

Speech Recognition (Bonus Appendix)

Speech

The Mac's speech features—both listening and talking back—are far more extensive than what you're probably used to from Windows. Depending on the kind of work you do, these features might give you both a productivity boost and a good giggle along the way.

Speech Recognition

The Apple marketing machine may have been working too hard when it called this feature “speech recognition.” The Mac OS feature called PlainTalk doesn't take dictation, typing out what you say. Instead, PlainTalk is what's known as a *command-and-control* feature. It lets you open programs, choose menu commands, trigger keystrokes, and click dialog box buttons and tabs—just by speaking their names.

Truth is, very few people use PlainTalk speech recognition. But if your Mac has a microphone, PlainTalk is worth at least a 15-minute test drive. It may become a part of your work routine forever.

Your First Conversation with the Mac

The on/off switch for speech recognition in Mac OS X is the Speech pane of System Preferences (Figure 1). Where you see “Speakable items” (on the Speech Recognition tab), click On.

The Feedback window

Check out your screen: A small, microphone-like floating window now appears (Figure 1). The word *Esc* in its center indicates the “listen” key—the key you’re supposed to hold down when you want the Mac to respond to your voice. (You wouldn’t want the Mac listening all the time—even when you said, “Hey, it’s cold in here. *Close the window.*” Therefore, the Mac comes set to listen only when you’re pressing that key.)

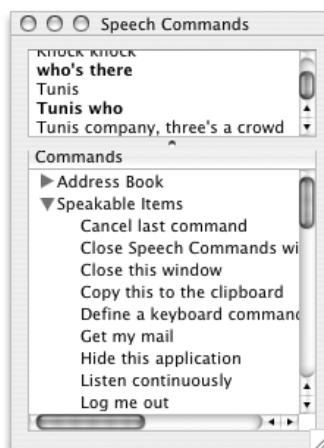
You can specify a different key, if you wish, or eliminate the requirement to press a key altogether, as described in the next section.

When you start talking, you’ll also see the Mac’s interpretation of what you said written out in a yellow balloon just over the Feedback window.

Figure 13-14:

Left: The Feedback window. If you choose Speech Preferences from its bottom-edge triangle, you open the Speech preferences window shown.

Right: Choosing Open Speech Commands window, of course, opens the list of things you can say.



The Speakable Commands window

The only commands PlainTalk understands are listed in the Speakable Commands window. (If it’s not open, see Figure 1.) Keeping your eye on this window is essential, because it offers a complete list of everything your Mac understands. As you can see, some of them represent shortcuts that would take several steps if you had to perform them manually.

Here are a few examples of what you’ll find in the list at first:

- **Phone for [Steve Jobs].** Displays Steve Jobs’s phone number in huge digits across your screen—the fastest way yet to look up a number of somebody in your Address Book program.

You can also say “Chat with Steve Jobs” (or whomever) to begin a new chat session in iChat with that person, “Mail this to Steve Jobs” to send the current document

as a Mail attachment, or “Meet with Steve Jobs” to add an iCal appointment with this person’s information attached.

- **Set alarm for 30 minutes.** (You can say any number of minutes or hours—“Set alarm for two hours,” or whatever.) The Mac asks you to type a little message, which will serve as the iCal dialog box that appears at the specified time.
- **Close this window.** Closes the frontmost window instantly.
- **Empty the Trash.** Works only when you’re in the Finder.
- **Switch to Safari.** Brings Safari to the front. (Actually, you can say “switch to” and then the name of *any* running or recently used program.)
- **Quit all applications.** Saves you the trouble of switching into each program and choosing Quit.
- **Open the Speech Commands window or Show me what to say.** Opens the Speech Commands window, of course.
- **What day is it?** Tells you the date.
- **Tell me a joke.** Begins a pathetic/funny knock-knock joke. You’ve got to play along, providing the “Who’s there?” and “So-and-so *who?*” answers.

Mac OS X *updates* the listing in the Speech Commands window in real time, according to the context. When you switch from one program to another, you see a list of the local commands that work in the new program. You’ll discover that when you use the “Tell me a joke” command, for example, you don’t necessarily have to say, “Who’s there?” You can also say “Stop,” “Go away,” or “Stop with the jokes!” (It must really be fun to work at Apple.)

Speaking to the Mac

Finish up on the Speech pane of System Preferences. Use the Microphone pop-up menu to specify which microphone you’ll be using (if you have a choice). Click Calibrate to adjust its sensitivity.

Now you’re ready to begin. While pressing the Esc key (if that’s still the one identified in the Feedback window), begin speaking. Speak normally; don’t exaggerate or shout. Try one of the commands in the Speakable Commands list—perhaps “What time is it?” If your mike is set up properly, the round Feedback window displays animated sound waves when you speak.

