

Using /LARGEADDRESSAWARE on 64-bit Windows for 32-bit programs

 devblogs.microsoft.com/oldnewthing/20050601-24

June 1, 2005



Raymond Chen

Probably the biggest advantage of 64-bit Windows is not the larger registers but rather the expansive 64-bit address space. Recall that even when the /3GB switch is set, 32-bit programs receive only 2GB of address space unless they indicate their willingness to cope with addresses above 2GB by passing the /LARGEADDRESSAWARE flag. This flag means the same thing on 64-bit Windows. But since 64-bit Windows has a much larger address space available to it, it can afford to give the 32-bit Windows program the entire 4GB of address space to use. This is mentioned almost incidentally in [Knowledge Base article Q889654](#) in the table “Comparison of memory and CPU limits in the 32-bit and 64-bit versions of Windows”.

In other words, certain categories of 32-bit programs (namely, those tight on address space) benefit from running on 64-bit Windows machine, even though they aren’t explicitly taking advantage of any 64-bit features.

[Raymond Chen](#)

Follow

