




Whitecroft
lighting



Building
Information
Modelling

What is Building Information Modelling?

Over the past 5 years building design in a 3D environment and the use of intelligent models has been on a rapid increase.

Digital technology has transformed the way that buildings are designed, with Building Information Modelling (BIM) becoming one of the most effective ways to plan and design construction projects.

The capabilities and benefits of this technology are such that the use of Building Information Modelling (BIM) is now compulsory on all public sector construction projects.

BIM involves much more than simply using technology to design a building. It allows everyone involved in its construction and management to contribute information to its digital model. Each element introduced to the model carries specific information that can relate not only to physical dimensions, but also to other factors such as performance, energy use, and lifespan.

By creating an accurate BIM model, the building's facilities and features – and the ways in which they interact – can be analysed in advance. Costly errors are reduced, as the entire process becomes more collaborative and efficient.

Whitecroft and BIM

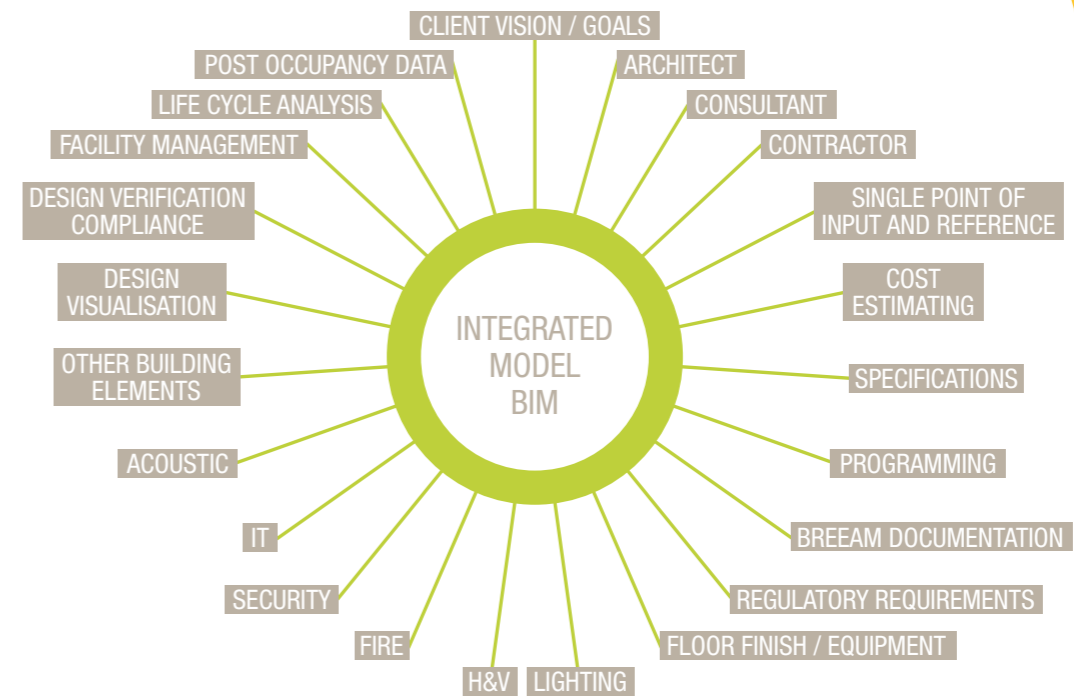
As experts in the design and manufacture of lighting solutions, we have developed our own BIM capabilities. This means that Whitecroft products can be easily integrated into your BIM models by our fully trained in-house BIM engineers.

Using BIM, we can be sure that every aspect of the lighting solution performs as it should prior to installation. It saves time, reduces costs and makes for more efficient building design.



Seeing the Big Picture

BIM delivers all relevant information about a construction project in a single, shared digital model.



Software and Standards

We use Autodesk Revit to create our BIM families. These are the product families that we produce for integration into BIM models.

Whitecroft Revit families meet the current BIM standards:

- PAS1192-2:2013
- BS8541-1:2012
- BS8541-3:2012
- COBie

All our families are assigned with OmniClass numbers. This is the classification system used throughout the construction industry.

Our families are also assigned with photometry data, which allows the BIM model to accurately describe how lighting behaves within the building. This data is also compliant with lighting standards.

We recognise that some clients have their own specification and standards requirements, and all these can be accommodated with project-specific information where required.

