NEMETSCHEK
Vectorworks

Vectorworks® 2011
What's New Brochure

Vectorworks® 2011

What's New Brochure

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Color Key
Please refer to the guide to find out what features are in your Vectorworks product.

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This is a breakthrough new version, packed with more features than ever, like our powerful new CINEMA 4D render engine and easy-to-use 3D environment. With each of the applications in the Vectorworks® 2011 series, you'll get versatile, intuitive features—all packaged in a user-friendly interface, making your work easier than ever. You'll get robust new capabilities that are simple to implement and make your models highly accurate and ready to use in your BIM workflow. Not only did we address requests from our users, we've gone far beyond that, with new features and tools to make this the best Vectorworks release ever!

Make 3D as Easy as 2D

Vectorworks software is now, more than ever, a true 3D modeling environment. 2D planar objects can be created and edited within a planar context, where they display with all their attributes. You can work in Top/Plan view as usual, or switch to a 3D view and continue working in the same way, with the same tools and operations!
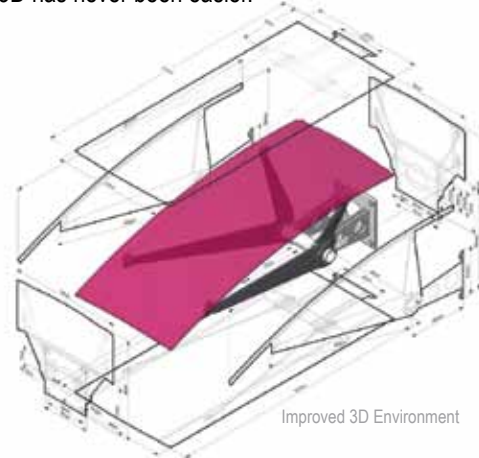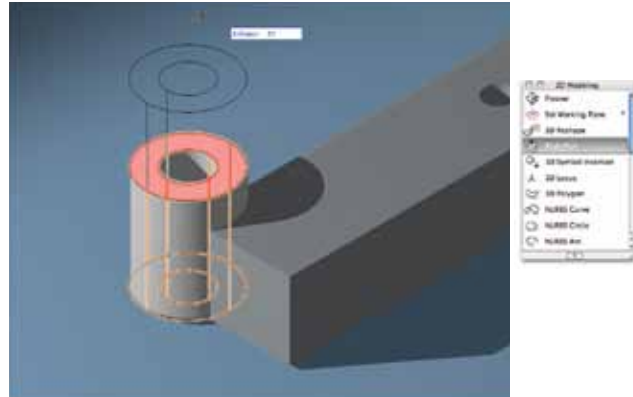
Improved 3D Environment
F A L S D ☐

The 3D environment is much more intuitive in the Vectorworks 2011 software. Working in 3D is similar to the ease of 2D, for a truly unified and simplified experience. You can:

• Draft any shape, on any plane, in any view, using the tools you already know how to use
• Edit planar objects from any view using familiar 2D operations
• Dimension objects in any plane
• Display graphic attributes of planar objects in any view

Working in 3D has never been easier.

Improved 3D Environment

Push/Pull Tool

Push/Pull Tool
F A L S D ☐

The tool's name tells you how it works—just "push" and "pull." The Push/Pull tool can edit solid faces and planar objects just like it would in the real world, so you get dynamically interactive feedback and instant results as you work.

Extract Planar Objects
F A L S D ☐

Now the Extract tool can create instant planar objects from a 3D surface in the Extract Surface mode, so you can simulate the appearance of a hatched 3D object.

Improved Face Selection Feedback
F A L S D ☐

The 3D Power Pack tools now display clear visual feedback about the face being selected, and a click anywhere on the face selects the face. So convenient in complex models!
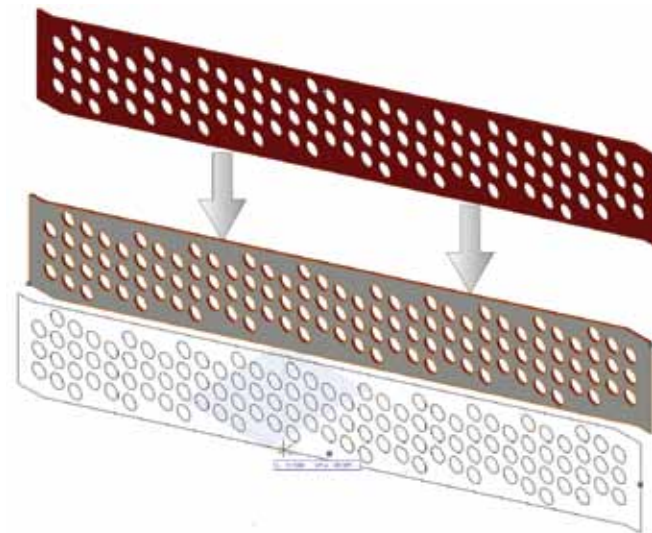
SmartCursor™ Relative Angles
F A L S D ☐

