SSMUG NEWSLETTER

August 2014

Meetings

Second Tuesday of the month

Flossmoor Station meeting room

(reservation under "Todd Smith")

confirm: tsmith@mac.com

The format is different this moth because I am passing along some of Apple's keyboard shortcut command charts.

Apple has not been announcing much since WWDC in May. Speculation and leaks about the iPhone 6 and the "iWatch" are rife. The quotes are around "iWatch" because someone else has registered the term as a trademark.

It is clear that the iPhone 6 will come in two sizes, 'Large' in September (Apple has "blacked out" vacations in September for Apple Store employees. However, this is customary. This points to new product introduction, but nothing out of the ordinary (for Apple) because they are not hiring more people for the stores.) and "Extra Large" shortly thereafter. Neither will be as large as Samsung's "Phablets", however. I am not publishing the leaks because the only thing they show that is new, except for size, is that there is a recess on the inside of the case where the Apple is located, leading to speculation that it will be lit as with MacBooks.

Engineers are still being hired to work on Apple's smart watch. While I am aware that product development does not stop once a product goes to market, it does give a certain sense of foreboding that things are not going as well as might be expected. As well as we hope, that is.

Apple's sales are holding up and Samsung's dropped last quarter. Since Apple introduced the iPhone in China sales have been good. Good enough the Chinese government has been attacking the iPhone as foreign.
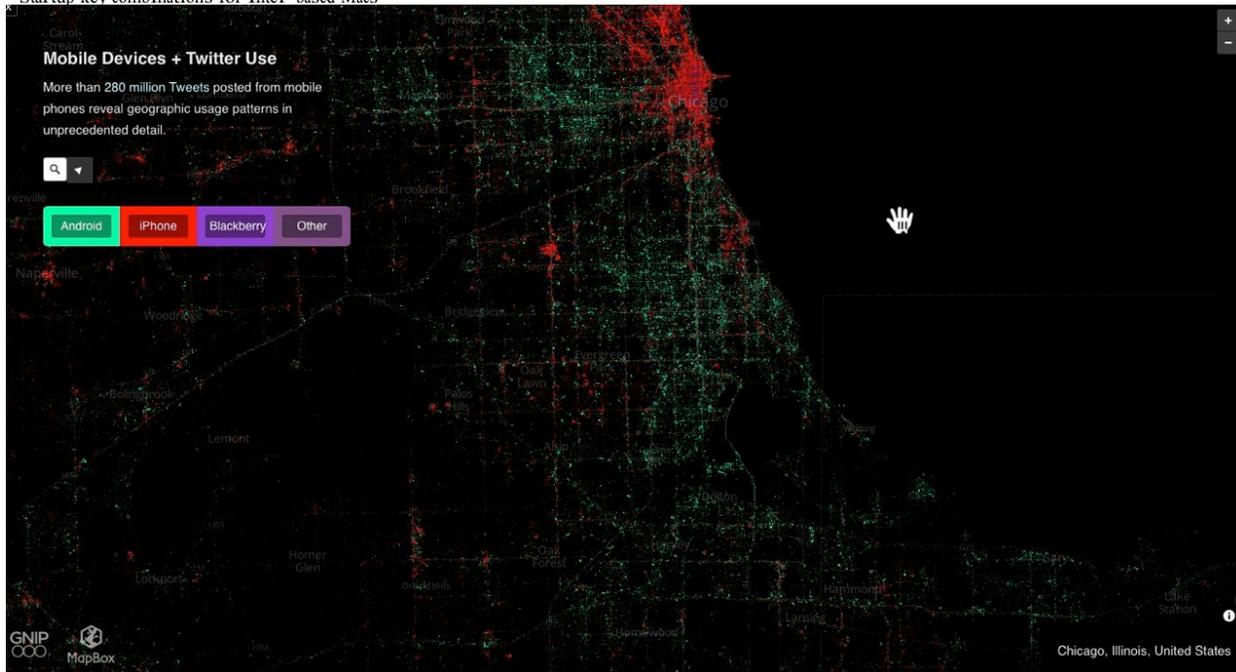
From the iOS 8 Beta:

This shows what Healthbook will monitor. There has to be some kind of input device and I think it is clear that the device they are planning on is the "iWatch". Having been an assistant caregiver to two elderly person for the past four years, I can say that there are many items on the list that it would be useful to track on a continuing basis. Doctor visits only check these thoings when the Doctor or drugstore is visited these would be ongoing measurements. When push comes to shove, you question what normal is and what is going on between measurements. This way you can see what happened and when it started. This can give information about possible causes. This will reduce the guesswork and provide monitoring previously only available in hospitals or research labs.

I am puzzled as to what the term "Bloodwork" refers to because many of the items included in that term are broken out. I am 66 years old, so I take a strong interest in this kind of thing.

- Healthbook:

Mobile Devices and Twitter Use

Wireless charging:

(from The Verge)

Two alliances team up to win the wireless charging war

Why can't you just place your phone on a table and have it wirelessly charge? Until today, there were three competing standards that couldn't agree on how the proven technology should work. The Wireless Power Consortium (WPC), the Power Matters Alliance (PMA), and the Alliance for Wireless Power (A4WP) each attracted a number of powerful companies, but their chargers didn't play nice with one another. With too many "standards" on the table, consumers and businesses have understandably been hesistant to adopt any of them.

