



TouchPad

Software for ProxiPad,
The through-glass keypads from Coastform Systems

User Guide

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Introduction

TouchPad is an application for Windows 2000 onwards that works with all ProxiPad systems. It offers the following features:

- Display of graphics files according to touches on the ProxiPad system.
- Operation of Windows software using the ProxiPad system.
- Adjustment of the ProxiPad settings.

To get started with **TouchPad**, please follow the simple instructions at the top of page 2. There then follows a description of how to adjust the settings on various ProxiPad systems.

Operation

Initial Setup

TouchPad can be run direct from the CD by launching **TouchPad.exe**, but for permanent operation it is recommended you install it by launching **Install.exe**. The installer also allows you to set **TouchPad** to run on Windows login.

When **TouchPad** is launched for the first time, it will not connect to the ProxiPad system, as you need to tell it which RS232 serial (COM) port to use:

1. Select **Edit...Settings** from the menu.
2. Use the **Port** drop-list to select the correct port. If you select *Search* from the drop-list then **TouchPad** will attempt to find the correct port for you.
3. **OK** the settings dialog box.
4. Wait for **TouchPad** to locate the ProxiPad system. If **TouchPad** is displaying its main window it will display the status of this process on the title bar, whereas if it is running as a system tray icon (in the area on the Start bar where clock is usually located) it will flash its icon. During this phase you should not touch or move the touch panel.

You are now ready to set up **TouchPad** and your ProxiPad system. If **Touchpad** is running as an icon in system tray, some of the menu options can be displayed by right clicking on the icon, but to see the full menu you should double-click on the icon.



If **TouchPad** is running as an icon in the system tray and it has encountered a problem, the icon will be as shown left.

TouchPad Command Line Options

TouchPad can be launched with various command line options that modify its operation. There are various ways of doing this, but the two that are most likely to be useful are:

- From a *batch file*.
- Using a *shortcut*.

The creation and editing of these is beyond the scope of this document, but are widely documented elsewhere (including Windows Help). The syntax for the command line is as follows:

```
touchpad [/l] [/s0|1|2|3|4]
```

Where:

- /l Lock the **TouchPad** window. This prevents *all* interaction with the **TouchPad** window.
- /s0 Hide the **TouchPad** window.
- /s1 Display **TouchPad** as an icon in the system tray.
- /s2 Display the **TouchPad** window minimised.
- /s3 Display the **TouchPad** window normal size (default).
- /s4 Display the **TouchPad** window maximised.

The command is case insensitive. So to display **TouchPad** maximised the command would be:

```
touchpad /s4
```

Setup

Select **Edit...Settings** from the main menu, or, where **TouchPad** is running as an icon in the system tray, right click on the **TouchPad** icon and select **Settings** from the menu. To save the your options select **File...Save** or **File...Save As** from the main menu, or right click on the **TouchPad** icon in the system tray and select **Save Settings** from the menu. If you close **TouchPad** before saving, you will be prompted to do so. When **TouchPad** is next started it will read the saved file to load the settings previously used unless it is started with a command line option that specifies the file to use. Specifically, **TouchPad** looks for settings in the following order:

1. File specified by the command line (which includes opening a .tps file using Windows Explorer by double-clicking or other means).
2. The last settings file used (the file name being stored in the Windows registry).
3. "Default.tps" file saved in the same folder as **TouchPad.exe**.
4. Factory defaults.

The settings are displayed as one or more tabs depending on the connected ProxiPad system.

Settings for All ProxiPad Systems

These are on the TouchPad tab.

Port

Used to select the serial port to which your ProxiPad system is connected. If you select *Search* from the drop-list the **TouchPad** will attempt to find the correct port for you.

Main Window

This allows you to select how the **TouchPad** main window will be displayed when **TouchPad** is launched. Typically *Minimised* and especially *Tray Icon* are used when **TouchPad** is using *input emulation* to control another application, whilst *Maximised* would be used if you want the touch panel to control the appearance of on-screen graphics. *Normal* is a convenient size to use during setup.

Alerts Group

Audible Alert on Touch: Check this box to make **TouchPad** make a sound when a button is touched.

Warn if Hardware Not Found: Uncheck this box if you do not want a warning displayed when no hardware is found.

Input Emulation Group

These controls allow you to create a mapping between the ProxiPad buttons and mouse and keyboard operation, which allows **TouchPad** and therefore the ProxiPad end user to control any Windows application running on the PC to which the system is attached. If the system is to be operated in a public place, it is recommended that you check the **Maintain Focus** checkbox to ensure the end user can't access other windows and use them to take control of the PC. The **Launch Application** option takes this a stage further in that it will prevent the end user from taking advantage of the controlled application crashing or failing to start as expected.

Enable: Check this box to allow ProxiPad to control Windows programs.

Launch Application: If this button is checked then it allows the selection of a program or document which will be launched when **TouchPad** starts. This option is typically used with **Maintain Focus** to ensure TouchPad interacts with one application only. When **Launch Application** is selected it allows you to both choose the program or document to launch and, if the chosen file is a program, enter command line options. These options vary from program to program. Most programs will allow you specify at the very least a document file to load into the program, whilst some allow you to specify a number of different options. Note that if a command line option contains spaces, in general you will need to delimit it with double quotes. Examples of command line options are:


```
"C:\Site Databases\userinfo.oamd" /uadmin  
-i "symbol vectors.svg" -o log.txt -h 8mm
```

Options may or may not be in the program documentation. If not then use of an internet search engine can prove revealing. **TouchPad** itself has such options, and they are described earlier in this document.

