

# Welcome to ARCHICAD 22

ARCHICAD 22 delivers design tool improvements and enhanced design workflows. Look for significant performance and productivity improvements to its core design processes as well as to multidisciplinary collaborative workflows.



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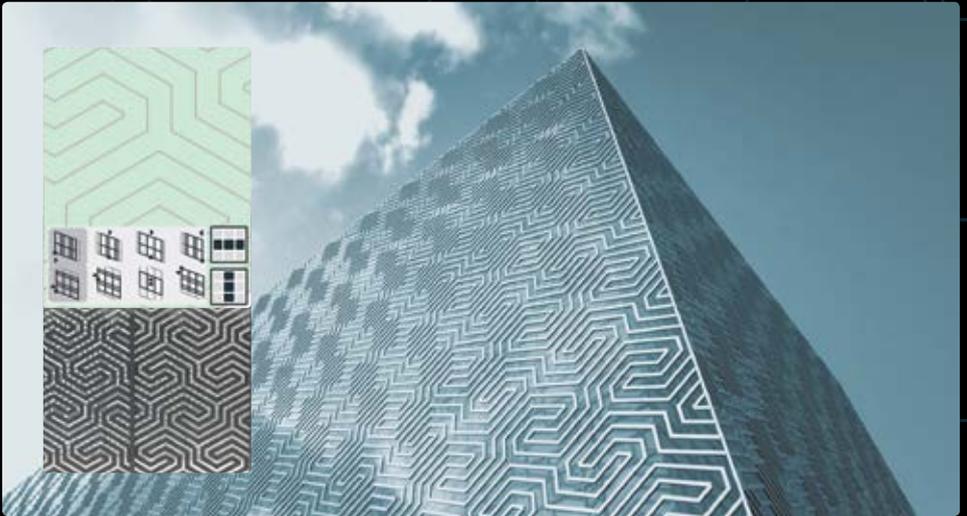
ARCHICAD's remastered Facade Design workflow provides a flexible design environment for architects to create external or internal facades and elevations using modular structures and hierarchical, easily customizable patterns. Both traditional and algorithmic workflows are supported, thanks to the improved ARCHICAD-Grasshopper Connection.

Parametric Profiles make it easy to create parametric edges for column, beam and wall profiles, so you can offset and control edges at the attribute and at the element level. Version 22 includes Maxon's latest (R19) CineRender engine, providing stereoscopic or 360-degree spherical renderings. ARCHICAD 22 introduces significant performance improvements; smooth and responsive navigation; a better Teamwork experience due to faster element reservation; and improved quality and precision when exporting building component information from composite skins and complex profiles – using OPEN BIM standards.

[graphisoft.com/archicad](http://graphisoft.com/archicad)

# Façade Design Remastered

ARCHICAD's remastered Façade Design workflow enables architects to design, develop and detail hierarchical curtain wall systems, while ensuring adherence to local requirements for documenting and listing. Complex curtain wall systems may be designed by drawing schemes with modular patterns first; and then continue by defining frames and mullions to host fully customizable panels. Create precise vertical and horizontal junctions automatically, and finish by selecting from a wide set of louvres and other accessories.



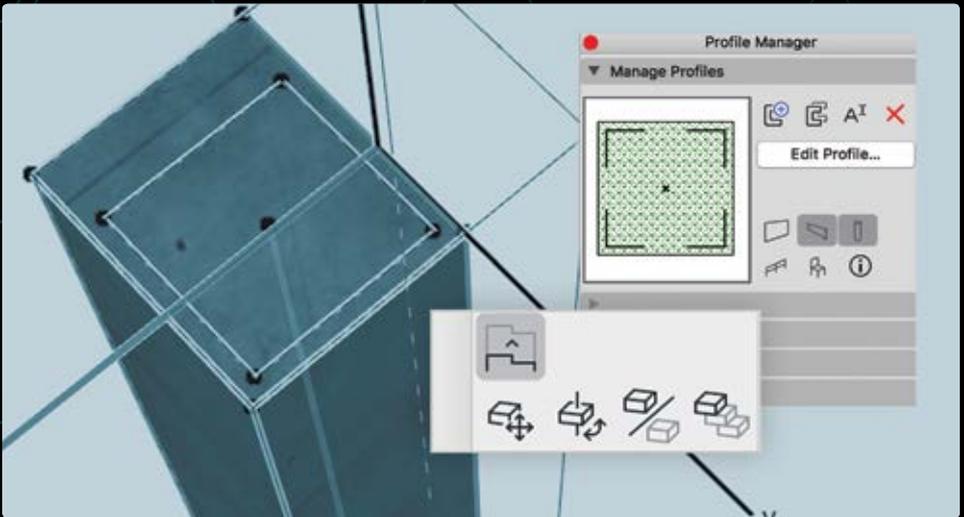
Any documentation standard can be met, thanks to the customizable, scale-sensitive representation at any level of detail. Element schedules provide very accurate lists of all details of the created frames, mullions and even accessories.

