

ILITek iUniTouch Tool

User Guide

Version: V1.04

Release Date: Nov. 22 ,2016

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Document Revision History

Version	Data	Author	Description
1.00	2016/2/26	Kevin Chang	First Release Version
1.01	2016/6/29	Vincent Chen	Added New Features
1.02	2016/7/7	Kevin Chang	Added New Features
1.03	2016/10/19	Kevin Chang	Added Ubuntu Support
1.04	2016/11/22	Kevin Chang	Correcting Errors in Description

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1 Description

ILITEK iUniTouch Tool provides a configuration utility for all kinds of ILITEK capacitive touch IC. This document would help to use ILITEK iUniTouch Tool in detail.

1.1 System Requirements

- ILITEK USB interface capacitive touch related products
- Windows OS: Windows XP SP3, Windows 7, Windows 8/8.1 and Windows 10
- Linux OS: Ubuntu 12.04.5, Ubuntu 14.04.4, Ubuntu 16.04.1

2 Software Installation

2.1 Windows Platform

Double click at the setup.exe file to start software driver installation. The setup program will guide user to complete software installation.



Figure 2-1: Setup.exe

Press **Next** button to continue installation.

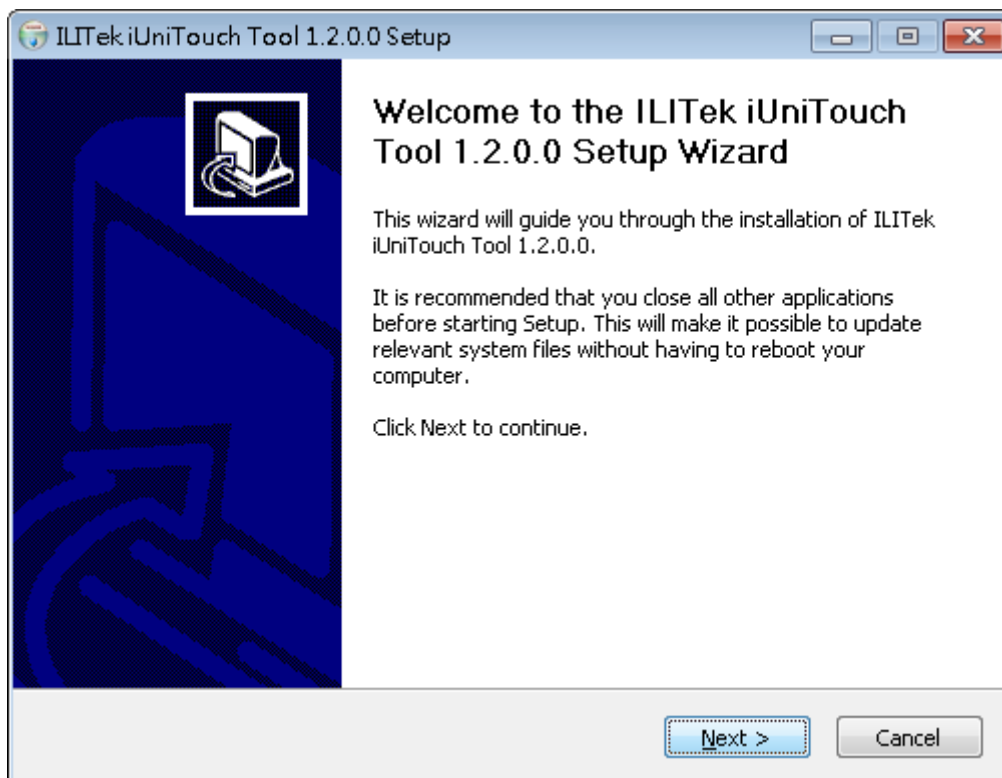


Figure 2-2: Welcome Installation

User can choose the destination folder. Press **Install** to continue.

