



VECTORWORKS **2015**

YOUR VISIONS. PERFECTLY REALIZED.

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// An Invitation to Discovery

In a world dominated by standardization and uniformity, you commit to giving each new project a powerful, creative design. Your days are about experimentation. About inspiration. About discovery. After all, design is less about getting answers and more about asking the right questions.

Sometimes inspiration strikes, and you're off drawing and modeling quickly. It just works. Other times, you travel down one path of discovery only to realize you should have gone a different way. Traversing these challenges while keeping sight of your vision is all about discovery.

This is where we can help.

Vectorworks software lets you experiment, become inspired, and discover solutions. Our 2D/3D and BIM capabilities give you the freedom to design with precision. To think. To dream. To share. Anything you can imagine can move seamlessly from inspiration to the realization of your vision.

We invite you to discover and experiment. Design without limitations. Design with Vectorworks.

An Invitation to
Discovery

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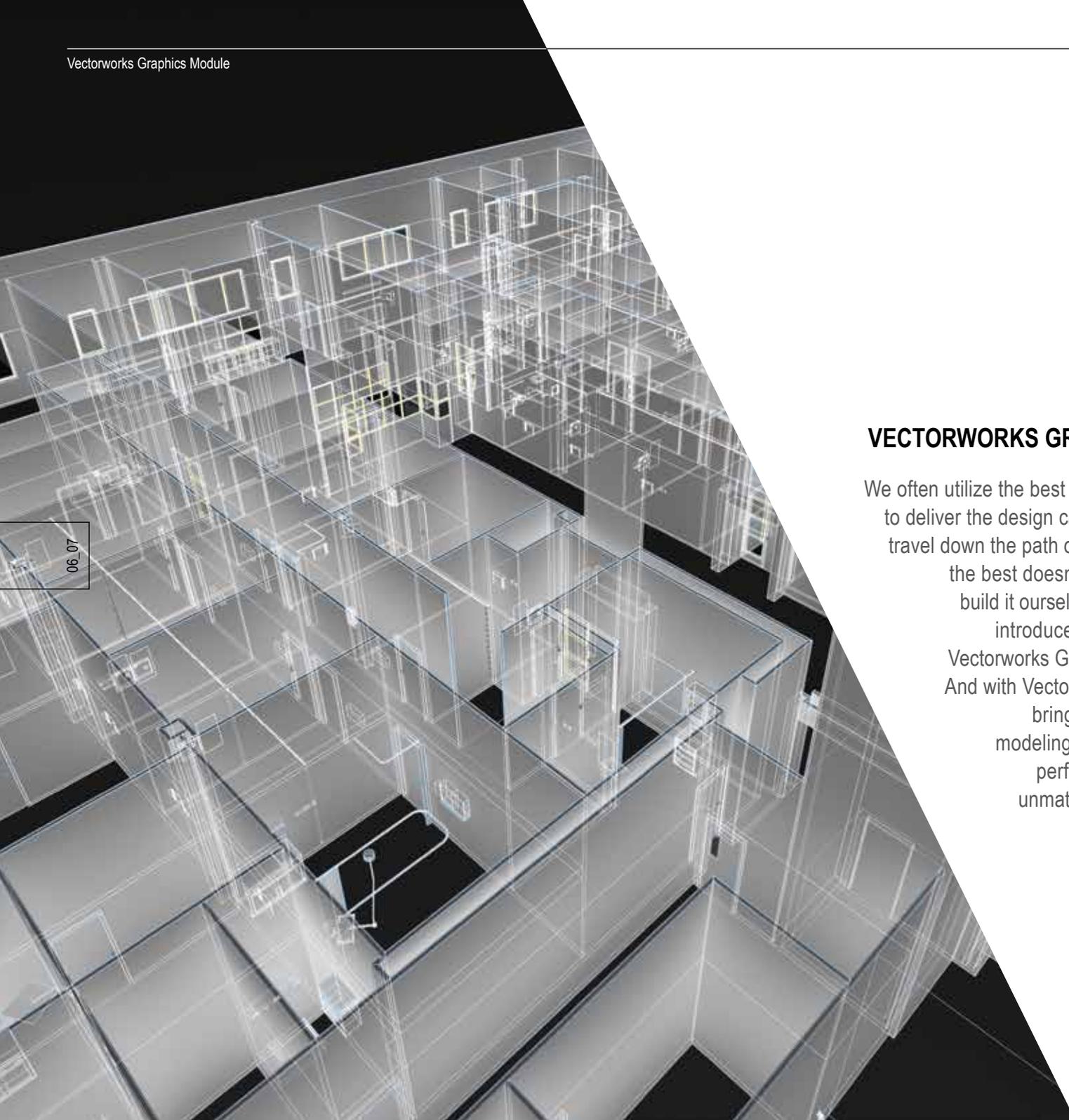
64 BIT

NEW FEATURES AND IMPROVEMENTS

For 2015, we're excited to introduce the first 64-bit version of Vectorworks software, which will break down barriers and equip you to handle projects of any size, while giving you confidence through better performance and enhanced stability. We're also excited to build upon our Vectorworks Graphics Module, which provides designers with a revolutionary graphical experience.

These two technological improvements, along with more than 100 updates and new features, like enhanced text editing, revolutionary wall improvements, and transparent gradients, are wonderful evolutions that we know you'll love as you continue to design and discover.





VECTORWORKS GRAPHICS MODULE

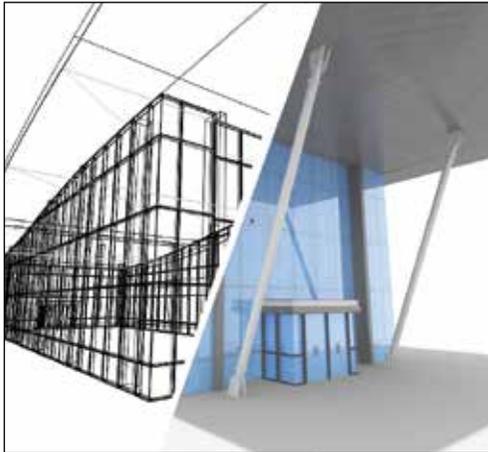
We often utilize the best technologies available to deliver the design capabilities you need to travel down the path of discovery. And when the best doesn't exist elsewhere, we build it ourselves. Vectorworks 2014 introduced you to our very own Vectorworks Graphics Module (VGM). And with Vectorworks 2015, the VGM brings the fun back to your modeling experience with great performance, stability, and unmatched graphical control.

Wireframe and Planar Graphics Improvements

View Transition Animation

Preference for 3D Render Mode and Projection

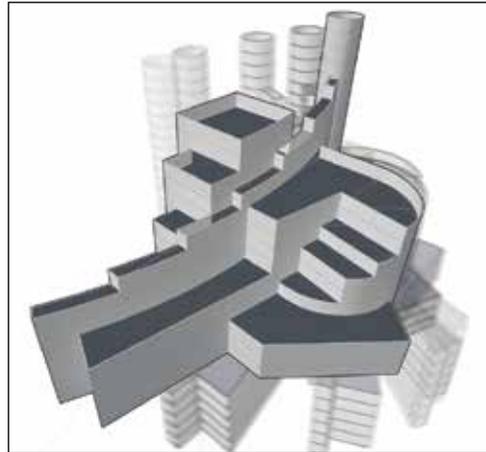
Mesh Improvements



Wireframe and Planar Graphics Improvements

Enjoy faster wireframe rendering and planar graphics, as well as improved spatial relationships in the Wireframe rendering mode.

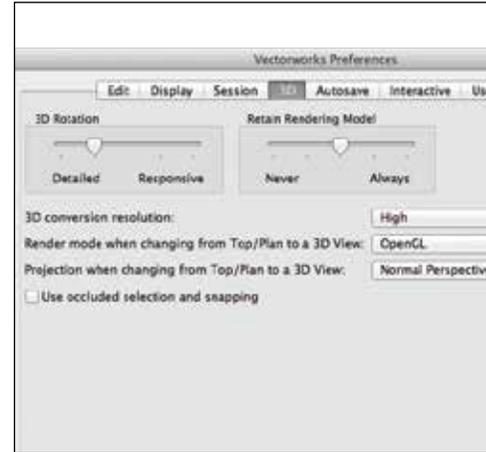
F A L S D



View Transition Animation

We've added smooth animations to improve the 3D context for view changes.

