



Northern Europe's leading BIM software for MEP design

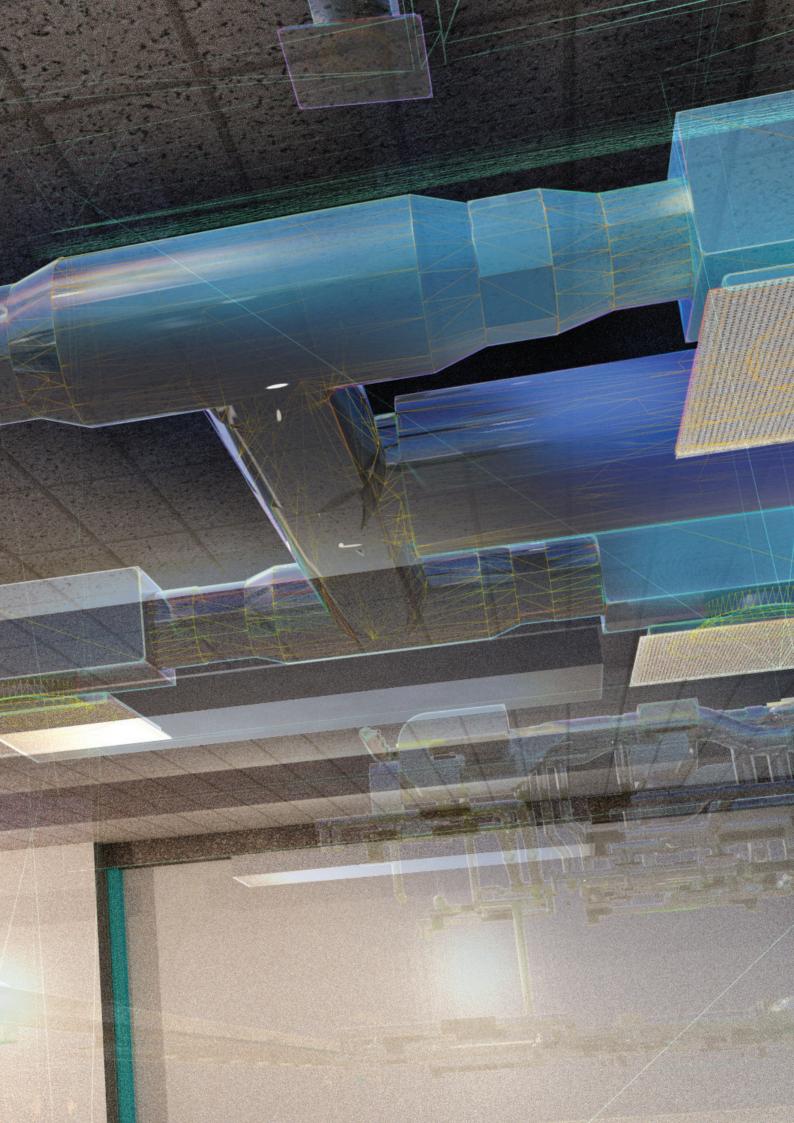
MagiCAD is the leading Building Information Modelling (BIM) software for HVAC, piping and electrical design in Northern Europe, and one of the most widely used BIM solutions in its field in Europe and China. MagiCAD has a proven track record from thousands of projects worldwide with more than 20,000 licenses in use in over 50 countries.

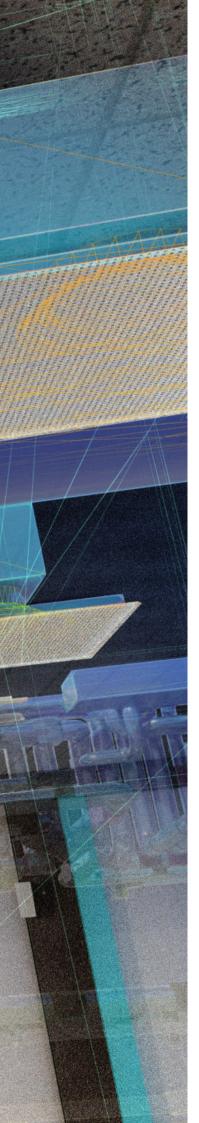
MagiCAD enables Mechanical, Electrical and Plumbing (MEP) design using Europe's largest product model database with over 1,000,000 manufacturer-verified products from 200 leading manufacturers across the globe. It also offers localisation for different country-specific standards and it is used by both large and small building design firms.

MagiCAD is available for both Revit and AutoCAD technologies making HVAC, piping and electrical design faster and easier, and at the same time enabling new levels of reliability, accuracy and quality.

MAGICAD FOR AUTOCAD IS A COMPLETE SOLUTION FOR ALL MEP DESIGN

- MagiCAD Ventilation
- MagiCAD Piping
- MagiCAD Sprinkler Designer
- MagiCAD Electrical
- MagiCAD Circuit Designer
- MagiCAD System Designer
- MagiCAD Comfort & Energy
- MagiCAD Room





