

prime **TOUCH**

Manual version 1.6

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1. What comes with your primeTOUCH?

We offer two different types of primeTOUCH: Integrated Version and Overlay Version.

1.1 Integrated Version

This version is fixed on a display and can not be removed by the user.

Parts of this version are:

- primeTOUCH frame with front glass and special haptic foil fixed on the display
- Power supply cable for the display
- Remote control for the display
- Adapter plate for display mounting
- USB cable (USB Type A Male / A Male)
- USB extension cable (USB Type A)
- USB extension cable Typ A, active, ca. 10m
- External power supply with mini XLR connector
- CD ROM including driver and manual

1.2 Overlay Version

This version can easily be mounted on a display which fits its size.

Parts of this version are:

- primeTOUCH Overlay frame
- USB cable (USB Type A Male / A Male)
- USB extension cable (USB Type A)
- USB extension cable Typ A, active, ca. 10m
- External power supply with mini XLR connector
- CD ROM including driver and manual
- where applicable: Mounting parts to fix the frame on the display

2. Installation

2.1 Mechanical Installation

Depending on the display that is used, some installations are not allowed. This could be an installation in a table or maybe in portrait mode. The primeTOUCH itself does not have any technical problem with different ways of mounting, but you should avoid too much direct light that could shine into the frame. Please make sure the display manufacturer allows the way you want to install the display. In some cases it might be necessary to install additional fans to guarantee a safe ventilation of the display.

Because the system is based on infrared technology, ambient light could disturb the function of a primeTOUCH. Especially if there is much infrared light included. So you have to keep that in mind during the installation.

If you have any questions, please don't hesitate to ask us.

2.2 Software Installation Windows

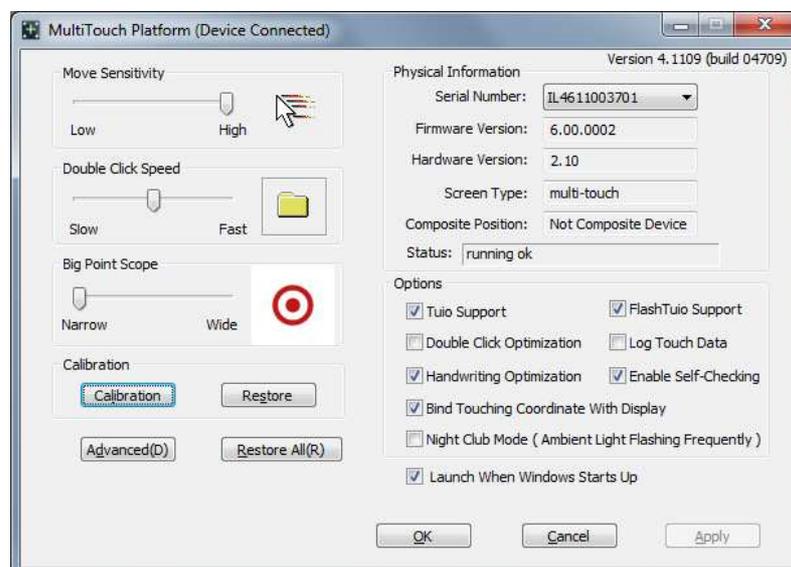
The software consists of two parts, the driver ("MultiTouchDriver") and the platform which is in parts the graphical front end for the user ("MultiTouchPlatform").

Connect the primeTOUCH to its external power supply and via USB to your pc.

Each shipment includes a CD ROM containing the driver. You can also download the latest driver here: [primeTOUCHdriver](#)

Please execute the driver installation file and follow each step. After successful installation, open the graphical user interface of the driver. It is called "Multitouch Platform" and might be hidden in the system tray. Some operating systems will ask you to install a driver after the primeTOUCH is connected to your computer. Please allow this and follow each step.

The driver should now detect the connected primeTOUCH. This can be verified as soon as you can see the system under "Physical Information". If not please unplug the USB cable and plug it in again. After the primeTOUCH is identified it is advisable to reset it. Please refer to chapter 3 regarding to that.



