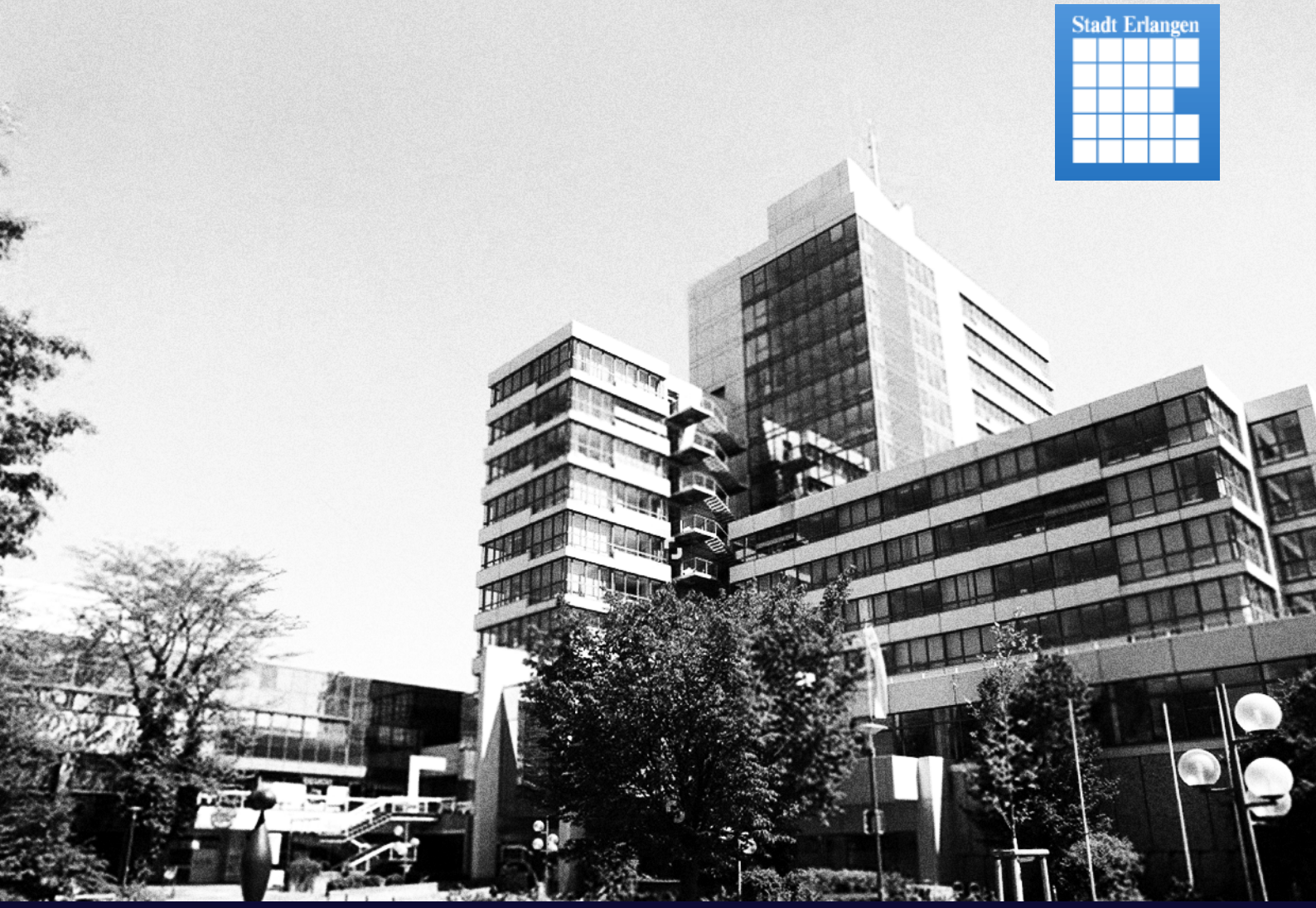
CITY OF ERLANGEN USES FOXIT'S PDF/A SOLUTIONS TO SUPPORT LONG-TERM ARCHIVING AND DATA COMPRESSION FOR CONSTRUCTION FILES



