System Preferences (4)

By Graham K. Rogers

This is the fourth and final of my overview of System Preferences in OS X, 10.5, Leopard. Several sections were earlier printed in the [Bangkok Post](#), Database section. I am now releasing these in PDF format.
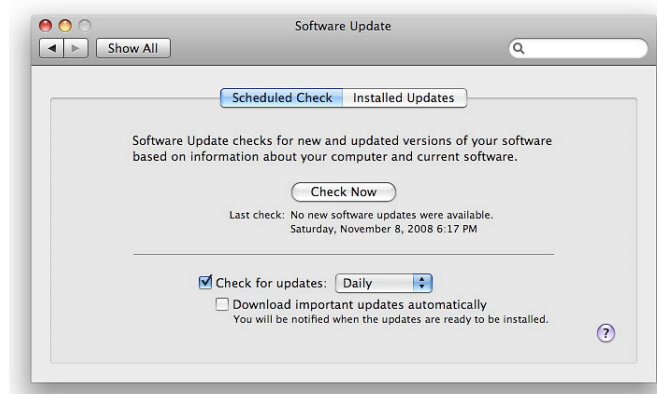
This has become a brief and somewhat personalised overview of the preferences. It is aimed particularly at new users to help them understand what is available in OS X. Those moving (or trying to move) from Windows where things are different will, I hope, find this useful. While preparing for the PDF format I have updated information where necessary, added parts that were missing, revised links, so this can be used as a way to access online pages and corrected spelling errors (I may have missed a few of course). Finally, I have added some suggestions for resources and links that may also help track down the information you need.

Before trying anything new, such as changing settings or turning features on or off, users are urged to back up all data. I take no responsibility for any havoc you might wreak on your own computer.

Software Update is a part of OS X that is optional. Without it, I can easily update when Apple releases new versions of software and install manually. With it, the system itself will check at pre-selected intervals. The System Preferences panel for Software Update has two buttons. One is to control the updating operations and the other shows a list of installed updates.
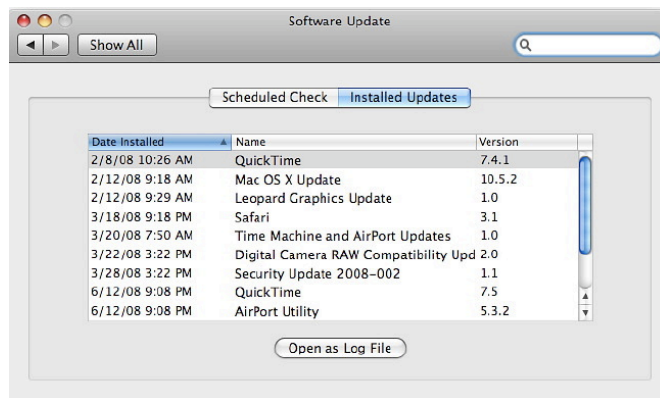

Software Update: Check panel

The first button in Software Update shows "Scheduled Check" and this panel is in two parts. The top has a single button, marked, "Check Now". However, in the Apple menu (top left of the menu bar) is a Software Update item. Using this connects to the Apple servers using information on the Mac and checks to see if the computer needs updates. That button in the preference panel does the same. If any software is listed for update, we can use the Install button (here greyed out) or quit Software Update: we can then download later from the [Apple downloads pages](#), or use Software Update again when convenient.
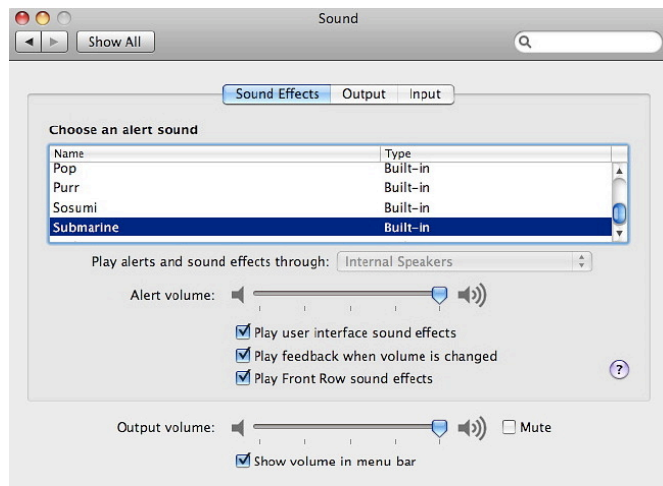
Software Update: Online Checking

The bottom half of the panel deals with scheduling and automatic updating. There are two check boxes. The first turns on automatic checking, while alongside is a selector for Daily, Weekly or Monthly. The second check box here is to allow automatic downloads of what are called "important updates". These are undefined, but will certainly include the operating system and security updates. The Apple Knowledge Base article on updating software also does not explain what "important" includes. These updates are not, however, installed and the user is notified when such events occur.

Software Update: Installed Updates

The other part of the Software Update panel lists updates that have been installed on the computer using Software Update. In my normal, User account there are none listed as I do all checks manually. In the Administrator account there is a list of some updates that have been downloaded. I have downloaded others that I knew were available directly from the Apple site. That list may be organised easily with the headings, by date, name or version, either ascending or descending. At the bottom of the panel is a button that opens Console: the utility that keeps all log files on OS X.

