

Can FMs afford to bury their heads in the sand with respect to the importance of BIM? Here's what the experts say.

# THE OSTRICH DILEMMA

By **DAVID STRYDOM**

Asking somebody in the FM sector whether they're aware of building information modelling (BIM) usually elicits one of two responses: they either nod emphatically and talk about how BIM will soon be as essential as oxygen, or they look at you with a blank expression. Clearly, there's a deficit of accessible

information about BIM, even though many say it's of such crucial importance.

BIM, to quote NBS information specialist Michael Smith, is a multi-dimensional tool that involves generating a visual model of the building, and which manages data about the building from the design stage, throughout the construction phase and during its 'working life'. "Typically

BIM uses realtime, dynamic building modelling software working in 3D, 4D (workflow) and, increasingly, 5D (quantity surveying) to increase productivity and efficiency, save costs in the design and construction stages, and to reduce running costs, after construction," says Smith.

The real question about BIM, it seems, is whether FMs really need to know everything

there is to know. Do FMs have their heads buried in the sand like ostriches when it comes to BIM? And, if so, can they afford to remain ignorant of BIM? PFM asked several experts for their opinions.

"Ultimately, any company involved in UK construction needs to take on-board the BIM principle," says Dan Rushton, UK commercial manager for Big Foot Systems.

## BIM NEWS

There's been plenty going on in the world of BIM. Here's a round-up of some of the more newsworthy recent developments in the UK

### Going mad about the model

By **DAVID STRYDOM**

#### CBx White Paper

In a White Paper entitled 'Benefiting from BIM: What are the priorities for development?',

CBx says it established key findings. These included:

- The lack of a single, end-to-end tool for design-constructor-operation creates many

software coordination issues that translate into time and cost inefficiencies and prevents the full potential of BIM being realised.

- Jason Clark, director of UBS, says "BIM would benefit from a larger input from FMs as a professional body going forward", to help create the 'pull factor' when it comes to post-completion BIM. The industry needs their expertise on how to maximise the benefit for BIM in operation so as to facilitate the interoperability between Revit, CAFM and CMMS tools."

- The BIM process must be

“From an FM perspective, there may be a time-lag encountering BIM, since although the use of BIM is quickly accelerating it is still a relatively new tool that is yet to be used on every project. Therefore existing properties, as well as some new buildings, may not yet have had BIM images created specifically for them. However, this looks set to change as uptake increases and it would be foolish for any FM, UK construction company or manufacturer to ignore the importance of BIM.”

Rushton says BIM is important for his firm because it aims to be at the ‘forefront of UK construction’, and because Big Foot, which designs and manufactures freestanding non-penetrative systems to support plant equipment and services installed on flat roofs, provides a niche product. Rushton says Big Foot has products on the NBS National BIM library, and is making its internal systems BIM compatible. This will allow Big Foot to export into Revit, which is 4D BIM capable.

Does Rushton know of projects where BIM is being used? “I had talks with a company that’s involved in a major refurbishment



**DAN RUSHTON of Big Foot Systems says BIM is useful for all UK construction firms**

project for a North Wales hospital,” Rushton says. “The firm is very keen to

build and refurbishment projects. It’s now looking to integrate project-

**“All parties can benefit from good custom content models that give excellent visuals and contain key technical info already – helping make build and subsequent management easier”** *Martin Cotterill*

bring the BIM aspect into their design, and is gearing up internally on new-

specific BIM drawings into a BMS, which I hadn’t considered possible before

now. Clearly, to make BIM images interactive and subsequently useful for BMSs is key for FMs.”

John Starr, consultant for Excitech, says the question of whether FMs can afford to turn a blind eye to BIM is a complex one. “FMs come from various starting positions with respect to this issue,” he explains. “Some FMs work for building owners, others work for contractor organisations. The reality is, however, that BIM buildings are being delivered, so FMs would be fools to ignore the benefits BIM can bring such as getting their buildings operational and working efficiently from day one. The information that can be provided is so much greater than previously available to them, in terms of the accessibility of formats, the quality of information and the design.”

