

How Can I Use My Desktop Space Efficiently?



The MacBook Pro's Desktop is the area displayed on its screen. Like a physical desktop, you place things (in this case, icons and windows) on it to focus your attention on them and use their content. As you work, your Desktop naturally becomes cluttered with windows for applications, documents, and system tools. Keeping control of all these windows helps you make the most of your Desktop space. With all the great Desktop management tools that the Mac's OS X operating system offers, it's much easier to keep your MacBook Pro's Desktop neat and tidy than it is a physical desktop.

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Setting the Finder Desktop's Icon Preferences

By default on a new MacBook Pro or in a new installation of OS X on a MacBook, icons for the MacBook Pro's hard drive, external hard drives, DVDs, CDs, and servers do not appear on the Desktop. This keeps the entire space on the Desktop clear for your files and folders. (If you upgraded to a new version of OS X or used the Migration Assistant to transfer the contents of another Mac to your MacBook Pro, the drive icons that display are whatever was previously set.)

To access drives, whether or not they appear on the Desktop, open a Finder window (choose File ⇨ New Finder Window or press ⌘+N in the Finder, or double-click a folder or drive icon) and click them in the Sidebar to open their contents.



Note

The folders and files you see on the Desktop are determined by the contents of the Desktop folder, which is located within your Home folder (choose Go ⇨ Home in the Finder to see the Home folder's contents). If you don't want a folder or file taking up space on your Desktop, move it into a different folder within your Home folder. In addition to having a neater appearance, this also helps you work more efficiently because it's easier to find folders and files if they're here rather than scattered on your Desktop.

Perform the following steps to show or hide Desktop icons:

1. **Choose Finder ⇨ Preferences.** The Finder Preferences dialog appears.
2. **Go to the General pane, if it isn't already visible.**
3. **Select and deselect the check boxes for the icons that you want to see and don't want to see, respectively, on your Desktop.** For example, to hide the icon for the MacBook Pro's internal hard drive or any external hard drive connected to it, deselect the Hard Disks check box. As you deselect the check boxes, the related icons disappear from your Desktop.



Note

To set the size, grid spacing, text size, and other options for the Desktop, click the Desktop so no Finder windows are selected. Choose View ⇨ Show View Options, and use the resulting panel to configure these settings for your Desktop. The title of this panel indicates the object for which you are configuring the view options, so it should be Desktop. You can use this same command with any folder to set its view options.

Working with Finder Windows

Much of the time that you are working on your Desktop will involve Finder windows. Two areas of Finder windows that you will use frequently are the Sidebar and the toolbar, in addition to the window itself. You can use these features as they are, but you can also customize them to make your Desktop space more efficient.

Using Finder windows

Finder windows are essentially lists of what's in whatever drive or folder you opened. Double-click a drive or folder to open a Finder window. If you open a drive or folder from the Desktop, a new Finder window opens for its contents. If you open a drive or folder from within a Folder window, the Finder window displays its contents in place of whatever it was previously showing.

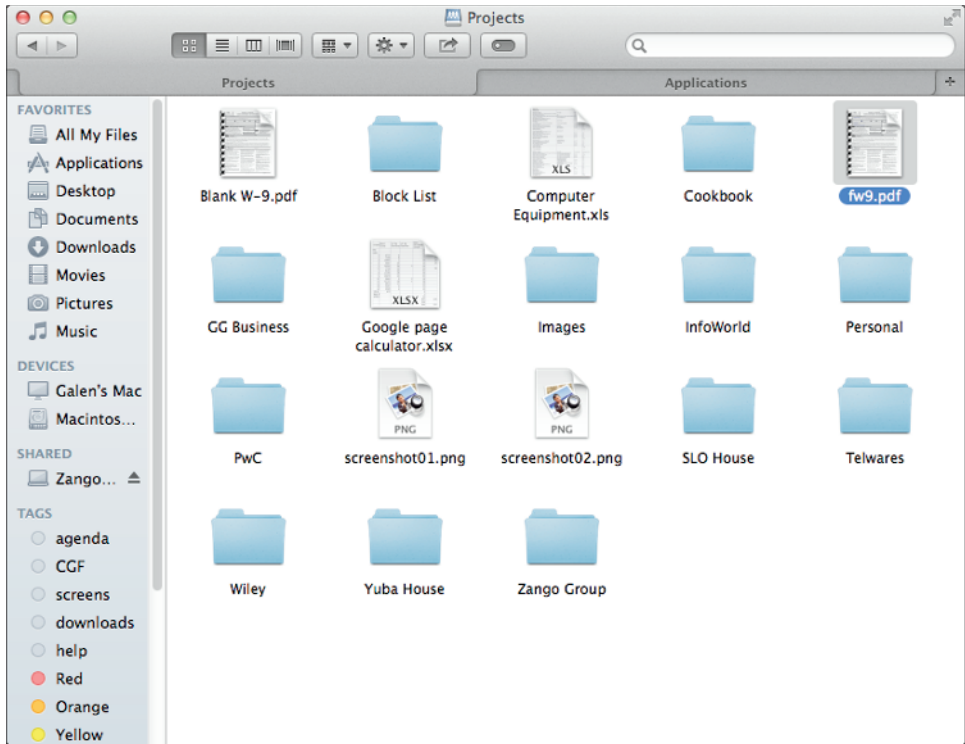
A quick way to open a new Finder window in the Finder is to choose File⇨New Window or to press ⌘+N. That way, you can look at contents from different locations at the same time, and even copy or move items across them.

If you drag items from one Finder window to another, the items are moved if the Finder windows are showing contents from folders on the same drive. They are copied if the Finder windows are showing the contents of folders from different drives. Hold down the Option key when dragging to copy files on the same disk, and hold down the Option key when dragging to move files to a different disk; holding Option reverses the standard behavior.

Close unwanted Finder windows by clicking the Close button at the upper left of the window or by pressing Shift+⌘+W. Note that this shortcut is new to OS X 10.9 Mavericks and had been just ⌘+W in previous versions of OS X.

Mavericks introduces a new capability in Finder windows called Finder tabs that reduces clutter on the Desktop. It works just like a browser's tabbed panes do: Each pane has its own tab that you click to switch to that pane, as Figure 1.1 shows. Create a new tabbed pane by choosing File⇨New Tab or pressing ⌘+T. You can drag items from one tab to another: From the open pane, just drag the item to the tab of the other pane.

To close a tabbed pane, hover the pointer over its tab, and click the X icon that appears on the left side of the tab, or just press ⌘+W to close the active (open) pane.



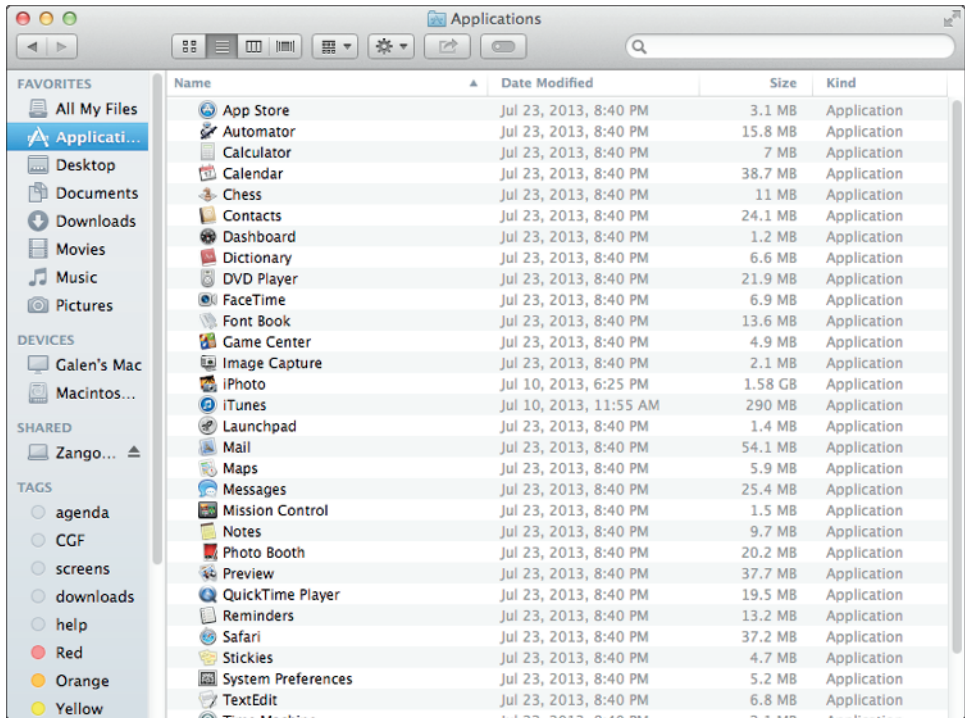
1.1 OS X Mavericks lets you have multiple tabbed panes in the same Finder window, to decrease Desktop clutter.

Using and configuring the Sidebar

The Finder's Sidebar makes it easy to get to specific locations, meaning folders, drives, and even files. It comes preloaded with a set of aliases (shortcuts) to common locations, but you can add items to, or remove them from, the Sidebar so it contains aliases to the items you use most frequently.

The Sidebar is organized into sections, as shown in Figure 1.2. You control which ones display by using the Finder Preferences dialog (choose **Finder** ⇨ **Preferences**). The process is similar to how you control which disk icons appear on the Desktop, except that you go to the Sidebar pane in the dialog rather than the General pane, and then check and uncheck the desired options to control what displays, as shown in Figure 1.3.

In the Sidebar itself, you can show or hide the contents of a section by hovering the pointer over a label, like Devices, and clicking the Hide or Show label that appears to its right to control if the section's contents appear.

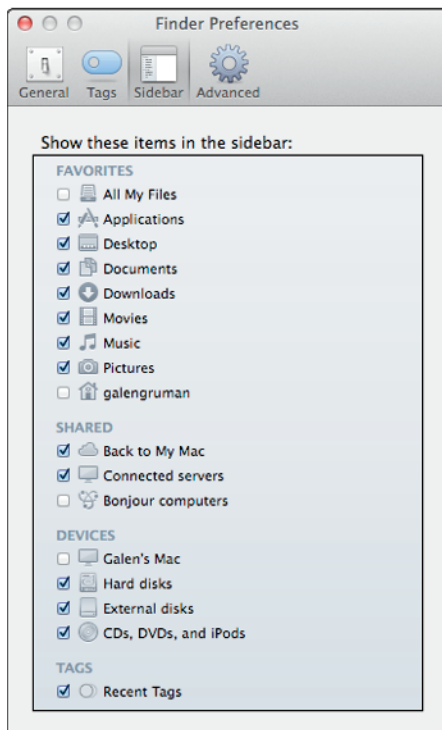
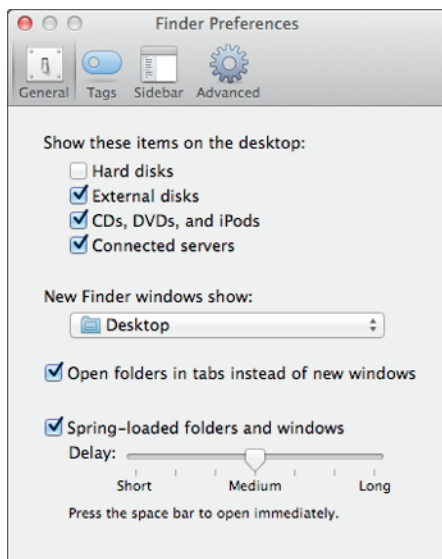


1.2 Use the Sidebar to quickly move to the items that you want to view in a Finder window.

So what are the sections? The Favorites section holds aliases to the folders on your MacBook Pro that Apple expects you open most frequently; you can customize it so it reflects the folders you open the most. The Shared section holds locations you are accessing on a network, such as a shared hard drive. The Devices section includes hard drives and disk images that are mounted on your MacBook Pro. And the new Tags section in OS X Mavericks shows files and folders that you tag with specific labels, such as those belonging to a specific project.

Using the items on the Sidebar is simple (which is why it's so useful). Simply click the icon with which you want to work. What happens when you click depends on the kind of icon it is. The following are the common items:

- **All My Files.** When you click this icon, all the files you've worked with appear in the Finder window. You can use the view and browse tools to access any file you need.
- **AirDrop.** When you click this icon, you can see other users connected to the same Wi-Fi network and have their AirDrop folder open—if they're using a Mac made in 2011 or later and running OS X 10.7 Lion or higher. You can send files to other users by dropping them on the person's icon in the AirDrop window, and they can share files with you in the same way.
- **Applications.** If the icon is for an application, the application launches.
- **Documents.** Clicking a document's icon opens the associated application, and you see and work with the document's contents.
- **Folder.** When you click a folder, you see its contents in the Finder window.
- **Shared folder or drive.** When you select a shared network resource, you see either the login dialog, or if your MacBook Pro is configured to automatically log in to the resource, you see its contents.
- **Devices.** When you select a device, its contents are displayed in the Finder window.
- **Tags.** If you click a tag icon, you see all files and folders using that tag—regardless of their location on the Mac—in the Finder window.