The Sound preferences panel is in three parts. These control system sounds, output and input. Each of these sections, like other preferences, is revealed via a button at the top of the panel.
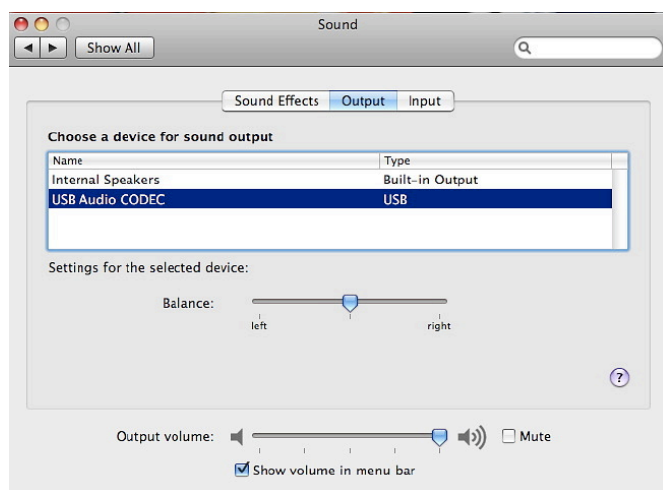
Sound Preferences: Effects

In Sound Effects we first see a panel that allows us to select a sound for alerts. There are fourteen installed sounds from Basso to Submarine and these are most certainly a personal choice. With mail arriving, opening a page in error or making other mistakes, a user might be hearing these sounds a lot. I find that "Glass" is gentlest on my ears. A slider bar under the panel allows the volume of these to be adjusted independent of the speaker volume. By default on my MacBookPro the sounds are played back through the two internal speakers, so the selection button is greyed out. If other speaker systems are attached the button should allow these to be used as alternatives.

Below this and the Alert Volume slider, in the centre of the panel, are three check-boxes. The first is for user interface sounds, such as when the trash is emptied.

At the bottom of the panel is a slider for volume. When this is used there is feedback from the speakers. This sound may be turned off with the second check-box of the three. That also applies to the menu bar sound control which can be displayed by checking the very bottom box.

The third of these check-boxes in the middle of the panel is for sounds that operate with Front Row; the interface that accesses music, photos and videos. As each menu item is selected so a sound is made. Front Row is activated using the icon in Applications or by using the remote control.
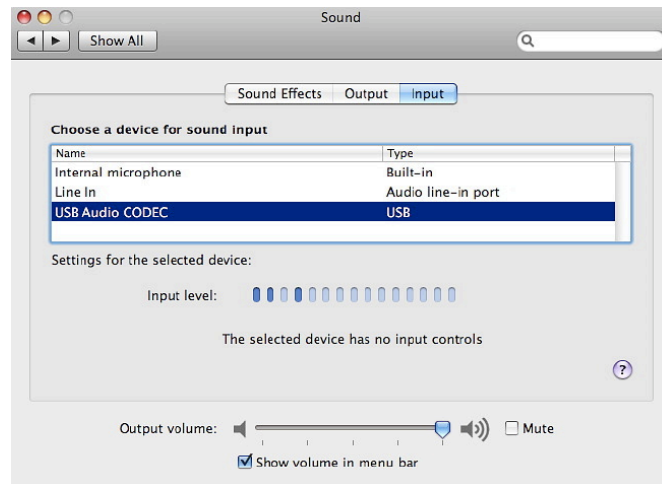

Sound Preferences: Output

The second button in Sound Preferences is for Output. By default, the Internal Speakers are shown in the main panel here and below are sliders to adjust left or right output levels. These also make the same sound as the volume adjuster (also displayed in this panel) to show that changes are being made. When additional output devices are added, the panel changes to allow these to be selected.

The final section is for input. Two items are available normally: the internal microphone and Line in,

although this needs a device attached to the port for there to be any sound. Below these items are a level indicator and the input volume slider. Below is a check box for ambient noise reduction which is not available for all devices. With my G-Track USB microphone, for example, this check box is greyed out. As with the other panels, the volume slider and its menu-bar check box are also shown.
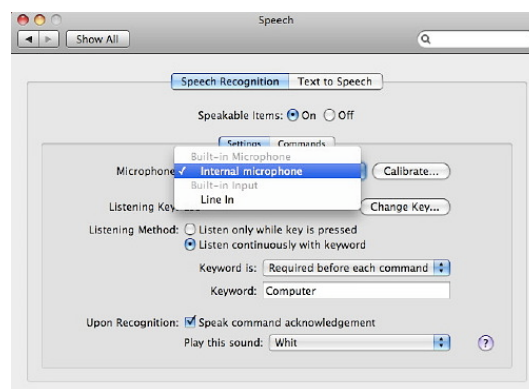

Sound Preferences: Input

Speech Preferences works with voice and hearing. As with many such features, there is input and output: Speech Recognition and Text to Speech. When OS X first appeared it included speech recognition software, called Speakable Items. It wasn't all that good. It is still not perfect, but has improved. It requires training: the more it is used, the better it becomes.