What’s really interesting, however, is when FMs can be involved in the designing of the construct phases and contribute to the BIM process itself, says Starr. “FMs can actually start defining what the bits of information need to be, where the packets of information and format are going to be held within BIM, and defining the flow of

streamlined; operations and maintenance (O&M) manuals often get left on the shelf or underused as they’re lengthy and seldom user-friendly.

■ BIM post-completion could also facilitate lifecycle planning, allowing designers to check the model for likely consequences to refurbishment strategies; for example to be able to validate whether the extraction of a chiller would have detrimental

effects on building performance.

■ If cable management platforms could be federated into a BIM model, this would enable landlords, owners or operators to understand how the space inside a building is being used, by monitoring the usage of computers and other equipment, leading to useful insights and information on which to reduce energy performance.

■ Synchronisation of datasets must be improved to decrease the resources needed to verify successive alterations through the model.

■ As the industry generates and records more BIM and energy monitoring data, “there are huge opportunities for creating feedback and analysis loops between BIM, energy modelling and energy monitoring,” says Brian

Coffey, principle research associate at UCL and head of research at BuildLab. Another area of priority for BIM, therefore, is to develop the interfaces with various energy modelling programmes so as to encourage these types of feedback loops.

#### **Severn Partnership**

BIM could be the answer to modernising Britain’s hospitals

information through the BIM process into their hands.”



Martin Cotterill, key account manager at Forbo Flooring Systems, says we've all felt like burying our head in the sand at some point in our lives when the pressure gets too much, but once the problem has been tackled and overcome you often wonder what all the worry was about in the first place.

“The phenomenon that is BIM has certainly been a bit like this for some elements of the supply chain. Despite being one of the most talked about topic areas across all aspects of the built environment, the understanding and benefits are still unclear for many.”

Take BIM4FM's survey (2013) for example, which highlighted a significant lack of understanding on BIM and how it can be used within the built environment, with 35% of FM professionals surveyed not being familiar with the software or its uses.

BIM can best be described as 'the shared use of structured data' within the design, construction (or retrofit), operations/maintenance and deconstruction of a building,



**POLAR VISION with veneered doors from Komfort**

explains Cotterill. “Having been used for several years now by architects and designers for the competitive design advantages the system brings them, government has mandated the use of BIM on all centrally funded projects, set to be implemented in 2016. This will have an impact on all elements of the supply chain when designing and planning a building, as well as adopting technologies associated with BIM.”

The key to understanding its importance is in the ‘information’ associated with the 3D model. Rather than being a single piece of software it's an integrated digital process providing detailed information about a project, says Cotterill. “The interesting part is that BIM means everyone involved in the construction process can work together to provide an information-rich, coordinated computer model into which all

of the construction disciplines have made their contributions.

“Being a purely digital model, the advantage is that all parties involved have access to the same detail in the same model so no need for piles of paperwork – ensuring consistency and reducing the likelihood of specification switching, which is commonly where a lot of performance issues can create problems later on in projects inevitably incurring additional costs. Indeed, all parties can benefit from good custom content models that not only give excellent visuals but also contain key technical information already – helping to make build and subsequent management easier.”

As main contractors hand over building information to FMs for maintenance purposes, it's crucial FMs understand and use the detail correctly to negate performance issues related to the building, says Cotterill. “The construction industry is becoming increasingly aware that many new buildings aren't performing in accordance with the designer's vision. Design professionals are essentially commissioned to design, build and alter buildings and very rarely continue to be

in line with government patient legislation, according to 3D measurement expert Severn Partnership. The statement comes at a time when government has announced it will make £10m available for UK hospitals to help them complete refurbishments of their maternity wards over the next few years. By utilising BIM, hospitals will be able to have whole scale

refurbishments planned quickly and safely without having to cope with widespread disruption and ward closures, enabling them to continue to meet productivity targets set by the government. Nick Blenkarn, director of Severn Partnership said: “Hospitals are constantly dealing with increasing numbers of patients and are being expected to have patients admitted or sent home

within four hours of arrival. Refurbishment projects can be very disruptive and can have a significant impact on hospital resources and response times. With BIM, development projects can be quickly and safely planned – and often delivered with no disruption at all to hospital services.” Blenkarn refers to a project that Severn Partnership recently completed at Brighton and Sussex

