The customer
Created on 1 January 2014, the Center of Knowledge and Information Science and Technology at the Wrocław University of Technology (Politechnika Wrocławska) is a university-wide organizational unit conducting scientific, research, training and service activities. The center reports directly to the Vice-Rector of the university for Research and Economic Co-operation. The main tasks of the center include IT support for Libraries, Faculty Departments, Scientific Research Laboratory Teams and other units of higher education.

The challenge
Providing technological support for organizational units of Wrocław University of Technology, mainly for the Department of Digitization and the Knowledge Repository as well as students of the university.

The solution
The Laboratory of Systems and Information Services and the Center of Knowledge and Information Science and Technology at the Wrocław University of Technology use FUJITSU CELSIUS C620 Workstations with NVIDIA Quadro K5000 4GB cards supplied by Fujitsu’s partner Advatech.

The main applications of Fujitsu graphics workstations are the tasks carried out by the Department of Digitization and the Knowledge Repository. The department uses equipment owned by the Center of Knowledge and Information Science and Technology at the Technical University of Wrocław in projects related to the development of digital 3D scans, imaging mainly spatial objects, as well as for processing raster graphics.

"Fujitsu’s solutions are used by us primarily for graphics processing. Workstations are also rented to students, who use them for their own projects," says Kamil Wajsen, IT Specialist in the Laboratory of Systems and Information Services and the Center of Knowledge and Information Science and Technology, Politechnika Wrocławska.

»Considering the performance and reliability of the FUJITSU CELSIUS C620 Workstations with NVIDIA Quadro K5000 4GB cards that we use, we can definitely say that the solutions used primarily in the Lower Silesian Digital Library and lent to students have fully met our expectations.«
Kamil Wajsen, IT Specialist in the Laboratory of Systems and Information Services and the Center of Knowledge and Information Science and Technology, Politechnika Wrocławska
The digitization workshop has been operating since 2004, sending electronic documents to the virtual collection of the Technical University of Wrocław in the Lower Silesian Digital Library (DBC). Wrocław University of Technology is the coordinator of the Lower Silesian Digital Library Consortium, which now includes 22 libraries and regional institutions. The DBC’s objective is to protect written cultural and scientific heritage, especially related to the region of Lower Silesia, through digitization and archiving, as well as sharing and promotion. The DBC also provides access to teaching materials. Wrocław University of Technology students also benefit from Fujitsu’s graphics stations as they can rent them for their own projects.

The benefit

Until now, close to 9,000 electronic documents (books, magazines, prints, maps, multimedia materials, and also presentations of 3D and 360° spatial objects prepared using Fujitsu graphics workstations) have been digitized and made available in the Technical University of Wrocław’s collection. ‘Fujitsu workstations with NVIDIA Quadro K5000 graphics cards are also useful for modeling and editing 3D objects in CAD,’ says Kamil Wajsen.

Conclusion

“We are pleased with the performance and reliability of the Fujitsu graphics stations. These devices fully meet the expectations we had at the time of our order.”

Kamil Wajsen, IT Specialist in the Laboratory of Systems and Information Services and the Center of Knowledge and Information Science and Technology, Politechnika Wrocławska

The benefit

- High-performance computing required for professional applications used in the projects carried out by the university’s students
- Stability of work with advanced software for the Department of Digitization and Knowledge Repository
- Computational efficiency in 3D modelling and CAD realizations

Products and services

- FUJITSU CELSIUS C620 Workstations

Fujitsu devices from the outset have been incorporated into the VDI cloud environment. In carrying out the aforementioned tasks on Fujitsu graphics stations, the following software is used for the preparation of 3D and 2D graphics:

- 3DSystems solutions (XOS Geomagic, Control), which are used for the processing of point clouds with a 3D scanner;
- Autodesk - 3ds Max 2015 and Mudbox 2015 are used for modeling, editing and texturing 3D objects
- Programs for processing raster and vector graphics as well as animation (including Adobe Photoshop CS6, Adobe After Effects CS6, Cuminas Document Express Enterprise 7.5, Corel Draw).