

Start Up Keys

Need to modify functions at startup?... the knowledgeable folks on TidBITS Talk have pointed out the standards and even more startup modifiers as well. The next time you turn on your Macintosh, try one of the following.

Controlling the Post-Startup Environment

Most Macintosh users know about holding the Shift key down to prevent extensions from loading, but there are numerous startup modifiers that affect the state of the system after the boot process finishes.

Shift causes the Mac to boot without extensions, which is useful for troubleshooting extension conflicts. If you hold down Shift after **all the extensions** have loaded **but before the Finder** launches, it also prevents any startup items from launching.

Spacebar launches Apple's Extensions Manager early in the startup process so you can enable or disable extensions before they load. Casady & Greene's Conflict Catcher, if you're using it instead of Extensions Manager, also launches if it sees you holding down the spacebar, or, optionally, if Caps Lock is activated. Conflict Catcher also adds the capability to configure additional startup keys as ways of specifying that a particular startup set should be used. Choose Edit Sets from the Sets menu, select a set in the resulting dialog and click Modify. In the sub-dialog that appears, you can specify a startup key and check the checkbox to make it effective.
<<http://www.casadyg.com/products/conflictcatcher/8/>>

Option, if held down as the Finder launches, closes any previously open Finder windows. On stock older Macs, holding down Option does nothing at startup by default, although some extensions may deactivate if Option is held down when they attempt to load; see below for Option's effect on new Macs and Macs with Zip drives.

Control can cause the Location Manager to prompt you to select a location. Although Control is the default, you can redefine it in the Location Manager's Preferences dialog, and since Control held down at startup also activates Apple's MacsBug debugger (see below), you may wish to pick a different key combination. * Command turns virtual memory off until the next restart.

Shift-Option disables extensions other than Connectix's RAM Doubler (and MacsBug - see below). To disable RAM Doubler but no other extensions, hold down the tilde (~) key at startup. <<http://www.connectix.com/products/rd9.html>>

Escape does nothing at startup by default, although some third party utilities might look for it at startup as a signal to disable themselves.

Eliminating Corruption

Several startup modifiers are useful for resetting low-level aspects of the Mac to default states to aid in troubleshooting.

<<http://til.info.apple.com/techinfo.nsf/artnum/n58029>>

Command-Option rebuilds the desktop files on disks when they're mounted.

This can happen when you insert removable media, or at the end of the startup process as the Finder launches. Holding down these keys while all your extensions load may disable some of them - it's best to press the keys between when you see your last extension icon appear and before the Finder launches.

Command-Option-P-R "zaps" the Mac's Parameter RAM, or PRAM, which contains a variety of low-level settings. Zapping PRAM was the subject of an earlier quiz and followup article in TidBITS-506_.

<<http://db.tidbits.com/getbits.acgi?tbpoll=15>>

<<http://db.tidbits.com/getbits.acgi?tbart=05656>>

Choosing Startup Disks

Not surprisingly, many of the startup modifiers affect the disk used to boot the Mac. A number of these are specific to certain models of the Macintosh.

The mouse button causes the Mac to eject floppy disks and most other forms of removable media, though not CD-ROMs.

The C key forces the Mac to start up from a bootable CD-ROM, if one is present, which is useful if something goes wrong with your startup hard disk. This key doesn't work with some older Macs or clones that didn't use Apple CD-ROM drives; they require Command- Shift-Option-Delete instead (see below).

<<http://til.info.apple.com/techinfo.nsf/artnum/n18059>>

<<http://til.info.apple.com/techinfo.nsf/artnum/n24881>>

Option activates the new Startup Manager on the iBook, Power Mac G4 (AGP Graphics), PowerBook (FireWire), and slot-loading iMacs. The Startup Manager displays a rather cryptic set of icons indicating available startup volumes, including any NetBoot volumes that are available. On some Macs with Iomega Zip drives, holding down Option at startup when there is a Zip startup disk inserted will cause the Mac to boot from the Zip disk.

<<http://til.info.apple.com/techinfo.nsf/artnum/n58477>>

<<http://til.info.apple.com/techinfo.nsf/artnum/n20881>>

Command-Shift-Option-Delete bypasses the disk selected in the Startup Disk control panel in favor of an external device or from CD-ROM (on older Macs). This is also useful if your main hard disk is having problems and you need to start up from another device. (On some PowerBooks, however, this key combination merely ignores the internal drive, which isn't as useful.)

<<http://til.info.apple.com/techinfo.nsf/artnum/n2680>>

The D key forces the PowerBook (Bronze Keyboard and FireWire) to boot from the internal hard disk. <<http://til.info.apple.com/techinfo.nsf/artnum/n58342>>

The T key forces the PowerBook (FireWire) (and reportedly the Power Mac G4 (AGP Graphics), though I was unable to verify that on my machine) to start up in FireWire Target Disk Mode, which is essentially the modern equivalent of SCSI Disk Mode and enables a PowerBook (FireWire) to act as a FireWire-accessible hard disk for another Macintosh. <<http://til.info.apple.com/techinfo.nsf/artnum/n58583>>