

2016



VECTORWORKS®
DESIGNER

Cover: Courtesy of Simcic + Uhrich Architects

IT'S ALL ABOUT YOUR EXPERIENCE

Every day, designers rely on Vectorworks® because of our multidisciplinary approach and because they want a solution that supports their creative process instead of replacing it. Our software feels like you think. With creative design at the heart of our mission, Vectorworks software allows great design to materialize from inspiration, exploration, and discovery.

Vectorworks Designer software enhances your workflows and empowers you to keep your creative edge. From Marionette, the innovative, integrated graphical scripting tool that empowers you to stay creative, to subdivision modeling tools that help you transform rigid lines into smooth, malleable surfaces, you will be poised to transform the world like never before.

Start your transformation today with Vectorworks Designer, the ultimate design solution for the professional who needs it all.

EXPLORE THE POSSIBILITIES

Great design begins with exploration. Vectorworks Designer allows you to bring your design ideas into the virtual world to investigate and discover. With Designer on your side, you have an intuitive, flexible suite of resources that encourages you to create and explore any form.



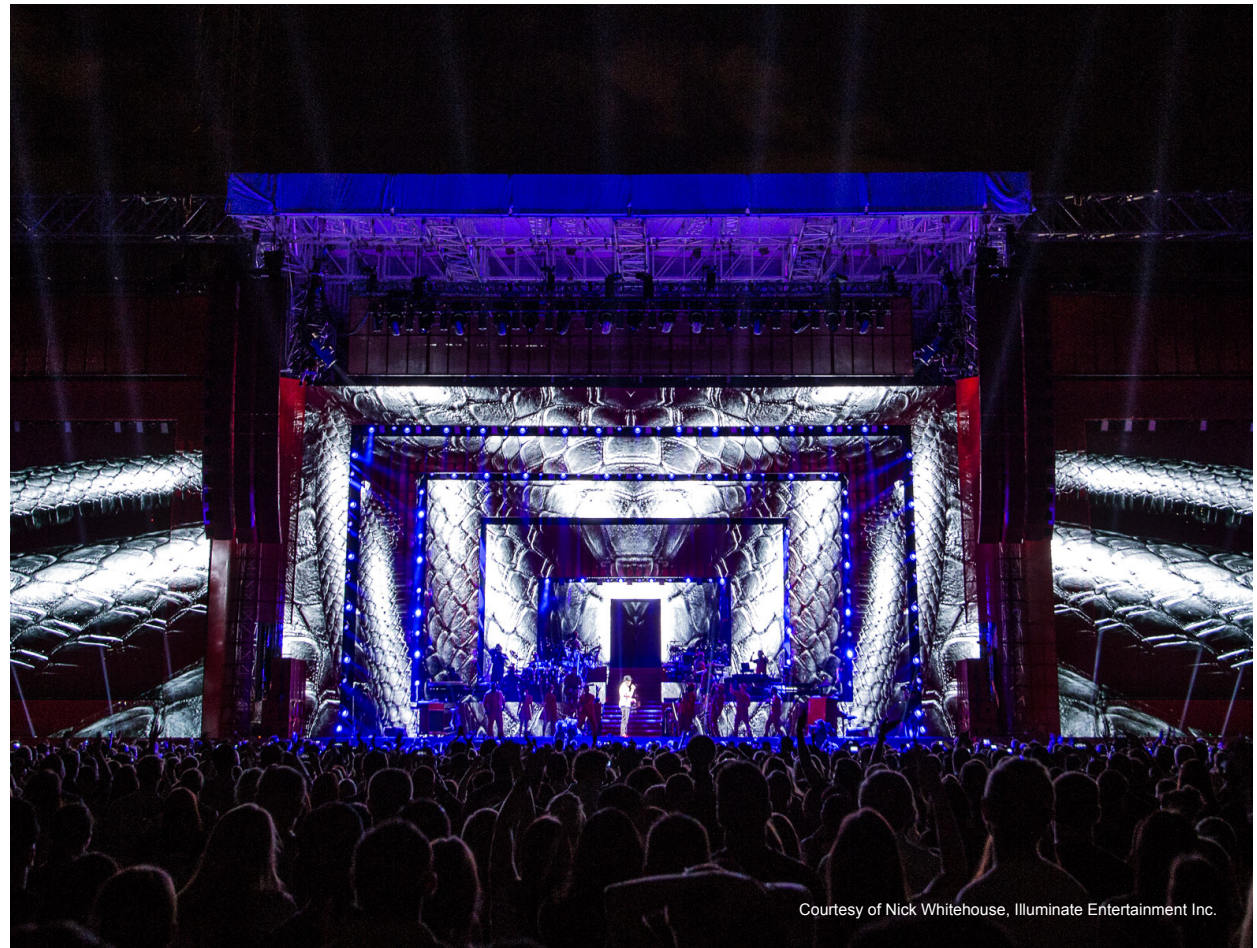
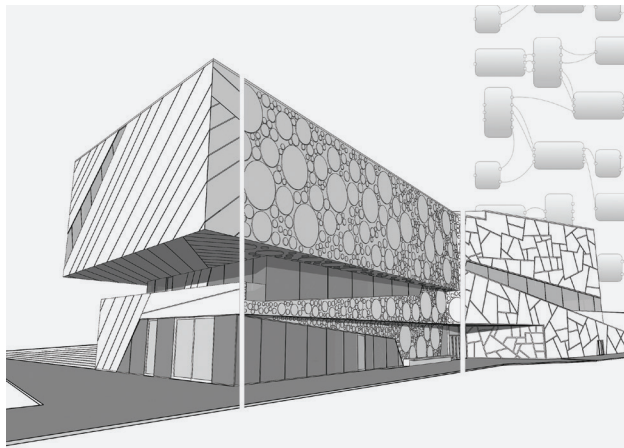
Design by Holzer Kobler Architekturen / Photo by janbitter.de

