

# Windows 95 almost had floppy insertion detection but the training cost was prohibitive

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Raymond Chen

One feature which Windows 95 almost had was floppy disk insertion detection. In other words, Windows 95 almost had the ability to detect when a floppy disk was present in the drive *without spinning up the drive*.

The person responsible for Windows 95's 32-bit floppy driver studied the floppy drive hardware specification and spotted an opportunity. Working through the details of the specification revealed that, yes, if you issued just the right extremely clever sequence of commands, you could determine whether a disk was in the floppy drive without spinning up the drive. But there was a catch.

The floppy drive hardware specification left one aspect of the drive behavior unspecified, and studying the schematics for various floppy drive units revealed that about half of the floppy drive vendors chose to implement it one way, and half the other way. Here's the matrix:

| Floppy Style | Disk present | Disk absent |
|--------------|--------------|-------------|
| "A"          | 1            | 0           |
| "B"          | 0            | 1           |

The results were completely reliable within each "style" of floppy drive, but the two styles produce exactly opposite results. If you knew which style of drive you had, then the results were meaningful, but the hard part was deciding which style of drive the user had.

One idea was to have an additional "training" step built into Setup:

"Please insert a floppy disk into the drive and click Next."

Once the disk was in, we could run the algorithm and see whether it returned 0 or 1; that would tell us which style of floppy drive we had.

Unfortunately, this plan fell short for many reasons. First of all, a user who bought a computer with Windows 95 preinstalled would have bypassed the training session. You can't trust the OEM to have gone through the training, because OEMs change suppliers constantly depending on who gave them the best deal that week, and it's entirely likely that on the floor of the warehouse are a mix of both styles of floppy drive. And you certainly don't want to make the user go through this training session when they unpack their computer on Christmas morning. "Thank you for using Windows 95. Before we begin, please insert a floppy disk in drive A:." You can't just try to figure out what type of drive the user has by comparing the clever technique against the boring "turn on the floppy drive light and make grinding noises" technique, at least not without displaying a warning to the user that you're about to do this—users tend to freak out when the floppy drive light turns on for no apparent reason. "Thank you for using Windows 95. Before we begin, I'm going to turn on your floppy drive light and make grinding noises. Press OK."

Floppy disk insertion detection is not a sufficiently compelling feature that users will say, "I appreciate the benefit of going through this exercise."

Sadly, floppy insertion detection had to be abandoned. It was one of those almost-features.

Raymond Chen

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