

2016



VECTORWORKS®
ARCHITECT

Cover: Design by Holzer Kobler Architekturen.
Photo by janbitter.de.

IT'S ALL ABOUT YOUR EXPERIENCE

Every day, designers rely on Vectorworks® Architect software because they want a solution that supports their creative process instead of replacing it. They want a solution that feels like they think. They want intuitive programming and workflow features that function as a natural extension of the design process, and provide the tools to take them from concept to unmatched experience seamlessly.

Vectorworks Architect delivers on this desire with an exciting suite of capabilities that enables great design to materialize from inspiration, exploration, and discovery. Enjoy the freedom of artistic expression with the robust capabilities of BIM, great documentation, and the intelligent tools you need to advance and communicate your ideas in 2D or 3D.

Vectorworks Architect allows you to do it all. From Marionette, the innovative, integrated graphical scripting tool that empowers you to stay creative, to subdivision modeling tools that give designers the ability to transform rigid lines into smooth, malleable surfaces, you will be poised to transform the world like never before.

Explore the possibilities of BIM and beyond with Vectorworks Architect.

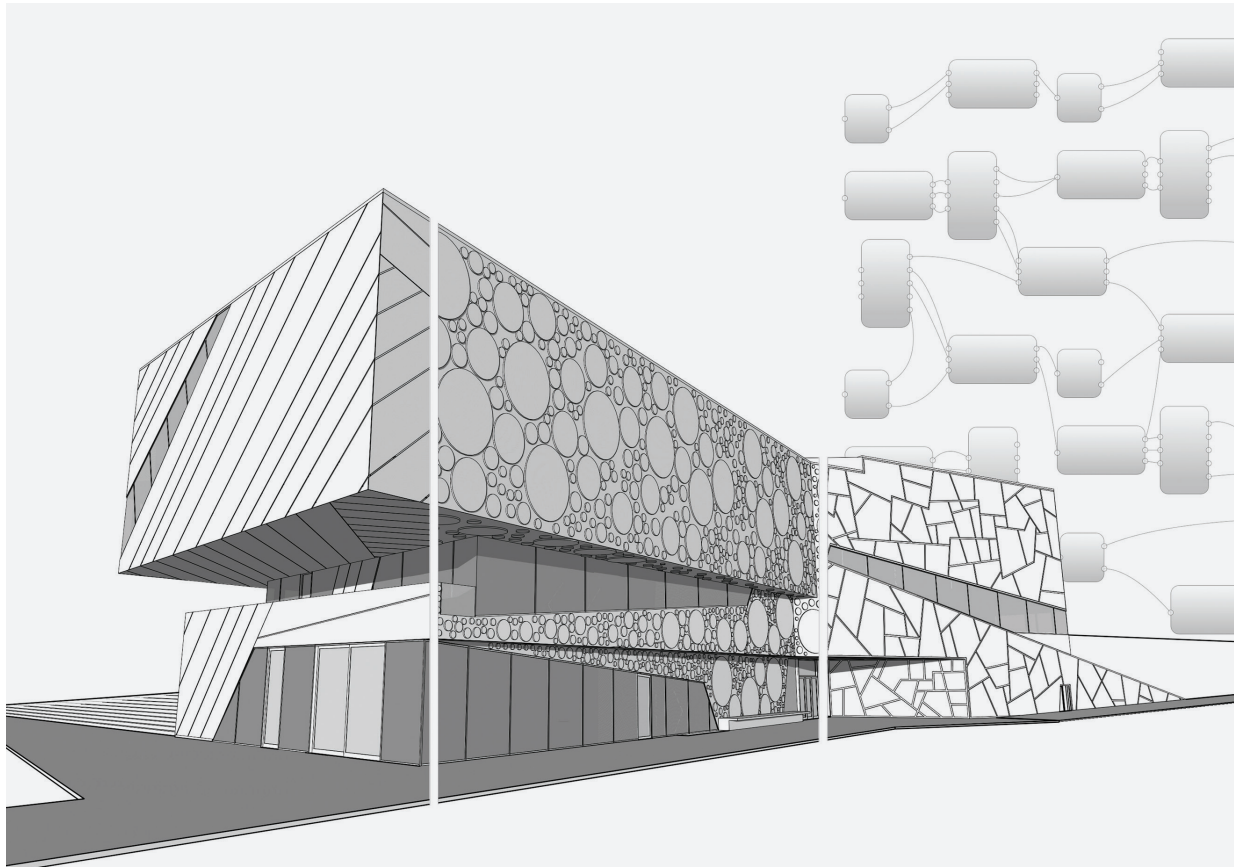
EXPLORE THE POSSIBILITIES

Great design begins with exploration. Vectorworks Architect empowers you to bring your design ideas into the virtual world to investigate and discover, manipulate and examine. With us on your side, you have a suite of intuitive, flexible tools that encourage you to create and explore any form.



