Change History

Version	Date	Change Description
0.1	06/15/2017	• Initial release
0.2	06/21/2017	• Update Endor to be TCx800 for temporary • Enhance some picture resolutions • Change the default INI settings and add a few explanations in section 2.2.1 Driver Package
0.3	01/10/2018	• Add ELO driver download message in 2.3.1 TCxDisplay Attached to a TCx800 System • Add 2.2.5 Language Support section • Add reminder of calibration while dual monitor condition in 2.3 Dual Monitor Scenarios • Add more description to help user experiences migration from the settings of ELO touches. • Add reminder of calibration while not using the native resolution in 1.0 Introduction
0.4	02/27/2018	• Add resolution setting in 2.5 Resolution Settings
0.5	03/13/2018	• Correct the calibration for non-native resolution conditions in 1.0 Introduction and 2.5 Resolution Settings • Add an explanation in 2.2.6 eGalaxTouch Utility and User Manual for gray out of the OEM driver calibration function • Update TCxEndor to be TCx800
0.6	03/22/2018	• Modify the setup procedure pictures and process in 2.2.2 Manual Installation
0.7	04/26/2018	• Fixes some text format in 1.0 Introduction
0.8	08/23/2018	• Clean up some linkage errors • Add On-Screen Keyboard in 2.2.7 Windows On-Screen Keyboard

Table of Contents

1.0   Introduction

This product "TCx800" (to be updated after marketing name defined) from Toshiba Global Commerce Solutions (TGCS) has a touch screen using a PCAP multi-touch technology for Windows 10 operating systems (OS) supported, or may be used as a single-touch input for legacy type applications. In its default multi-touch mode, up to ten distinct and independent touches may be detected. When used with Windows 10 native driver, a broad range of gestures may be employed. For classical single touch applications, you will have to install the eGalaxTouch driver, which offers some enhanced performance and flexibility to be covered in later sections. The following table summarizes the relevant touch characteristics.

Table 1 TCx800 Touch Screen Characteristics

Model	Size	Aspect Ratio	Native Resolution*	Windows 10 Driver Max Touches	OEM Driver	OEM Driver Max Touch
TBD	15.0"	4:3	1024 x 768	10	eGalaxTouch	1
TBD	15.6"	16:9	1366 x 768	10	eGalaxTouch	1
TBD	18.5"	16:9	1366 x 768	10	eGalaxTouch	1

*No resolution above the native is supported and if not using the native resolution, Windows native OS driver will be required

In addition to the performance characteristics similar to popular notepads and tablets, the screens do not normally need calibration (they come from the factory calibrated and do not need periodic recalibration). They also have edge to edge glass, making cleaning easier and providing the popular bezel-less look.

When a touch monitor is attached to TCx800, the TCx800 should always be treated as the primary monitor. Using the attached monitor as the primary monitor is not supported and may not associate properly.

1.1   Default Multi-Touch

The default touch configuration of the TCx800 is a HID Pointer interface, which Windows 10 may employ for gestures (flicks and pinches), in addition to legacy style single touch operations.   If gestures are required by the application, the OEM driver should not be installed as Windows 10 has all the necessary drivers embedded in the OS. You may refer to https://www.tenforums.com/tutorials/4202-touch-gestures-windows-10-a.html to learn all the gestures Microsoft defined for Windows 10. Microsoft has defined a different user experiences between previous generation Windows (such as Windows 7) that some gestures will not be inherited from Windows7 such as press and tap. (You can refer to https://support.microsoft.com/en-us/products/windows?os=windows-7 for gestures supported by Windows 7)

The features of the touch may be configured using the OS **Hardware Control Panel** in Windows 10 (see **Error! Reference source not found.**) using the **Pen and Touch (**see Figure 2 Pen and Touch**)** and **Tablet PC Settings,** as shown in Figure 4 Tablet PC Settings.

Note: If you install the OEM driver, both the **Pen and Touch** and **Tablet PC Setting** will disappear.

The OS's come with default settings to meet most user needs. However, for some legacy single touch applications or some features required such as touch beep options, it is suggested that the OEM driver be installed. The OEM driver will force the touch screen to be seen to the OS as a single touch device, as the legacy application originally expected. If you still need multi-touch and eGalaxTouch utility features, you will need to check the advanced settings 2.2.6 below.
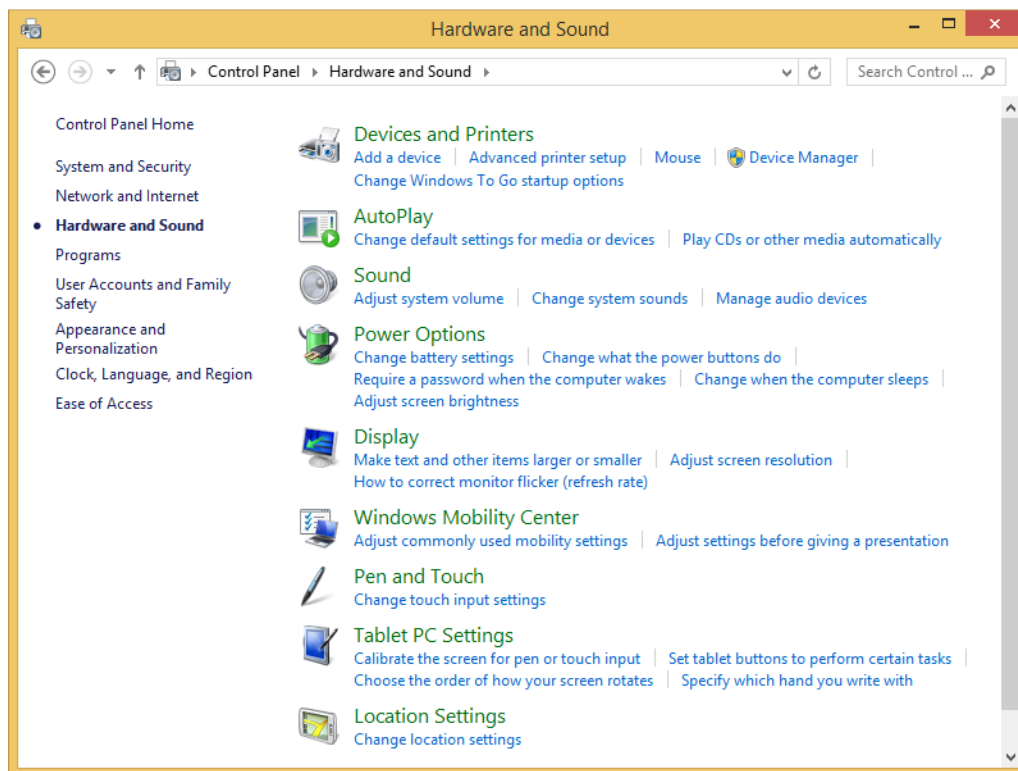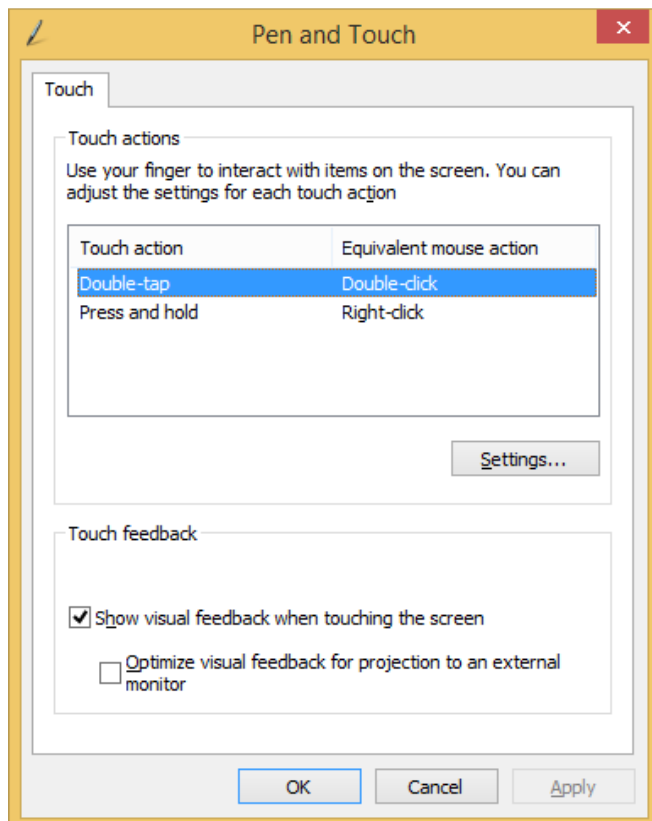
Figure 1 Hardware Control Panel

Figure 2 Pen and Touch

1.2   Single Touch Application

Although the touch screen is configured for multi-touch like operations, single touch icon applications may also be used with the native embedded OS drivers. If one encounters issues with the OS trying to act on gestures, then installing the OEM driver could be an option. Note that the Windows native OS driver causes mouse button type behavior similar to a standard mouse, but the button click is only when the touch is released. Drag operations are similar to a standard mouse.

