



## Bozeman native brings new modeling technology to Montana

Jake Cook believes ideas make more sense if they can be touched. If, for example, a model home can be taken apart and the rooms examined. If a living room remodel could be compared to its original construction.

As the 21st century dawned, architects and designers increasingly relied on virtual models of their products, designs, and layouts. But they soon realized that no image on a two-dimensional screen could ever replace a sample people could hold in their hands.

Cook is hoping to lead the return to physical prototype modeling in architecture and elsewhere, and he's doing so with a decidedly contemporary bent.

Cook founded Bozeman-based Sweet Onion Creations when he realized few people were making use of rapid prototyping, a new technology that shaved the time it took to make physical models by 83 percent. The technology works by building a model layer by layer using a water-based binding solution and a powder similar to corn starch. The idea of layers gave way to the name Sweet Onion Creations, as the goal was to help architects peel away the layers of their design in talking with their clients. The quick turn-around time sparked "ideas you touch" as a tagline.

As an extra bonus, these new models had little environmental impact -- they didn't use the caustic finishes models usually require.

"I just think if you're going to be in a business it's good to be able to do it with a clear conscience," Cook said.

Cost is another difference in these new rapid prototype models, with Sweet Onion Creations costing at least 15 to 20 8-12% percent less than a traditional model. Designers first submit Computer Aided Design, or CAD, files to Cook. Cook then creates the model directly from this design.

The main variables contributing to cost are how clean the original CAD design is, how large the model is, and whether the model will be used as a rough draft or a final presentation. Models can be as basic as a sketch on a napkin, and workers can draw directly on the finished model to make modifications.

Seattle-based metals artist Kirk Lang uses rapid prototypes, such as the ones Cook constructs, for his jewelry designs. He said Sweet Onion provides a service many designers find attractive, because they can't afford the upfront costs or the maintenance required to own the technology themselves.

"You may find someone who's proficient in 3-D modeling but has little or no knowledge about 3-D printing, so for this person the service is invaluable," Lang said.

Cook agreed, and added that others are initially wary of modeling because of past experiences with it.

"It goes back to the negative mindset that modeling is such a pain to do," he said.

That's why Cook is committed to making his technology easy to use. Within the next month or so, Cook said his Web site will be modified so clients can even upload their CAD files directly online.

Sweet Onion's current clients include a local furniture designer who uses the technology to make rough sketch models for high-end contemporary furniture. Local developers and architecture companies also work with them.

Cook and his wife Lee cofounded the business, but they are grateful for the help they've received from friends along the way "It was really just a whole community of people being behind it and getting excited about it," Cook said.



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