Maintain Focus: Check this to ensure that the window that receives the input stream remains the same. The operation of this option is dependent on whether **Launch Application** is selected as follows:

Launch Application selected: **TouchPad** will lock itself to the launched application to ensure that application receives all inputs. If the application closes, **TouchPad** will restart it. On Windows 2000, XP, or on Vista onwards if Windows User Account Control is turned off or TouchPad is 'Run as administrator', **TouchPad** will also close the application as necessary (eg when Windows closes or TouchPad stops using the current settings).

Launch Application not selected: The window that will receive the input stream will remain the first window to receive an input (as a result of a ProxiPad button touch) after **TouchPad** has been launched, even if it later becomes inactive. This is useful as a security measure to prevent the end user from taking control of the display system PC using the ProxiPad system. Note that if the display application is relaunched **TouchPad** must be relaunched too, and button touched to lock the focus.

Button Number: This drop-list allows you to select the button number for which the mapping applies. Use the  button to select the appropriate touch button using the attached ProxiPad system.

Key / Virtual Key / Character / Mouse Action: This button allows you to select the type of input action. The drop-list below will list all the available actions, which may be modified using the **Modifier** drop-list.

Key: This option allows you to select from the keyboard keys reported by the operating system.
Virtual Key: This option allows you to select from the Windows virtual key codes. The resulting action depends on the system on which **TouchPad** is being run.
Character: This option allows you to specify a particular character. **TouchPad** will convert this to a key press sequence (eg * will generate SHIFT-8 on UK keyboards).
Mouse Action: This option allows you to emulate mouse actions.

Modifier: This drop-list allows you to select a modifier to the input action, such as SHIFT.

Default Map: This button allows you to restore the factory default map according to the **Key / Virtual Key / Character / Mouse Action** button.

Settings for ProxiPad-Modular 1.0

This system cannot be adjusted, so no settings are available.

Settings for ProxiPad-Modular 2.0 Onwards

These are on the ProxiPad tab

Button Number: This drop-list allows you to select the button number (address) for which the mapping applies. You may select all touch-pads, or one specific touch-pad. If the former is selected, **TouchPad**

will program the touch-pads as a group. If the latter is selected, **TouchPad** will program the touch-pads one-by-one.

Activation State Group

Report touches and animate LEDs: Use this to set the activation state.

LED Brightness Group

Adjust the slider to the left to reduce the brightness of the LED display. This will be disabled if any touch-pad in the chain does not support display brightness adjustment.

LED Pattern Animation Group

Synchronise Touch-Pads: Even if all touch-pads are set to the same pattern, the touch-pads will fairly rapidly lose synchronisation with each other unless this check-box is checked. The effect may or may not be desirable.

Smooth Transitions: If checked the LEDs fade smoothly from on to off and from off to on. This will be disabled if any touch-pad in the chain does not support this feature.

Untouched Pattern / Touched Pattern: Patterns can be selected both for when a touch-pad is touched and for when it is untouched. Use this button to switch between the two when setting up flash patterns.

Pattern Droplist: Use this to select from predefined patterns, or switch back to the factory default pattern.

Custom Pattern: The LED icons depict how the top three LEDs will appear over the eight frames of animation (hence the three by eight matrix). You can click on them to turn them on and off. Hint: you may prefer to select just one or two LEDs at first, to see the effect on the flash pattern; turning many on or off at random will make it very hard to relate what you see on screen to the result on the touch-pad.

Settings for ProxiPad-Modular using Really Useful Switch Cards

This system cannot be adjusted using TouchPad, so no settings are available. The Really Useful Switch cards can be programmed with *QtBtm*, using the .btn files prefixed with SD (eg SD0.btn). Files are provided for up to 15 touch switches (the number of slots available on the breakout board). If copying and editing these files to allow the use of more than 15 switches, note that the character strings sent by the Really Useful Switch are postfixed with an 8 bit CRC calculated using *CheckByteCalculator* (supplied).

Settings for ProxiPad-Modular 16

This system cannot be adjusted using TouchPad, so no settings are available. The original touch switches used with this system have been replaced with Really Useful Switch cards. These can be fixed function, or fully programmable. If fully programmable, they should be programmed using *QtBtm*, using the ProxiPadModular16.btn file.

Settings for ProxiPad-n

Setting up touch key characteristics must be carried out using **ButtonView** or a terminal emulator. Please see your ProxiPad **User Guide**. If the ProxiPad-n supports membrane key matrix emulation (for retrofitting to an existing host) a Switch Matrix Emulation tab will appear to allow this to be set up. This is achieved with the aid of a special spreadsheet that maps the touch keys to the scan in and scan out codes that the host system is expecting. Please contact Coastform Systems for assistance with this.

Displaying Images

The **TouchPad** window can be used to display images in response to key touches. In order to do this **TouchPad** must be launched in Normal or Maximised mode (see TouchPad Command Line Options on page 2). Also the file CJPEG.DLL must be present in the **TouchPad** application directory. Finally, one image should be present for each key. The format of the filename must be PP<key>.jpg, that is PP1.jpg to PP2.jpg, PPA.jpg to PPZ.jpg. If a file Logo.jpg is placed in the application directory, it will be displayed if no key has been touched.

End of Document