The Speech Recognition panel has selection for On or Off at the top and below that a split button for Settings and Commands. When active, a small microphone icon appears on the desktop remaining on top of windows, so is always visible. A list of speech commands is also shown. As the input microphone picks up sound, so bars and arrows on that icon show this.
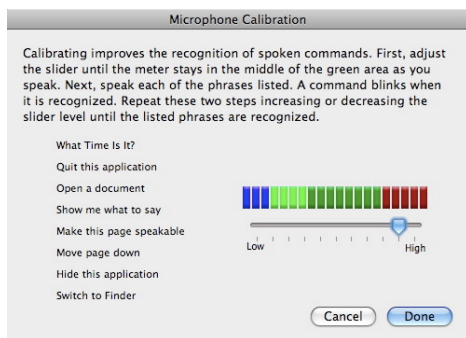
The computer's internal microphone is the default device, but this can be changed in the "Microphone" button below commands. Line-in is also available, but like the Sound preferences this needs a device attached. In the same way, if I attach a USB microphone, that is also listed. To the right of the microphone selection is a Calibrate button.

Speech Preferences: Input Selection

Calibration displays a volume slider and a list of phrases. As we read these out so they flash when recognised. I don't know if it is my accent, but the system only recognised six out of eight phrases the first time, and never identified my input on one of them even when I changed input speed, emphasis and

volume. I will have to keep working on this. I am unsure if it is the computer or user that needs training.

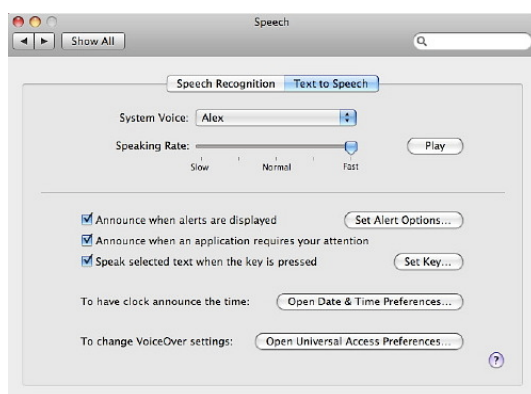**Speech Preferences: Calibrating Spoken Input**

The feature works either with a listening key or a keyword. The default key is ESC and this can be changed. The default word is "Computer" so commands are preceded with this, like "Computer, what time is it?" Precisely when the keyword is used may also be changed. I find that using the key is more reliable than the keyword.

When a command is recognised, the computer acknowledges this and plays a sound. The acknowledgement can be disabled (there is a check box) and the sound can be selected from one of the 16 system sounds, or None.

The Commands button, next to Settings, allows selection of which parts of the system can be used by Speech recognition. Of these, the top pair, Address Book and Global Speakable Items are configurable. At the bottom of the panel is a link to the Speakable Items Folder. This contains files in XML format so it may be possible to add to these.

Although this has a novelty aspect, there are values. For example if I have my hands full, I can access the Address Book and require a specific phone number to be displayed on the screen. I can also switch to another application (for example iTunes), or I can make it check for email. Once turned on, it remains active if we quit System Preferences.

The other half of the Speech preference deals with output from text: more effective and usable than Speech Recognition. The feature has been available via application menus for a while under the Services sub-menu. Highlighted text is read out in the selected computer voice.
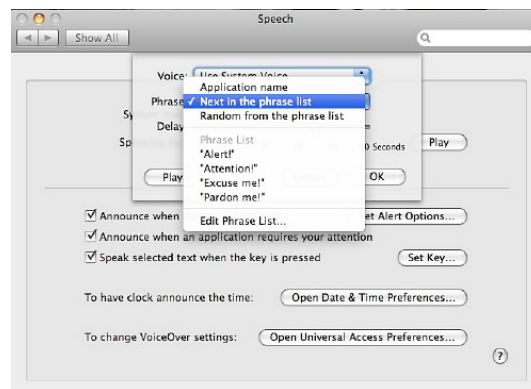

Speech Preferences: Text to Speech Settings

Voices have ranged from the sublime (Victoria) to the ridiculous (Deranged or Bubbles) and the better ones have been fairly understandable. With Leopard a new voice, Alex, was added which gives clear output. It is almost in the class of HAL, the fictional computer of Kubrik's Space Odyssey. It is much improved and takes note of punctuation and other natural sentence pauses. Indeed, when I was listening to a test of the weather forecast using ZappTeks's iSpeak It, I realised I heard what appeared to be an intake of breath. When I played it again it was indeed a "virtual" breath at the end of some paragraphs, but not all. The first few breaks did not have this, then just five or six in the middle. Another file created

using Google news sources again prompted this apparent breath after some paragraphs, which adds an unusual -- almost eerie -- level of reality to the computer-generated voice. I checked the same text using OS X to see if it were part of the installation or an extra to iSpeak It. It is the OS X system voice (as selected in Speech Preferences). More specifically it is the voice named, Alex. I tried with other voices and none exhibited this trait.
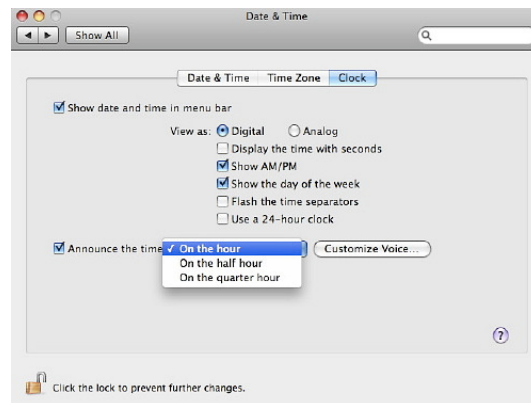
Beneath the voice selector, is a speed control. Slowing the voice improves output although the fastest setting is still understandable. To test each voice or speed setting, there is a Play button alongside.