Customizing Speech Recognition

You can tailor the speech recognition feature in two ways: by adjusting the way it looks and operates, and by adding new commands to its vocabulary.

Changing when the Mac listens

Having the microphone “open,” listening full-time, is an invitation for disaster. Everyday phone conversations, office chatter, and throat clearings would completely bewilder the software, triggering random commands.

Therefore, you must explicitly *tell* the Mac when you're addressing it. When you first turn on the speech recognition feature, the Mac expects you to alert it by pressing a key, like the Esc key, when you speak.

Tip: To change the key you hold down when you want the Mac to listen, visit the Speech pane of System Preferences; click the Speech Recognition tab; click Settings; and then click Change Key. A little message prompts you to press the keyboard key you'd prefer to use. Your choices are Esc, Delete, F5 through F12, or the keys on your numeric keypad—with or without the Shift, Control, or Option keys.

If you'd rather not have to press some key whenever you want the computer's attention, click the other option in this pane, "Listen continuously with keyword." Now to get the computer's attention you must speak the keyword—which you type into the Keyword box—before each command. For example, you might say, "Computer, open AppleWorks," or "Hal, what day is it?"

The name you specify appears in the middle of the round Feedback window.

Note: This method of getting the computer's attention is less reliable than the push-a-key-to-talk system. *Especially* if you name the computer Hal. Although that's hilarious in theory, polysyllabic names work better in practice.

By using the "Keyword is" pop-up menu, meanwhile, you can specify how big your window of opportunity is:

- **Optional before commands.** If you work alone in a quiet room, this is the choice for you. It means that you don't have to press a key *or* say the Mac's name when issuing a voice command. *Everything you say* is considered a command.
- **Required before each command.** Nothing you say is interpreted as a command unless you say the computer's keyword first, as in, "*Macintosh*, switch to Microsoft Word."
- **Required 15 seconds after last command, Required 30 seconds after last command.** Sometimes you want to issue several commands in a row, and would feel foolish saying, "Computer, close all windows. Computer, empty the trash. Computer, switch to Calculator." When you turn on this option, you can say the computer's name just once; all commands that you issue in the next 15 or 30 seconds "belong to" that first salutation. The push-to-talk key and the spoken name, in this case, serve as a master on/off switch for the Mac's listening mode.

Tip: If you're not using the push-to-talk method, you can still turn speech recognition off temporarily by saying, "Turn on push to talk." (Now the Mac listens to you only when you're pressing the designated key.) When you want to return to listening-all-the-time mode, say, "Listen continuously."

Changing the feedback

Another set of options on the Speech Recognition tab governs what the Mac does when it understands something that you've said. For example:

- **Play sound.** The Mac generally makes a sound whenever it recognizes something you've said. Use this pop-up menu to control which of your built-in beeps you want it to use—or choose None.
- **Speak command acknowledgement.** Sometimes the Speech Feedback window shows you a message of its own. When you use the “Empty the Trash” command, for example, text in the Feedback window may inform you that a locked item prevents the emptying. The Mac generally reads this text aloud to you; turn this checkbox off if you'd rather have the Mac be silent.

Triggering menus by voice

On the Speech pane of System Preferences, click the Speech Recognition tab, and then click the Commands mini-tab. Here you'll find a list of the command categories that Speakable Items can understand. As you turn each checkbox on or off, watch the Speech Commands window. Giant swaths of commands appear or disappear as you fool with these checkboxes, giving you a good indication as to their function. Here's a rundown:

- **Address Book.** These are the new commands in Tiger that let you look up numbers, add appointments to your iCal calendar, set up alarm reminders for yourself, mail things to people, and begin text, audio, or video chats with people whose names are already in your Address Book.
- **Global Speakable Items.** This is the master list of Speakable Items, shown in Figure 1.
- **Application-Specific Items.** Certain Mac OS X programs come with preset lists of commands that work only when you're in the relevant program. For example, whenever you're in the Finder, you can say, “Empty the trash,” “Go to my Home directory,” “Hide the Dock,” “Minimize all windows,” “Make a new folder,” and so on. When this checkbox is off, the Mac no longer recognizes any of these handy commands.
- **Application Switching.** This is the command category at the bottom half of the Speech Commands list—“Switch to Address Book,” “Switch to AOL,” and so on.
- **Front Window.** In your Speech Commands window, note the appearance of a new category of commands, called Front Window. The idea here is to provide you with quick speech-recognition access to the most prominent buttons, tabs, and icons in whichever window is before you. Figure 2 elaborates on the idea.
- **Menu Bar.** This command lets you open menus (in the menu bar) by speaking their names.

