Keith McMillen INSTRUMENTS

SoftStep KeyWorx Reference Manual

Version 1.4
October 2011

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Welcome

Thank you from Keith McMillen Instruments! We are excited to welcome you to the world of SoftStep, the world's most expressive foot controller.

KeyWorx allows the SoftStep hardware to execute key commands, launch applications or files, and even act as a mouse. Now in addition to controlling music applications SoftStep can control any computer application.

System Requirements

We recommend the following for using the SoftStep and the SoftStep KeyWorx application:

MAC:

- An Intel Core 2 Duo 2.3GHz or greater Mac OS 10.5 or later
- has 90 MB free hard disk space

WINDOWS:

- Windows XP, or Windows 7
- 1GB of RAM with 50 MB free hard disk space

Questions or Feedback? Contact Us!

If at any time you have any questions, please contact us:

Web: www.keithmcmillen.com
Forum: forum.keithmcmillen.com
Email: support@keithmcmillen.com

Overview

First make sure you have the latest version of the SoftStep KeyWorx application which is available to download from our website:

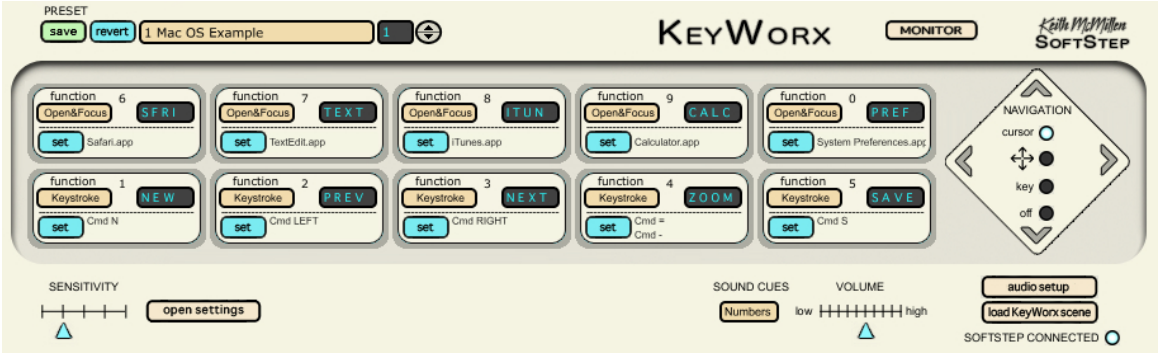
http://www.keithmcmillen.com/softstep/downloads/

When you first open up the SoftStep KeyWorx application you may be prompted to update the firmware for your SoftStep in order to be compatible with the application.

Click the "update" button and wait for the update to complete. It may take a moment, but you will only have to do this once.

Note to SoftStep Music Application users: The firmware that is required for use with KeyWorx is compatible with the latest version of the SoftStep Music application so there is no need to revert when switching back to the regular application. A specific KeyWorx scene is required for the KeyWorx application. If you load other scenes on your SoftStep and then come back to use the KeyWorx application, you will need to put the KeyWorx scene back on your SoftStep. To do this click the "load KeyWorx scene" button in the lower right hand corner.

The main window of KeyWorx looks like this:

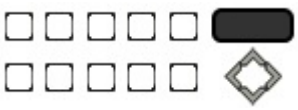


You will see the controls for the 10 key pads and the diamond-shaped Navigation Pad (Nav Pad). You will also see where you can save and select different settings for the key pads, we call these scenes. The scene that is selected the first time you open KeyWorx is called Mac OS Example or Windows OS Example. To check out all of the operations that this scene will perform see the Included Factory Scenes chapter.

Of course you can edit this scene as much as you like or you can even start from a blank slate. Our Blank New Template scene allows you to start building your own scene from scratch.

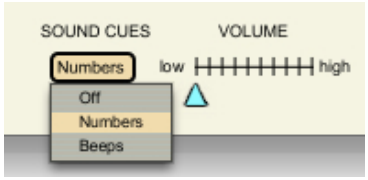
On **Windows**, to the right of the scene select functions, users can use the **screen refresh** button if they change their screen resolution while the KeyWorx application is open.

In the top right you'll see a **monitor** button. Clicking this will open up the small window to the right. This window lights up for you and shows you which key pad you are pressing and the display name for each key pad as you press it. It is useful to have in view while you are using other applications.



The **audio setup** button in the bottom right corner will open a window where you can set what device KeyWorx's sound will use for output, along with some other audio-related options. The **load KeyWorx scene** button can be used to re-load the KeyWorx scene. You can also view whether or not the application is connected to your SoftStep by checking the **SoftStep Connected** light.

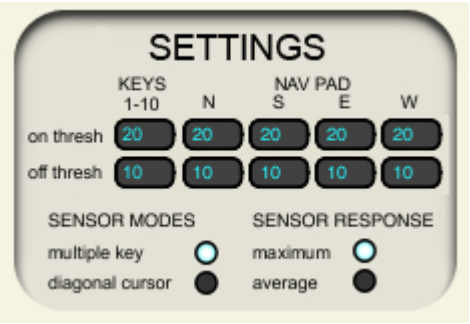
The **sound cues** drop-down menu can be used to select what type of audio feedback will play when pressing the SoftStep's keys. You can choose to hear beeps or numbers when stepping on the key pads or you can just turn the sounds off. The **volume** slider will adjust the volume of these sounds from low to high.



