

which software do I need

should i take a 32 or 64 bit Operating System?

The 32 Bit memory limit

The 32 bit versions of Windows can address a maximum of 4096 MB of memory. Nevertheless, it is synonymous with installed 4096 MB, that for Windows only about 3000 MB are available. The reason is that 32 bit operating systems can only address a total of 4096 MB and the system bus also reserves a part for itself.

The graphics unit integrated on the processors does not have its own memory. The integrated graphics unit uses the memory of the pc. This can lead to a display of 3.7 GB under Windows, for example with installed 4 GB memory. This would be normal because the reserved graphics memory is no longer available for other applications.

This "problem" can only be solved by installing a 64-bit version of Windows.

64 Bit - What do i need?

In order to install a 64-bit operating system, a processor that supports the 64-bit address space is needed. At Intel the corresponding processor feature is called Intel 64 or Extended Memory 64 Technology ("EMT64T"). AMD calls it AMD64. So you have to either investigate whether your own processor provides these functions or for a new system, the equivalent CPU.

Currently available CPUs on the market almost always support 64-bit operating systems.

Note: Windows Vista & Windows7 Home Premium 64 Bit have a limit of 16 GB RAM.

Pros and Cons of 64 Bit

The only drawback of the 64 bit expansion is that more memory is needed for the address values. Since an address value now has a length of 64 bits (instead of only 32 bits), more memory is also required in the applications for the address values. This means that on the one hand the execution files for 64-bit applications can be larger than their 32-bit versions, and on the other hand, the execution speed can also be reduced.

In today's memory sizes this is negligible.

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