

Welcome to ARCHICAD 21

BIM has been great at automating documentation of the design intent of architects. ARCHICAD 21 makes a huge step forward with making the BIM tool an active part of the design process itself introducing improvements both to its core design processes as well as its multidisciplinary workflows.



Charles Perkins Centre, Australia | fjmt – francis-jones morehen thorp – <https://fjmtstudio.com> | Photo © Keira Yang Zhang

- Designing stairs is an iterative process, requiring several rounds to sync design intent with applicable standards. ARCHICAD's new Stair Tool extends architects' creativity by carrying out automatic validation of human ergonomics — on the fly! ARCHICAD's algorithms validate thousands of options in the background, then present the architect with the most optimal stair designs to choose from, in the context of the specific building.
- An ARCHICAD model works like a central database of BIM data, accessible to any project stakeholder. While previous ARCHICAD versions provided a fixed set of Element Classifications, ARCHICAD 21 introduces a flexible way to classify elements to support any national or company-standard classification system. Classifications are also at the core of intelligent OPEN BIM workflows, providing unprecedented interoperability among disciplines. Classifications can be transferred between projects via XML file format.

[graphisoft.com/archicad](https://www.graphisoft.com/archicad)

The ARCHICAD 21 Signature Project Story

Located on the western edge of the University of Sydney Camperdown campus, ARCHICAD 21's signature building, the Charles Perkins Centre, was designed to foster collaboration and research in a holistic, trans-disciplinary manner. This leading research and education hub supports researchers, academics and students working in the areas of obesity, diabetes and cardiovascular disease.



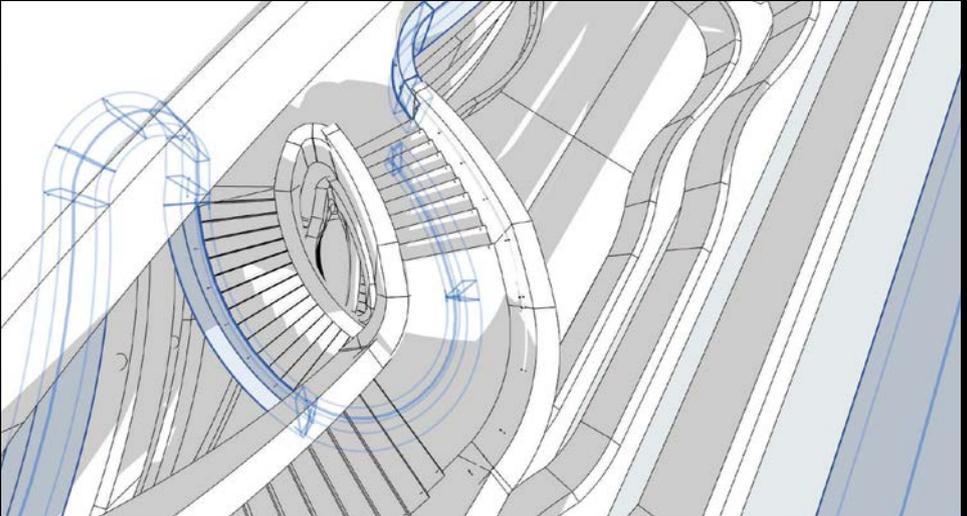
Charles Perkins Centre, Australia | fjmt - francis-jones morehen thorp - <https://fjmtstudio.com> | Photo © John Gollings

Within the 50,000 sqm building, over 16,000 sqm is dedicated to laboratories. The design maximizes efficiency and flexibility while encouraging collaboration and interaction between different research domains and project nodes. Open-plan office 'neighborhoods,' a suite of core lab facilities and shared, informal meeting spaces offer the next generation of researchers and practitioners a place to collaborate, mentor and learn.

Fjmt (francis-jones morehen thorp) are the architects behind the Charles Perkins Centre. They chose ARCHICAD in 2000, after comparing three different software solutions. Their initial aim was to find a package that supports 3D design as well as documentation. ARCHICAD's Teamwork solution has meant the winning difference for them. Since then, fjmt has become a BIM evangelist owning 88 ARCHICAD licenses.