GROUND-BREAKING GRAPHICAL SCRIPTING

Graphical scripting will play a significant role in the workflows of the future. These tools, when built 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 Designer, 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.



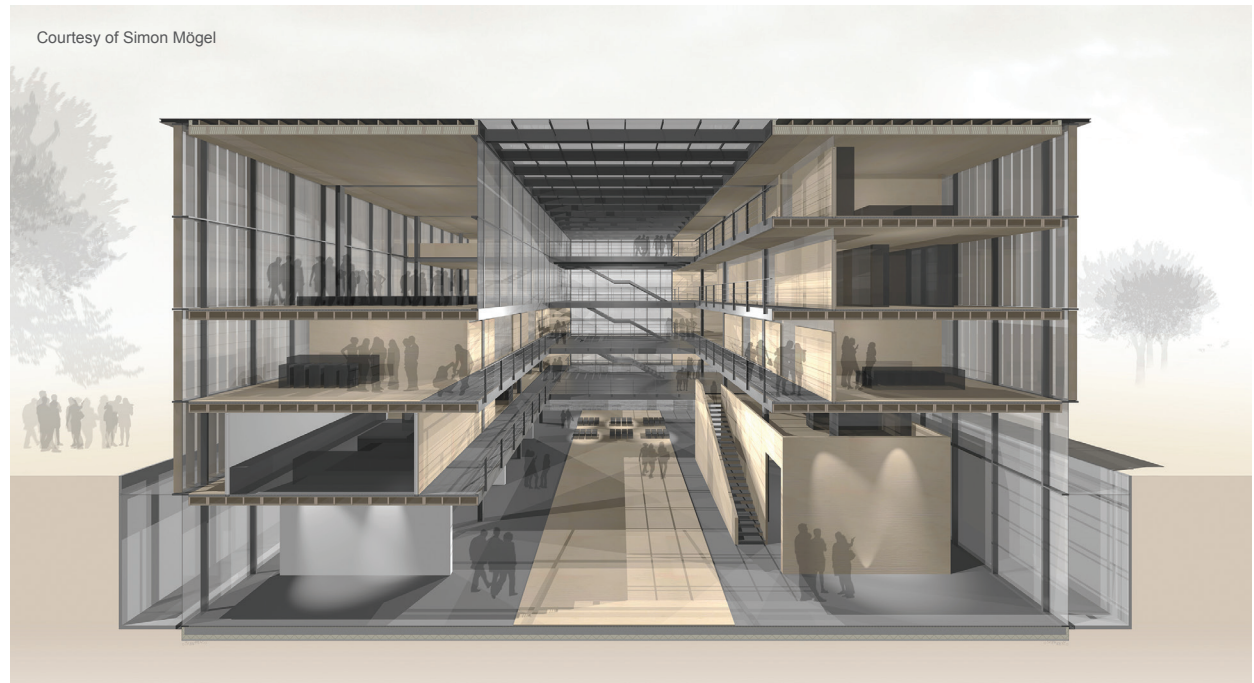
Courtesy of Nick Whitehouse, Illuminate Entertainment Inc.