F A L S D R



Preference for 3D Render Mode and Projection

When you transition from Top/Plan to a 3D view, you now have the option to set the default for your render mode and projection, so you can have a seamless, visual transition through view changes.

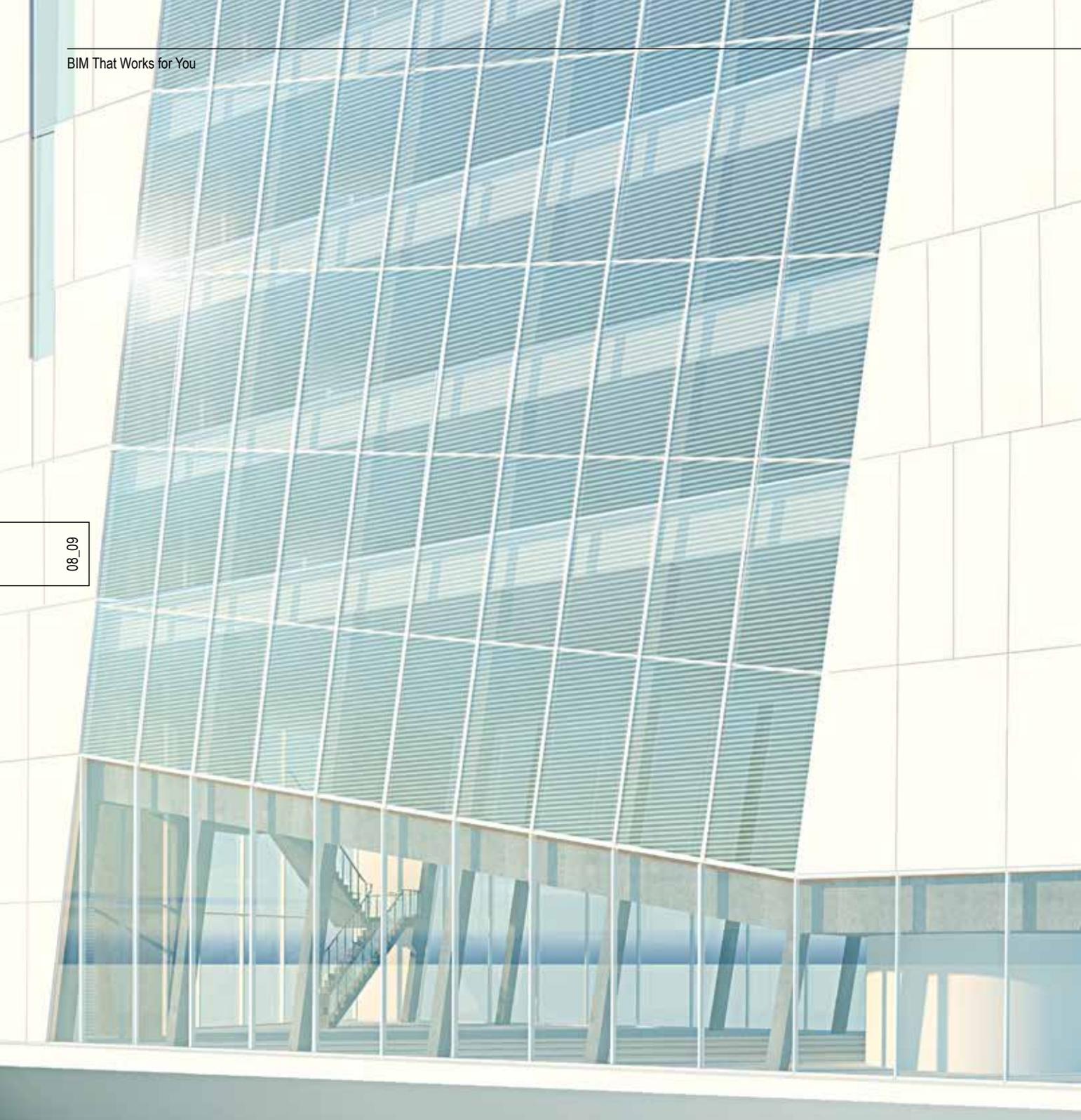
F A L S D



Mesh Improvements

The import process is more efficient, and the graphics result is smoother. Plus, we've refined the render quality.

A L S D R



08_09

BIM THAT WORKS FOR YOU

Vectorworks Architect provides powerful BIM solutions to fit your workflow and address your BIM needs, both big and little, as you experiment, become inspired, and design without limitations.



Curtain Walls

/

New Level Constraint System for Stories

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Walls

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COBie-Facilities Management for IFC Export

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Stairs

/

Spaces

/

Doors and Windows



Curtain Walls

Glazing systems like curtain walls and storefronts are important features in your designs, but the BIM tools to design them shouldn't be more complex than the systems themselves. With 2015, you can create curtain walls and storefronts with our Wall tool. While you can manage your glazing systems with wall styles, you can also take advan-

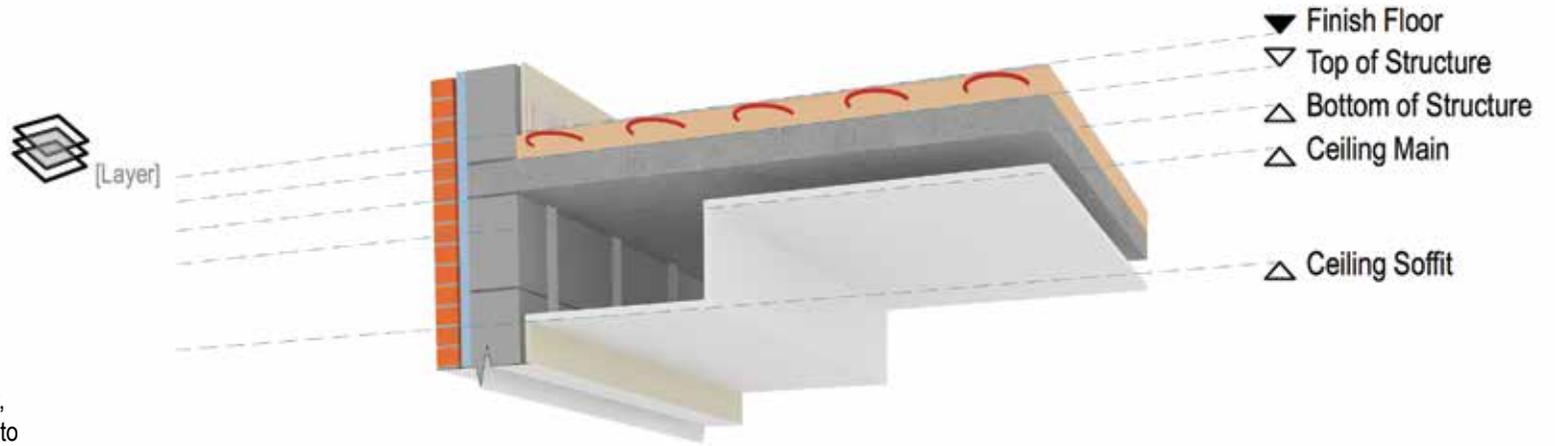
tage of our typical power and flexibility paradigm, enabling you to model and edit directly with the Edit Curtain Wall tool. This tool allows you to grab, move, reshape, and align all aspects of your curtain wall directly. This means you can either create a completely custom configuration or align it to existing geometry.