GROUND-BREAKING GRAPHICAL SCRIPTING

Graphical scripting will play a significant role in the workflows of the future. These tools, when integrated into an intelligent information modeling application, present designers with unlimited opportunities to generate, define, build, and explore form and function throughout the design process.



Built directly into Vectorworks Architect, Marionette is the first and only cross-platform graphical scripting tool for the AEC, entertainment, and landscape design industries.

Marionette is a Python[®]-based scripting tool that operates within the Vectorworks platform, it delivers a robust and scalable way to program well beyond the confines of traditional design software. When you use Marionette, you can create visual scripts that take advantage of the superior 2D interface and robust 3D modeling capabilities that Vectorworks software offers, ushering in a new world of discovery that enhances your workflows and integrates seamlessly into your BIM environments.

CAPTURE YOUR INSPIRATION

Go beyond exploration, channeling your inspiration into unmatched designs. With Vectorworks Architect, you'll find tools to capture the catalyst of your inspiration, propelling you toward easier workflows, stunning designs, and happier clients.



Courtesy of HAMONIC + MASSON & Associés

CREATIVE MODELING SOLUTIONS

SUBDIVISION SURFACES

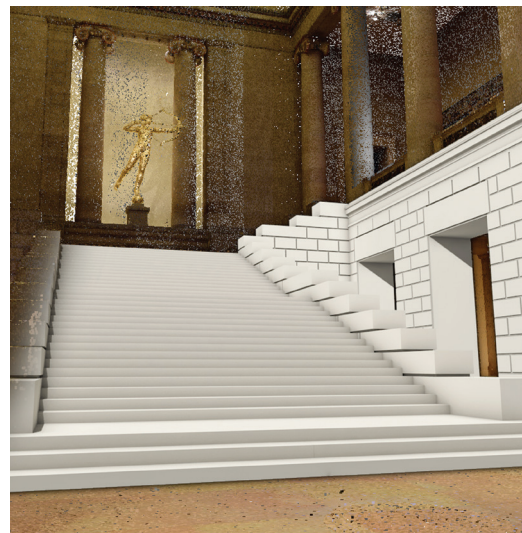
Transform rigid lines and primitive shapes into smooth, malleable surfaces to create sculpted objects, unique furniture, and more with subdivision modeling. This technique, based on Pixar Animation Studios' OpenSubdiv library, allows you to design beyond the limits of traditional CAD software by subdividing and molding each surface into any form imaginable using the Edit Subdivision tool.

FREE-FORM MANIPULATION

With our intuitive interface, you can design from any 3D view using modes in modeling tools that automatically infer working planes as you move your cursor, and enjoy the superior quality that enables you to manipulate your model with ease. More accurate object information and better snapping make drawing in 3D easy. The SmartCursor™ helps by showing hints, like the angle from the previous segment, as you draw, and our patent-pending X-ray Select technology lets you see through models to select, move, and modify hidden objects with precision and ease. Plus, an advanced suite of solids and NURBS surface tools lets you create any shape and easily explore organic geometry. Push, pull, blend, twist, sculpt, deform, bulge, taper, or punch holes. Anything is possible with Vectorworks Architect.



Inspired by Pabellon Richezze BarriosEscudero



POINT CLOUD SUPPORT

Field surveys and other manual methods used to capture existing spaces can now be replaced with Point Cloud Support. Using your preferred 3D scanning device, you can capture any physical location and import a 3D point cloud object to Vectorworks Architect using PTS, E57, LAS, and XYZ file formats. Capture a perfect, full-color representation of any location then import, snap to, measure, manipulate, and design within or around the extents of the scan.

DEVELOP YOUR DESIGN

The transition from virtual to actual presents distinct challenges. Vectorworks Architect offers first-class tools and customizable workflows to go beyond exploration and into development. The pragmatic issues of materiality, fabrication details, structure, and constructability come into play as your concepts mature into concrete solutions.