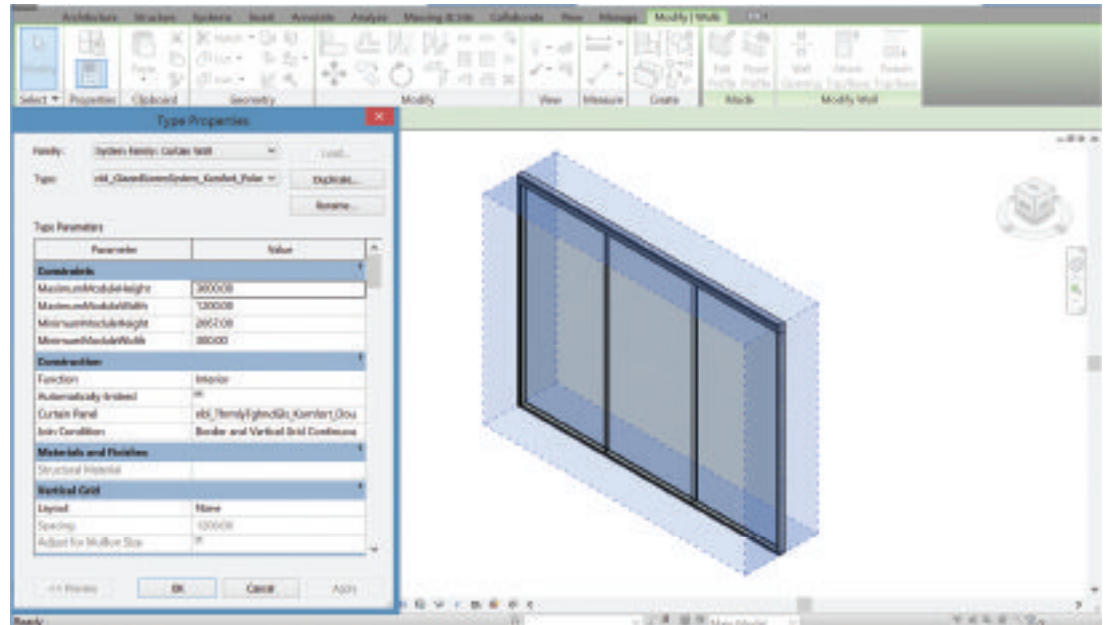
University Hospitals as an example of a quick, convenient and beneficial refurbishment project. The company laser-scanned key departments of the hospital that were ready for refurbishment, creating a Revit BIM of the premises complete with internal layouts and printed elevations. A detailed survey control network was established around key points at the hospital to avoid

involved in the monitoring of the building's lifetime performance."

Once the building is complete, designers and builders usually move to the next project, very rarely being afforded the opportunity to see how well the building they've produced actually performs. Consequently, there's very often little dialogue or involvement between the designer and end-user on how to operate and maintain building elements efficiently.

"Across the industry encouraging work is taking place around maintenance standards, lifecycle costing and asset classification," says Cotterill. "With the on-going maintenance perspective now being more joined up, this should support the development of BIM rather than being driven from a purely design and construction position.

"BIM linked to government's Soft Landings initiative – a strategy adopted to ensure the transition from construction to occupation is 'bump-free' and that operational performance is optimised – is a collaborative process, supported by technology that adds value by creating, managing and sharing the properties of an



A SCREENSHOT of Komfort Revit BIM models

asset throughout its lifecycle. "Plus, the advantages for FMs are great: the reduction in waste, potential cost savings in being able to quickly and

maintenance," says Cotterill.

There's little doubt BIM is here to stay and from 2016, its influence will grow yet further when the

Komfort, which says it is the first UK partitioning system manufacturer to offer BIM objects for its Polar Vision frameless glazed partitioning system. "Now isn't the time for FMs to bury their heads in the sand; it's time for them to embrace this technology, not just because it will soon be mandatory, but because BIM offers an array of benefits that will help them run their buildings better," says Peake.