That may be about to change. Today, the A4WP and PMA have signed a preliminary agreement to each adopt the other's technologies, effectively merging into a single standard. That leaves Qi as the only other competitor.

""We saw an opportunity to remove the barrier to adoption."

Technically, it's a little bit more complex than that. According to the presidents of both alliances, the PMA and A4WP aren't completely merging their organizations, and they also won't necessarily be combining their two different charging methods into a single brand like Rezence quite yet. They've simply come to the conclusion that each group had a piece of the puzzle that the other needed. The PMA gets the A4WP's so-called resonant wireless charging spec, which can wirelessly charge several gadgets at once, and without requiring them to be oriented in any particular direction on a charging pad. The A4WP gets the PMA's legacy inductive charging tech, plus cloud-based software infrastructure for managing and monetizing charging points, which could direct smartphone users to the nearest charging hotspot when they're low on juice, and allow Starbucks to let its customers top off those devices with the purchase of a latte.
What both parties get, though, is a leg up on Qi. Originally, the Wireless Power Consortium's Qi standard was the front-

runner in wireless charging — attracting device manufacturers like HTC, LG, and Samsung to build phones and tablets with the tech — but over the past couple years the PMA and A4WP have attracted a host of supporters, including Intel, AT&T, Starbucks, McDonalds (via PowerKiss), and The Coffee Bean and Tea Leaf. Qualcomm and Samsung have been playing the field, presumably hedging their bets, but both are founding members of the A4WP. WiTricity, the MIT spinoff that invented resonant wireless charging, is now an A4WP member as well.

"The stars are beginning to align for wireless charging tech"

The competing Wireless Power Consortium hasn't been sitting idly, mind you, inking deals with PowerbyProxi and Texas Instruments to build its own resonant charging solution, and attracting Verizon Wireless and Qualcomm with seats on the WPC board. But even if we're left with two competing standards bodies, the idea has the potential to snowball now that so many companies are aligned. With upcoming dual-mode devices that support both PMA inductive and A4WP resonant wireless charging, the two cooperating alliances believe the wireless charging market can open up. "Because of the collaboration, you've future-proofed yourself going forward," says A4WP president Kamil Grajski. "There's no reason for anyone to hesitate any longer."

I am not a fan of wireless charging if it means that I have to plug in a charging pad and place my device on it. Nor am I a fan of loading the air with electrical waves that interfere with Bluetooh, WiFi or telephone signals. Is there a third way?

Following are some document from Apple's website. PLEASE do not ask why I developed an interest in this kind of thing. You do not want to know.

Startup key combinations for Intel–based Macs

Learn about the startup key combinations you can use with Intel–based Macs.

You can use the following startup key combinations with Intel–based Macs.

Keystroke	Description
Press C during startup	Start up from a bootable **C**D, DVD, or USB thumb drive (such as OS X install media).
Press D during startup	Start up in Apple Hardware Test (AHT).
Press Option–Command–P–R until you hear startup sound a second time.	Reset NVRAM
Press Option during startup	Start up in Startup Manager, where you can select an OS X volume or network volume to start from.
Press Eject, F12, or hold the mouse or trackpad button	Ejects any removable media, such as an optical disc.
Press N during startup	Attempt to start up from a compatible network server (**N**etBoot).
Press T during startup	Start up in **T**arget Disk Mode.
Press Shift during startup	Start up in Safe Boot mode and temporarily disable login items.
Press Command–V during startup	Start up in **V**erbose mode.
Press Command–S during startup	Start up in **S**ingle–User mode.
Press Option–N during startup	Start from a **N**etBoot server using the default boot image.
Press Command–R during startup	Start from the OS X **R**ecovery System [1]

[1] Available on Macs that ship with OS X Lion. Some CPUs require an EFI BootROM update to support this feature.

OS X keyboard shortcuts

A keyboard shortcut is a way to invoke a function in OS X by pressing a combination of keys on your keyboard. Learn about common OS X keyboard shortcuts.

To use a keyboard shortcut you press a modifier key with a character key. For example, pressing the Command key (it has a ⌘ symbol) and then the "c" key copies whatever is currently selected (text, graphics, and so forth) into the Clipboard. This is also known as the Command-C keyboard shortcut.

A modifier key is a part of many keyboard shortcuts. A modifier key alters the way other keystrokes or mouse/trackpad clicks are interpreted by OS X. Modifier keys include: Command, Shift, Option, Control, Caps Lock, and the Fn key. You may need to use the Fn key in some of the key combinations listed below. For example, if the keyboard shortcut is Control-F2, press Fn-Control-F2.

Here are the modifier key symbols you may see in OS X menus:

⌘   Command key
^   Control key
⌥   Option key
⇧   Shift Key
⇪   Caps Lock
Fn   Function Key

Startup shortcuts

Press the key or key combination until the expected function occurs/appears (for example, hold Option during startup until Startup Manager appears). Note: If a startup function doesn't work and you use a third-party keyboard, try again with an Apple keyboard.

