Troubleshooting the progress indicator and program crashes in Mac OS X
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This column is the second of a three-part series about recovering from and potentially averting Mac OS X catastrophes.

Tired of waiting
Grocery store lines, freeway entrance ramps, and airport security checkpoints are just a few of numerous situations where we wait. Who wants his/her computer added to this mix? Macs are supposed to make us more efficient rather than squander our valuable time.

Yet that's exactly what could happen if the arrow cursor too often switches to the *progress indicator*. In Mac OS X, the progress indicator looks like a spinning colored pinwheel or beachball (*http:// docs.info.apple.com/article.html?artnum=25571*); on Windows PCs, it's an hourglass.

Although the progress indicator is intended to be informative— indicating that a program is working on a task—it can become annoying when it keeps you waiting too long.

What causes the progress indicator to display? It usually happens when the computer is busy processing code or contacting a network, server, or iDisk. Consequently, the progress indicator—unlike kernel panics discussed in last week's column—could be a normal occurrence. When it displays too long and/or frequently on your Mac, however, the progress indicator is likely a symptom that requires your troubleshooting attention.

A persistent progress indicator often is due to insufficient RAM. Mac OS X runs on Macs with 256MB or less, but it uses a portion of the hard drive called the "swap file" (*http://en.wikipedia.org/wiki/Swap_file*) to temporarily offload one or more programs you have launched with too little free RAM. Because the hard drive reads and writes more slowly than RAM chips, Mac OS X displays the progress indicator while accessing the swap file and you perceive your Mac to be sluggish.

There is a simple and effective remedy to this scenario—install additional RAM for a total of 768MB or more.

Another possible culprit is a communications bottleneck while your Mac is attempting to connect with the network, server, AirPort, or iDisk you've selected. If the progress indicator displays repeatedly or protractedly in the Finder or Software Update, check your settings in the Network System Preference. Also make sure your network cable or AirPort hardware is defect-free and installed properly (update the latter's firmware as needed; *http://docs.info.apple.com/article.html?artnum=107844*).

Suppose the progress indicator displays in a program other than the Finder or Software Update on a Mac with at least 768MB. It could be symptomatic of corrupted cache and/or preference files (*http://docs.info.apple.com/article.html?artnum=25398*). To recover, option-click the affected program's icon in the Dock and select "force quit" from the pop-up menu. Remove cache files by using one of several utilities at VersionTracker (search on "cache" at *http://www.versiontracker.com/macosx/*) and trash the affected program's preference file that is located in /Users/*your user account*/Library/Preferences. Then relaunch and use the program again. It also might need updating for compatibility with the version of Mac OS X you're using.

Crash without burning
When you see a dialog stating that an application "unexpectedly quit" (*http://docs.info.apple.com/article.html?artnum=152368*), you've experienced a *program crash*. In Panther and Jaguar, you manually relaunch that program after dismissing the dialog. In Tiger, however, the dialog includes a Reopen button (*http://docs.info.apple.com/article.html?artnum=301084*) that relaunches the program for you. If it unexpectedly quits again, a Try Again button displays. Sweet!

What causes a program to unexpectedly quit? It can happen when a program violates a restriction programmed into the operating system; e.g., attempting to execute invalid commands (*http://en.wikipedia.org/wiki/Application_crash*).

Likely culprits behind an unexpected quit include a misbehaving (aka "buggy") or incompatible program (*http://docs.info.apple.com/article.html?artnum=301584*; *http://docs.info.apple.com/*

article.html?artnum=93203), problematic font(s) (*http://docs.info.apple.com/article.html?artnum=25717*), and/or improperly configured Network System Preferences settings (*http://docs.info.apple.com/article.html?artnum=106695*).

To recover from an unexpected quit, relaunch the affected program, resume what you were doing, and *forget about the unexpected quit*; it could have been a fluke, so your time will be better spent on tasks other than troubleshooting.

If you experience *repeated* unexpected quits, however, here are some troubleshooting steps.

• Update to the current version of the malfunctioning program.
• Check for and fix font corruptions using a third-party utility (search on "font repair" at *http://www.versiontracker.com/macosx/*).
• Delete preference and/or cache files related to the affected program, as described earlier.
• Check, and correct as needed, settings in the Network System Preference.

If the unexpected quit persists after the above steps, search MacFixit (*http://www.macfixit.com*) for more detailed and recent troubleshooting information.

Questions and answers
"*When I see the progress indicator or 'unexpectedly quit' dialog, should I restart my Mac?*"
Not! Mac OS X's memory protection feature keeps everything else up and running (*http://en.wikipedia.org/wiki/Protected_memory*).

"*My programs unexpectedly quit, so my version of Mac OS X must be unstable and buggy. How do I install the previous version?*"
Ditch that thought! A better strategy would be to download and run the latest Mac OS X **combo** updater (*http://www.apple.com/support/downloads/*; high speed connection recommended) appropriate for your installed version. However, the problem is more likely related to the quitting program than Mac OS X. ❏