The bottom left is home to the sensitivity settings. The **sensitivity** slider adjusts how sensitive to pressure the keys are — further to the left is less sensitive and further to the right is more sensitive. The **open settings** button will open a window where you can fine-tune the sensitivity of the key pads.

Settings

The settings window looks like this:



At the top you have the on and off thresholds for keys 1-10 and the Navigation Pad. When a key pad's pressure value exceeds the value of its **on thresh**, the function is triggered (foot on). When the pressure on that key pad then falls below its **off thresh**, the function stops (foot off). The lower the **on thresh** is, the easier it is to trigger a key — the greater the difference between the on and off thresholds, the easier it is to hold a key on. It should be noted that if the **on thresh** is too low, there is some chance of getting accidental key triggers.

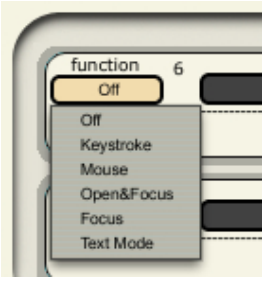
Below the on and off thresholds on the left side you can set the **sensor modes** to enable the **multiple key** switch which allows you to trigger more than one key at a time. Disabling this switch will lock out all other keys while one is activated — this helps to prevent unintentional triggers while in use.

The **diagonal cursor** switch allows you to turn on/off the ability to move the mouse cursor diagonally, in addition to up and down.

Finally, there are the sensor response options. There are four sensors in each SoftStep key — one in each corner. **Average** mode takes the pressure values from all four and averages them. In **maximum** mode, each key just sends the largest of the four pressure values. If you are having trouble triggering keys with the SoftStep it may help to set this option to maximum.

Functions

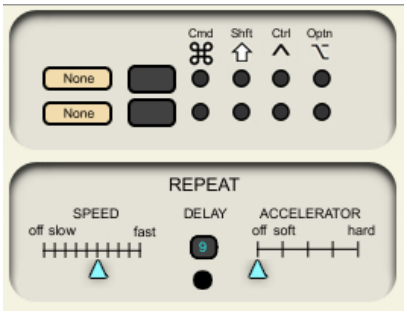
In order to assign data to the SoftStep key pads you'll want to start by clicking on the **function** drop-down menu for one of the numbered key pads in the main window and selecting what you want the key pad to do. You can choose between Off, Keystroke, Mouse, Open&Focus, Focus, and Text Mode.



Note to Windows users: Open&Focus function is not available on Windows. See the Open&Focus chapter for a work-around for opening applications.

Keystroke

If you choose **Keystroke** as the function you would like to assign the key pad to, the window to the right will pop up. Also a blue **set** button will appear under the function menu which re-opens this window if you close it. There are 2 rows where you can set up commands. They start with a drop down menu where you can select how the SoftStep key pad will trigger the keystroke. Choose between Foot On, Top, Bottom, Left, and Right.



Foot On - This is the simplest way to trigger key commands. When you step on the key command the keystroke is triggered. If you have 2 rows of key commands using Foot On, the first command will execute, then after 1 second the second command will execute.

Top - If this is selected the keystroke will be sent out if the pressure of your foot on the key pad is weighted towards the top.

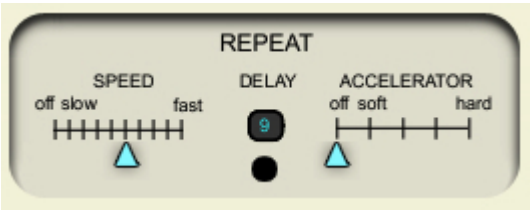
Bottom - If this is selected the keystroke will be sent out if the pressure of your foot on the key pad is weighted towards the bottom.

Left - If this is selected the keystroke will be sent out if the pressure of your foot on the key pad is weighted towards the left side.

Right - If this is selected the keystroke will be sent out if the pressure of your foot on the key pad is weighted towards the right side.

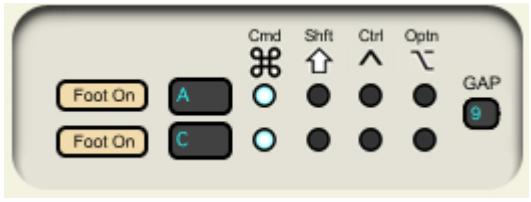
After selecting how you want to trigger your keystroke(s) you can then select the dark box and type in the key that will be triggered. Then you can apply modifiers by clicking the dots under the symbols. You can use multiple modifiers at once.

The **Repeat** box contains a few additional features that are useful when you would like the chosen key command to repeat if you hold your foot on the key pad. You can set the **Speed** of the repetition of the key command by positioning the blue arrow somewhere between **slow** and **fast**.



