Digi

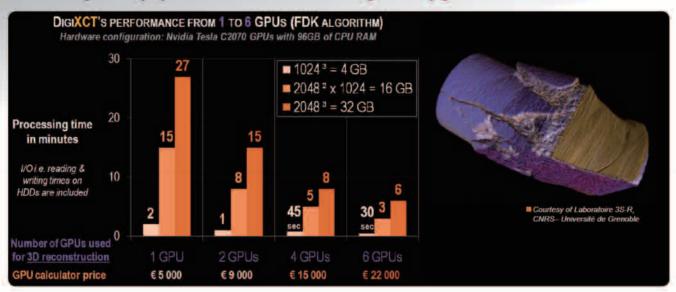
Turnkey multi-GPUs X-ray CT software

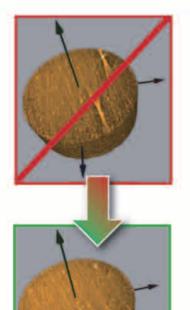
Calibration, reconstruction (FDK, SART, SIRT, OS-SART) and visualisation

Ergonomic, user-friendly and expert visualisation for high-quality data export

Fully compatible with most existing X-ray CT equipments + synchrotron sources

Your X-ray CT equipment deserves now a DigiXCT upgrade to deliver excellence!





Star Artifact Reduction by Digisens

Easiest and fastest workflow available for large data

- 1 Scanner independent : select your geometry files in one click: microCT, nanoCT or synchrotron data
- 2 Optimise acquisition parameters: rotation axis & center adjustments... and preprocess data in 2D: beam hardening correction, ring artifact removal...
- 3 Reconstruct in 3D volumes up to 4096 3 voxels or slices with several GPU boards using FDK, iterative algorithms or phase contrast
- 4 Postprocess data in 3D: metal artifact reduction...
- 5 Display your data: volume & surface rendering and start your investigations in a few minutes!

Why upgrading your Computed Tomography software?

Computer hardware and software evolve way faster compared to the core components of a CT scanner. X-ray tubes, detectors and rotation stages are indeed simple and robust and cannot be much improved.

To get most of your CT system, added-value moves now towards complex software for optimal performance.

This idea is more and more shared by all expert users/OEMs throughout the world. That's why Digisens – as a pioneer in CT software development on the GPU – has an extensive track record of successes in Europe, North America and Asia.



→ All-in-one software with calibration, reconstruction and visualisation

Calibration Flexible plug-in which reads and optimise all the geometry parameters of your system in conebeam, fan-beam or parallel-beam

- Totally integrated, compatible with all major brands of CT equipment manufacturers + custom-made scanners
- Straighforward "drag & drop" of scanner's geometry details recorded into TXT, PAR, PCA... files
- Improved corrections: tilt-series alignment procedure and 3D-recalculation of rotation axis if drifts occur

Reconstruction Fast 3D-reconstruction module based on FDK analytical algorithm specifically optimised for mono- and multi-GPUs computation, intended to avoid all bottlenecks during the overall process

- Choose your configuration according to your needs and budget: 1, 2, 4 or 8 GPU boards or many more (HPC)!
- Supported image formats: TIFF, RAW, VFF, DICOM, BMP, PNG, JPEG...
- Ultrafast 2D and 3D previews, GPU-accelerated pre- & post-filtering treatments
- No datasize limit and real-time results for small volumes e.g. 512 3 voxels

VISUALISATION & EXPORT WITH DIGIOBS Simple, user-friendly and intuitive visualisation tool

- Uppermost quality volume rendering with volumetric ray casting, high-resolution slices viewing
- Seamless export in numerous file formats to analyse data in expert software

Support and Maintenance All our software updates are available during the year following DigiXCT acquisition and appropriate training is provided

- √ Supported operating systems: Microsoft Windows XP or 7 (64 bits)
- √ Works with Nvidia GPU boards: Tesla and Quadro or GeForce series
- Totally compliant with GPU clusters for High-Performance Computing (HPC)



→ Premium options

Star (or Streak, Metal) Artifact Reduction state-of-the-art 3D algorithm from Medical CT imaging



- 3D dynamic segmentation of the materials causing streak-patterns to cut off them during 3D reconstruction
- No more streaks around materials that block most X-rays, such as metal or bone + better contrast in images

R&D | | Tendive algorithms | Expert CT reconstruction methods (SART, SIRT, OS-SART) on mono- and multi-GPUs

- Superior image quality; less artifacts and enhanced results with low contrast and/or low S/N projections
- o Dose reduction: decrease the acquisition time and achieve the same results with less projections

DigiMEAS Toolkit for informative measurements, oriented slices extraction, advanced surface rendering and analysis

- Angle, circle and segment measurements; visualization and export of oriented cut-planes
- o Certified mesh export (triangles with perfect shapes, no missing ones) in SURF, STL, POINTS and OBJ