UNLIMITED DESIGN OPTIONS

Whether your specialty is architecture, site design, or entertainment design, Vectorworks Designer gives you the freedom to create without having to learn or use additional applications.

ENDLESS DIGITAL IMAGES

Make your work even more compelling and easier to communicate with digital imagery. Import scans, digital photos, or web images. Import or export a wide array of image files, including Illustrator® EPS and native Photoshop® PSD files. Also, export your design for inclusion in your firm's marketing materials or website.



INDUSTRY-LEADING 3D

See your captured visions come to life in 3D. Send models to CAD/CAM machines, CNC routers, and other 3D printers. Vectorworks Designer supports a number of standard 3D file formats, including Parasolid® X_T, 3DM, SKP, IGES, STEP, SAT, KML, STL, and 3DS.

CAPTURE YOUR INSPIRATION

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



National Gallery Australia - Australian Garden by McGregor Coxall.
Artwork by James Turrell titled 'Within Without.' Photo by John Gollings.

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 Designer 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.

POWERFUL CONCEPTUALIZATION

With Vectorworks software, your creativity takes center stage. Find your inspiration and start drawing with intuitive drafting tools, parametric objects, and 3D forms. Or, import hand sketches, existing conditions, base maps, point cloud files, and even documents or models from other applications. Invoke ideas in 2D and explore them in 3D.



Design by Antoine Predock Architect PC. Photo ©Tim Hursley.



