

Take the lead.

Kuwait-based **Kharafi National** cuts drafting time, increases productivity, and produces exceptionally clear, well-coordinated construction drawings with **AutoCAD® MEP** design and documentation software.

Project Summary

Established in 1976, Kharafi National has grown to become a leading Kuwait-based construction firm specializing in mechanical and electrical design and installation. Throughout the Middle East and Africa, the firm's 11,000 employees provide a variety of engineering, project management, maintenance, and construction services to governments and the private sector. In particular, they specialize in mechanical, electrical, and plumbing (MEP) work on large commercial projects such as high-rise buildings, hotels, and airports. Jean Abi Aad is the corporate engineering manager for the Engineering Services Department at Kharafi. "A few years ago, we were looking for a software solution that would streamline the construction processes—and help us become the market leader in the MEP market," says Abi Aad. "We wanted to impact productivity and our long-term profitability." After careful review, Kharafi standardized on the AutoCAD MEP design

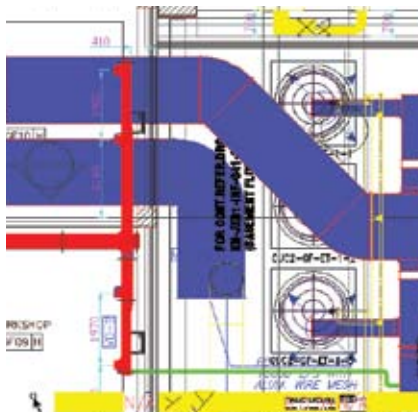
and documentation system for MEP engineers, designers, and drafters.

The Challenge

The firm's first project with AutoCAD MEP was the 100,000-square-foot Dubai Festival City in Dubai, United Arab Emirates. This all-in-one destination blends hospitality, entertainment, business, and residential development into a 3.8-mile stretch of water frontage on the eastern bank of Dubai Creek. Slated for completion in 2015, it's the largest privately funded mixed-use real estate project in the Middle East.

A Vast and Time-Consuming Project

On such a large and complex project, Kharafi needed to streamline the construction process and improve productivity so that the project would be completed on schedule. It was crucial to remove possible errors that could increase costs or cause delays.



Using AutoCAD MEP, Kharafi National was able to

- Save significant time on project revisions with productivity tools that automate much of the revision process
- Better communicate design intent by walking through the complicated mechanical room
- Minimize costly interferences and identify possible issues with powerful visualization capabilities
- Maintain consistent look and feel of drawings by incorporating company standards in the deployment of AutoCAD MEP
- Realize a positive ROI in less than six months

The Solution

With the increased drafting productivity possible with AutoCAD MEP, the company experienced a positive return on investment (ROI) in less than six months.

Collaborate Seamlessly

Using AutoCAD MEP, Kharafi was able to easily reference the architectural and structural plans for projects developed by architects and structural engineers with AutoCAD software. By taking advantage of the AutoCAD-based architectural and engineering workflows between these disciplines, they were able to provide an even higher level of accuracy and coordination in their design and documentation.

Get More Done

Because AutoCAD MEP links design data with other project information—such as schedules and elevations—Kharafi National was able to streamline work on the Dubai Festival City project by easily producing detailed sections in seconds rather than hours. When designers make a change, sections and elevations are easily updated with a simple click of the mouse. This capability saves time and helps ensure accuracy in the design. Each design change is reflected in real time, minimizing tedious manual updates. “That feature really cut the overall time required for revising and editing a drawing,” says Abi Aad.

Do It Faster

Equally powerful is the software’s dynamic scheduling feature. AutoCAD MEP updated the

schedules whenever there was a design change—saving a significant amount of time.

Produce Clear, Coordinated Drawings and Avoid Obstacles

AutoCAD MEP was particularly useful for work carried out on the mechanical rooms for the Festival City project. One of the more complex rooms has five chillers. Instead of doing the work by hand, CAD engineers used AutoCAD MEP to easily coordinate the ductwork, piping, and the existing structure. “Using AutoCAD MEP with its powerful visual design coordination capabilities, we were able to lay out these extremely complex mechanical rooms—easily—knowing ahead of time whether there was an interference,” says Abi Aad. “It was also a lot easier for us to coordinate the plant and mechanical rooms.”

The Result

Since adopting AutoCAD MEP, the firm has purchased additional licenses to support their growing business. “AutoCAD MEP and its integrated design and documentation tools helped us significantly improve productivity, accuracy, and coordination,” says Abi Aad.

To learn more about AutoCAD MEP, visit www.autodesk.com/autocadmep.