Once you say its name (“File menu,” for example), the menu opens. Now you can say any command in the open menu (“New Playlist,” “Save,” or whatever). The Menu Bar category of the Speech Commands window changes to remind you of what you can say at any given moment.

The combination of Front Window and Menu Bar commands lets you do quite a bit of work on your Mac without ever needing the mouse or keyboard.

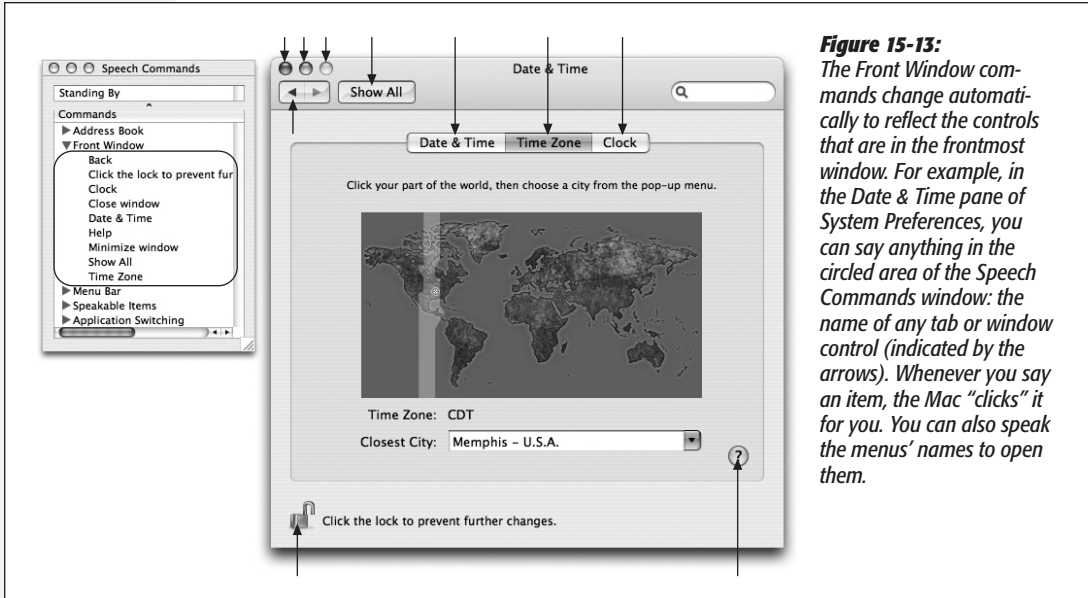


Figure 15-13: The Front Window commands change automatically to reflect the controls that are in the frontmost window. For example, in the Date & Time pane of System Preferences, you can say anything in the circled area of the Speech Commands window: the name of any tab or window control (indicated by the arrows). Whenever you say an item, the Mac “clicks” it for you. You can also speak the menus’ names to open them.

Improving the PlainTalk vocabulary

By putting an alias of a favorite document, folder, disk, or program into your Home→Library→Speakable Items folder, you can teach PlainTalk to recognize its name and open it for you on command. You can name these icons anything you want. You can also rename the starter set that Apple provides. You’ll have the best luck with multi-word or polysyllabic names—“Microsoft Word,” not just “Word.”

But one kind of icon PlainTalk can open is an *AppleScript* icon, the kind you create by following the instructions in Chapter 8. If you open your Home folder→Library→Speech→Speakable Items, you’ll discover that most of the built-in speakable-item icons are, in fact, *AppleScript* icons. The point is that you can make PlainTalk do almost anything you want, especially in the Finder, simply by creating *AppleScripts* and putting them into the Speakable Items folder.

Application specific commands

Most of the preinstalled PlainTalk commands work in any program. You can say, for example, “Open iTunes” to launch iTunes from within any program.

However, you can also create commands that work only in a specific program. They sit in your Speakable Items→Application Speakable Items folder, inside individual application-name folders. For example, Mac OS X comes with commands for Safari that include Go Back, Go Forward, and Page Down.

If you get good at AppleScript, you can create your own application-command folders in the Speakable Items→Application Speakable Items folder.

Then open the program for which you want to create special commands and say, “Make this application speakable.” The Mac creates a folder for the program in the Speakable Items folder; fill it with the AppleScripts you’ve created. (Not all programs can be AppleScript-controlled.)

Note: If you give an application-specific icon the exact same name as one of the global commands, the Mac executes the application-specific one—if that program is running.

PlainTalk tips, tricks, and troubleshooting

When you’re creating new commands, click the Helpful Tips button at the lower-right corner of the Commands pane (of the Speech Recognition pane of the Speech pane of System Preferences).