Best-in-Class Stair & Railing Tool

Let ARCHICAD do the heavy lifting: Just start drafting your Stair, in either 2D or 3D. Don't worry about the number of treads or the height of risers; these will be calculated automatically. Graphically rearrange the treads, and stretch the Stair length and landings with complete freedom.



Charles Perkins Centre, Australia | fjmt - francis-jones morehen thorp - <https://fjmtstudio.com>

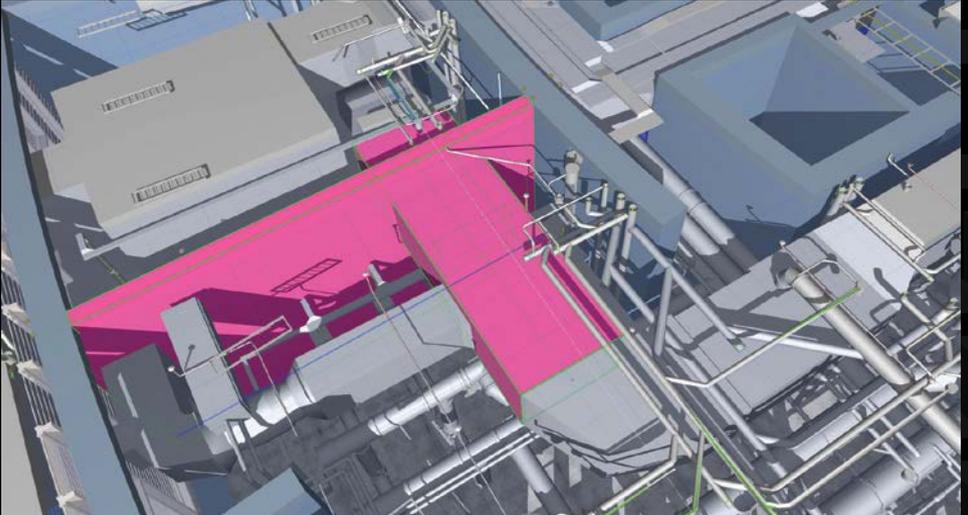
Stairs are hierarchical systems consisting of a load-bearing structure, plus treads, risers, and stringers. Reflecting this hierarchy, the new Stair Tool works as a system, whose parts can be edited separately, even replaced individually.

The new Railing Tool gives you complete freedom to create configurable railing systems, which can be associative to Stairs, Slabs, Walls, Roofs or Meshes. Create a unique, parametric railing pattern, then apply it across various building elements with a single click. Use the Railing Pattern Editor to customize the patterns: ARCHICAD ensures that all changes are updated throughout the railing system. And it's not just for railing design: use the Railing Tool to place any repeating series of elements on a site plan (tree lines, lamppost lines or fences) or a rail-like path (roads, roof eave details or gutters).

Best-in-Class OPEN BIM workflow

Collision Detection

Make sure your model is coordinated: The integrated Collision Detection function allows two groups of elements to be compared through user-defined criteria sets, such as element types, Classification values, Property values and Attributes.



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Element Classification

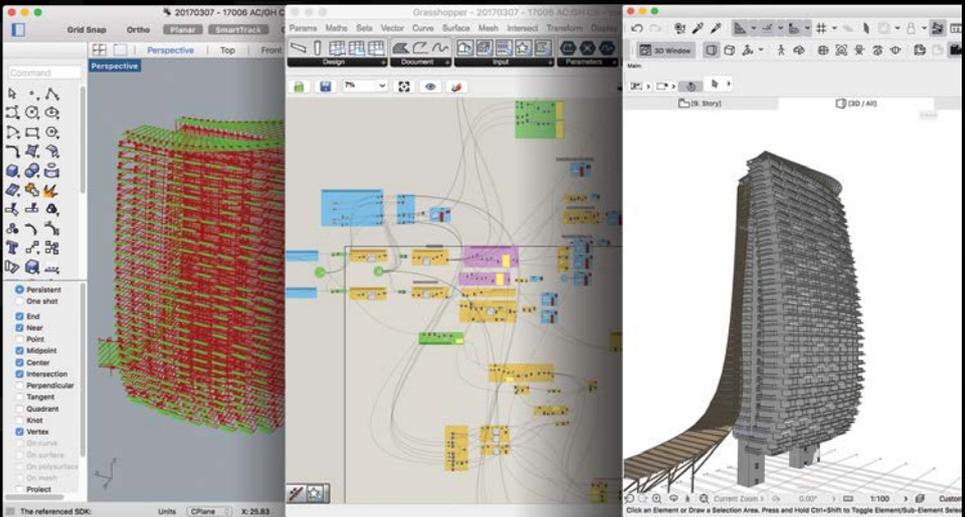
Meeting the standards: ARCHICAD 21 introduces a flexible way to classify elements and spaces for better support of national standards (e.g. Uniclass, OmniClass, UniFormat). Classifications, together with their Properties, can be displayed on any output, enabling distribution of element related BIM data among stakeholders. For example, add them to Labels and Zone Stamps, use them as criteria in searching and scheduling, add them as Fields in Element Schedules, or map them as IFC data for IFC model exchange.