Key or key combination	What it does
Option	Display all bootable volumes (Startup Manager)
Shift	Start up in Safe Mode
Left Shift	Prevent automatic login
C	Start from bootable media (DVD, CD, USB thumb drive, and so forth)
T	Start up in Target disk mode
N	Start from a NetBoot server
X	Force Mac OS X startup (if non-Mac OS X startup volumes are present)
D	Use Apple Hardware Test
Command-R	Use OS X Recovery (OS X Lion or later)
Command-V	Start up in Verbose Mode
Command-S	Start up in Single User Mode
Command-Option-P-R	Reset NVRAM / parameter RAM
Hold down the Media Eject (⏏) key or F12 key, or mouse or trackpad button	Eject removable discs

Sleep and shut down shortcuts

Key or key combination	What it does
Power button – OS X Mavericks	Tap to power on. Once powered on, tap to wake or sleep.
Hold down the power button for 1.5 seconds – OS X Mavericks	Show restart / sleep / shutdown dialog
Hold down the power button for 5 seconds	Force the Mac to power off
Command–Control–power button	Force the Mac to restart
Control–Media Eject (⏏)	Show restart / sleep / shutdown dialog
Command–Option–Media Eject (⏏)	Put the computer to sleep
Command–Control–Media Eject (⏏)	Quit all applications (after giving you a chance to save changes to open documents), then restart the computer
Command–Option–Control–Media Eject (⏏)	Quit all applications (after giving you a chance to save changes to open documents), then shut down the computer
Shift–Control–Media Eject (⏏)	Put all displays to sleep

Finder keyboard shortcuts

Key combination	What it does
Command–A	Select all items in the front Finder window (or desktop if no window is open)
Command–Option–A	Deselect all items
Command–Shift–A	Open the Applications folder
Command–C	Copy selected item/text to the Clipboard
Command–Shift–C	Open the Computer window
Command–D	Duplicate selected item
Command–Shift–D	Open desktop folder
Command–E	Eject
Command–F	Find any matching Spotlight attribute
Command–Shift–F	Find Spotlight file name matches
Command–Option–F	Navigate to the search field in an already–open Spotlight window
Command–Shift–G	Go to Folder
Command–Shift–H	Open the Home folder of the currently logged–in user account
Command–Shift–Control–T	Add to Dock
Command–I	Get Info
Command–Option–I	Show Inspector
Command–Control–I	Get Summary Info
Command–Shift–I	Open iDisk
Command–J	Show View Options
Command–K	Connect to Server
Command–Shift–K	Open Network window
Command–L	Make alias of the selected item
Command–M	Minimize window

Command–Option–M	Minimize all windows
Command–N	New Finder window
Command–Shift–N	New folder
Command–Option–N	New Smart Folder
Command–O	Open selected item
Command–Shift–Q	Log Out
Command–Shift–Option–Q	Log Out immediately
Command–R	Show original (of alias)
Command–T	Add to Sidebar
Command–Shift–T	Add to Favorites
Command–Option–T	Hide Toolbar / Show Toolbar in Finder windows
Command–Shift–U	Open Utilities folder
Command–V	Paste Command–
W	Close window
Command–Option–W	Close all windows
Command–X	Cut
Command–Option–Y	Slideshow (Mac OS X v10.5 or later)
Command–Z	Undo / Redo
Command–1	View as Icon
Command–2	View as List
Command–3	View as Columns
Command–4	View as Cover Flow (Mac OS X v10.5 or later)
Command–Comma (,)	Open Finder preferences
Command–Accent (`) (the Accent key above Tab key on a US English keyboard layout)	Cycle through open Finder windows
Command–Shift–Question Mark (?)	Open Mac Help
Command–Left Bracket ([)	Go to the previous folder
Command–Right Bracket (])	Go to the next folder
Command–Up Arrow	Open the folder that contains the current folder
Command–Control–Up Arrow	Open the folder that contains the current folder in a new window
Command–Down Arrow	Open highlighted item
Command–Shift–Up Arrow	Make the desktop active
Right Arrow (in List view)	Open the selected folder
Left Arrow (in List view)	Close the selected folder
Option–click the disclosure triangle (in List view)	Open all folders within the selected folder
Option–double–click	Open a folder in a separate window, closing the current window
Command–double–click	Open a folder in a separate window
Command–click the window title	See the folders that contain the current window
Command–Tab	Switch application–cycle forward
Command–Shift–Tab	Switch application–cycle backward
Command–Delete	Move to Trash

Command–Shift–Delete	Empty Trash
Command–Shift–Option–Delete	Empty Trash without confirmation dialog
Space bar (or Command–Y)	Quick Look (Mac OS X v10.5 or later)
Command key while dragging	Move dragged item to other volume/location (pointer icon changes while key is held--see this article)
Option key while dragging	Copy dragged item (pointer icon changes while key is held--see this article)
Command–Option key combination while dragging	Make alias of dragged item (pointer icon changes while key is held--see this article)

Application and other OS X shortcuts

Note: Some applications may not support all of the following application key combinations.