CASE STUDY

Residents of Erlangen, Germany, are quite Internet savvy. More than 70 percent of residents have Internet access –above the average of just 66% for the entire country – and they expect their city government to offer comprehensive online services. To meet its constituents' needs, the city established its eGovernment Center in early 2002 in part to support electronic processing of documents. The employees of the eGovernment Center are responsible for planning and implementing e-government projects, including infrastructure projects such as a geographic information system (GIS), document management, forms servers and a virtual mail room. Because they manage such a wide variety of electronic documents – many of which must be kept for 10 years or more – the city needs to ensure that the file formats they are using will be accessible long into the future. Another consideration is the space required to store such a large amount of digitized documents. Specifically they were concerned about data-intensive documents – such as construction files with large drawings – that must be scanned and transferred over the network. For example, the construction supervisory authority in Erlangen needed an e□cient solution for compressing and archiving blueprints and other large documents in a format that could be easily accessed, because they were required to keep the files for the entire life of a building.

Compression specialist Foxit already known in Erlangen

Officials in Erlangen considered a number of compression technologies, including extensive research at DMS EXPO, Europe's leading trade show for digital management solutions. Ultimately the city selected the Foxit PDF Compressor Enterprise to compress scanned construction files and convert them to PDF/A. In addition to its functionality and performance, a key factor in selecting the PDF Compressor was that Foxit's solution was non-proprietary, which ensured its usability for years to come. The city already knew about Foxit thanks to a previous project due to be completed soon: hundreds of thousands of record cards containing resident registration details – some of them dating back to the start of the last century – had been digitized using the QuickScan Pro scanning software from EMC, then compressed and converted to PDF format using the Foxit PDF Compressor Enterprise. This means these records are now available for quick lookup at any time.

With the digitization of construction files beginning in February 2007, the city began a new Foxit project. As part of the changeover from paper-based to electronic processing of construction files, the construction supervisory authority introduced a specialized software called OTS Bau, which includes a construction file archive for which all new incoming documentation is scanned. A centrally-installed PDF Compressor was incorporated into the import module of OTS Bau to ensure that the scans are archived according to the PDF/A standard. In contrast to simple conversion tools, which merely embed the files in a PDF/A-compatible wrapper, Foxit's technology also compresses the files to minimal sizes at the same time. The PDF Compressor uses Foxit's own multi-layer compression technique to separate the text and image components in each document into individual levels, compressing these separately with the best algorithm for each component. The one-bit portion is stored in a lossless manner using Fax Group 4 or JBIG2 format, and the foreground and background are processed with more efficient image compression. The PDF Compressor delivers excellent font and image quality in files that are extremely small in size.

For the construction plan images, a customized solution was developed to handle raw data from the plans, which often took up hundreds of megabytes apiece. In this case, a large-format scanner workstation has its own dedicated PDF Compressor, so the network is not overburdened when sending the data to the central PDF Compressor. The software for operating the scanner (Scanmaster 21+) now saves the uncompressed TIFF files directly to the import directory of the PDF Compressor. After being compressed and saved in PDF/A format, the files are manually transferred by the employees to the associated construction file in OTS Bau.

"Our experience shows that the compression and conversion of scans to PDF/A is practical and worth recommending for both bulk documents and optically 'challenging' scanned material," said Dr. Wolfgang Greska, DMS project manager for the city of Erlangen, summarizing the success of using the PDF Compressor for the construction project.

Plans for the future

The city of Erlangen is now in the process of moving to digital file management for routine business as well. This stage of the project includes plans for incorporating Foxit's PDF/A conversion technology in the selected document management system (DMS), eGov Suite from Fabasoft, to automatically save all scanned and electronically created documents in this format.

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