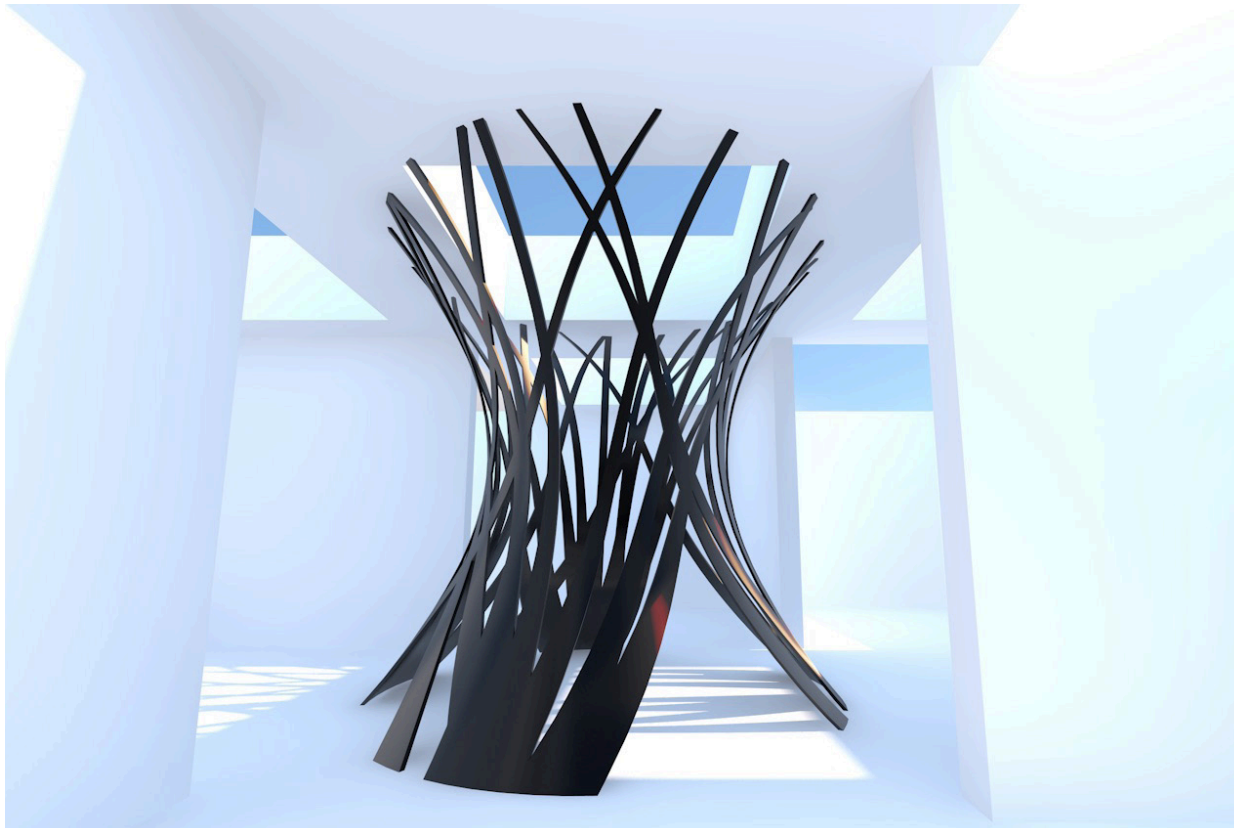
CREATIVE MODELING SOLUTIONS

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, enables 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 MODELING

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 allows 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 Designer.



Inspired by Pabellon Richezze BarriosEscudero

DEVELOP YOUR DESIGN

The transition from virtual to actual presents distinct challenges. Vectorworks Designer offers first-class tools and customizable workflows to go beyond exploration and into development.



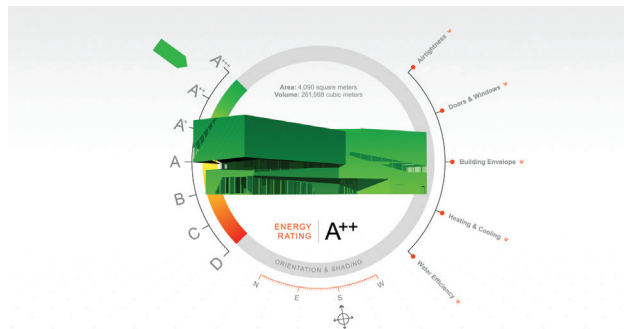
Lighting design by Nick Whitehouse, Illuminate Entertainment Inc.
Photo courtesy of Ralph Larmann.

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 Designer file.

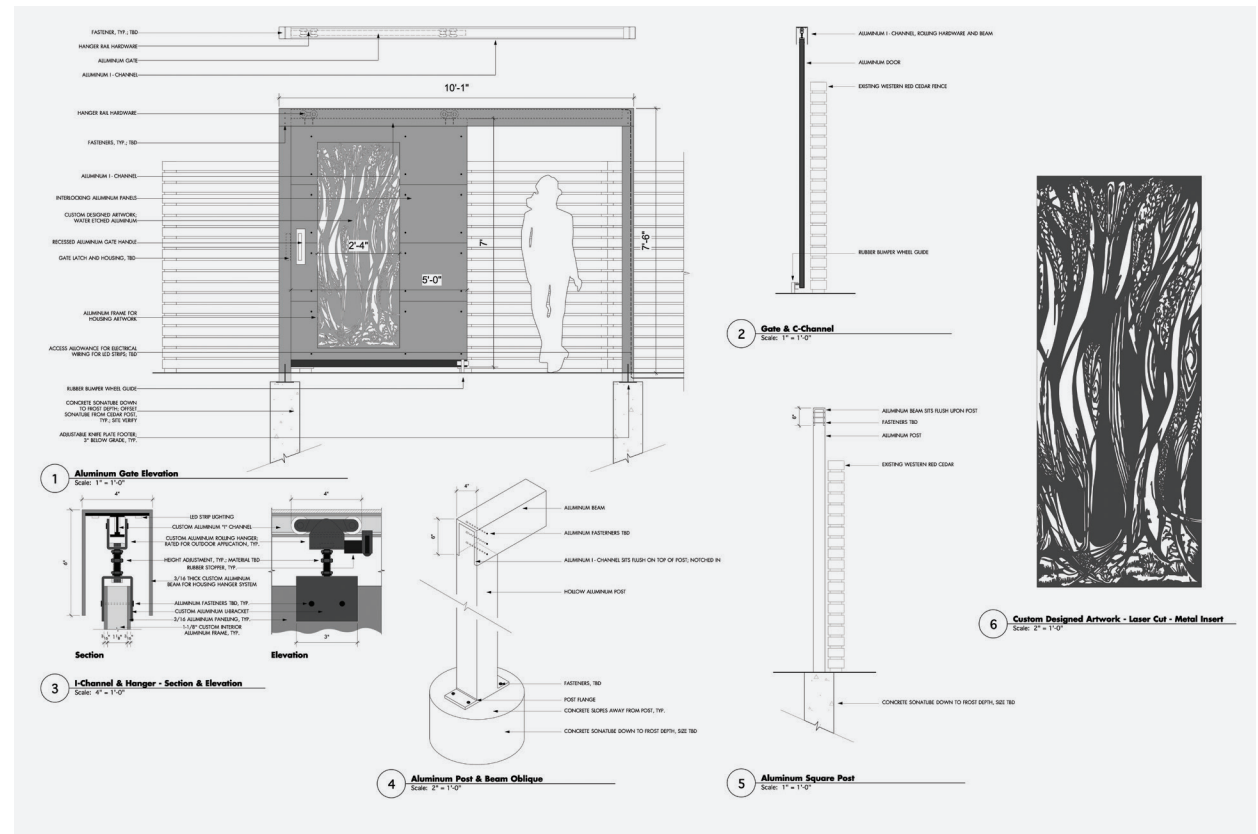
HORIZONTAL 3D SECTIONS FROM THE CLIP CUBE