BIM may appear most relevant to those involved in the design and construction of a project, explains Peake. But its positive impact

**"There's an argument that even facilities professionals who aren't going to use BIM in the immediate future, should still understand its capabilities and how it impacts the FM profession"**

Jack Fraser

efficiently access data for every product within a building, better visibility and intelligent FM data – all resulting in a better build and long-term

government begins requiring suppliers to utilise BIM on all publically-funded projects, says Matt Peake, design and development manager for

disruption to services, and laser scanning was extended to include surrounding areas. A final BIM model was created in parametric detail and 3D visualisations completed.

#### Airflow Developments

Ventilation solutions manufacturer Airflow Developments is now BIM Level 2 ready. The company says BIM was a natural progression to

further improve collaboration with installers, given the government's aim for all centrally procured construction projects to be delivered using BIM by 2016. "BIM offers the opportunity to reduce costs and improve delivery of projects by allowing a virtual model to be created before real installation begins," the company says, adding that it's able to supply the actual components in a

format that can be placed in the virtual building, meeting with BIM level compliance, which is a requirement of the government's BIM Strategy Paper. Airflow's drawing team work with the industry standard Revit software and says it's equipped to develop BIM models specific to project requirements.

#### Carillion

Currently coordinating several

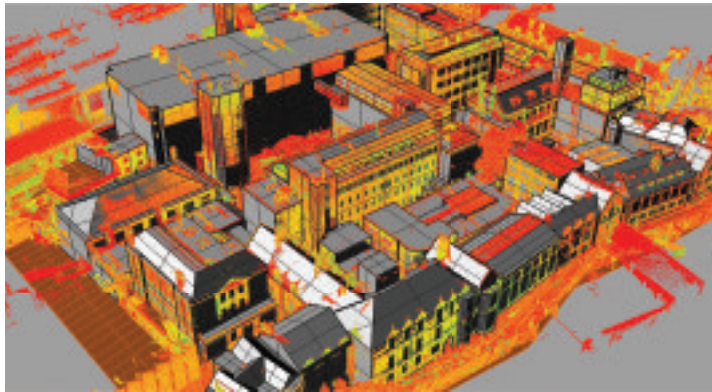
private and public pilot projects, Carillion says it's on target to reach BIM Level 2 compliance – two years ahead of schedule. In preparation for the introduction of mandatory BIM on all government funded projects from 2016, Carillion says it's been working collaboratively to an effective BIM Level 1 standard (BS 1192:2007) for some years now. However, with Level 2 standards beckoning,

extends across the lifecycle of a building which is why it has a key role in FM. “BIM integrates information from various sources and systems to create an asset model that guides a project and contains vital design, engineering and construction information. In a sense it puts a building’s DNA at your fingertips.”

This knowledge is gold-dust to FMs who can use it to form decisions concerning the management of a space that drives down cost, waste and carbon emissions. In addition it provides a mine of consistent, valid data on which to base future renovation and refurbishment work. “New systems and software can seem daunting, but by collaborating and communicating with all those involved in the construction process, including suppliers, to develop a comprehensive BIM, FMs will reap the rewards,” says Peake. “Clearly it’s time to wave goodbye to your inner ostrich.”



Mark Combes, MD of Severn Partnership, says for a long time the term BIM has been a feared topic among FMs. While many have embraced



A 3D MODEL with scan point cloud

it, others still resist it and bury their heads in the sand when it comes to realising the benefits of BIM. “That’s about to change with the Government Construction Strategy’s plan to make level two BIM mandatory across all

construction and design side of built environments, but as government looks towards long-term goals, we must also look to extending the knowledge and understanding of the FM profession if future adoption and technological

**“FMs need to get to grips with BIM at the earliest opportunity and ensure they stamp their mark on the facilities they’ll be required to manage for many years after the building was designed”**

Derek Smith

central government funded contracts by 2016. This means FMs need to collaborate with government’s BIM task force as BIM becomes an important part of public sector projects.

“Until now BIM has largely evolved organically and primary focus has remained within the

developments are to be successful,” says Combes.