The feature is good for proof reading, but its primary value is for those with seeing difficulties. Apple recently added features to the new iPod nano which use similar technology which was applauded by the US Society for the Blind but there has been a long-time inclusion of such features in Apple systems. Cupertino has also increased its facilities for those with disabilities, some of which may be seen on the Accessibility pages. There are also applications like ZappTek's "iSpeakIt" that will create a sound file and put it in iTunes for iPod use.

Speech Preferences: Computer Speaking - Phrase Selection

For more accessibility there are three check-boxes beneath: Announce when alerts are displayed; Announce when an application requires attention; and Speak selected text when keys are pressed. This is easier than the current menu access: the same keys turn this on and off.

Announcing the Time

At the bottom are two buttons that bring in features from other preferences: to have the clock announce the time; and to change VoiceOver settings and more features for those with disabilities.

Spotlight is a powerful search facility that was introduced with OS X 10.4. It uses HFS (hierarchical file system) to help us find information on a disk quickly and easily. It integrates with Apple's Finder. In theory, any data recorded on the disk, including text as well as file names, plus file metadata, is indexed
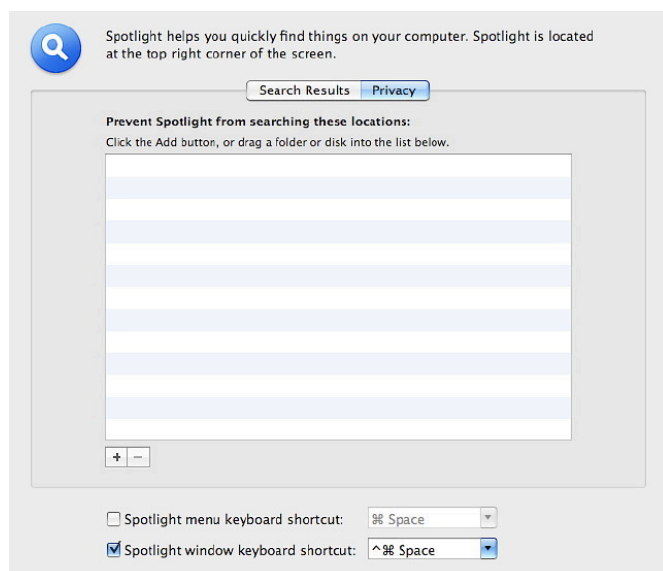
by Spotlight.

For example, if we search using the word "image" and add the Boolean, NOT (in capital letters) plus the word, "flash", images not taken with flash will appear in a Finder panel; but also we will find several files that contain these text words as well. On my computer that search brought up over 8,000 hits with images, zip files, text files, mail messages and other file types: all of these will have some connection to the search criteria. A search like this needs refining.

Spotlight Preferences: Order for Search Results

When the system is first started, Spotlight will index the disk. This can be seen by a small black dot in the middle of the Spotlight icon on the top right of the menu bar. It uses 14 categories in searches and these are shown in the Spotlight preference, "Search Results" panel. Each has a check box so can be deselected. A category may be dragged up or down to change the order of results. In my user account, "Documents" is the top category, followed by "Mail Messages", with Presentations last. Updating the data occurs immediately a file is saved. If I search for that last sentence, my .TXT file is the top hit: it is a Document and, chronologically, the most recent.

Spotlight Preferences: Privacy - Excluding Results

The other panel in the Spotlight preference pane is marked, Privacy. If a folder or a disk (e.g. an external hard disk) is dragged to this panel, it will not be included in searches. We can also use the Plus (+) and minus (-) icons at the bottom to add or remove locations from this panel. This panel has another use in updating the Spotlight database. If a folder or disk is dragged to the panel, then dragged out again, Spotlight will then re-index that location. At the bottom of both panels are keyboard shortcuts for using

Spotlight. By default, Command + Space will bring up this feature while Control + Command + Space brings up the Spotlight/Finder search panel.

There are also a number of third-party Spotlight plug-ins on the Apple downloads pages, that are designed to enhance the features of this facility.

The Startup Disk preference has a single window in two parts. At the top are listed any bootable disks that the system recognises. In a normal environment, two icons are shown: the current disk and a Network startup, which is usually greyed out. If a disk has more than one partition, only those with operating systems installed will be shown. An external, bootable disk will also appear in the panel when attached. My external disk has two partitions, but only one (which has Leopard installed) appears in this panel. The "current disk" icon also displays data concerning the version of the operating system in use and the disk name. In this panel there is also a button marked restart.

Startup Disk Preferences: Selecting a Disk

If the Installation disk is inserted in the drive, this can be selected instead of the main disk, and we can restart directly using the preference pane. When such an optical disk is used, we can also start the computer using the C key. A disk with a usable operating system can be selected and the computer will restart from that. Unless there IS a bootable network, it is unwise to select the Network Startup icon. It may also be a good idea, particularly after using another disk, to ensure that the correct disk is selected. OS X is usually good at finding a bootable disk, but has been known to lose the plot.