Both traditional and algorithmic workflows are supported, thanks to the improved ARCHICAD-Grasshopper Connection tool. Designers can use any set of 2D lines to start assembling Curtain Wall Patterns on the Grasshopper Canvas and manage all sub-elements, then create astonishing facades in ARCHICAD using algorithmic design definitions.

# Parametric Custom Profiles

ARCHICAD 22's Parametric Profile Editor combines the power of parametric design with the freedom of graphical profile creation.

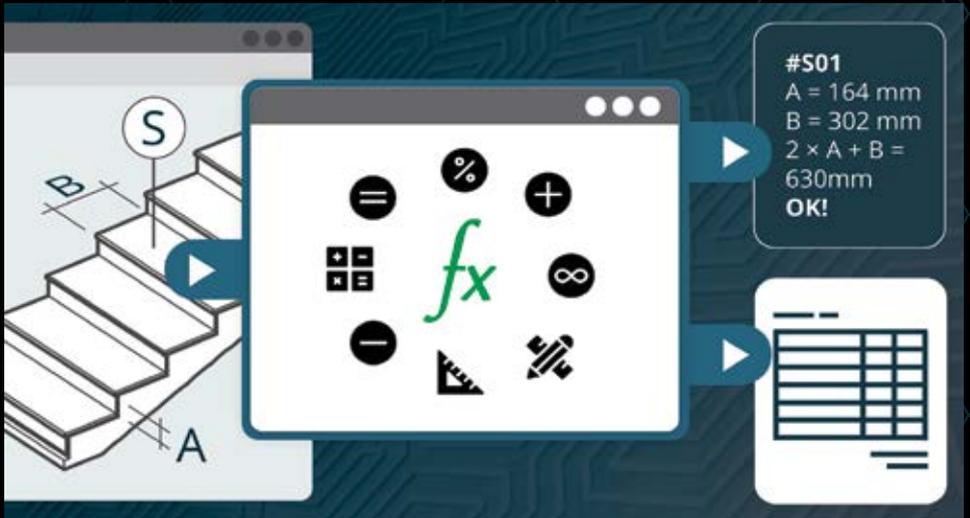
Create more intelligent Profiles for Walls, Beams and Columns, by defining parametric edges in the Profile Editor. This will allow offset individual or multiple edges centrally for the Profile Attribute or at the instance level – either graphically or via element settings.



Thanks to so called "Custom Geometry Modifiers", architects can use only one Profile to describe several different custom wall, column and beam geometries. By adjusting the dimensions of the Parametric Profile's skins, the same Profile can be fit into several different details in the project. The height of the layers of composite structures, for example, can now be adjusted individually.

# Expression Based Properties

ARCHICAD 22 allows you to use mathematical expressions to calculate property values which depend on the element's own parameters. This new function lets you define any calculation rule as an element property value and update it automatically, without time-consuming and error-prone manual data entry.



Architects may benefit from defining more complex data-processing expressions for elements. The result can be used in ARCHICAD for tagging or filtering elements, and presented in any graphical, tabular or model output, governed by arithmetic, logical and text handling operations – very similar to functions in standard spreadsheet programs. Property values containing a valid URL will become a live URL hyperlink in the Interactive Schedule, providing a quick way to access any connected website or online data.

The property value definition is based on user-defined expressions, composed using simple data fields. Create Element Properties using numeric, text or even Boolean data, then use these properties to tag or filter elements and present them in any graphical, tabular or model output.

# Faster & Smoother 2D Navigation

ARCHICAD 22 continues to introduce significant 2D and 3D performance improvements, including a smooth and truly responsive panning and zooming navigation experience for all model views, even in very large projects.



Generation of complex element fills, cut- and cover surfaces are “GPU-accelerated”, performed by the computer graphics processing unit. Multiple cores of the computer’s CPU are further enhanced to utilize the changing needs of continuous - panning or zooming - navigation in the background.