So why should FMs pull their heads out the sand and embrace government plans? “The business value of BIM for FMs needs to be both clear and concise if we want to adapt or change elements of

current FM procedures,” says Combes. “BIM offers extended business value, which includes reducing overall FM costs. By doing this, facilities become more efficient to run; and on an environmental level, carbon emissions are also reduced. In turn, buildings become safer places in which to live and work.”

From the construction and design point-of-view, future renovation or refurbishments will again become more cost effective as time, effort, and unnecessary waste are eliminated through the use of structured and consistent data, says Combes. In the long term BIM will allow for smarter projects; built using lean, efficient data producing digitally managed optimum data, with sustainable results.

“We recently laser-scanned a large area of a university campus for use in site-wide refurbishment and construction work. We produced several two-dimensional CAD elevations along with accurate 3D models. These were developed and used within the university’s BIM project. Working together with FMs, this collaborative BIM approach ensured the need for future reworks are reduced, stakeholders in the project

the company says it’s been involved in several projects that reinforce the need to develop and share with its clients services that support the industry’s drive to deliver BIM throughout the design, build and management of integrated project delivery, through the project life cycle. “The ethos of BIM is very much aligned with Carillion’s values and our 2020 sustainability strategy – in which

we’re building a sustainable BIM capability, offering the client and owner operator an open, transparent and collaborative way of working to meet the government targets,” says Alex Lubbock, BIM development manager at Carillion. “As an integrated process, BIM enables projects to be designed, constructed and maintained more efficiently and effectively enabling faster,

better, cheaper and greener results. A Soft Landing service delivery has been demonstrated in recent successful pilots for clients, such as Nationwide – with the use of the BSRIA Business Focused Maintenance framework. The pilots carried out were for an existing estate, thereby showing a soft landing approach to a live operational asset and highlighting the opportunity in the retrofit use of

BIM. This will enable us to learn from and develop strategies to support effective delivery and execution to enable a cultural and step change in the way we work, with the view that BIM Level 2 will be a business as usual practice in 2015 and enable us to facilitate BIM Level 3 once the infrastructure is cost effective and the standards are defined by the UK Governments BIM Task Force.”

were engaged in the project early on and insurance costs were lowered, saving further investment from the university.”

By modelling the campus in Revit, the creation of geometric information and inclusion of specific building information allows automatic updating of required schedules, produces instant sections, elevations, and drawing sheets all from one programme, Combes explains. This provides instant efficiency gains as well as providing information not presently available to the FM team.

But what if BIM ends up giving too much information to FMs? “The beauty of BIM is that it contains data that can always be reused and recycled and the launch of our recent sister company, SEEABLE, allows you to do this. It eliminates the need for a CAD or BIM technician and presents BIM data to anyone in an app environment, in an easy and practical way. This means that rather than burying your head in the sand and shying away from BIM, you can link your own FM database with the BIM model for a better, more accurate view of a building.”

It’s clear to see how BIM can be used as a catalyst for building valuable strategic



**BIM could be the answer to modernising Britain’s hospitals in line with government patient legislation, says Mark Combes**

bridges between FM and the wider built environment, Combes concludes. “Those who continue to bury their heads in the sand and ignore it, risk being left behind by modern surveying techniques. As technology advances and visualisation of 3D data improves, the use of BIM data has never been more relevant, practical, and useful for FM. The full potential of BIM for FM is still yet to realised and bespoke visualisation products will allow this potential to be achieved.”

Jack Fraser, product

services director at Service Works Group, says in the past FMs were all too often thinking *why* should they be using BIM and now of late they’re thinking *how* they should be using BIM. “This view is understandable when you consider only facilities professionals who are managing refurbishments or new builds will currently need to use the tool,” says Fraser. “There’s an argument that even facilities professionals who aren’t going to use it in the immediate future, should still understand its capabilities and how it impacts the FM

profession. Employers might be reluctant to train FMs in tools they won’t immediately be using, but there are numerous free seminars to attend or articles to read on the topic to fully understand its impact and importance.”