The bottom half of the panel refers to Target Mode. This is a highly useful way to connect two Macs using a Firewire cable: one becoming the slave of the other. This can help in diagnostics and repair. As an example I can run Disk Warrior on my MacBookPro to check and repair the disk on my iMac. It is also a method to transfer large quantities of data quite quickly.

At the bottom of the panel, is the lock icon which requires an Admin password to open. This makes it less easy for someone to start the computer using an external disk. If used in conjunction with the Firmware Password Utility, the computer is considerably more secure. This can be copied from the original (grey) software installation disc and is in the Applications/Utilities folder.

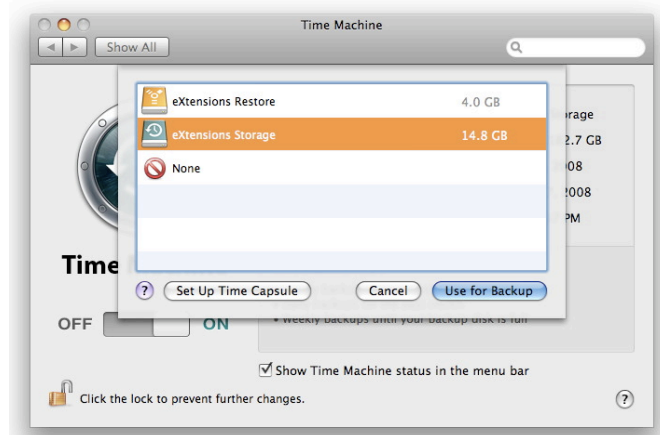**All Disks Connected: Only Those that are Bootable Appear in Startup Disk**

The Time Machine preferences panel displays the icon for the feature. The same icon is also shown in the Dock and may be added to the menu bar as an icon too. These are related to the Preferences, but are not identical. When no disk is connected or Time Machine not set up, a panel appears when the Dock

icon is pressed, warning of this and a blue (default) button is available to link directly to the preference panel.

Time Machine Preferences: Before Setup

Initially the preference panel displays the icon with the preference name prominently displayed to the left. Below is an ON/Off switch (below that the standard padlock icon to prevent changes). In this original setup condition, the main panel has a Time Machine hard disk icon in the centre with a button below marked, "Choose Backup Disk." Below is a text description of the feature. At the bottom is a check box for display of the icon in the menu bar: this additional icon provides other controls when active.

Time Machine Preferences: Choosing a Disk

When the "Choose" button is pressed, there are a number of options. Any usable disk connected is recognised and may be selected by highlighting it and selecting the "Use for Backup" button below. More than one disk may be selected if the computer is used in different locations, but backups will not, of course, be identical. A second button enables a user to set up Time Capsule, the Apple Airport plus hard disk that is available in 500GB and 1TB sizes. Pressing that button links to the Airport setup utility.

Once set up the system recognises that a disk is available and the main part of the panel changes. The icon is moved to the left and details of the disk used are displayed: Name, Available (disk space), Oldest Backup, Latest Backup and Next backup.

Time Machine Preferences: Preparing for Backup

The Oldest Backup will change as the disk is filled and weekly backups will be deleted. he Latest is the last time the disk was backed up. Next displays the time when the next backup is scheduled. If a disk is not connected, the panel displays, "When Disk is Connected."

The first backup takes a long time. If there is more than one partition on the external disk, the transfer may be slowed if Spotlight indexes the others. Spotlight preferences can be used to drag the partition icon to the "Privacy" panel. Indexing will stop.

Whenever the disk is connected, the entire system will be backed up every hour, every day and every week. That does not mean a total backup as the FSEvents file records any changes and Time Machine only uses those. The preferences do not have to be open for backups to occur. When a disk is not connected, Time Machine is dormant. The Next Backup section changes to a progress bar when a backup is taking place, although sometimes there will be a striped bar showing, "Preparing." This may be for a long time if there has been a problem or a gap in backing up: patience is the key here.

Time Machine Preferences: Backing Up

To force a backup, we can use the Backup Now item in the Dock or the menu bar icon menu. If a backup fails, this information appears in red, with the letter *i* in a red circle alongside. The "i" can be clicked to reveal more information about the problem.
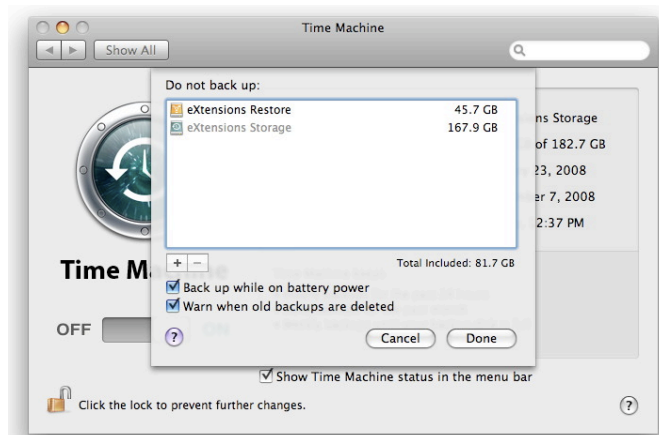
The panel also has two buttons which open further panels: Change Disk and Options. The Change Disk panel can be used to add another disk when one is full and is almost identical to the original "Choose" panel when Time Machine is first set up, including the "Set Up Time Machine" button. The Options panel reveals locations which are excluded. The plus (+) icon adds other disks or folders to be excluded from backup. Additionally, a check box allows backups to occur when the battery is used. This was not possible when Time Machine first appeared. Finally, another check box confirms that the user is to be warned if an older backup is to be deleted.