IFC Hotlinks

Seamless integration of external content: External IFC model content created by consultants can be placed as hotlinks into ARCHICAD 21 projects as protected reference content. Such IFC hotlinks can be placed as many times as needed. In large projects, use the Model Filter to narrow the display of the referenced IFC content. These IFC modules can be easily updated, ensuring streamlined roundtrip collaboration with engineers.

Grasshopper-ARCHICAD 21 Live Connection

Boundless creativity: The Rhino-Grasshopper-ARCHICAD Toolset connects the best available tools for each design stage, on both Mac and Windows. This coordinated toolset fills the gap between early stage design and Building Information Modeling. Use this solution for seamless, bi-directional geometry transfer, and to translate basic geometrical shapes into full BIM elements while adding algorithmic editing functionality.



The Live Connection enables Rhino/Grasshopper and ARCHICAD to communicate directly, to create and manipulate part or all of a BIM model through Grasshopper's visual scripting interface. Designers whose work is currently based on either Rhino/Grasshopper or ARCHICAD can leverage the Live Connection to their advantage. This tool's live, associative and bi-directional nature enables users to build versatile workflows and utilize the connection in multiple scenarios – on either Apple Mac OS or Microsoft Windows.

graphisoft.com/archicad/rhino-grasshopper

User wishes fulfilled in ARCHICAD 21

We work to make ARCHICAD as productive as possible, so we take your suggestions seriously. Please feel free to contact us at any time: wishlist@graphisoft.com

- #1** **Handling of Dashed Polylines**
at corners has been improved – now corners are displayed with proper dashes regardless of where the polyline starts or ends. Corners will display correct endings, even after stretching.
- #2** **Smart Parameter Transfer**
allows filtering of parameter types to be transferred between elements. You can even name, save and re-use previously configured parameter transfer sets.
- #3** **New Distribute Along Path**
command allows fast placement of similar elements along polygons – such as lamps adjacent to a road. Use the new Random Placement option to scatter trees over an area.
- #4** **New 3D Styles**
allow you to save 3D window settings and include them in your views. Changes to 3D Styles will automatically be applied to any views that use them.
- #5** **Improved Magic Wand**
provides graphical feedback on the results of an ongoing operation, saving you editing time.
- #6** **Improved Text Styles and Rich Text Formatting options**
are now available for all text related tools – such as Dimension and Label Tools – to help you create professional-looking detail documents and drawings much faster.
- #7** **Improved Section and Elevation Depth Control**
and editing options and enhanced Range features help architects to fine-tune the position and determine the exact range of sections and elevations.

Getting started with ARCHICAD 21

ARCHICAD 21 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
2. Run installation wizard. For help visit: graphisoft.com/install
3. Create GRAPHISOFT ID (your personal identification)
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-ac21

To replace your hardware key with software key
graphisoft.com/key-replacement

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!