1.3 You can determine the kinds of resources available in the Desktop via the Finder Preferences dialog's General pane (top) and what appears in the Sidebar via its Sidebar pane (bottom).



Note

Each type of Sidebar item has a distinctive icon, making what it represents easy to determine.

You can add an alias to a drive or folder to the Sidebar by dragging its icon from the Finder window into the Sidebar's Favorites section. To add an alias in the Sidebar to a file, select it and press **Control+⌘+T**. Drag any of these aliases out to remove them from the Sidebar (the original items are not deleted from the Mac, of course).



Note

The Favorites section is the only one that you can manually configure. The content of the other sections is determined by the Preferences settings, what your MacBook Pro is connected to on the network, and the mounted devices or disk images. If you drag an icon onto something in the other sections, it may be copied there instead (for example, when you drag an icon onto a disk's icon).

To *copy* the file into a Sidebar location (rather than open that location in another Finder window), hold down the Option key while you move the file's icon onto a folder's or drive's alias in the Sidebar. But if you drag an item onto a *shared location* in the Sidebar, rather than to a folder or drive, it is copied to that location instead of moved; to *move* an item to a shared location via the Sidebar, hold down the Option key.

To change the order of items within the Sidebar, drag them up or down the list. As you move an item between others, they slide apart to show you where the item you are moving will be. (You can move items within their sections, as well as from the Devices section to the Favorites section (but not in the reverse direction, or to or from other sections).

Using and configuring the toolbar

The toolbar appears at the top of the Finder window and contains buttons and pop-up menus that you can use to access commands quickly and easily. You can configure the toolbar so it contains the tools you use most frequently. When you open a Finder window, the toolbar appears at the top.



Genius

When viewing a Finder window in Grid view, you can change the size of the icons using the slider at the bottom right of the window. If you don't see it, choose **View ⇨ Show Status Bar**.

The following default tools appear on the toolbar (as grouped from left to right):

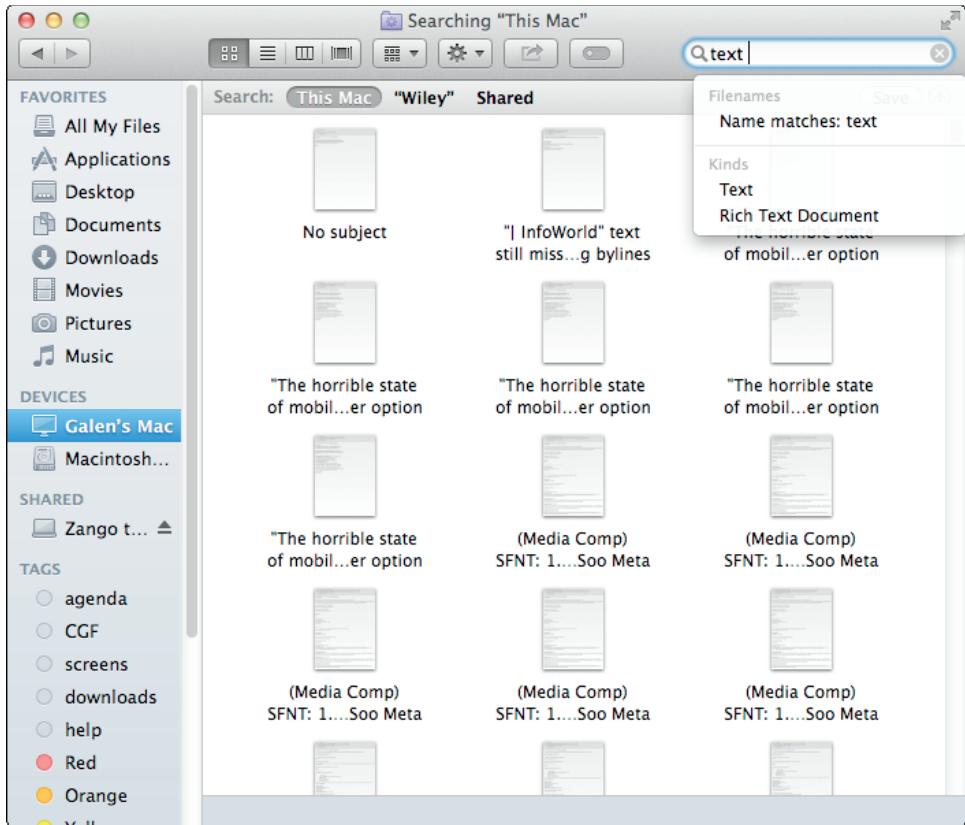
- **Back and Forward buttons.** These move you along the hierarchy of Finder windows that you've moved through (just like the Back and Forward buttons in a web browser).
- **View buttons.** You can change the view of the current window by clicking one of the View buttons. For example, to see the window in List view, click the second button in the View group (its icon has horizontal lines). The four buttons (left to right) are Grid, List, Columns, and Cover Flow.
- **Arrange pop-up menu.** This menu lets you arrange the contents of the window. For example, you can rank items by name, date last opened, size, and so on. Choose None to remove the arrange settings.
- **Action pop-up menu.** This menu contains a number of useful contextual commands. These are the same as those that appear when you right-click an item. Options can include Move to Trash, Get Info, and Make Alias.
- **Share menu.** Use this menu to share a selected item; the options you see depend on the type of item you have selected. Options can include Email, Message, AirDrop, Flickr, and so on.
- **Tag button.** Use this new capability in OS X Mavericks to apply a tag to the selected item. A pop-up opens in which you can select an existing tag or type in a new one. Items can have multiple tags.



Note

Right-clicking opens a contextual menu showing options relevant to whatever was right-clicked. A right-click is also called a secondary click, because it's possible to have the Mac reverse the left and right sides of the trackpad (or external mouse if you're using one) to accommodate left-handed users. By default, a standard click, such as to select an item, is done on the left. Another way to do a right-click is to hold down Control and do a standard click.

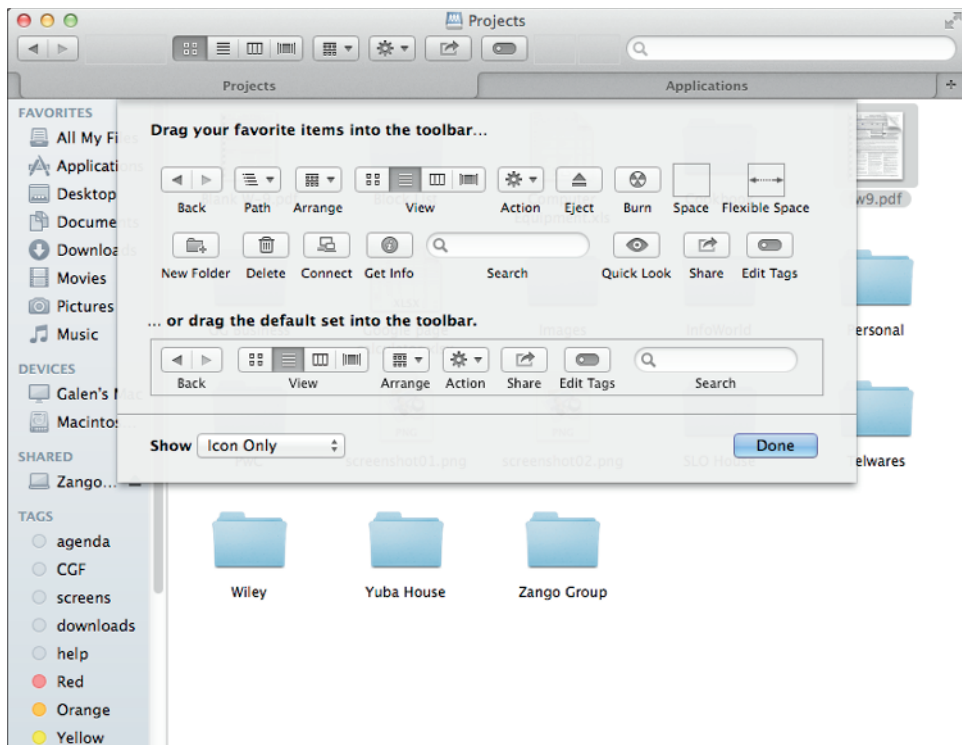
- **Search bar.** You can search for items on the Mac by typing text or numbers into the Search bar. As you type, items that match your search term appear in the Finder window. By default, OS X searches both file names and file contents. But if you wait a moment before pressing Return to begin the search, a menu appears to let you limit the search to, for example, filenames or types of files, as Figure 1.4 shows.



1.4 When you search files, you can narrow the search by pausing in the Search bar briefly to open a menu.

You can change what appears in the toolbar. Follow these steps:

- 1. Open a Finder window.**
- 2. Choose View ⇨ Customize Toolbar.** The Toolbar Customization sheet appears, as shown in Figure 1.5.
- 3. To remove a button from the toolbar, drag its icon from the toolbar outside the Finder window.** When you release the trackpad, the selected button disappears. (You can always add it back later.)
- 4. To add a button to the toolbar, drag it from the sheet and drop it on the toolbar where you want it to appear.** When you release the trackpad, the selected button is added to the toolbar.



1.5 Use the Toolbar Customization sheet to define and organize the tools on your toolbar.

5. Using the Show menu, choose how you want the buttons on the toolbar to appear.

Your options are Icon and Text, Icon Only, and Text Only.

6. When you finish customizing the toolbar, click Done. The Toolbar Customization sheet closes, and you see your customized toolbar in any Finder windows.



Note

To return the toolbar to its default state, open the Toolbar Customization sheet and drag the default set of buttons onto the toolbar.

Working with the Dock

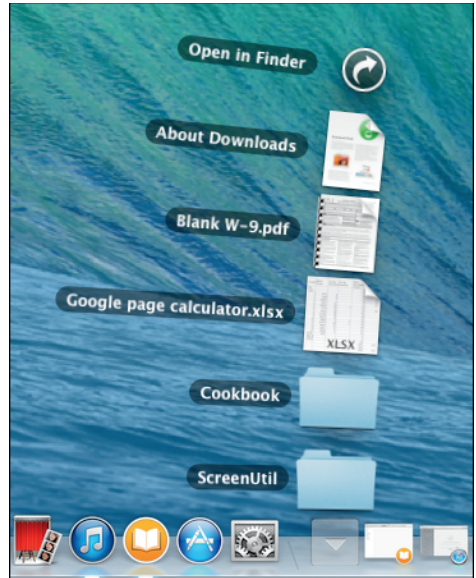
The Dock is an important part of your Desktop space. By default, it appears at the bottom of the Desktop, but you can control many aspects of its appearance, including where it is located and, to a great degree, how it works. The Dock is organized into two general sections. The area to the left

of the application/document separation line (the faint, dark line a few icons to the left of the Trash icon) contains application icons. The area to the right of this line contains icons for documents, folders, minimized Finder or application windows, and the Trash/Eject icon.

When folders appear on the Dock, they become stacks by default. When you click a stack, it pops up into a fan or appears as a grid (depending on how many items are in the folder), as shown in Figure 1.6, so you can work with the items it contains. You can disable this feature for any folder so it behaves more like a normal folder (more on that shortly).

You can perform all the following functions from the Dock:


- **See running applications.** Whenever an application is running, you see its icon on the Dock. If the related preference is set (more details on this a bit later), a small, glowing blue light is located at the bottom of every running application's icon. Application icons also provide information about what is happening with those applications. For example, when you receive e-mail, a badge on the Mail application's icon changes to indicate the number of messages you have received since you last read messages.
- **Open applications, folders, minimized windows, and documents quickly by clicking the related icon.** You can drag applications from the Desktop or a Finder window to the Dock's left side and can drag folders, files, and drives to the Dock's right side to put an alias to the items on the Dock for one-click access later. Or right-click a running application's icon, and choose Options ➤ Add to Dock to keep it in the Dock. Drag an icon out of the Dock to remove it from the Dock (the item is not deleted from your Mac). You can rearrange the application icons on the Dock by dragging them to the Dock location where you want them to reside.
- **Quickly switch among open applications and windows by clicking the icon for the item you want to bring to the front.**



1.6 Clicking a folder's icon on the Dock causes its contents to either appear in a grid or fan out (as shown here), depending on how many items it contains and your preferences.