Key combination	What it does
Command–Space bar	Show or hide the Spotlight search field (if multiple languages are installed, may rotate through enabled script systems)
Control–A	Move to beginning of line/paragraph
Control–B	Move one character backward
Control–D	Delete the character in front of the cursor
Control–E	Move to end of line/paragraph
Control–F	Move one character forward
Control–H	Delete the character behind the cursor
Control–K	Delete from the character in front of the cursor to the end of the line/paragraph
Control–L	Center the cursor/selection in the visible area
Control–N	Move down one line
Control–O	Insert a new line after the cursor
Control–P	Move up one line
Control–T	Transpose the character behind the cursor and the character in front of the cursor
Control–V	Move down one page
Option–Delete	Delete the word that is left of the cursor, as well as any spaces or punctuation after the word
Command–Option–Space bar	Show the Spotlight search results window (if multiple languages are installed, may rotate through keyboard layouts and input methods within a script)
Command–Tab	Move forward to the next most recently used application in a list of open applications
Command–Shift–Tab	Move backward through a list of open applications (sorted by recent use)
Shift–Tab	Navigate through controls in a reverse direction
Control–Tab	Move focus to the next grouping of controls in a dialog or the next table (when Tab moves to the next cell)
Shift–Control–Tab	Move focus to the previous grouping of controls
Command–esc	Open Front Row (if installed)
Option–Media Eject (⏏)	Eject from secondary optical media drive (if one is installed)
Fn–Delete	Forward Delete (on a portable Mac's built-in keyboard)
Command–F1	Toggles "Mirror Displays" for multi-monitor configurations
Command–F2	Toggle Target Display Mode

Command–F3	Show Desktop
Command–F5	Toggle VoiceOver On / Off
Option–F1 or F2	Opens "Displays" System Preference
Option–F3 or F4	Opens "Mission Control" System Preference
Option–F10 or F11 or F12	Opens "Sound" System Preference
Control–F3	App Exposé
Shift–Control–F6	Move focus to the previous panel
Control–F7	Temporarily override the current keyboard access mode in windows and dialogs
Control–F8	Move to the status menus in the menu bar
F9	Tile or untile all open windows
F10	Tile or untile all open windows in the currently active application
F11	Hide or show all open windows
F12	Hide or display Dashboard
Command–Accent (`)	Activate the next open window in the frontmost application
Command–Shift–Accent (`)	Activate the previous open window in the frontmost application
Command–Option–Accent (`)	Move focus to the window drawer
Command–Minus (–)	Decrease the size of the selected item
Command–{	Left–align a selection
Command–}	Right–align a selection
Command–|	Center–align a selection
Command–Colon (:)	Display the Spelling window
Command–Semicolon (;)	Find misspelled words in the document
Command–Comma (,)	Open the front application's preferences window (if it supports this keyboard shortcut)
Command–Option–Control– Comma (,)	Decrease screen contrast
Command–Option–Control– Period (.)	Increase screen contrast
Command–Question Mark (?)	Open the application's help in Help Viewer
Command–Option–/	Turn font smoothing on or off
Command–Shift–=	Increase the size of the selected item
Command–Shift–3	Capture the screen to a file
Command–Shift–Control–3	Capture the screen to the Clipboard
Command–Shift–4	Capture a selection to a file
Command–Shift–Control–4	Capture a selection to the Clipboard
Command–A	Highlight every item in a document or window, or all characters in a text field
Command–B	Boldface the selected text or toggle boldfaced text on and off
Command–C	Copy the selected data to the Clipboard
Command–Shift–C	Display the Colors window
Command–Option–C	Copy the style of the selected text
Command–Control–C	Copy the formatting settings of the selected item and store on the Clipboard
Command–Option–D	Show or hide the Dock

Command–Control–D	Display the definition of the selected word in the Dictionary application
Command–D	Selects the Desktop folder in Open and Save dialogs or Selects "Don't Save" in dialogs that contain a Don't Save button, in Mac OS X v10.6.8 and earlier
Command–Delete	Selects "Don't Save" in dialogs that contain a Don't Save button, in OS X Lion and Mountain Lion
Command–E	Use the selection for a find
Command–F	Open a Find window
Command–Option–F	Move to the search field control Command–G
	Find the next occurrence of the selection
Command–Shift–G	Find the previous occurrence of the selection
Command–H	Hide the windows of the currently running application
Command–Option–H	Hide the windows of all other running applications
Command–I	Italicize the selected text or toggle italic text on or off
Command–Option–I	Display an inspector window
Command–J	Scroll to a selection
Command–M	Minimize the active window to the Dock
Command–Option–M	Minimize all windows of the active application to the Dock
Command–N	Create a new document in the frontmost application
Command–O	Display a dialog for choosing a document to open in the frontmost application
Command–P	Display the Print dialog
Command–Shift–P	Display a dialog for specifying printing parameters (Page Setup)
Command–Q	Quit the frontmost application
Command–S	Save the active document
Command–Shift–S	Display the Save As dialog
Command–T	Display the Fonts window
Command–Option–T	Show or hide a toolbar
Command–U	Underline the selected text or turn underlining on or off
Command–V	Paste the Clipboard contents at the insertion point
Command–Option–V	Apply the style of one object to the selected object (Paste Style)
Command–Shift–Option–V	Apply the style of the surrounding text to the inserted object (Paste and Match Style)
Command–Control–V	Apply formatting settings to the selected object (Paste Ruler Command)
Command–W	Close the frontmost window
Command–Shift–W	Close a file and its associated windows
Command–Option–W	Close all windows in the application without quitting it
Command–X	Remove the selection and store in the Clipboard
Command–Z	Undo previous command (some applications allow for multiple Undos)
Command–Shift–Z	Redo previous command (some applications allow for multiple Redos)
Control–Right Arrow	Move focus to another value or cell within a view, such as a table
Control–Left Arrow	Move focus to another value or cell within a view, such as a table
Control–Down Arrow	Move focus to another value or cell within a view, such as a table
Control–Up Arrow	Move focus to another value or cell within a view, such as a table