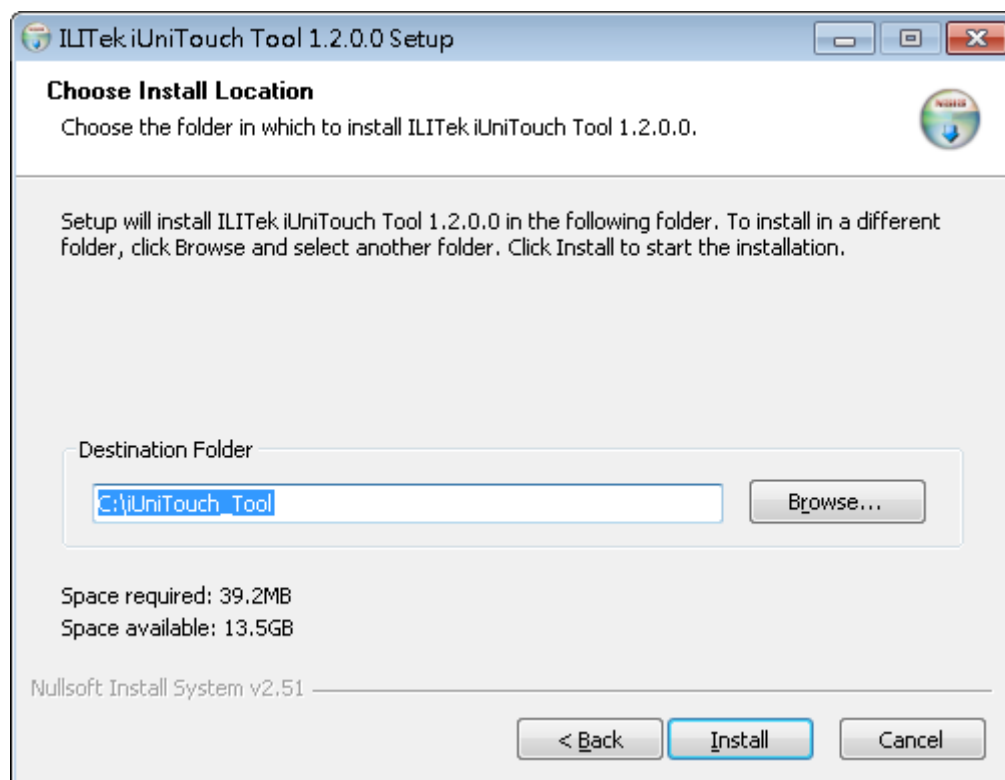


Figure 2-3: Destination Folder

Installation will take a few minute, please wait patiently.

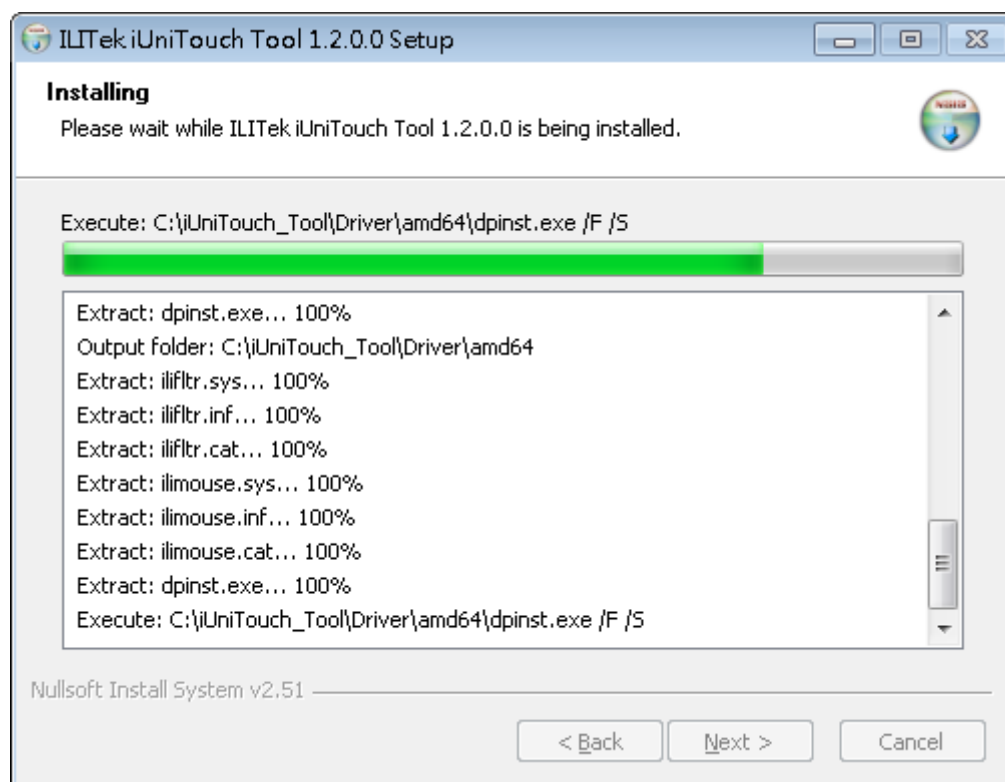


Figure 2-4: Installation Progress Window

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When completed install please reboot your computer to make change take effect.