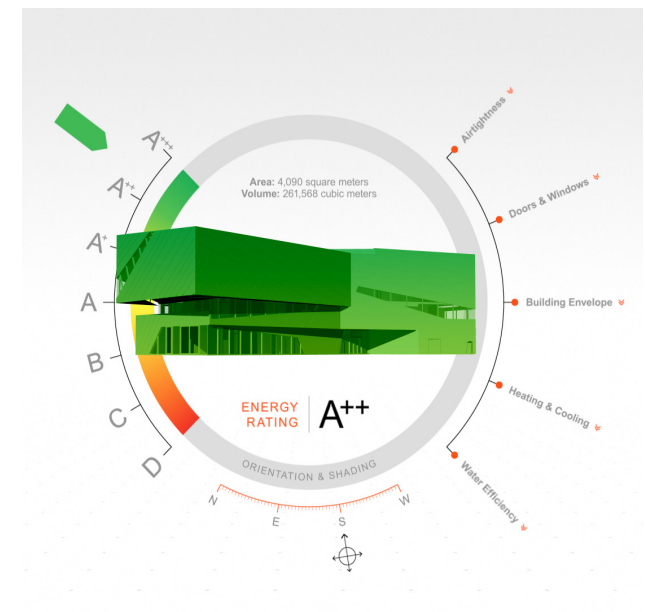
Courtesy of Holcim Foundation

BEYOND THE BUILDING

Architecture is more than just the building. With Vectorworks Architect, you can design anything — graphics, interior details, hardware, furniture, fittings, site — without having to learn how to use or purchase additional platforms.

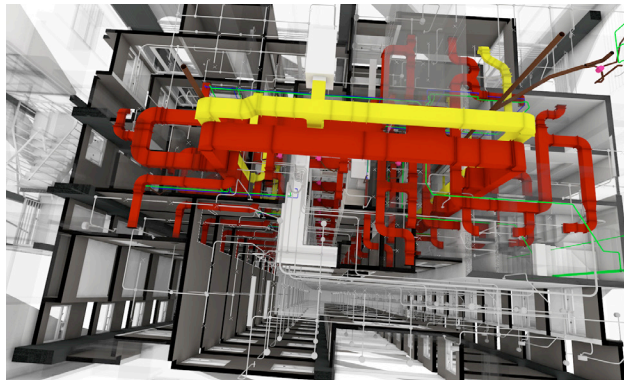
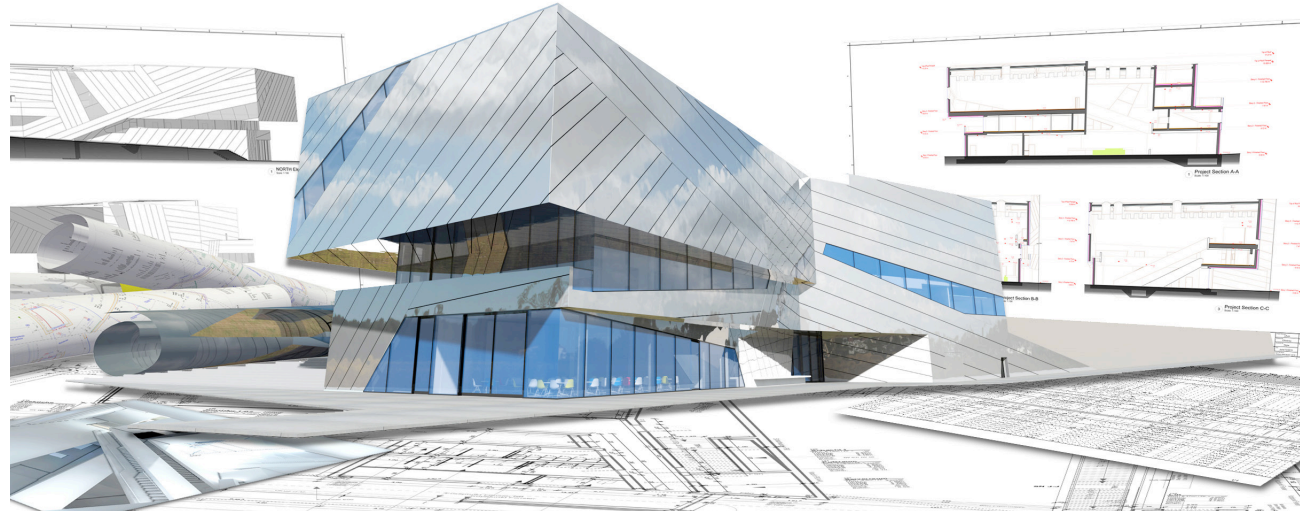
ENERGOS

Our Energos feature empowers you to make sustainability a priority throughout the design process. Based on the Passivhaus calculation method, the Energos module gives you — and your clients — a dynamic, intelligent gauge of a building's energy performance. Using convenient, color-coded graphics, you can measure a project's energy efficiency, giving you the ability to make critical decisions about sustainability as your design evolves — all from within your Vectorworks Architect file.



THE BEST IN BIM

Building Information Modeling (BIM) brings together design, analysis, collaboration, and documentation for the benefit of all parties involved in a building project. As BIM continues to gain increasing importance in the AEC industry, software must continually evolve in order to provide design professionals with the tools they need to successfully implement BIM in their projects. With Vectorworks Architect, you can create building information models without changing your preferred design process. Whether you're looking to streamline costs, analyze materials, increase your energy efficiency, or just create world-class designs, the Vectorworks Architect solution is an efficient way to introduce BIM capabilities into your workflow. Enjoy the robust and flexible capabilities of BIM with the ease of design, great documentation, and intelligent tools that the software is known for—right from the start.



