# Circuito S.A.

Customer Success Story

AutoCAD®



"AutoCAD is a fundamental tool. It is helping us to complete quality work faster while we grow our client base."

Edwin Fischel, President, Circuito S.A.

# Electrifying Growth

Circuito reduces design time by 30 percent with AutoCAD.

# **Project Summary**

Founded in 1975 in Costa Rica, Circuito S.A. is an engineering firm specializing in electromechanical plan design for residential, institutional, hospitality, and industrial building projects. Over the last three decades, the firm has completed more than 800 projects, primarily for international clients. Circuito uses AutoCAD® as its primary design tool because it delivers the design functionality the firm needs and produces designs in the format international clients expect. Recently, Circuito upgraded its AutoCAD software, and it found that enhancements to the software are helping the firm to boost productivity. With AutoCAD, Circuito is:

- Reducing design time by as much as 30 percent
- Creating preliminary plans 50 percent faster
- Streamlining communication with clients and other design team members
- Gaining competitive advantage with advanced design tools

#### **The Challenge**

Streamlining International Communication Delivering quality engineering plans in the shortest possible time to clients who are almost always located outside Costa Rica is Circuito's top challenge—and priority. This challenge is especially pronounced on large and complex projects, such as the electromechanical design for the Rosewood Laguna Kai Mayakoba Hotel.

Located 40km south of Cancun, Mexico, the 40,000 square-meter hotel will include 400 rooms and is built in the middle of a mangrove swamp that features navigable artificial channels. The Circuito team needed to create 1,600 electromechanical plans for the project in only five months. A virtual team of 22 specialized firms were involved in the review and approval process. To complete the project, Circuito's engineers had to collaborate with experts in kitchens, interior design, lighting, and security, as well as architects, engineers, and the client. Customer Success Story





# **DWF Delivers**

To further streamline communication, Circuito is publishing designs as DWF<sup>™</sup> files from directly within AutoCAD. Contractors, bidders, and other experts on the project can view DWF files without CAD software, and DWF files are easy to exchange electronically because they are significantly smaller than DWG files. Using Autodesk<sup>®</sup> Design Review, participants on Circuito's projects are able to collaborate quickly by marking up DWF files with comments.

Fischel says, "We can convert design drafts to DWF to let our clients open, see, and print the files, but not modify them. Clients can add notes, but only we can decide if the modifications are made or not. This is significant in terms of intellectual property since it gives us total control of the product, and it doesn't let a third-party copy the plans or make changes."

#### **The Solution**

Circuito realized it needed to utilize the advanced capabilities of the most recent release of AutoCAD in order to finish the design for the project in five months and guarantee seamless communication with the client. Edwin Fischel, President of Circuito, explains, "In the middle of last year, we bought the latest version of AutoCAD in order to standardize our work platform with the one our client used. This allowed us to keep the communication flowing throughout the project. The plans we published on our website were fully visible and compatible with our client's software."

Ensuring this software compatibility was a huge priority for Circuito—one that it was able to meet easily with AutoCAD. Marco Cespedes, CAD Manager for Circuito, adds, "Software compatibility is vital for ensuring the fluency and efficiency of projects, especially on those where people from different countries and disciplines are involved. If we used a platform other than AutoCAD, it would affect our ability to meet our clients' needs. The industry forces us to keep our software tools up-to-date with the latest technology in order to provide the features the market is demanding."

### **Customization Accelerates Processes**

With AutoCAD, Circuito not only shares project plans easily with its clients, it is also benefiting from new tools, such as improved project management capabilities, table tools, Dynamic Blocks, and Tool Palettes. Perhaps most significantly, Circuito is customizing its AutoCAD software to save time throughout the design process. For example, Circuito has created custom work processes and routines that make drawing management more efficient. "The customizations we have implemented in AutoCAD have reduced the time for creating plans by 50 percent and let us spend more time on processes like design planning," says Cespedes.

Circuito is also taking advantage of its new ability to transfer documents electronically. Being able to use one application to make all approved changes to plans throughout the review phase is an asset, as it ensures that Circuito can deliver updated and accurate plans to the owner for use in operating and maintaining the building.

### The Result

# Reducing Design Time by 30%

AutoCAD is helping Circuito to become a more dynamic and lean organization. Document digitalization with AutoCAD has reduced Circuito's design archive to just four hard drives—instead of an entire room full of paper plans. Beyond the space savings, the firm is now able to access and use the information far more easily. With digital files, typical details from previous projects can be incorporated into new a design, which reduces design time up to 30 percent. Fischel notes, "It's wonderful to have a digital library of all our plans, which can be accessed by our professionals at any moment. This dramatically streamlines the design process since we don't have to start from scratch on each new project."

As Circuito looks to expand its international client base in the coming years, it will continue to depend on AutoCAD and its own highly-qualified staff. "AutoCAD is a fundamental tool," says Fischel. "It is helping us to complete quality work faster while we grow our client base. We can finish more projects in less time and deliver accurate designs that reflect the way electromechanical elements are constructed, which is very important to the clients we work for."

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