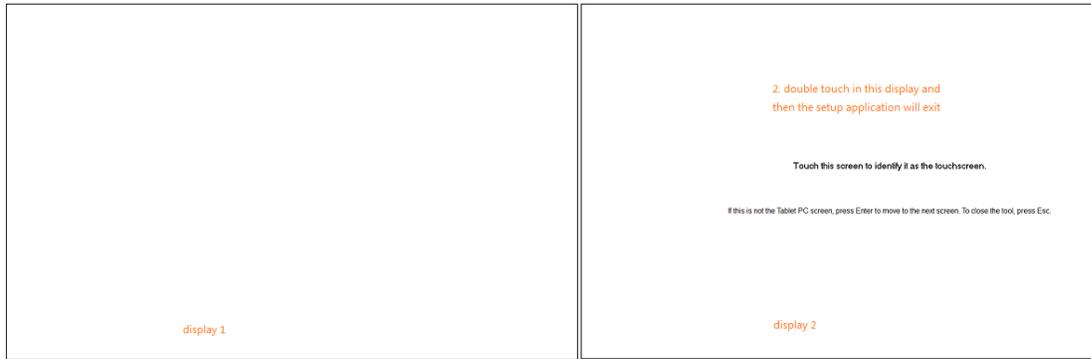
Windows 7 need to configure the relationship between display monitor and touch screen one by one, please do it after installation.

Step 1.



Step 2.

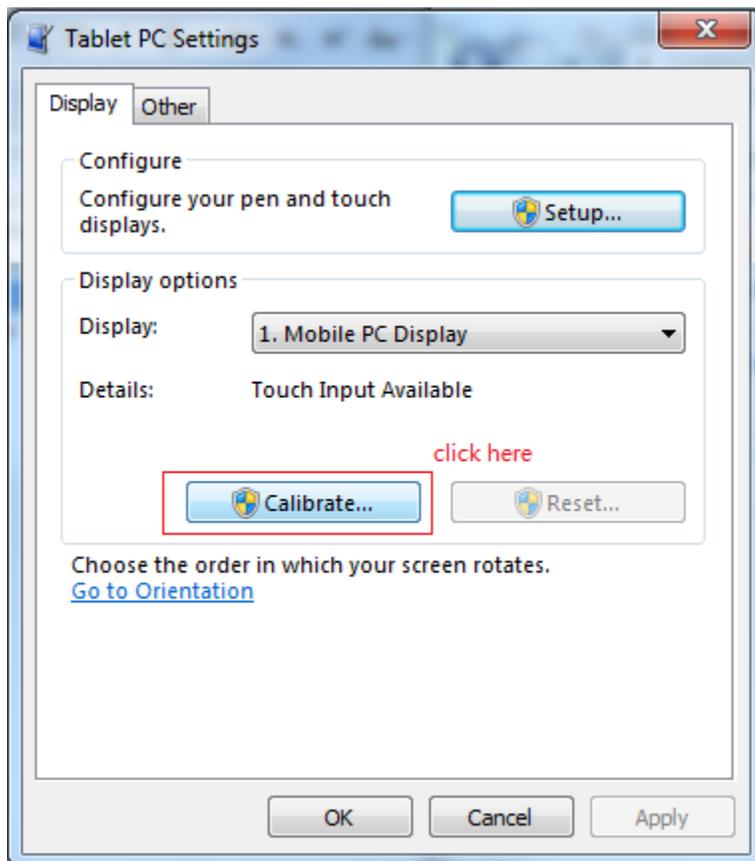




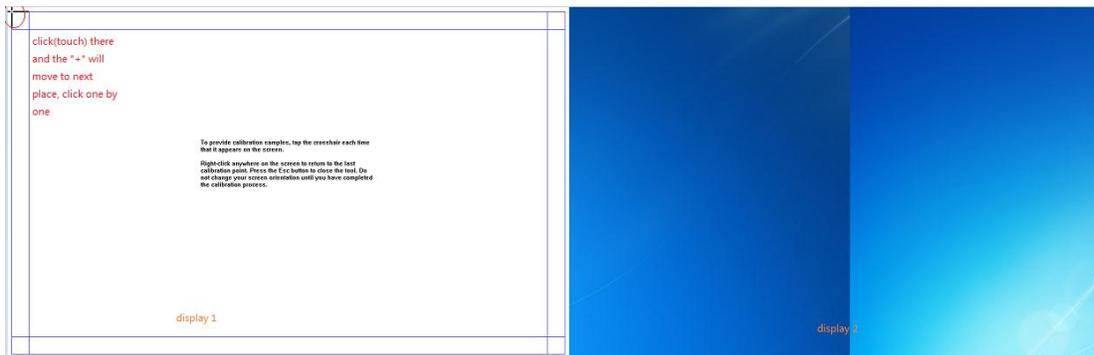
Calibration of digitizer to display

Windows 7 has a calibration tool for touch device(digitizer), it's calibration for every touch digitizer to one display monitor (attention: it's one to one). Use the calibration when you need to touch in the desktop on windows 7 or some application based on WM_TOUCH of windows 7.