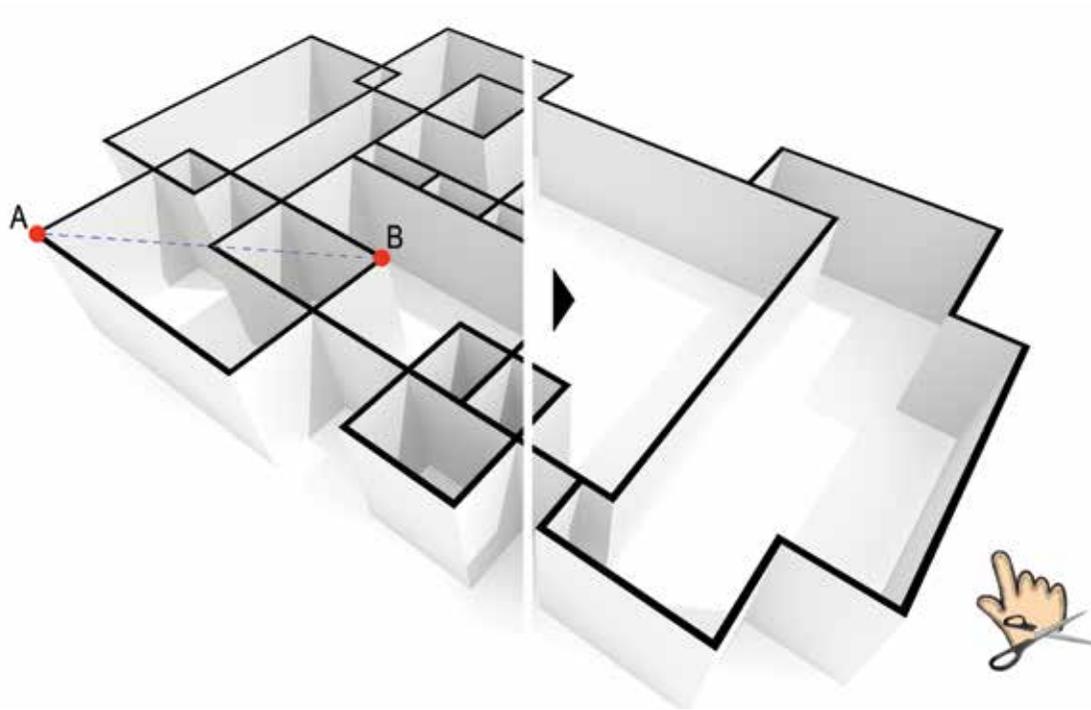
A L D

New Level Constraint System for Stories

Objects, such as walls and wall components, slabs, and columns, can now be constrained to a level without creating additional design layers. This gives you more control with less complexity, refining your model's organization. You are able to model wall-to-slab connections with precision and fluidly model elements such as split-level designs and mezzanines.

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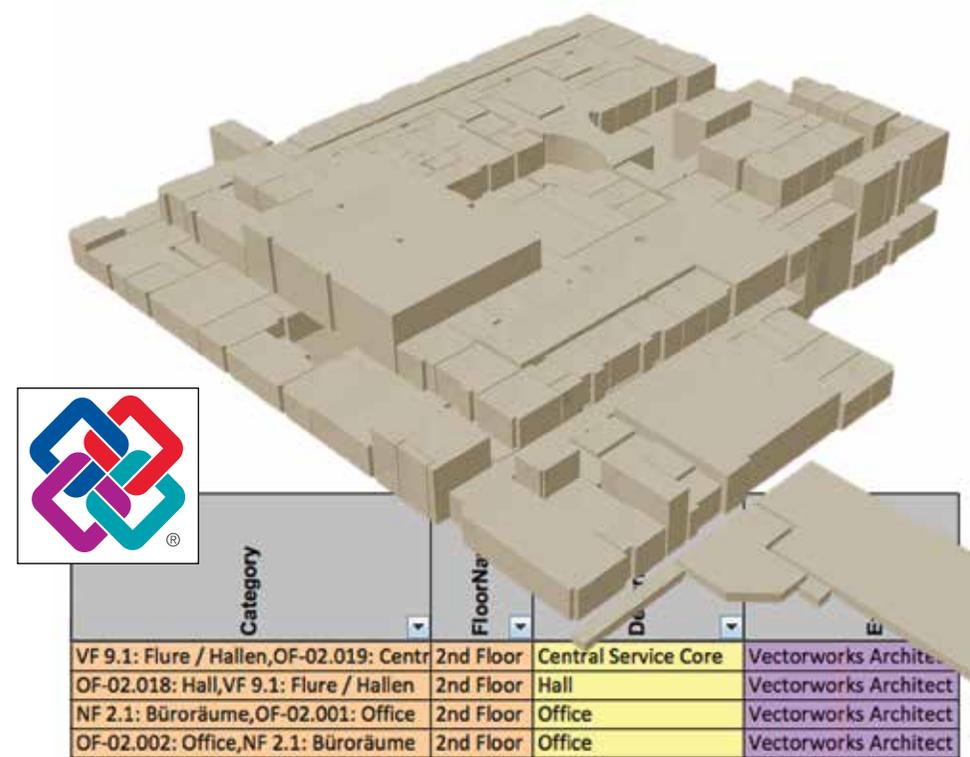


Walls

The Vectorworks 2015 release includes a revolutionary Wall tool mode: the rectangle wall mode. Not only does this new mode draw a rectangular walled area in two clicks, but with automatic joining and trimming with existing walls, you can also add or subtract rectangular space from existing wall networks. In addition, you can use the Trim

tool to remove any wall segment between two joins with a single click. This will allow you to draw, modify, and explore any rectangular wall network in a fraction of the time needed in previous Vectorworks versions or any other CAD application.

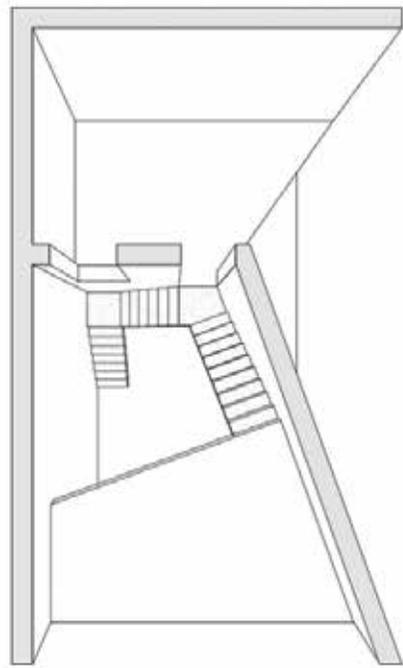
F A L S D



COBie-Facilities Management for IFC Export

As BIM becomes more important to your clients—and not just for project delivery but for information delivery, as well—we provide you with the means to transfer relevant BIM data for their use in facility management applications. The new COBie option in our IFC export filters the proper data from your Vectorworks BIM to support operations, maintenance, and asset management workflows.

A L D



Stairs

As the functionality of stairs continues to advance with new configurations and features, you can now create more complex stair layouts. You can also set Double-U and Triple-L configurations along with user-defined angles on landings between flights.

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Spaces

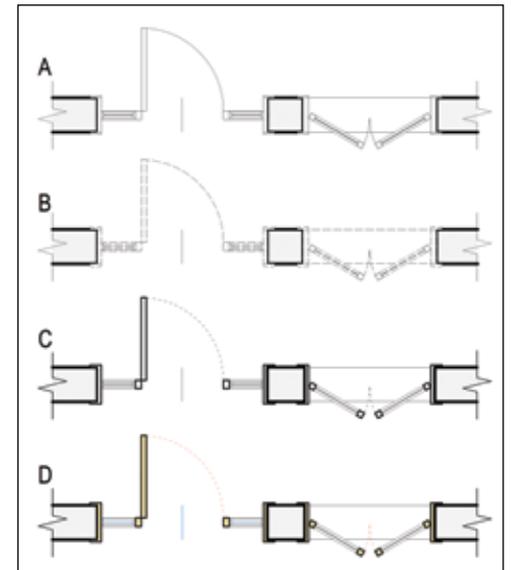
Space objects now help you manage how information is displayed in your documentation by linking multiple labels to a single space. Because each label is configured and classed separately, you have more control over leader lines. In addition, we've boosted their BIM capabilities with more boundary definitions and the ability to edit the room finish settings directly in a database worksheet.

A D

Doors and Windows

The development of our Door and Window objects continues to mature, so you can affect how their details are displayed in 2D. You also gain more class controls to quickly set visibility and appearance, and you can now add centerline markers, making your documentation richer.