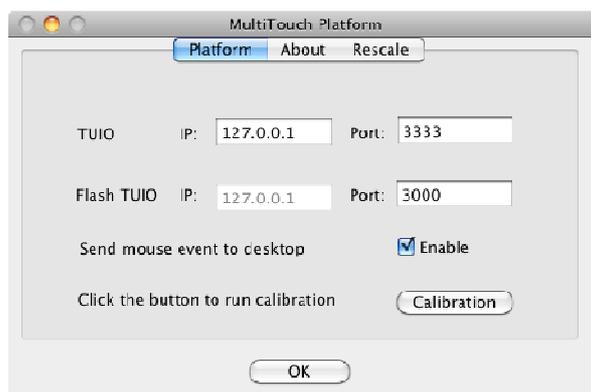
2.3 Software Installation Mac

With the Mac driver it is the same as with the Windows driver. Please connect everything like described in chapter 2.2, execute the Mac driver and allow each step. The following screenshots show the MultiTouchPlatform in Mac OS, it is running under Programs.



The GUI under Mac is simple and consists of three parts.

- Platform
- About
- Rescale



Platform:

Here you can execute the calibration and change the IP and the Port to which the TUIO data are sent. More information about TUIO you will find in chapter 4.2



Rescale:

If there are problems with the touch function you can reset the primeTOUCH here. Then calibrate and try again.

3. Graphical User Interface in Windows

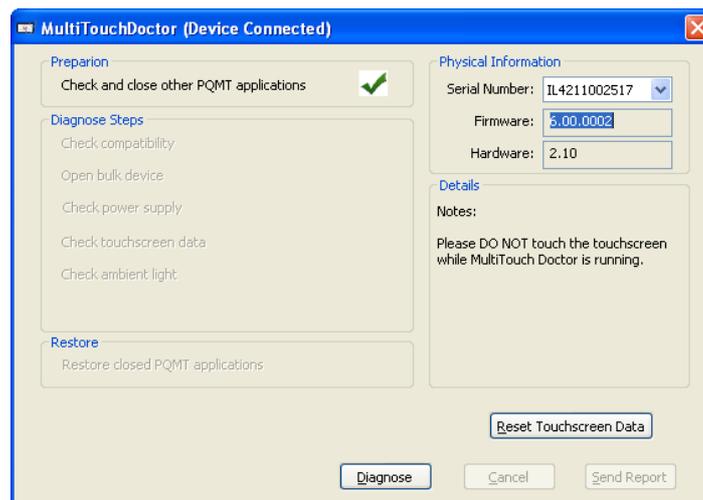
The GUI consists of different parts which will be explained as follows.

With “Move Sensitivity”, “Double Click Speed” and “Big Point Scope” you can adjust the way your computer interprets the input data of your connected primeTOUCH.

Under “Calibration” you can start the calibration in case your touch point should not fit the cursor position on the screen. After pressing this you will see a white screen with a cross in the upper left corner. Touch the cross for approximately 2 seconds. After the cross turns green remove your finger and repeat this procedure with following crosses.

By pressing “Restore”, you can reset all calibration data to its default values.

The “Advanced” button opens a diagnose tool called “MultiTouchDoctor”. Here you can run a diagnose of your connected primeTOUCH if you have any trouble with the system. It detects problems and under “Details” you will be informed what to do. Furthermore you can reset all touchscreen data. This should be done after the first set up and in case of serious system problems.



Physical Information

This container shows different information about the connected device like Serial number, Firmware, Hardware and Screen Status.

Options

If desired you can adjust the platform by checking or unchecking TUIO or FlashTUIO to send TUIO data or Flash compatible TUIO data to a client. “Double Click Optimization” makes it easier to run an application or folder. “Log Touch Data” records the touch points data for analysis. “Handwriting Optimization” makes it much more convenient to use Win 7 MS paint handwriting function. “Enable Self-Checking” enables the prompts of the warning messages. If “Bind Touching Coordinate With Display” is checked, when the display monitor working in “Portrait” mode, the touching position of TUIO still locate under the finger. You should activate “Night Club Mode” if the environmental light flashes frequently.

4. How to integrate in your system

There are three ways how you can connect your software to the primeTOUCH:

- Using Windows 7 and its native touch commands
- TUIO
- FlashTUIO

4.1 Windows7

The primeTOUCH supports the native Windows 7 touch commands with its multitouch features.

To make sure that this input is enabled on your Win7 system, please go to “Pen and Touch” and enable “Use your finger as an input device” and “Enable multi-touch gestures and inking” under the tab “Touch”



If you don't want Win7 to respond on these input commands, uncheck both checkboxes.