In some legacy applications one may encounter some potential issues with icon touch speed when using Windows 10 native driver. It is gesture based and are always having to determine the intention of the touch (simple touch or is it a gesture?). That requires more processing time to determine what to do with a touch to the screen and in many cases may interpret an intended click action erroneously as a drag or flick. In many cases this may not be an issue, but if issues are observed (missing touches/drags), it's also suggested to use the OEM driver. If an older legacy application works better with a single touch HID pointer/mouse interface (such as requiring an immediate button-click upon touching the screen), then the OEM touch screen driver may be loaded to force the pointer/mouse type single touch interface (see 2.2 OEM Touch Screen Driver) with options to configure the mouse button event. The OEM driver also provides an audible system beep feedback option.

1.3   Dual Monitor Setup

When a solitary touch screen unit is used, the setup is straight forward. If more than one touch screen unit is installed on the same system in the extended monitor mode, then there is the need to associate the touch screen to the correct video unit. The ambiguity is caused by the video and touch interfaces being physically independent of each other. In the case of two touch screen units installed, the system will see two video ports and two touch ports with no logical tie between them. So, without some help, the system does not know which goes with which (see Figure 3 Ambiguous association between touch screens and video screens). If the displays are cloned, then the coordinates of the two are the same and it does not matter what the association is between the videos and touch screens. But if the second display is an extension of the desktop, then the coordinates of the desktop image is extended onto the second display. In this case, the touch coordinates of the corresponding touch screen needs to be extended as well, but which touch screen? This is resolved through an association process built in Windows 10 or the OEM driver.

Note: If you installed the OEM driver, **Tablet PC Settings** will disappear.
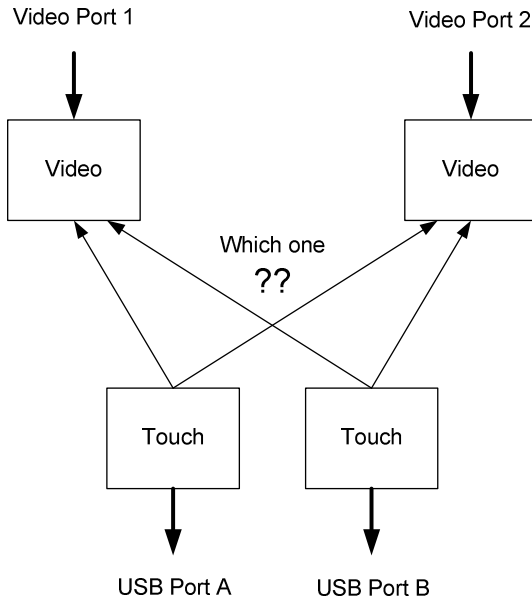
Video Port 1   Video Port 2

Video   Video

Which one
??

Touch   Touch

USB Port A   USB Port B

Figure 3 Ambiguous association between touch screens and video screens

For Windows 10, the **Setup** button in the **Tablet PC Settings (see** Figure 4 Tablet PC Settings) control panel may be used. When you click on the **Setup** button, a "touch this screen" image appears on one of the monitors, as shown in Figure 5 Tape the screen. Touch that screen to associate that touch screen to that display and the image will move to next screen to touch for association with that display. Note that if the attached monitor is a SurePoint model (IR touch), an ELO driver is needed for it.
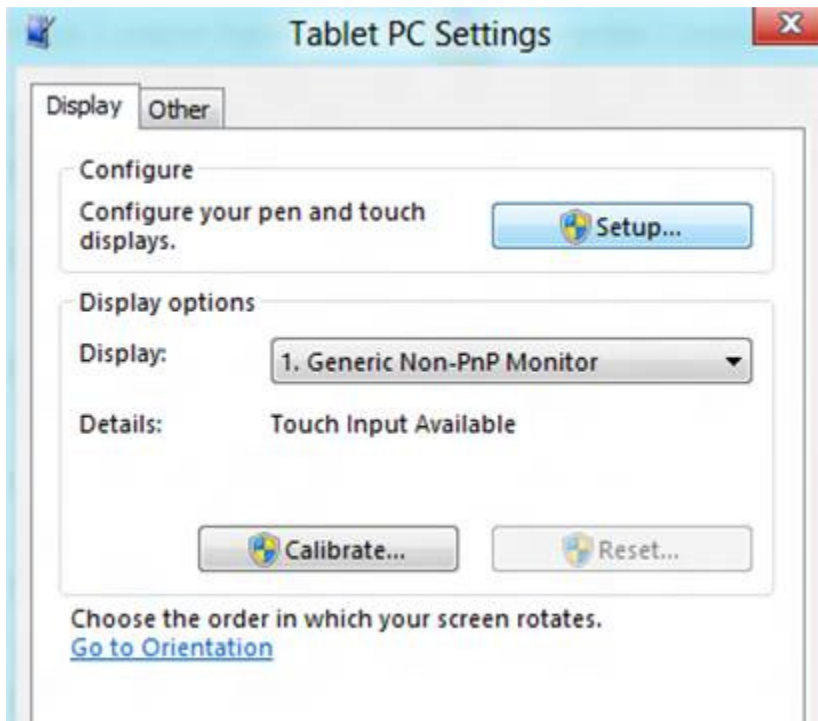

Figure 4 Tablet PC Settings

Touch this screen to identify it as the touchscreen.

If this is not the Tablet PC screen, press Enter to move to the next screen. To close the tool, press Esc.
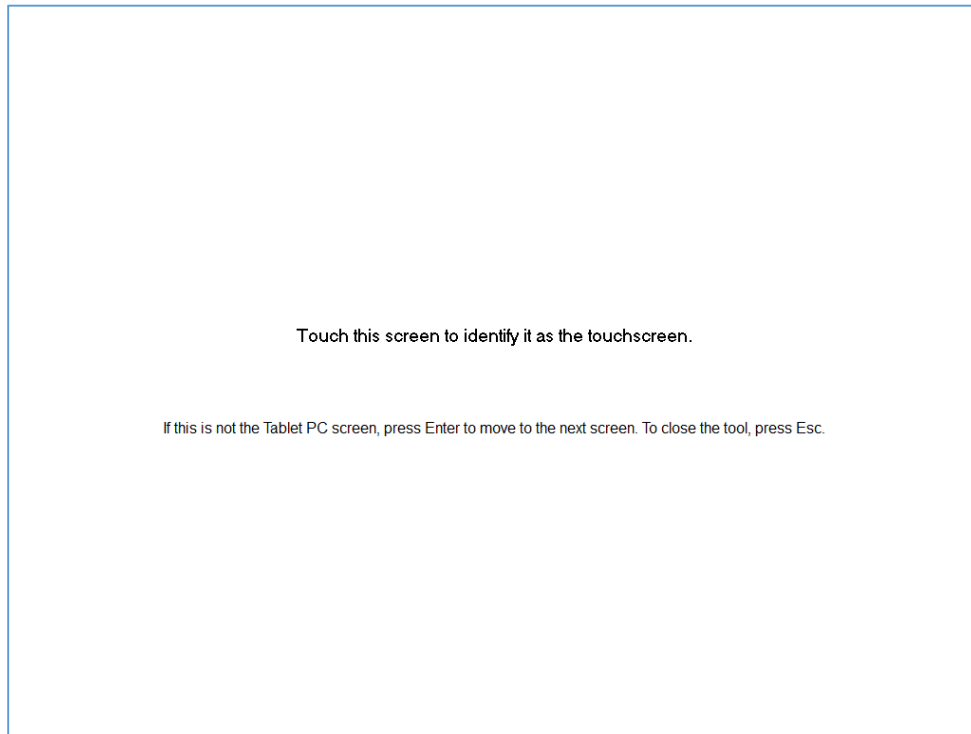
Figure 5 Tape the screen

If the OEM touch screen driver is installed, the association is initiated by clicking on the **Enable Multiple Monitors (see** Figure 6 Enable Multiple Monitors**).** When you check the box **'Enable Multiple Monitors'**, you will need to double click the monitor in the **Display** geometry windows. The example in Figure 6 Enable Multiple Monitors is mapping it to Display 1 which the rectangle line will be changed to white. Display 2 will be grey. You might need an additional input device to help the mapping.

