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Adam Pfister,
Aquatics Designer,
Water Technology, Inc.

Diving into a Better Workflow

By enhancing the power of AutoCAD® software with Autodesk® Design Review technology, Water Technology saves time throughout the design, engineering, and construction process

Project Summary

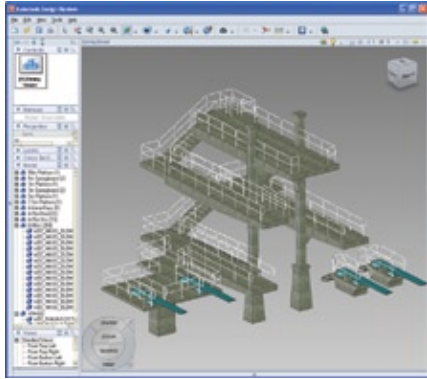
One of the premier aquatics planning, design, and engineering firms in the world, Water Technology helps its clients make visionary swimming pools and water parks a reality. Water Technology’s clients include hotels, municipalities, YMCAs, and water park developers. And while each client’s needs vary, Water Technology strives to deliver an exciting design and responsive service on every project. As Water Technology’s designers and engineers use AutoCAD® software to create designs, their workflow is accelerated with integrated design sharing capabilities. Autodesk® Design Review software and the DWF™ file specification enable Water Technology’s team to do everything from generating design backgrounds to conducting design reviews to collaborating with outside consultants more quickly. Autodesk Design Review helps Water Technology:

- Win new work by presenting innovative designs to prospective clients in an easily accessible format
- Begin initial designs in AutoCAD as much as six hours sooner
- Conduct internal and external design reviews more efficiently
- Incorporate feedback into construction documents as much as 85% faster

The Challenge

Making Collaboration Less Cumbersome
Pools and the accompanying aquatics-support elements, such as filtration systems, bath houses, and water slides, are often designed as part of a larger building project. Typical Water Technology projects include designing lap and leisure pools for a new fitness center, an elaborate series of pools for a five-star resort, or a water therapy center for a hospital. When working as part of a larger team, the designers at Water Technology must integrate their work into the building plans provided by other firms. In the past, this forced them to manually modify CAD files provided by the project architect to create a background for their design of the aquatic elements. Generating a usable background was time consuming and usually plagued by annoying error messages caused by styles embedded within the CAD files.

“It could take as long as six hours to create the backgrounds we use to start designs,” explains Adam Pfister, an aquatics designer at Water Technology. “And that’s not really an isolated problem; it’s part of a larger issue. Traditionally, sharing design information and collaborating with a large project team can be slow and cumbersome—whether you use paper or entire CAD files. We wanted to find a better way.”



"Autodesk Design Review makes collaborating easier."

Glenn Fick,
Aquatics CAD Technician,
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Water Technology tried a leading file viewing and sharing tool, but found that it did not fit seamlessly into its workflow or with its design tools. Instead, creating files for viewing added several steps to the process and did not save much time. Pfister explains, "The files did not contain enough accuracy and detail, and they could not be easily integrated into our designs. We needed a solution that worked well with our design software."

The Solution

Water Technology looked for a design sharing solution that integrated easily with AutoCAD. The firm found that Autodesk Design Review design-viewing capabilities worked seamlessly with DWF files published using AutoCAD. Water Technology transformed every stage of its workflow by utilizing Autodesk Design Review to make designs easily accessible to CAD and non-CAD users. Now, the designers at Water Technology publish designs and backgrounds to DWF directly from within the AutoCAD application. Internal and external reviewers can view, mark up, and measure the designs with Autodesk Design Review, which is available as a free* download from Autodesk.

"We publish designs to DWF at all stages of every project," says Pfister. "We got started by using DWF files of architectural details as backgrounds, and we have steadily increased our use of DWF and Autodesk Design Review. They have made design sharing a more integrated part of our process."

An Olympic-quality Workflow

A current Water Technology project highlights how Autodesk Design Review and DWF have transformed the firm's typical workflow. Called the Shaw Centre, the project is an Olympic-quality aquatics complex being completed for the City of Saskatoon in Canada. The elements Water Technology is designing include a 50-meter by 25-meter competition pool with a 10-meter dive tower, a 25-meter warm-up pool with a wheelchair accessible ramp, and a leisure pool that features a waterslide and current channel.

Water Technology's sales team used Autodesk Design Review to share innovative designs from past projects with the prospective client, helping to win the project. After winning the project, Water Technology's designers imported the architectural details of the complex as a DWF and used it as a background in AutoCAD, accelerating the design process. They published the preliminary designs as DWF files and sent them to the external consultants working on the filtration and other support systems. The consultants used Autodesk Design Review to view the files and begin their work. And to produce construction documents, Water Technology and its consultants used the markup capabilities of Autodesk Design Review, collaborating efficiently to refine the final design.

"Autodesk Design Review makes collaborating easier," explains Glenn Fick, an aquatics CAD technician with Water Technology. "We can import, or roundtrip, comments directly into our design tools. Comments are easier to read than with the file-viewing technology we used to use. The process is much faster and clearer."

The Result

Saving Time—From Start to Finish

By improving design sharing at every stage of its workflow, Water Technology is seeing measurable benefits throughout the design cycle. "We're saving as many as six hours by importing DWF files as backgrounds into designs," reports Pfister. "Being able to conduct design reviews with Autodesk Design Review saves days compared with delivery and paper, and round tripping markups enables us to incorporate comments as much as 85% faster. What's more, clients, and sales staff, and consultants can review and share designs more easily. Like DWF, Autodesk Design Review is a big win for us."

Learn More

Share designs and collaborate with clients and colleagues more seamlessly with Autodesk Design Review. Find out more at www.autodesk.com/designreview.

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