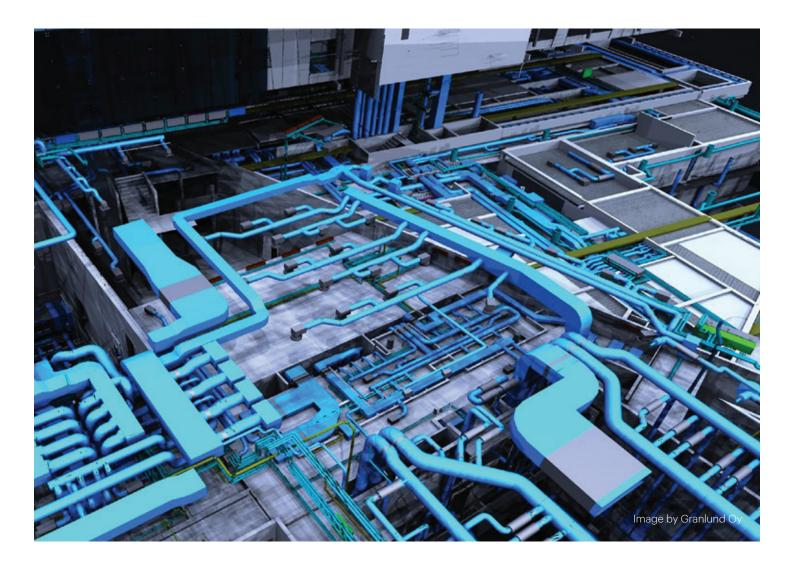
Maximise the benefits of BIM with MagiCAD

MagiCAD enables you to accurately model and test the operation of the building's MEP systems and engineering solutions before the actual construction begins.

When designing with MagiCAD, you have all it takes to carry out even the most demanding BIM projects. A functional 3D information model of the entire system offers a more accurate and more comprehensive basis for your work than 2D drawings. BIM makes it possible to check beforehand whether particular real-life components are suitable for the planned installation, both from the perspective of geometrical space requirements as well as from the technical, operational perspective. MagiCAD also offers thorough calculations, checking procedures and functional simulations, quick and efficient clash detection between different systems, new levels of collaboration between project partners, and more.

LEADING THE WAY IN BIM

With MagiCAD, all modelling is highly automated, fast and accurate. Checking the model and the operation of different systems is easy and reliable. MagiCAD also enables thorough and accurate calculations on all functional and spatial aspects of the building with just a few mouse-clicks. MagiCAD creates a complete, easy-to-manage information model that can be used as an invaluable storage of information throughout the building's lifecycle, from the early conceptual phase, construction, and installation of the building's MEP systems, to facility management and maintenance.



Powerful design capabilities with MagiCAD

REAL PRODUCTS

With MagiCAD, you design with real products from the start. When you need a valve, a radiator, a diffuser or any other installation product, you can select it from Europe's largest database of manufacturer-verified products.

MagiCAD enables immediate access to over 1,000,000 products from 200 leading international manufacturers. This number increases steadily, as new products and manufacturers are constantly introduced to the database.

AUTOMATED DRAWING FUNCTIONS

MagiCAD automates many time-consuming routine tasks in MEP design, including the creation and editing of standard connections, cross-over ducts and pipes, elevation changes, as well as various more

demanding connections and adjustments, such as angle-to-horizontal, pipe-to-radiator and pipe-to-mixer connections, eccentric reductions, etc. MagiCAD enables the drawing of ducts and pipes directly with user-definable and flexibly resizable insulation series.

CALCULATIONS

The 3D product models from the database have correct dimensions, since they are modelled from physical products to a high level of detail. They also contain technical data provided by the manufacturer. Values for pressure loss, sound levels, heating or cooling capacity, power consumption and other data are always present in the model, enabling you to make accurate calculations while designing. The combination of MagiCAD and the product database ensures that your final design will contain all the necessary information and will perform as planned.

PRODUCT SELECTION

MagiCAD also has a range of plugins for easier product selection. The plugins are special software that connect MagiCAD with the product selection, configuration and sizing tools of various manufacturers. When a product is selected, it can be imported into MagiCAD, complete with dimensions and technical data.

COLLISION CONTROL

Collisions are found and corrected during the design stage. Contractors can trust the project model on site, saving installation time and improving quality. MagiCAD's collision control features cover all HVAC, piping and electrical systems. You can even check for collisions between installations and the building's structure.

LOGISTICS

Efficient production of bills of materials (BOM) will also have a positive effect on logistics. Working with real products results in a faster, more cost-efficient

installation process. The flow of materials can be directed to the correct area within the building, even to individual rooms.

IFC CERTIFICATION

MagiCAD is fully compatible with the latest IFC standard. Anyone using MagiCAD can export project models in IFC format, complete with drawings and technical data.

TEMPLATES

Project templates enable important elements of the project to be defined beforehand. For example, product models and families can be preselected for use, particular calculation methods can be made available, etc. Using MagiCAD's ready-made, market-specific, localised AutoCAD project templates, or preconfiguring them yourself saves time during the design phase by enabling a more logical design process and by helping you avoid mistakes.

MagiCAD Suite covers it all

Begin reaping the benefits of Revitbased design with MagiCAD Suite

As a MagiCAD for AutoCAD user, the move to MagiCAD for Revit will be easy since you are already familiar with MagiCAD's functions and product model databases. With MagiCAD Suite, you will receive two licenses in one package: MagiCAD for AutoCAD and MagiCAD for Revit.

With MagiCAD Suite you have all it takes to successfully carry out any of your current and future MEP design and BIM projects. MagiCAD Suite enables you to make the transition to new technology at your own pace, depending on your workload and on the technology your projects require. At the same time, you can keep on using MagiCAD for AutoCAD for as long as you like.

"One of the major benefits of MagiCAD is that the models store a lot more information on systems, temperatures, materials, heights and so on. The 3D product models are accurate and verified by the manufacturers."