A L D



“THE MOTHER ART IS ARCHITECTURE.
WITHOUT AN ARCHITECTURE OF OUR OWN
WE HAVE NO SOUL OF OUR OWN CIVILIZATION.”

// FRANK LLOYD WRIGHT

TECHNOLOGY INTEROPERABILITY

When it comes to BIM tools, no one matches Vectorworks' ability to exchange data and geometry during your design process. We offer more choices to import and export your models, your drawings, and your data, giving you the freedom to collaborate with partners, regardless of their preferred technology, and explore ideas using many different tools.

File Import/Export Support

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DXF/DWG/DWF Improvements

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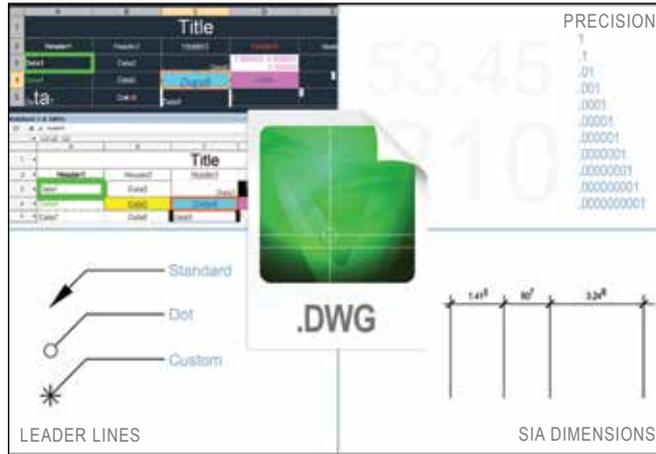
Robust PDF Integration



File Import/Export Support

We've expanded your collaborative workflows. For starters, we've added import and export support for industry-standard STEP files, as well as improved SketchUp® support with the import of textures. We've also enhanced our historic, robust support for exporting STL files, making workflows with 3D printing even smoother with less effort.

F A L S D



DXF/DWG/DWF Improvements

Our support for your DXF/DWG-based workflows is second to none and only continues to get better. In addition to import enhancements to leader lines, line types, and tables as worksheets, there are export features, such as interactive dimensions and precision settings, to complement your ability to exchange high-quality, highly accurate versions of your data in the DXF/DWG or DWF formats.

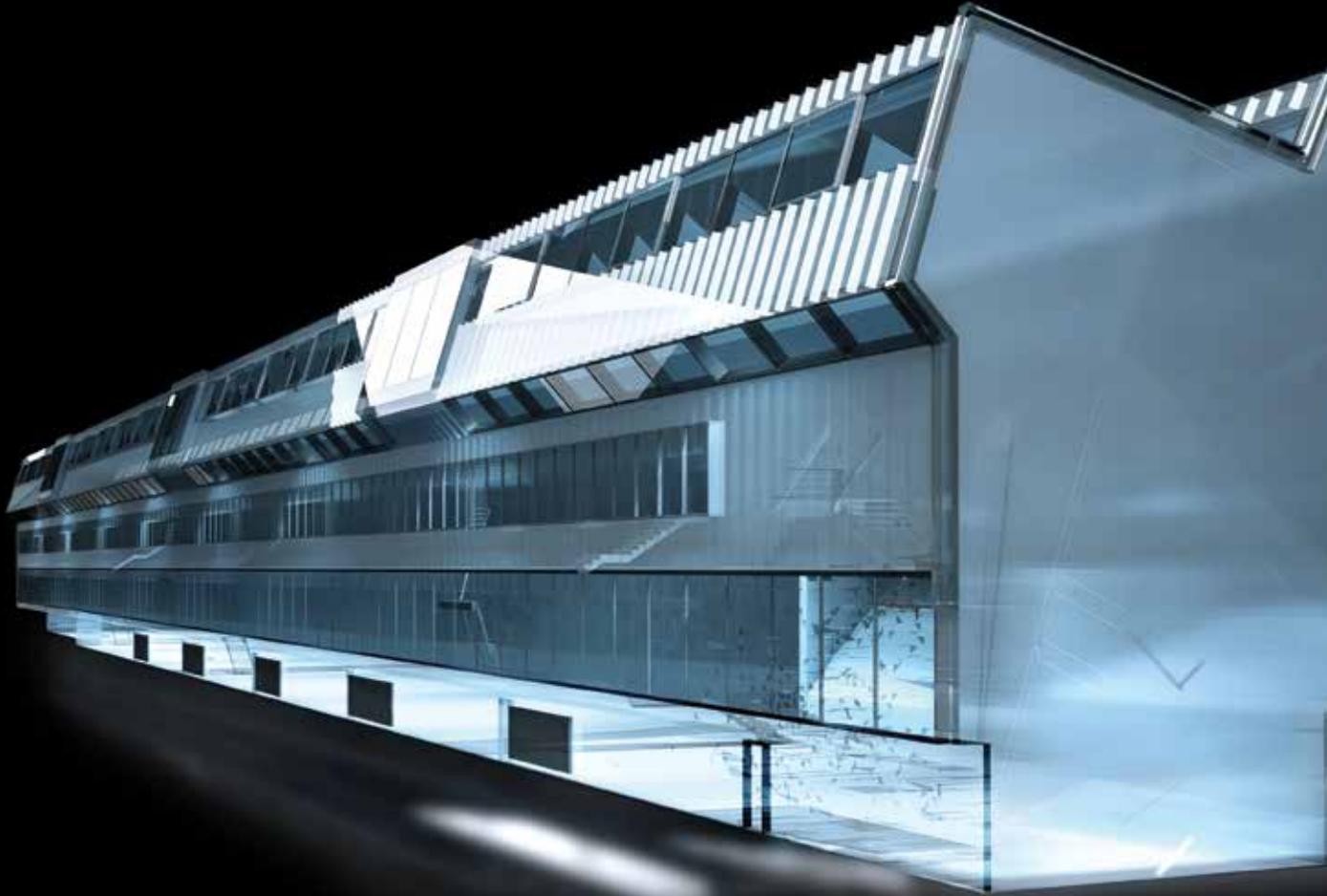
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Robust PDF Integration

Save time! Eliminate the need to edit your PDFs prior to import. Conveniently crop them within Vectorworks software. Take advantage of the option to enable/disable snapping for PDF page objects. Reduce required steps and export files directly into PDF/A format.

A L S D



3D MODELING AND RENDERING FEATURES

Whether adding artistic flare, creating a style, or refining a look, Renderworks 2015 has you covered. Get ready to turn anything you can imagine into an inspired, sharable realization of your vision.



3D Hatching for Hidden Line Rendering

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OpenGL Improvements

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Renderworks Style Artistic Edges

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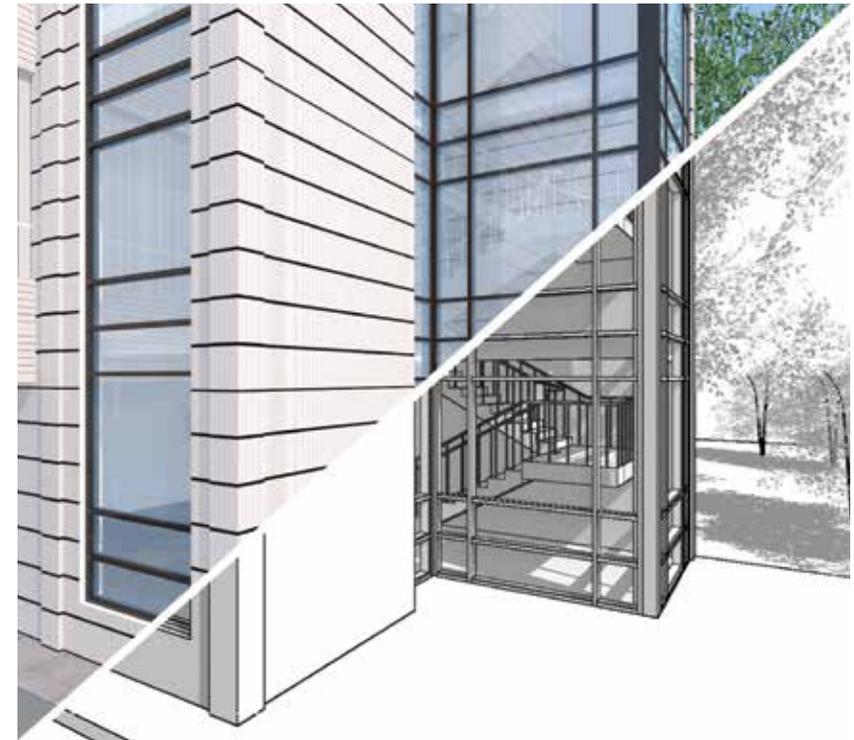
New Deform Tool



3D Hatching for Hidden Line Rendering

Textures are now linked with planar hatching. This means you can render in hidden line mode and reveal a simple hatch on your textured wall. We've also transformed the workflow for creating elevations and other presentation views by updating a large majority of the default textures in Renderworks to include a hatch that matches each image-based texture.

