

# Stadtwerke Mainz AG Gains Efficiency and Cost-Savings for Public Utility Operations

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CADconform Case Study

*CADconform is a key component for infrastructure operation, maintenance and development in Mainz, Germany*

Germany has a reputation for precision engineering, efficiency and use of standards. So it was no surprise that Stadtwerke Mainz AG, the service company that operates the public utilities infrastructure for the city of Mainz, Germany, selected CADconform to develop and manage its CAD standards. (See "Overview of Stadtwerke Mainz AG" sidebar on reverse side.)

Using CADconform Stadtwerke Mainz has been able to move from its paper-based standards and implement and enforce 100% conformance to electronic CAD standards for the operation, maintenance and development of the public utility infrastructure. The immediate benefits for the company are greater efficiency for its in-house drafting operations and staff, and a software-based solution that empowers the staff to achieve 100% conformance to CAD standards. The long-term business benefits are the ability to better manage joint venture and partnership projects, which are primary to Stadtwerke Mainz's mission, and to potentially increase its workload by outsourcing some of its drafting without sacrificing quality.

## Life Before CADconform

Like many other companies, before using CADconform Stadtwerke Mainz relied on printed standards manuals and the limited capabilities native to drafting software. Printed standards manuals are inherently time-consuming and error-prone, relying on each individual drafter to locate the applicable standard from a thick manual, then read, understand, and apply it correctly each and



Mainz Cathedral, formally known in English as St. Martin Cathedral (in German as Mainzer Dom), is a Romanesque cathedral located in the historical center of Mainz.

Case Study – Quick Look

## CADconform at Stadtwerke Mainz AG

- ▲ Finally 100% conformance to standards!
- ▲ Enhances interoperability with partners
- ▲ Delivers 30% gain in drafting efficiency
- ▲ Enables quality control with outsourcers
- ▲ Leverages existing tools for fast implementation
- ▲ Eliminates time consuming administration

every time. Then the person responsible for checking the drawing must do the same thing, with the same level of accuracy.

The most frequently used drafting software packages have some functionality for drafting with standards, but there is no capability for checking and ensuring that a drawing does in fact conform to the standards. Also, the software must be configured for each drafter (instead of configuring it once and applying to all drafting workstations), which makes it difficult to implement consistently and difficult to update and maintain for multiple drafters.

"The labor-intensive, time-consuming, error-prone process of printed standards manuals in no way provided us the levels of efficiency and cost-effectiveness which are core to the mission of Stadtwerke Mainz," explained Ralf Breidling, Technical Planning. "We knew there was a better way to run a drafting operation and with CADconform we have been able to achieve it."

## Life With CADconform

Since using CADconform, Stadtwerke Mainz has now successfully implemented its standards for these six disciplines: structural engineering, civil engineering, gas plant construction, water plant construction, building technology, and fire service plans.

All drafters work on maps and drawings for all disciplines. So as part of the CADconform implementation, extensive analysis and reviews were conducted to streamline the organization and design of the standards themselves. Also, drafters had previously implemented some standards into the drafting software through cells, macros and such; this work was also reviewed as part of the standards analysis.

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"CADconform's ability to import standards from any electronic source allowed us to leverage our existing work in the drafting software and get our standards system operational faster," said Breidling. "And CADconform's easy-to-use feature tables (which are how CADconform stores standards) helped in our analysis and process to simplify and improve the organization and design of our standards."

Breidling also commented that CADconform's single-point-of-administration increased efficiency for the CAD administrator and ultimately the consistency of the drafting environments.

The drafters at Stadtwerke Mainz report that daily drafting tasks are much faster and easier using CADconform and that they enjoy drafting with it. Stadtwerke Mainz management is estimating a 30% gain in drafter productivity since using CADconform.

"Everyone at the company is pleased that with CADconform, we now have a fast, reliable method to check the conformance status of drawings and quickly and easily locate and correct non-conformances," added Breidling.

### The Future With CADconform

Stadtwerke Mainz is now eager to introduce its many partners and associates to the benefits of CADconform. As part of its standard operat-

ing practice, Stadtwerke Mainz participates in various subsidiaries, associations and joint ventures for the efficient, cost-effective maintenance and development of the utility infrastructure it operates for the city of Mainz.

"We see how CADconform, particularly its ability to check the conformance status of large numbers of drawings, will benefit the project management and data transfer for maintenance and development projects with our partners," stated Breidling. "It will allow us to extend the efficiency and cost-savings CADconform has provided within our organization across the entire operation, maintenance, and development lifecycle."



Mainz, in southwestern Germany along the Rhine River, is home of Johann Gutenberg, who invented the printing press.

### Overview of Stadtwerke Mainz AG

The city of Mainz is located in Southwest Germany on the Rhine River, where it has been a busy trading center since Roman times. Stadtwerke Mainz AG is a service company whose primary purpose is the economic and environmentally friendly operation of the electricity, gas and water network for the city of Mainz and surrounding locale, which is a service area for about 250,000 people. Stadtwerke Mainz also produces its own water and manages communication technology and port services. It operates and manages the facilities for all the service infrastructure including, pipes, conduits, cables and wires, and related equipment.

Stadtwerke Mainz has about 1200 employees and annual revenue of \$274 million USD in 2004.

As part of its operational responsibilities, the company also coordinates with other companies for the development of new facilities and maintenance and repairs of existing facilities through subsidiaries, joint ventures, and associations, as necessary and appropriate depending on the nature of the work.

A department of the city government until the early 1970s, Stadtwerke Mainz is now a public company with all shares owned by the city of Mainz. As such, the company must keep an eye towards efficiency and cost-savings.

An in-house CAD team currently develops and maintains the more than 5,000 maps and drawings which are key tools in managing operations, maintenance and development for the utilities infrastructure.

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Breidling also explains how use of CADconform by associate companies will allow Stadtwerke Mainz to increase its output by outsourcing drafting without sacrificing the quality of drawings and data. That is, with CADconform, all organizations can easily draft and check to the same

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