Command–Right Arrow	Move the text insertion point to the end of the current line
Command–Left Arrow	Move the text insertion point to the beginning of the current line
Command–Down Arrow	Move the text insertion point to the end of the document
Command–Up Arrow	Move the text insertion point to the beginning of the document
Option–Right Arrow	Move the text insertion point to the end of the next word
Option–Left Arrow	Move the text insertion point to the beginning of the previous word
Command–Shift–Right Arrow	Select text between the insertion point and the end of the current line (*)
Command–Shift–Left Arrow	Select text between the insertion point and the beginning of the current line (*)
Shift–Right Arrow	Extend text selection one character to the right (*)
Shift–Left Arrow	Extend text selection one character to the left (*)
Command–Shift–Up Arrow	Select text between the insertion point and the beginning of the document (*)
Command–Shift–Down Arrow	Select text between the insertion point and the end of the document (*)
Shift–Up Arrow	Extend text selection to the line above, to the nearest character boundary at the same horizontal location (*)
Shift–Down Arrow	Extend text selection to the line below, to the nearest character boundary at the same horizontal location (*)
Shift–Option–Right Arrow	Extend text selection to the end of the current word, then to the end of the following word if pressed again (*)
Shift–Option–Left Arrow	Extend text selection to the beginning of the current word, then to the beginning of the following word if pressed again (*)
Shift–Option–Down Arrow	Extend text selection to the end of the current paragraph, then to the end of the following paragraph if pressed again (*)
Shift–Option–Up Arrow	Extend text selection to the beginning of the current paragraph, then to the beginning of the following paragraph if pressed again (*)
Control–Space bar	Toggle between the current and previous input sources
Option–Control–Space bar	Toggle through all enabled input sources
Command–Option–esc	Force Quit
Command–Shift–Option–Esc (hold for three seconds)	Force Quit the front-most application (Mac OS X v10.5 or later)
Command–Left Bracket ([)	Previous browser webpage
Command–Right Bracket (])	Next browser webpage

***Note:** If no text is selected, the extension begins at the insertion point. If text is selected by dragging, then the extension begins at the selection boundary. Reversing the direction of the selection deselects the appropriate unit.

Universal Access – VoiceOver keyboard commands

For information about VoiceOver key combination differences in Mac OS X v10.6, see this article.

Key combination	What it does
Command–F5 or Fn–Command–F5	Turn VoiceOver on or off
Option–Control–F8 or Fn–Option–Control–F8	Open VoiceOver Utility (if VoiceOver is on)
Option–Control–F7 or Fn–Option–Control–F7	Display VoiceOver menu (if VoiceOver is on)
Option–Control–Semicolon (;)	Enable/disable VoiceOver Control Option–lock

Command–Option–8	Turn Zoom on or off
Command–Option–Plus (+)	Zoom In
Command–Option–Minus (–)	Zoom Out
Command–Option–Control–8	Invert/revert the screen colors (OS X Lion or earlier)
Command–Option–Control–Comma (,)	Reduce contrast (OS X Lion or earlier)
Command–Option–Control–Period (.)	Increase contrast (OS X Lion or earlier)

Note: You may need to enable "Use all F1, F2, etc. keys as standard keys" in Keyboard preferences for the VoiceOver menu and utility to work.

Full keyboard access

Full keyboard access lets you use your keyboard to navigate and interact with items on the screen. Use these shortcuts to select and adjust controls such as text fields and sliders.

Key combination	What it does
Tab	Move to the next control
Shift–Tab	Move to the previous control
Control–Tab	Move to the next control when a text field is selected
Arrow keys	Move to the adjacent item in a list, tab group, or menu or Move sliders and adjusters (vertical up and down arrows used to increase and decrease values)
Control–Arrow keys	Move to a control adjacent to the text field
Space bar	Select the highlighted menu item
Return or Enter	Click the default button or perform the default action
Esc	Click the Cancel button or Close a menu without choosing an item

You can navigate the menus in the menu bar without using a mouse or trackpad. To put the focus in the menu bar, press Control–F2 (Fn–Control–F2 on portable keyboards). Then use the key combinations listed below.

Key combination	What it does
Left Arrow and Right Arrow	Move from menu to menu
Return	Open a selected menu
Up Arrow and Down Arrow	Move to menu items in the selected menu
Type the menu item's name	Jump to a menu item in the selected menu
Return	Select a menu item

Universal Access – Mouse Keys

When Mouse Keys is turned on in Universal Access preferences, you can use the keyboard or numeric keypad keys to move the mouse pointer. If your computer doesn't have a numeric keypad, use the Fn (function) key.

Key combination	What it does
8	Move Up
2	Move Down

4	Move Left
6	Move Right
1	Move Diagonally Bottom Left
3	Move Diagonally Bottom Right
7	Move Diagonally Top Left
9	Move Diagonally Top Right
5	Press Mouse Button
0	Hold Mouse Button
. (Period on number pad)	Release Hold Mouse Button

See also: Shortcuts for Mouse Keys.