R



OpenGL Improvements

We've improved the styling and control capabilities in OpenGL. For example, you can create your elevation drawings in black and white simply by using the new option to turn off colors. Plus, you can turn on shadows and texture effects to enhance your presentation. With Custom Renderworks, remove distracting color while retaining the bumps, transparency, and reflectivity that give your rendering depth. In addition, we've given you more control over lines in the OpenGL render mode. You can now create optimal customization with the expanded Draw Edges option.

F A L S D R



Renderworks Style Artistic Edges

Stylize your rendering and take the sketched look to new heights! Overlay interesting artistic edge effects on top of a realistic-shaded Renderworks rendering.

R



New Deform Tool

We've dramatically refined the direct modeling capabilities of Vectorworks with the new Deform tool, which lets you bend, taper, or create a bulge with practically any geometric object, making the possibilities endless!

F A L S D

“WHENEVER TECHNOLOGY REACHES ITS REAL
FULFILLMENT, IT TRANSCENDS INTO ARCHITECTURE.”

// LUDWIG MIES VAN DER ROHE



DOCUMENTATION AND GRAPHICS IMPROVEMENTS

We've worked hard to make your documentation and graphics capabilities superior to any other CAD system. First, we've added support for the new high-resolution displays like Apple® Retina®. Next, we've added intuitive graphics controls for clip cube caps and gradient opacity. Then, we've given you flexibility and power over the look of your documents with robust text features and great enhancements to the Publish command.



Clip Cube Caps



Powerful Text Features



Publish Command



Gradient Opacity Control



Support for Retina and 4K Displays





Tracking	150%
Tracking	100%
Trackin g	Custom

Clip Cube Caps

No longer will your models appear hollow when sliced with the Clip Cube, nor will you be limited to predefined views when presenting. Instead, take advantage of enhanced clarity for on-the-fly demonstrations.

F A L S D

Powerful Text Features

Customizable text is a crucial component of presentation and documentation. It is imperative that you have options and control. With this feature, you can assign text styles through classes and set and adjust text styles globally.

In addition to these improvements, Vectorworks also lets you vary tab length and spacing between characters. You can adjust the horizontal alignment of callouts and body text in the Notes Manager. Also, we've enriched callout bubble shadows with pen and fill colors.

F A L S D



Publish Command

We've enhanced the Publish command to streamline the process of sharing your ideas with others. Be in complete control with individualized options for each item in your publish set. Conveniently publish multiple file types, including standard image types, within a single publish session. Have your last used settings remembered and be asked to save an unsaved set. Simplify your file directory by not creating sub-folders if you don't need them.

A L S D



Gradient Opacity Control

We've expanded how you can work with gradients to include dynamic, powerful options for color control and transparency for objects.

F A L S D



Support for Retina and 4K Displays

Vectorworks 2015 takes advantage of high-resolution displays, such as the Apple Retina display and most 4K displays on Windows®.

F A L S D

“THE ARCHITECT, BY HIS ARRANGEMENT OF FORMS,
REALIZES AN ORDER WHICH IS A PURE CREATION OF HIS SPIRIT.”

// LE CORBUSIER

WORKFLOW EFFICIENCY GAINS

We're constantly striving to improve your user experience. We've therefore added tools and enhanced the capabilities of existing ones. By refining workflows to be intuitive and seamless, we've also amplified the speed of navigation, drafting, and documentation. Vectorworks 2015 is more powerful, customizable, and agile than ever.



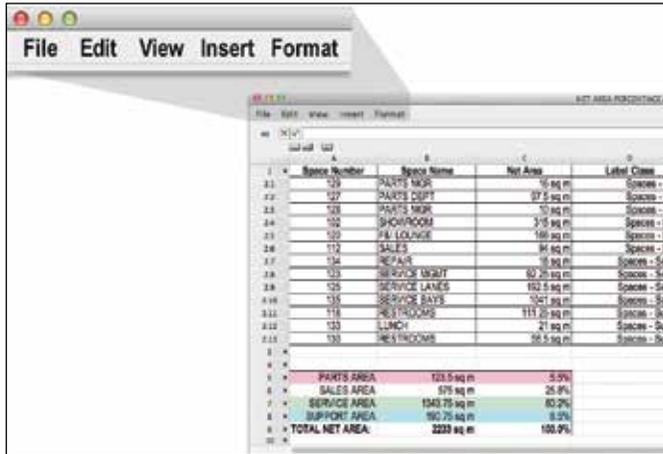
Worksheet Refinement

/

Help When and Where You Need It

/

Eliminate Mouse Clicks



Worksheet Refinement

One way we've improved usability is with the addition of a menu bar to the worksheet window, resulting in a natural and non-intimidating interface. Other improvements to the worksheet include adding a percentage number format and the IFC4 standard date format.

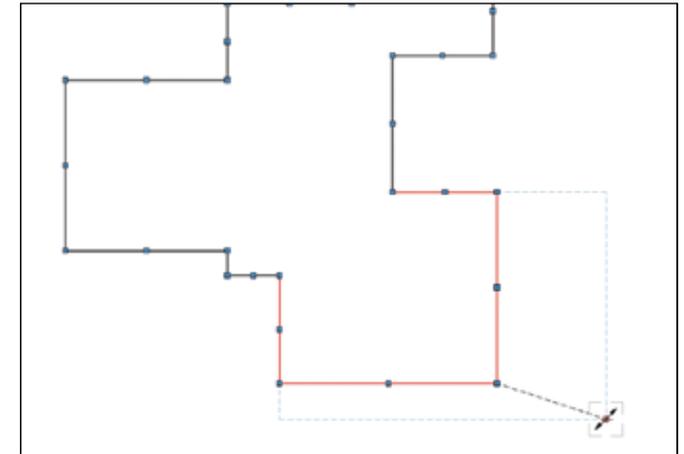
F A L S D



Help When and Where You Need It

We've enhanced the Vectorworks Help System this year with the support of HTML5. Whether on a mobile device or a computer, searching, accessing, and printing help topics has never been more efficient or convenient. The new Help System can be accessed through any preferred browser and is more reliable and easier to use than ever.

F A L S D



Eliminate Mouse Clicks

Now, close polygons, polylines, and walls with a shortcut key. The Move Edges Parallel mode of the Reshape tool makes it easy to reshape straight adjacent object edges from a vertex or midpoint. More actions are available through an Object Context menu. Remove and edit constraints, access the Align/Distribute commands, and edit symbols by right-clicking them from the Resource Browser.

F A L S D



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SITE DESIGN ENHANCEMENTS

Vectorworks Landmark software has long been recognized for its superior graphics capabilities and industry-focused tool sets for site design professionals. We inherently understand that your design workflows and documentation styles are as unique and individual as your projects. We therefore strive to provide the best technological solutions along with the power, flexibility, and interactivity you want from your design software.