GRAPHISOFT is at the forefront of the industry, enabling designers to use innovative technologies during their everyday design work.

ARCHICAD’s robust 64-bit architecture enables to display large models, and optimized scaling of multiple-core CPUs boosts performance when working on large, complex projects.

The patent pending Predictive Background Processing takes advantage of unused computer capacity by anticipating potential future user actions and preparing for them in the background. This offers architects lightning-fast response times regardless the size of the project.

# Productivity Enhancements

Here are some highlights of the design, documentation and collaboration workflow improvements in ARCHICAD 22!

## #1 Custom Graphical Label

Select any combination of drawing primitives (lines, arcs, polylines), plus Text Blocks (including Element-related Autotexts), then save and use them as a Label.

## #2 Import and Export ARCHICAD Element Properties via IFC

ARCHICAD 22 has improved the quality and precision of exported Component and Material information to IFC2x3 and IFC4. This is important to create schedules, calculations and cost estimates based on data related to Building Materials, individual Composite Skins, and Complex Profile parts.

## #3 Rhino-Grasshopper-ARCHICAD Toolset

The new "De-Constructor" function enables to use a reversed data workflow and channel ARCHICAD element data to the Rhino-Grasshopper platform. As a result, architects can perform design optimization and validation using the vast set of Grasshopper and Rhino extensions.

## #4 High-Resolution Support on Windows 10

The representation of fine details of the ARCHICAD icons, lines, texts and other graphic user interface elements are now produce a much sharper look. Ultra-high – 4K and 5K – resolution monitor screens offer much sharper display of details.

## #5 Stair and Railing Enhancements

The flagship feature of ARCHICAD 21 has been further enhanced based on the feedback of architect. The new Stair and Rail enhancements enables to visualize and use Stair Headroom for collision detection. Stair 2D documentation enhancements helps to keep country-specific representation standards. Sloped Railings and Rail Panels developments enables more accurate modeling.

## #6 Automatic Element Reservation in Teamwork

Now it only takes fragments of a second to reserve elements in Teamwork, even in case of very large element selection sets. Please note that this new feature is only available with a GRAPHISOFT BIMcloud User License.

# Getting started with ARCHICAD 22

ARCHICAD 22 is shipped electronically, through the web.

Please follow the steps below to get your copy of the software and the licenses necessary to run it:

1. Download ARCHICAD  
[graphisoft.com/downloads](http://graphisoft.com/downloads)
2. Run installation wizard. For help visit: [graphisoft.com/install](http://graphisoft.com/install)
3. Create GRAPHISOFT ID (your personal identification)  
[graphisoftid.graphisoft.com](http://graphisoftid.graphisoft.com)
4. Run License Manager Tool (automatically installed with ARCHICAD 21) & sign-in with your GRAPHISOFT ID
5. Software Key holders, follow the instructions below:
  - a. Copy & Paste the Authentication Key received from your reseller in email
  - b. Select and download an ARCHICAD 21 license available for you from the list
6. Hardware Key holders, follow the instructions below:
  - a. Plug in your CodeMeter hardware key to the USB port on your machine
  - b. The License Manager Tool will prompt you to Update your license on your key
  - c. Press the Update Licenses button to download the license to your key

Troubleshooting: [graphisoft.com/install-ac22](http://graphisoft.com/install-ac22)

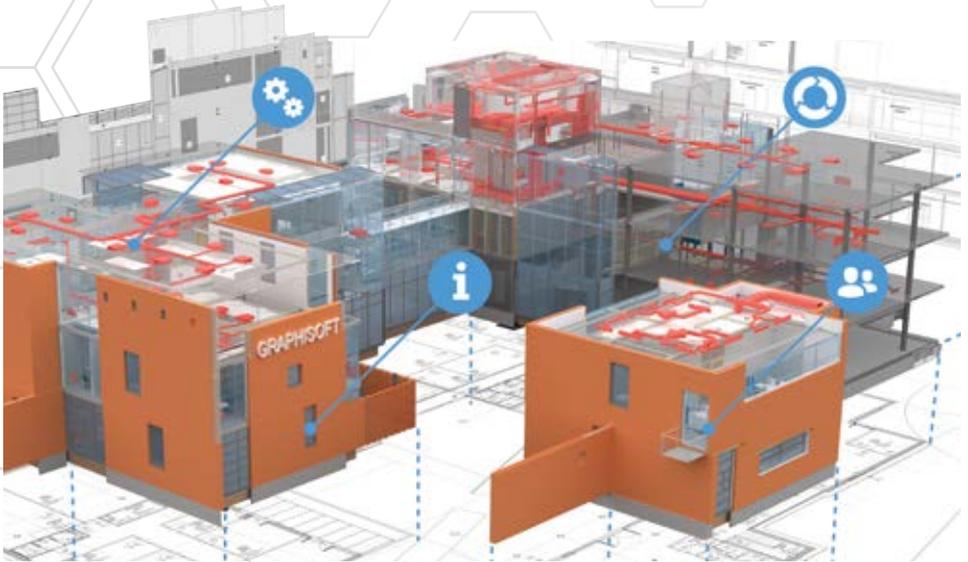
To replace your hardware key with software key  
[graphisoft.com/key-replacement](http://graphisoft.com/key-replacement)