With the unsurpassed Parasolid® modeling kernel from Siemens PLM Software, Vectorworks Architect has mastered BIM with design and presentation capabilities and, arguably, the best 3D modeling core in the business. Use integrated tools, such as columns, framing members, roofs, walls, slabs, doors, and windows to effortlessly create building models. Take advantage of 3D wall and slab components that produce dynamic and accurate wall sections and material estimates. If the variety of standard parametric objects is not enough, you can create almost any shape imaginable, assign BIM data to it, and integrate it with the rest of the building model. Our BIM workflows

are further enhanced with space planning tools, wall and roof framing tools for detailed construction modeling, and our Heliodon tool to conduct solar studies. Finally, create linked elevation, section, and detail views of the model for documentation and presentations. With the click of a mouse, any changes made to the building model are updated in the views all at once! For more information, check out vectorworks.net/bim.



GET DETAILED WITH ROOF COMPONENTS AND STYLES

Roof components that interact with wall components will improve the accuracy of your 2D documentation by reducing the need for, and time involved in, drafting over sections and details derived directly from the model. Roof faces and roof objects have the same component representation as walls and slabs, further extending the power of BIM in your designs.

HORIZONTAL SECTIONS FROM THE CLIP CUBE

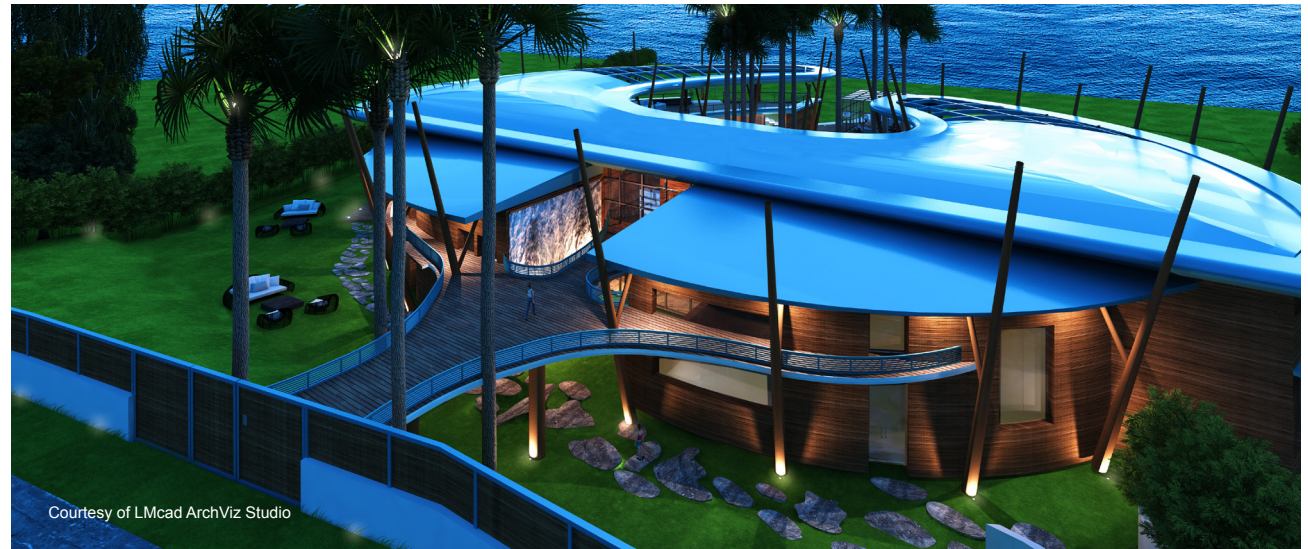
Looking for new ways to communicate clearly and effectively with your clients? With horizontal sections from the clip cube, you can explore your design floor by floor, space by space, and section by section, as well as use the command to isolate horizontal segments of your models to create conceptual, diagrammatic views, giving clients a deeper understanding of your design throughout the development process.

EASY-TO-USE INTERFACE AND DRAFTING TOOLS

Do what you do best — design. Vectorworks Architect's customizable interface and what-you-see-is-what-you-get display make it easier to learn and use than other CAD applications. Our software enhances the design process, delivering intuitive drafting tools that empower you to keep your creative edge.