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.



SUPERIOR 2D DOCUMENTATION

Produce high-quality documentation with ease. Vectorworks Designer 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.



Courtesy of Matthew Cunningham Landscape Design LLC

INSPIRATIONAL PRESENTATIONS

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



Courtesy of McGregor Coxall



Courtesy of The Design Büro (Coventry) Ltd.

SEAMLESS INTERPERABILITY

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

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.

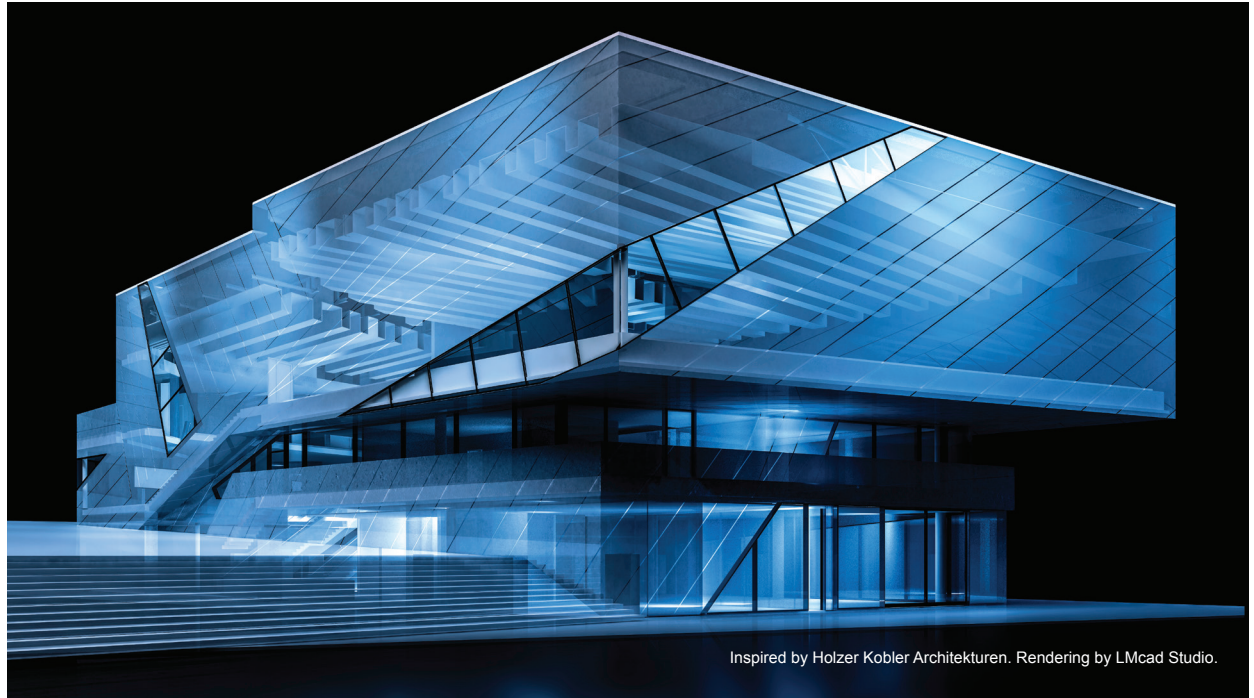
Available as an add-on to the Vectorworks line of software products, Renderworks makes it simple to achieve breathtaking results with a simple drag and drop. Improved camera features allow you to manipulate the depth of field, apply vibrant back lighting, alter exposure, and generate panoramic images,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