- **Be alerted about issues.** When an application needs your attention, its icon bounces on the Dock until you move into that application and handle the issues.
- **Control applications and switch to any of their open windows.** When you right-click the icon of an application, a contextual menu appears. When the application is running, this menu lists commands, as well as all the open windows related to that application. When the application isn't running, you see a different set of commands (such as the Open command).
- **Customize its appearance and function.** You can control how the Dock looks, including its size, whether it is always visible, and where it is located using the Dock system preference, which I describe later in this chapter.

**Note**



To open a system preference—OS X's method for customizing much of the Mac's behavior—choose  ⇨ System Preferences to open the System Preferences application, and click the icon for the specific system preference you want to adjust, such as Dock or Security & Privacy.

Understanding how applications and folders work in the Dock

Two icons on the Dock are unique and always there: the Finder and the Trash.

- When you click the Finder icon (anchored on the left end of a horizontal Dock or at the top of a vertical one), a Finder window opens (if one isn't already open). If at least one Finder window is open, clicking the Finder icon brings the Finder window you used most recently to the front.
- The Trash icon is where all folders and files go when their time is done. When the Trash contains files or folders, its icon includes crumpled paper so you know something is in there. When you select an ejectable item (such as a DVD), the Trash icon changes to the Eject symbol. You can drag a disc, drive, volume, or any other ejectable item onto that icon to eject it.

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To move between applications quickly, hold down +Tab. The Application Switcher appears. Click an icon to switch to its application, or while holding down  repeatedly press Tab to cycle forward through the list, or repeatedly press Shift+Tab to cycle backward through the list. When you release the keys, you switch to the selected application. You can also type Q to quit the selected application in the Application Switcher.

Unless an application is permanently added to the Dock (in which case, its icon remains in the same position), the icon for each application you open appears on the right (or bottom) edge of the application area of the Dock while running and then disappears when you quit the application.

Unlike open applications, open documents don't automatically appear on the Dock. Document icons appear on the Dock only when you minimize a document's window from the application using it or when you manually add them by dragging their icon from a Finder window.

In what Apple calls App Exposé, you can see a list of all open windows in a running application by right-clicking the application's Dock icon and choosing Show All Windows from the contextual menu that appears. Or just press the default shortcut (usually $\text{Fn}+\text{F10}$ or $\text{Control}+\text{down arrow}$); the same shortcut restores the regular view.

When you minimize an application window, it is pulled by default into the Dock using the Genie Effect. You can change this so the Scale Effect is used instead, via the Dock system preference. You can also change where the minimized application's document windows go: into the application's icon or into the document section of the Dock. When in the document section of the Dock, minimized windows are marked with the related application's icon in the lower-right corner of the Dock icon so you can easily tell from which application the windows came. Minimized windows disappear from the Dock when you maximize them or when you close the application from which they came.



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When you hide an application, OS X also hides its open windows in the Dock, though you can quickly open one of its windows by right-clicking the application icon or pressing the default shortcut (usually $\text{Fn}+\text{F10}$ or $\text{Control}+\text{down arrow}$) and choosing the window you want. (The application's icon remains in the Dock, so you know it's still running.)

When you place a folder's icon on the Dock, it displays as a stack. A stack has some special characteristics, which is why it isn't just called a folder (however, you can configure a stack to behave like a folder). Two stacks are installed on your Dock by default: Downloads and Documents.

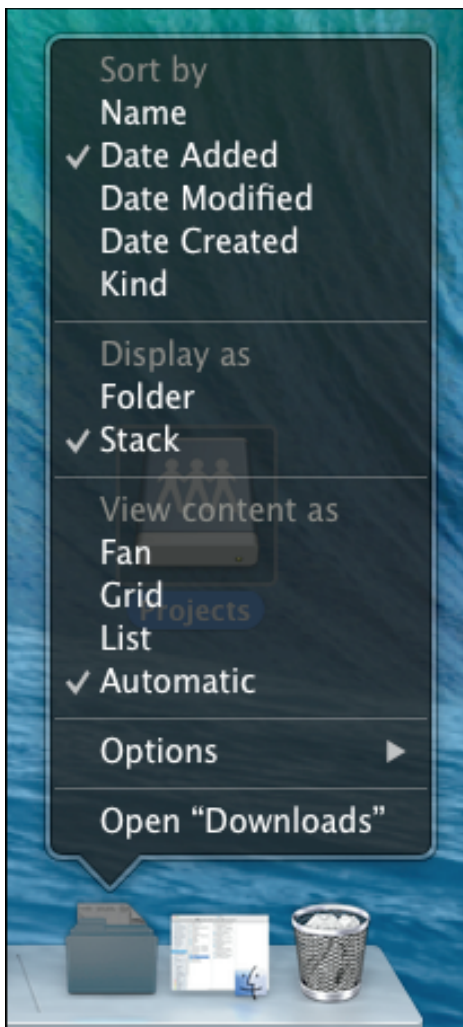
Stack icons sometimes take on the icon of the most recent file that has been placed into them. For example, if you last downloaded a disk image file, the Downloads stack icon is the one for a disk image. When you place an image into your Pictures folder and have that folder installed on your Dock, its icon is a thumbnail of the last image you placed in it.

When you click a stack icon, its contents fan onto the Desktop if there are only a few of them, or open into a grid if there are many. You can access an item on the fan or grid by clicking it. You can open the folder's contents in a Finder window by clicking Open in Finder.

To configure how an individual stack's icon behaves by using its contextual menu, right-click the stack icon to reveal its menu, as shown in Figure 1.7.

The following options are included in the menu:

- **Sort By.** Choose the attribute by which you want the items in the stack to be sorted. For example, choose Date Added to have the most recently added content appear at the bottom of the fan (if the stack is set to fan, of course).
- **Display As.** Choose Stack to have the icon look like a stack, or choose Folder to replace the stack icon with the folder's icon. The only difference is that when you select Folder, you always see the folder's icon on the Dock, as opposed to the icon of the most recently added item, which is what you see when Stack is selected.



1.7 Stacks have several configuration options.



Note

All Dock settings are specific to each user account; see Chapter 2 for more information. One user's Dock settings do not affect another's.

- **View Content As.** Choose Fan to see the default fan layout for the stack (until it contains too many items, at which point it uses the grid instead). Select Grid to have the folder's contents always appear in a grid. Select List to always display the contents in a columnar

list; this is useful for folders that contain subfolders because you can select a subfolder to open its contents. Select Automatic to have OS X select the most appropriate view based on the folder's contents.

- **Options.** Choose Remove from Dock to remove the icon from the Dock. Choose Show in Finder to open a Finder window showing the folder's contents.
- **Open.** Choose this command to open the folder on the Desktop.

Changing the Dock's appearance and behavior

The Dock offers several behaviors that you can change to suit your preferences. These steps walk you through how to change various aspects of the Dock's appearance:

1. **Open the Dock system preference.**
2. **Drag the Size slider to the right to make the default Dock larger, or drag it to the left to make it smaller.** Note that the Dock doesn't grow any larger when it's completely full of icons, even if the slider isn't all the way to the right.



Note

When your MacBook Pro is connected to one or more external displays, the Dock in OS X Mavericks automatically appears on the active display, meaning the one where the pointer is. In previous OS X versions, the Dock appeared only on the primary display, which you could change in the Displays system preference's Displays pane.

3. **Select the Magnification check box if you want to magnify an area of the Dock when you point to it.** Drag the Magnification slider to the right to increase the level of magnification or to the left to decrease it. This can make identifying items easier, especially if many items are on the Dock or when it is small.
4. **Select the position of the Dock on the Desktop by clicking Left, Bottom (the default), or Right.**
5. **From the Minimize Windows Using pop-up menu, choose Genie Effect to pull windows down to the Dock in a swoop when you minimize them, or choose Scale Effect to shrink them straight down into the Dock.**
6. **If you want to be able to minimize a window by double-clicking its title bar, select the Double-Click a Window's Title Bar to Minimize check box.**
7. **If you prefer windows that you minimize to move onto the related application's icon instead of to a separate icon on the right side of the dividing line, select the Minimize Windows into Application Icon check box.** With this setting enabled, you

must open the application icon's menu and select a minimized window to reopen it from the Dock, or switch back to the application and use its Window menu to choose the minimized window (unless the minimized window is also the application's active window, in which case you move into it directly).

8. **By default, application icons bounce as the application opens.** If you don't want this to happen, deselect the Animate Opening Applications check box.
9. **If you want the Dock to be hidden automatically when you aren't pointing to it, select the Automatically Hide and Show the Dock check box.** If you set the Dock so that it is hidden except when you hover the pointer at the bottom of the screen, you can use more of your display.
10. **To show the glowing dot icon under running applications, select the Show Indicator Lights for Open Applications check box.** These lights are useful because they help you more easily identify open applications when you glance at the Dock, even hidden ones.



Note

You can turn Dock Hiding on or off at any time by pressing Option+⌘+D.

Using the Launchpad

If you've used an iPhone, iPod touch, or iPad, you already know how to use the Launchpad on the Mac because it works in exactly the same manner as the Home pages on those devices. If you like the iOS style of accessing apps, the Launchpad provides one-click access to all your applications and utilities, and you can organize the Launchpad to make it work efficiently for you.



Note

One difference between the Home pages on Apple mobile devices and the Launchpad is that only application icons can be stored on the Launchpad, whereas on an iPhone, iPod touch, or iPad, you can also store web page icons.

Click the Launchpad icon on the Dock (it is located just to the right of the Finder icon by default) or perform a three-finger pinch (three fingers pinched against your thumb) on the trackpad. This preference is enabled by default in the Trackpad system preference. The Launchpad then fills the Desktop, and you see icons on the current page, as shown in Figure 1.8. To move to a different page, drag two fingers on the trackpad to the left or to the right. As you drag, the page flips to the next or previous page. You can also search for an app by entering all or part of its name in the Search field at the top of the Launchpad.



1.8 The Launchpad provides easy access to all your applications.



Note

You'll notice that the Dock remains visible if it isn't hidden, or it becomes visible if it is hidden when the Launchpad is open. You can also use the Application Switcher while the Launchpad is displayed.

To open an application, click its icon. The Launchpad closes and switches to that application. Click a folder in the Launchpad to access the applications stored in it. The folder then expands, and you see the icons it contains, as shown in Figure 1.9.

To close the Launchpad without opening an application, click it (but not an application's icon), perform a three-finger expand gesture on the trackpad, or press Esc.



Note

The Launchpad is actually an application. Therefore, you can add its icon to the Sidebar, open it by double-clicking its icon in the Application folder, and so on.



1.9 To access an app stored in a folder, click the folder's icon and then click the application's icon.

You can organize the icons on your Launchpad to make accessing them easier and faster. To change the location of icons on the Launchpad, open it and drag the icon you want to move to the desired location. You can change its location on the current page, or you can drag it off the screen to the left or right to move it to another page (you have to linger at the edge of the screen until the page changes). As you move one icon between others, they shift to make room for the one you are moving. When the icon is over the location you want, release it.

To create a new folder, drag one icon on top of another. Launchpad creates a new folder and tries to name it according to the type of applications you place together. The folder opens, and you see the icons stored there. To change the folder name, select it. When it is highlighted, type its new name.

You can place icons into existing folders by dragging them on top of the folder in which you want to place them. You can also reorganize icons within folders by dragging them around when the folder is open. To remove an icon from a folder, drag it outside of the folder window until the folder closes. To delete a folder, drag all its icons outside of it; when you remove the second to last icon, the folder disappears (folders can't contain just one icon).

You can remove applications purchased from the Mac App Store by clicking and holding an icon. After a moment, the icons begin to jiggle and the Remove button (X) appears. Click the Remove button, and then click Delete at the prompt. Removing an application from the Launchpad also deletes it from your MacBook Pro, so make sure you really don't want it before completing this action. To return the Launchpad to normal without deleting an application, click outside of any application icon.



Note

To remove applications that you didn't download from the App Store, run the application's uninstaller or drag it to the Trash, and then empty it.

