GPU reconstruction



SCANCO MEDICAL

GPU Accelerated Reconstruction System

The SCANCO GPU Accelerated Reconstruction System is an optional module for faster image reconstruction using Windows-based workstations. The SCANCO GPU Reconstruction software is fully integrated in the scanner workflow and works automatically without any user intervention.

The system will speed up the calculation time up to 120 times* in comparison with the standard reconstruction software running on an OpenVMS single core. It additionally frees resources on the OpenVMS workstation leaving more computer power for analysis tasks.

Images reconstructed with the SCANCO GPU Accelerated Reconstruction System are fully compatible with images reconstructed with the standard CPU based reconstruction software.

The SCANCO GPU Accelerated Reconstruction software typically runs on an NVIDIA GPU Accelerator with Kepler or Pascal architecture (Tesla P5000, P6000, RTX 4/5/6000)**.



Graph showing the gain in speed between the standard CPU reconstruction operating on one core of the CPU in comparison with the GPU reconstruction running on NVIDIA GPU Accelerator Tesla K40c. The reconstruction time changes linearly with the number of cores and is hence eight times shorter for an eight core OpenVMS workstation. The speed gain is shown for different sizes of the image matrix.

Typical configuration

HP Desktop Workstation, 64 bit RAM CPU (cores) Disks GPU

SCANCO Medical AG Fabrikweg 2 8306 Brüttisellen Switzerland tel +41 44 805 98 00 fax +41 44 805 98 01 Z4 64 GB 1 (8) 1 TB SSD NVIDIA RTX 5000 Z8 128 GB 2 (24) 512 GB SSD + 1 TB SSD NVIDIA RTX 6000

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NVIDIA GPU Accelerator

*on a Z4 workstation ** further options will be announced as available