After reboot, you can see the ILITek iUniTouch Tool shortcut on desktop and start menu.

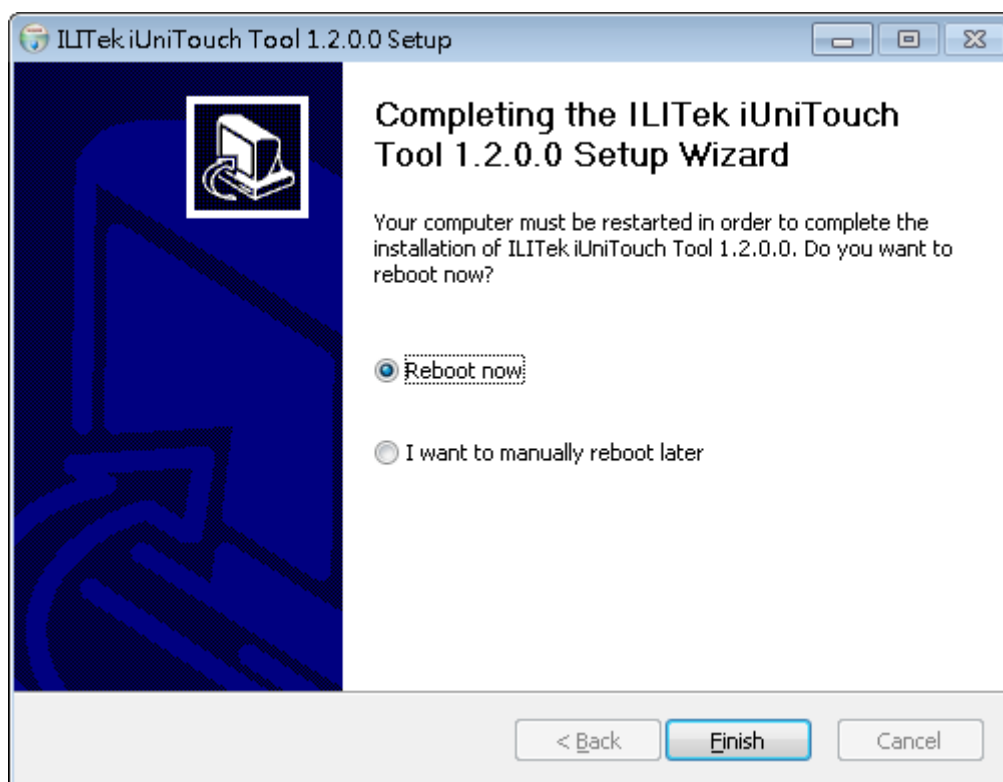


Figure 2-5: Installation finish

2.2 Linux Platform

Extract zip file

Use Ctrl+Alt+T shortcut to open terminal

Enter “sudo ./install.sh” command in extract folder (if you cannot execute shell file, please enter “sudo chmod +x install.sh” modify file permission)