BIM can help create and maintain facilities that are more efficient, have lower carbon emissions, cost less to run and are better, more effective and safer places to work, says Fraser. “But FM involvement early in the process is essential for the BIM dream to be realised. So far, BIM has had

#### **P C Henderson**

Manufacturer of sliding door gear systems P C Henderson says its range of Husky products as well as its Pocket Door systems are available as BIM components that can be downloaded from the company website and bimstore. Andrew Royle, UK commercial director at PC Henderson said: “We’re committed to creating quality content to ensure the

specification, build process and building lifecycle is supported by the manufacturer. Continual investment in R&D allows us to provide the latest, performance-led solutions to answer specification demand and BIM components are crucial to this offering.” Over the coming months the manufacturer says it will continue to add BIM components for all products from its range of sliding door

gear solutions, in line with the government deadline. By doing this, P C Henderson says it will provide specifiers with the tools necessary to comply to state requirements, as well as to create buildings delivered on time and to budget.

#### **CESABIM**

CESABIM, the catering industry library of BIM models developed by CESA, is said

to be growing at a rapid rate as manufacturers and first importers sign up. Electrolux is the most recent member. “While (the 2016 deadline) is a key driver for the move to BIM, it shouldn’t be forgotten BIM is a huge opportunity for the industry,” says Nick Oryino, chair of CESA. “For suppliers, it means their products and data can be compared on a like-for-like basis, including

considerable support from the design and construction sectors but FMs have been slow to embrace its role.”

The government's 2016 deadline is designed to reduce by 20% the capital cost and the carbon burden from the construction and operation of the built environment, and the private sector is likely to follow suit. For this reason, the entire FM sector should take note and get to grips with BIM. Burying your head in the sand is not an option, adds Fraser.

“Another reason is that BIM roll-out in the public sector is being implemented through using government's Soft Landings, which puts the end-user and the FM at the beginning of the construction process – something the FM sector has for years been arguing for. While this will add to the costs at the front-end of the projects, there should be cost savings in terms of overall delivery because the FM can help anticipate issues as part of the overall design and not have to correct them once they're operational in the built environment.”



BIM will become an integral element of the FM's role



AMTECH is a supporter of BIM and holds an annual conference at The Crystal in London

sooner than many people realise, says Derek Smith, director of strategic sales at Amtech Group, explaining why it should be welcomed. “There's no doubt BIM is a hot topic in the FM community and a 2013 survey by the BIM4FM task group showed 61.7% of respondents believed BIM can support the delivery of FM. This represents a marked increase compared to awareness 12 months' earlier. Of course, it also implies just over 38% of FMs are yet

to be convinced about the usefulness of BIM.”

The same survey also indicated that just over 35% of FMs don't yet understand the intricacies of how BIM will play a role in FM. This, says Smith, is the current challenge. “It may seem BIM is currently focused on design and construction phases of the building lifecycle and is therefore 'some way off' but there are already quite a few 'BIM buildings' under construction. It won't be long

before those buildings have been completed and are handed over, complete with a BIM file that encompasses all the information needed to manage the building on a day-to-day basis.”

Smith emphasises the 2016 government deadline as well as the fact many private sector organisations that aren't already using BIM are very close to adopting it. “In fact, early FM involvement is critical to the successful implementation of BIM and is key to government's Soft Landings approach. Consequently, he says, FMs need to push for involvement from the design phase onwards as this is the only way they'll ensure the delivery and operation of the building's purpose is considered as a key element of the design.

“Such early engagement gives FMs an opportunity to apply their own expertise and experience to a wide range of design factors, ranging from floor layouts and maintenance access for services through to choices of products, materials and finishes. Clearly, this is a very positive contrast to the traditional approach where FMs have had to manage with what they've been given, working with very limited

elements such as energy consumption. For designers and operators, it will reduce construction costs and allow effective planning and control.” CESABIM is a non-commercial library of BIM models and data for the catering equipment industry. The initiative has been developed by CESA in partnership with BIM specialist, Schematic. It's said to make the specification and

design of kitchens easier, by using BIM models prepared to a standardised format structure and level of detail. Models for CESABIM are prepared in IFC (industry foundation class) format, which can be used on proprietary software systems such as Autoscheme, ArchiCAD, Revit etc. There are more than 150 BIM programs that support IFC files.

