

## Seven Five Five Design Finds Speed and Freedom with SpaceClaim

*Matthew Cafferkey is the creative force behind Seven Five Five Design. Before starting the company, he worked over a decade for furniture manufacturers specializing in product design. In an effort to leverage his creativity and technical proficiency, he started his own company to pursue his vision to design an assortment of products and create interior visualizations for a wide variety of clients. Seven Five Five's primary focus is on office furniture design but its work also encompasses visualizations of office layouts with specific furniture as well as 3D visualizations of basements that London home owners have recently begun to install beneath existing homes to provide more space. These visualizations are then used by contractors as sales tools.*

*Matthew works mainly from scratch, designing furniture and laying out rooms from the basic geometry up through completion. However, occasionally he has to improve and complete existing models given to him by his clients who send him models in various states of incompleteness or disrepair. They look to Matthew to return a polished render of the product or interior, backed with a workable 3D model so that they can take it directly to production.*

### ABOUT SEVEN FIVE FIVE DESIGN

Seven Five Five Design Ltd., a UK company, was established by Matthew Cafferkey in 2004 to specialize in product design and 3D visualization. The company prides itself on its 16 years' experience in the product design industry and expertise in working with products from concept development through to manufacturing. They work in a wide variety of media – from freehand sketching, to 3D design, up through CAD detail modeling – to produce architectural and product visualizations.



### THE 3D DESIGN CHALLENGE

*Quickly import CAD models and edit them freely*

#### Struggling to Work With Diverse and Complex Models

While often times speed can result in a decline in quality, the introduction of SpaceClaim® in Matthew Cafferkey's workflow has enabled him to increase productivity without any sacrifice in quality – and indeed many times an increase in quality.

As most of his work involves interacting with models from a wide variety of sources, SpaceClaim's compatibility is critical to Matthew. The models he receives from his clients typically come from SolidWorks, AutoCAD, and numerous other CAD systems. Before he started working with SpaceClaim, this was a problem for Matthew as he would be forced to jump through a series of time consuming hoops in order to get the model to a place where it could be edited, often having to start from scratch. Often times, Matthew was unable to use models or even

just pieces of models because they had not been built as well as one would expect in SolidWorks.

Even with properly constructed SolidWorks models, Mathew faced the challenge of making dramatic edits in a history-based CAD system while working in real-time with clients. While the CAD approach is necessary when readying a product for manufacturing, it had been an obstacle for Matthew, whose job is to work with basic models and get them to the point where they can be approved and then put into production. Speed and ease-of-use are the most important goals for Matthew, as well as performing basic modeling. Using SolidWorks to perform these functions was keeping him from meeting these critical goals.

Designing in a CAD system requires users to have a very precise idea of the end result before they begin. There is very little margin for error, and any mistake or change to the design requires a time consuming back tracking process. In Matthew's case, this not only reduced the amount of work he was

able to accomplish, but it also stifled the creative process because he was not able to design the way he was thinking, with the freedom to adapt on-the-fly to where the designs took him.

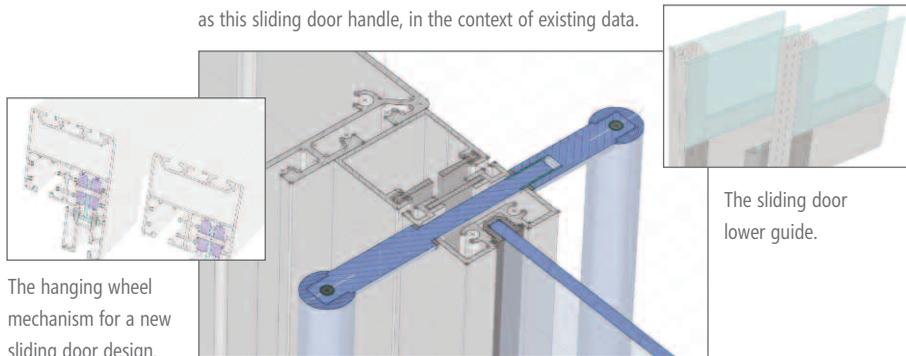
Given the need for timely turnaround on these models, this extra work was something Matthew needed to completely cut from his workflow.

### SPACECLAIM SPEEDS UP THE PROCESS

After using SpaceClaim for just a few months, Matthew was relieved to find that file compatibility was no longer an issue. Now, regardless of where and how the models he receives were created, SpaceClaim can quickly and efficiently load them up and make them ready for editing. If he receives a poorly designed model, he can simply drop it into SpaceClaim and work on it freely and easily. What once was a time consuming and draining process is now a twenty-minute task that results in a perfect 3D model from which Matthew can work.

## Seven Five Five Design Finds Speed and Freedom with SpaceClaim

Seven Five Five uses SpaceClaim to create new designs, such as this sliding door handle, in the context of existing data.



The hanging wheel mechanism for a new sliding door design.

The sliding door lower guide.

*“Taking original components from SolidWorks, importing them into SpaceClaim, stripping them of all the details they don’t need, and then showing them in SketchUp – it’s that kind of speed of modeling that is absolutely brilliant in SpaceClaim.”* Matthew Cafferkey, Founder, Seven Five Five Design

Once he has the model loaded and ready for editing, Matthew has the freedom to design the way he thinks, experimenting with different approaches to each model. If something doesn’t work, he isn’t required to wade through a complex history tree. He can simply work with the geometry in front of him, taking it back to where he had it and trying another approach. While Matthew still has SolidWorks at his disposal, SpaceClaim has quickly become his tool of choice for developing designs. Matthew uses traditional CAD systems for more complex production designs.

When working on interior visualizations, Matthew uses SpaceClaim to get the model where he wants it, then exports to SketchUp to share his work with clients. The simplicity of the software enables him to take models he has created and quickly display them to an audience. The compatibility of SpaceClaim’s models makes the visualization process very efficient and gives Matthew the ability to easily share his work in any setting.

### SPACECLAIM AS A VISUALIZATION TOOL

Not only does Matthew use SpaceClaim as his primary design tool, he occasionally uses the software as his display method of choice.

In situations where Matthew needs to make real-time edits with a client, he brings his laptop with him, starts up SpaceClaim, and makes edits on the spot while the client looks over his shoulder. There are many social benefits to this approach as it gets the client more involved in the design process and allows for additional creative input, improving both Seven Five Five Design’s service and output.

In what has become a common situation in parts of London where homeowners have basements installed beneath their houses, Matthew works for contractors to create prototype visualizations of available basement layouts in SpaceClaim, based on sketches from architects. The contractors can then take these visualizations and share them with potential buyers, using them as very compelling sales tools that provide customers with an idea of how the final product can look.

For a small design firm like Seven Five Five Design, the versatility and capabilities found in SpaceClaim are essential. The ease-of-use and creative freedom afforded by SpaceClaim gives Matthew the ability to be efficient and create the highest quality product for his clients. SpaceClaim also enables him to involve his clients in the process any time, anywhere. SpaceClaim is a complement to the other tools in Matthew’s quiver and has enabled him to take his firm to new heights.

*“SpaceClaim is a revelation. It has become my design tool of choice. For basic modeling it’s just a dream.”* Matthew Cafferkey, Founder

*“The SpaceClaim environment is closer to how you actually build something from scratch. When you start, you don’t have an exact idea of the end result. With SolidWorks, you have to have a good idea before you start. With SpaceClaim, you can just go for it.”*

Matthew Cafferkey, Founder  
Seven Five Five Design



150 Baker Ave. Ext., Concord, MA 01742 USA  
Tel: +1 978.482.2100 Fax: +1 978.369.5864