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ARCHICAD 22

# Welcome to ARCHICAD

Thank you for buying our Software! We've put a lot of hard work, dedication and passion into our product. We hope you have fun working with ARCHICAD, and we'll do everything we can to make it your favorite design tool. If you have any questions, feel free to contact us!



GRAPHISOFT H0, Budapest, Hungary, Epitesz Studio - [www.epstudio.hu](http://www.epstudio.hu)

ARCHICAD is a Building Information Modeling (BIM) tool for architects. With ARCHICAD, you can work in 3D or in 2D, on floor plans, sections or elevations. In any case, you are working on an integrated 3D model in which drawings and model are interlinked, and you can modify any detail in the view of your choice.

Working this way offers a number of benefits:

- Better design decisions thanks to instant feedback on your design changes
- Increased productivity due to automatic documentation and quantity take-offs
- Reduced errors as a result of model-coordinated construction documentation
- Embedding and linking of vital information such as vendors for specific materials

...and many more, but perhaps most importantly: a new and fun way of working that allows you to immerse yourself in the creative flow of architectural design.

# GRAPHISOFT BIMcloud

GRAPHISOFT's BIMcloud offers real-time, model-based BIM collaboration for companies and projects of any size. It works on any network, hardware or software configuration. With the help of its mobile integration through the cloud, all stakeholders of the design-build process can actively be connected 24/7.



Architects - inside the studio or across continents - may reserve and work only on the relevant part of the design project. Color-coded workspace indicates the reserved elements while built-in real-time messaging enables efficient team-communication between all disciplines. BIMcloud uses industry first Delta Server™ technology to ensure instant and reliable data-exchange both within the office and over the Internet. This practically means that element reservation and team-messaging take only fragments of seconds no matter the size of the project or the locations of the team members.

The GRAPHISOFT BIMcloud is by design suited for even the most stringent enterprise-level workflow and security requirements to provide fitting solution to the collaboration issues of companies where collaboration is a mission critical part of conducting everyday business. Advanced user role management, LDAP support and further features offer the ideal solution at larger and/or geographically dispersed teams.

[graphisoft.com/bimcloud](http://graphisoft.com/bimcloud)

# Mobile Access to ARCHICAD Projects

BIMx is a mobile presentation tool for ARCHICAD models. No more paper documentation to carry around. Multi-award winning BIMx embraces a unique Hyper-model technology for integrated 2D and 3D building project navigation. Even the most complex and extensive models published from GRAPHISOFT ARCHICAD can be presented on mobile devices, replacing ordinary design and construction viewer apps on both iOS and Android. Intelligent Markers in the model represent hyperlinks to the 2D layout sheets.



BIMx is compatible with Google Cardboard VR 2.0, allowing a rich, immersive experience of building design on iOS and Android smart phones.



Villa Funk, Frode Saltkjelvik, GRAPHISOFT Norway

The PRO version of BIMx is not only a great presentation tool but takes advantage of the GRAPHISOFT BIMcloud infrastructure. Team messaging, redlining and photo attachments all serve to bridge the gap between the design office and onsite professionals to achieve a realtime, continuous BIM workflow. From the architect's desk to on-site coordination, take your design with you wherever you go!

[graphisoft.com/bimx](http://graphisoft.com/bimx)

# Collaboration with Engineers

GRAPHISOFT has been the promoter and supporter of the OPEN BIM workflow, which is a universal approach to the collaborative design, realization, and operation of buildings based on open standards and workflows. ARCHICAD offers best-in-class coordination workflows with industry leading Engineering Software solutions based upon OPEN BIM workflow:



OPEN BIM supports a transparent, open workflow, allowing project members to participate regardless of the software tools they use. The reference model workflow also respects the liability of each stakeholder in the process.