Please reboot machine after installation finish

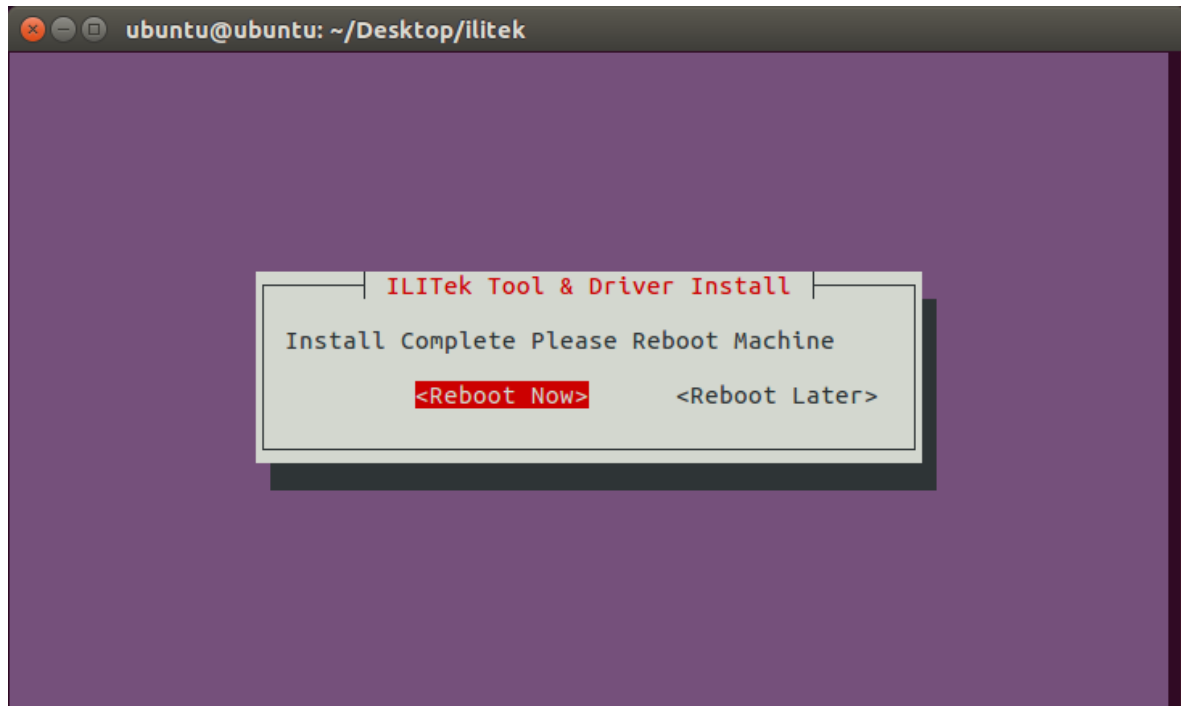


Figure 2-6: Installation finish

Application path is “/etc/ilitek/”, you have to become root before you execute the application

3 ILITek iUniTouch Tool

The following sections describe the tool function. ILITek iUniTouch Tool provide the same user interface on windows and linux. Therefore, the functions will be introduced together.