#### Amtech

The second Amtech Crystal Clear BIM conference, held in London on 24 and 25 March 2014, united speakers from government and industry, providing delegates with a real-life perspective on BIM while also taking them on a journey through a real project from concept to handover and operation. As well as time for networking and browsing the

Exhibitor Area, there were also opportunities for delegates to visit the BIM Knowledge Centre to see cutting-edge tools in action in the R&D Zone and assess their own BIM-readiness in the BIM Assessment Zone. Delegates were able to experience the potential of augmented reality, a digitally enhanced view of the real world using a tablet device or using ground-breaking Oculus

operation and maintenance information.”

In terms of understanding the intricacies of BIM, as referred to above, this isn't as daunting as it may seem, Smith points out. “The important thing to bear in mind is that BIM is a process – not a tool, or a software package or a database – though these will all play a role in the BIM process. This process builds a model that encompasses a host of information about the building including geometry, spatial relationships, geographic information, quantities and properties of building components and operational information.”

This information can then be integrated with CAFM systems for the day-to-day operation of the building, while ensuring the BIM is updated so building information is always accurate through the life of the building. “Indeed, one could argue this is the most important part of the BIM process, as the operational phase of a building's lifecycle is by far the longest and has the greatest impact on occupants. For all of these reasons, FMs need to get to grips with BIM at the earliest opportunity and ensure they stamp their mark on the facilities they'll be required to



ASSA ABLOY SECURITY SOLUTIONS has launched its BIM doorset and hardware set objects

manage for many years after the building was designed.”

Andy Stolworthy, product manager and BIM project leader at ASSA ABLOY Security Solutions, says BIM has the potential to revolutionise the handover process of projects; closing the gap between the architect's intent and the FM's operations. “Before BIM, FMs would often have to rely on a CAD drawing at the completion of a construction project and

disparate as-built drawings from the contractor to get an insight into why architects made their initial investments. This wasn't always enough information to help them manage space efficiently and cost effectively over the project's lifetime.”

Essentially, BIM has the potential to serve as an electronic operations and maintenance manual to assist FMs in maintaining the built environment, says Stolworthy.

“It provides a communication portal for everyone involved in a project. Not only creating efficiencies during the planning and build stage, but also through the handover process and throughout the ongoing management of the assets.”

Owing to the transfer of focus from capex to totex budgeting, architects are increasingly specifying a product based on costs that occur after an asset has been acquired, including

Rift technology. “Following the success of the first Crystal Clear BIM conference we had very high expectations of this year's event and they were certainly realised, if not exceeded” said Amtech CEO Mark Tindall. “I'm grateful to the speakers who made the event so interesting and relevant, and the delegates who shared their views and enlivened the discussions. The feedback has

been very positive and we are now exploring ways to build on this success with other events in the future.”

#### **Asta Development**

Asta Development has announced the availability of Asta Powerproject BIM and the ELECO BIMCloud. This new version of Asta Powerproject incorporates BIM features that will enable

4D planning, drive greater collaboration, and deliver communication, time and efficiency benefits. It enables users to link project plans and 3D models in a single, cloud-connected application, and share information between applications using the IFC4 data format. The ELECO BIMCloud, from Asta's parent company ELECO, will support improved exchange of information and

collaboration between users of a number of applications used at different stages of the project lifecycle, including 3D visualisation, CAD, estimation tools and project management. It will enable the sharing of data in an industry-standard IFC4 database, hosted in the cloud.

#### **ASSA ABLOY**

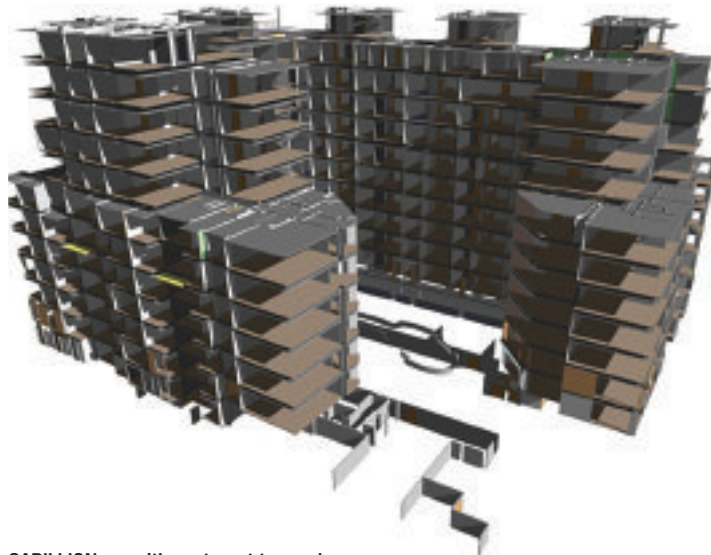
ASSA ABLOY Security Solutions has launched its