INSPIRATIONAL PRESENTATIONS

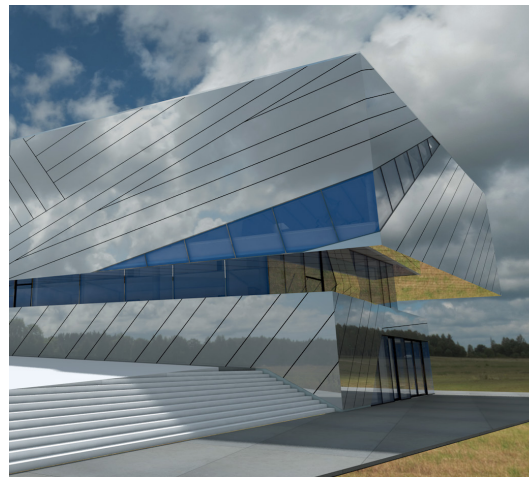
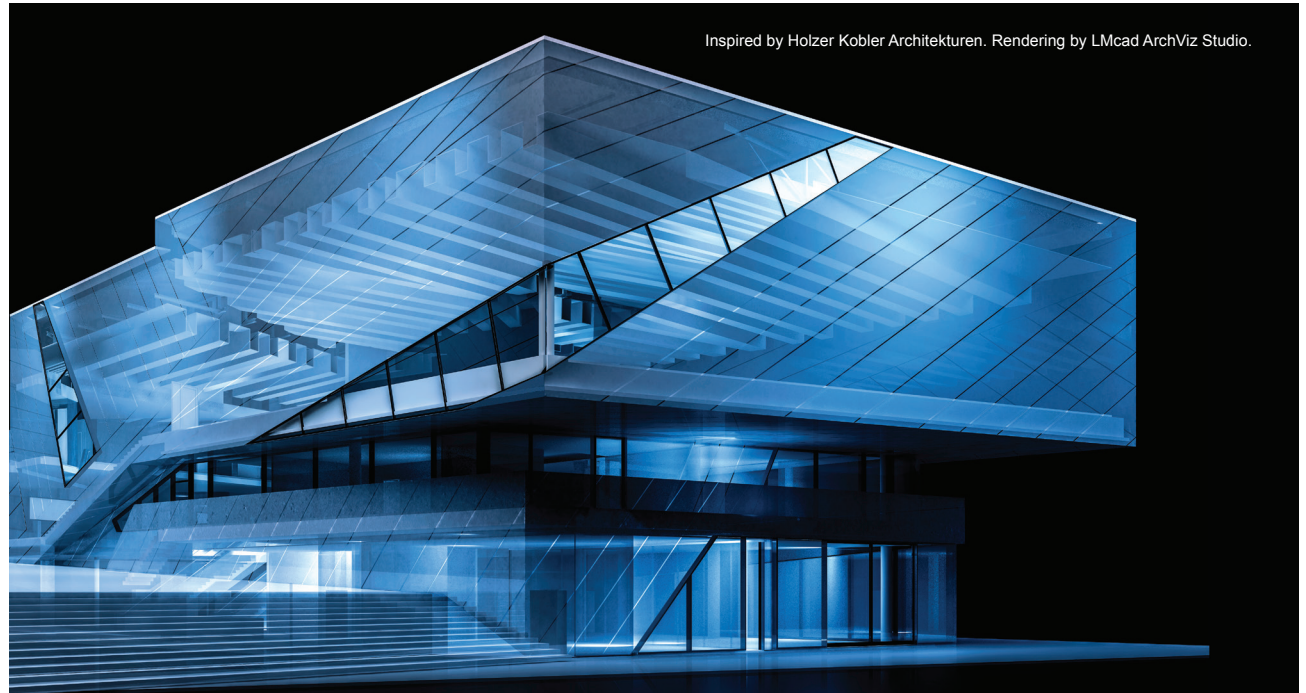
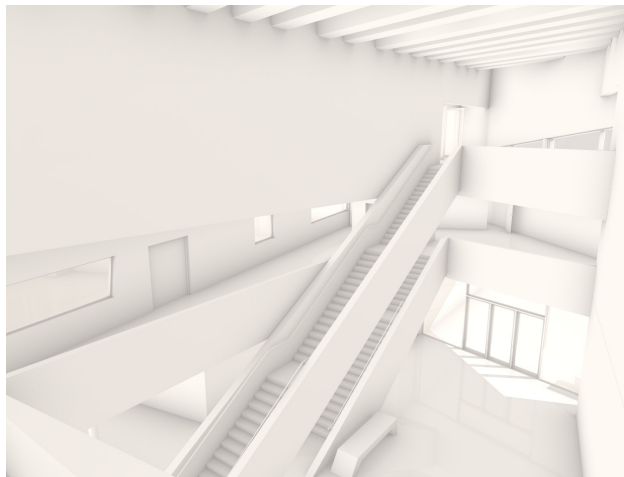
Define and communicate your signature look with Vectorworks Architect to create beautiful, graphically rich presentations. Tap into our large libraries of entourage, customizable line types, gradients, dash styles, and unlimited color palettes.



