

Detailing and BIM: Are You Ready?

BY BRIAN COBB, P.E.

If the answer is yes, there are a few things you should know to make sure that you're *really* ready.

STEEL DETAILING AND DESIGN SOFTWARE packages have paved the way for much of today's building information modeling (BIM) world. Despite this fact, detailers who work with 3D models are often not equipped to work in a BIM environment. Are you ready to work on a BIM job? If not, here are some tips that may help you get started.

Prepare for BIM—Now

Chances are you will soon get a call midway through a job, asking you to provide a model for BIM coordination. As a 3D detailer, the best way to be ready for a BIM project is to prepare your office now. Establish procedures to ensure your model is accurate. Eliminate obstacles to an accurate model, such as modeling repetitive material only once and adjusting the quantity recap at a later stage. Better to be prepared now than to admit later that your 3D model is not detailed sufficiently enough to share.

Know Your Software

What file types does my software export? What file types can I import? What is the best way to export my software to program X? What are the limitations on my software? Find out what your software can do. Ask a sales representative, call a technical support representative, or call another detailer using the software. Once you have some guidelines, test them out. You will be surprised at the capability and knowledge you already have.

Know the Other Software

No, I'm not talking about your detailing competition. I'm talking about the software used by the design team and/or the contractor. What is their software? What type of file imports can it accept? Some software packages offer free viewers. Use these free options to test your software's export and see how it interacts. If you cannot get a free viewer, take some time to discuss BIM with an architect, engineer, or contractor. Test the software with them, either through e-mail exchanges or a scheduled meeting. You will both benefit from seeing what the other can do.

Once you know the basics, dig a little deeper. Assume the contractor's software can accept three to four different formats that you, as a detailer, can create. Which one works best? Again, test this yourself or use another detailer's experience. On more than one occasion, a contractor has asked me to provide a certain type of file. The file I am asked to provide is often not the most intelligent file type or the file type that translates best. The credibility you can establish by providing a better file type can go a long way in a project—and in getting the next project!

What does BIM Mean to the Project?

Establish a definition for BIM that's specific to each project. Does BIM mean the engineer will provide a CIS/2 file from the analytical model to import into detailing software? Does BIM mean providing a model to the general contractor? BIM, for any given job, may be a one-time process, or it may be a collaborative effort throughout the job.

I've got a BIM Job—Now what?

Much like a detailing scope list or setup sheet, it is a good idea to create a BIM setup sheet. Find out what software will be used for the master model, what file type will be provided for detailing use, and what file type will be required to come back into the master model. Find out how often the steel model must be provided and if coordination meetings (or conference calls) will be required to resolve conflicts between models of different disciplines.

If you receive a model from another source (such as the engineer's analytical model), don't be afraid to ask specific questions about their software and modeling practices. These questions might include: "What is the starting XYZ reference being used?" and "What tolerance is being used in the architect's master model?" Once the guidelines are set, kick the tires. Ask for a test run through the process. This will ensure that your software interacts as it should, and will hopefully expose any other problems in the line that may be corrected before it is late in the project.

It is worth reiterating that BIM is a *process*, not a software package. Defining that process and knowing your ability to work within that process will go a long way toward a successful experience on your next BIM job.

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Have an opinion you'd like to share in "Topping Out"? Send your feedback to Geoff Weisenberger, senior editor, at weisenberger@modernsteel.com.