Managing Your Desktop's Windows

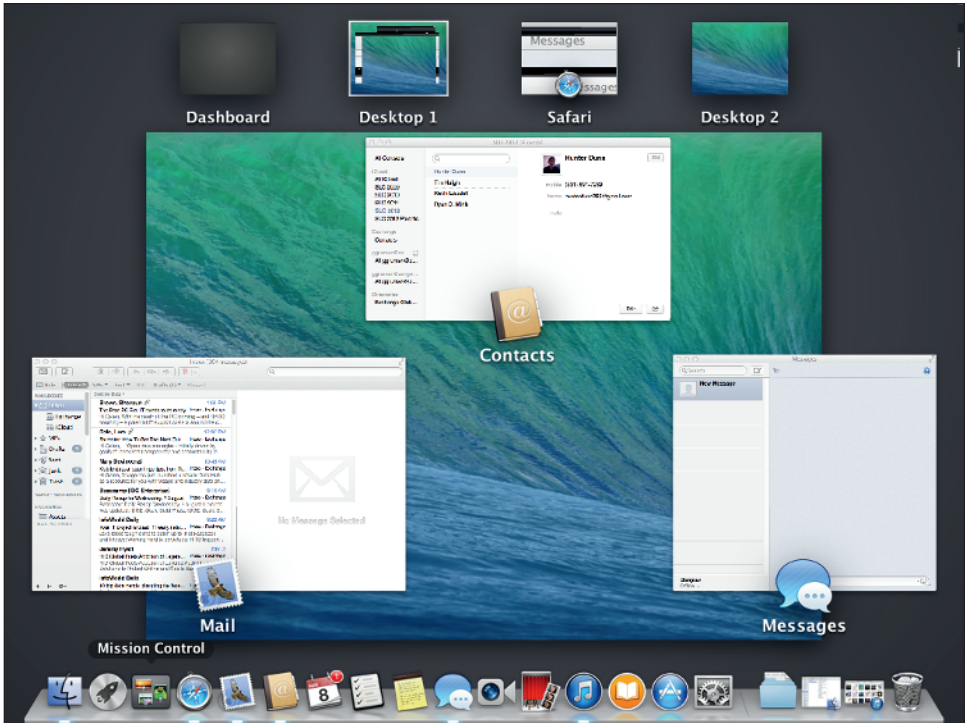
OS X gives you a few ways to manage your Desktop's windows. As explained earlier, you can use the App Exposé feature in the Dock to display the windows for a running application, and you can use the Application Switcher to move among open applications. But those are methods to move among running applications and their windows, not to manage the Desktop itself.

OS X provides two basic methods for managing Desktop windows: the Show/Hide feature available to each application and the Mission Control application.

You can make all applications except the one you're running disappear from the Desktop by choosing Hide Others from their application menu or pressing Option+⌘+H. For example, in Mail, choose Mail ⇨ Hide Others. (They're still running, as you can see in the Dock or the Application Switcher.) You can also hide the current application by choosing Hide in the application menu (such as Word ⇨ Hide) or pressing ⌘+H. To restore all hidden applications, choose Show All in the application menu (such as iTunes ⇨ Show All).

Mission Control offers more complex controls, such as letting you create multiple Desktops (also called *spaces*) that you then run applications in. That way, you could have all the applications for a specific project running in one Desktop and your basic applications like Safari and Mail running in another. You then switch Desktops to see just those application groups. (You can access any application at any time via the Dock or Application Switcher, no matter what Desktop they are assigned to.)

To open the Mission Control view, click its icon on the Dock or swipe four fingers up the trackpad (the default gesture; see Chapter 5 for more information) or press Control+up arrow (the default shortcut, which you can change in the Mission Control system preference). You then see the thumbnails for the following items at the top of the screen, as shown in Figure 1.10:



1.10 Mission Control shows all the open windows on your Desktops.

- Dashboard, the little-used application that lets you run widgets.
- Your spaces, named as Desktop X (where X is a sequential number).
- Applications that are open in full-screen mode (here, Safari).

In the center part of the window, you see all the applications running in the current Desktop, as well as their open windows. The application's icon and name accompany its windows. The Dock appears in its default location, and you can use it just as you would when working outside of Mission Control. At top are the Desktops, or spaces, you've created, as well as any applications running in full-screen mode (here, Safari).

Managing windows on the Desktop

As you work on documents, move to websites, check your e-mail, choose tunes to listen to, and all the other things you do on your MacBook Pro, you can accumulate lots of open windows on your Desktop. This makes it easy to multitask so you don't have to stop one activity to start another. The downside, though, is that it's easy to lose track of where the specific window you want is located, or you might have a hard time getting back to the Desktop.

Mission Control helps you manage screen clutter from open windows with these three modes:

- Show Desktop
- Show the active application's windows
- Show all windows on the current Desktop, all Desktops, the Dashboard, and full-screen apps

Each mode has a specific use, and you access them in slightly different ways. The Mission Control application doesn't need to be running for the first two modes, just the third.

Showing the Desktop

Showing the Desktop is useful when the Desktop on which you are working is so cluttered with application windows that you have a hard time finding anything. To clear away all your windows in one sweep, press the keyboard shortcut **Fn+F11** (you can change this default in the Mission Control system preference). Now you can access the icons of folders, files, and drives on the Desktop without distraction. Your applications are still running, and you will see the edges of their windows pushed to the four sides of the Desktop. Press the shortcut again to see the normal Desktop with all open windows.

Showing the active application window

When you are working with multiple windows in the same application, it can be tough to get back to a specific window if you can't see all them at the same time. Press the keyboard shortcut (**Control+down arrow**, by default) or swipe down with four fingers (the default gesture) to see all open windows for the current application, as shown in Figure 1.11. Yes, this is the App Exposé view covered earlier that is also available from the Dock.

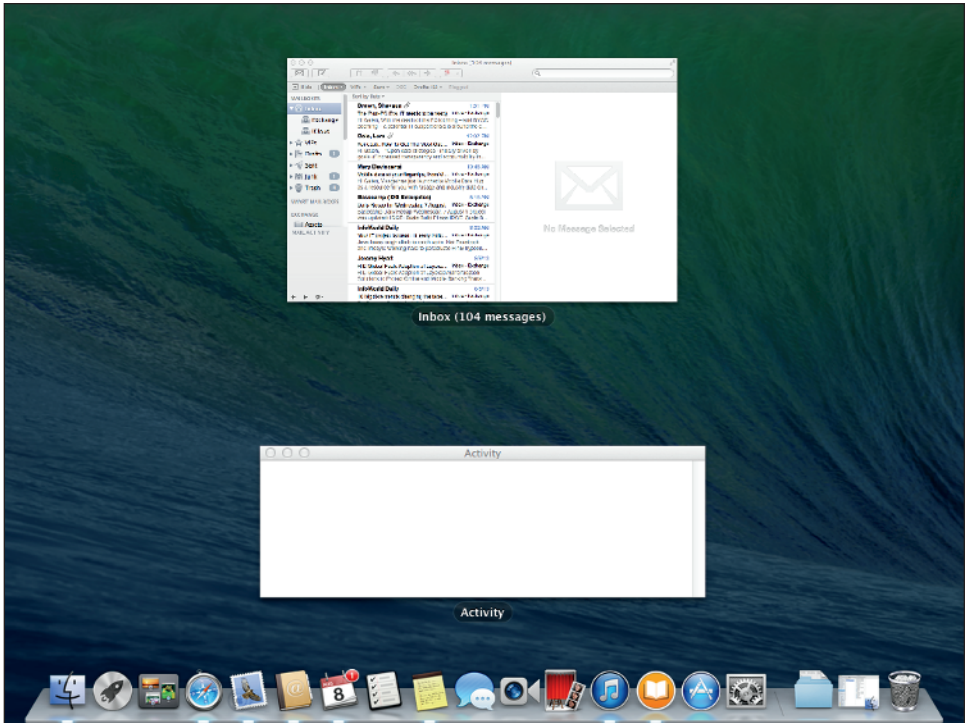
At the top of the screen, you see the windows that are currently open on the Desktop. Below these, you see any windows that are hidden or those that you worked with previously that are now closed (such as documents you have edited).

To switch to a window, click it; it is highlighted in blue when you hover the pointer over it. The window becomes active (if it is for a closed document, the document opens) and moves to the front so that you can use it. The rest of the open application windows then move to their previous positions.



Genius

When you have all the windows for an application showing, press **Tab** to quickly move through them. You can also use **⌘+Tab** to open the Application Switcher bar, which shows all open applications, and then keeping holding **⌘** as you press **Tab** to move to the application on which you want to focus. When you release the **⌘** key, the windows for the selected application appear.



1.11 When you have many windows open in an application, Mission Control makes it easy to move into a specific one.

Showing all windows

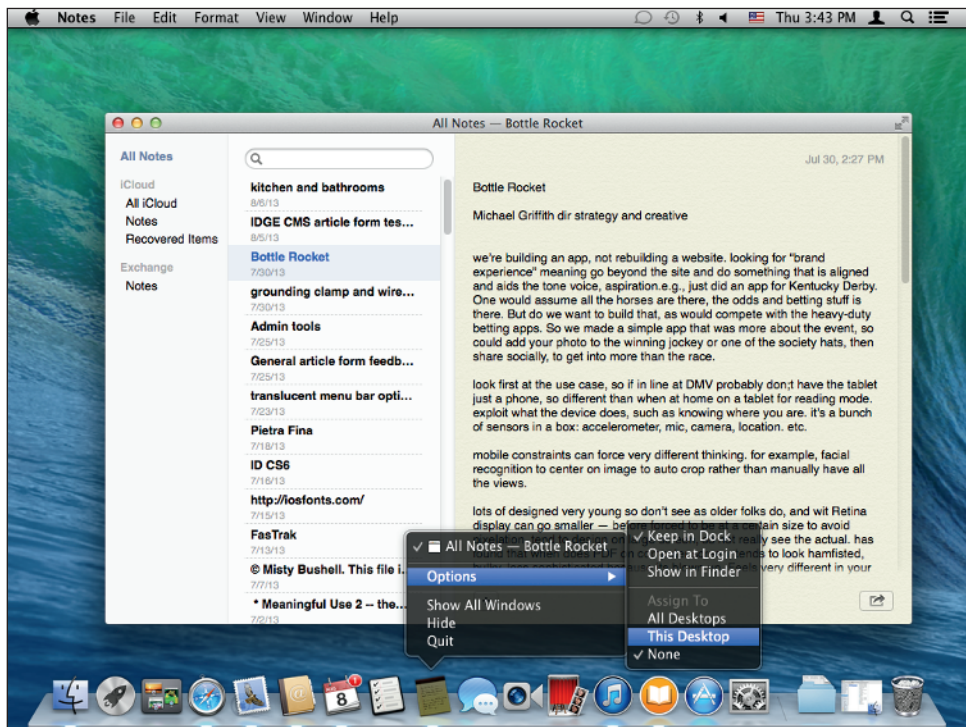
In this mode, you see Mission Control, as previously shown in Figure 1.10, which shows your Desktops, applications running in full-screen mode, and the windows open in the active Desktop. Click a window to switch to it, or click a Desktop to switch to it, if you have multiple Desktops.

Using multiple Desktops

As you use your MacBook Pro, it's likely that you'll develop sets of tasks that you work on at the same time. For example, you might use Word to create text and Photoshop to create the images for a book. These kinds of activities invariably involve lots of windows. Although you can use Mission Control to manage all the open windows for an application, it's not very efficient because you can focus only on one window at a time, so it can still take some work to get to the windows you want to use.

But you can use Mission Control to create collections of applications and their windows on separate Desktops, also called *spaces*. This way, you can jump between sets easily and quickly. For example, if you use several Internet applications, you can create an Internet Desktop specifically for those, such as an e-mail application and web browser. To use your Internet applications, just open that Desktop and the windows are all in the positions you last left them. You might have another Desktop that contains Contacts and Calendar. You can then use these applications by switching to their Desktop. Multiple Desktops make moving to and using different sets of windows fast and easy. They also improve the efficiency with which you work.

To create a Desktop, hover the pointer over the upper right of the Mission Control view. When a large + icon (the Add Space button) appears, click it. Now drag any desired applications in the main Mission Control view to that Desktop to move them there. When not in Mission Control view, you can assign applications to the currently open Desktop by right-clicking the application icon in the Dock and choosing Options ⇨ This Desktop, as Figure 1.12 shows. To assign an application to all Desktops (that is, for applications you want easily available no matter what Desktop is open), choose Options ⇨ All Desktops instead.



1.12 Assign an application to the current Desktop or to all Desktops using the Dock's contextual menu.

To unassign an application from a Desktop, display that Desktop, right-click the application icon in the Dock, and choose Options ⇨ This Desktop so the check mark beside that option disappears. To unassign an application from all Desktops, choose Options ⇨ None. Note that unassigning does not quit the application; it prevents the application and its windows from automatically opening in a specific Desktop the next time you run it.

A quick way to change Desktops—without needing to be in Mission Control view—is to swipe three or four fingers (depending on your trackpad’s settings) to the left on the trackpad to move to a later space, or swipe to the right to move into a previous space. When you stop on a space, it becomes active and the windows open in it appear the same as they were the last time you used that Desktop.

**Note**

The gestures or keyboard combinations you use to work with Mission Control depend on the preferences you set using the Trackpad and Mission Control system preferences.

When there are too many Desktops and full-screen applications for the names of each to be displayed, point to a Desktop or application; it is magnified and its name appears.