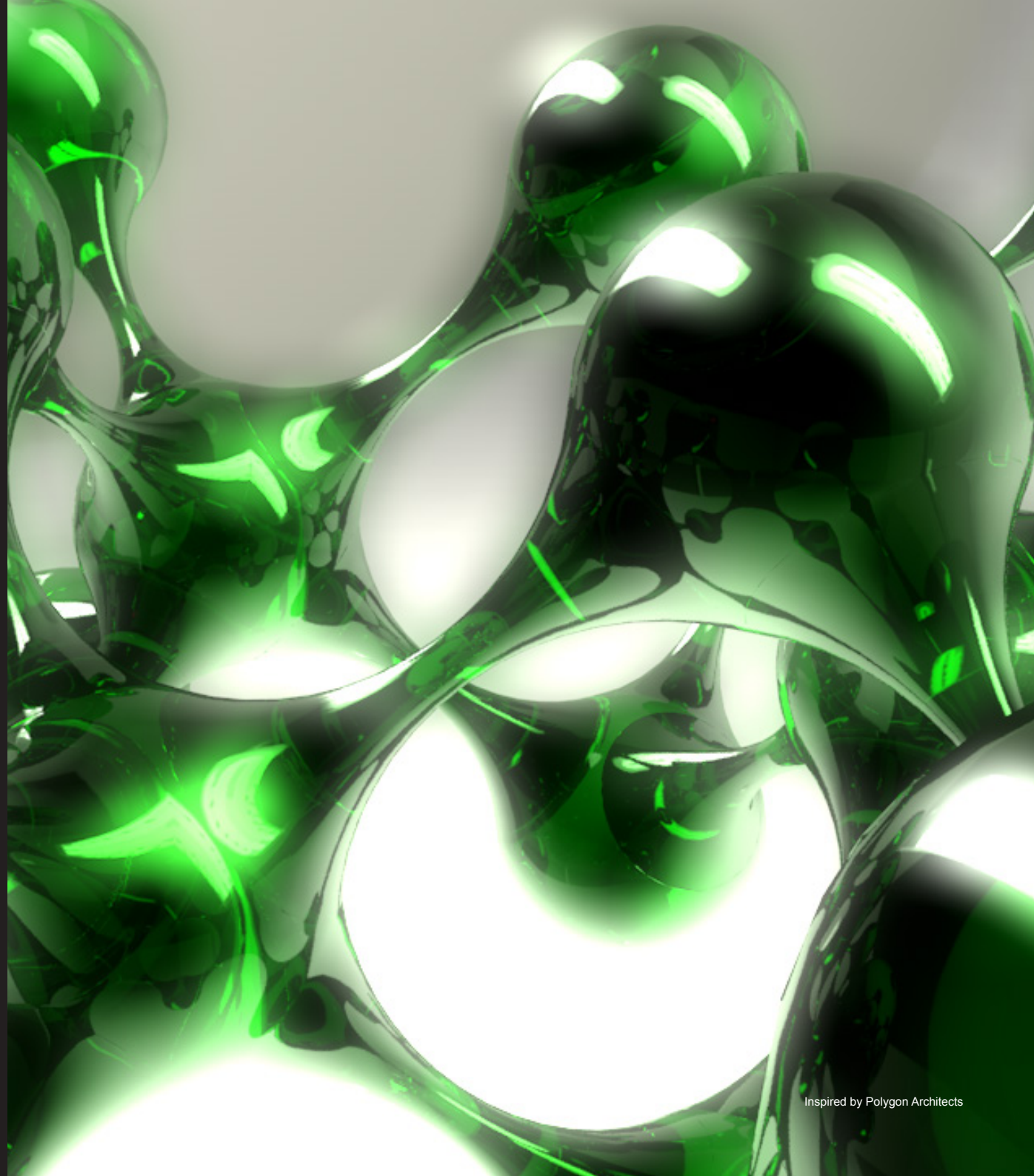
Visit vectorworks.net/renderworks to learn more.



ENHANCE YOUR WORKFLOW

Delivering accurate information efficiently while remaining true to a designer's vision is the pivotal point of any artistic enterprise. As with all design tools, the fundamental purpose of software is to strengthen your inspiration.