Roadway Object Improvements

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Site Model and Calculations

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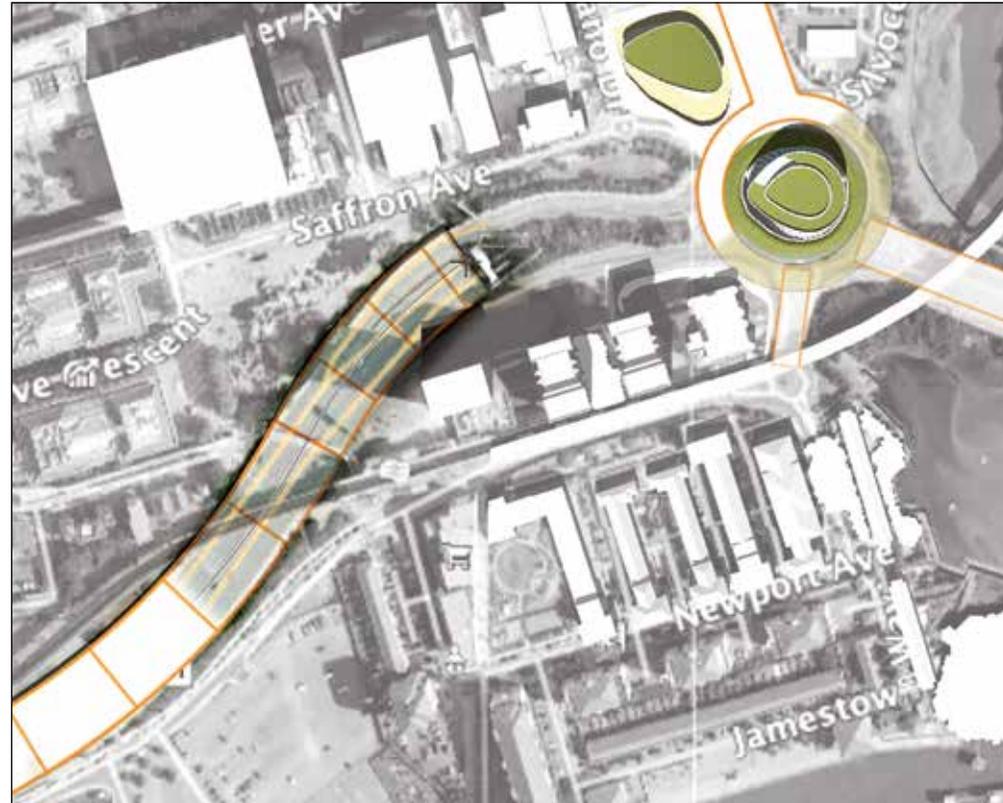
Grade Object Improvements

/

Drawing Annotations

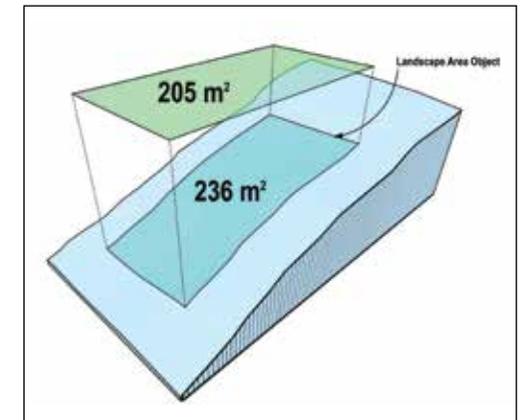
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Plant Materials



Roadway Object Improvements

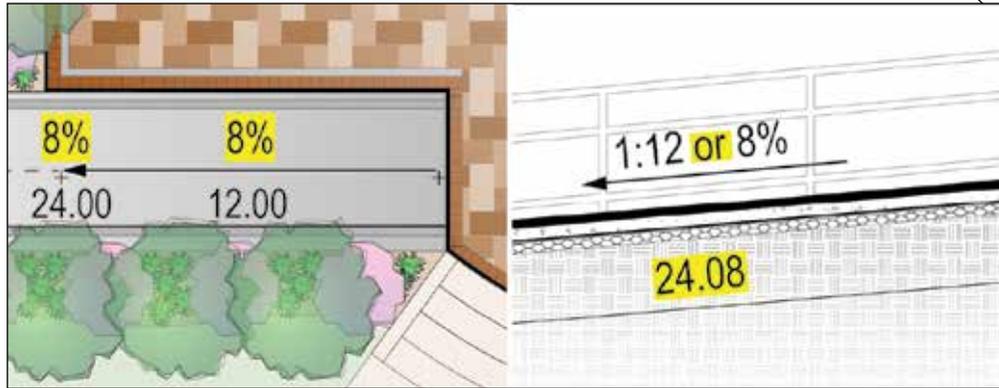
New options for roadways help you achieve greater precision when laying out different street configurations. For example, the Roadway (Poly) tool makes it easy to create and modify straight and curved roadways, while the Roadway Custom Curb object provides powerful editing and joining options for practically any configuration, including roundabouts and complex intersections.



Site Model and Calculations

Working with site models is now more precise and intuitive. Whether by angle, percentage, or ratio, the varied batter slope option in the Pad from Grade Limits command provides greater control when setting terrain-modifying pads on your site. Plus, a new, interactive feature within the site model makes it easier to identify and correct conflicts within your site model. Lastly, the Landscape Area tool now calculates areas based on the surface slopes of any site model.

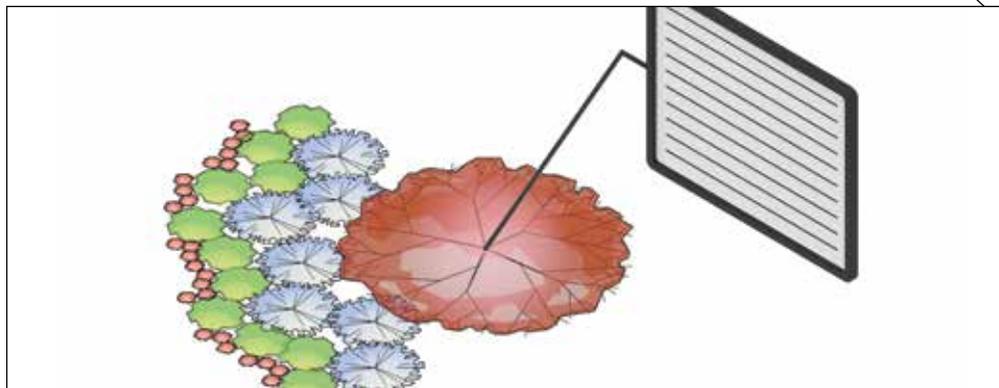




Grade Object Improvements

Enhancements have improved the power and flexibility of the Grade tool. Whether your needs are for annotation, measurement, or to simply adjust the location of a low point on a swale, you will maintain complete control and accuracy over the slope of grade objects as distances vary.

L D



Drawing Annotations

Drawing annotations and callouts appear the way you want. We've added new custom labeling options for plants and landscape areas, and we've improved the Graticule tool to make it intuitive and straightforward, as well as show geographical coordinate system grids on your site plans. The options for customizing your drawings are endless.

L D



Plant Materials

Working with plant resources in Vectorworks software has always been dynamic and graphically rich. Visually navigate through plant libraries with symbols, 3D images, and model options via the new viewable directory. We've enhanced the Existing Tree tool, so you can more capably represent and report existing trees in your projects. Finally, take your landscape plans to the next level with the new tight outline mode, making it easy to swap from a sketch-like appearance to one that closely outlines each plant.

L D

FEW ARE "AWARE OF THE POTENTIAL VALUE OF HARMONIOUS
SURROUNDINGS" AND WHAT THAT SETTING "CAN MEAN IN TERMS
OF DAILY DELIGHT, OR AS A CONTINUOUS ANCHOR..., OR AS AN
EXTENSION OF THE MEANINGFULNESS AND RICHNESS OF THE WORLD."