Select a number between 0 and 9 that represents the **delay** time between when you start holding your foot on the key pad and when the key commands begin to repeat. You can visualize this by watching the dot under the number box light up when you hold down on the key pad of the SoftStep. The actual value in milliseconds starts at 40ms if you've selected 0 and ends with 1 second if you've selected 9.
The **accelerator** allows you to dynamically change speeds by pressing softer or harder.

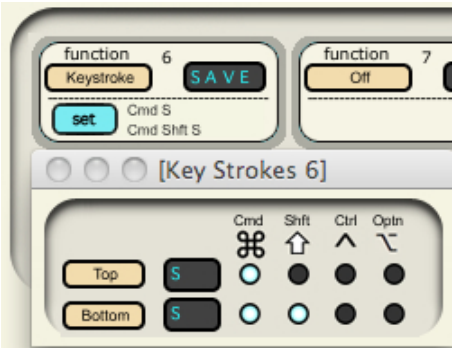
If you set up 2 keystrokes for one key to both use foot on, the keystroke set to the top line will execute first and the keystroke set to the bottom line will execute second. The number in the **Gap** box will determine how long it will take the second command to execute after the first. A gap of 0 = 200ms and 9 = 1100ms.



After setting up the key pad to send out the data of your choosing you can give it a name so that when you step on the key pad the SoftStep display will show what you've typed in the field.

Here is an example of how you might set up one key pad to perform the **Save** function and the **Save As** function:

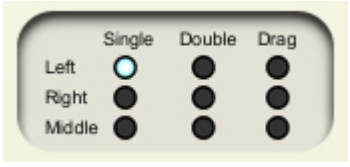
The top and bottom triggers are used so if you press the top of the SoftStep key pad with your foot the cmd S keystroke will execute - usually acting as the save file command in most applications. If you press the bottom of the SoftStep key pad the cmd + shift S keystroke will execute - usually the save as file command in most applications. I typed in the word "SAVE" in the main window of the application next to the function menu so that when I press on the key pad this word will appear in the SoftStep display.



Note: The command modifier is not available to Windows users as it is a Mac only key.

Mouse

If you go back to the function menu and select **Mouse** instead of **Keystroke**, the window to the right will pop up. Here you can decide what type of mouse commands the key pad will be assigned to.



On the left side of the window you can select Left, Right, or Middle and Single, Double or Drag for what types of mouse click you want to perform. For example if you click the dot for Left and Double, this will perform a left double click. Using a drag option allows you to toggle between clicking and un-clicking. So pressing a key pad once will hold down the click and pressing again will un-click the mouse. On Mac it is best to use the Drag function only when using the Navigation pad as the cursor.

Note: The mouse will not function properly with more than one computer monitor.

Open & Focus

If you select **Open&Focus** from the **function** drop-down menu, the window on the right will pop up. Drag and drop the application or folder you wish this key pad to open up or focus on into the blue box.

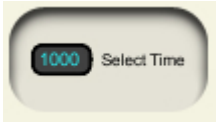
Windows Users

Windows users do not have the Open & Focus feature. To open applications from KeyWorx on Windows you would want to right-click on a shortcut of the application you want to open and go to "Properties". Then go to the "Shortcut" tab and find the box that is labeled "Shortcut key". You can put any shortcut key you want in this and use the Keystroke function in the KeyWorx application to link it up with the SoftStep.

Focus

On Mac computers when you hold the cmd key and tap the tab key you can select which application to bring in focus. On Windows holding the alt key and then tapping tab allows you to select which application you want to focus on. What the focus function does is emulate these actions just by tapping on a key pad on the SoftStep.

When selecting this function a new window will appear. The **Select Time** number box is the amount of time (in ms) you have in between tapping on the key pad of the SoftStep before the menu of applications on your computer screen disappears.

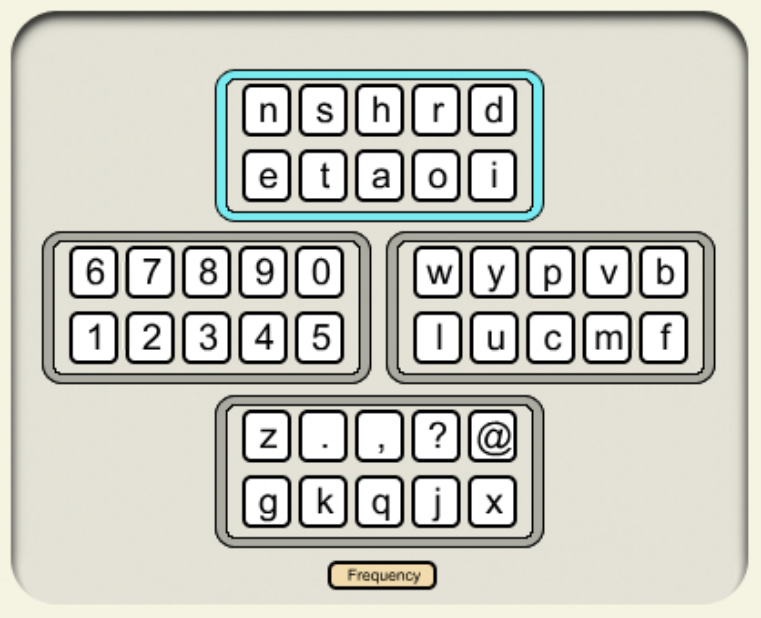


During the time that the application menu is visible you can just tap the SoftStep key pad to scroll through the applications.