Vectorworks Designer 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.

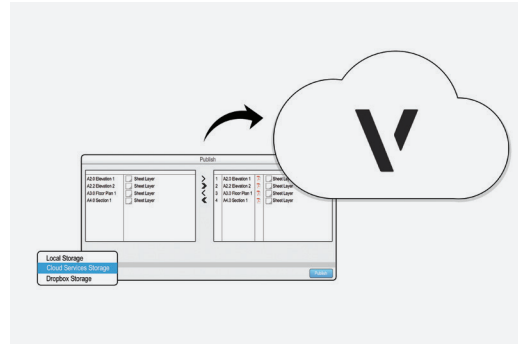




EFFECTIVE PROJECT COMMUNICATION

Whether you're a sole practitioner designing with other professionals and contractors or a large firm dividing work among many team members, Designer's collaborative tools allow you to focus on your individual strengths and produce the most compelling, final products.

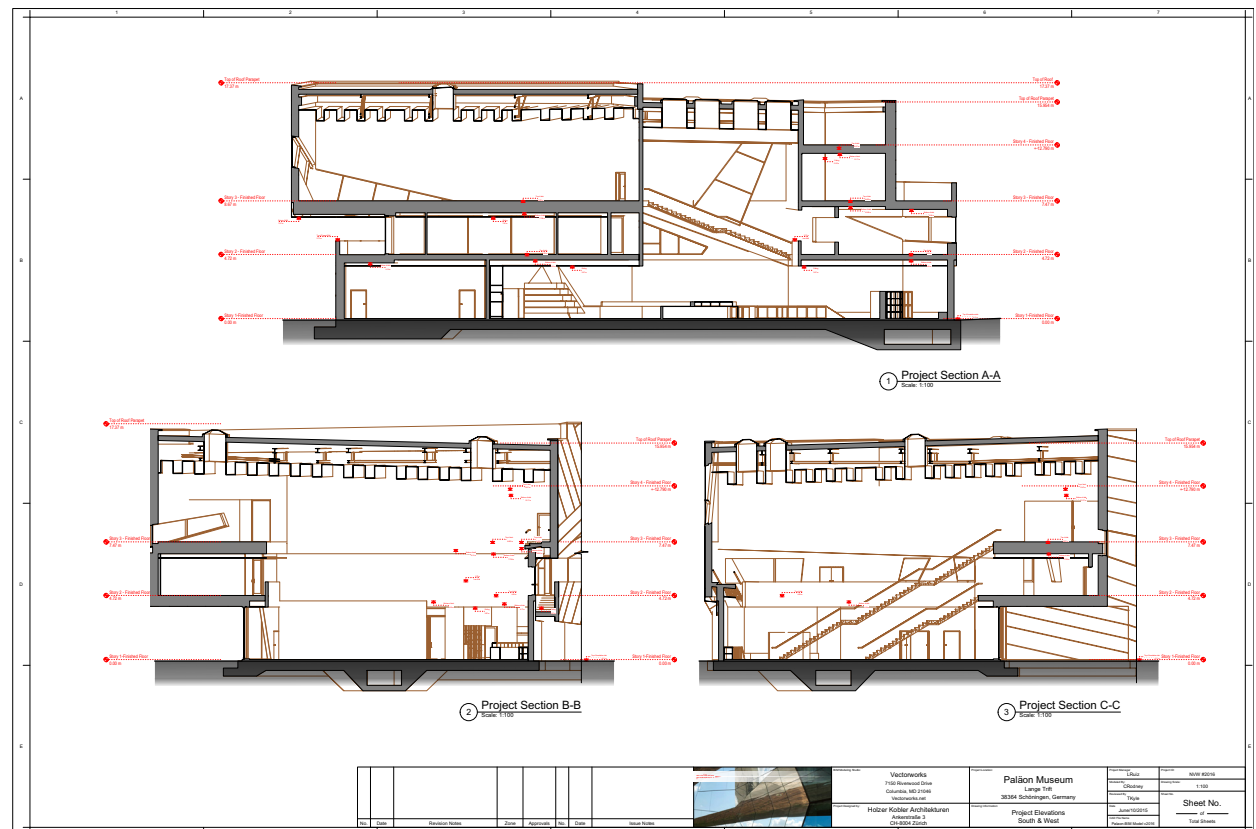
Project Sharing is an intuitive tool to communicate and collaborate with your team across the design process. Work simultaneously on the same Vectorworks Designer file to streamline your journey from simple sketch to final product.



