

Conflict Testing

Conflicts among extensions and control panels are among the most frequent causes of instability — crashes, freezes, bombs, error messages, and other bizarre behavior — on the Macintosh.

In the days before Conflict Catcher, you could figure out, all by yourself, which of your extensions were conflicting. The process took hours, but it could be done. You'd go by trial and error. Unfortunately, this system of finding extension conflicts has several drawbacks:

- It can help you find which single extension was crashing your Mac, but is nearly hopeless at pinpointing a conflict between two extensions, let alone three or more.
- It requires incredible discipline and a stack of legal pads to help you keep track of which batch of extensions you've already tested.
- Life is just too short.

How Conflict Catcher Catches Conflicts

At its heart, Conflict Catcher is little more than an automated robot that performs the same trial-and-error testing business. The advantage is, however, that Conflict Catcher does all the math for you, all the moving extensions around, and all the keeping track. All you have to do, after each of Conflict Catcher's experiments, is answer a simple question: did Conflict Catcher's latest test get rid of the problem you were having?

If you can answer this question, Conflict Catcher can find the files responsible for your headaches. Put another way, Conflict Catcher is great at catching repeatable, consistent problems.

Conducting a Startup Test

Here are the essential steps in putting Conflict Catcher to work ferreting out a problem.

1. Restart the Mac. Just as it's beginning to start up again, hold down the space bar until the Conflict Catcher window appears.
2. In the main Conflict Catcher window, click the Conflict Test button.

Conflict Catcher's first reaction is to suggest that you let it scan all of your system files to make sure that they're not corrupted.

3.

Click OK to begin the startup-file scan, or Skip to bypass this test.

If Conflict Catcher now tells you that no problems were found in its scan, click OK to continue.

Now Conflict Catcher is ready to begin the test in earnest. The message it displays announces that a conflict test is useful only if your Mac is having a problem. (This message is provided for the benefit of people who bought Conflict Catcher thinking that it could prevent problems from developing.)

4.

Click Yes to dismiss the message.

Now Conflict Catcher asks you to type a short description of the problem you're having.

5.

Type some short description — “Microsoft PowerPoint crash,” for example.

In the next step, you'll be asked to specify which kinds of files you want to test. System Folder files (such as extensions, control panels, and so on) are the most likely to cause Mac problems, so you'll generally want to leave System Folder Items selected in the pop-up menu.

But Conflict Catcher can test for conflicts caused by other kinds of files, too. This pop-up menu lists commands that restrict Conflict Catcher to testing your Fonts, Startup Items, Netscape Navigator Plug-Ins, and so on. If, for example, your Mac began having problems just after you installed a new set of Illustrator plug-ins, choose Illustrator Plug-Ins from this pop-up menu and proceed with the testing.

You can also choose Everything, which tests both System Folder items and fonts, plug-ins, and so on. (The testing takes much longer in this case.)

6.

Specify which kind of file you want to test, and click OK.

Now you arrive at the Conflict Test Summary window. It offers several time-saving options, which you can read about in steps 7, 8, and 9.

7.

If certain startup files must be turned on in order to reproduce your problem, click Needed Files. In the list that appears, click the names of those files.

For example, Microsoft Office can't run without its shared libraries and extensions. Therefore, if you're having a system freeze every time you place a graphic into Microsoft Excel, you must tell Conflict Catcher to keep Excel's startup files turned on throughout this conflict test. (Without those files, you wouldn't even be able to launch Excel, let alone experiment to see if the problem was gone.)

Similarly, if the system problem you're having takes place only when you're connected to the Internet, you'll need your Internet extensions, such as the Open Transport files, locked on while Conflict Catcher does its testing. And if you're having a printing problem, you'll have to "lock on" the Chooser extension that corresponds to your printer.

When you click the Needed Files button, you're shown a list of your files. Click the names of the files that must be turned on in order to conduct your test. As you click them, a small padlock icon appears next to their names.

Tip: Don't be alarmed to see that some files have lines through their names. Those are files that were already turned off when you began the Conflict test — and therefore couldn't possibly be responsible for the problem you're having.

Click OK when you're done.

8.

If you think you know which startup files might be causing your problem, click Intuition. In the list that appears, click their names.

By sharing your hunch with Conflict Catcher, you may drastically cut short the time it takes Conflict Catcher to complete its investigation.

9.

Click Start Conflict Test.

The dialog box fades away. Now you arrive at what looks like Conflict Catcher's main window; only the large red words "Conflict Test In Progress" (at the top of the screen) tip you off that something unusual is going on.

The upper-left information panel is Conflict Catcher's running narrative, a blow-by-blow description of what Conflict Catcher is doing. The lower-left information panel keeps track of how many times you've had to restart the computer and how you answered Conflict Catcher's question each time: did the problem go away?

10.

Click Restart.

As your icons are loading during the startup process, you'll see the words "Conflict Test In Progress" at the top of the screen.

When you arrive at the desktop, Conflict Catcher reminds you to check to see if your repeatable problem is still around.