Additional Information

Advanced: This article refers to the default modifier key assignments. Modifier key assignments can be changed in the Keyboard preferences pane of System Preferences. For example, you can change the Command key to act as an Option key, and vice-versa. You can also restore default modifier key settings.

See also:

Creating keyboard shortcuts for applications
If a keyboard shortcut doesn't work
Startup Manager: How to select a startup volume
Resolving VoiceOver key command conflicts
Additional features of the Dock
How to Add a Spoken Command for Keyboard Shortcut

Last Modified: Jan 13, 2014

Helpful?   **Yes**   **No**

Related

OS X Mavericks: If you can't use some keyboard shortcuts
Some full keyboard access shortcuts may be unavailable in some apps. Make sure you're using the latest OS X version of the app.

OS X Mountain Lion: If you can't use some keyboard shortcuts
Some full keyboard access shortcuts may be unavailable in some apps. Make sure you're using the latest OS X version of the app.

Final Cut Pro X: View keyboard shortcuts in the Command Editor
The Command Editor provides a set of keyboard shortcuts for Final Cut Pro in English, Japanese, French, and German. The language that is shown is determined by your computer's

Are there keyboard shortcuts for navigating a page in Safari?
The top ones take you right to the top or bottom of the window, the lower ones ditto (or sideways) one line at a time. Mac OS X keyboard shortcuts : and more useful information on

Trying to learn keyboard shortcuts, can't find the ^ on the keyboard
For a more complete list of Keyboard symbols, please see: macOSXhints For more on keyboard shortcuts that you can use, see: Mac OS X keyboard shortcuts Ivan

Move Mac OS X menu bar for the active application into its window?
Please don't suggest that I learn keyboard shortcuts . There are lots of menu commands that don't have shortcut equivalents.

Keyboard Shortcuts

Keyboard shortcuts can provide an easy way for sophisticated users to perform actions, but they're not required. If you can't find a unique and easy-to-use keyboard shortcut for a command, don't use one at all; keep in mind that users may have difficulty pressing multiple modifier keys anyway.

> **Important:** Always respect the system-reserved keyboard shortcuts in your app so that users aren't confused when the shortcuts they know work differently in your app.

Creating New Keyboard Shortcuts

Avoid creating a shortcut by adding a modifier key to an existing shortcut, unless the shortcuts are related. For example, don't use Shift-Command-Z as a keyboard shortcut for a command that is unrelated to Undo. Using Shift-Command-Z for Redo is appropriate, but using it for something like Calculate or Check Mail is confusing.

As much as possible, use the Command key as the main modifier key in a keyboard shortcut. For example, Command-P uses Command to modify the P key. For a command that complements another more common command, you can add Shift to the shortcut. For example, the shortcut for the complementary Page Setup command adds Shift to the shortcut for Print to give Shift-Command-P. Table A-1 gives additional examples of this technique.

Table A-1 Examples of keyboard shortcuts that use Shift to complement other commands

Complementary command shortcut	Complementary command	Complemented command shortcut
Shift-Command-A	Deselect All	Command-A (Select All)
Shift-Command-G	Find Previous	Command-G (Find Again)
Shift-Command-P	Page Setup	Command-P (Print)
Shift-Command-S	Save As	Command-S

		(Save)
Shift–Command–V	Paste as (Paste as Quotation, for example)	Command–V (Paste)
Shift–Command–Z	Redo (when Undo and Redo are separate commands rather than toggled using Command–Z)	Command–Z (Undo)

Note: Other languages may require modifier keys to generate certain characters. For example, on a French keyboard, Option–5 generates the "{" character. It's usually safe to use the Command key as a modifier, but avoid using Command and an additional modifier key with characters not available on all keyboards. If you must use a modifier key in addition to the Command key, try to use it only with the alphabetic characters (a through z).

Use the Option key sparingly. If there's a third, less common command that's related to a pair of commands that use Command and Shift-Command, you can use Option-Command for the third command's keyboard equivalent. Use combinations like these very rarely. You can also use Option for a keyboard shortcut that's a convenience or power-user feature. For example, the Finder uses Option–Command–W for Close All Windows and Option–Command–M for Minimize All Windows.

As much as possible, avoid using the Control key. Because the Control key is already used by some of the universal access features—as well as in Cocoa text fields where Emacs-style key bindings are often used—it should be used as a modifier key only when necessary.

List multiple modifier keys in the correct order. If you use more than one modifier key in a shortcut, always list them in this order: Control, Option, Shift, Command.

Identify a key with two characters by the lower character, unless Shift is part of the shortcut. For example, the keyboard shortcut for Hide Status Bar is Command-Slash (that is, Command–/). If the Shift key is part of the keyboard shortcut, identify the key by the upper of the two characters. For example, the keyboard shortcut for Help is Shift–Command–Question Mark, not Shift–Command–Slash.

Keyboard Shortcuts Quick Reference

Table A–2 lists the system-reserved and commonly used keyboard shortcuts mentioned in the rest of this document.

As you implement keyboard shortcuts in your app, use this table to find:

  Key sequences that are reserved by OS X.
●

Users rely on these shortcuts to perform the specified actions no matter which app is currently running (these include shortcuts reserved for accessibility purposes). Don't override these shortcuts.