Text Mode

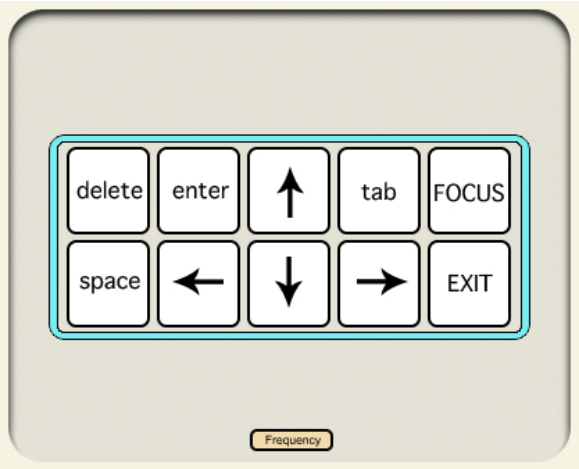
When you select Text Mode as your function this means that when you press the key pad assigned to this function you will switch into text mode and a new window will pop up.

There are 4 rectangles that contain 10 letters/numbers/ symbols. The 4 rectangles represent the 4 corners of the Nav Pad. You can press the corner that corresponds to the rectangle you want to activate. The activated rectangle will be outlined in light blue (as shown around the top rectangle to the right). This means that the 10 letters shown in the boxes will represent the 10 numbered key pads of the SoftStep. For example: if the top of the Nav Pad is activated key 1 will become "e", key 2 will become "t", key 3 will be "a", etc...



Pressing the top again will switch you into something we call edit mode. You can toggle into edit mode using any of the Nav Pad directions.

Edit mode gives you access to important keys like delete, enter, space. Also note the "FOCUS" button. This acts just like the focus function when not in text mode. Tap it to scroll through the open applications on your computer. The Exit button will take you out of text mode. To get out of edit mode and back typing letters, numbers, and symbols press any of the directional pads on the Nav Pad.

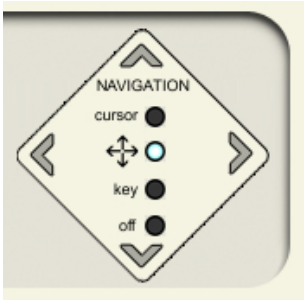


You can also hold down one of the 4 Nav Pad keys in order to shift to capitalize the letters or gain access to more symbols.

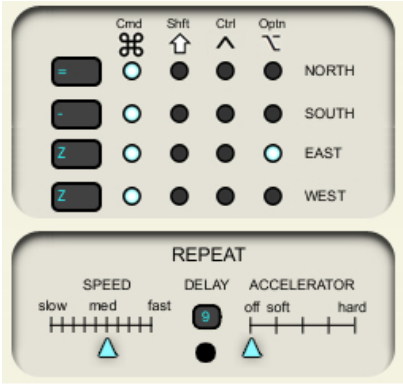
Notice also the little button at the bottom that says "Frequency". This indicates that the key pads are arranged according to frequency. You can click in this box and select Alphabetical in order to change the arrangement of the keys so that they are alphabetical instead.

Navigation

The diamond-shaped navigation pad, or Nav Pad, has a few settings as well. If you select **cursor,** applying pressure on the Nav Pad towards the top, bottom, left, or right will allow you to use the Nav Pad as a mouse. The mouse will only move in one direction at a time. If you select the directional arrows, this indicates the arrow keys on the computer keyboard. Applying pressure on the Nav Pad towards the top, bottom, left, or right will trigger the arrow keys.



If you select the key function then you can assign key strokes to the 4 corners of the Nav Pad. A window will pop up that will include a text field and buttons for tuning on modifiers for your key commands. You can also use the **Repeat** function to set a speed, delay, and accelerator. It contains a few additional features that are useful when you would like the chosen key command to repeat if you hold your foot on the key pad. You can set the **Speed** of the repetition of the key command by positioning the blue arrow somewhere between **slow** and **fast**.

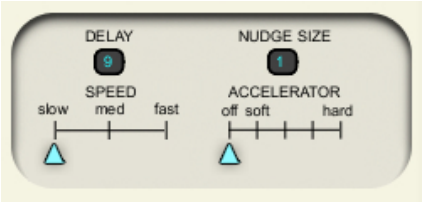


Select a number between 0 and 9 that represents the **delay** time between when you start holding your foot on the key pad and when the key commands begin to repeat. You can visualize this by watching the dot under the number box light up when you hold down on the key pad of the SoftStep. The actual value in milliseconds starts at 40ms if you've selected 0 and ends with 1 second if you've selected 9.
The **accelerator** allows you to dynamically change speeds by pressing softer or harder.

You can also turn the Nav Pad off if you do not wish to use it.

A **Repeat** box identical to the one at the bottom of the Nav Pad's Key function window will pop up if you select the directional arrows.

