

18 December 2007

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Windows
Microsoft

[Looking beyond XP SP3 and Vista SP1 - Understanding the MinWin Kernel in Windows 7](#)

A perspective from Mark Russinovich

In terms of new releases on the Windows client front, Microsoft is cooking the first Service Pack for Windows Vista and the third and final Service Pack for Windows XP. Both refreshes are planned for 2008, with the Redmond company offering as deadlines the first quarter and the first half of the upcoming year. But, looking onward as far as Windows goes there's only a big gap: stretching for the next couple of years, and only then, the promise of Windows 7. Little is known about the successor of Windows Vista. At this point in time, Microsoft has only revealed that the operating system would support both 32-bit and 64-bit architectures, and that it would drop in mid 2010. In October 2007, [Microsoft Distinguished Engineer Eric Traut](#) managed to let a few crumbs of information slip through and talked about Windows 7. More specifically, Traut discussed the work that Microsoft was doing at the kernel level of Windows 7 and brought MinWin to the table. According to Traut, MinWin is nothing more and nothing less than the core of Windows 7. Essentially, MinWin is at the center of Microsoft's efforts to completely componentize the Windows operating system, and the heart of the operating system capable of running on just 40 MB Ram and occupying a total of 25 MB of space, although the size will be reduced further as the kernel evolves. "Eric Traut gave a talk where he mentioned something called MinWin. And there is a lot of confusion out there over what MinWin is and how it relates to Server Core. It's kind of unfortunate that the name MinWin was used at one point, early in the development of Server Core, internally and in some public presentations. So a lot of people, when they heard MinWin, thought, oh, that's the MinWin that was the basis for Server Foundation, for Server Core. Actually, the MinWin we're talking about today is something pretty different", revealed Mark Russinovich, Microsoft Technical Fellow. Now, you will be able to catch a video of Russinovich explaining MinWin via [Channel 9](#). But essentially, it looks like Microsoft is pouring a lot of work into stripping down the Windows kernel and making it a completely separate item from the rest of the Windows operating system. This is what users will have with Windows 7, come 2010. "The MinWin that we are talking about today is really [the work] done to analyze the dependencies and carve out the lowest, smallest, core component of Windows. A standalone, testable, slice of Windows. And that is analyzing the dependencies and cutting the lines, the cycles, from MinWin to higher level components, really making sure that MinWin doesn't depend on anything else. That is totally self-contained... so it can be built separately from the rest of Windows source tree and run independently from the Windows source tree", Russinovich continued.