- Key sequences that are recommended for common app tasks.

  Users expect these shortcuts to mean the same thing from app to app. Provide these shortcuts if your app performs the associated tasks.

  If your app doesn't perform the task associated with a recommended shortcut, think very carefully before you consider overriding it. Remember that although reassigning an unused shortcut might make sense in your app, your users are likely to know and expect the original, established meaning.

If a keyboard sequence isn't listed in Table A-2 you can use it for a frequently used command in your app, if a shortcut is appropriate. Be aware, however, that Apple may reserve other keyboard shortcuts in the future.

> **Note:** With the exception of the system-reserved function keys F9, F10, F11, and F12, Table A-2 lists only combinations of two or more keys.

Table A-2 groups together the primary key that is modified and variations of key sequences based on the primary key. In the interests of space, the table uses the following symbols to represent the modifier keys (these are the same symbols that menus display):

    (Control)
(Option)
(Shift)
(Command)

Some shortcuts in Table A-2 are accompanied by an   icon. This means that you should not override the shortcut because OS X uses it in some way.

A shortcut in Table A-2 that isn't accompanied by an   icon is recommended for apps that perform the associated task.

Table A-2 Keyboard shortcuts

Primary key	Key sequence		Associated action
Space bar	**Space**		Show or hide the Spotlight search field (when multiple languages are installed, may rotate through enabled script systems).
	Space		Apple reserved.

	Space		Show the Spotlight search results window (when multiple languages are installed, may rotate through keyboard layouts and input methods within a script).
	Space		Show the Special Characters window.
Tab	**Tab**		Navigate through controls in a reverse direction.
	Tab		Move forward to the next most recently used app in a list of open apps.
	Tab		Move backward through a list of open apps (sorted by recent use).
	Tab		Move focus to the next grouping of controls in a dialog or the next table (when Tab moves to the next cell). See Accessibility Overview for OS X.
	Tab		Move focus to the previous grouping of controls. See Accessibility Overview for OS X.
Esc	**Esc**		Open the Force Quit dialog.
Eject	**Eject**		Quit all apps (after giving the user a chance to save changes to open documents) and restart the computer.
	Eject		Quit all apps (after giving the user a chance to save changes to open documents) and shut the computer down.
F1	**F1**		Toggle full keyboard access on or off. See Accessibility Overview for OS X.
F2	**F2**		Move focus to the menu bar. See Accessibility Overview for OS X.
F3	**F3**		Move focus to the Dock. See Accessibility Overview for OS X.
F4	**F4**		Move focus to the active (or next) window. See Accessibility Overview for OS X.
	F4		Move focus to the previously active window. See Accessibility Overview for OS X.
F5	**F5**		Move focus to the toolbar. See Accessibility Overview for OS X.
			Turn VoiceOver on or off. See Accessibility Overview for OS

	F5		X.
F6	F6		Move focus to the first (or next) panel. See Accessibility Overview for OS X.
	F6		Move focus to the previous panel. See Accessibility Overview for OS X.
F7	F7		Temporarily override the current keyboard access mode in windows and dialogs. See Accessibility Overview for OS X.
F8			Apple reserved.
F9			Apple reserved.
F10			Apple reserved.
F11			Show desktop.
F12			Hide or display Dashboard.
`(grave accent)	`		Activate the next open window in the frontmost app. See "Layering."
	`		Activate the previous open window in the frontmost app. See "Layering."
	`		Move focus to the window drawer.
– (hyphen)	–		Decrease the size of the selected item (equivalent to the Smaller command). See "The Format Menu."
	–		Zoom out when screen zooming is on. See Accessibility Overview for OS X.
{ (left bracket)	{		Left-align a selection (equivalent to the Align Left command). See "The Format Menu."
} (right bracket)	}		Right-align a selection (equivalent to the Align Right command). See "The Format Menu."
	(pipe)				Center-align a selection (equivalent to the Align Center command). See "The Format Menu."
			Display the Spelling window (equivalent to the Spelling

: (colon)	**:**		command). See "The Edit Menu."
; (semicolon)	**;**		Find misspelled words in the document (equivalent to the Check Spelling command). See "The Edit Menu."
, (comma)	**,**		Open the app's preferences window (equivalent to the Preferences command). See "The App Menu."
		,	Decrease screen contrast. See Accessibility Overview for OS X.
. (period)		**.**	Increase screen contrast. See Accessibility Overview for OS X.
? (question mark)	**?**		Open the app's Help menu. See "The Help Menu."
/ (forward slash)	**/**		Turn font smoothing on or off.
= (equal sign)	**=**		Increase the size of the selected item (equivalent to the Bigger command). See "The Format Menu."
	=		Zoom in when screen zooming is on. See Accessibility Overview for OS X.
3	**3**		Capture the screen to a file.
		3	Capture the screen to the Clipboard.
4	**4**		Capture a selection to a file.
		4	Capture a selection to the Clipboard.
8	**8**		Turn screen zooming on or off. See Accessibility Overview for OS X.
		8	Invert the screen colors. See Accessibility Overview for OS X.
A	**A**		Highlight every item in a document or window, or all characters in a text field (equivalent to the Select All command). See "The Edit Menu."
B	**B**		Boldface the selected text or toggle boldfaced text on and off (equivalent to the Bold command). See "The Edit Menu."