3.1 TP List Page

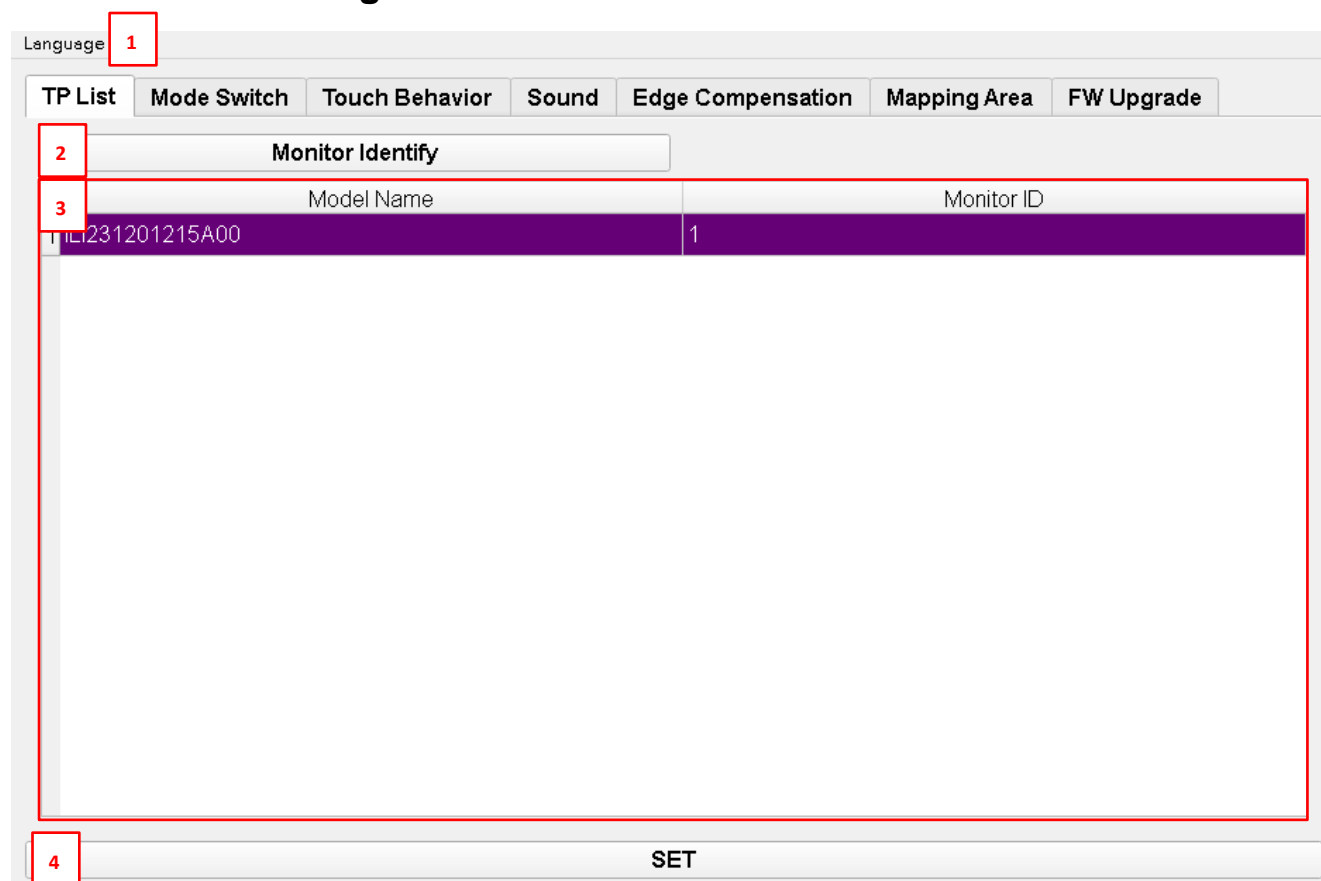


Figure 3-1: TP List Page

Table 3-1: Detailed description of TP List Page

No.	Item	Description
1	Language Setting	The UI language selections provide English, Traditional Chinese and Simplified Chinese.
2	Monitor Identify	The tool shows the monitor ID on every screens
3	TP List	User can double click to select the TP list in the window to do configuration for it. Also, all of the other property pages will be updated for this selected TP.
4	SET Button	Make change take effect.

3.2 Mode Switch

The screenshot shows the 'Mode Switch' configuration window in the iUniTouch Tool. It features a tabbed interface with 'Mode Switch' selected. The settings are as follows:

- Touch ON/OFF:** Set to ON.
- Industrial Function ON/OFF:** Set to ON.
- Industrial Function with AP:** Set to ON.
- Multi-Monitor Mapping:** Set to ON, with a 'Start Mapping' button next to it.
- Support Display Orientation:** Set to ON.

A large 'SET' button is located at the bottom of the window.

Figure 3-2: Mode Switch

Table 3-2: Detailed description of Mode Switch

No.	Item	Description
1	Touch ON/OFF	Touch function switch
2	Industrial Function ON/OFF	Industrial function switch If user select "ON" TP will become mouse with configuration If user select "OFF" TP will become touch panel without configuration
3	Industrial Function with AP	Configuration whether resident with software
4	Multi-Monitor Mapping	Monitor mapping switch If user select "ON", and then click "Start Mapping", This function will help user to does monitor mapping. a new window will be popped-up on a monitor as below
5	Support Display Orientation	Monitor display orientation support. If user select "ON", this utility will correct the touchscreen orientation to match with monitor display orientation whenever it detects monitor rotation.

Tap this screen with your finger to set it as the Tablet PC screen.
If this is not Tablet PC screen. Press Enter to move to next screen. Press Esc to exit.

3.3 Touch Behavior

The screenshot shows the 'Touch Behavior' configuration window. It includes the following settings:

- Right Key ON/OFF:** Set to 'ON' with a slider at 300 ms.
- Double Click ON/OFF:** Set to 'ON'.
- First Point Lock Distance:** Set to 300 pixel.
- First Point Lock Time:** Set to 500 ms.
- Second Point Lock Distance:** Set to 300 pixel.
- Second Point Lock Time:** Set to 500 ms.
- Drag Setting:** Set to 'Drag ON' with a slider at 50 ms.
- Lock Point:** Set to 'OFF' with a slider at 300 pixel.

A 'SET' button is located at the bottom of the window.

Figure 3-3: Touch Behavior

Table 3-3: Detailed description of Touch Behavior

No.	Item	Description
1	Right Key ON/OFF	If the touchscreen was kept touched for a specified time, the driver will generate a mouse right button click event if this function was enabled. The following slider used to adjust trigger time.
2	Double Click ON/OFF	Two continuous clicks at the same area within this specified time and area will be recognized as a double click event. When select "OFF" the following sliders used to adjust area and time to prevent OS recognized two continuous clicks as a double click event.
3	Drag Setting	There are 7 mouse emulation modes for ILITek touchscreen controllers. Click combo box to change the emulation mode. 1. Drag ON "Drag ON" behaves mouse button down and mouse move. User can select this mode to select object, and dragging the object. 2. Drag OFF With this "Drag OFF" mode, the driver emulates a mouse release when the finger move or finger release. 3. Click on touch With this "Click on touch" mode, the driver emulates a mouse click event when the touchscreen state was switched from un-touched state to touched state.