**Note**

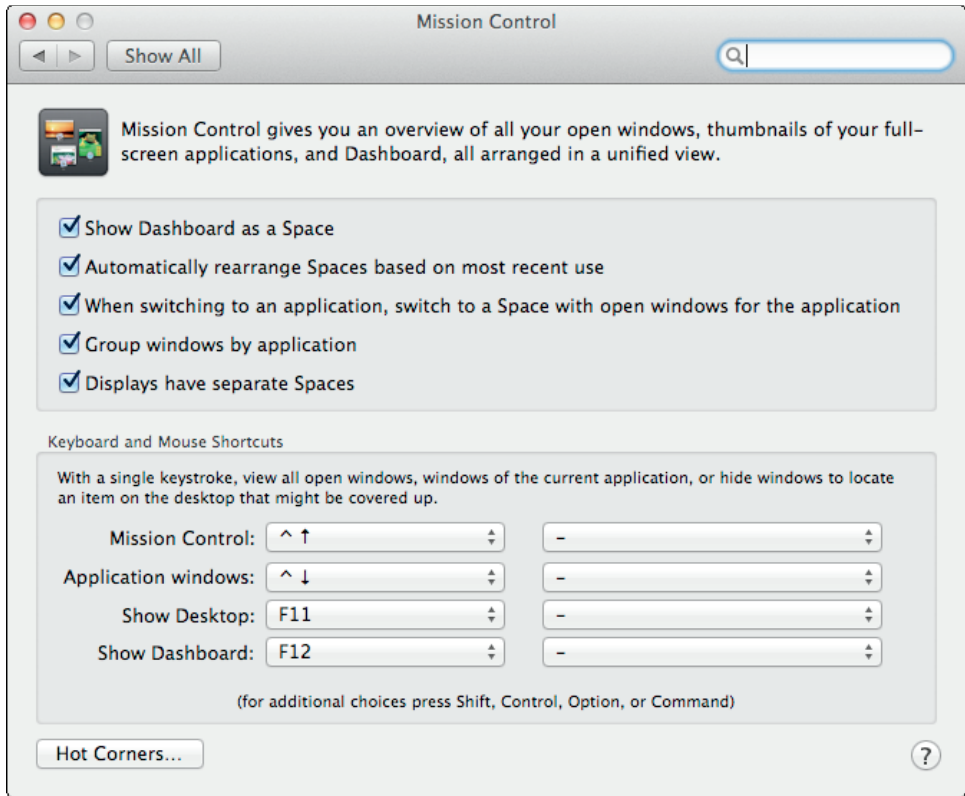
You can reorganize your Desktops by dragging their icons at the top of the Mission Control view.

To close Mission Control without changing spaces or windows, swipe four fingers down the trackpad or press Esc.

Configuring Mission Control

Now that you have a good understanding of Mission Control, you can configure it by setting your Mission Control preferences:

1. **Open the Mission Control system preference, shown in Figure 1.13.**
2. **Deselect the Show Dashboard as a Space check box if you don’t want the Dashboard to be accessible in Mission Control view.**
3. **If you don’t want Mission Control to automatically rearrange spaces based on the ones you’ve used most recently, deselect the Automatically Rearrange Spaces Based on Most Recent Use check box.**



1.13 Configure Mission Control preferences to tweak how its features work.

4. **Deselect the When Switching to an Application, Switch to a Space with Open Windows for the Application check box if you don't prefer that.** If you select this option, when you switch applications, you also move into the Desktop in which the switched-to application has windows open.
5. **Deselect the Group Windows by Application check box if you don't want windows to appear on the Desktop clustered based on their application.** Deselecting this option makes it harder to tell what application will open when you click a window.
6. **If you don't want each monitor attached to your MacBook Pro to display as its own Desktop, deselect the Displays Have Separate Spaces option.** OS X Mavericks introduced this option. If selected, each monitor is automatically its own Desktop, so you can't have Desktops that go across multiple monitors. Deselecting this option makes Desktops display across all monitors, as if they formed one very large monitor. (I explain how to set up multiple monitors later in this chapter.)

7. **In the Keyboard and Mouse Shortcuts section, configure the keyboard shortcuts and mouse clicks to activate Mission Control, activate application windows (App Exposé), and show the Desktop and Dashboard.** Use the menus on the left to set key combinations and the menus on the right to set mouse-clicks. If you use function keys such as F10, you must hold down Fn for them to work; without holding Fn, these function keys control aspects of the MacBook Pro's hardware, such as sound volume and screen brightness, as the labels on the MacBook Pro's keys show. To use modifier keys with a function key, such as Option, hold down the modifier keys while selecting from the menu. Using modifier keys with function keys usually means you don't have to hold Fn. For example, if you hold down Option, the menus show ⌘ F1 through ⌘ F16; if you hold down Control and ⌘ , the menus show ⌘ F1 through ⌘ F16.
8. **Click the Hot Corners button to open the Hot Corners sheet.** Use this sheet to set an action to occur when you point to that corner of the screen. For example, if you want the Launchpad to open when you move the pointer to the upper-right corner of the screen, select Launchpad on the menu in that location.

Using Applications in Full-Screen Mode

Many applications, such as Safari, Mail, iMovie, Aperture, and even the Finder, really benefit from all the Desktop room they can get to work more efficiently. That's why OS X lets applications appear in full-screen mode. In this mode, the application takes over the entire screen and its menu bars are hidden, as shown in Figure 1.14.



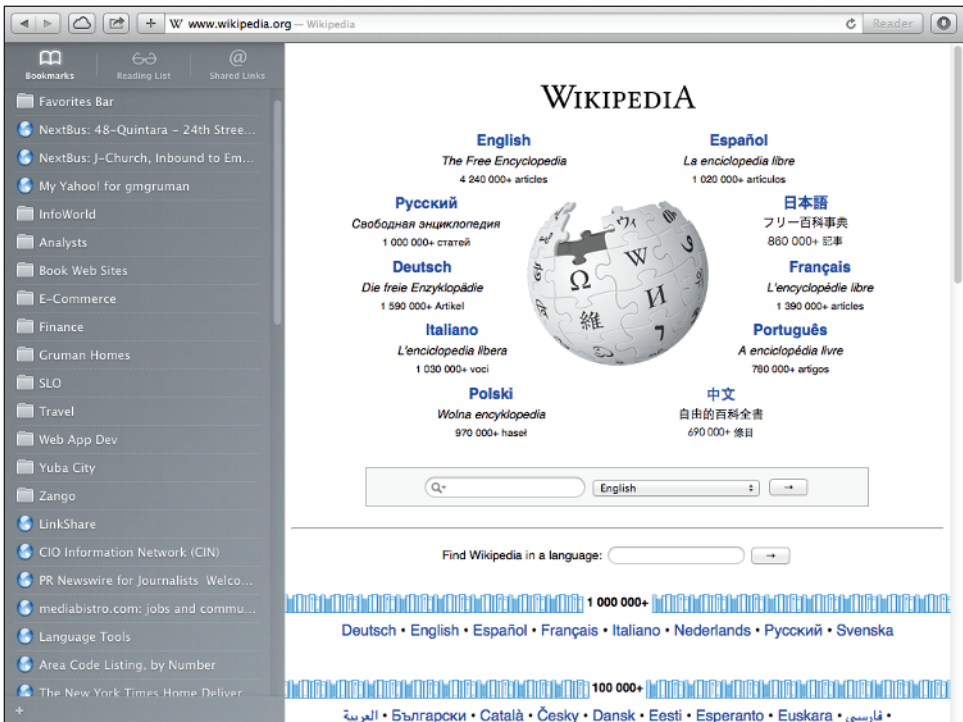
Note

Developers must enable full-screen mode in their applications, so it's not available for all software. You can tell if an application supports full-screen mode because it has an icon of two opposing arrows in the upper right of its window.

Explore full-screen mode in applications that you use frequently to see if it helps you use them more efficiently. These pointers may help you:

- **Activate full-screen mode.** Choose View ⇨ Enter Full Screen, or press Control+ ⌘ +F. The application's current window fills the screen and the menu bars are hidden.
- **Reveal the menu bars.** Hover the pointer at the top of the screen. After a few seconds, the menu bars appear and you can access them just as you do when you aren't working in full-screen mode.

- **As covered earlier in this chapter, applications running in full-screen mode appear as spaces in Mission Control view.**
- **Exit full-screen mode.** Choose View ⇨ Exit Full Screen, or press Control+⌘+F.



1.14 Using an application in full-screen mode gives it the most screen real estate possible.

Configuring Notifications

Many applications use notifications to communicate information to you. For example, Mail notifies you when you receive new messages, Calendar alerts you to upcoming events, Reminders reminds you about various things, and so on. The OS X Notification Center provides a central point of control for, and configuration of, the notifications with which you work.

Working with the Notification Center

To view the collection of notifications you have received, click the Notification Center menu located on the right end of the menu bar. The Notification Center pane appears, as shown in Figure 1.15. Notifications are grouped by the application from which they come. You can scroll the

list to see all the notifications you have received. The order in which the groups are shown is determined by a preference setting (covered later in this chapter). When this is set to **Manually**, you can drag sections up or down the list.



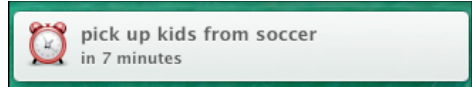
1.15 The Notification Center provides a one-stop shop for the information that various applications are managing for you.

To see the details of a notification, click it. You then move into the related application and can work with the information. For example, if you click an e-mail notification, you are switched to Mail and can read the full message.

Of course, you don't have to open the Notification Center to see notifications. OS X provides several other ways to see notifications:

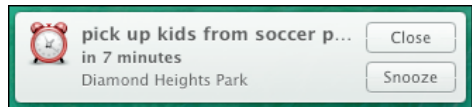
- **Badges.** These are counters that appear on an application's icon to let you know how many of something you have, such as e-mail messages, texts, updates for applications, and so on.
- **Banners.** These are small messages that appear in the upper-right corner of the screen, as shown in Figure 1.16, when something happens, such as when you receive a message.

Banners contain the icon of the app from which they come, and they can also show you a preview. They are nice because they don't interfere with what you are doing. If you ignore a banner, it disappears after a few seconds. If you click it, you move into the application that produced the banner. If you receive a new banner while a previous one is still visible on the screen, the second one displaces the first so that the latest one is displayed.



1.16 Banners are good because they don't require any action on your part.

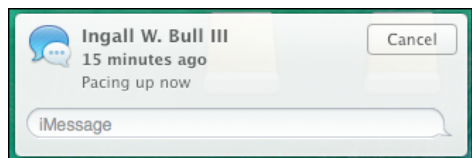
● **Alerts.** This is another means that applications use to communicate with you. There are alerts for many types of events, such as texts, reminders, missed call notifications, and so on. The main difference between a banner and an alert is that alerts remain on the screen until you take some action, such as clicking Close or Snooze to dismiss an alert for an event, as shown in Figure 1.17.



1.17 Alerts require action to get rid of them.

● **Sounds.** These are audible indicators that something has happened. For example, when something happens in the Game Center, you can be notified via a sound.

OS X Mavericks lets you respond to some notifications without opening their applications, as Figure 1.18 shows. If you hover on the right side of their banners, you'll see buttons for actions such as Reply that you can take immediately from the notification itself. Examples include Mail and Messages.



1.18 Some banners let you reply to notifications without opening their associated application. In these cases, a window opens, such as the one for Messages here, to let you enter your reply.

