

BIM Building Information Model

IFC Industry Foundation Classes

“BIM modelling is the process used to generate and administer information created during the lifecycle of a building. BIM is therefore not technology but a collective term for how the information is used in a systematic and quality-assured manner.”

From the April 2008 report 'BIM instead of 2D-CAD in building projects' by Rogier Jongeling, Luleå University of Technology, Sweden.

True BIM demands open systems

BIM (Building Information Model) is the building industry's best bet to improve efficiency in the building process.

All the way from the architect's first sketches through to the real estate manager's rental considerations, BIM will provide higher quality, reduced lead times and fewer mistakes.

The value of openness

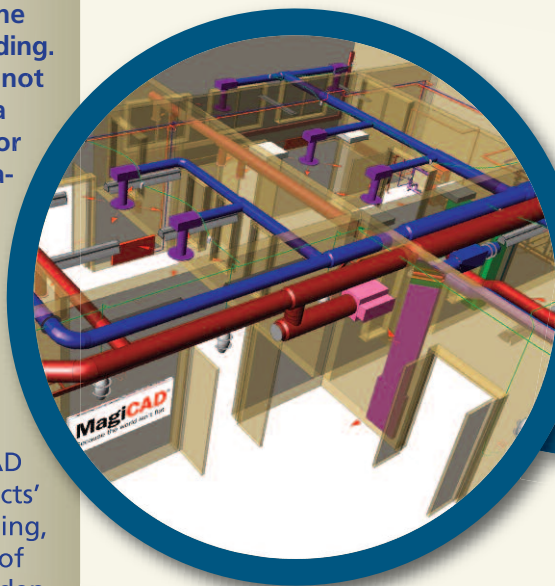
To realise the true benefits of BIM, an open format is required for a free flow of information between all parties involved in the building industry.

IFC has what it takes

The open format IFC (Industry Foundation Classes) is the only format that lives up to the requirements. IFC allows the transfer of both geometric and technical data in a structured and well-defined manner between contractors, developers, architects, designers, real estate managers, etc.

Strong support

Today, IFC is an established format in the USA, the Nordic countries and in many other parts of the world. IFC is supported by many world-leading companies, including Autodesk. In Denmark, Norway and Finland, public clients are already specifying IFC as the required format for data exchange. MagiCAD has been an active supporter of BIM and IFC for many years. MagiCAD has already proven its BIM and IFC capacity in a large number of projects.



IFC maintains geometries and data throughout the entire project

Architectural design
Structural design
Building services
3D visualisations
Energy and comfort calculations
Sound calculations
Lighting calculations
LCC analysis
Real estate management

"BIM is the process of capturing, visualising and transforming program and design information in a 3D digital model, with integrated quantities, cost, schedule and data from inception to completion of a project. The use of open standards, such as IFC, enables efficient and software-independent information flow during the complete lifecycle of the building. An integrated BIM stores all the relevant information throughout the lifecycle of the building and provides access to that information for all stakeholders."

Dr Arto Kiviniemi, Times Journal of Construction and Design, March 2008.

MagiCAD is open for true BIM

MagiCAD has for a long time incorporated support for both IFC and AutoCAD's DWG format. MagiCAD and BIM are a combination which functions in reality.

MagiCAD Heating & Piping, Ventilation, Electrical and Room is the Nordic region's leading program for the installation sector.

It is used by 25 of the 30 largest companies in the region, with more than 6,000 licences being used every day. The program's functions are developed specially for the market where it is used, so that consultants can work in a way best suited to both them and their customers.

3D modelling

From the outset, MagiCAD has been developed for 3D modelling. Even if you choose to work in 2D, MagiCAD automatically creates a 3D model. Any changes made in 2D are updated directly in the 3D model.

Real products with full flexibility

MagiCAD contains Europe's largest database featuring hundreds of thousands of real products from at least 70 suppliers. You can choose the product which best suits your project without being restricted to a certain supplier or product type. All product models contain true dimensions and relevant technical data. New products and manufacturers are constantly being introduced. You can download the entire database or just a single product from the Internet free of charge.

Interoperability and design collaboration

Operating a BIM project is easy with MagiCAD. Everything you design with MagiCAD contains a great deal of useful information that can be shared with other participants in the project. For example, being able to provide the correct position and data for each product is valuable for designers, for contractors during cost calculations, during the building process and later for maintenance.

IFC certification

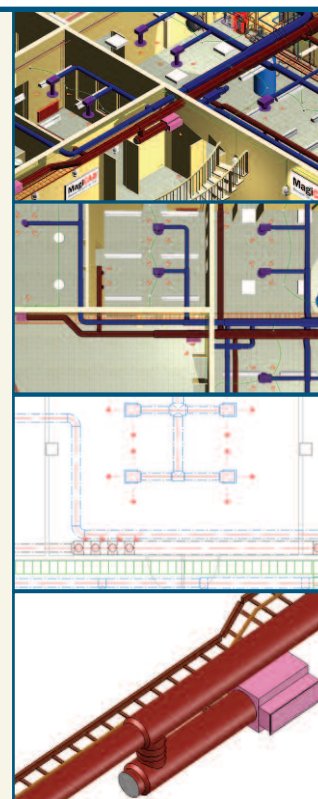
MagiCAD is fully compatible with the latest IFC standard, Step 2 of IFC 2x3. As a MagiCAD user, you can export IFC files of your project model, complete with design and technical data. Your partner, using other IFC compatible software, can put your design model into immediate use.

Coordination and collision detection

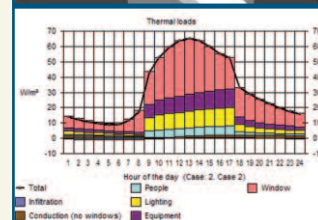
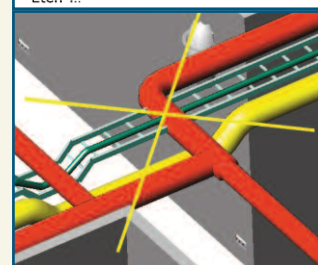
MagiCAD's integral collision detection helps you avoid costly errors at a later stage of the design project from the outset. You can coordinate and control all disciplines directly in MagiCAD. MagiCAD's installations can also be coordinated with other disciplines in the program such as Navisworks, Solibri, etc.

Integrated calculations

Since MagiCAD objects match real products, it is easy to make the correct calculations. MagiCAD has integrated calculation functions for sizing, balancing, sound calculations, energy consumption, cooling and heating requirements. MagiCAD can also export data to external calculation programs.



Part type:	Duct
Room:	101
Top of part:	2808
Center of part:	2650
Bottom of part:	2493
Product:	"BDEK-6-031"
Connection size:	315
Length:	949 mm
Flow:	166.7 l/s
dptot(Pa):	0.2+2.7=2.9 Pa
Ptot:	-24.5 Pa
Velocity:	2.1 m/s
ETC. ...	



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