Magnus Johansson, INCOORD, Sweden



Core MagiCAD functions

MagiCAD Ventilation, Piping, and Electrical all come with a shared layer of productivity-enhancing MagiCAD functions.

Our BIM solutions for ventilation, piping and electrical design each provide the user with comprehensive discipline-specific design and calculation tools combined with the following core MagiCAD functions.

- Combine all storeys of the building into a unified whole via Project Management and perform calculations on the entire system
- Fast setup of standardised projects with ready-made, localised and configurable AutoCAD templates
- Choose data-rich manufacturer-verified 3D products from Europe's largest MEP product library
- Create and modify your own products and symbols using MagiCreate modelling utility
- Productivity-enhancing routing and crossing tools
- IFC 2x3 CV2.0 Certified export and IFC 4 support for all MEP disciplines
- BIM Collaboration Format with BCFzip file format for efficient project delivery with al relevant files
- Generate Provisions for Voids (Builder's Work drawings and coordinate with structural engineer

- · Create and update cross-sections in seconds
- File export to Navisworks with user-defined property sets assigned to objects
- Bills of Materials (BOM) and reporting functions
- Check for collisions between installations and structure
- Automatically generated, customisable legend tables for drawings
- Drawing clean-up and project packaging tools
- Running index for identifying objects
- · Dimension text and free text tool
- Use manufacturers' own product configuration software via MagiCAD plugins
- Comprehensive Find & Replace functions

MagiCAD Ventilation



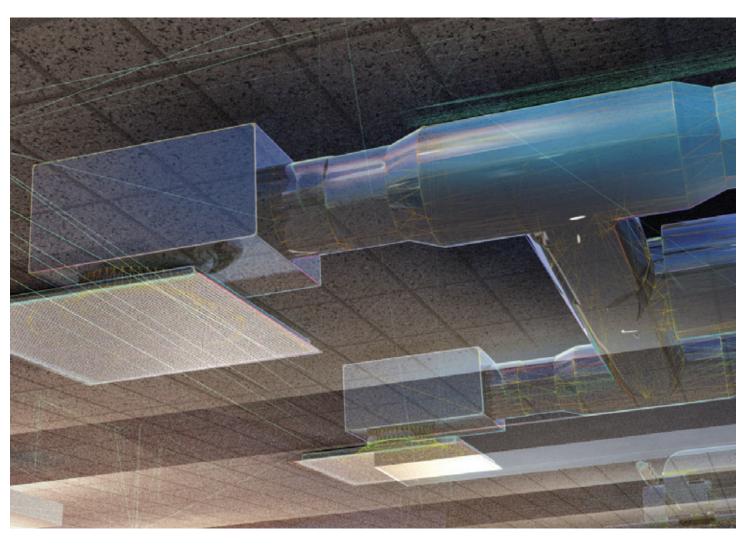
MagiCAD Ventilation is a complete BIM solution for ventilation design and calculations.

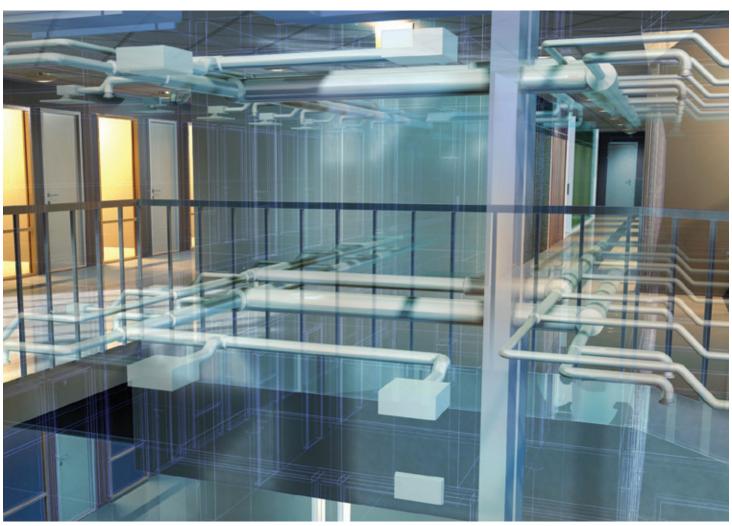
Ensuring clean healthy air indoors is one of the most challenging tasks in modern buildings. Requirements on energy conservation and air quality can often contradict each other. MagiCAD enables you to create the optimal ventilation solution for each building and provides many clever functions that cut down on routine work.

With MagiCAD's automated design tools, even demanding duct connections are easy to make. MagiCAD Ventilation also offers a large selection of built-in calculations, such as flow summation, sizing, balancing, sound calculation and bills of materials. MagiCAD Ventilation fully integrates with AutoCAD software.