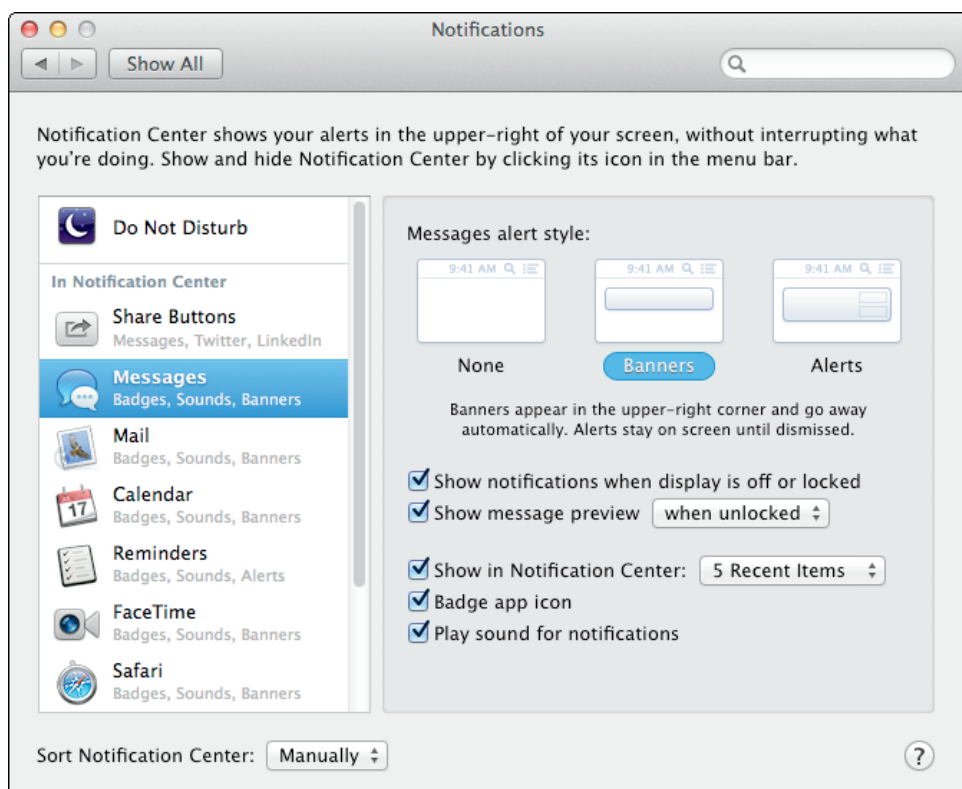
You can also initiate social media posts to your Twitter, Facebook, and/or LinkedIn accounts from the Notification Center. Open it, scroll up to the top, and click the button for the desired service. (They must be configured in the Internet Accounts system preference, which was called Mail, Contacts, & Calendars before OS X Mavericks.)

You can also turn off notifications at the top of the Notification Center, such as when giving a presentation or simply when you want to work undisturbed. Use the Do Not Disturb switch (refer to Figure 1.19) to control whether notifications appear (it was called Show Alerts & Banners before OS X Mavericks).

As covered later in this chapter, you can enable or disable notifications, and configure them for specific applications. Applications also send individual notifications to the Desktop, such as when Calendar sends an alert about an event. The following sections explain several options you can configure for these notifications.

Configuring Notifications's display

You can configure your notifications on the Notifications system preference, shown in Figure 1.19. The applications for which you can configure notifications are shown in the list on the left side of the window. When you select an application, its notification options are shown in the right side of the window. You can configure each application's options individually.



1.19 The Notifications system preference lets you configure how applications notify you.

These are some highlights and suggestions about configuring notifications:

- **Use the alert style buttons to configure the type of notifications the application uses.** The options are None, Banners, and Alerts.

- **Use the Show in Notification Center check box and menu to determine if the application's notifications are shown in the Notification Center, and if so, how many are shown.** If this is not selected, notifications from the application do not appear in the Notification Center.
- **If you want the notifications to display on the login screen, such as when the MacBook Pro has locked the screen due to non-use (as set in the Security & Privacy system preference) or when you've logged out of an account, select the Show Notifications When Display Is Off or Locked check box.** This feature is new to OS X Mavericks. A related feature available for some applications, such as Mail and Messages, is the Show Message Preview check box. Select it to display part of the message in the banner. Use its adjacent menu to determine whether those previews display always or only when the MacBook Pro's screen is not locked.
- **If you want the application's icon on the Dock (or elsewhere) to display a badge when you have new information, such as new messages, select the Badge App Icon check box.**
- **To disable the sound associated with an application's notifications, deselect the Play Sound for Notifications check box.**
- **Use the Sort Notification Center menu to determine how applications are listed in the Notification Center pane.** Choose By Time if you want the most recent information to appear toward the top of the pane, or Manually if you want to manually configure the order by dragging application sections up or down the pane.

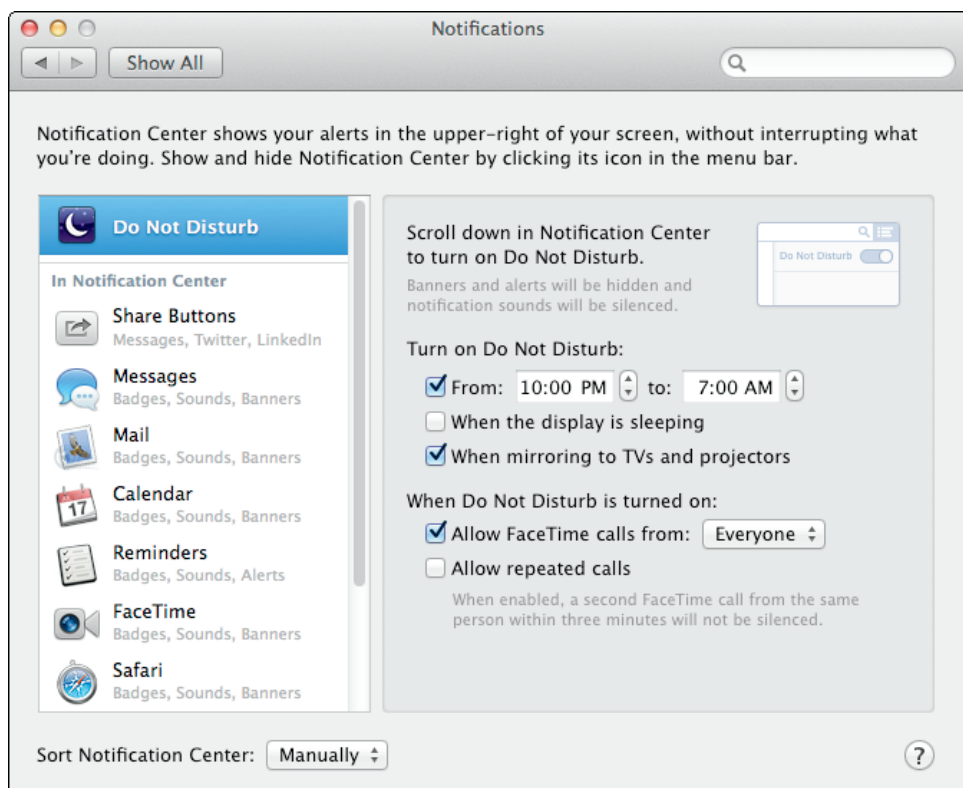
To disable alerts and banners, scroll to the top of the Notification Center and set the Do Not Disturb switch to the On position. All alerts and banners are suppressed until you set the switch to the Off position again.

As Figure 1.20 shows, you can also set a regular time for when Do Not Disturb is automatically engaged, such as overnight, and control whether Do Not Disturb activates automatically when the MacBook Pro is asleep (so messages aren't visible on a MacBook in a public location when you've stepped away) or when you are connected to an Apple TV (so you don't disturb your movie or presentation). These controls are new in OS X Mavericks.

Additional controls over Do Not Disturb new to OS X Mavericks are the two When Do Not Disturb Is Turned On options: Allow FaceTime Calls From and Allow Repeated Calls. If selected, Allow FaceTime Calls From tells the MacBook Pro to ring through FaceTime calls from either everyone or

just the people you've marked as Favorites in FaceTime, based on what option you choose in the adjacent menu. If selected, Allow Repeated Calls lets a person try to call you multiple times via FaceTime; otherwise, only the first call rings through, and the others are ignored under the assumption you would have picked up the first time if you were available. It is meant to reduce the annoyance of those who keep calling and calling when they don't get a response.

Finally, the Share Buttons option in the list at the left of the Notifications system preference is how you control whether the buttons to initiate social posts appear at the top of the Notification Center. Click Share Buttons, and then select or deselect, as desired, the Show Share Buttons in Notification Center check box in the right side of the Notifications system preference.



1.20 You can schedule when the MacBook Pro enters Do Not Disturb mode in the Notifications system preference.

Working with Monitors

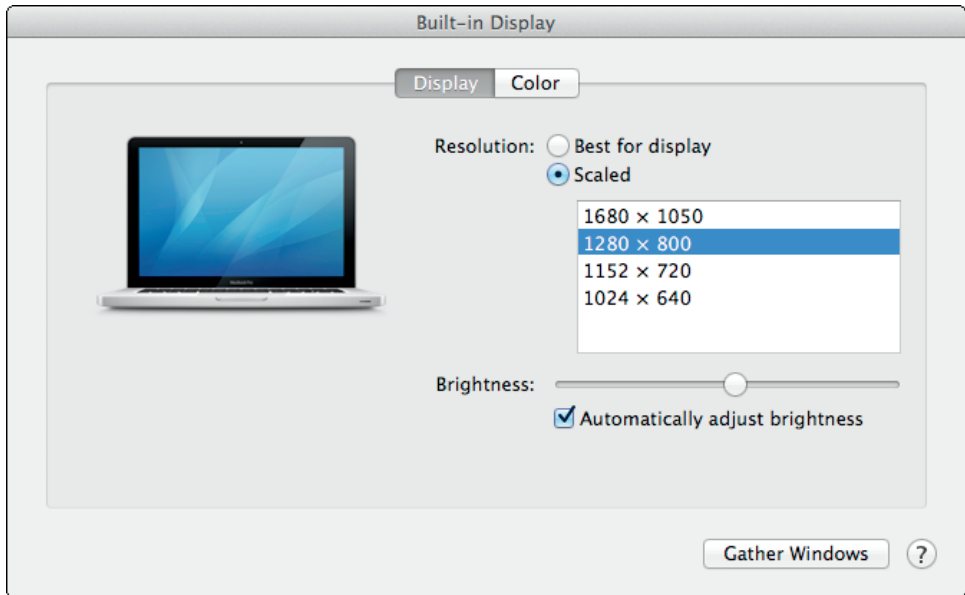
Current MacBook Pros have 13- or 15-inch LCD screens. No matter which display size you have, more is always better. Fortunately, you can maximize the amount of information you see on your MacBook Pro's screen by configuring its display. For even more working room, you can attach and use an external monitor, or you can broadcast your MacBook's output to an Apple TV using AirPlay. For the ultimate in Desktop space, you can connect your MacBook Pro to a projector. When you use an external monitor or projector, you can display the same image on the MacBook Pro and the external device, or you can expand your Desktop over both monitors. You can also configure the Desktop picture on your monitors to make your MacBook Pro's appearance more interesting.

Configuring the MacBook Pro's LCD screen

Although the physical size of the MacBook Pro's LCD screen is fixed, the amount of information that can be displayed on it (its *resolution*) is not. Setting the appropriate resolution is a matter of choosing the largest that you can view comfortably with no eyestrain. There are standard resolutions you can use, but which of these is available to you depends on the specific MacBook Pro you are using. For example, the 13-inch model has a different set of resolutions than the 15-inch model. Likewise, models with Retina screens support yet a different set of options. Follow these steps to find your maximum resolution:

- 1. Open the Displays system preference.** As shown in Figure 1.21, the name shown at the top of the pane matches the monitor it configures.
- 2. Go to the Display pane if it's not already visible.**
- 3. To use the resolution that is optimal for the built-in LCD screen, select Best for Display and skip to Step 6.** The screen's resolution is set to what Apple considers optimal for its size.
- 4. To manually select a resolution, select Scaled.** In the Resolutions section, you see all the resolutions supported by your MacBook Pro's screen. Resolutions are shown as the number of horizontal pixels by the number of vertical pixels, such as 1280 × 800. Larger values have a higher resolution. Some resolutions are stretched so they fill the screen; the MacBook Pro has a widescreen format display.
- 5. Select a resolution.** The screen updates to the resolution you selected.
- 6. Drag the Brightness slider to the right to make the screen brighter, or drag it to the left to make it dimmer.** Or select the Automatically Adjust Brightness check box to let OS X adjust the screen for you based on the surrounding lighting; it uses the MacBook Pro's camera to determine that lighting.

7. Hide the System Preferences application by pressing **⌘+H**.
8. Open several windows on the Desktop.



1.21 Use the Displays pane to maximize the amount of room you have on your Desktop, while still being comfortable for you to view.



Note

MacBook Pros with Retina screens don't support resolutions in the same way as those without them. On MacBook Pro with Retina screens, you can choose the Scaled option, but instead of selecting an actual resolution, you choose different scales. They look like different resolutions because the text and images change relative size the same as they do when you change the resolution.

9. If you can see the information on the screen comfortably, switch to the System Preferences application (such as from the Dock) and select a higher resolution.
10. Repeat Steps 7 through 9 until you reach the maximum resolution or until the text is too small to comfortably read. Set the resolution to the highest that was comfortable to read.
11. Close the Displays system preference when done.

Connecting and configuring an external monitor with a cable

Another way to add more screen space to your MacBook Pro is to connect an external monitor. This lets you add more screen real estate without shrinking the display, so you don't risk text getting too small to read. Plus, when you use multiple monitors, you can treat each one as a separate Desktop, making it easy to put, for example, photo-editing applications on a large external monitor where the extra size really matters while keeping your e-mail on the MacBook Pro's smaller screen.