Step 1.



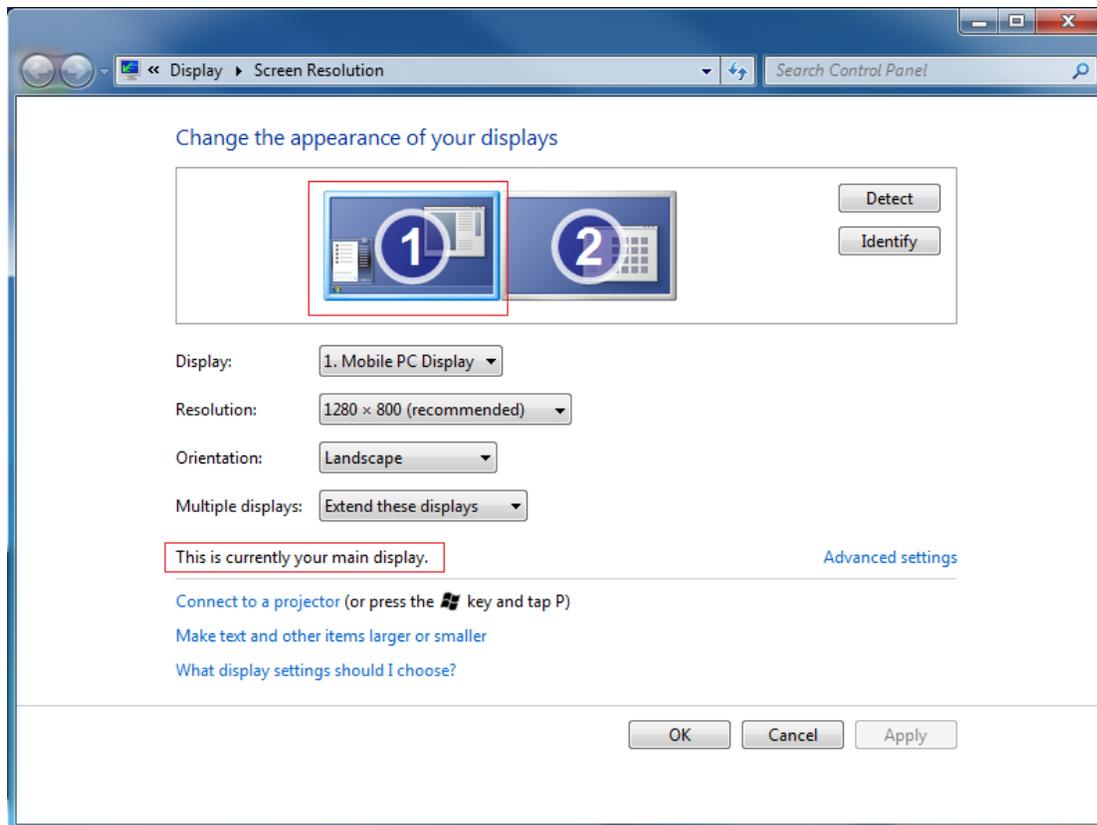
Step 2.