A complete system can be restored using "Restore from Time Machine" on the DVD Installer. Several computers can be backed up on the same disk and this can be independent of a system install. We start from the Leopard install DVD and this can be done as part of the installation: after the OS itself has been installed.
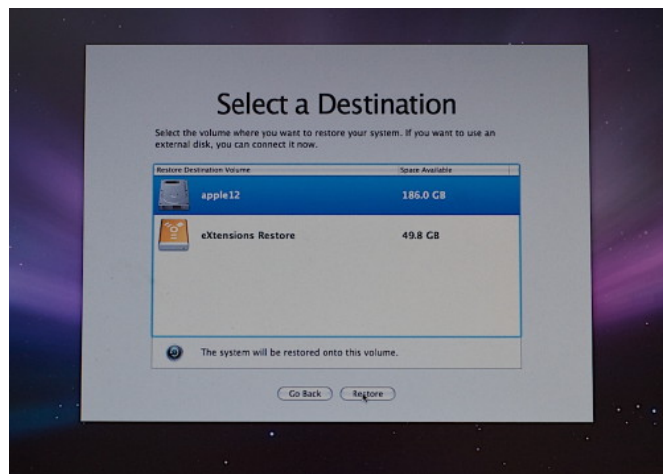

Time Machine Restore

It may also be done on a computer that already has the system and it will replace all data, including settings and accounts. There are several warnings before this takes place. Once past the language screen, the Utilities menu has an item at the bottom, "Restore System from Backup". A warning appears to inform us that taking this step will replace all the contents of the selected volume. Pressing Continue brings up a panel that shows any suitable disks available. To effect the backup, if not already in use, the disk that contains the Time Machine backup can be attached at this time.

Time Machine: Restoring from Back-Up

When the disk is recognised and highlighted, pressing Continue gives a list of available backups. In my test case, from 22 January 2008 at 8:54:49 PM to the latest which I had done on my own Mac a few minutes earlier. The OS version is also shown.
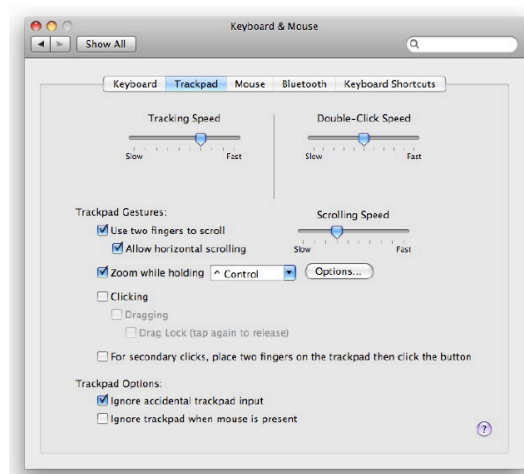
Time Machine Restore: Select the Right Disk

Once space is calculated the Destination for the restore is shown. As the backup disk icon is also displayed, we must be careful to choose the right one. Once this is done, we click the button marked Restore. In typical Apple fashion a panel drops down to make sure that this *is* what we intend. A full restore is likely to take a considerable time (well over an hour for about 50G). A power backup is suggested. When the process is complete the computer will restart with the restored system. On a test computer (supplied by EITS, the education distributor in Thailand) this produced a clone of my own MacBook Pro that I use daily. The restore will delete all of the old settings, including Applications, so is best done as part of a system reinstall. An alternative would be to use the Archive and Install option then update.

Apple has a number of Knowledge Base articles that may provide users with assistance when using this backup feature of Leopard:
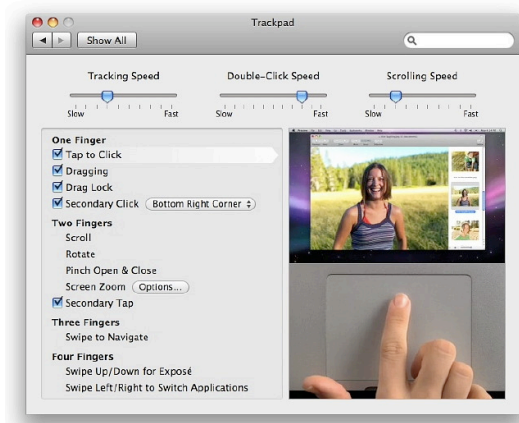
- Using Time Machine and troubleshooting Time Machine issues
- Time Machine doesn't back up to AirPort Disks
- Where can Time Machine back up?
- Time Machine: Troubleshooting backup issues

The Trackpad preference was new for the MacBook Air and was later included with the aluminium MacBook and MacBook Pro of late 2008. With the update of OS X to 10.5.6 all notebook computers running Leopard have separate Trackpad preferences.