maintenance, repair and replacement expenditure, adds Stolworthy. "Successful BIM delivery for FM is about communicating this original intention in an accessible and comprehensive format."

BIM objects can correctly inform architects of their options, so they may choose to make a higher initial investment in a product that can improve value for money over its whole life, by reducing maintenance costs and eliminating the need to upgrade. "A BIM model will then store this information, so the architect's original focus on the whole life cost of the project is easily translated to the FM," says Stolworthy. "The BIM objects will display an asset's life expectancy, so FMs can efficiently plan their maintenance strategy."

He adds: "BIM isn't a complete solution for FM; it's a process to be added to the skillset of the profession to promote best practice. If all members of the built environment supply chain begin to use BIM to its full potential, it will help the industry work together more effectively. With the declaration all new central government-funded buildings must be constructed using BIM software in tandem



**CARILLION says it's on target to reach BIM Level 2 compliance – two years ahead of schedule**

with government's Soft Landings, this awareness and collaboration will only become more important to ensure all buildings get delivered as promised."

bridge the gap between BIM construction models for their buildings or because they don't have models for their buildings in the first place. However, says Laing, there are software tools

**"BIM isn't a complete solution for FM; it's a process to be added to the skillset of the profession to promote best practice... it can help the industry work together more effectively"** *Andy Stolworthy*

■ ■ ■  
Matt Laing, product director for Manhattan Atrium says most FMs struggle with BIM because they find it difficult to

and processes that exist to help with both issues. "Where an FM is fortunate enough to have a construction BIM model, data transfer standards can be utilised to populate CMMS

and CAFM systems with highly detailed space and asset data."

COBie (Construction Operation Building Information Exchange) is an example of such a standard and originates from the US Army Corps of Engineers, Laing explains. "COBie is supported by the UK's BIM Task Group and COBie compliant data export functions are available from the leading BIM tool providers. In short, use of COBie means the detailed asset data captured during construction can be reutilised to maintain and operate the building in its afterlife."

For those FMs without BIM construction models (the vast majority, says Laing), software tools are available that allow 3D representations of buildings to be quickly produced from existing CAD plans and textual data. "These might not contain detailed asset information on their own but when integrated with the asset information already resident in CMMS and CAFM systems, can deliver an effective way of visualising and analysing properties, collaborating in the operation and maintenance of facilities and improving accuracy. The 3D models produced this way can also directly allow optimisation of buildings in terms of energy, productivity, safety etc. via consequence of change calculation algorithms."

BIM doorset and hardware set objects. The objects have structured data attached providing a clear indication of the expected life of components in different environments. Extensive research has been carried out on these BIM objects, which has seen the installation of cycle-counters within real-life applications from schools to hospitals,

in order to obtain an accurate representative of an object's life-cycle within different establishments. This information is available in the BIM object's attached data, which will, the company claims, make it easier for architects to specify products that will be of a high enough standard for continual application in particular environments.

**Komfort**  
Komfort says it's the first UK partitioning system manufacturer to offer BIM objects for its Polar Vision frameless glazed partitioning system. The objects are available in Autodesk Revit and Bentley software formats as well as an IFC file, which is used for the creation and exchange of data between different BIM software

formats. Franz Lorenschitz of Komfort said: "Komfort recognises the growing importance of BIM within the interior fit-out sector and providing BIM objects is a key objective for the company. Polar Vision is the first product range to go through the process and we hope to roll this out to further ranges in the not too distant future."