CLOUD SERVICES IN VECTORWORKS

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.

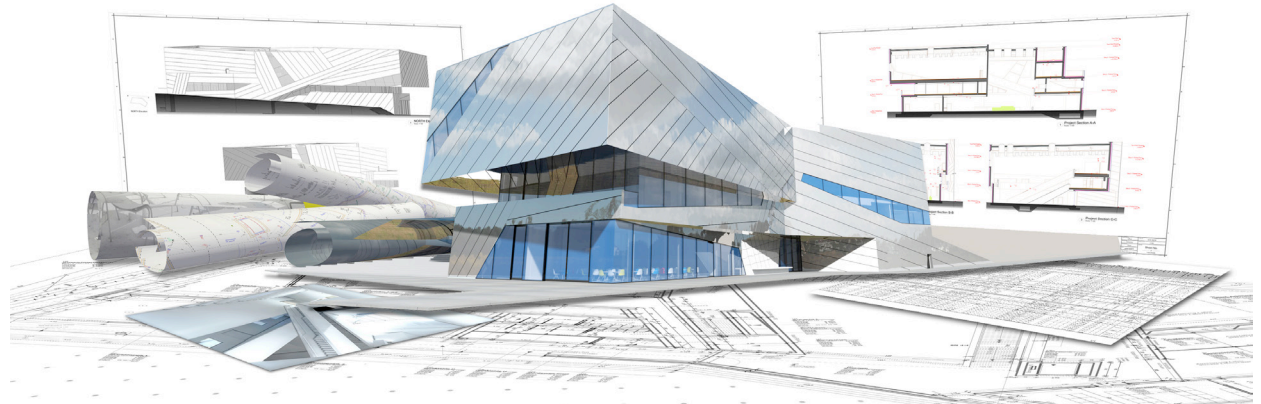
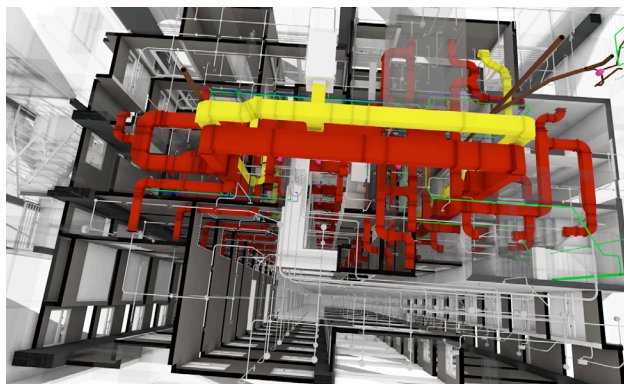


ROBUST BIM CAPABILITIES

Building Information Modeling (BIM) gives you the freedom to design beyond the drafting table. More and more, designers are adopting effective BIM workflows and allowing creativity to flourish within virtual design platforms like Vectorworks Designer.

The BIM process does more than create virtual buildings; it develops a functional environment for virtual reality experimentation. If all of your data exists within your BIM design, you can easily test for sustainability, analyze energy efficiency, and quickly make changes that, years ago, would have required intensive time at the drafting table.

Taking advantage of Vectorworks Designer's built-in BIM capabilities lets you create powerful designs that will impress clients, cut costs, and give you a competitive advantage, no matter the size of your firm.



SUPERIOR SIM TOOLS

Vectorworks Designer provides an efficient way to introduce Site Information Modeling (SIM) capabilities into your workflow. The program's tools will help you analyze your design for area, volume, slope, cut/fill, and other data such as water flow and sun/shade. Scan in planting plans and trace over them with ease. Or, simply enter your field

measurements. Use the property line tool to define a site's boundaries and setbacks. Plus, building tools and site objects easily document existing structures and site conditions. In addition, you can use the program's drawing, modeling, and 2D and 3D graphics capabilities to create compelling presentations.

TRANSFORM THE WORLD

The reason you design 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, your Vectorworks Designer is there to help you transform the world.



Inspired by Holzer Kobler Architekturen. Rendering by LMcad ArchViz Studio.

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.

Vectorworks, Inc.

7150 Riverwood Drive, Columbia, MD 21046-1295 USA

vectorworks.net

T 410.290.5114

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