

University of Southern
California

Customer Success Story

Autodesk® BIM 360™ Glue
Autodesk® Revit® Architecture

Autodesk BIM 360 Glue is helping us facilitate a very real world scenario that no other architecture program in the world has at this point. It's a technology that really enhances the learning objective. It's that basic. It's a real world technology that enables us to teach real world problem solving and coordination and the realities of taking design into construction and operation.

—David Gerber
Assistant Professor
USC School of Architecture

Ahead of the class.

The USC School of Architecture Teaches Real-World BIM Collaboration with Autodesk BIM 360 Glue.



Project Summary

Established in 1916, The University of Southern California (USC) School of Architecture has trained some of the finest architects in the world. Consistently ranked among the best architecture schools in the United States, it has a rich tradition of pushing the architectural boundaries while contributing to the development and construction of the city of Los Angeles. Currently, the school has 600 full-time students and offers a five-year professional undergraduate degree; master's degrees in architecture, building science, historic preservation, and landscape architecture; and a Ph.D. in architecture.

With programs that combine exemplary instruction with the latest advances in design, research, and technology, the USC School of Architecture has a well-deserved reputation for preparing students for the future demands of their profession. For example, the school recently became the first in the United States to introduce students to a project management scenario using intelligent virtual models created with Building Information Modeling (BIM) software and accessed in real-time through the cloud. BIM enables designers to explore a project before it's built with high-impact 3D models. Leveraging BIM through the cloud makes the virtual models available to stakeholders whenever and wherever they're needed.

The Challenge

As Assistant Professor David Gerber, explains, "Students are being lectured pedantically by me and the other professors about how to move a design from virtual to actual. But until now they didn't get that real world experience of managing the people who are doing the decision making."

Professor Gerber taught virtual BIM collaboration to 154 undergraduate students as part of a Professional Practice class during the 2012 spring semester. Students worked in teams of three and were assigned the roles of architect, construction manager, and project manager. To help them develop the unique problem-solving skills needed for BIM project management, the teams were required to work remotely, accessing a virtual design (created with Autodesk® Revit® Architecture) through the cloud, using Autodesk® BIM 360™ Glue, one of the services included in Autodesk® BIM 360®.

Autodesk®

USC students learn BIM problem-solving skills.

The Solution

In their assigned roles, the students performed design collaboration tasks. For example: construction managers would query the BIM model, make visualizations, check for clashes, and then submit RFIs to the project managers. Project managers responded by performing a series of tasks related to clarification. The architects, in turn, had to react to the design changes, while keeping the project on track.

As a web-based BIM technology with an easy-to-use interface, Autodesk BIM 360 Glue was well suited for the class. "It's a no-brainer," says Gerber. "Autodesk BIM 360 Glue is the perfect fit for us. The beauty of it is that it doesn't require a big learning curve. It's the only technology that makes it easy for professionals and students alike to get their heads around the more complex aspects of project management in the BIM world."

Real World BIM Project Management Skills

By focusing on post design collaboration with BIM technology, the USC School of Architecture is offering its students a unique opportunity to gain the management skills and confidence that will be extremely valuable in their future careers. "Eighty percent of an architect's job is to protect the design and ensure that it gets built the way it's supposed to get built," Gerber says. "As the model moves on to a contractor, you lose power. This class provides an experience in which students can see how they affect a process that they're no longer in control over."

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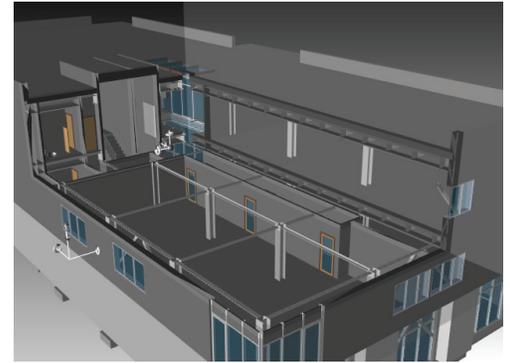
Tomorrow's Leaders

Throughout the course of the project review simulation, students were challenged to project manage, gain stakeholder buy-in, and resolve any conflicts. "The key thing is leadership," states Gerber. "Our students are learning how to coordinate, organize, and manage people. As a learning tool, Autodesk BIM 360 Glue illustrates this well. The value is fundamentally giving our students experiences that will help them to get jobs, run projects, and become leaders in their field."

Gerber believes that his students' experience with Autodesk BIM 360 Glue is a decided advantage in a profession that requires staying current on the latest technology and industry trends. "As I tell my students," he says, "The culture is changing for future engineers, designers, and builders. The practice moves fast; technology moves fast. We want to teach something that is cutting edge, and cloud technology is where the industry is going. It's fundamentally bringing transparency to the process. It will democratize the industry, making it more transparent and more efficient. This is fundamental to the decision to put things in the cloud. Everyone knows how to use a web browser."

The Result

The project design review simulation lesson with Autodesk BIM 360 Glue has been a successful and rewarding experience for the school, Gerber, and the students. "Autodesk BIM 360 Glue bridges the divide between the disciplines," he says. "That's the core of what it does—making virtual design transparent."



"I'm going to ensure the next crop of students experiences Autodesk BIM 360 Glue," sums up Gerber. "We have a responsibility to our students to equip them with the necessary skill sets as they move into the profession, whether they're technical or organizational."

Learn More

Learn more about Autodesk BIM solutions at www.autodesk.com/bim360.



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