Any time you uninstall the OEM driver, you will need to re-map your touch screen by this step.
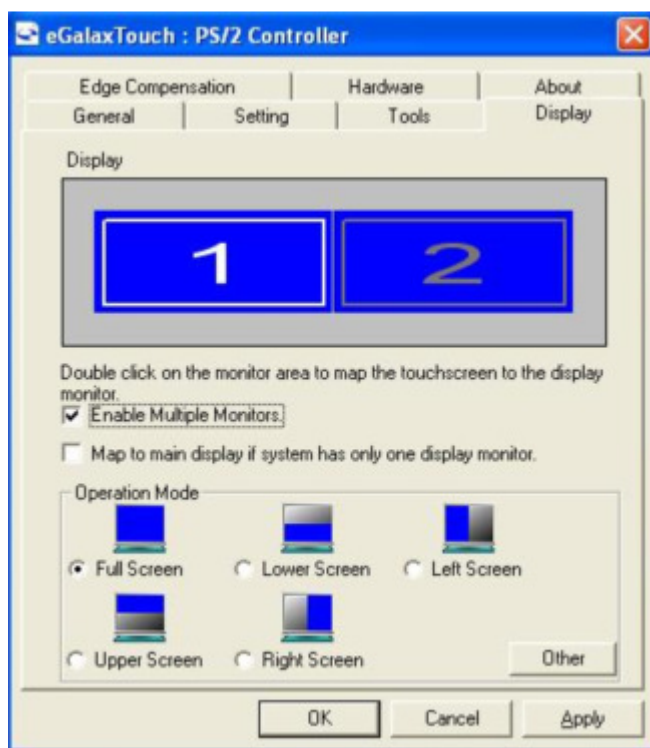
Figure 6 Enable Multiple Monitors

Any time the screen resolution is changed (on either screen), a re-association will be necessary if the OEM driver is installed.

Below is the table that describe the relationship between the display modes, as mentioned above. Please be reminded that if you check '**Enable Multiple Monitors**' in the eGalaxTouch utility, you will have to manually map the dedicated monitors. (an additional mouse may be required to help your mapping)

Table 2 Relationship to the Video Mode

Display Mode	Win10 Native Driver	eGalaxTouch OEM Driver
Single (integrated panel)	Support	Support
Twin	Support	Support
Clone	Support	Support
Dual Independent Head (DIH or Extended Mode)	Support (through **Tablet PC Settings**)	Support (through **Enable Multiple Monitors**)
Collage	Not Support	Not Support

1.4   Summary

The TCx800 touch screen is optimized for windows 10 which has the ability to respond the gestures in addition to classical single icon touches. If gestures are required, the embedded OS drivers should be used (no OEM driver installed). An OEM driver is provided for legacy applications that require a HID pointer/mouse interface or audible beeper. Available monitor association utilities are available in the OS control panel and the OEM driver for dual monitor setups.

2.0   Appendix

2.1   Windows 10 Control Panel Touch Settings Options

For Windows 10 native driver, select the **search** from the taskbar beside of **Start** button (refer to https://support.microsoft.com/en-us/help/17190/windows-10-search-for-anything), then type **Control Panel**, you will be able to see the traditional **Control Panel (**see Figure 1 Hardware Control Panel**)** and select **Hardware and Sound** and use **Pen and Touch (**see Figure 2 Pen and Touch**)** and **Tablet PC Settings,** as shown in Figure 4 Tablet PC Settings. You will be able to configure the touch operations there.

Note: If you installed the OEM driver, **Tablet PC Settin**g will not be present.

On the *Display* tab (**see** Figure 4 Tablet PC Settings) you may associate two monitors to their respective touch panels by clicking on the *Setup* button. That will bring up the "Touch…screen" image (as shown in Figure 5 Tape the screen). Touch that panel to associate the touch screen with that video and the image will pass to the next monitor where you touch to do that association.

Normally calibration is not required, as the TCx800 come from the factory already calibrated and generally never need recalibration. But if there is a need to refine the calibration for a specific application, the Windows calibration feature is provided by Microsoft. To invoke a calibration, first select the screen from the pull-down list and click on *Calibrate*, which will cause the screen as shown in Figure 7 Calibrate Screen.

Touch the crosshair as it moves from position to position. There are up to 16 different positions (4 in each corner) that need to be accurately touched. For good success, you need to align your stylus up on each crosshair before touching and do not linger on the point. The method is somewhat tedious, but can give good results with practice. If the results are not acceptable, you may click on the *Reset* button to return to factory calibration.

Again, the factory calibration is generally quite good for most POS applications, and it is not recommended that the calibration routine be exercised unless it is really necessary.

To provide calibration samples, tap the crosshair each time that it appears on the screen.

Right-click anywhere on the screen to return to the last calibration point. Press the Esc button to close the tool. Do not change your screen orientation until you have completed the calibration process.

Figure 7 Calibrate Screen

The *Other* tab basically allows setup of left handed users, as shown in Figure 8 Other tab.
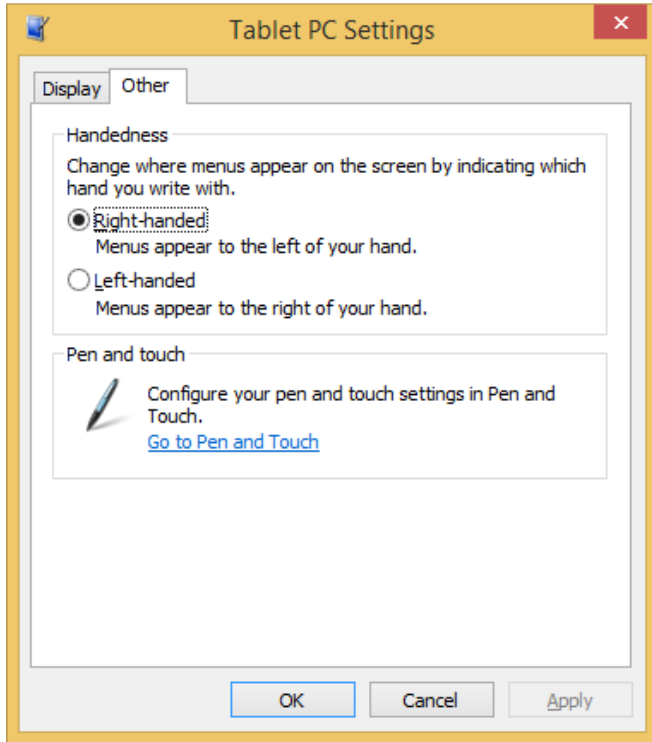

Figure 8 Other tab

2.2   OEM Touch Screen Driver

A Windows touch screen OEM driver is provided for those single touch applications where button click configuration is required and/or system audible beep is required. It is also an alternative to resolving rapid single touch performance issues, plus adding features. It is intended to emulate the popular configurations found on older touch solutions, such as the button click configuration, double-click speed/area settings and a momentary right click option. The list below summarizes the benefits of using the driver.

- Classical pointer/mouse operation/performance (faster input speeds for single touch applications)
- Different mouse button modes (click-on-touch, click-on-release, normal mode-mouse/drag mode)
- System beeper
- Edge compensation
- Define active area

Note: Before installing the OEM driver, any driver that was previously used must be uninstalled completely before installing the new driver. Reboot the system after uninstalling all previous drivers to clear out any residual files or registry entries. Also, you will lose the gestures Windows supported if using the OEM driver.

Warning: If you install the OEM touch driver, both the **Pen and Touch** and **Tablet PC Setting** will disappear. It also means the windows will recognize your touch panel as a mouse (no longer a digitizer), all the tablet user experiences will be lost. If you are using the On-Screen Keyboard as your input device, it will turn on automatically in digitizer mode (tablet mode) in windows native driver but you will need to turn on it yourself.

2.2.1 Driver Package

The eGalaxTouch driver provided by TGCS is to act as a HID pointer/mouse and is a full featured driver with button configuration options, double-click settings, and system beeper…etc.

The driver package contains several files (below is an example only, it might be different from version to version)

Name	Ext	Size	↓Date	Attr
🔼 [..]		<DIR>	2018/03/19 09:32	----
📁 [global]		<DIR>	2018/03/13 16:48	----
📁 [x64]		<DIR>	2018/03/12 10:26	----
📁 [x86]		<DIR>	2018/03/12 10:26	----
setup	ini	3,114	2018/03/20 21:46	-a--
Endor Touch Screen UserGuide V0.5	pdf	1,216,810	2018/03/14 14:17	-a--
setup	exe	806,912	2018/03/08 10:18	-a--
data1	hdr	15,872	2018/03/08 10:18	-a--
data2	cab	512	2018/03/08 10:18	-a--
layout	bin	550	2018/03/08 10:18	-a--
data1	cab	803,917	2018/03/08 10:18	-a--
setup	inx	283,191	2018/03/08 10:18	-a--
SilentUnDrvx64	bat	325	2017/06/14 15:49	-a--
SilentUnDrvx86	bat	319	2017/06/14 15:48	-a--
SilentInstall	bat	142	2017/06/14 15:40	-a--
undrv	iss	520	2017/05/25 11:44	-a--
setup	iss	1,622	2017/05/25 11:29	-a--
Declaration	txt	1,595	2012/02/07 18:41	-a--
ISSetup	dll	581,120	2011/08/21 23:08	-a--
0x0409	ini	22,492	2010/03/23 16:44	-a--