STEP UP YOUR BIM

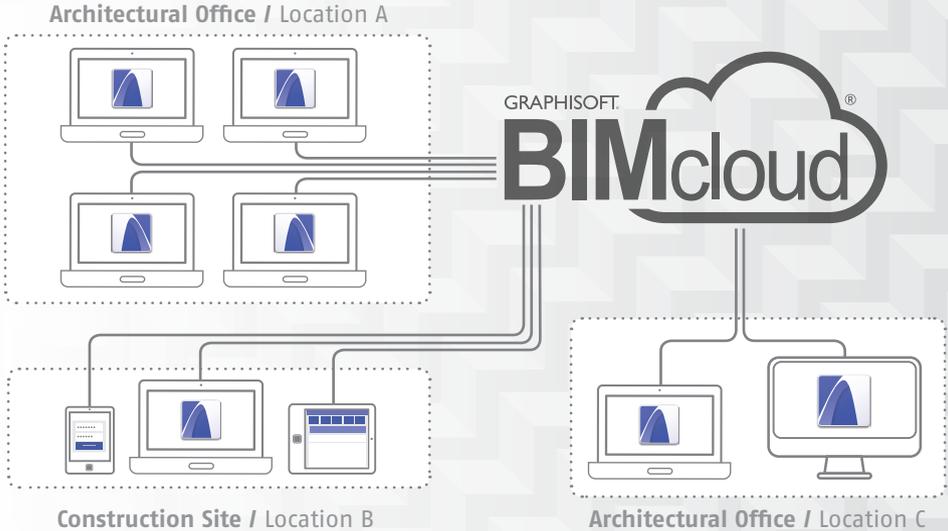
ARCHICAD is a Building Information Modeling (BIM) tool for architects. With ARCHICAD, you can work in 3D or in 2D, on floor plans, sections or elevations. In any case, you are working on an integrated 3D model in which drawings and model are interlinked, and you can modify any detail in the view of your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

ARCHICAD Teamwork™ offers easy real-time collaboration on building models. GRAPHISOFT's BIM Server and BIMcloud solutions allow team members to join from inside the office or from any remote location. In contrast to the traditional file-based workflow, team collaboration with Building Information Models brings unique challenges to the design team. To address these challenges, GRAPHISOFT introduced its BIM Server with Industry-first Delta Server™ technology for instant and reliable data-exchange both within the office and over the Internet.



The GRAPHISOFT BIM Server was designed for Architects, not IT professionals – so no expensive hardware acceleration is necessary. BIM Server works in any standard office setup, through any standard computer network. Best of all, the GRAPHISOFT BIM Server comes free of charge with your ARCHICAD license. For detailed instructions on installation, please see: graphisoft.com/bim-server-getting-started

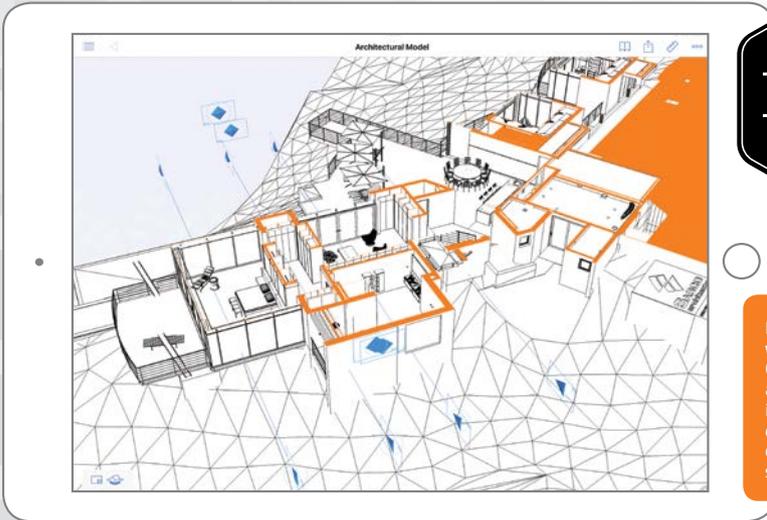
GRAPHISOFT's BIMcloud® Solution provides the ideal solution for complex company/project requirements where scaling data security and advanced team and project management are mission critical. Advanced user role management, LDAP support and further features offer the ideal solution for larger and/or geographically dispersed teams.

BIM Server: graphisoft.com/bim-server

BIMcloud: 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.

Casa Magayon | Design: Roderick Anderson, SARCO Architects Costa Rica

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

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

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 add-ons (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

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/

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



Online trainings

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/

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/

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

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

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

Learn ARCHICAD features through narrated video tutorials created by GRAPHISOFT.



Customer Support

graphisoft.com/info/where_to_buy/

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