- Design in 3D or 2D and produce both 3D model and 2D drawings automatically, with localised presentation, symbols, etc.
- Ductwork modelling tools developed specifically for ventilation design include a comprehensive set of productivity-enhancing functions for duct routing, connections, bends, joints, etc.
- Product selection and product installation tools developed specifically for ventilation products, including air terminals, climate beams, fan coil units, fans, air handling units, silencers, flow dampers, etc.
- Quick and easy duct system sizing

- Balancing based on fan pressure and minimum pressure
- Pressure drop calculations based on industry standards
- Flow summation
- Comprehensive sound calculations
- Export of axonometric drawings
- All calculations based on manufacturerverified calculation data, enabling for example correct adjustment values for flow dampers





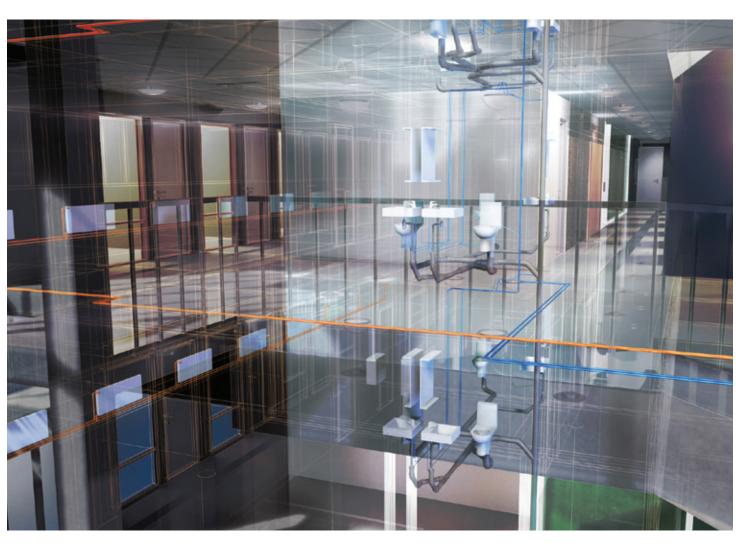
MagiCAD Piping 🕰

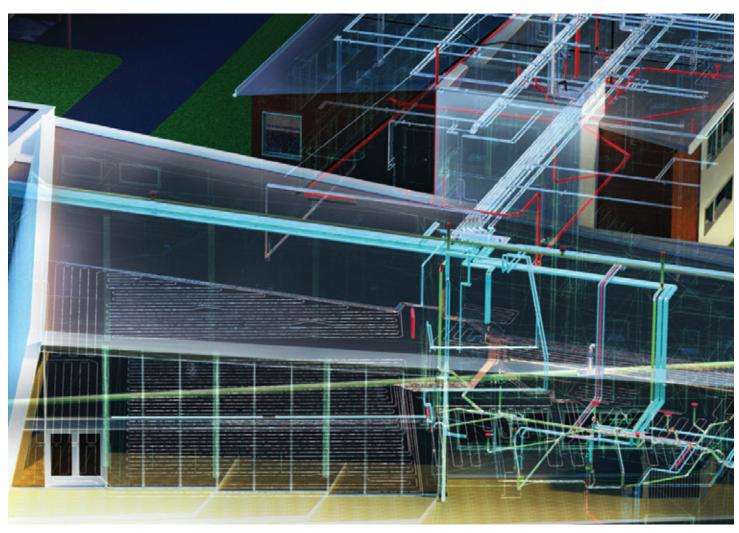
MagiCAD Piping offers a complete BIM solution for the design and calculation of heating, cooling and water systems, including drainage, sprinkler and specialist systems.

MagiCAD Piping contains a number of functions which save your time when you design. With MagiCAD, you do not need to draw every piece of pipe yourself. MagiCAD enables you to connect radiators automatically and perform comprehensive sizing and balancing calculations with a few mouse clicks. MagiCAD also integrates a tool for selecting suitable radiators for your project based on manufacturer products. MagiCAD Piping fully integrates with AutoCAD software.

- Design in 3D or 2D and produce both 3D model and 2D drawings automatically, with localised presentation, symbols, etc.
- Pipework modelling tools developed specifically for piping design, including drawing of heating, cooling, drainage, sprinkler and domestic water pipes, automated device connections and routin
- Fast and easy product selection and product installation tools developed specifically for various piping products, including radiators
- Quick and easy piping system sizing
- Pressure drop calculations also with differential pressure valves

- Balancing based on user-defined pressure or pump pressure, using preset values, damper positions and Kv values
- Flow summation
- Many productivity-enhancing tools, including drawing 2 or 3 pipes simultaneously in e.g. heating or domestic water systems with userdefined distance and routing preferences
- Export of axonometric drawings
- All calculations based on manufacturerverified calculation data





MagiCAD Sprinkler Designer 👾



MagiCAD Sprinkler Designer combines powerful drawing capabilities with the intelligence of a built-in sprinkler calculation engine.

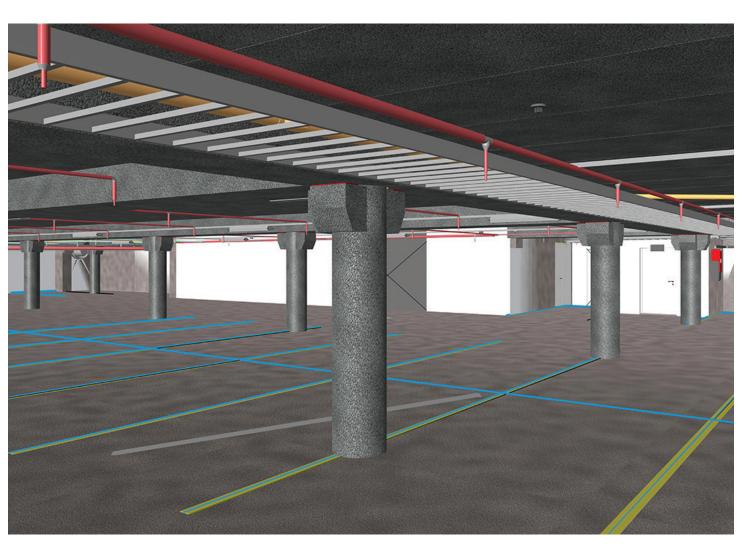
With MagiCAD Sprinkler Designer, you can perform standards-compliant sprinkler system design and calculations faster, easier and with higher accuracy and quality. MagiCAD Sprinkler Designer fully integrates with AutoCAD software.