Figure 9 Driver Package

Below is an introduction to those files

- Touch Screen UserGuide V0.1 06Jun2017.pdf – this is the user guide from TGCS for a general overview to the touch screen (date will be updated)
- Setup.exe – key installation file
- SilentUnDrvx64.bat – silent uninstallation batch file for silent uninstallation in widows 10

There are some key files In the **global** folder

- UserGuide.chm – this is the detail user guide for eGalaxTouch driver and utilities. You can see much more detail setting explanations here.
- eGalaxTouch_reg.ini – key default parameters for installation. (see Table 3 Configuration Table)

Table 3 Configuration Table

Name	Value	Description
BeepMode	0x00000000	Beep Off
	0x00000001	Beep when touched **(Default)**
	0x00000010	Beep when released

Name	Value	Description
BeepFrequency	0x00000064 ~ 0x00000FA0	Beep Frequency **(Default 0x00000320)**[1]
BeepDuration	0x00000019 ~ 0x000001F4	Beep Duration **(Default 0x00000064)**[2]
MouseMode	0xxxxx0001	Set to 'Click on Touch'[3]
	0xxxxx0002	Set to 'Click on Release'**[4]**
	0xxxxx0003	Set to 'Click on Release without moving cursor'[5]
	0xxxxx0004	Set to 'Click on Touch without moving cursor'[6] **(Default)**
	0xxxxx0005	Set to 'Desktop mode'[7]
	0x4000xxxx	Enable auto right button feature (Default)
	0x0000xxxx	Disable auto right button feature
	0x2000xxxx	Disable Touch
BeepSource	0x00000000	No Beep
	0x00000001	Beep from system beep **(Default)**
	0x00000010	Beep from sound card

[1] Beep Frequency unit is Hertz and default value is 800Hz which is 0x00000320. The range is 100Hz to 4000Hz

[2] Beep Duration unit is millisecond and default value is 100ms which is 0x00000064. The range is 25ms to 500ms

[3] **Click on Touch** – button click (button down followed by an immediate button up) at the moment of touch

[4] **Click on Release** – button click only when the touch is release. If you migrated from the predecessor ELO Touch solution (TGCS 4820, TCxWave or TCxDisplay machine type), it can be acted the same as 'Click on Release' setting from ELO Touch Driver.

[5] **Click on Release without moving cursor** – Same button click position as Click on Release but the cursor movement prior to the touch release will not be reported.

[6] **Click on Touch without moving cursor** – Same button click position as Click on Touch but the following cursor movement before the touch release will not be reported. If you migrated from the predecessor ELO Touch solution (TGCS 4820, TCxWave or TCxDisplay machine type), it can be acted the same as 'Click on Touch' setting from ELO Touch Driver.

[7] **Desktop mode** – With this mode, it behaves similar to Normal Mode but mouse button down will be delayed for a few milliseconds which bring the touch more stable.

Name	Value	Description
DBCLICKSPEED	300~900	Set double click speed **(Default 600)**[8]
DBCLICKSIZE	8~128	Set double click area **(Default 100)**

Caution: Please backup files before your modification and DO NOT edit any other parameters. Any wrong parameter modification will bring the severe problems.

2.2.2   Manual Installation

Double click **setup.exe** in the driver package (mentioned in above section). After giving the administrative privilege (or press Yes in User Account Control as below)

Figure 10 User Account Control

Follow the instruction below to finish the installation

---

[8] Windows default settings are probably 500ms per the MSDN https://msdn.microsoft.com/en-us/library/windows/desktop/bb760404(v=vs.85).aspx, and max might be 5000ms per **SPI_SETDOUBLECLICKTIME** in https://msdn.microsoft.com/zh-tw/library/windows/desktop/ms724947(v=vs.85).aspx, the settings here are relative value stored in the Windows 10 mouse settings.
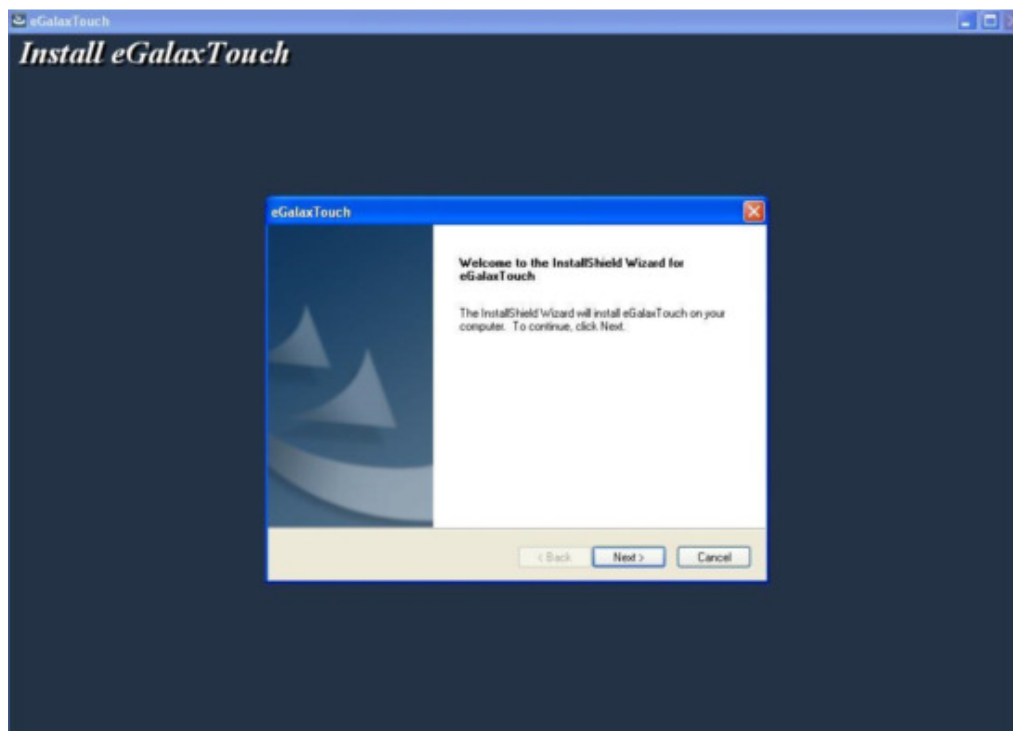
Figure 11 Startup window.

Press 'Next' to continue the installation

Figure 12 License Agreement

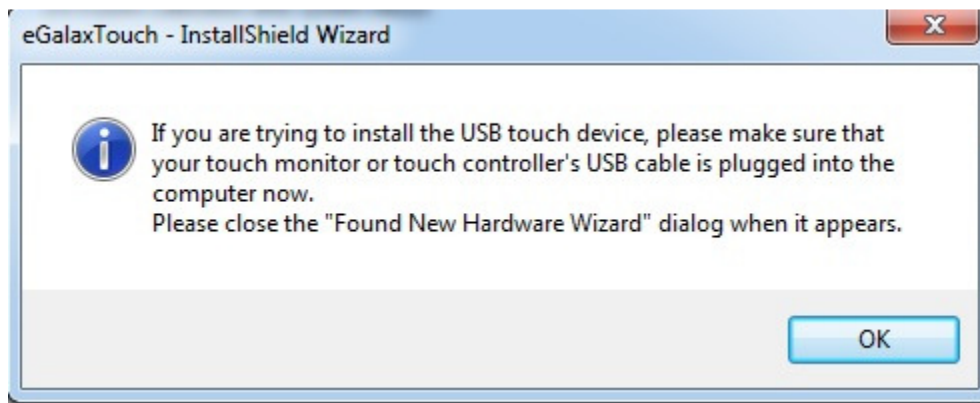Check 'I accept the terms of the license agreement' and 'Next'