No need for mental arithmetic when you're drawing multi-segment shapes. This tool measures angles relative to the previously drawn segment—smart and simple.

New Snap Settings
F A L S D ☐

We make snapping easy. Now you can get desired snaps from the page area to help you place items relative to the page. If snapping is in the way, you can temporarily suspend all snapping, disable angle snapping from axes, suspend snap lines between snap points, and suppress extensions from smart points that are near the cursor.

Extract Planar Objects

Architect - Do BIM Better

Whether you're dipping your toes into Vectorworks' BIM-compatible technology or diving head-on into the process, you'll find we've made BIM better with version 2011. The Vectorworks Architect program is even easier to use, and its state-of-the-art capabilities, new tools, and features help you get your job done faster and better, while communicating and exchanging files with colleagues and partners.

Improved Space Object
☐ A ☐ ☐ D ☐

Get the power and flexibility to model spaces that are truly intelligent. Add a large array of BIM/IFC-compatible and GSA-specific details with functions like these:
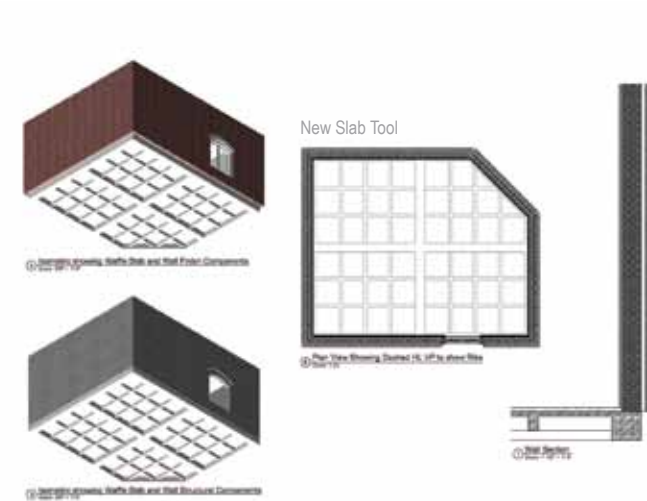
• Create the spaces with a single click according to the wall boundaries, or use familiar drawing tools
• Select from flexible and compliant boundary definitions and calculations, to easily meet jurisdictional requirements
• Transfer properties easily from one space to another
• Streamline your work with advanced auto-numbering, attributes, labeling, and occupancy definitions
• Increase productivity with our completely re-designed Space Settings interface

"There are so many major advances in this release it's hard to know where to start. What a great effort by the development team." - Nicholas Dunand, Freelance Designer
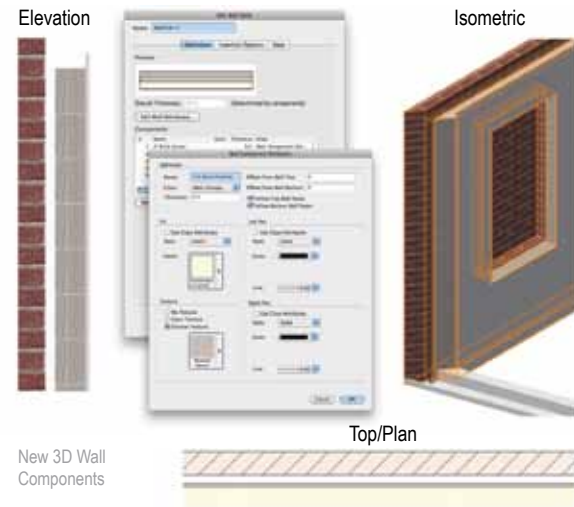

Improved Space Object

New Slab Tool
☐ A ☐ ☐ D ☐

Create BIM-compliant slabs that interact with bounding walls to make architecturally correct wall-floor intersections in both 3D and cross-section views. Individual slab components can "penetrate" the wall to make the proper connections. With this versatile tool, you can save slab styles to share as resources, create a slab with a single click based on a set of walls or as a polyline, and create projections, cut-outs, and depressions in a slab. New worksheets functions track slab component areas and volumes.