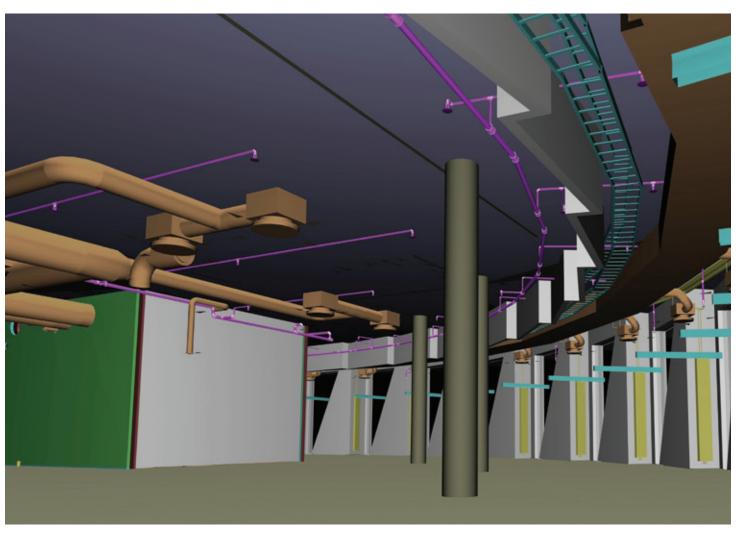
MagiCAD Sprinkler Designer enables you to design a complete sprinkler network; you can draw sprinkler pipes and components, install sprinkler heads, define sprinkler coverage areas and perform functional calculations on the entire sprinkler network.

MagiCAD Sprinkler Designer uses the metric system and supports all the relevant sprinkler standards, including BS 9251:2014, EN 12845, NFPA 13 and CEA 4001 standards.

- Quick and easy positioning of sprinkler heads
- on the hydraulically most remote area
- Automated sprinkler pipe sizing
- Calculation of actual flow density for each

- Calculations can be performed in systems
- All data for calculations, quality control and
- 9251:2014, EN 12845, NFPA 13 and CEA 4001
- steel in accordance with BS 9251:2014





MagiCAD Electrical

MagiCAD Electrical offers a complete BIM solution for the design and calculation of electrical, lighting, telecommunication and data systems.

MagiCAD Electrical offers a comprehensive set of productivity-enhancing 3D electrical design functions and enables you to produce 2D drawings according to relevant electrical standards. MagiCAD provides integrated electrical calculations, easy production of system schematics and switchboard schematics, with schematics and drawings fully synchronised. MagiCAD Electrical fully integrates with AutoCAD software.

- Design in 3D or 2D and produce both 3D model and 2D drawings automatically, with localised presentation, symbols, etc.
- Powerful tools for drawing wires and supply cable routes which are used to estimate real cable lengths and the physical demands for the cable routes
- Automatic generation of switchboard schematics based on circuit connections in the drawings. Switchboard schematics and drawings are synchronised, enabling automated updating of changes from schematics to drawings and vice versa
- Calculation of the highest 3-phase and the lowest single-phase short-circuit currents in the entire power supply system
- Voltage drop calculations in the power distribution network, from the 3-phase mair power supply of the building to all subswitchboards
- Power calculation for estimating simultaneous peak load in different scenarios
- Cable size and protective device verification checks whether the selected cable type and protective device meet the requirements of the circuit

- User-defined preferences for routing conduits and cable travs in 3D mode
- Easy production of system schematic drawings representing the whole power supply network. The network can be calculated and verified based on the schematic drawing without having to first draw the system
- Create and modify your own products and symbols
- Model lighting tracks using real conductors and connect lighting fixtures to the track, resembling a real installation with full data for calculations
- Intelligent handling of data and telecommunications connections
- Connect devices automatically
- Export data to DIALux lighting calculation software and import the results back to MagiCAD
- Automatically find & replace e.g. existing luminaires





MagiCAD System Designer ←C



MagiCAD System Designer is a multipurpose diagram drawing tool for creating functional diagrams and flow charts.

MagiCAD System Designer is easy to use and packed with features that save your time. You can create reports and produce complete lists of all components in the schematic design. If you discover that one or several products must be changed, you can enter new properties directly in the report window. The drawing is updated automatically. MagiCAD System Designer fully integrates with AutoCAD software.