Figure 13 Reminder

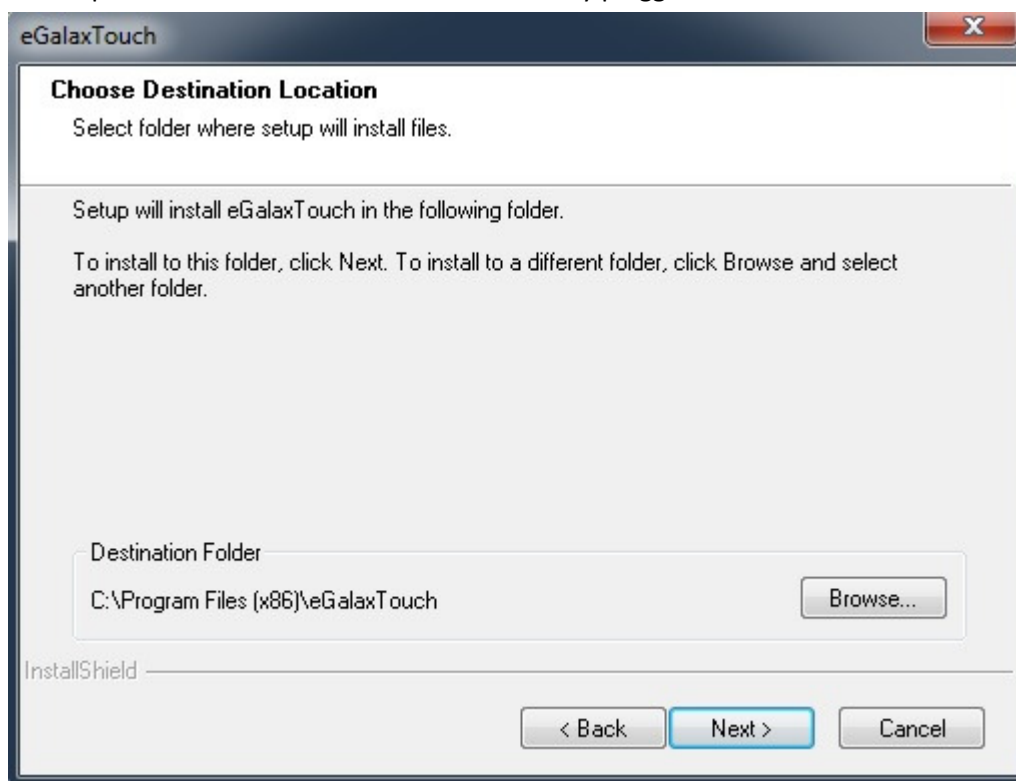Please press 'OK' if the touch monitor is naturally plugged.

Figure 14 Choose Location

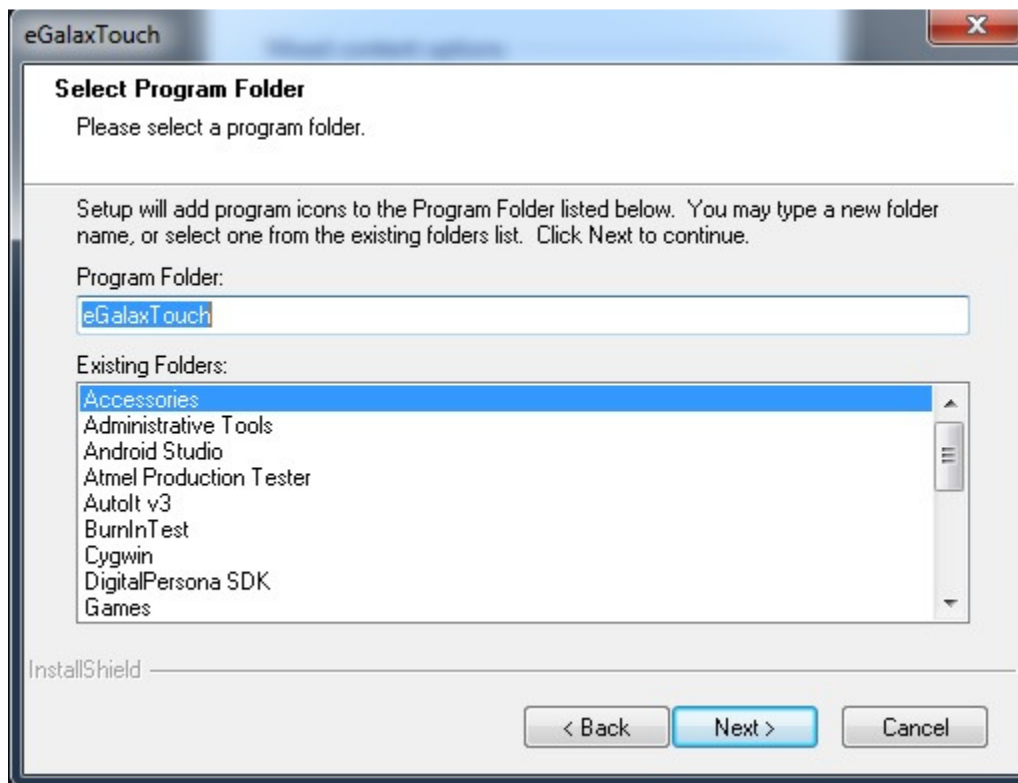Default destination folder is suggested here and press 'Next' again

Figure 15 Select Program Folder

eGalaxTouch folder is suggested, press 'Next'

Figure 16 Create shortcut

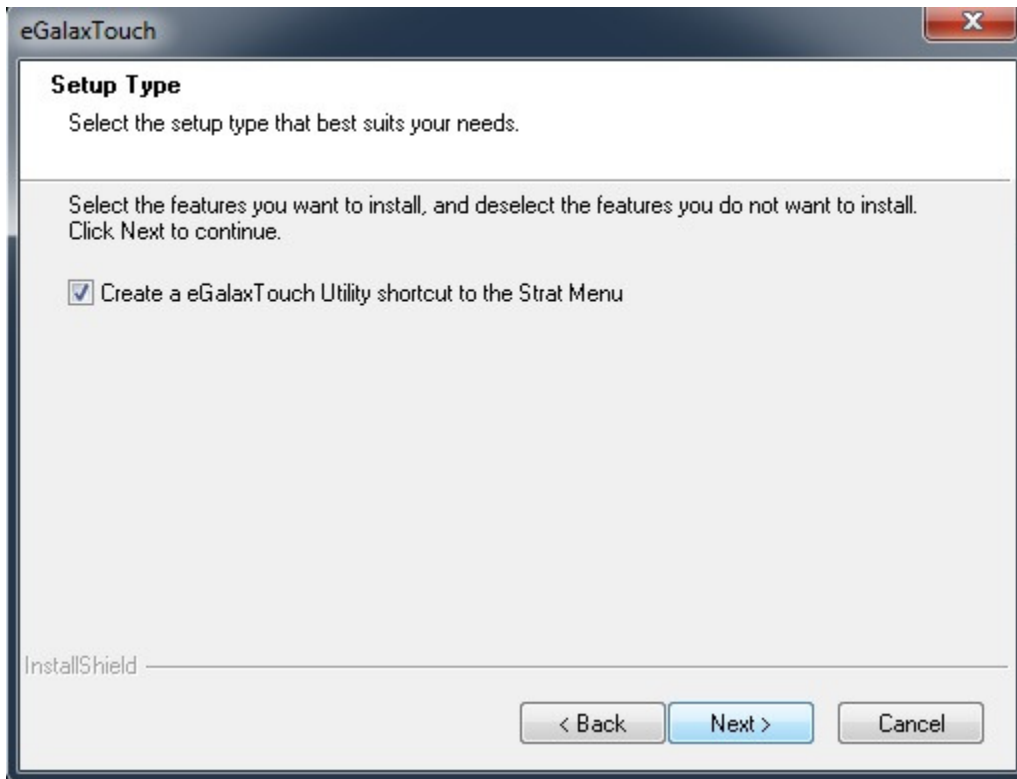Check or uncheck for the shortcut creation and press 'Next'

Figure 17 Shortcut for the utility

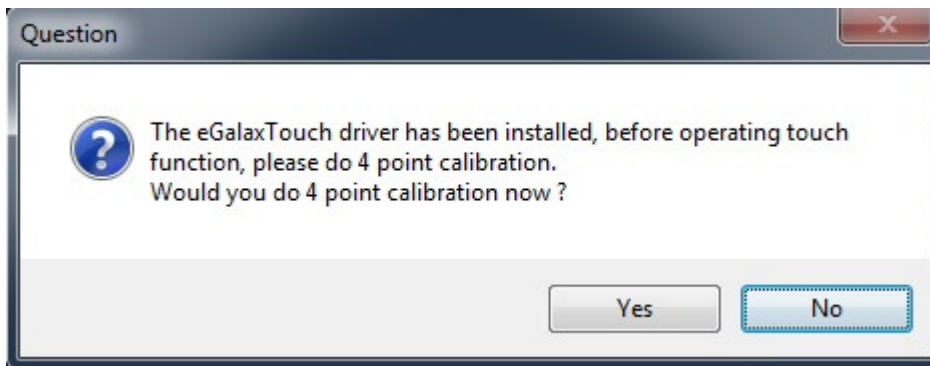Check or uncheck the utility shortcut creation and press 'Next'

Figure 18 Calibration

Press '**No**' and it will automatically finish the installation. You will be able to see the driver/utility installed and shortcut created if you checked.

2.2.3   Silent Installation

To install the driver with no user interaction, run the **SilentInstall.bat** in the driver package folder using administration privileges. A CMD window will appear that the process will take about a minute to complete. After the installation is complete, the CMD window will be closed.

2.2.4 Uninstalling Driver

To uninstall the driver, open the Microsoft **Settings/Apps & features** then select the **eGalaxTouch** driver and choosing **uninstall** or **remove**. When finished, it is required to do a reboot to remove any residual files or registry entries before starting the install process on the new driver. But at this stage, you will be unable to click the button of Finish, you already uninstall the driver and you will have to use some other input devices to click 'Finish' such as an additional mouse plugged.