You can use an external monitor in two ways: as an extension of your Desktop so you can open additional windows on it, or as *video mirroring*, which means the same information appears on all monitors.

When choosing an external monitor, the two most important considerations are size and cost. Larger monitors are better because they give you more working space. However, they tend to be more expensive, depending on the brand you choose. In most cases, if you choose the largest display you can afford from a reputable manufacturer, such as Apple, ViewSonic, or Samsung, you'll be in good shape.

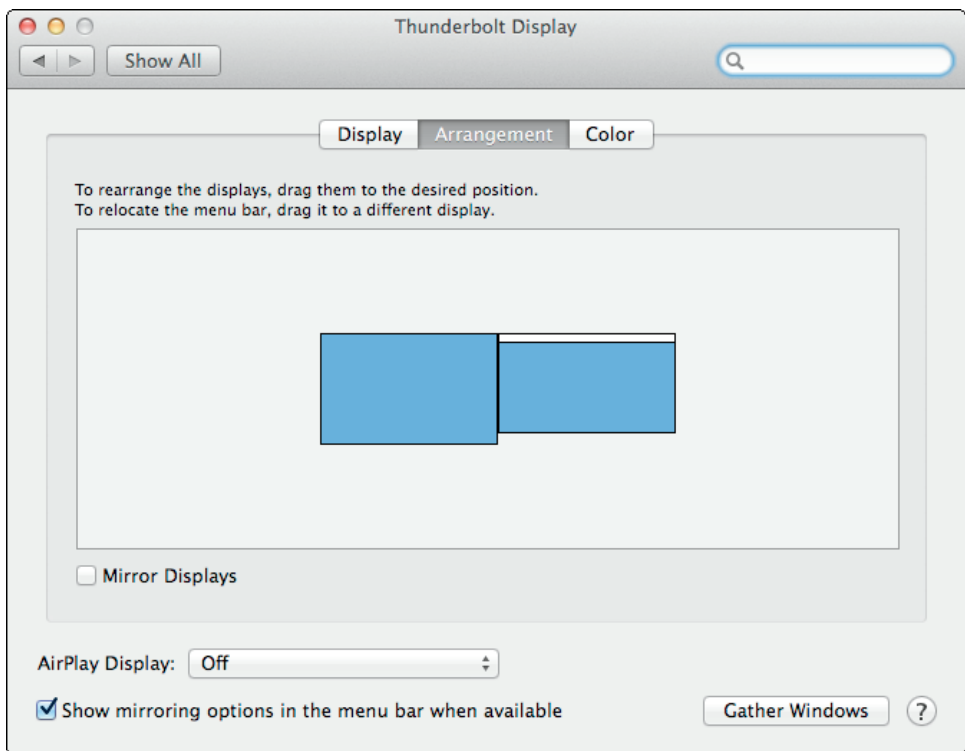
To add an external monitor, connect it to the MacBook Pro's Thunderbolt port. To do this, you need a MiniDisplayPort-to-DVI adapter that converts the Thunderbolt connection to the standard DVI connector used on most modern displays. You can also use a MiniDisplayPort-to-VGA adapter to use your MacBook Pro with older displays or a MiniDisplayPort-to-HDMI adapter to connect to a TV or monitor that uses that TV-standard connector. Also, some MacBook Pro models, such as those with Retina displays, come with an HDMI port, so no adapter is needed.

Follow these steps to attach an external monitor to a MacBook Pro:

- 1. Connect one end of the display's video cable to the MiniDisplayPort adapter and the other end to the DVI, VGA, or HDMI port on the monitor, depending on the kind of adapter you have.**
- 2. Plug the MiniDisplayPort adapter into the Thunderbolt port.**
- 3. Connect the display to a power source.**
- 4. Power up the display.**

After an external display is connected to your MacBook Pro, follow these steps to configure it:

1. **Open the Displays system preference.** The Displays system preference opens on both the MacBook Pro's screen and the external monitor. The name of the pane on the MacBook Pro's screen is Built-in Display (it was named Color LCD before OS X Mavericks). The name of the pane on the external monitor is the name of that monitor. Also, notice that the Displays system preference on the primary display (by default, the MacBook Pro's screen) contains the Arrangement pane.
2. **Go to the Arrangement pane, shown in Figure 1.22, on the Displays system preference on the MacBook Pro's screen.** You see an icon representation of each display. The display marked with the menu bar at the top is the primary display, meaning where the menu bar and Dock appear by default.



1.22 The MacBook Pro's screen is on the right (with the menu bar at the top, indicating that it is the primary display), while the external monitor is on the left.

- 3. Drag the external monitor's thumbnail to where you want it relative to the MacBook Pro's screen.** Typically, this should match the physical location of the monitor compared to the MacBook Pro, such as to its side. But you can arrange the external monitor above, below, and to the side of the MacBook Pro. To move the pointer from one monitor, you must go through where they touch in the Arrangement pane. For example, if the external monitor is to the left of the MacBook Pro's screen in the Arrangements pane, you must move the pointer past the left edge of the MacBook's screen for it to move on to the external monitor's screen, and you must reverse that motion to get back to the MacBook's screen.
- 4. If you want the external display to be the primary one, drag the menu bar from the MacBook Pro's screen thumbnail onto that of the external monitor.** When you release the trackpad button, the menu bar jumps to the external display.
- 5. Go to the Displays system preference for the external monitor.** You can move the mouse to its monitor to get to it, or you can click Gather Windows to move the Displays system preference to the current monitor.
- 6. To change the resolution, click Scaled and then select the desired resolution for the external monitor from the list of those available.** If the resolutions are significantly different between the two displays, you see a big change in appearance when you move a window between them. You may have to resize a window on one display that was the right size on the other.
- 7. If the Refresh rate menu appears, choose the highest rate available.**
- 8. Quit the System Preferences application.**

You can now use the space on the external display like you use the internal display. To place a window on the external display, drag it from the MacBook Pro display onto the external one. You can move windows, the pointer, and other items from one display to the other just as you can move them around the MacBook Pro internal display. You can configure windows on each display so you can see many at the same time. For example, you may want your primary documents open on the external display and your e-mail application open on the MacBook Pro display. The menu bar remains on the primary display, so if you do most of your work on the external one, you may want to make it the primary display to make menu access easier.

To stop using the external display, disconnect it from the MacBook Pro. If it was the primary display, the MacBook Pro's screen automatically becomes the primary one, and any open windows on the external monitors move onto the MacBook Pro's screen.

**Note**

OS X Mavericks changes how the menu bar and Dock work with multiple monitors. In the past, they were fixed to the primary display, which made using applications on other monitors difficult. Now, the menu bar and Dock move to whatever monitor is active—that is, wherever your pointer is. Just give the MacBook Pro a few seconds to move the Dock to the new monitor when you first try to use it. Likewise, full-screen applications can now appear on non-primary displays, leaving the other monitors unaffected.

Connecting and configuring an external display with AirPlay

AirPlay enables a MacBook Pro to wirelessly broadcast its video to an Apple TV. This is a great way to display your MacBook Pro's output on a larger display, such as an HDTV. In OS X Mavericks, you can even use an Apple TV as a working Desktop for your MacBook Pro, not just as a way to deliver video or presentations.

To use AirPlay, your MacBook Pro must be on the same network as the Apple TV, and of course your Apple TV must be on and connected to a TV or other display. When this is the case, using AirPlay is a snap.

Follow these steps to set up external display via AirPlay:

1. **Be sure AirPlay is enabled on the Apple TV.** In the Apple TV's Settings screen, select AirPlay, and then select AirPlay On. Your MacBook Pro and Apple TV should find each other automatically.
2. **In the Displays system preference on the MacBook Pro, choose Apple TV in the AirPlay Mirroring menu.** Your MacBook Pro Desktop appears on the Apple TV display. If the Displays icon is in your menu bar, its icon should change to that of the AirPlay symbol; if so, you can click that icon and choose AirPlay rather than use the Displays system preference.
3. **In the Displays system preference, be sure to select the Overscan Correction and Show Mirroring Options in Menu Bar When Available check boxes.** The first option ensures the MacBook Pro's display fits fully on the screen connected to the Apple TV, and the second option ensures that the AirPlay controls are available from the MacBook Pro's menu bar. Figure 1.23 shows the system preference.
4. **Using the menu bar's Apple TV menu, choose the resolution to display, as Figure 1.24 shows.** To fit the resolution to the display's size, choose Apple TV; this makes your MacBook's resolution larger, fitting less on the screen. To fit the resolution to the MacBook Pro's screen, choose Color LCD or, if you're using an external monitor, the name of that monitor.



1.23 The Display system preferences for using an Apple TV.

When you use AirPlay, anything that appears on your Desktop also appears on the Apple TV display. To stop using AirPlay, choose Turn Off AirPlay Mirroring from the AirPlay menu in the menu bar.

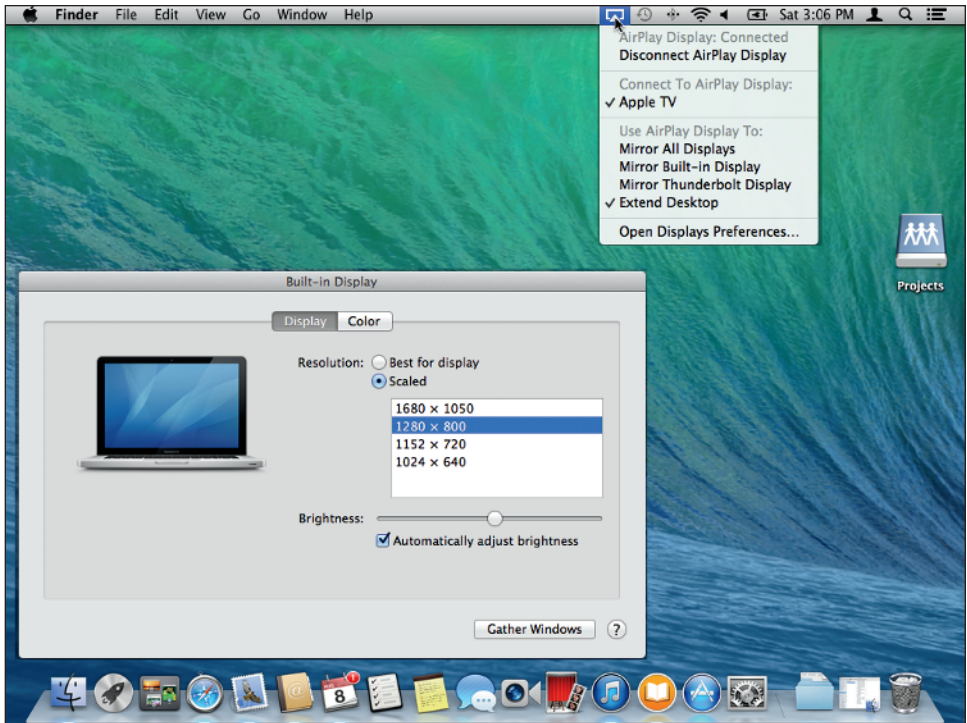
Using a projector

If you make presentations, conduct training, or just want a really big display, a projector is the way to go. With one of these, you can broadcast your MacBook Pro display to very large sizes for easy viewing by an audience. Using a projector is similar to using an external display, so if you can work with those, you can work with a projector.



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If you are using an unfamiliar projector, set the MacBook Pro resolution to a relatively low value, such as 1024 × 768. If the projector doesn't display, reduce the resolution to see whether it starts displaying. When it displays, increase the resolution until the projector is no longer capable of displaying the image.



1.24 Use this Apple TV menu to configure how your MacBook Pro's output appears on an Apple TV.

Purchasing a projector is a bit more complicated and, usually, more expensive than purchasing a display. This list includes a few of the many things to consider when buying a projector:

- **Size.** A smaller projector is easier to carry, and as you move through airports and such, this is very important. Smaller projectors of the same quality are more expensive than larger ones, so find a balance between portability and price.
- **Resolution.** There is more variability in the resolution of projectors than displays. At the lower end of the price range, you'll find projectors that are capable of only 800×600 resolution. Many Mac applications can't even run at a resolution this low. The lowest resolution you should consider for a projector is 1024×768 (also called XGA). Higher resolutions are better but also more expensive.
- **Brightness.** The brightness of projectors is specified in lumens. Projectors with higher lumen ratings are generally able to throw larger and brighter images farther. How many lumens you need depends on many factors, most of which are probably beyond your control (such as the brightness levels of the location in which you'll be using the projector).