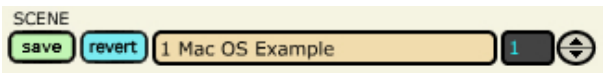
A very similar box will pop up if you select the cursor. This box adds a **Nudge Size** setting which indicates how many pixels the cursor moves when you tap your foot on the pad. You can set this number between 1 and 30.



Saving

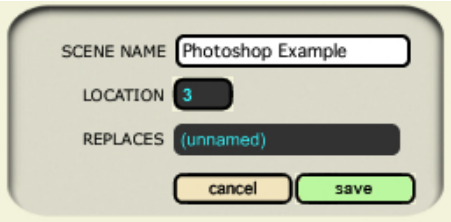
After setting up your key pads to trigger all of the key commands that you wish to trigger, you need to save a scene so that you can later recall this set up.

The upper left corner of the main window is where you will find the save button for your scenes.



To save a scene click the Save button and type what you want its name to be in the **Scene Name** box.

In the picture to the left, if I were to click "save", my old preset saved under scene **location** 2 "Blank New Template" would be replaced with the latest adjustments, and scene 2 would be renamed "Photoshop Example."

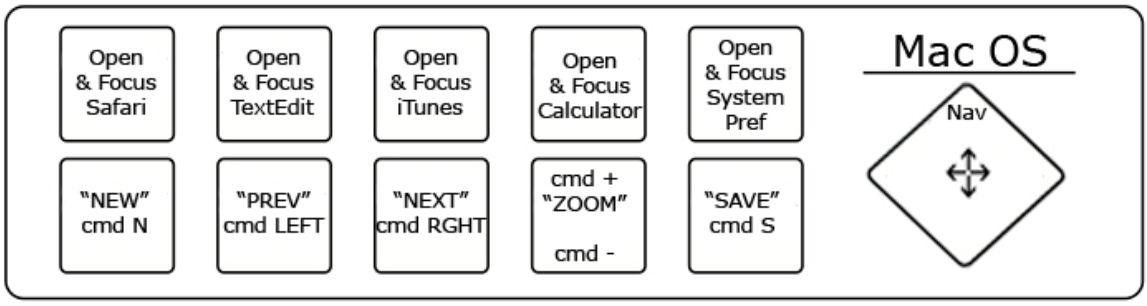


Instead, change the location to a blank "unnamed" slot (in this case "3") and type in a new name in the **Scene Name** field. This enables you to save multiple custom scenes. When you hit **save** the scene will become available to recall in the scene list.

Included Factory Scenes

The KeyWorx application comes with several included factory scenes that have already been set up to do various things.

Mac OS Example



Key Pad 1 - cmd N - This usually makes a new blank file. In Safari this makes a new browser window. In iTunes this makes a new playlist.

Key Pad 2 - cmd Left Arrow - In Safari this acts as the back button for the browser. In iTunes this goes to the previous song.

Key Pad 3 - cmd Right Arrow - In Safari this acts as the forward button for the browser. In iTunes this skips to the next song.

Key Pad 4 - cmd = or cmd - depending on the weight of your foot towards the top or bottom of the key pad - In most applications this controls zoom. Holding your weight towards the top of the key pad zooms in, towards the bottom zooms out.

Key Pad 5 - cmd S - In most applications this accesses the save command from the file menu.

Key Pad 6 - Open & Focus on Safari - This allows you to open Safari or focus on Safari if you're in another application.

Key Pad 7 - Open & Focus on Text Edit

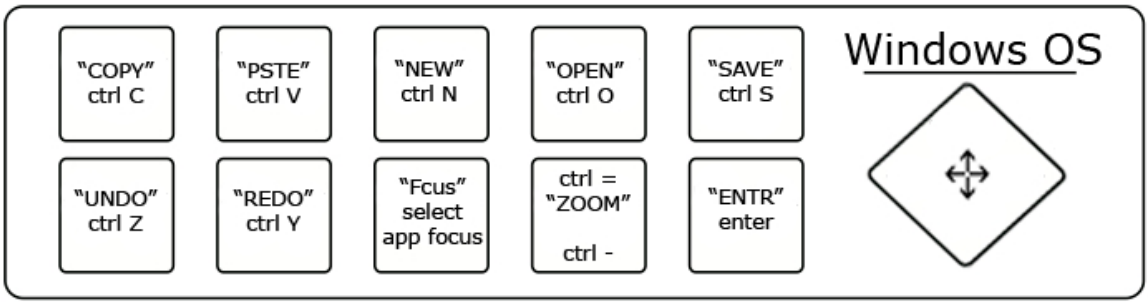
Key Pad 8 - Open & Focus on iTunes

Key Pad 9 - Open & Focus on Calculator

Key Pad 10 - Open & Focus on System Preferences

Navigation - This is set to act as the directional arrow keys, up, down, left and right.

Windows OS Example



Key Pad 1 - Ctrl Z - This is generally the undo command in most Windows applications.

Key Pad 2 - Page Up & Page Down - The top of the key pages up and the bottom of the key pages down.

Key Pad 3 - Focus - Tap this key pad to select which open application on your computer you wish to focus on.

Key Pad 4 - cmd = or cmd - depending on the weight of your foot towards the top or bottom of the key pad - In most applications this controls zoom. Holding your weight towards the top of the key pad zooms in, towards the bottom zooms out.