To silent uninstall the driver, run the **SilentUnDrvx64.bat** in the driver package folder. (if you are using a 32bit OS, it will be **SilentUnDrvx86.bat**) using administration privileges. A CMD window will appear that the process will take about a minute to complete. After the uninstallation is complete, the CMD window will be closed **and a reboot will be triggered automatically without any prompt. After your uninstallation, you might need to map your touch through another input device (additional mouse attached) in Tablet PC Settings.** It is because the Windows native driver need to take the control and required to remap the displays.

2.2.5 Language Support

The drivers supports the following languages for the messages

- Chinese Simplified
- Chinese Traditional
- English
- French
- German
- Italian
- Japanese
- Korean
- Dutch
- Russian
- Spanish

For those systems that installed another language pack, you might not be able to see the proper language (such as ???) shown if you don't have a right setting, please type **Control Panel** in search tab and press Enter. In the new window, select the **Clock, Language and Region**, click the **Region,** then under **Administrative** -> **Language for non-Uniconde programs,** click **Change system locale**, then select the language to map the language pack you installed. (refer to Microsoft community https://answers.microsoft.com/en-us/surface/forum/surfbook-surfaccess/how-to-change-system-locale-in-windows-10-the/d7826ef0-13cd-43ea-8e01-2846d813dfed)

2.2.6 eGalaxTouch Utility and User Manual

There is one user guide after you installed the OEM driver. Select **Start** button, and you will see **eGalaxTouch** from the program list, select **Document,** you will be able to invoke the user guide **UserGuide.chm** as we described in section 2.2.1 Driver Package**.** It contains the details of eGalaxTouch General information, eGalaxTouch Tools, eGalaxTouch setting, eGalaxTouch multi-monitor configuration, eGalaxTouch edge compensation.

The calibration function (as shown in Figure 19 eGalaxTouch Calibration gray-out) is not required for PCAP touch which TCx800 used and calibration functions are all gray-out as expected. (They are reserved for Resistive Touch.)
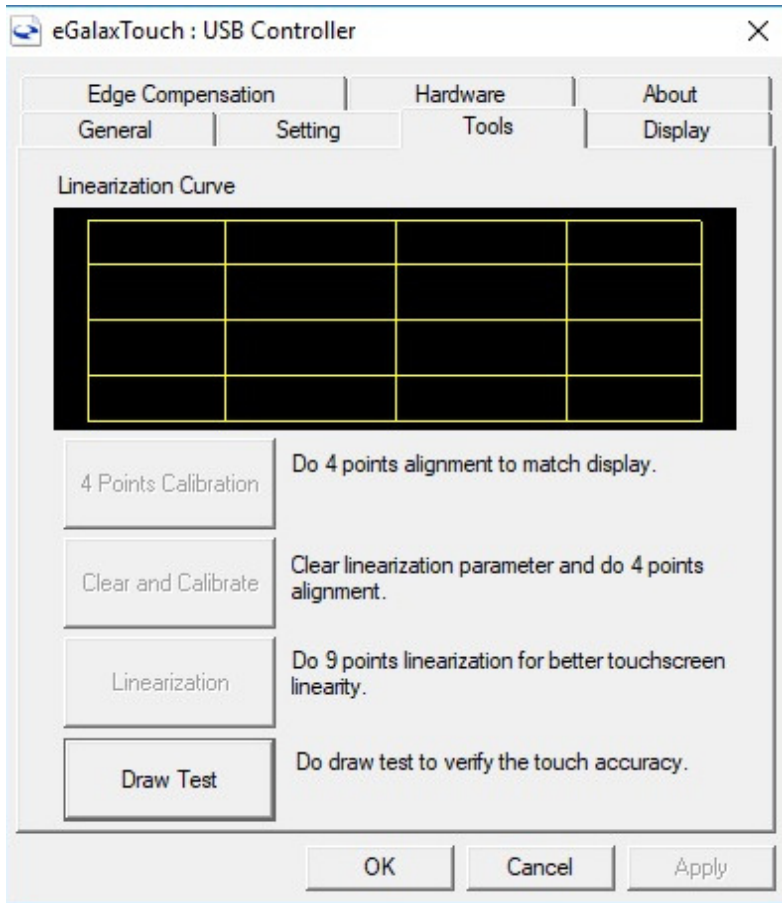

Figure 19 eGalaxTouch Calibration gray-out

2.2.7 Windows On-Screen Keyboard

There is one feature provided by Microsoft Windows, On-Screen Keyboard which will be disabled automatically if there is no digitizer (come with windows native touch driver). If you still want to use this feature in OEM driver installed condition, you will need to start it by yourself and through the setting to turn on it automatically.

Please follow the steps mentioned below and see if it helps.

Select the **search** from the taskbar (see below Figure 20 Search Window) beside of Start ⊞ button (refer to https://support.microsoft.com/en-us/help/17190/windows-10-search-for-anything), then type **OSK**, On-Screen Keyboard will pop up. Click the On-Screen Keyboard and click **Options** on the Keyboard (see below Figure 21 Options in On-Screen Keyboard).

Than click the '**Control whether the On-Screen Keyboard starts when I sign in**' on the bottom popup window shown as Figure 22 Control in Options of On-Screen Keyboard. Click 'Use On-Screen Keyboard' shown as Figure 23 Use On-Screen Keyboard. In most cases, you may **Fade** it that it will not block your normal screen.
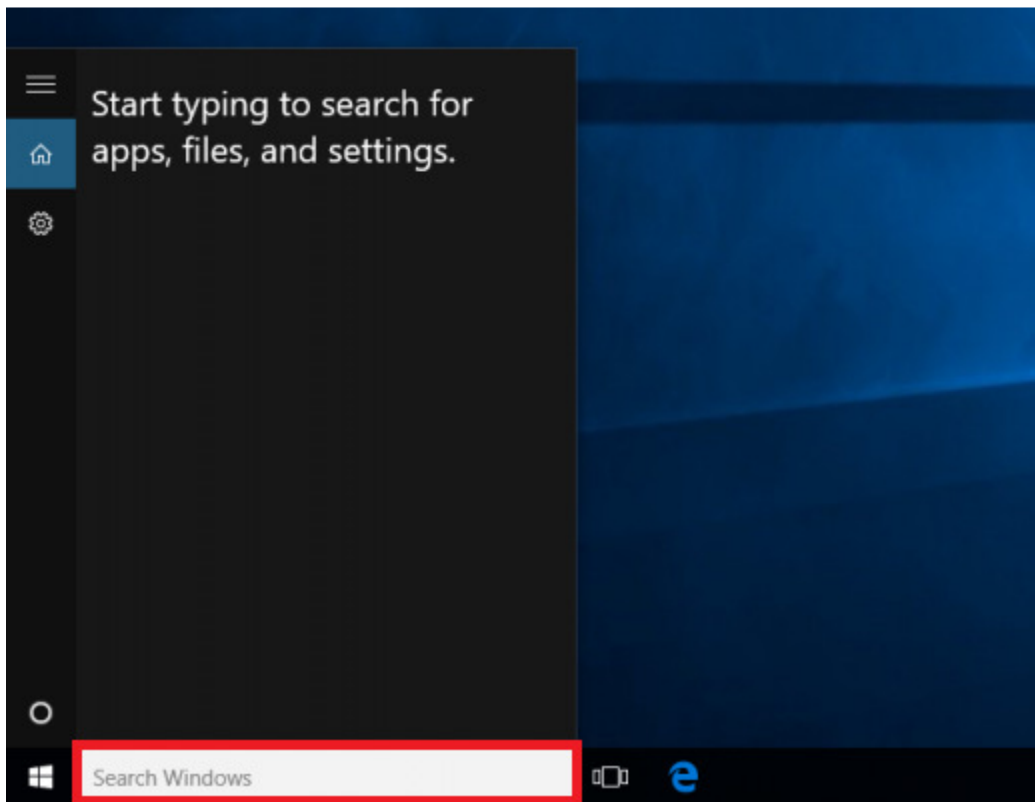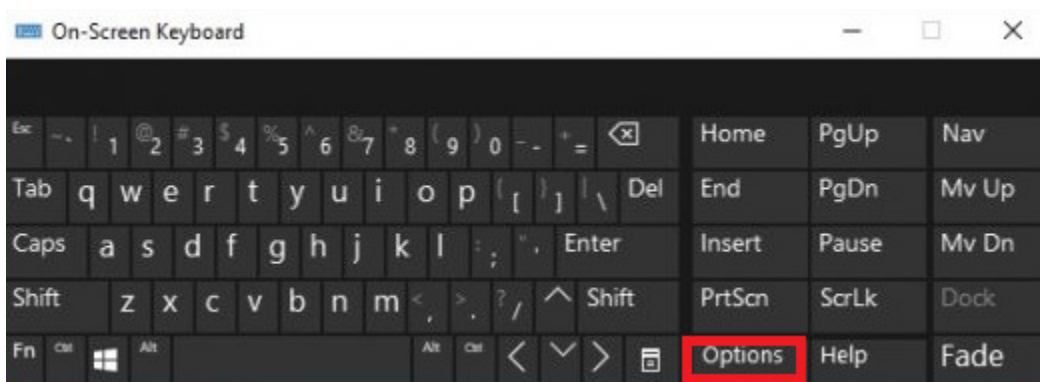
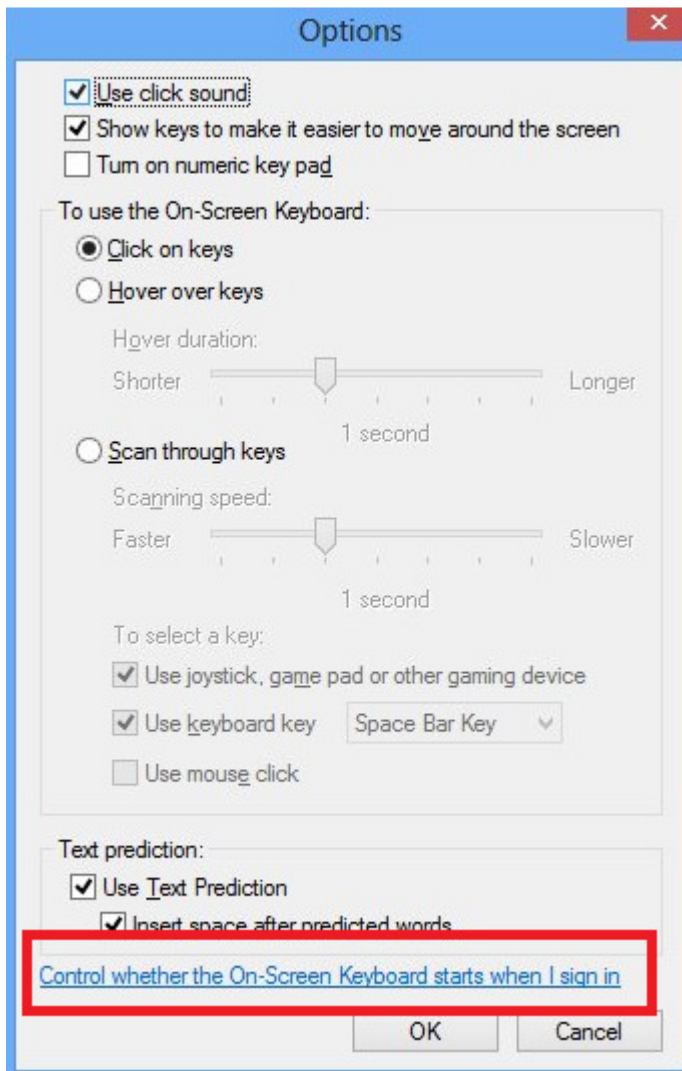**Figure 20 Search Window**