RENDERWORKS

Powered by MAXON's CINEMA 4D® render engine, Renderworks® is an industry-leading rendering application that produces amazing, high-quality renderings directly inside your Vectorworks design files. With new full-screen preview, as well as auto-start and quick-cancel features, our latest release streamlines the production of clear and accurate renderings.

Available as an add-on to the Vectorworks line of software products, Renderworks makes it simple to achieve breathtaking results with a simple drag and drop. Improved camera features allow you to manipulate the depth of field, apply vibrant back lighting, alter exposure, and generate panoramic images, creating striking visualizations and dynamic animations.



Further improvements that add new dimensions to your designs include:

- **Caustics Capabilities** — Refracts light through translucent surfaces like crystal and water
- **Ambient Occlusion** — Adds depth to your designs with more realistic shadowing
- **New Grass Shader** — Makes it simple to render realistic scenes with grass, carpeting, or hair

No matter what your visualization needs are, Renderworks gives you the power to deliver.

Visit vectorworks.net/renderworks to learn more.

ENHANCE YOUR WORKFLOW

Vectorworks Architect gives you more resources than ever to streamline and optimize your workflow. With seamless project sharing capabilities, access to reliable cloud-based storage solutions, improved communication and visualization tools, and the industry-leading development team that is always working to make your design software experience better, you'll design smarter than ever before.



COLLABORATIVE PROJECT SHARING

Seeking new ways to collaborate and maximize efficiency? Project Sharing enables architects and interior designers to streamline their workflows by allowing your project team to work on the same Vectorworks file concurrently. Streamline your journey from simple sketch to final product.