11.

Click OK. Then, as you've been instructed, check to see if the problem is still there.

Do whatever it is that triggers this particular glitch, even if that means launching some program, signing onto the Internet, trying to print a document, or whatever.

You must not only check to see whether or not the problem is present, but you must remember the answer to that question for the next two minutes — or as long as it takes your computer to start up.

12.

From the Special menu, choose Restart.

Or, if your computer is completely frozen, you may have to restart it manually by pressing $\hat{\mathcal{C}}\sim$ -control-power key. (The power key is the one with a left-pointing triangle on it.) And if even that doesn't work, unplug the computer, plug it back in, and then turn it on.

Regardless of how you restart the computer, the result is the same: the all-important interview dialog box.

Tip: You can cut almost in half the number of times you restart the Mac during a conflict test if, in step 12, you open Conflict Catcher instead of restarting the computer. (Choose "Open Conflict Catcher" from the tiny CC menu on your menu bar in the Finder.)

Conflict Catcher asks you now whether or not the problem currently exists — instead of making you wait for another entire restart before asking this question (in step 11).

Click Problem Exists if the problem was still present in step 11. Click Problem Gone if the problem wasn't there. And if, during the Mac's subsequent startup, you forgot whether or not the problem was there in step 11, click "I forgot — Repeat test." And then go back to step 11.

Eventually, you wind up back at the main Conflict Catcher screen, where Conflict Catcher estimates how many more times you'll have to repeat this restart/interview process, and keeps track of what your answers have been up to this point. The list at the right side of the screen shows all of your startup files, and whether or not they've been proven innocent in Conflict Catcher's process of elimination.

13.

Click Continue Startup.

Based on your answer to its question in step 11, Conflict Catcher continues its experimentation. It either continues the startup process already in progress, or restarts the Mac again, depending on which files it's experimenting with at the moment.

14.

Repeat steps 11 through 13.

Each time, the process is the same. Each time, Conflict Catcher turns on a smaller number of

startup files, using the process of elimination to hone in on the precise one or ones that are giving your Macintosh grief.

After a few rounds of this cycle — between five and ten restarts, for example — Conflict Catcher wraps up its test with one of the messages described in the next section.

How Conflict Tests End

If you've patiently answered all of Conflict Catcher's questions, and restarted the Mac as directed by the program, then one of several things will occur at the end of the conflict test. Here's how to proceed in each case.

Conflict Catcher Identifies the Culprit

If you truly had a repeatable, consistent problem, and if you answered all the questions correctly, Conflict Catcher shows you the name of the problematic startup file. It also suggests that you let it perform one more startup of the Mac to make sure there wasn't a second file involved in the conflict. Click Continue Test to proceed with this final check.

After finding the culprit file, Conflict Catcher offers to turn off (disable) the file that's been giving you all the grief.

Conflict Catcher Identifies Multiple Culprits

Suppose that, after Conflict Catcher has identified the first problem file, you click Continue Test to let it pursue the possibility of additional culprits. It may determine that, sure enough, the problem only exists when two (or more) particular files are turned on at the same time.

If it turns out that exactly two files constitute the problem, Conflict Catcher suggests that you load them in a different order. One more restart of the Mac will test the theory that these two files could get along if they were loaded in a different order during your Mac's startup.

If, on the other hand, you actually manage to uncover one of the rare and elusive three-way conflicts, you have no choice but to consider more drastic measures, such as those described in "What to do about problem files," later in this section.

Conflict Catcher Can't Find The Problem

Suppose you begin to conflict test. Yet every time Conflict Catcher starts up the Mac with a different assortment of files turned on, you tell it that the problem doesn't exist. Over and over again, you click the Problem Gone button.

In that case, Conflict Catcher can only conclude that your problem isn't caused by startup files. If you are indeed having a problem on your Mac, some other factor must be responsible; see Chapter 6 of your printed Conflict Catcher manual for a quick troubleshooting course.

Conflict Catcher Gets Confused By Contradictory Interviews

Despite being a very smart piece of software, Conflict Catcher is still software — a blind computer program running inside a machine. It relies on you, an eyes-and-ears-equipped human, to tell it whether or not the problem you've been having is still around.

If you make a mistake in your answers, such as telling Conflict Catcher that the problem exists when it actually doesn't, one of two things may happen.

- If you tell Conflict Catcher that the problem is gone — but it really isn't gone — then the conflict test takes longer, and may mistakenly identify additional culprits. But the true culprit will still be among those named.
- If you tell Conflict Catcher that the problem exists — but it's actually gone — then you've hopelessly confused the software. If Conflict Catcher can pinpoint the problem file under these circumstances, it's a miracle.
- If you deliberately lie when Conflict Catcher asks you whether or not the problem is still around, then you deserve what you get. But if you answered the question incorrectly by accident, keep in mind that you can “rewind” the conflict test without having to start over at the beginning. Just click the step, as listed in the conflict log, before the round where you made a mistake in your answer. Conflict Catcher will pick up the test from that point.

