



3D SYSTEMS CASE STUDY



Quality 3D Architectural Models in Record Time

Riva Digital had been working in Dubai on a major apartment building project called Canal Resistance West, a part of the downtown Dubai Sports City district. The company had created computer models to help pre-visualize the building development. Now they needed a ten-foot long, fully detailed, 1:160 scale model of the project as the centerpiece for a major media and investor presentation.

“The 3D Printer delivers both speed and quality. With 3D Systems, we have the advanced technology we need to keep our customers happy and stay competitive.”

Fon Davis
Principal and Founder
Fonco Fabrication and Design
Lagunitas, California



Creating a model like this would be a challenge under any circumstances. However, the assignment included an extra requirement - the model had to be completely finished and delivered in only two months, an almost impossible deadline considering its size and complexity.

“We immediately realized that the only way to get this project done on time and on budget was to print out the physical parts in 3D using the existing computer model,” said Fon Davis, Principal and Founder of Fonco. “The main question was which 3D Printer to buy. We knew that our first choice had to be the best choice. We didn’t have time to make any mistakes.”

David and his team looked at almost every 3D Printer on the market, including 3D Printers from 3D Systems. “We found that most 3D Printers were either too expensive for our budget or failed to provide the quality we needed to make a highly detailed model.”

“3D Systems 3D Printer, however, was quite different,” he continued. “It offered us the best of both worlds. We were very impressed with the quality of prints, and the price was within our budget. We immediately realized that this 3D Printer was really the only logical choice for us.”

David also reported that Riva Digital was very excited about the 3D Printer. “When they learned about its capabilities, they gave us a second assignment - to create a 1:80 scale model of the Linksview Apartments, also in Dubai.”





With only eight weeks to complete the two projects, Fonco knew they had no time to spare, but with the 3D Printer, the work proceeded smoothly. The files from Riva Digital (originally developed for rendering only) were adjusted to bring depth into all the parts and then separated into planes appropriate for printing. Each of the five buildings for the Canal West Project required approximately 30 printed parts. The Linksview Apartments model was equally complex, including dozens of balconies and tiny, intricate handrails.

After all the parts were printed, they were fully assembled and painted. The modules printed were precise enough to match and fit perfectly with other parts that Fonco had laser-cut. Finally the Fonco team added window transparencies and internal lighting to the buildings. The models were delivered in Dubai on time and on budget, and they were a “huge success,” reported Davis. “Several prominent individuals from the region came to view the models, and everyone was impressed. The level of detail in the models was absolutely remarkable, a level rarely seen in architectural models.”

Since the success of the Dubai projects, Davis has used his 3D Printer to print prototypes and 3D scans for other clients. He has also used the InVision SR to test a new process for making action figures, an important part of his work for the entertainment industry.

With 3D Systems’ 3D Printer, we don’t have to choose between speed and quality,” said Davis. “It’s a win-win situation for us and our clients.”

