

The following includes questions which were put to the group at the Regional Seminars which started in September 2012.

Do I have to buy software?

No - if you use CAD software presently, that's fine. If you don't, that's fine too.

What is "BIM software"?

There is no such thing. Adopting BIM will mean that you will have to enter information on every component part of your project (such things as paving slabs, plants, trees, soil type, etc) into a data sheet - most probably an Excel spreadsheet which you may already have seen referred to as a "COBie" data sheet. That data then has to be exported in a standard format that can be then imported into CAD software to become a layer of data in the overall project plan. In time this will take the form of 3D project "walk throughs". It is the standard data format that we and everyone else in the construction industry are currently working on. This will involve much interaction with suppliers and manufacturers from where the data will ultimately be created.

As far as practices are concerned, should BIM be seen as a process or a service?

When working on a project most definitely it is a process, but it could well be seen as a service offered by practices when tendering for projects. It is a way of working and could just be used as an efficiency saving.

Will 3D modelling be required for the entire topology of a site?

It depends on the accuracy of the data applied by all parties during the design stage. 3D is assumed by Government as a prerequisite of BIM, but that does not mean absolutely everything has to be modelled this way. Overall topology should be in three dimensions and underground levels applied when known. What is not required is highly detailed 3D objects in space, just location and relevant data with overall shape and form defined.

How many files would the Landscape Architect need to be provided with in a Level 2 project, one or many?

This is software and workflow dependant, so there is no clear advice here, you must find your own way and what works for you. This will also be dependent on your commission and what BIM execution is agreed with your collaborators. For Level 3 BIM, which is still some years away, the concept of individual files may be redundant.

Who will monitor the project?

There would be a project leader, and as there will be set data exchange stages where everyone has to agree what is being put forward, then it was felt the project effectively monitors itself. There may be specialist and independent

“BIM Managers” on some projects. These will help mesh the processes of the team together and relieve some of the awkward interfaces that may exist otherwise.

Who will lead BIM projects?

This is dependent on the commission and contract terms. The idea is that there will be a collaborative effort between team members and the professional design team and contractors, but it gives the Landscape Architect the opportunity to be involved in project management.

Who decides if my practice is BIM compliant?

Essentially, you do. BIM is not being enforced, it is up to you. If there is no gain to be had by your practice then you don't need to adopt. If you do, then you can declare the appropriate level of BIM compliance.

How will we educate contractors to engage with BIM processes?

There will be standard forms which you can give to suppliers on which they can specify their data

How does BIM interact with planning applications?

The long term aim is that everything will be done online but for now it depends where you are. Each planning authority has its own methods of dealing with applications, however the government is encouraging local authorities to engage with BIM, slowly but surely.

Will my practice have to employ a "BIM Co-ordinator/Manager"?

In all probability the larger ones will. Smaller ones may not have to depending on the scale of their involvement in the larger projects

Will the Landscape Consultants Document need a further rewrite?

The LI envisages that it will need regular updates over the next 3 years or so as BIM evolves.

How do I produce an IFC object?

IFC is 'open source' and therefore we need software vendors to be able to output in this format. The LI will produce templates for landscape objects for the software vendors to help them to help us.

Environmental Impact Assessment

Not a question as such but the point was made that by being able to perform

EIA at the start of a project puts the Landscape Architect in a much better position. It will allow them to show the client why natural features, old trees, ponds, etc will be of benefit to the site. Also this allows maintenance and protection of these features to be defined.

What are the standards for data output?

Generally this will be IFC and/or COBie

Do we have to formalise our CAD processes?

For another party to understand your outputs, you will have to have some sort of standard and share that standard. It may well prove useful to use an existing standard, such as BS1192.

How do we get the data from various sources, like surveys, data sheets and specifications, to talk to each other?

Generally, this too will be via IFC or COBie and the use of interoperability between platforms, this may be enhanced with add-ons to your existing software or even copying data through a neutral format, like Notepad or Excel.

Part of the BIM workflow implies that projects are “front loaded” with effort. What happens when a project stops at a relatively early stage? Will we be working at risk?

It has been found that a BIM workflow gives greater cost certainty earlier, so the decision to proceed can be made earlier, thus removing this problem.

Will I be dealing with very large files?

Yes, there will be some large files generated, but the way in which the software deals with these files will also be different, as it will be only operating on parts of the large file.

Can we model the growth over time of planted objects?

While it is complex to predict with any accuracy the growth of a plant, it is possible to make a “best guess” at how it will grow, using data on ideal growth algorithms, planting location, soil type, etc. this can then be formalised in the Model to demonstrate how a plant would grow, given those conditions and maintenance plans.

Can we perform calculations to demonstrate carbon sequestration of a Landscape scheme, to balance this against the embodied carbon of a building or infrastructure scheme?

While data for this is hard to come by, it does exist. This will also be a “best

guess” calculation, as the quantity of carbon sequestered by a plant will vary depending on its position, condition and quality of care. Data for the embodied carbon part of the calculation can be found from the research done by the University of Bath (web.mit.edu/2.813/www/readings/ICE.pdf – URL correct at time of publication).