The BIM Process



Creating a BIM model

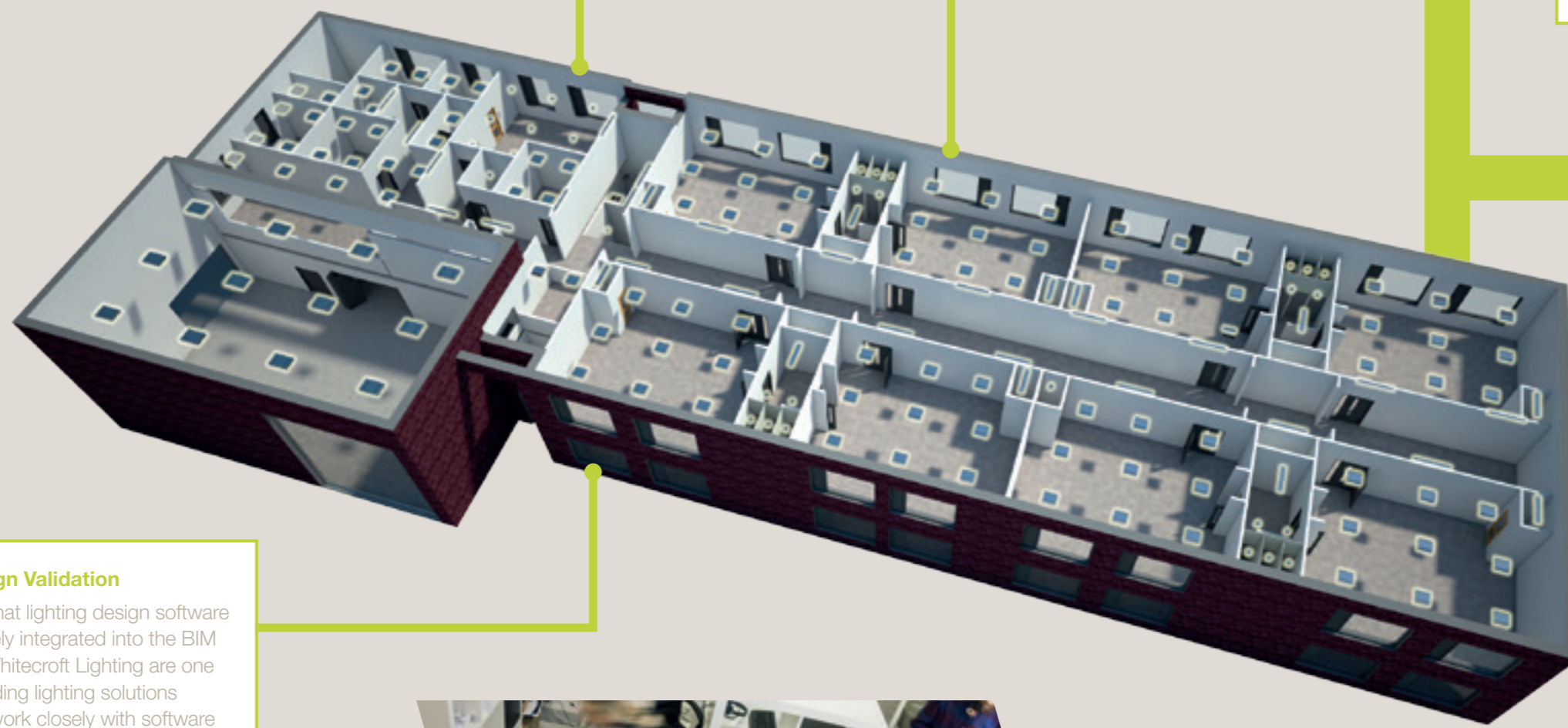
The creation of a BIM model starts with the Architect providing us with the building envelope; from there the collaborative nature of BIM has all involved organisations contributing to the BIM environment. All manufacturers working on your projects produce their own BIM families including physical specifications, performance data, energy use, part numbers, web links and any other relevant information. These are imported into your BIM environment to create a model with all the product and technical data required for the project.

Lighting in a BIM environment

We use Autodesk Revit software to add Whitecroft products to your BIM model. These products are all available in the Revit (.rfa) file format, and can be downloaded free of charge from our website at www.whitecroftlighting.com

Commercial Benefit

One of the benefits of using BIM is that it costs less to analyse different installation configurations and generate projection data; in-depth information is available quickly and easily. It also reduces the likelihood of errors on-site, so although there may be a higher front-end cost, BIM typically lowers the overall cost of the project.



