

# The healing powers of Safe Mode

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**WHEN WINDOWS** safe mode (also known as the ‘oh no it’s all messed up please fix it’ mode) was first developed for Windows 95, it was intended to do more than just disable drivers. It was also meant to repair stuff that could be repaired automatically.

For example, when you start in safe mode, Windows Explorer checks the positions of all the icons on the desktop, making sure that they are all visible because it is possible to create a state where an icon is positioned off the screen.

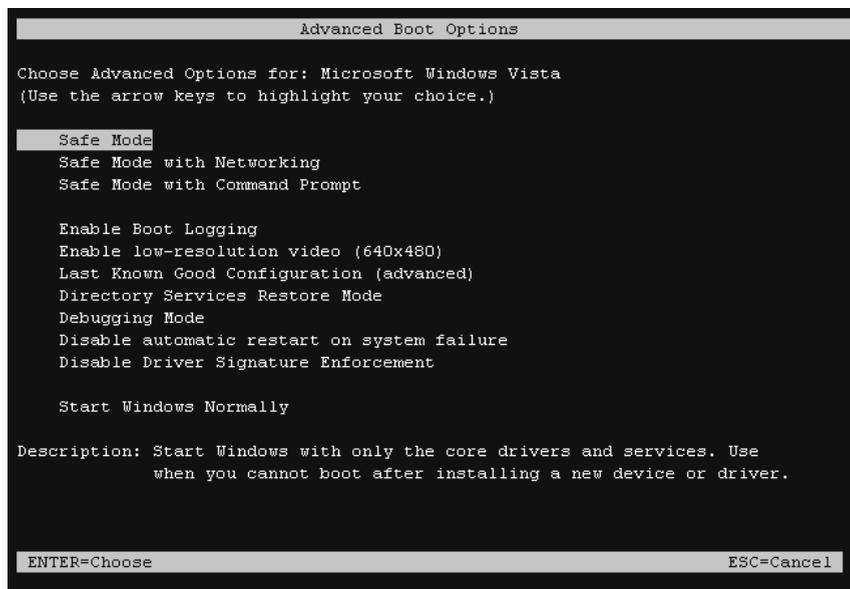
If you want to see what I’m talking about, position two icons on the desktop, one at the left edge and one at the right edge. Use Ctrl+Click to select both of these icons, then grab the left one and drag it to the right-hand side of the screen. When you do this, the second icon will also move, keeping the same relative position to the icon you are dragging. And the second icon moves right off the screen.

If Windows Explorer didn’t repair icon positions in safe mode, troubleshooting instructions would be potentially more confusing than helpful:

1. Start the computer in safe mode. (OK.)
2. Double-click the My Computer icon. (Um, I don’t see a My Computer icon.)
3. ...

Oops, the My Computer icon is off-screen or otherwise unavailable. You can’t even get past step two of the troubleshooter.

There have been complaints from some people saying: “You shouldn’t have repaired the icons automatically. If a user calls tech support with the



### Safe mode allows users to troubleshoot Windows

problem, the support engineer can simply tell the user to right-click on the desktop and select the option to Reset Icon Positions. Mission accomplished, and safe mode hasn’t messed with my icons.”

First of all, you’ve already lost the game when you say “if a user calls tech support with the problem”. If a user has to pick up the phone, you’ve failed.

Furthermore, this proposal misses the psychology of safe mode. Users boot into safe mode when things are not acting properly, although they don’t necessarily know what they’re going to do once they get there. What they are really doing is just seeing what will happen. “Something is wrong, let’s try safe mode.” In Windows 95, we took advantage of this psychology by implementing various types of auto-repair actions in safe mode. It worked quite well.

What’s more, if users call and you tell them, “boot into safe mode; that’ll

fix it,” they’ll say to themselves, “well, that was easy enough. I should have thought of that.”

But if you give them a longer set of instructions, saying “boot into safe mode, right-click here, select this menu option, then click this box”, the users will follow the instructions and the problem will be fixed, but this will have done nothing to make them feel more comfortable with computers. Instead, they will feel feeble and discouraged. Rather than being empowered, the users fall into a state of learned helplessness. “There’s no way I would have figured that out. Computers are so hard to use.” ■

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**RAYMOND CHEN’S** *Web site, The Old New Thing, and identically titled book (Addison-Wesley, 2007) deal with Windows history and Win32 programming. He prefers to run away before the fuse is lit.*