



Best practice: First steps with BIM

30 August, 2012 By Ashley Smith

Training is just the first potential pitfall on the road to BIM nirvana, says *Ashley Smith*

With many contractors driving ahead with BIM systems, and government strategy aimed at making BIM capabilities a prerequisite of design team selection, increasing numbers of small to medium-sized practices will be considering BIM adoption over the next year.

While the benefits of BIM for contractors are well documented, the impact BIM will have on the majority of small to medium architectural firms is uncharted territory. Having taken the leap of faith, purchased the software and upgraded your hardware, what challenges can you expect to face on your journey to BIM nirvana?

Training is the first potential pitfall. Ask the right questions before choosing your training service provider. As a starting point, make sure the individual concerned has experience that reflects the size and type of work your practice typically carries out. If, for example, most of your projects are multistorey and above 5,000m², you will need guidance on how to split a BIM model into manageable segments. No one will thank you for a beautifully designed model that takes five minutes to open.

Practices may also need to change their approach to team management. Modelling and editing parametric components requires more rigour from individual users. On CAD-based systems, measurable tasks tend to focus on the production of individual drawings or works packages. In BIM, drawing sheets invariably contain information drawn by numerous members of staff. Accountability is best achieved by designating individual responsibility for discrete components such as cladding, partitions, and so on. These need to be checked within the model environment as well as on paper. So your project architect will need to be BIM-literate.

When it comes to protocols for collaboration and data transfer, BIM in the UK is still in its infancy. In June, the BSI published code of practice *BS 8541:1 Library Objects for architecture, engineering and construction. Identification and classification*, but standards covering parametric properties, shape and measurement are still in draft form. While many leading contractors are pushing BIM, in our experience their project standards and BIM capabilities are very much 'in development'.

A clear BIM strategy is a must on every project. You will want to avoid the anguish of having to redraw elements of your model because project-specific BIM protocols were not established at inception. Compatibility issues with facilities management software or CAD/CAM solutions for off-site manufacturing can influence how elements within your model should be drawn. Failure to iron out these issues early on can cost valuable time and money. Make sure you receive a clear brief illustrating BIM deliverables and defining information that your client expects to extrapolate from the model.

Opportunities presented by green building analysis tools are particularly exciting. The ability to demonstrate measurable benefits of design options in terms of cost, day-lighting and energy use is putting architects back in control of the design process. Recent experience suggests contractors can also see the benefits of this approach. Where services consultants are appointed comparatively late in the design process, the need to extensively rework the initial concept design to accommodate their design input can be minimised, thereby allowing the team to focus on design refinement and improved deliverables.

Finally, while BIM has the potential to help the profession deliver greater efficiencies, design quality and improved environmental performance, it can also be both costly and frustrating. For smaller practices it is important to plan your BIM implementation strategy and to ensure the services you are offering are clearly understood and defined. If you make the most of BIM, it can be a useful tool to help you develop into new areas of work and to broaden your appeal in the marketplace.

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- [Billy Walker](#) 8 December, 2012 11:01 am

Sounds like you see a lot of benefits to BIM being implemented into the work place. There are clearly more question marks over whether a BIM system would work, or is at all viable, in a small practice of less than 5 employees. Not least because of the costs incurred during software/hardware set-up and team management training.