// KEVIN LYNCH



ENTERTAINMENT DESIGN ENHANCEMENTS

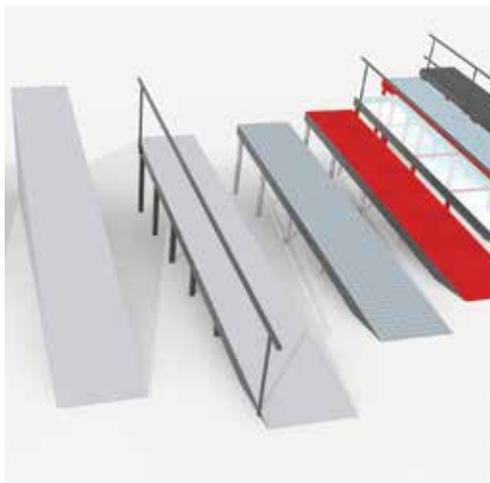
Being a standard in this industry doesn't mean we sit back and relax; instead, in our efforts to stay #1, we are always pushing to sharpen our product. And we get some of our best ideas for improvements from you! Featured in this section are the new objects and enhancements we implemented based on your suggestions.



New Spotlight Objects

/

Improvements to Existing Objects

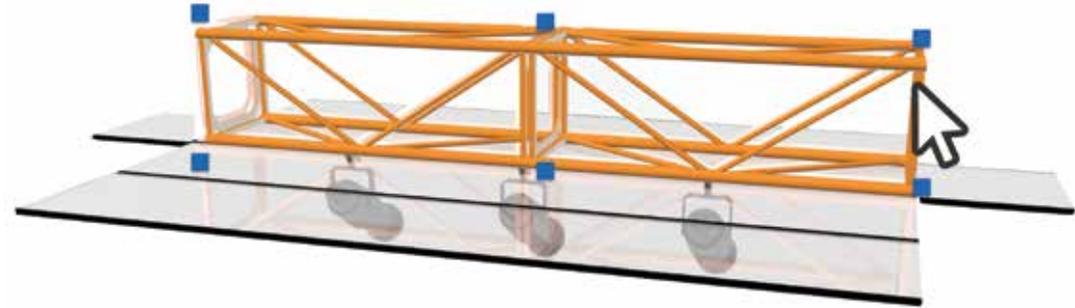
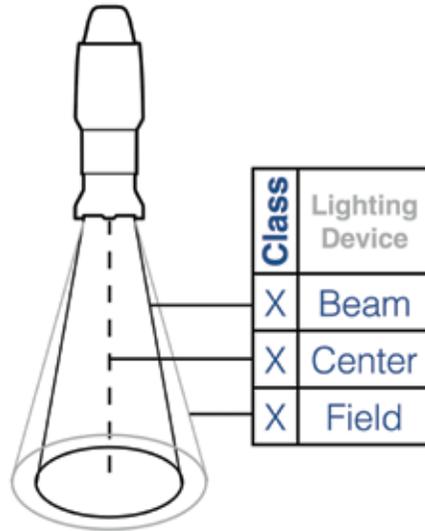
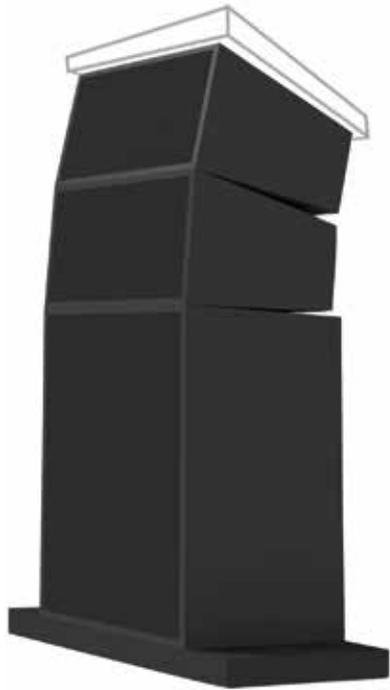


New Spotlight Objects

Create all the variations of the stairs, platforms, and ramps that are commonly used in temporary staging construction, complete with details like edging, legs, bracing, and casters with these new Stage objects. Whenever you want to model the supports for speakers, trusses, and other stage equipment with precision, pull out the new, adjustable-height Stage Lift object.

S D





Improvements to Existing Objects

Now make floor-mounted and horizontally oriented speaker rigs with additional mounting and orientation options in the Speaker Array object.

Enjoy the enhanced Video Screen, Blended Screen, Blended Projector, Television, and LED Screen objects with new screen options and greater command over a screen's borders and mounting, including rising from the deck.

Our device Label Legends are now flip-aware. This eliminates the need to create multiple variations of the same label.

The Lighting Position object now uses the position model geometry directly, eliminating the need to create a symbol first and navigate your way back to the symbol to edit the position geometry. Just select the position and click Edit.

In addition, you can now display the Lighting Position trim height as a heading in an associated instrument summary, making the instrument summary a complete report of individual positions sorted by height as part of the report of the entire show.

Eliminate typos and extra typing when you enter custom information in Lighting Device user fields with the new pop-up parameter lists.

Finally, the parts of a soft goods curtain or border, and also the beam angle, field angle, and center-line of lighting instruments can be shown or hidden so that you can fully control the visibility and look of each element individually and by class.

S D

“...BENEATH THE SURFACE OF AN ORDINARY EVERYDAY
NORMAL CASUAL CONSCIOUS EXISTENCE THERE LIES A
VAST DYNAMIC WORLD OF IMPULSE AND DREAM...”

// ROBERT EDMOND JONES



NEW CONTENT AND MOBILE APPS

You are receiving some great new material with 2015. We've added a long list of new symbol and texture libraries just for you, as well as introduced new cloud functionality and a new cloud app called Vectorworks Remote!

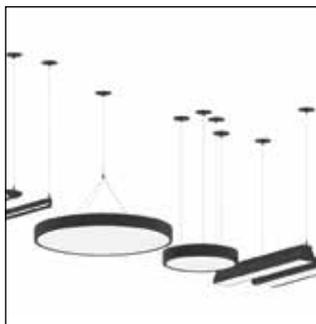
 New Content Libraries

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Vectorworks Nomad 3D Viewing

/

New Vectorworks Remote App



New Content Libraries*

Content libraries save you time with ready-to-use, high-quality resources that are sure to help put the finishing touches on your designs and presentations. Here's a list of the recently added content libraries:

- Arroway Textures™
Tiles 02 Textures
- Arroway Textures™
Image Fills III
- Arroway Textures™
Stonework Textures
- Prudential Lighting
lighting fixtures
- Landscape S-Details
– Drainage
- Entourage Vehicles 1
– European vehicles
- Blizzard Lighting
- Orchestral Layout 3D
Symbols
- HAGS Agito Playground
Equipment
- Stage Risers for Chorus
and Band
- Seating Risers
- Update to Atlas Sound
- Update to Phillips Vari-Lite
stage lighting

F A L S D R

*This is an exclusive benefit for Vectorworks Service Select members. Learn more at www.serviceselect.vectorworks.net.



Vectorworks Nomad 3D Viewing*

Our signature mobile app, Vectorworks Nomad, now supports 3D viewing of your Vectorworks files. Thanks to the Vectorworks Graphics Module you can fly over, walk through, and zoom in and out of your textured and shaded 3D models.

F A L S E D R

*This is an exclusive benefit for Vectorworks Service Select members. Learn more at www.serviceselect.vectorworks.net.