If you don't want the primeTOUCH software to control the mouse of your computer you can do this by modifying an xml file. This works not just with Win7, it also works on other Windows systems.

This file is called “mtsvrset.xml” and can be found under: ...\\MultiTouch\\MultiTouchPlatform. Please open the file with an xml editor, for example Notepad++, which will help you to understand the files with its syntax highlighting. If you change this file, please exit the driver (not just minimizing). After you did your changes, save the file and start the driver again.

In the xml File you will find these settings for disabling the mouse:

```
<tuple operation="assign" left="default" right="default"></tuple>
```

Set the parameter “right” to “no_action”:

```
<tuple operation="assign" left="default" right="no_action"></tuple>
```

Now there will be no reaction on your mouse cursor.

If you are working with a driver version before version 4.1109 you have to do the following:

In the xml File you will find these settings for disabling the mouse:

```
<!--<tuple operation="assign" left="default" right="no_action"></tuple-->
```

Uncomment this line by removing “<!-- ...-->”:

```
<tuple operation="assign" left="default" right="no_action"></tuple>
```

Now there will be no reaction on your mouse cursor.

4.2 TUIO

TUIO became a standard for the communication between multitouch hardware and software. Basically, this protocol works over a UDP network connection and sends information like coordinates of all detected touch points. For more information please visit www.tuio.org.

If the client software, that has to receive the TUIO data, runs on the same computer on which the driver is running, you have to send the TUIO data to localhost which is IP 127.0.0.1. This is the default setting for TUIO. You can change these settings also in the "mtsvrset.xml" file (Please see 4.1 for more information).

In this file you will find the following TUIO settings:

```
<tuio tuio_support="true" flash_tuio_support="true">
  <server type="udp" host="127.0.0.1" port="3333" />
  <server type="tcp" host="127.0.0.1" port="3000" />
</tuio>
```

To change the TUIO settings, modify the IP address under:

server type "udp"

For example, if the driver runs on a laptop (with IP 192.168.1.1) and you have a second pc (with IP 192.168.1.10) that shall receive the TUIO data on port 3333:

```
<tuio tuio_support="true" flash_tuio_support="true">
  <server type="udp" host="192.168.1.10" port="3333" />
  <server type="tcp" host="127.0.0.1" port="3000" />
</tuio>
```

Make sure that your computers network settings are correct and that they match your needs.

NOTE: If the TUIO data are not sent to the chosen ip close the driver and run it again as administrator.

4.3 FlashTUIO

In some versions Flash does not allow to receive UDP data. In this case the driver can send TUIO data via an TCP connection.

To change these settings open the "mtsvrset.xml" file go on like described under 4.2 but modify the IP address under server type "tcp"

NOTE: On some Windows7 machines you might not be allowed to modify the xml file.

To get a workaround do the following steps:

- > simply copy the xml file for example to your desktop,
- > rename it,
- > modify and
- > save it. Then
- > rename it again to its original name and
- > copy it to the original location replacing the old file

5. Technical data

Power supply

Mains adaptor

- 5V DC, 4A
- 3 Pin mini XLR female:
 - Pin 1 → +
 - Pin 3 → -

Interface

Connection	USB 2.0 (Full Speed) connector type A
Operating System	Windows 2000, XP, Vista, Windows 7, Mac OS X
Software interface	native Windows 7 touch commands, TUIO and HID compatible

Touch

Technology	infrared LEDs and photo diodes
Response time	7ms - 12ms
Touch points	detects up to 32 points simultaneously
Finger touch accuracy	± 1.5 mm
Method	detects any kind of object without pressure (finger, gloved hand, stylus,...) stylus tip size: minimum 6 mm

Mechanical data

Material	steel, aluminium, glass
Colour	matt carbon black (other colours on demand)
Sizes	40", 46", 55", 60", 65", 70", 85", 103"

Environmental data

Temperature	0°C to 55°C (operating), -25°C to 85°C (storing)
Humidity	10 % to 90 % non-condensing (operating), 10 % to 90 % non-condensing (storing)
Light conditions	Diffuse ambient light. As it is based on IR technology always avoid direct warm light with too much infrared light included as this could cause malfunction

Warranty

24 months, excluded: USB cable,
protection glass (integrated version), foil (integrated version)

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