IGOR64 can theoretically address about a billion gigabytes. However, actual operating systems impose far lower limits. On Windows 10, 64-bit programs can address between 128 GB (home edition) and 512 GB (professional edition). On Mac OS X, 64-bit programs can theoretically address the full 64-bit address space.

If you load more data than fits in physical memory, the system starts using "virtual memory", meaning that it swaps data between physical memory and disk, as needed. This is very slow. Consequently, you should avoid loading more data into memory than can fit in physical memory.

Even if your data fits in physical memory, graphing and manipulating very large waves, such as 10 million, 100 million, or 1 billion points, will be slow.

All of this boils down to the following rules:

1. If you don't need to load gigabytes of data into memory at one time then you don't need to worry about memory management.
2. Run IGOR64 unless you rely on 32-bit XOPs that can not be ported to 64 bits. If you are running on Macintosh and rely on 32-bit XOPs, you must run Igor7.
3. Install enough physical memory to avoid the need for virtual memory swapping.

For further information about very large waves, see **IGOR64 Experiment Files** on page II-35.

Macintosh System Requirements

Igor Pro requires Mac OS X 10.9.0 or later.

Windows System Requirements

Igor Pro requires Windows 7 or later.