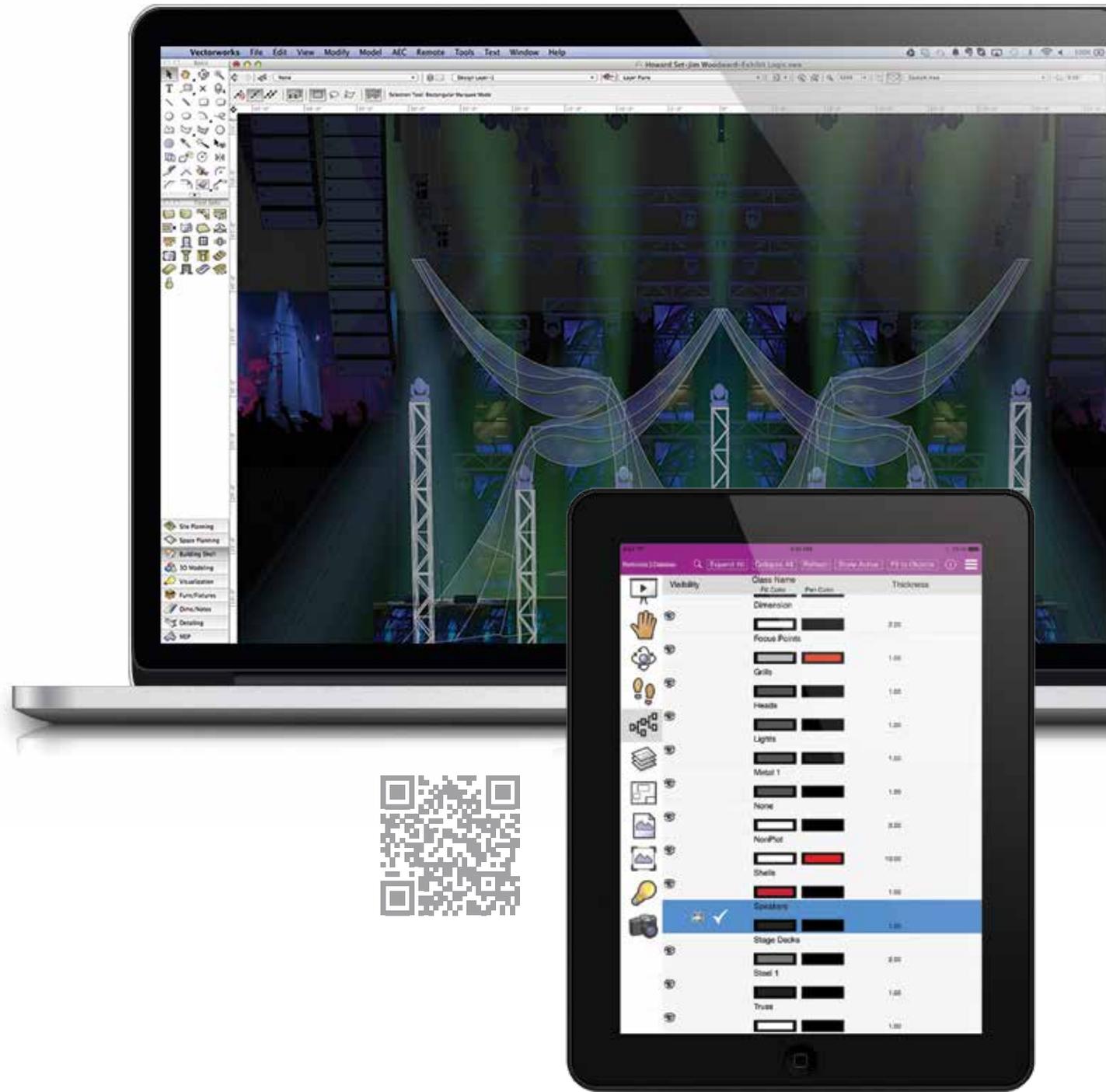




New Vectorworks Remote App

We've added a new mobile app for all Vectorworks users! The Vectorworks Remote App connects your mobile device to your Vectorworks desktop, using a remote connection plug-in. When using the app, you can interactively use the device like a remote to view, navigate, and present your designs without having to be at your desktop. This is great for group reviews and presentations. The list of available remotes in the app vary depending upon which Vectorworks products you own.

F A L S D R



VECTORWORKS 2015 FEATURE MATRIX

F Fundamentals

A Architect

L Landmark

S Spotlight

D Designer

R Renderworks

VECTORWORKS GRAPHICS MODULE

Wireframe and Planar Graphics Improvements	✓	✓	✓	✓	✓	
View Transition Animation	✓	✓	✓	✓	✓	✓
Preference for 3D Render Mode and Projection	✓	✓	✓	✓	✓	
Mesh Improvements		✓	✓	✓	✓	✓

BIM THAT WORKS FOR YOU

Curtain Walls		✓	✓		✓	
New Level Constraint System for Stories		✓			✓	
Rectangle Wall Mode	✓	✓	✓	✓	✓	
COBie Facilities Management for IFC Export		✓	✓		✓	
Stairs		✓	✓		✓	
Spaces		✓			✓	
Framing Objects		✓			✓	
Doors and Windows		✓	✓		✓	

TECHNOLOGY INTEROPERABILITY

SketchUp Import Improvement		✓	✓	✓	✓	
New Import/Export of STEP Files	✓	✓	✓	✓	✓	
Enhanced STL Export	✓	✓	✓	✓	✓	
DXF/DWG/DWF Improvements	✓	✓	✓	✓	✓	
Robust PDF Integration*		✓	✓	✓	✓	

3D MODELING AND RENDERING FEATURES

3D Hatching for Hidden Line Rendering						✓
OpenGL Improvements**	✓	✓	✓	✓	✓	✓
Renderworks Style Artistic Edges						✓
New Deform Tool	✓	✓	✓	✓	✓	

DOCUMENTATION AND GRAPHICS IMPROVEMENTS

Clip Cube Caps	✓	✓	✓	✓	✓	
Powerful Text Features	✓	✓	✓	✓	✓	
Publish Command		✓	✓	✓	✓	
Gradient Opacity Control	✓	✓	✓	✓	✓	
Support for Retina and 4K Displays	✓	✓	✓	✓	✓	

F Fundamentals

A Architect

L Landmark

S Spotlight

D Designer

R Renderworks

WORKFLOW EFFICIENCY GAINS

Worksheet Refinement	✓	✓	✓	✓	✓	
Help Where and When You Need It	✓	✓	✓	✓	✓	
Simplified Closing of Path-based Objects	✓	✓	✓	✓	✓	

SITE DESIGN ENHANCEMENTS

Varied Batter Slope			✓			✓
On-Screen Indicators for Site Model Errors		✓	✓			✓
Slope Aware Landscape Area Calculations			✓			✓
Roadway Object Improvements		✓	✓			✓
Grade Object Improvements			✓			✓
Custom Landscape Area Tag Edit			✓			✓
Easier Access to Plant Content Libraries			✓			✓
Tight Outline Option for Plant Object			✓			✓
Existing Tree Enhancements			✓			✓

ENTERTAINMENT DESIGN ENHANCEMENTS

New Stage Objects				✓		✓
Audio Tool Improvements				✓		✓
Video Tool Improvements				✓		✓
Flip Label Legend Control				✓		✓
Direct Editing for Lighting Position Objects				✓		✓
Height for Position Summary				✓		✓
Pop-up Parameter Types for Lighting Devices				✓		✓
Element Classing for Spotlight Objects				✓		✓

NEW CONTENT AND MOBILE APPS

New Content Libraries***	✓	✓	✓	✓	✓	✓
Vectorworks Nomad 3D Viewing***	✓	✓	✓	✓	✓	✓
Vectorworks Remote	✓	✓	✓	✓	✓	✓

*PDF/A is available in Vectorworks Architect, Landmark, Spotlight, and Designer.

**OpenGL Color and remove obsolete options are available in Vectorworks Fundamentals. Edges, textures and shadowing are features found only in Renderworks.

***Available exclusively to members of Vectorworks Service Select. Visit www.vectorworks.net/servicesselect to find out more.



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System Recommendations

Mac OS X 10.7.5 or later operating system
Intel Core 2GHz or better processor

Windows XP SP3 | Vista SP2 | Windows 7 SP1 | Windows 8 operating system
Pentium 2GHz or better processor

RAM

2GB minimum, 4GB highly recommended
8GB – 16GB recommended for large files and complex renderings.

Graphics*

1280 x 800 or greater screen resolution recommended
512MB VRAM minimum, 1GB+ VRAM recommended for high-quality rendering
Support for OpenGL v2.1 or greater for the best video card performance

* Like past releases, Vectorworks 2015 added improvements which placed still higher demands on graphic hardware. The performance and quality of the graphics provided by the new 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. In general, the more powerful your video card is, the better your Vectorworks experience will be.

For the most current technical information, please visit
our Knowledgebase at <http://kbase.vectorworks.net>.

See www.vectorworks.net/sysreq/ for updated information.