C	C		Duplicate the selected data and store on the Clipboard (equivalent to the Copy command). See "The Edit Menu."
		C	Display the Colors window (equivalent to the Show Colors command). See "The Format Menu."
		C	Copy the style of the selected text (equivalent to the Copy Style command). See "The Format Menu."
		C	Copy the formatting settings of the selected item and store on the Clipboard (equivalent to the Copy Ruler command). See "The Format Menu."
D	D		Show or hide the Dock. See "The Dock."
		D	Display the definition of the selected word in the Dictionary app.
E	E		Use the selection for a find operation. See "Find Windows."
F	F		Open a Find window (equivalent to the Find command). See "The Edit Menu."
		F	Jump to the search field control. See "Search Field."
		F	Enter full screen.
G	G		Find the next occurrence of the selection (equivalent to the Find Next command). See "The Edit Menu."
		G	Find the previous occurrence of the selection (equivalent to the Find Previous command). See "The Edit Menu."
H	H		Hide the windows of the currently running app (equivalent to the Hide AppName command). See "The App Menu."
		H	Hide the windows of all other running apps (equivalent to the Hide Others command). See "The App Menu."
I	I		Italicize the selected text or toggle italic text on or off (equivalent to the Italic command). See "The Format Menu."
		I	Display an Info window. See "Inspectors."
		I	Display an inspector window. See "Inspectors."

J	J		Scroll to a selection.
M	M		Minimize the active window to the Dock (equivalent to the Minimize command). See "The Window Menu."
	M		Minimize all windows of the active app to the Dock (equivalent to the Minimize All command). See "The Window Menu."
N	N		Open a new document (equivalent to the New command). See "The File Menu."
O	O		Display a dialog for choosing a document to open (equivalent to the Open command). See "The File Menu."
P	P		Display the Print dialog (equivalent to the Print command). See "The File Menu."
	P		Display a dialog for specifying printing parameters (equivalent to the Page Setup command). See "The File Menu."
Q	Q		Quit the app (equivalent to the Quit command). See "The App Menu."
	Q		Log out the current user (equivalent to the Log Out command).
		Q	Log out the current user without confirmation.
S	S		Save a new document or save a version of a document. See "The File Menu."
	S		Not used (legacy equivalent to the Save As command). See "The File Menu."
T	T		Display the Fonts window (equivalent to the Show Fonts command). See "The Format Menu."
	T		Show or hide a toolbar (equivalent to the Show/Hide Toolbar command). See "The View Menu" and "Designing a Toolbar."
U	U		Underline the selected text or turn underlining on or off (equivalent to the Underline command). See "The Format Menu."
			Insert the Clipboard contents at the insertion point

V	V		(equivalent to the Paste command). See "The File Menu."
	V		Apply the style of one object to the selected object (equivalent to the Paste Style command). See "The Format Menu."
		V	Apply the style of the surrounding text to the inserted object (equivalent to the Paste and Match Style command). See "The Edit Menu."
	V		Apply formatting settings to the selected object (equivalent to the Paste Ruler command). See "The Format Menu."
W	W		Close the active window (equivalent to the Close command). See "The File Menu."
	W		Close a file and its associated windows (equivalent to the Close File command). See "The File Menu."
	W		Close all windows in the app (equivalent to the Close All command). See "The File Menu."
X	X		Remove the selection and store on the Clipboard (equivalent to the Cut command). See "The Edit Menu."
Z	Z		Reverse the effect of the user's previous operation (equivalent to the Undo command). See "The Edit Menu."
	Z		Reverse the effect of the last Undo command (equivalent to the Redo command). See "The Edit Menu."
(right arrow)			Change the keyboard layout to current layout of Roman script.
			Extend selection to the next semantic unit, typically the end of the current line.
			Extend selection one character to the right.
			Extend selection to the end of the current word, then to the end of the next word.
			Move focus to another value or cell within a view, such as a table. See Accessibility Overview for OS X.
(left			Change the keyboard layout to current layout of system

arrow)			script.
			Extend selection to the previous semantic unit, typically the beginning of the current line.
			Extend selection one character to the left.
			Extend selection to the beginning of the current word, then to the beginning of the previous word.
	⌃←		Move focus to another value or cell within a view, such as a table. See Accessibility Overview for OS X.
↑ (up arrow)	⇧⌘↑		Extend selection upward in the next semantic unit, typically the beginning of the document.
	⇧↑		Extend selection to the line above, to the nearest character boundary at the same horizontal location.
	⌥⇧↑		Extend selection to the beginning of the current paragraph, then to the beginning of the next paragraph.
	⌃↑		Move focus to another value or cell within a view, such as a table. See Accessibility Overview for OS X.
↓ (down arrow)	⇧⌘↓		Extend selection downward in the next semantic unit, typically the end of the document.
	⇧↓		Extend selection to the line below, to the nearest character boundary at the same horizontal location.
	⌥⇧↓		Extend selection to the end of the current paragraph, then to the end of the next paragraph (include the paragraph terminator, such as Return, in cut, copy, and paste operations).
	⌃↓		Move focus to another value or cell within a view, such as a table. See Accessibility Overview for OS X.