Figure 21 Options in On-Screen Keyboard

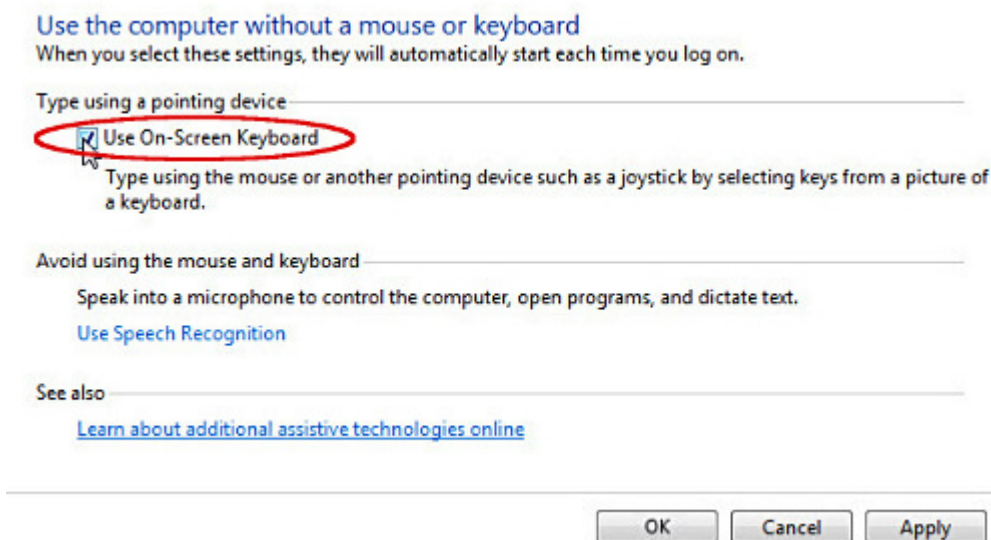**Figure 22 Control in Options of On-Screen Keyboard**

Figure 23 Use On-Screen Keyboard

2.2.8 Multi-Point touch under OEM driver installed

Please contact TGCS for further information (eGalaxTouch_API_5.13.0.140331.zip) of how to use multi-touch under OEM driver (eGalaxTouch) installed.

2.3 Dual Monitor Scenarios

There are a number of dual touch screen display combinations. Each touch solution has its own controller type and any specific utilities for that controller type will only apply to like controllers. If any secondary display attached no matter it is a touch monitor or a non-touch monitor, a calibration is required. (please see section 2.1 Windows 10 Control Panel Touch Settings Options and 2.2 OEM Touch Screen Driver for details) For association processes, the one provided by Microsoft is controller agnostic, but if there is an OEM driver loaded, its association process may only work with like controllers. So, if the touch screens are using the embedded Microsoft drivers (no OEM driver installed), then the association process is not supported. (Unless you use the Clone mode which you don't need an association process). However, if the OEM drivers are installed, the association process may get a little more complicated if the touch screens have dissimilar touch controllers.

      The association method varies depending on whether the attached display is in Clone mode or Extended mode, whether it is a TCx Display (PCAP touch) or a SurePoint monitor (IR touch) and whether an associated TCx800 has an OEM driver loaded or not.

Note: If the SurePoint monitor is attached, an ELO driver will also need to be installed to work as the extended touch monitor.

A summary is shown in the following table. Each scenario is described in more detail in subsections below. It is not recommended that only eGalaxTouch driver be installed for **Extended Mode**; the ELO touch driver is recommended if you want an OEM driver replacing the Windows 10 Native Driver while in **Extended Display Mode**. Both drivers installed is also an alternative solution.

Table 4 Dual monitor scenarios (supported) for the TCx800

Primary Screen	Secondary Screen	OEM Driver	Clone	Extended Mode Association
TCx800	TCx Display	None (Win 10)	No action	Run **Setup** (Tablet PC Settings)
		ELO Driver*	No action	Run *Calibrate* (ELO)** Run **Setup** (Tablet PC Settings)***
		eGalaxTouch & ELO Driver	No action	Run *Calibrate* (ELO)** Run **Enable Multiple Monitors** (eGalaxTouch)
	SurePoint 2xx/5xx	None (Win 10)	No action	Not support
		ELO Driver*	No action	Run *Calibrate* (ELO)** Run **Setup** (Tablet PC Settings)***
		eGalaxTouch & ELO Driver	No action	Run *Calibrate* (ELO)** Run **Enable Multiple Monitors** (eGalaxTouch)

* Only ELO driver installed for the 2nd display. The primary display is supported by Windows 10 Native Driver.

** You will need to tap on the TCxDispaly or SurePoint Display while running ELO **Calibrate**.

*** You will need to associate the TCx800 by Windows **Tablet PC Settings**

2.3.1 TCxDisplay Attached to a TCx800 System

The TCx800 does not use the same touch controller type as the TCxDisplay

Win10, no OEM touch driver

If there is no OEM driver installed, where touch is controlled by the Windows native drivers, then any association of touch screens to monitors is done by invoking *Setup* in the *Tablet PC Settings* control panel (see Figure 4 Tablet PC Settings). Simply touch the screen that has the "Touch this screen…" image, in succession as it moves from monitor to monitor. For the clone mode, no action is required.

ELO Driver for the TCxDisplay

With the ELO driver installed for the TCxDisplay[9], the touch-to-monitor association is accomplished by opening the *EloConfig* utility and clicking on the *Calibrate* button. A calibration target (**see** Figure 24 Calibrate/Associate

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[9] Please check Toshiba Global Commerce Solution website for the TCxDisplay Touch Driver. You can check the link below (it might be moved to another location and please go to TCxDisplay Support website) https://www.toshibacommerce.com/?urile=wcm:path:/en/home/support/product-support/support-hardware/support-displays-sitearea/support-display?mapping=GenericDetail.

target) will appear on the primary monitor, which should be TCx800. Since TCx800 will not respond to touch in this case, from a keyboard click ESC to proceed to the next screen (TCxDisplay). Touch the target and a confirmation button (**see** Figure 25 Confirmation calibration screen) will appear which should be clicked.