Key Pad 5 - ENTER - This key pad acts as the enter key

Key Pad 6 - Ctrl C - This is generally the copy command in most Windows applications.

Key Pad 7 - Ctrl V - This is generally the paste command in most Windows applications.

Key Pad 8 - Ctrl N - This is generally the File-New command in most Windows applications.

Key Pad 9 - Ctrl O - This is generally the File-Open command in most Windows applications.

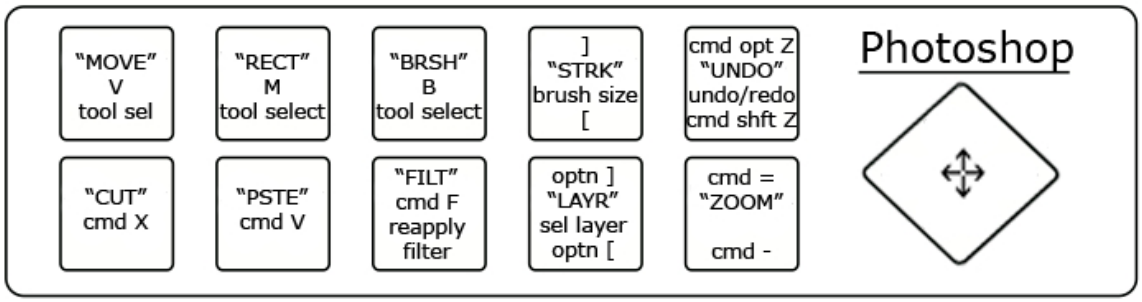
Key Pad 10 - Ctrl S - This typically will save whatever you're working on in most Windows applications.

Navigation - This is set to act as the directional arrow keys, up, down, left and right.

Blank New Template

This scene is blank to provide users with a starting place if they are interested in starting from scratch to build their own scene.

Photoshop Example



Key Pad 1 - cmd X - This performs the CUT command

Key Pad 2 - cmd V - This performs the PASTE command

Key Pad 3 - cmd F - This performs the Apply Last Filter command

Key Pad 4 - option] & option [- These commands allow you to scroll through the layers. Holding your weight towards the top of the key pad steps upwards through the layers, towards the bottom steps downward through the layers.

Key Pad 5 - cmd = & cmd - - These commands control zooming in and zooming out. Holding your weight towards the top of the key pad zooms in, towards the bottom zooms out.

Key Pad 6 - V - This selects the move tool from the toolbar

Key Pad 7 - M - This selects the rectangular marquee tool from the toolbar

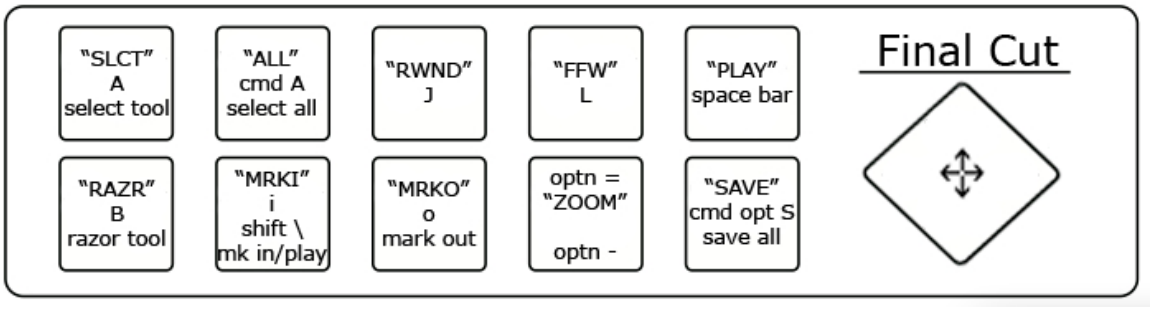
Key Pad 8 - B - This selects the brush tool from the toolbar

Key Pad 9 - [&] - This controls the brush size when the brush tool is selected. Holding your weight towards the top of the key pad makes the brush size bigger, towards the bottom makes the brush size smaller.

Key Pad 10 - cmd optn Z & cmd shift Z - These control the undo and redo commands. Holding your weight towards the top of the key pad executes the undo command, towards the bottom executes the redo command.

Navigation - This is set to act as the directional arrow keys, up, down, left and right.

Final Cut Example



Key Pad 1 - B - This selects the razor blade tool

Key Pad 2 - ctrl V - This performs the add edit command in the timeline

Key Pad 3 - cmd Z & cmd shift Z - These control the undo and redo commands. Holding your weight towards the top of the key pad executes the undo command, towards the bottom executes the redo command.

Key Pad 4 - cmd = & cmd - - These commands control zooming in and zooming out. Holding your weight towards the top of the key pad zooms in, towards the bottom zooms out.