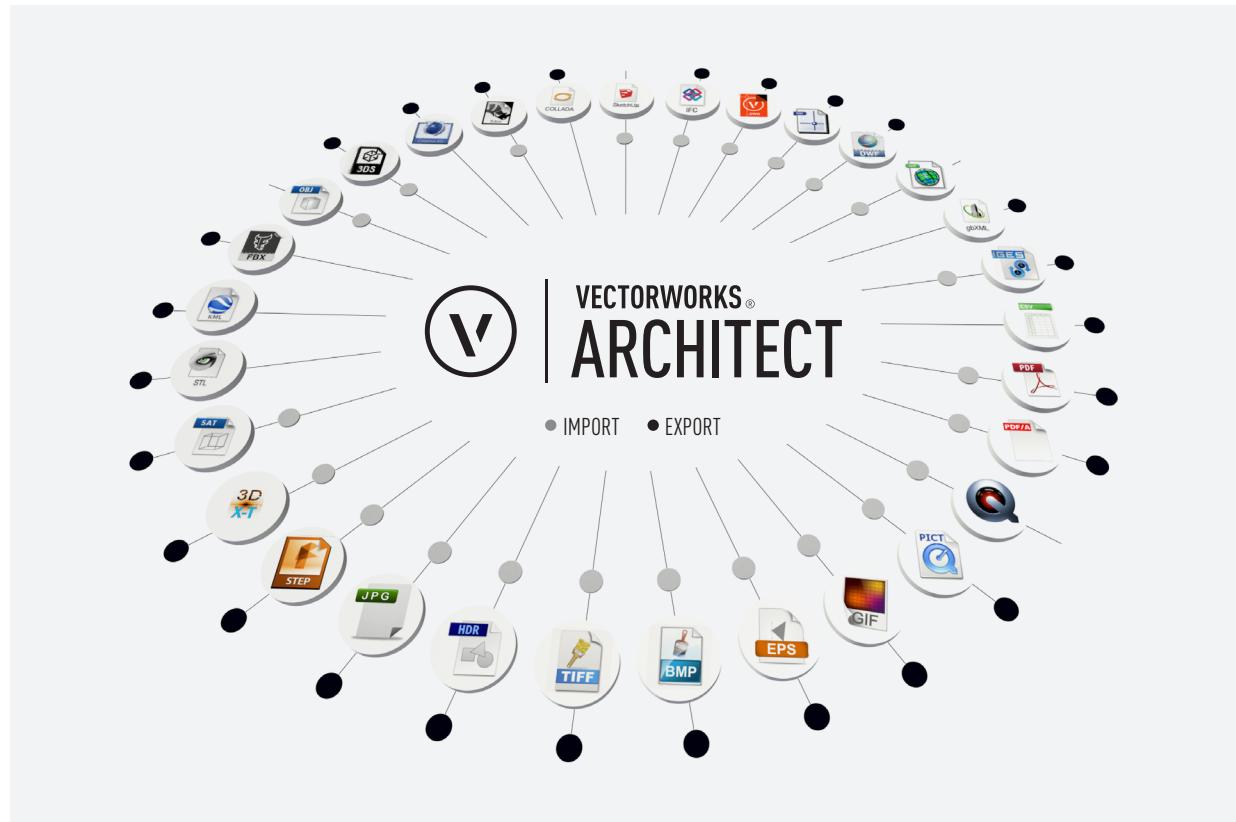


SEAMLESS INTEROPERABILITY

Get on the cutting edge of collaborative digital practices and move your building information models fluidly between design, analysis, and construction packages with Vectorworks' IFC 2x3 and gbXML translators. Exchange 3D NURBS models with Rhinoceros®. Import concept models from SketchUp®, and access thousands of models from the Trimble® 3D Warehouse and many other content sources that support OBJ, STL, 3DS, SKP, and more. Import, export, or directly

reference AutoCAD® 2016 (and earlier) files. Publish drawing sets as multiple page PDFs, DWFs, or DXF/DWGs. Export 3D models to 3D PDF, IFC, DXF, C4D, Rhinoceros, Google Earth®, and Vectorworks Nomad.*

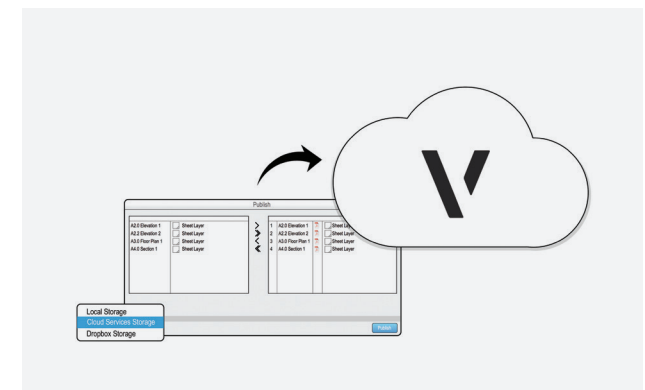
*Vectorworks Nomad is only available to Vectorworks Service Select members. Visit vectorworks.net/service-select for more information.