Trackpad Panel (now a separate preference)

The basic preference pane has two slider bars that adjust speed of Tracking (how fast the cursor moves across the screen) and the double click. Below are two check boxes that control the limited gestures available: use 2 fingers to scroll and allow horizontal scrolling. A slider to the right allows adjustment of scrolling speeds. Another check box below turns on the feature that zooms the screen when holding a key: the key selector panel is adjacent. Options refer to the way the screen image and cursor behave in relation to the zooming action.
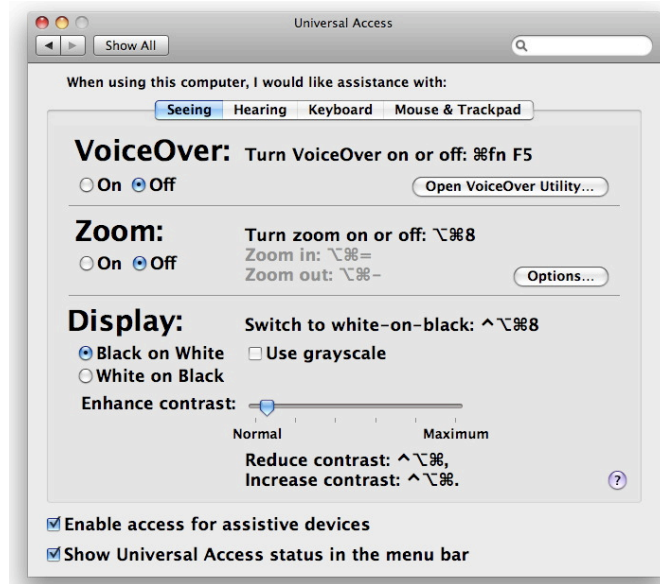

Later Trackpad Panel (increased Gestures)

A check box for using the trackpad to click on turns this feature on or off. When active, two more check boxes are available: dragging and drag lock. These control the way a panel may be moved across the screen with a one-finger action. There are finally two trackpad options: to ignore accidental trackpad input and to ignore trackpad when a mouse is used. The late 2008 computers and the MacBook Air have a series of videos that illustrate each of the extra gestures as they are selected or highlighted.

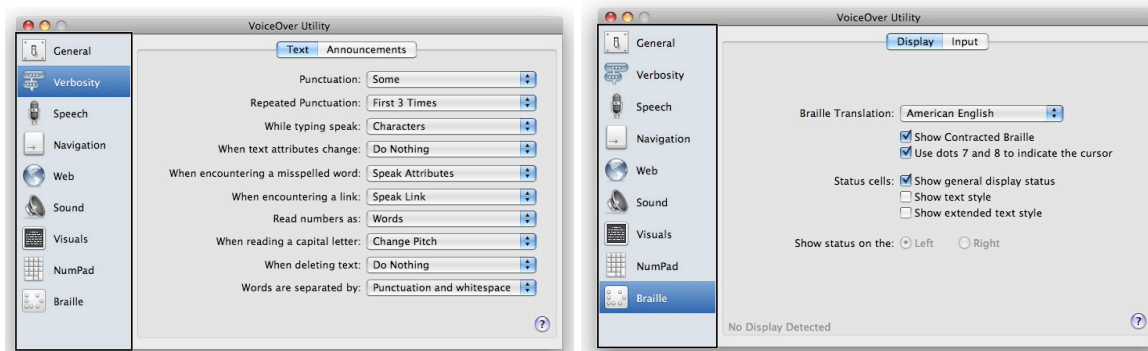**Universal Access** in System Preferences includes several ways that may assist the disabled. There are four categories: Seeing, Hearing, Keyboard, and Mouse & Trackpad. At the bottom of all panels is a check box labelled "Enable access for Assistive devices": valuable if we need to use special equipment to control a computer. An addition in Leopard just below that "Assistive Devices" check box, is a useful check box to allow the status of Universal Access to be shown in the menu bar.

The first panel, Seeing, has three main sections: VoiceOver, Zoom and Display. These are designed to assist those with vision problems to work more effectively with a computer. Apple added to these (and other) functions in the latter part of 2008 by updating its Accessibility web pages (and by enhancing features in iTunes and the iPod nano).
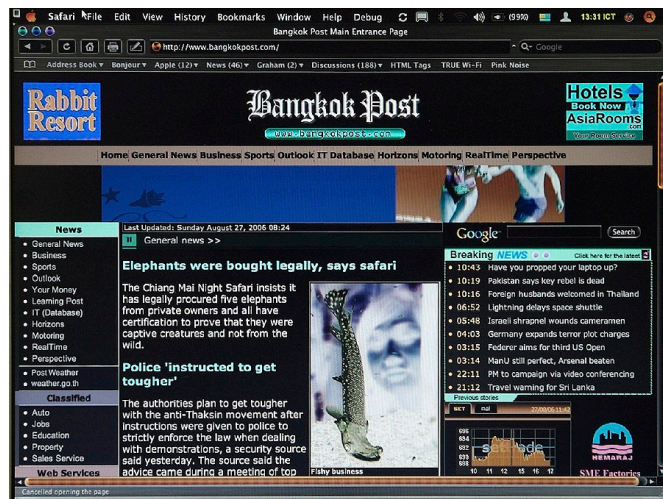
Universal Preferences: Seeing panel

VoiceOver has two main controls: On or Off. This feature is off by default. It may be activated or deactivated also by use of the Command + F5 keys (Command + Fn + F5 on a notebook computer). When On, as the cursor is moved over a page, certain functions critical to operations, are announced by the system voice. To tune the system voice (or to change it) to suit the user, a button to the right links to VoiceOver Utility: a program that has settings for several accessibility features that may be enhanced on Macs, including Speech, Visuals and Braille. When VoiceOver is turned on in System Preferences, certain features will be highlighted with a box. This has been known to concern people who are not aware a feature is active.