Key Pad 5 - cmd option S - This performs the save all command

Key Pad 6 - A - This selects the select tool

Key Pad 7 - SPACE - This performs the play command

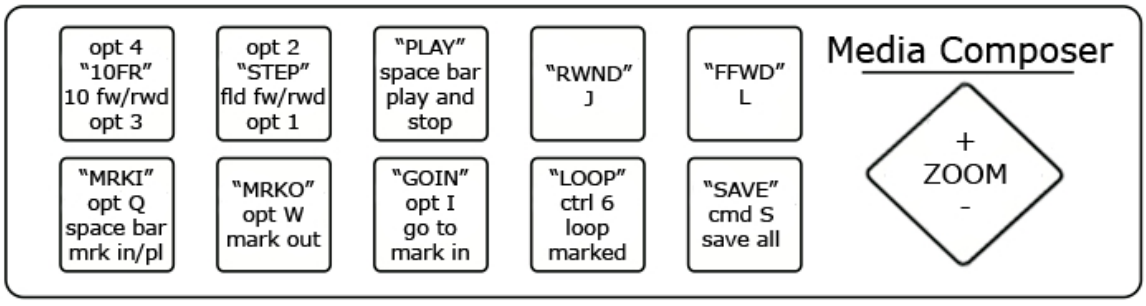
Key Pad 8 - K - This performs the stop command

Key Pad 9 - J - This performs the rewind command

Key Pad 10 - L - This performs the fast forward command

Navigation - This is set to act as the directional arrow keys, up, down, left and right.

Media Composer Example



Key Pad 1 - optn Q & SPACE - This performs the Mark In command and then plays from the Mark In point.

Key Pad 2 - optn W - This performs the Mark Out command

Key Pad 3 - optn I - This goes to the Mark In point but does not play

Key Pad 4 - ctrl 6 - This will loop from the Mark In to the Mark Out point

Key Pad 5 - cmd S - This performs the save command

Key Pad 6 - optn 4 & optn 3 - Pressing your weight towards the top of the key pad executes the command to go forward 10 frames, towards the bottom executes command to go back 10 frames.

Key Pad 7 - optn 2 & optn 1 - Pressing your weight towards the top of the key pad executes the command to go forward 1 field, towards the bottom executes command to go back 1 field.

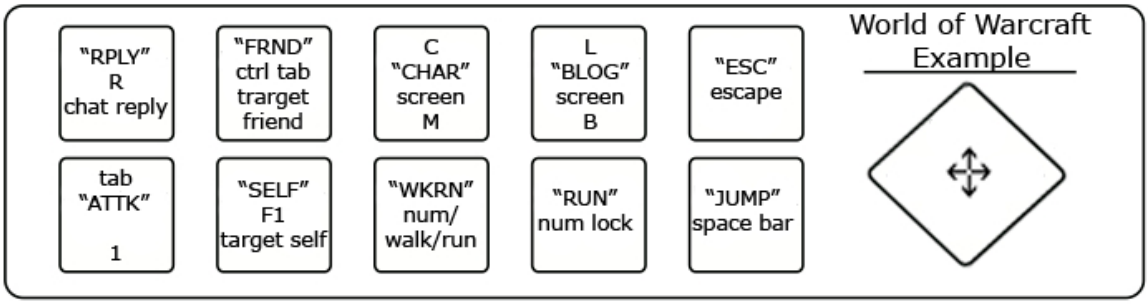
Key Pad 8 - SPACE - plays and stops playback

Key Pad 9 - J - This performs the rewind command

Key Pad 10 - L - This performs the fast forward command

Navigation - This is set to act as the directional arrow keys, up, down, left and right.

World of Warcraft Example



Key Pad 1 - Tab & 1 - This key pad allows you to target your nearest enemy by pressing towards the top of the key pad and pressing towards the bottom executes action button 1.

Key Pad 2 - F1 - This key pad allows you to target yourself

Key Pad 3 - NUM/ - This key pad allows you to toggle run/walk

Key Pad 4 - = - This toggles auto run on and off

Key Pad 5 - SPACE - This key pad executes the jump command

Key Pad 6 - R - This key pad executes the chat reply command

Key Pad 7 - ctl tab - This targets your nearest friend

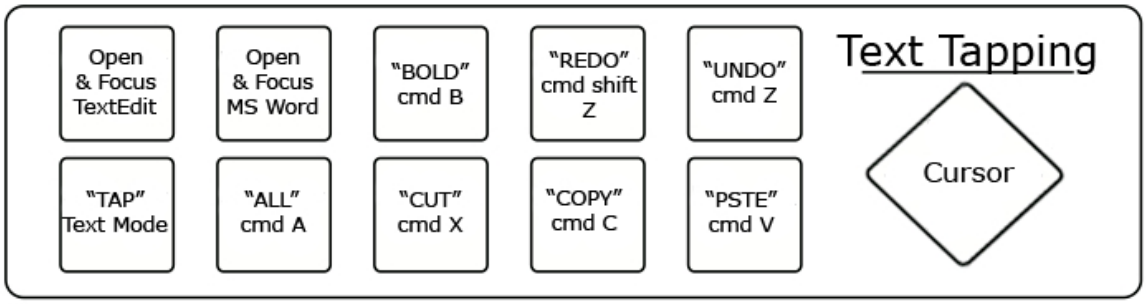
Key Pad 8 - C & P - Pressing your foot towards the top of the key pad executes the toggle character pane, pressing towards the bottom toggles your spell book

Key Pad 9 - L & B - Pressing your foot towards the top of the key pad toggles quest log, towards the bottom opens all bags

Key Pad 10 - M & ESC- Pressing your foot towards the top of the key pad toggles the world map pane, towards the bottom toggles the game menu.