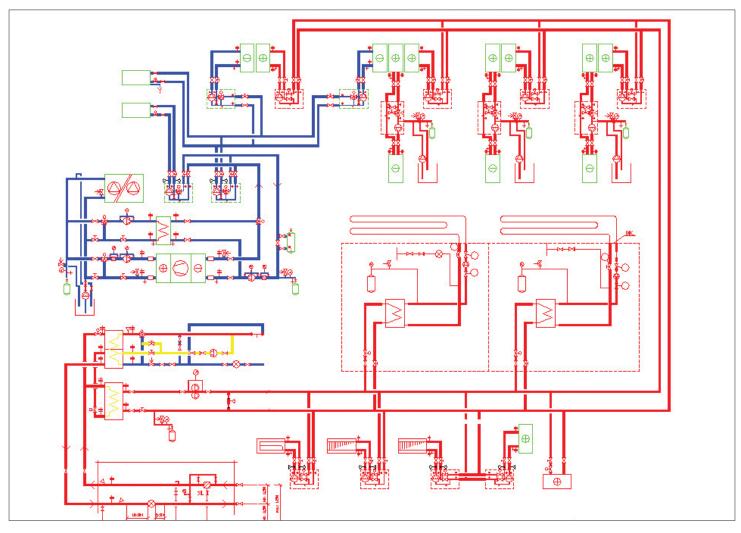
- for storing device information in diagrams
- Data-rich lines, symbols and pre-defined objects, including pipes, cables, valves, ducts,
- Drawing lines and adding symbols to the drawing is easy with specifically developed

- Dragging and dropping devices and device
- or later
- Adding dimension texts and using properties

- defined assemblies and stored to the dataset
- report templates etc.) to an external file to

- more efficient





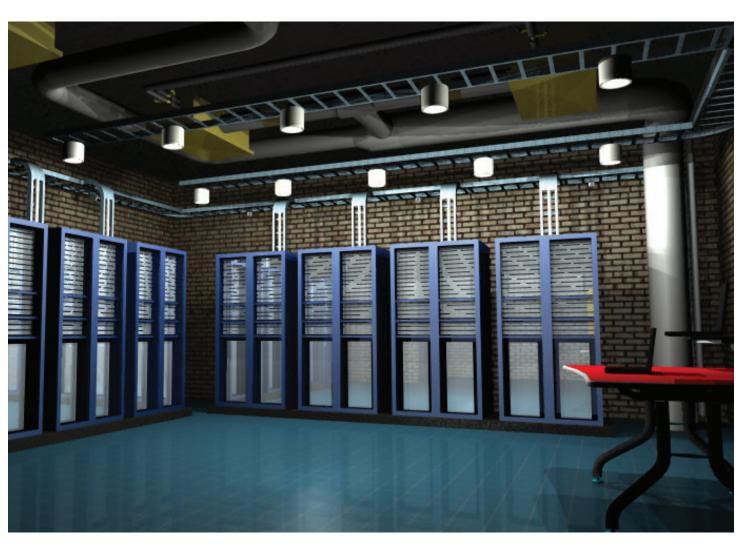
MagiCAD Circuit Designer



MagiCAD Circuit Designer module is an easy tool for designing electrical circuits of different complexities. It is a perfect solution for designers, electrical engineers, contractors or switchboard manufacturers.

Depending on the preference, the design can be started either from the logical (i.e. the principle) side or from the wiring side of a schematic drawing. Reference texts will be automatically updated to products on the wiring side, thanks to intelligent MagiCAD objects and user-defined wire connections between the parts on the logical side.

- Use a wide range of standard symbols and create your own
- Centralised editing of label attributes
- Wizard functions make creating drawings fast and easy
- Efficient management of pages and objects with automatic layout creation and PDF export for fast printouts
- Intelligent objects enable automatic reference text undates





MagiCAD Comfort & Energy 11-



MagiCAD Comfort & Energy enables the evaluation of the climate and energy performance based on a designed system. Early in the design process, you can try out different systems and products to find the best solution for building energy savings.

MagiCAD Comfort & Energy integrates the comfort and energy simulation component RIUSKA which enables comprehensive energy simulations.

Energy declarations for new buildings are already required in many countries. MagiCAD Comfort & Energy makes the production of the declarations easy and cost-efficient.

All necessary calculations are made at your own workstation - for single rooms or for the entire building. It is easy to see how different insulation and heating/cooling systems will affect long-term energy costs. Project partners are able to budget for costs well in advance. Imagine the benefits for your client to have access to data and graphs on the building's projected annual and life-cycle costs, as well as energy efficiency and indoor climate data.





MagiCAD Room 🕒



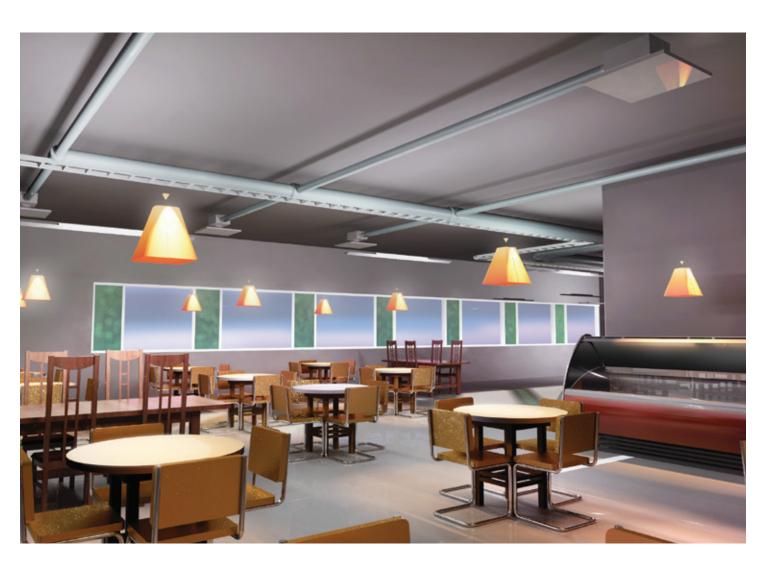
MagiCAD Room enables you to create technical 3D models of buildings for use as a basis for MEP engineering calculations.