VoiceOver Utility

Zoom, as the name suggests, is a useful feature that allows the screen to be made larger quickly. It can be turned on/off with the preference, or by using the Option + Command + 8 keys. When On, we may zoom in with the Option + Command + = keys, or zoom out with Option + Command + - (minus) keys. An Options button allows greater control of how the Zoom feature operates. I used this when I lost my glasses on a field trip. While the focus on the screen was not perfect, at least I could see what I was typing. In addition, when On or Off, using either two fingers on the trackpad (or the scroll-wheel of a mouse) together with the Control key, will also zoom in and out.
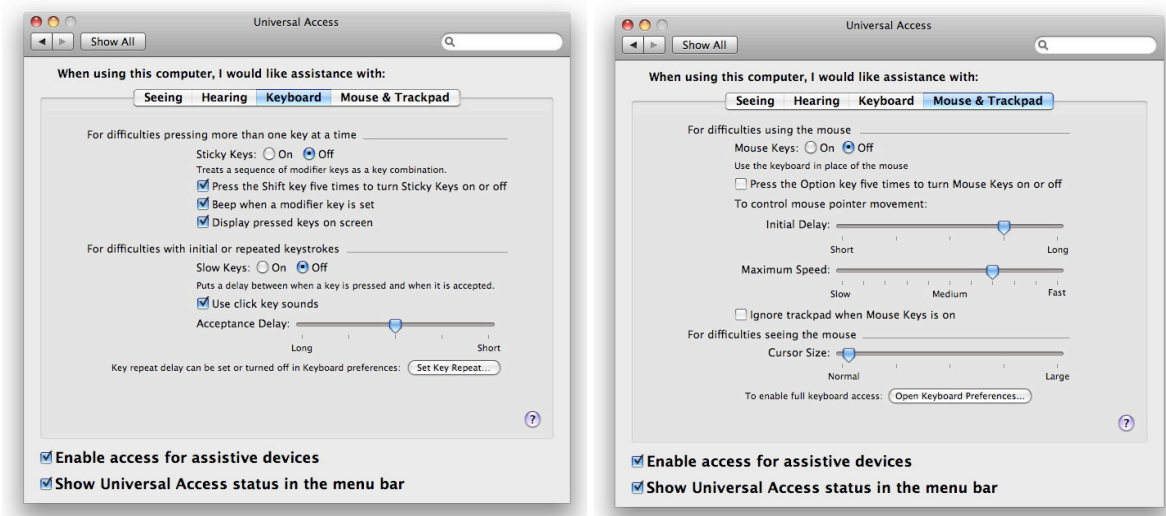
Switch to White on Black

The Display sub-panel assists those with specific seeing difficulties, for example colour-blindness. A normal screen is referred to as Black on White, and it is possible here to switch to White on Black: a complete negative image. This may also be effected quickly by pressing Control + Option + Command + 8 (a combination that apparently cats and young children manage easily). Both of these options can also display in grayscale (no colour) an option that is turned on using a check box in this section.

The Hearing panel has one basic item, "Flash when an alert occurs". Normally, depending on what is selected, an event (such as mail arriving) makes a sound to alert the user. Selecting this option adds a visual warning for those who may be deaf.

If a person is restricted to using a computer with one finger only, even an action as simple as typing a capital letter is a problem. With its "Sticky Keys" and "Slow Keys", the Keyboard panel provides some solutions to those with limb-movement problems. Sticky keys leaves the last-selected key in combinations active until another is pressed (for example the above, Black on White switch in the Display panel). Checking a box allows this feature to be active once the shift key is pressed five times. A useful feature of this attribute is that the keys can be displayed onscreen. Pressing the key a second time, highlights it (with an optional sound), and pressing a third time cancels the key.

With Slow Keys, a delay between typing and appearance is introduced for difficulties with initial or repeated keystrokes. The acceptance delay may be inconsistent and could need adjustment to get it right for the user.

For similar reasons to the above (Keyboard) section, some people cannot use a mouse. The final panel, Mouse & Trackpad, substitutes keystrokes using the numeric keypad for the mouse actions. While this is on, the trackpad can be deselected. Speed and delay of actions may also be adjusted using sliders and the

cursor size (useful perhaps at any time) may be increased. A check box here allows this feature to be activated by pressing the Option key five times.

Other Resources

Relevant Book Reviews:

- The Missing Manual: [Leopard Edition](#)

- The Missing Manual: [Switching to a Mac](#)

And . . .

- 101 - [Get Started with the Mac](#)

- Switch 101: [Migrate to Mac](#)

- The [Apple Online Store](#) in Thailand

And, of course . . .

- The [eXtensions](#) Mac-focused Pages