

The computation PC is an important consideration when designing your upcoming X-ray tomography station or device. Eigenor is proud to provide industry-leading results with competitively modest calculation units.

Widest operating system support in industry

Eigenor software is supporting all major platforms and can be adapted to remaining operating systems with modest efforts.

We support:

- Modern 64-bit Windows (Windows 7 or Windows 8.1)
- OSX 10.6 or newer
- Linux 64-bit

We recommend Windows 7 Professional 64-bit or Ubuntu 14.04 LTS 64-bit. It should be noted that Windows 7 has an upper limit on RAM (192 GB) and the number of CPUs (2). Windows server versions offer higher limits.

External dependencies

Eigenor software is based on Eigenor's own IPRs. We offer OEMs solutions that do not depend on acquiring 3rd party licenses.

- Eigenor offers its own FFT and support for FFTW and Apple FFT.
- All Eigenor software is optimized for OpenCL based GPU optimization. OpenCL is available on all platforms without restrictions.

Low-level integration to Intel CPUs for optimal gain

Eigenor has used considerable efforts to fully utilize the modern Intel CPUs, the global leading CPU provider. Eigenor uses AVX on all reconstruction methods and post-processing tools. Software is optimized to use AVX2 vector instructions where available for even faster execution. Hence all Eigenor software requires an Intel CPU with AVX support (2nd generation Intel core series or newer).

Choose right hardware for your reconstruction method

Eigenor FDK

- Modern Intel or AMD CPU with multithreading. Highly optimized multithreading gives full benefits of multi-CPU or CPU+GPU combinations.
- 8 GB or more of CPU RAM
- For GPU support, add at least one modern ATI R9-series GPU with at least 2GB GDDR5 RAM.
 - Actual need of GPU RAM can be easily calculated when intended target reconstruction grid size is known.
- Optimized to fully benefit multi-GPU configurations. It is recommended to have two identical GPUs. Having more than two GPUs rarely gives major benefits.
- As evidenced, Eigenor FDK runs on any PC, even the most basic Intel based workstation will do, allowing you to save up to 70% from computation PC price compared to competitors.
- We recommend a modern, fast, SSD drive for optimal data read/write for time critical applications. Anything with over 400MB/s read AND write speeds would produce optimal results. For example Samsung 850 series SSD work very well.

Eigenor SART

- Modern Intel or AMD CPU with multithreading. Highly optimized multithreading gives full benefits of multi-CPU or CPU+GPU combinations.
- 32 GB or more of CPU RAM
- One or preferably two modern ATI R9-series GPUs with at least 2GB GDDR5 RAM
 - Eigenor SART relies heavily on GPUs and hence a midrange CPU is enough
- We recommend a modern, fast, SSD drive for optimal data read/write for time critical applications. Anything with over 400MB/s read AND write speeds would produce optimal results. For example Samsung 850 series SSD work very well.

Eigenor PSIG

- Intel CPU with AVX support (2nd generation Intel core series or newer). Can utilize multi-CPU configurations. PSIG does directly scale from multi-core hardware.
- 32 GB or more of CPU RAM. Exact RAM needs is determined by amount of projections and size of intended reconstruction grid and can be even up to 512 GB.
 - We will gladly help you to define how much you really need.
- For PSIG we have extensively tested HP Z 800-series machines, such as HP Z840 with Dual Xeon E5-2680v3. As the PSIG does use all CPU cores fully, a well-designed cooling solution is required. We recommend using only workstations designed for intensive workloads.
- Production use of PSIG requires a powerful machine with at least 16 CPU cores.