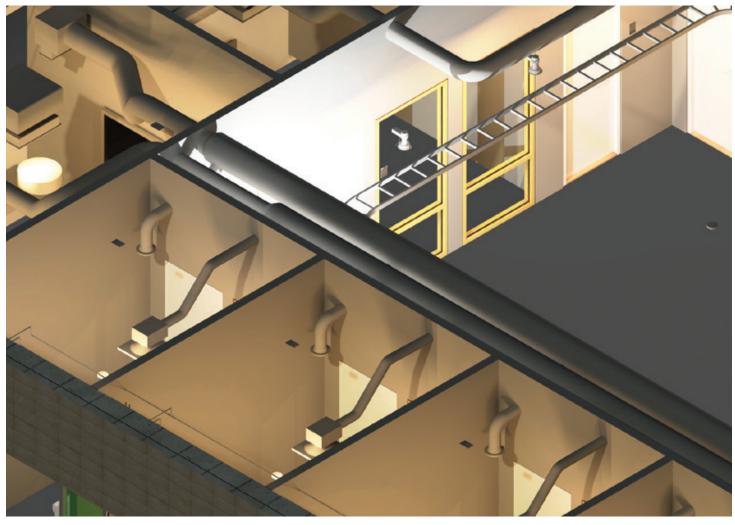
With MagiCAD Room, you can create a building model based on the geometry and technical properties of the building. Once created, the model can be used as a basis for energy savings calculations and analysis on the building's heating, air conditioning, lighting, and other systems.

The model can be used by all participants in the building process - from preliminary studies and system functions to final design and maintenance. MagiCAD Room complements other MagiCAD software modules and integrates fully with AutoCAD software.

- and combine spaces to create functional
- When the room model is connected with an MEP model, all MEP devices can be defined

- on the model, for each space or for the entire
- CV 2.0 and IFC 4 formats





References

MagiCAD evolves at a steady pace to be in tune with your demands, now and in the future. More than 20,000 licenses are in use by building services designers in over 50 countries worldwide, including Europe, Russia, China and the Middle East.

Musiikkitalo, National concert hall Helsinki, Finland



JUKKA TYNI GRANLUND OY HELSINKI, FINLAND

Responsible for designing all the ventilation systems, Granlund Oy used MagiCAD's integrated sound calculations to their full extent. Since MagiCAD provides designers with real products containing the manufacturer's data for sound levels at different flows, they can make reliable calculations for the entire system.

"Because the acoustics are key to the project, it has been very important that we have had the chance to balance the ventilation system in advance and examine the acoustics of the ducts and systems with MagiCAD."

Krasnoyarsk Regional Clinical Hospital Krasnoyarsk, Russia



PETR MANIN
WERFAU MEDICAL ENGINEERING
SAINT PETERSBURG, RUSSIA

Werfau started using MagiCAD for AutoCAD in the end of 2014. Today, MagiCAD is the company's preferred software for MEP BIM and Werfau performs practically all of their building services design using MagiCAD.

"MagiCAD reduces the number of required routine operations and provides us with automated check-up processes and calculations according to local standards. With MagiCAD, we can visualise the systems in 3D and check for collisions. All of this improves the quality of our building services design immensely, and at the same time, saves our time by approximately 20% per project."

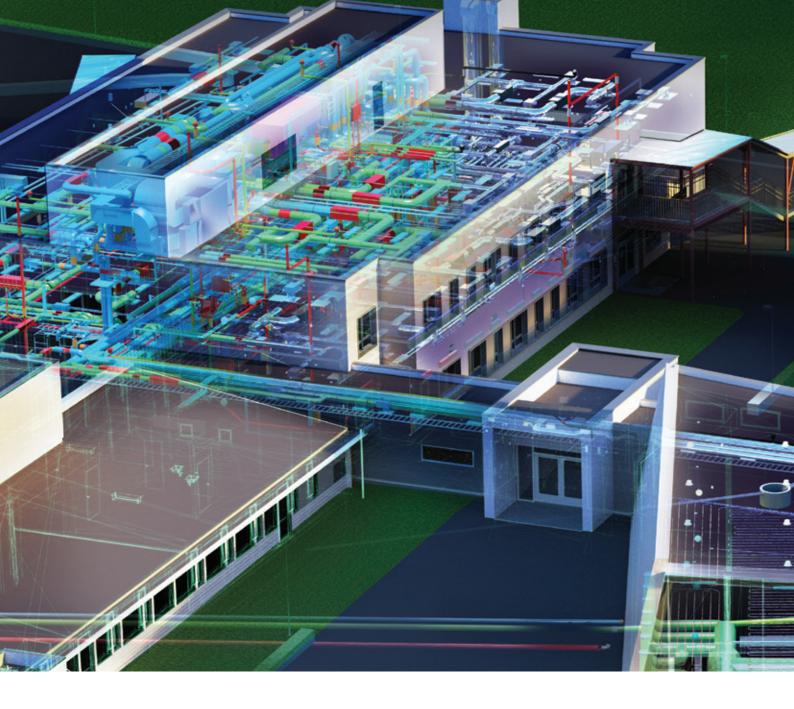
61-storey high-rise Varyap Meridian Istanbul, Turkey



GÜRKAN GÖRGÜN GN ENGINEERING ISTANBUL. TURKEY

GN Engineering designed HVAC systems for the award-winning green high-rise development Varyap Meridian in Istanbul, Turkey using MagiCAD Heating & Piping and Ventilation for AutoCAD.