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		<p>Then, the driver always generate mouse move event and is tracking the touch position until the touchscreen state switched to un-touch state.</p> <p>4. Click on touch without moving cursor</p> <p>With this mode, the driver behaves similar as “Click on touch” mode. The cursor does not move to the touch position except the first touch point.</p> <p>5. Click on release</p> <p>With this “Click on release” mode, the driver emulates a mouse click event when the touchscreen state was switched from touched state to un-touched state.</p> <p>6. Click on release without moving cursor</p> <p>With this mode, the driver behaves similar as “Click on release” mode. The cursor does not move to the touch position except the lift-off point.</p> <p>7. Desktop mode</p> <p>With this mode, the driver behaves similar as “Drag on” Mode. But the driver will not report mouse button down immediately after user touches down.</p> <p>User needs to touch and stay at one point for a few milliseconds and then the driver will report mouse touch down.</p> <p>The following slider is used to set time period.</p> <table><tr><th><div>Finger</div><div>Option</div></th><th>Touch TP</th><th>Moving after touch</th><th>Leave TP</th></tr><tr><td>Drag On</td><td>Press left button</td><td>Move cursor</td><td>Release left button</td></tr><tr><td>Drag Off</td><td>Press left button</td><td>Release left button</td><td>Release left button</td></tr><tr><td>Click on touch</td><td>Click left button</td><td>Move cursor</td><td>No action</td></tr><tr><td>Click on touch without moving cursor</td><td>Move cursor and click left button</td><td>No action</td><td>No action</td></tr><tr><td>Click on release</td><td>Move cursor</td><td>Move cursor</td><td>Click left button</td></tr><tr><td>Click on release without moving cursor</td><td>No action</td><td>No action</td><td>Move cursor and click left button</td></tr><tr><td>Desktop mode</td><td>Press left button (Need to wait)</td><td>Move cursor</td><td>Release left button</td></tr></table>	<div>Finger</div> <div>Option</div>	Touch TP	Moving after touch	Leave TP	Drag On	Press left button	Move cursor	Release left button	Drag Off	Press left button	Release left button	Release left button	Click on touch	Click left button	Move cursor	No action	Click on touch without moving cursor	Move cursor and click left button	No action	No action	Click on release	Move cursor	Move cursor	Click left button	Click on release without moving cursor	No action	No action	Move cursor and click left button	Desktop mode	Press left button (Need to wait)	Move cursor	Release left button
<div>Finger</div> <div>Option</div>	Touch TP	Moving after touch	Leave TP																															
Drag On	Press left button	Move cursor	Release left button																															
Drag Off	Press left button	Release left button	Release left button																															
Click on touch	Click left button	Move cursor	No action																															
Click on touch without moving cursor	Move cursor and click left button	No action	No action																															
Click on release	Move cursor	Move cursor	Click left button																															
Click on release without moving cursor	No action	No action	Move cursor and click left button																															
Desktop mode	Press left button (Need to wait)	Move cursor	Release left button																															
4	Lock Point	<p>If Lock Point is “ON” , this is a criterion to judge if the most recent touched point is same as the previous touched point. If the points difference is within this area, it will be recognized as the same touch point and the driver does not generate new mouse event for this new touch point.</p>																																

3.4 Sound

Figure 3-4: Sound

Table 3-4: Detailed description of Sound

No.	Item	Description
1	Beep Sound	Beep sound switch
2	Beep Occasion	User can select beep occasion Beep On Touch meaning driver generate beep when finger touch TP Beep On Release meaning driver generate beep when finger release TP
3	Beep Frequency	Adjust this frequency to control the beep sound frequency generated by the driver
4	Beep Duration	Adjust this duration to control the beep sound duration
5	Beep Device Selection	Beep from buzzer

3.5 Edge Compensation

TP List Mode Switch Touch Behavior Sound **Edge Compensation** Mapping Area FW Upgrade