You Cancel The Test

The Stop Test button offers you the opportunity to bail out at every step of the conflict test, perhaps because you decide to continue the test later. In the next dialog box, confirm your decision to abandon the test in progress by clicking Abort Test.

You Decide To Complete The Testing Later

If you decide that the rest of a conflict test can wait until later, click Stop Test in any of the Conflict Catcher dialog boxes. In the subsequent dialog box, click Save Conflict Test. You're now asked to title and save a small “conflict test document”; in this special file, Conflict Catcher memorizes the exact status of the test in progress — which files were turned on and off, what Conflict Catcher has learned so far, and so on. Put it in some obvious place on your hard drive so that you'll be able to find it again easily.

At any time later — hours, days, or even weeks later — you can choose to resume the test from the exact point where you left off (unless you've made changes to any sets, links, or preferences involved in the test, which invalidates the saved test). To do so, go to Conflict Catcher's Special menu and choose Continue Saved Test. You'll be asked to locate a saved conflict test document. When you open it, you'll see that Conflict Catcher takes you back to the exact moment in time when you clicked Save Conflict Test, as described in the previous paragraph. Now you can continue the conflict test as though it was never interrupted.

Crashes At Startup: Automatic Conflict Testing

After each cycle of a normal conflict test, Conflict Catcher relies on you to tell it whether or not the computer glitch you've been experiencing is gone.

But when your Mac is crashing or freezing while starting up, Conflict Catcher doesn't need your help (except to restart the Mac if it's locked up, of course). It knows that the Mac never finished starting up correctly.

This situation suggests a question: If Conflict Catcher is able to perceive when the Mac has crashed at startup, why can't it complete an entire conflict test without any help from you? Why does it need to interview you about whether or not the problem exists after each round?

It doesn't. Whenever you restart your Mac after a startup system crash, Conflict Catcher immediately names the file that it believes caused the crash. (It assumes that the file that was loading at the moment the freeze or crash occurred is responsible. Of course, that assumption may occasionally be wrong. For example, if the power went out as the Mac was starting up, or if you pressed the restart keystroke **⌘-Control-power** key during startup, Conflict Catcher will mistakenly assume that the startup interruption was caused by whatever extension happened to be loading at that instant.)

This special dialog box offers the following options:

- **Disable.** Click this button to turn off whatever file crashed the Mac during startup. You're then taken to the main Conflict Catcher window, where you can observe that, sure enough, that file has been turned off. From there, click **Continue Startup** to let the Mac finish starting up. And then see "What to do about problem files" later in this section.
- **Ignore.** Click this button if you know that the startup freeze or crash isn't anything to worry about — for example, if the freeze or crash was caused by a power failure, your pressing the restart keystroke, or a child happily playing with the on/off switch on your surge suppressor. You'll be taken to the main Conflict Catcher window, where the **Continue Startup** button lets you proceed with the startup as though nothing had happened.
- **Always Ignore.** Suppose the startup crash isn't a one-time event like a power failure, yet it's something that you're willing to live with. For example, you have some fancy thought-recognition software that's so amazing, you don't even care that its control panel occasionally crashes your Mac when you turn the machine on.

In such an (admittedly rare) circumstance, click this button. From now on, if this particular file crashes the Mac at startup, Conflict Catcher won't bother showing you the **Startup File Interruption** dialog box. It won't offer you the chance to perform a conflict test, and will instead simply restart the Mac until it successfully starts up.

- **Start Auto Conflict Test.** This is the most intriguing option of all. While Conflict Catcher

thinks it knows which file caused the crash, it also considers the possibility that more than one file was involved.

If you click Start Auto Conflict Test, you're taken directly to the Conflict Testing dialog box. Conflict Catcher now appears to be performing a standard conflict test, picking up from step 7 in "Conducting a startup test" near the beginning of this section.

The difference this time is that after each startup, you won't be asked whether or not the problem went away. Instead, if the Mac freezes during startup, you must restart it (by pressing $\hat{\text{C}}\hat{\text{E}}\hat{\text{T}}$ -Control-power key, for example). And if the Mac doesn't freeze during startup, you get to watch in amazement as a counter in the upper-left corner of the Conflict Catcher window counts down — 5, 4, 3, 2, 1 — and then Conflict Catcher restarts the computer by itself.

Otherwise, though, this kind of conflict test proceeds exactly like the standard kind. Conflict Catcher will either announce that the original file was the only one responsible for the crash, or it will tell you that two files were interacting to produce the crash — and it will offer to rearrange their loading order to see if that solves the problem.

All other aspects of an automatic startup-crash test are the same as in a standard conflict test, including your ability to abort or postpone the completion of the test, as described earlier in this chapter.

What to Do about Problem Files

Once Conflict Catcher has identified a startup file that's causing problems for your Mac, you've won half the battle. Now that you know which file is responsible, however, it's still up to you to decide what you're going to do about it.

You might consider looking for a newer version of that startup file, reinstalling the version you already have, switching to a rival program, or doing without the file completely.