

# Why are custom properties created on Windows 2000 lost when I view the file from newer versions of Windows?

 [devblogs.microsoft.com/oldnewthing/20110527-00](http://devblogs.microsoft.com/oldnewthing/20110527-00)

May 27, 2011



Raymond Chen

In Windows 2000, Explorer let you add properties like Summary and Author to nearly any file type. But when you view the files from a machine running Windows XP or later, those properties are lost. Where did they go? Most file types do not have extensibility points for adding metadata. For example, every byte of a plain text files is devoted to text data; there is nowhere to put metadata like Author or Summary. In Windows 2000, the shell chose to store this extra information in NTFS alternate data streams (or more accurately, the shell chose to use the `STGFMT_FILE` storage format, which is implemented in terms of NTFS alternate data streams.) Storing the information in alternate data streams attaches the data to the file without affecting the file contents. This was a clever idea, taking advantage of NTFS's ability to attach arbitrary data to a file, but it also had a serious problem: Alternate streams are not preserved by simple and common operations like sending the file by email, copying the file to a (FAT-formatted) USB thumb drive, uploading or downloading the file from a Web site, or burning the file to a CD. Basically, once the file leaves the comfortable confines of your local hard drive, there's a good chance that the metadata will be destroyed. To avoid this problem, Windows XP switched to storing the metadata in the file contents itself. Doing this, however, requires support from the file format. Each file type can have registered for it a property handler which describes how to read and write properties for a file. (Windows itself comes with a few such handlers, such as for JPEG images and MP3 files, with more recent versions of Windows supporting more properties.) If no such property handler is registered, the shell will use structured storage, provided the file format is compatible with structured storage. The data you added in Windows 2000 are still there. It's just that newer versions of Windows don't bother looking for them. (If you were sufficiently resourceful, you could write a program which opens the file in `STGFMT_FILE` mode, reads the properties, then reopens the file via the shell namespace and writes the properties back out.)

For lots of programming goodness about the shell property system, check out Ben Karas's blog, which I have been liberally linking to.

Raymond Chen

**Follow**