Navigation - This is set to act as the directional arrow keys, up, down, left and right.

Text Tapping



Key Pad 1 - Text Mode - press this key pad to go into text mode

Key Pad 2 - cmd A - select all

Key Pad 3 - cmd X - cut

Key Pad 4 - cmd C - copy

Key Pad 5 - cmd V - paste

Key Pad 6 - Open & Focus Text Edit - open the text edit application. On Windows this is ctrl S for save.

Key Pad 7 - Open & Focus MS Word - open Microsoft Word. If you have Microsoft Word this key pad should open it. On Windows this is ctrl i for Italicize.

Key Pad 8 - cmd B - bold

Key Pad 9 - cmd shift Z - redo

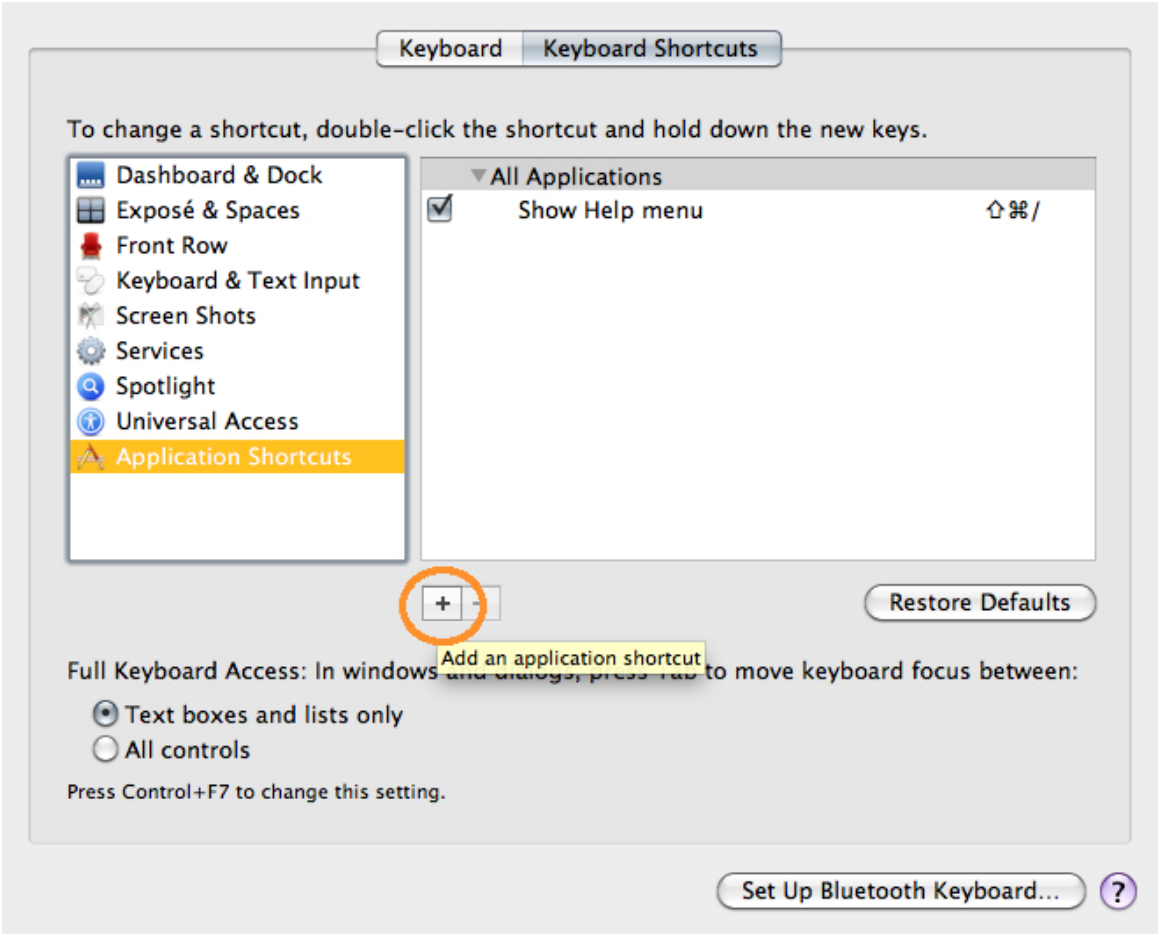
Key Pad 10 - cmd Z - undo

Navigation - The Nav Pad acts as a mouse cursor.

Tips

Mac

To assign Key Commands for any application on Mac computers you can do this by going into System Preferences and clicking on the Keyboard icon then going to keyboard shortcuts. On the left side of the screen you can select what type of shortcuts you want to change, if you select Application Shortcuts you can then add an application by clicking on the little "+" button:



Click that and you can select any application and type in the exact name of the file command that you wish to add a keyboard shortcut to. You can also change existing keyboard shortcuts.