The Output

- COBie data drops
- Delivery schedules
- Live cost monitoring
- Warranty monitoring
- Ceiling compatibility checks
- Project specific models
- Quantity extracts
- Part L/LENI calculations
- 2D plans
- Technical data
- Building data

Lighting Design Validation

It is important that lighting design software should be closely integrated into the BIM environment. Whitecroft Lighting are one of Europe's leading lighting solutions providers and work closely with software companies Relux and DIALux to ensure that intelligent lighting design within BIM becomes easier than ever to achieve.





The Whitecroft Design Advantage

Getting the most from BIM means more than simply operating a software package.

At Whitecroft, our BIM engineers are not only adept at using Autodesk Revit; they are also fully trained lighting designers. We believe this is essential.

When you use our teams on your project, you can rest assured the whole lighting solution is being designed, assessed and managed by people who know the technology inside out and have a full understanding of your requirements.

- We can populate your BIM model with a full lighting design.
- All our BIM families are created in-house, so if bespoke models are required, we can deliver them.
- We use Relux to create design validation data that confirms your project's compliance and supports your BIM model.
- Once the model is complete, we work with you to interrogate every element including quantity schedules, costs, energy validation, COBie data and delivery schedules.

Whitecroft Revit Families

A BIM project is only as good as the level of information fed into it.

The more in-depth the information the greater the accuracy of the building model, that's why Whitecroft Lighting endeavour to create our families to provide the maximum useful and compliant information in the smallest file format possible.

This helps optimise your extractable information whilst maintaining the fluidity of your BIM model.

Most of our complex systems contain a level of automation making them more user friendly. This also reduces errors further as component parts are all accounted for in advance.

Our in house capabilities allow the creation of bespoke Revit families to accompany any bespoke Luminaires meaning both our digital and physical lighting solutions are available to you as required.

All Whitecroft Lighting products are available as Autodesk Revit families for use by our expert lighting design teams or your own BIM teams.

The families can be downloaded and are available free of charge from our website at www.whitecroftlighting.com or by contacting us via email; bim@whitecroftlight.com

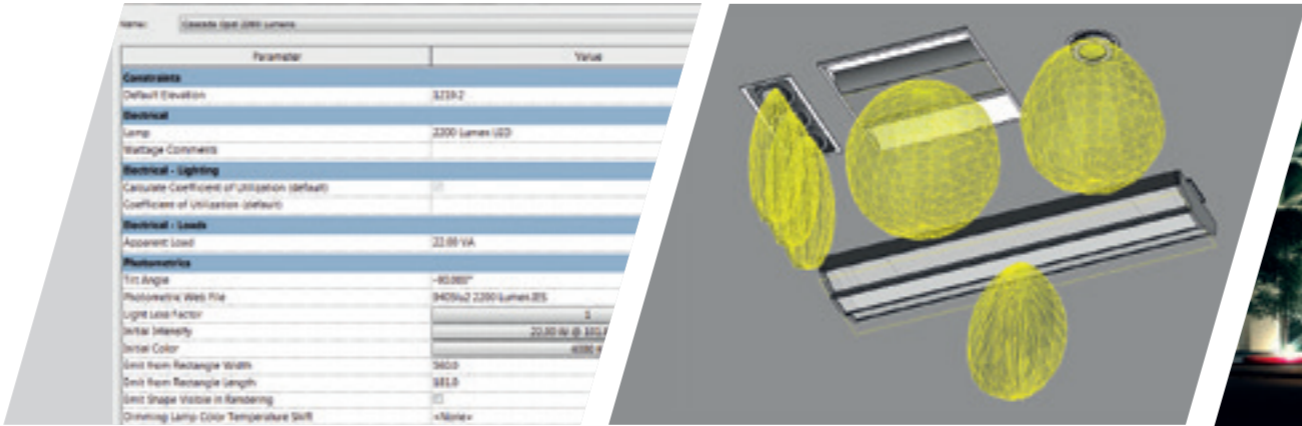
Within the families, each product carries specific information detailing its performance and other characteristics, for example:

Luminaire Performance

- LOR
- IES file
- Lamp colour
- Part L data
- Circuit Watts
- Lm/W
- Lamp and gear type

Luminaire Characteristics

- Dimensions
- Geometry
- Weight
- Part number
- Description
- Website link
- COBie Data



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