"We have now been using MagiCAD for about eight years and we are very pleased with it. Over the years, we have found that using MagiCAD saves us a lot of time and enhances also overall project productivity. We have estimated that MagiCAD's timesaving functions, such as easy riser diagram features and faster revisions, can save up to 30 per cent of total project time. This also permits us to proactively detect and avoid potential problems in later project stages, which has positive effects also on project quality."



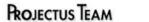






























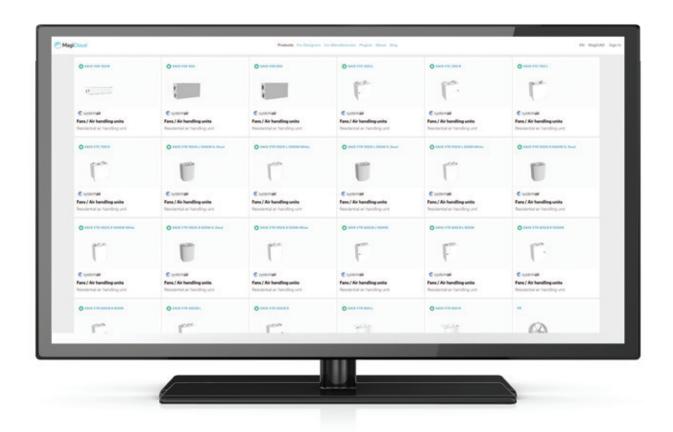












Product modelling

We are a pioneer in creating data-rich product models based on manufacturers' products and technical data. MagiCAD models are parametric, very small in size, and at the same time provide a realistic image of the product. These intelligent models include 3D geometry and comprehensive technical information for each product.

Once product models are created, they are published as MagiCAD libraries and made immediately available to all MagiCAD users in over 50 countries. When the products are also available in Revit format, every designer using Autodesk Revit MEP anywhere in the world will be able to use the product models as and when they need them. A product selected in the design phase often means a product sold later on in the project.

PLUGINS

When the manufacturer has highly customisable products, a large number of product variants, or they want to help their customers in selecting and installing the most suitable product in each situation,

a product selection plugin is specifically developed. Over 60 MagiCAD Plugins connect manufacturers' product selection and calculation software directly to MagiCAD, making product selection faster, easier and more accurate.

Once you have selected a product, you can import and place the product from the plugin in your MagiCAD model just as any other intelligent MagiCAD object. Information about the dimensions and technical data is included in the product model.

You will also get direct access to a wider range of more complex and more configurable products, for example air handling units (AHUs).



MAGICLOUD ONLINE PRODUCT LIBRARY

MagiCloud, Europe's largest BIM library of manufacturer-verified MEP products, enables online browsing of MagiCAD's full product model catalogue. For the manufacturer, MagiCloud offers an easy and accessible way of presenting their products to their customers. In MagiCloud, the manufacturer's MEP products are visualised as leading-edge data-rich 3D models, with accurate dimensions and comprehensive technical data for full BIM implementation.

MagiCloud fully supports Revit MEP and AutoCAD, enabling designers, contractors and engineers preparing specifications to download models directly in Revit and AutoCAD formats. MagiCloud offers the version independent DXF format for AutoCAD as well as RFA formats for Revit. The MagiCloud library content is available to all MagiCAD users directly from MagiCAD for Revit MEP and AutoCAD user interface. The content is also accessible via MagiCloud.com for registered users.

MagiCAD Support & Services

Our professional training and support services will show you how to get the full benefits out of MagiCAD.

TRAINING

Over the years, thousands of MagiCAD users have attended our training sessions to learn and become even more productive. Training courses are held regularly for beginners as well as for experienced MagiCAD users. Customised company training can be arranged for small or large groups upon request. For more information on the availability of training within your country, please contact our international support team.

TECHNICAL SUPPORT SERVICES

Our experienced technical support team is happy to help you get the most out of your MagiCAD for Revit MEP and AutoCAD software.

WEBINARS

MagiCAD webinars are a great way to get to know MagiCAD applications, features and benefits. You can join our webinars from anywhere in the world. The webinars are interactive and hosted by one of our MagiCAD experts. Upcoming webinar dates are posted on the MagiCAD website. If you wish to receive updates on forthcoming webinars, then simply submit your contact email address on the MagiCAD website.

MAINTENANCE PLAN

With the MagiCAD Maintenance plan, you are the first to receive any new MagiCAD software updates to ensure that your design tools are always up-to-date. MagiCAD Maintenance makes budgeting easier, as there are no unexpected costs and it also costs less than ordering separate upgrades.

Our support and training staff are dedicated MagiCAD experts with backgrounds and strong experience in construction and building services design.







ABOUT PROGMAN | Progman specialises in software and services for the building industry. Our popular MagiCAD software, for Revit and AutoCAD, is the number one Building Information Modelling (BIM) solution for Mechanical, Electrical and Piping design in the Nordics, Russia and China with over 20,000 licenses sold in 56 countries. In addition, our online BIM library, MagiCloud enables access to over 1,000,000 manufacturer-verified products from more than 200 globally renowned manufacturers. Each product is complete with accurate dimensions and comprehensive technical data.

With more than 30 years of experience in the industry, our team of passionate software professionals continues to provide our customers with intelligent solutions that make daily engineering and design easier, faster and more profitable. Progman is a Glodon Group company.

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