- **Throw range.** This measures the closest and farthest distances at which the projector can be used.
- **Video interface.** Like displays, the options for projectors include DVI, VGA, and HDMI. However, most projectors provide other input options, such as component, composite, and S-video. These are important if you use the projector with other sources, such as a DVD player.
- **Bulb life.** Like all other bulbs, the one in a projector eventually fails and must be replaced. Unlike bulbs for lights, you can expect to pay hundreds of dollars for a replacement projector bulb, so try to get one with a long life.
- **Cost.** Expect to pay several hundred dollars for a good-quality projector that has at least 1024 × 768 resolution.



Note

Some projectors automatically select the appropriate input source, and some don't. If the projector isn't projecting an image, use its source menu to select the source to which your MacBook Pro is connected. You can also use the Detect Displays command on the Displays menu in the menu bar or on the Displays system preference's Display pane to see if that restores an image on the projector.

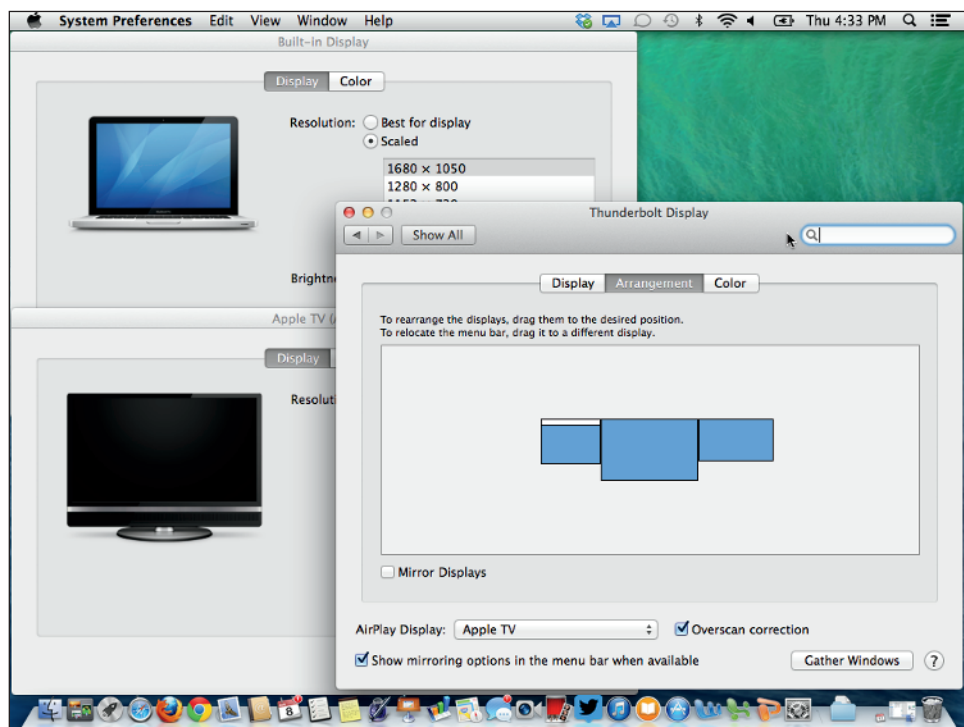
Using a projector is very similar to using an external display. You connect a projector to the MacBook Pro using the appropriate MiniDisplay adapter, depending on what type of connector the projector uses. You can also connect a projector to an Apple TV, either directly through the Apple TV's HDMI port or using an adapter such as Kanex's ATV Pro HDMI-to-VGA adapter.

Using mirroring versus showing separate screens

When you've plugged in an external monitor to the MiniDisplayPort or are using an Apple TV, you can mirror the contents of your MacBook Pro's screen to that other display or you can treat the other display as an additional space to place applications and Finder windows.

In the Displays system preference's Arrangement pane, select Mirror Displays to enable mirroring; deselect it to make the monitors separate. If the monitors are separate, drag their positions to what makes sense for you—side by side, one atop the other, and so on. The display thumbnail with the bar at the top is the primary display; double-click a monitor's thumbnail to make it the primary display.

In OS X Mavericks, you can use the Apple TV as a separate monitor, as Figure 1.25 shows—not just mirror to it as in previous versions.



1.25 Using the Apple TV as a separate monitor, in addition to a Thunderbolt display attached to the MacBook Pro and the MacBook Pro's LCD screen.



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When you enable mirroring, all monitors are mirrored from the primary display. If you want some monitors to be mirrored and others to be separate, first connect only those you want mirrored to the primary display and then enable screen mirroring. Then connect the other monitors; they won't be mirrored.

Setting the Desktop Background

I confess that this section has nothing to do with efficiency. However, there's more to life than being efficient. Because you stare at your Desktop so much, you may as well have something interesting to look at, which is where Desktop pictures come in. You can set any image to be your Desktop picture. You can use the default images included with OS X, image files you create or

download from the Internet, or (best of all) photos from your iPhoto or Aperture libraries. You can also configure your MacBook Pro so the Desktop background changes over time, to keep it even more interesting.

Perform these steps to configure your Desktop background:

- 1. Open the Desktop & Screen Saver system preference.**
- 2. Go to the Desktop pane.** On the center-left side of the pane are the sources of images from which you can select pictures for your Desktop, including Apple (default images), iPhoto (images from your iPhoto library, if iPhoto is installed), Aperture (images from your Aperture library, if Aperture is installed), and Folders (your Pictures folder plus any others you add).



Note

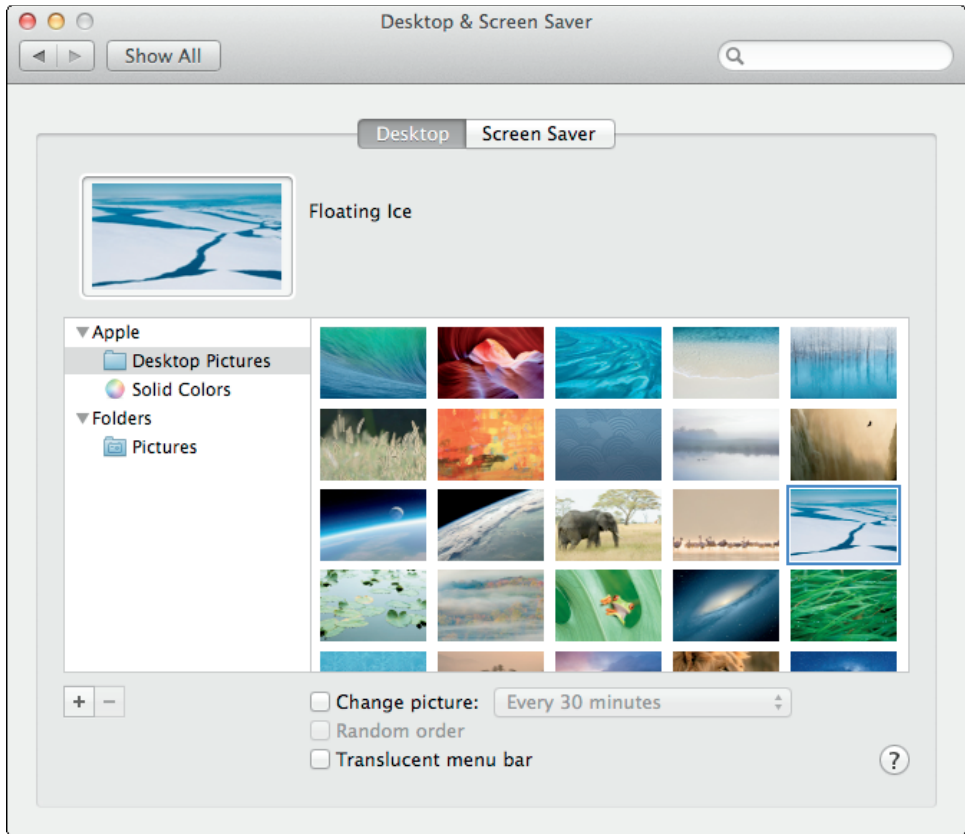
When your MacBook Pro is connected to an external monitor, the Secondary Desktop pane appears on its display. You can use that pane to set the Desktop background on the external monitor separately from what you set for the MacBook Pro's LCD screen.

- 3. Expand the source of images you want to work with by clicking the disclosure triangle to its left.** The contents of that source appear. For example, if you expand the Apple source, you see its folders. If you expand the iPhoto source, you see Events, Photos, photo albums, and so on.
- 4. Select a source of images in the left side of the pane.** Thumbnails of the images in that source appear in the right side of the pane.
- 5. Click the image that you want to apply to the Desktop, or choose a folder and select the Change Picture check box.** If you select a specific image, it fills the Desktop and you see it in the image well at the top of the Desktop pane, as shown in Figure 1.26. If you select a folder and the Change Pictures check box, you see an icon representing rotating images at the top of the pane, as shown in Figure 1.27. Use the adjacent menu to control how often the pictures change, and use the Random Order check box to have them change at random rather than in the order they appear in the folder.



Note

You can use any folder as a source of Desktop pictures by clicking the Add button (the + icon) located at the bottom of the source list. Use the resulting settings sheet to move to and select the folder containing the images you want to use. After you click the Choose button, that folder appears as a source on the list and you can work with it just like the default sources.



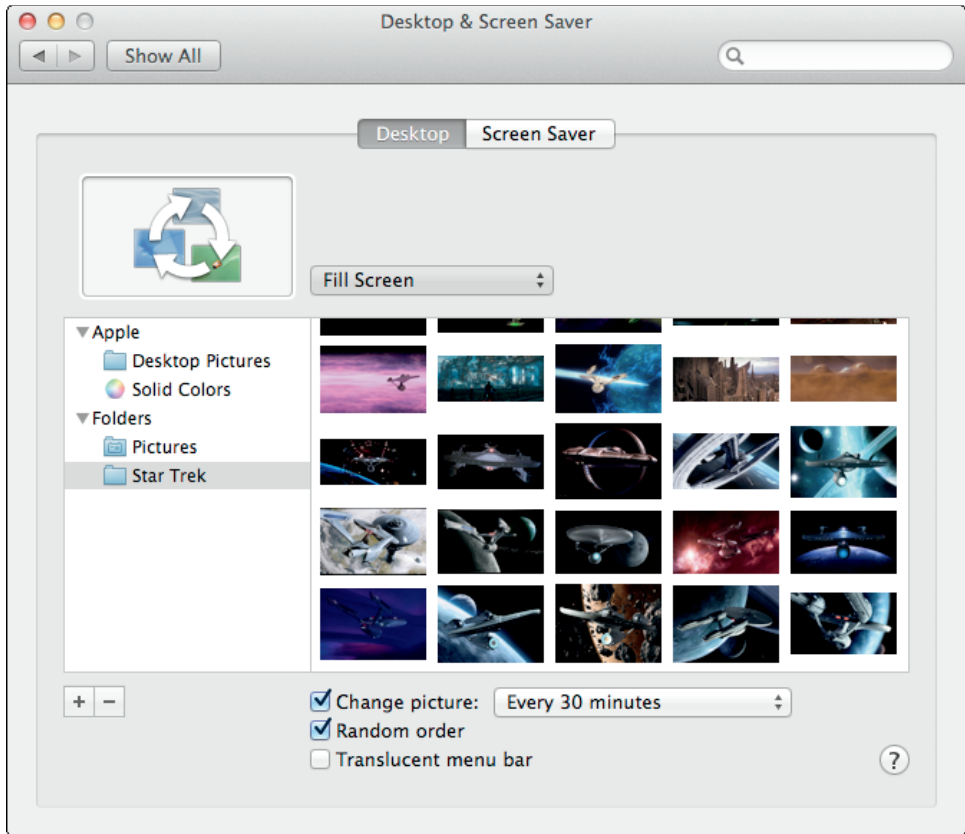
1.26 I've selected an image from the Apple library as my Desktop background.



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You can set a different Desktop picture for each of your Desktops. Use Mission Control to move to the Desktop for which you want to set a picture, set it, and then switch to the next Desktop.

- 6. If the image you selected isn't the same proportion as your current screen resolution, use the pop-up menu that appears just above the thumbnail pane to choose how you want the image to be scaled to the screen.** For example, choose **Fit to Screen** to have photos scaled so that they fit the screen (there may be blank margins on the sides in this case), **Fill Screen** to have photos scaled to fill the screen (some of the image may be cropped out to avoid having blank margins), **Tile** to have images that are smaller than the Desktop fill the Desktop space as a series of tiles, and so on.



1.27 I've selected a folder of images and the Change Picture option so the background picture changes automatically.

- 7. If the image doesn't fill the screen, click the Color button that appears to the right of the menu when it can be used.** The Color Picker opens. Use it to choose the background color that appears behind photos when they don't fill the Desktop.
- 8. To make the menu bar translucent so you can see the Desktop background behind it, select the Translucent Menu Bar check box.** When this option is not selected, the menu bar becomes a solid color.
- 9. Quit the System Preferences application.** Enjoy your Desktop's new look!