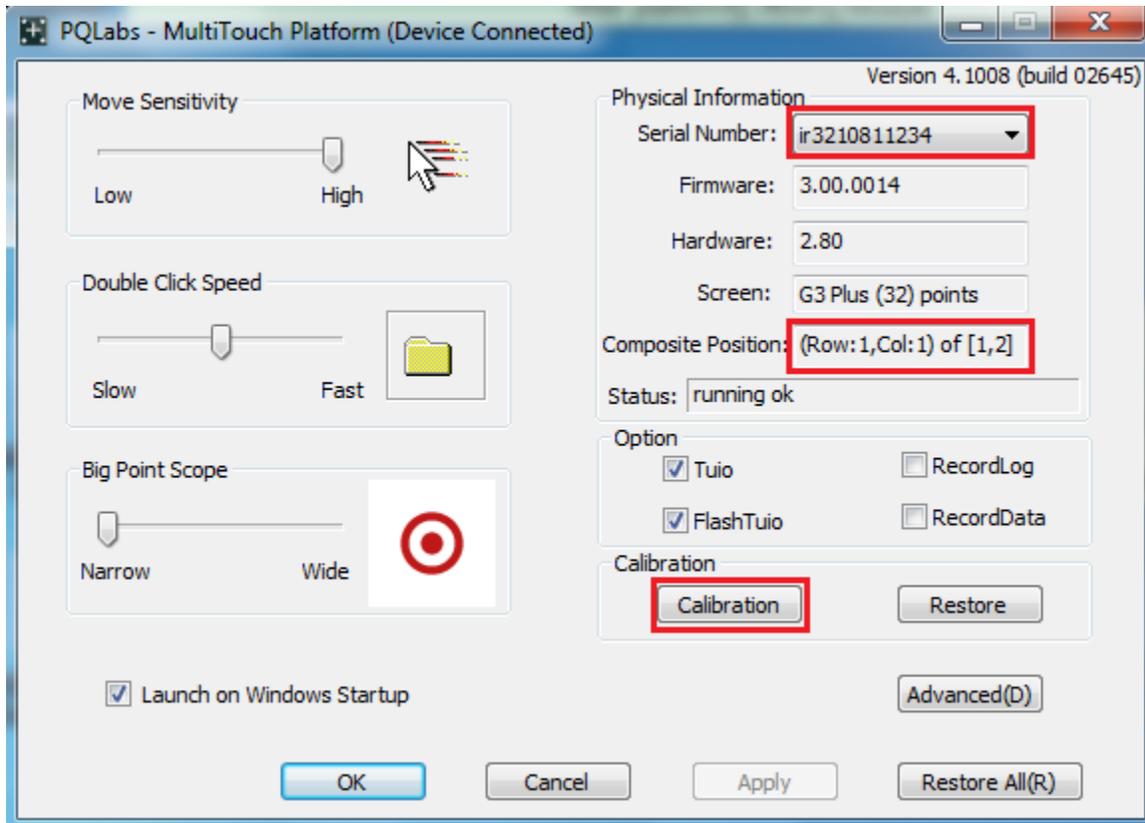
Calibration of Touch Screen to each display

Use the “Calibration” of MultiTouchPlatform when you need to touch in some applications based on sdk of PQLabs or demos of PQLabs.

Attention: the first display should be **main** display and the base point (0,0) should be in the first display, and the resolution of the displays should be equal before calibration.

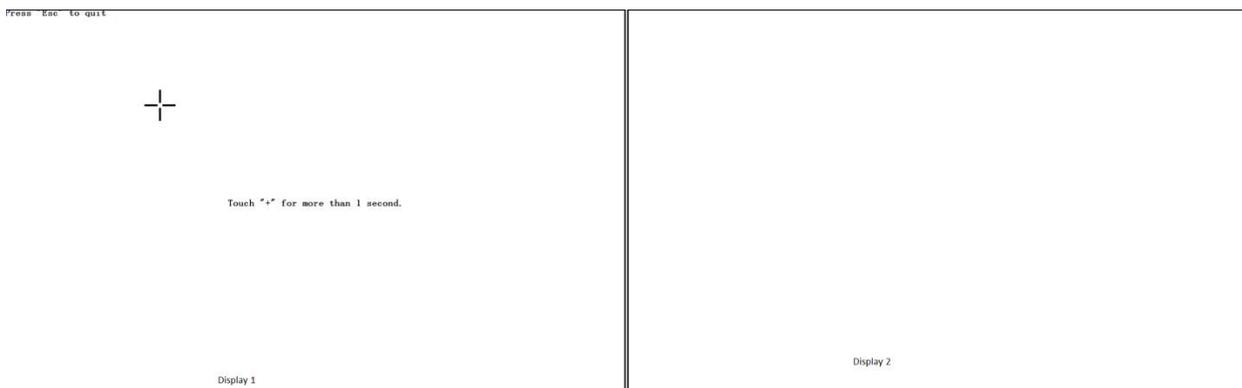


Step 1.



Current calibration touch screen is "ir3210811234", it's the first touch screen(Row:1,Col:1 of [1,2]) in the composite screen.

Step 2.



The calibration "+" will display on the first display relative to the composite screen position (Row:1,Col:1 of [1,2]).