- OPEN BIM creates a common language for widely referenced processes, allowing industry and government to procure projects with transparent commercial engagement, comparable service evaluation and assured data quality.
- OPEN BIM provides enduring project data for use throughout the asset life-cycle, avoiding multiple input of the same data and the resulting errors.
- Small and large (platform) software vendors can participate and compete on system independent, "best of breed" solutions.
- OPEN BIM energizes the online product supply side with more exact user demand searches and delivers the product data directly into the BIM.

[graphisoft.com/openbim](http://graphisoft.com/openbim)

**OPEN BIM™**

# GRAPHISOFT Software Services

The GRAPHISOFT Software Service Agreement (SSA) maximizes the value of your software investment. With SSA, you have immediate access to all the product innovation with the extra security provided by professional services like training, support and license insurance. SSA includes:

**#1**

## Free Upgrade

While your SSA contract is active, you receive all product updates without any extra fee. You will benefit from the latest product innovations from day one, while saving money compared to buying just the upgrades.

**#2**

## Technical Support

Get access to expert help through phone, email, or screen-to-screen, enjoying priority service at all times.

**#3**

## Keyplug replacement

We have you covered! Your hardware keyplug is insured for theft or damage.

**#4**

## Free tools and libraries

Enjoy access to our vast surface material catalogs, as well as other objects and addons (content varies country to country)

**#5**

## Private storage on BIMx transfer site

Share your BIMx hypermodels with your clients privately through the BIMx transfer site. SSA gives you 5GB of private storage.

**#6**

## Product and Service Discounts

Enjoy discounts on additional software and trainings. Access free SSA-only webinars and newsletters

The exact content of SSA varies country to country.  
Check local offers with your GRAPHISOFT distributor partner:

[graphisoft.com/info/where\\_to\\_buy/](http://graphisoft.com/info/where_to_buy/)

# GRAPHISOFT Training Resources

GRAPHISOFT offers numerous training courses from beginner to expert level to unlock the full capabilities of ARCHICAD for you. All our courses have been designed by ARCHICAD experts to ensure that you quickly become productive with our software.



## Webinars

[graphisoft.com/learning/online-seminars/](https://graphisoft.com/learning/online-seminars/)

Get a quick overview of GRAPHISOFT's product solutions by attending our worldwide public seminars.



## Online trainings

[graphisoft.com/learning/training-materials/](https://graphisoft.com/learning/training-materials/)

Learn ARCHICAD at your own pace through our series of online trainings. These GRAPHISOFT approved training resources include narrated video clips, step-by-step PDF documents and pre-created ARCHICAD project files for hands-on practice.



## Online test

[graphisoft.com/learning/online\\_certification/](https://graphisoft.com/learning/online_certification/)

Take our ARCHICAD Online Test to check your level of knowledge. See if you can score above 80% to make it to the Hall of Fame!



## Classroom trainings

[graphisoft.com/info/where\\_to\\_buy/](https://graphisoft.com/info/where_to_buy/)

Get up to speed with ARCHICAD with the help of a trainer. Classroom trainings are provided by your distributor partner.

# GRAPHISOFT Support Resources

Got stuck with a particular issue? Check out GRAPHISOFT's vast knowledge base to find tips and tricks, more efficient workflows and answers to your questions. Can't find what you are looking for? Get in touch with one of our Customer Support Representatives to help you sort out your issue right away.



## GRAPHISOFT Help Center

[helpcenter.graphisoft.com](https://helpcenter.graphisoft.com)

The online ARCHICAD knowledge base. Learn about ARCHICAD features through Guides and Videos. Explore more efficient workflows through our ever-growing Tips & Tricks articles. Read Technical notes to be up-to-date with current technical issues. Solve problems with the help of our Troubleshooting articles.



## ARCHICAD-Talk

[archicad-talk.graphisoft.com](https://archicad-talk.graphisoft.com)

Meet GRAPHISOFT's online user community. Chat with thousands of users worldwide, and ask any question related to ARCHICAD. You can also give back, by helping out novice users.



## YouTube channel

[youtube.com/archicad](https://youtube.com/archicad)

Learn ARCHICAD features through narrated video tutorials created by GRAPHISOFT.



## Customer Support

[graphisoft.com/info/where\\_to\\_buy/](https://graphisoft.com/info/where_to_buy/)

Get a solution to your issue quickly and efficiently through our local support representative.