For TCx800 primary display, it is driven by Windows native driver, use *Setup* in the *Tablet PC Settings* control panel (see Figure 4 Tablet PC Settings) for association mentioned above.
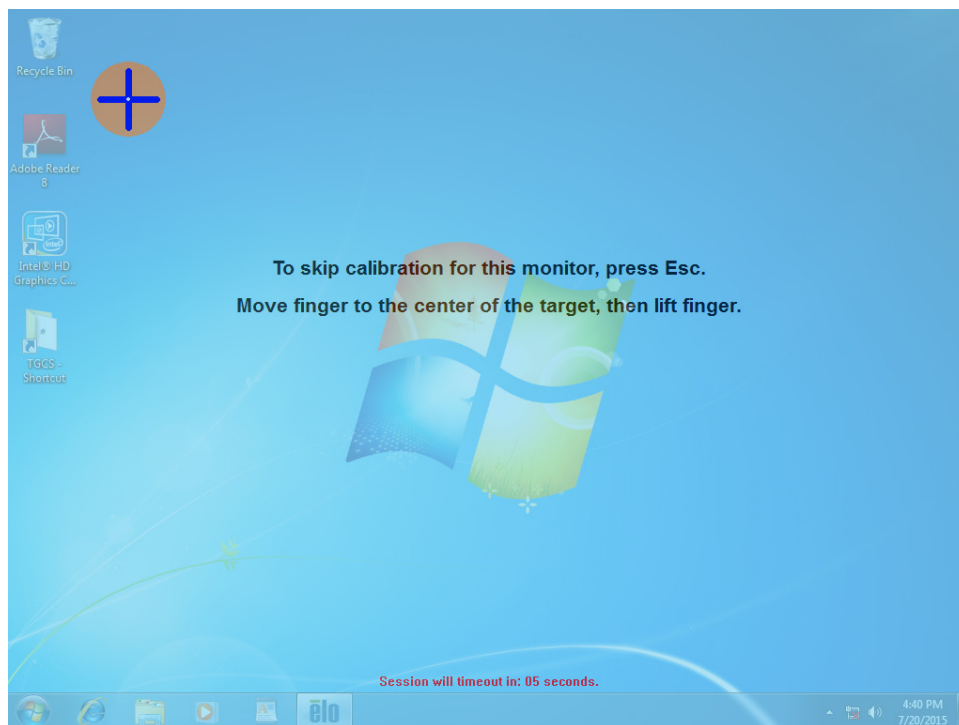
For the clone mode, no action is required.

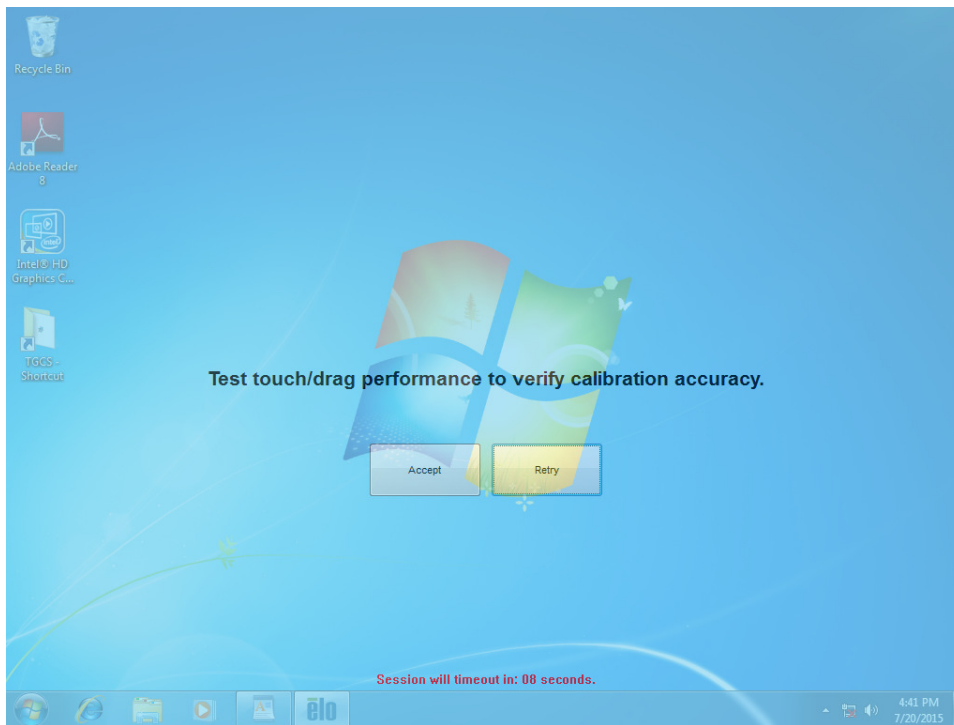**Figure 24 Calibrate/Associate target**

Figure 25 Confirmation calibration screen

eGalaxTouch & ELO Drivers Installed

With the eGalaxTouch installed for TCx800 and ELO driver installed for TCxDisplay, you will see the association will be triggered whil installing ELO driver and once you correctly clicked the TCxDisplay while ELO driver calibration screen showed (**see** Figure 24 Calibrate/Associate target and accepted as Figure 25 Confirmation calibration screen), you've done for TCxDisplay and you will need to run **Enable Multiple Monitors** for TCx800 (primary display, **see** Figure 6 Enable Multiple Monitors), then the touch-to-monitor should be finished without any problem. For clone mode, no action is required.

2.3.2   SurePoint 2xx/5xx Attached

The SurePoint 2xx/5xx display uses an Elo IR touch solution. For clone mode situations, no driver is required and no action is required for USB versions. But for the extended mode, an Elo driver must be loaded. To associate the touch to the monitor, click on *Calibrate* in the main menu of the *EloConfig* utility. A calibration target will appear on the primary monitor, which should be touched. A confirmation button will appear which should be clicked.

For TCx800 touch association, you will use the corresponding driver similar to the TCxDisplay. For example, *Setup* in the *Tablet PC Settings* control panel (see Figure 4 Tablet PC Settings) for Windows Native driver condition and **Enable Multiple Monitors** for TCx800 (primary display, **see** Figure 6 Enable Multiple Monitors) for eGalaxTouch driver installed.

2.4   Touch Mode Settings

The OEM drivers have settings to define when the equivalent mouse button actions will occur. By default the setting is for Click-on-Release, where "click" means a button down, followed immediately by a button up action. The "Click-on-Release" means that when one touches the screen, one may move the cursor, but no button

action occurs until the finger is released from the screen, and at that very moment a button-down followed by a button-up action occurs.

The "Click-on-Release" permits the user to correct for any finger location before any button action takes place. This is convenient for getting the finger on the correct button before committing any action. Generally this is considered the most secure use of the touch screen for icon touch actions.

However, for rapid touch inputs, the "Click-on-Touch" option may be considered. When making rapid entries, one's finger may slip off the icon before lifting, which means a "Click-on-Release" would miss that attempted touch. To correct for that scenario, the "Click-on-Touch" option may be selected. In this case the button-down with an immediate button-up (click) would occur at the very first contact point. Any movement after the first contact point and before release will be ignored.

Of course, if the icon is not touched on first contact, the entry will be missed for the "Click-on-Touch" option, just as the sliding off case with "Click-on-Release". So, it will be up to the user to decide on is the preferred click option.

2.5 Resolution Settings

For Display Port connections, the Intel Graphics engine may allow to be set to many resolutions which are not fully supported.   If one of the unsupported resolutions are chosen, the touch driver may not provide good alignment. In some cases, changing the scaling may help. Supported resolutions are:

Table G1. Supported Resolutions

Model	Size	Aspect Ratio	Native Resolution*	Windows 10 Driver Max Touches	OEM Driver	OEM Driver Max Touch
TBD	15.0"	4:3	1024 x 768	10	eGalaxTouch	1
TBD	15.6"	16:9	1366 x 768	10	eGalaxTouch	1
TBD	18.5"	16:9	1366 x 768	10	eGalaxTouch	1

Using other resolutions may display OK, but the touch alignment may be offset. The recommended resolution is the native resolution of each model. It is not recommended to use any resolution above the recommended.

Scaling Options for Lower Resolutions

If the application has a 4:3 aspect ratio and used on a model with 16:9 native aspect ratio, for example a 1024 x 768 resolution, then the normal touch alignment will only hold for the following scaling options:

- Maintain display scaling
- Scale full screen

If other options are used (ex: maintain aspect ratio, or center image), the touch alignment may be offset. To work around this, you should use Windows native OS drivers and perform a manual calibration as described in section 2.1 Windows 10 Control Panel Touch Settings Options