☒ Enable Edge Compensation

Top Edge

Range ☐ 0 pixel

Ratio 100 %

Bottom Edge

Range ☐ 0 pixel

Ratio 100 %

Left Edge

Range ☐ 0 pixel

Ratio 100 %

Right Edge

Range ☐ 0 pixel

Ratio 100 %

Reset to Default

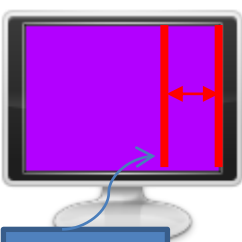
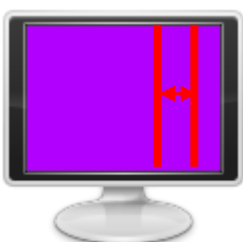
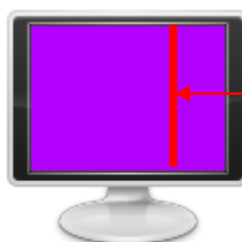
SET

Figure 3-5: Edge Compensation

Table 3-5: Detail description of Edge Compensation

No.	Item	Description
1	Enable Edge Compensation	Edge compensation function switch
2	Top Edge	As in the example
3	Bottom Edge	As in the example
4	Left Edge	As in the example
5	Right Edge	As in the example

Example:

Right Edge Compensation Range 300pixels, Ratio 100%	Right Edge Compensation Range 300pixels, Ratio 50%	Right Edge Compensation, Range 300pixels, Ratio 150%
		

3.6 Mapping Area

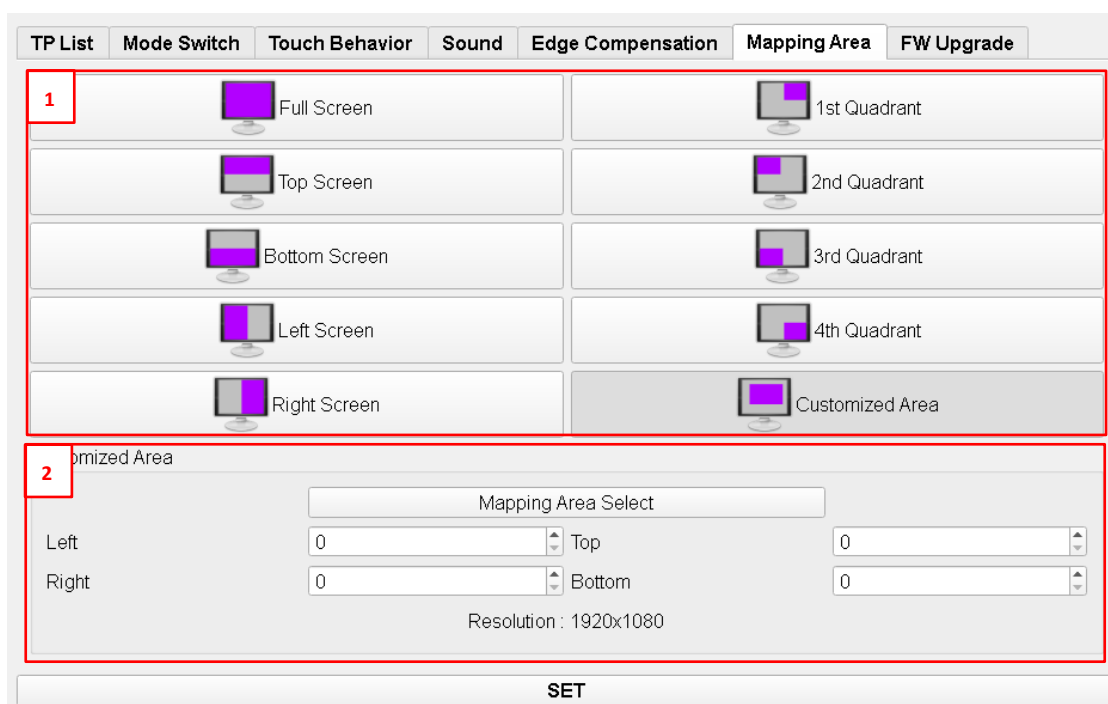


Figure 3-6: Mapping Area

Table 3-6: Detail description of Mapping Area

No.	Item	Description
1	Mapping Area Setting	The touchscreen will be mapped to the specified area on the screen
2	Mapping Area Setting – Customized Area	User can type in the range to customize the working area or click mapping area select button to drawing and dragging the rectangle by mouse

Click the “Mapping Area Select” button, the image will switch back to the desktop, and then user can customize the mapping area by drawing and dragging the rectangle. Then click “Confirm” to set the mapping area. Or “Cancel” to cancel.