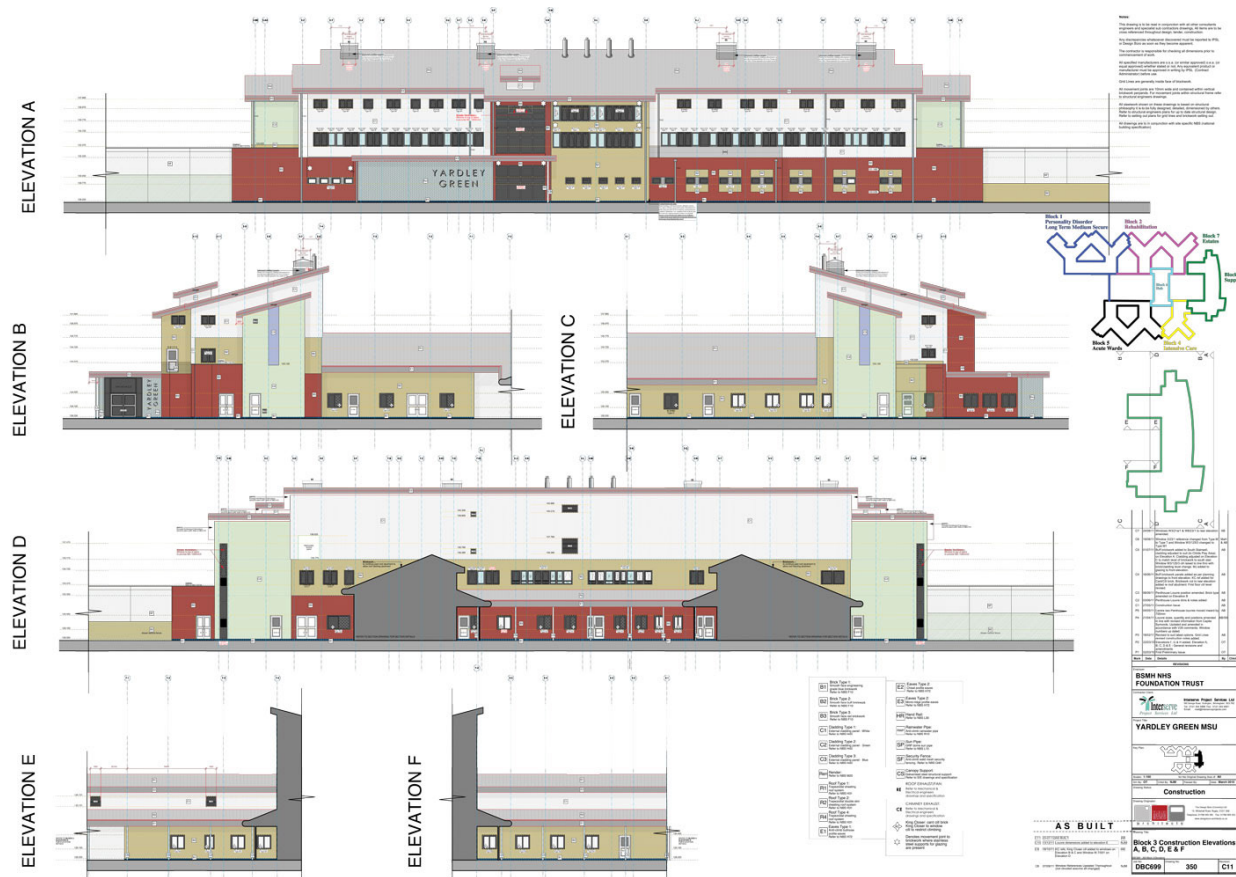


CLOUD SERVICES

Vectorworks Service Select members can take advantage of Vectorworks Cloud Services directly from Vectorworks. A new Cloud menu gives you direct access to publish your Vectorworks files for easy sharing, collaboration, and viewing using our Vectorworks Nomad app or cloud web portal.

This is an exclusive benefit for Vectorworks Service Select members. Learn more at vectorworks.net/service-select.





Courtesy of The Design Büro (Coventry) Ltd.

DATABASE AND WORKSHEET IMPROVEMENTS

IMPROVED ODBC FOR IFC

Advanced data exchange workflows will more easily take advantage of ODBC connectivity to IFC and COBie data in building information models.

BIM WORKSHEET FUNCTIONS

Worksheets gain more BIM functionality, giving you more options to schedule and edit the various information-rich aspects of your designs.

NEW WORKSHEET FORMULA TO RUN SCRIPTS

With Vectorworks Architect, database worksheet rows allow those familiar with scripting to create custom worksheet functions.

DIRECT EDITING FOR WORKSHEET CELLS

Double-click any cell in a worksheet and type what you want.

SUPERIOR 2D DOCUMENTATION

Produce high-quality documentation with ease. Vectorworks Architect offers precision drafting tools, intelligent objects for building, detailing, MEP, furniture, millwork, machine parts, and annotations, plus thousands of free symbols from leading building product companies. Batch print drawing sets or export them as multipage PDFs at full or reduced sized.

TRANSFORM THE WORLD

The reason you do what you do is to create experiences that shape our world. No matter what type of design, you're creating experiences. From the first flicker of inspiration to the finished product, Vectorworks Architect is there to help you transform the world.



ABOUT VECTORWORKS

Vectorworks cares about design. Since 1985, we have served the architecture, landscape, and entertainment industries, drawing inspiration from the world around us and encouraging the more than half a million designers who use our software to create experiences that transform the world.

Our commitment to develop the world's best cross-platform CAD and BIM software has taught us a simple truth: great design begins with the inspiration of the designer. Vectorworks supports that inspiration by guiding the exploration of discovery and finding creative solutions. We provide powerful tools to help designers

capture ideas, nurture innovation, communicate effectively, and realize their vision.

We serve those who desire to create experiences that are memorable and build things that truly matter. We recognize that great design is about revealing opportunities that explore the unexpected while fully satisfying the demands of an increasingly complex world. We acknowledge the value of a designer's dream and strive to facilitate the creation of something that's truly appreciated and uniquely positioned to express the best in the built environment.

SYSTEM RECOMMENDATIONS

Mac OS X 10.9 or later operating system

Windows 7 SP 1 (64-bit)

Windows 8 (64-bit)

Windows 8.1 (64-bit)

Windows 10 (64-bit)

64-bit Intel Core i5 (or AMD equivalent) or better

RAM

4GB minimum, 8GB highly recommended

8GB — 16GB recommended for large files and complex renderings

Graphics*

A dedicated graphics card is highly recommended.

Open GL 2.1 compatible graphics card

VRAM: 1GB, 2GB-4GB (recommended)

Screen Resolution

1440x900 minimum

1920x1080 or higher recommended

* Like past releases, Vectorworks 2016 added improvements that place still higher demands on graphic hardware. The performance and quality of the graphics provided by the Vectorworks Graphics Module depend directly on the speed, memory, and supported extensions of the graphics card. These new features have the potential to provide a very fast and fluid experience if used on capable hardware, or a noticeably slower experience if used on older or incompatible hardware. Graphic cards should support at a minimum OpenGL version 2.1; cards not meeting this recommendation will have limited functionality and poor performance, particularly when rendering in OpenGL mode. In general, the more powerful your video card is, the better your Vectorworks experience will be.

For the most current and updated technical information, please visit our Knowledgebase at kbase.vectorworks.net.

See vectorworks.net/sysreq/ for updated information.

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