Nuremberg Building Authority Reduces Building Permit Processing Time by 25%

Nuremberg Building Authority
Nuremberg, Germany
www.stadt-nuernberg.de

Industry:

Public Sector

Oracle Products & Services:

AutoVue 2D Professional

Key Benefits:

- Simplified the building permission process and reduced processing time by 25%
- Realized time savings by enabling parallel processing by multiple departments and employees
- Enabled 350 users to easily access construction plans via the Web-based system
- Enabled the digital viewing and measurement of large plans and TIFF documents

"Last year the granting of a building permit took an average of 58 days, a very good score compared to other cities. Since the introduction of the electronic construction document system and Oracle's AutoVue 2D Professional, the processing time for building applications has reduced by about 25%."
– Uwe Widmann, Information Processing Director, Nuremberg Building Authority

Builders know from painful experience that obtaining a building permit can sometimes take longer than building a house. To be able to process building applications more quickly and to integrate the participating departments simultaneously into the permission process, the Nuremberg Building Authority has replaced the paper-based process with an electronic construction document system. The Nuremberg Building Authority uses Oracle's AutoVue 2D Professional, an enterprise visualization software solution, to view digital construction plans.

Each year, the Nuremberg Building Authority receives roughly 3,200 building permit requests. While that number is not increasing significantly, there are fewer and fewer staff members available to process them. Public funds are scarce, and the Building Authority alone has lost about one third of its technical consultants, not to mention the staff reductions in the other authorities involved in the granting of building permits. Without more efficient procedures, builders would have to wait an increasingly longer period to obtain their building permits.

The building permission process is a complex, administrative procedure that involves architects, builders, and numerous other departments, such as the Urban Planning Office, the Environmental Office, the Lower Monument Preservation Authority, or the urban public utility and waste management companies.

"It is our job to check which public agencies are concerned by a certain building project and to obtain their reports," said Uwe Widmann, the Building Authority's information processing

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Uwe Widmann
Information Processing Director
Nuremberg Building Authority

director, also in charge of the Electronic Construction Document System project.

Simplify and Accelerate the Building Permit Process

The Electronic Construction Document System project was conceived in 1998 with the objective to simplify and accelerate the building permission process. Users submit construction documents in electronic format, if possible, and then each participating department simultaneously processes them electronically.

Immediately after users submit construction plans, the plans are recorded electronically and stored along with the scanned application forms in the document management system, which is in use city-wide and can be accessed by all departments via an intranet. From this point on, the electronic construction plan will be the authoritative document for the further processing of the application. It combines all documents into one building project, from the building application—which includes reports from the respective departments and permits issued by the Building Authority—to writings from the Building Inspection Authority and, if applicable, documentation on legal proceedings.

Provide a Functional and User-Friendly System

Oracle's AutoVue 2D Professional visualization solution is the primary reason the paper-free permission process has been so well received. With the application, users can view and clearly display digital construction plans on a computer screen. When users zoom into the plan, a small window with an overview of the actual position is always displayed.

"The fact that they can view large construction plans on the computer without losing track of the entire document has been remarkable for users in the departments," Widmann said.

Deliver Web-based Access and Simplify Installation

Another enormous benefit that AutoVue 2D Professional provides is the availability of a Web version. The Building Authority can use the Web version on all PC workstations within the organization and in the different departments, without requiring local installation. The software was only installed on the Windows server on the premises, which the personnel in the Information Processing Department did during the

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implementation of the electronic construction document project. About 350 users in total are working with the AutoVue 2D Professional application, including 100 users in the Building Authority and 250 users in the different departments involved in the permission process.

Today, the Building Authority uses AutoVue 2D Professional to visualize scanned plans and occasionally some JPEG images. Departments outside the city, such as the Trade Supervisory Office or the power utilities, can access the electronic construction plan through the internet but it is their responsibility to get the Viewer.

“With AutoVue 2D Professional, we visualize up to 95% of the plans in TIFF LZW format, which is very compact and ideal for archiving,” Widmann explained.

Although the organization is not using AutoVue 2D Professional’s real-time collaboration feature today, it is under consideration for future use. According to Widmann, the ability to visualize construction plans on different computers in real-time is an interesting option for the future to facilitate coordination among different departments.

Realize Time Savings with Parallel Processing

The Building Authority employees access AutoVue 2D Professional directly from their application (OTS Bau) by clicking on the plan they want to view. The employees in the participating departments do so by using the corresponding button in the Web application of the electronic construction document. OTS Bau is based on a small workflow. After a scanned application has been saved, an e-mail is sent to the different departments to inform them of this addition. At the same time, the system delivers the application forms filed in the central DMS to their electronic Inbox.

Normally, four or five departments are involved in the permission process. They examine, for example, if the building project conforms to nature and monument regulations. Thanks to the electronic construction document system and AutoVue 2D Professional, departments can simultaneously prepare their reports for a building application without having to send a paper-based file by mail. Within the Building Authority too, the building application passes in electronic format through several hands for

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approval until it finally reaches the field service, which has to supervise, through random inspections, the application's compliance with the imposed requirements. Parallel processing delivers both internal and external time savings.

Reduce Processing Time by 25%

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The electronic permission process not only saves time for builders but also delivers cost benefits for the architects.

The next step is to directly integrate AutoVue 2D Professional into the document management system, which would facilitate document handling, explained Widmann. Currently documents have to be checked out of the system and checked into temporary storage for visualization. This complicates the usage of the layering technique. With the direct DMS integration with AutoVue 2D Professional, this process will be completely automated.

Why Oracle?

While searching for an efficient viewing solution for the electronic construction plan project, the Building Authority examined the market very thoroughly and took a close look at seven different products. Apart from the need to view large plans, other requirements included the capacity to measure TIFF drawings to scale, print sections true to size, and use several layers for placing their annotations.

"Compared to other products, AutoVue 2D Professional offers exactly the functions that we require," Widmann said. "Oracle's AutoVue 2D Professional is intuitive and easy to use and does not require any time-consuming training for users. For most users, a ten-minute introduction is usually sufficient."

Implementation Process

During the implementation of the project, the Building Authority collaborated closely with different partners, who had to combine their respective hardware and software solutions in order to stay abreast of the complex challenges posed by the electronic

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construction document. The electronic permission process has been in use in the city of Nuremberg since fall 2003.

The Nuremberg Building Authority awards building permits for construction projects throughout the city of Nuremberg, Germany. The organization processes approximately 3,200 requests per year.

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