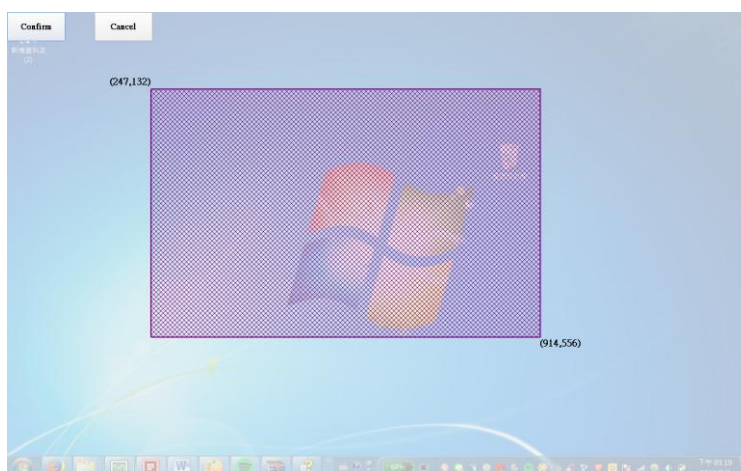


Figure 3-7: Customize Mapping Area

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3.7 FW Upgrade

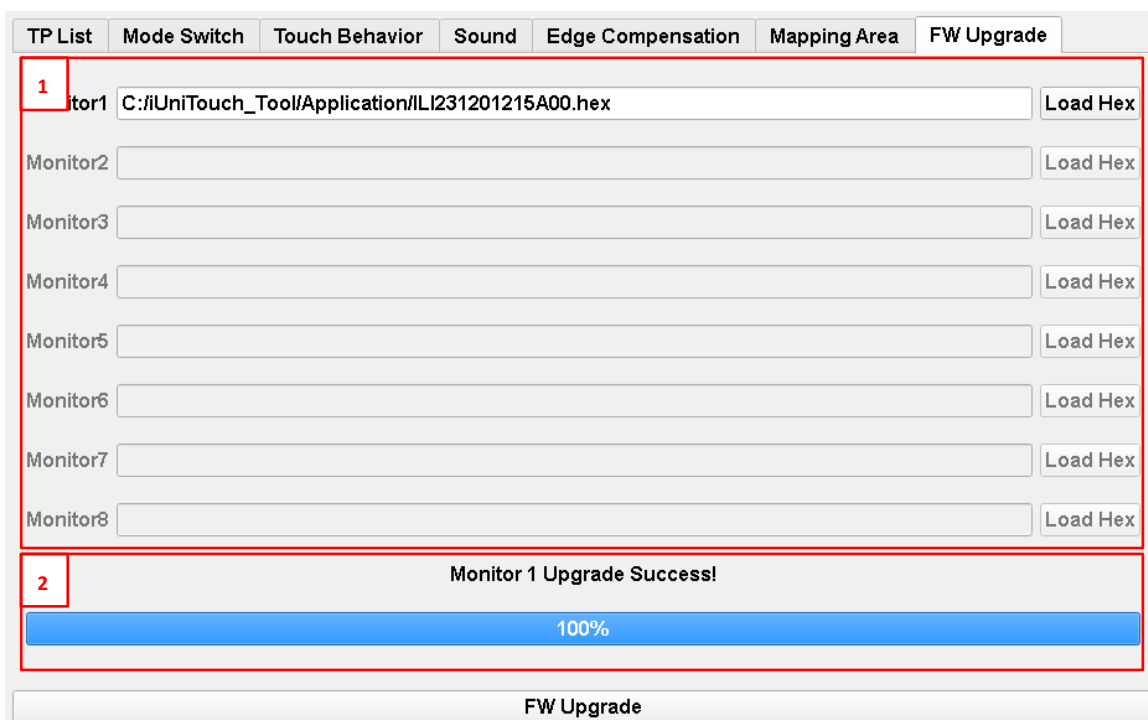


Figure 3-8: FW Upgrade

Table 3-7: Detail description of FW Upgrade

No.	Item	Description
1	Hex File Selection	User select hex for FW upgrade
2	Upgrade Progress	Show FW upgrade progress during upgrade FW