New 3D Wall Components
F A L S D ☐

Enjoy better wall modeling with more realistic section views and textured wall components. Wall components can be offset from the wall itself, and of varying heights for detailed wall views.

Elevation

Isometric

New Slab Tool

Top/Plan

New 3D Wall Components

Wall End Caps

☐ A ☐ D ☐

Create both standard and custom component wrapping at the ends of walls.

Design Layer Section Viewport
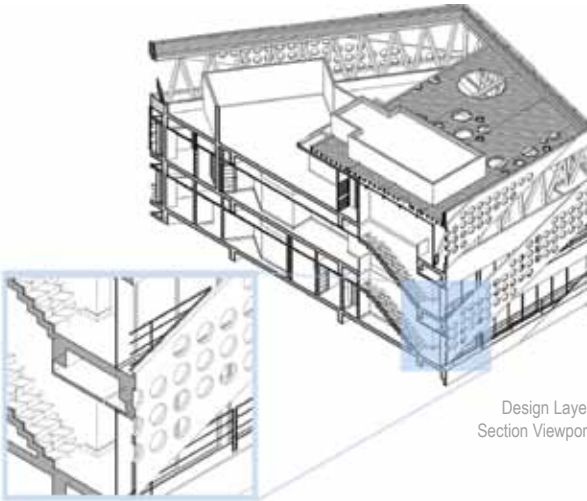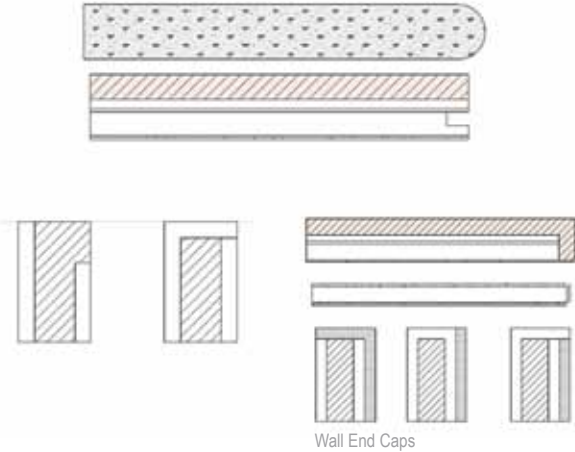
☐ A L S D ☐

Create section viewports directly on design layers so you can create elevation views right on the design layer. These section viewports can be referenced into other files for enhanced team workflows.
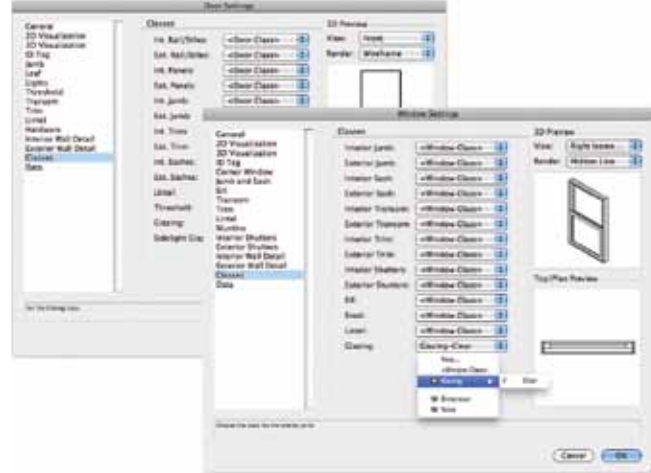
Open Database Connectivity (ODBC)

☐ A L S D ☐

Open up a world of possibilities when you retrieve data directly from an external ODBC system and use it to update record format fields within a drawing. Or vice versa—update an external database from Vectorworks record formats just as easily.

Design Layer
Section Viewport

Multi-file Batch Print

Multi-file Batch Print

☐ A L S D ☐

Save time by printing from sets of multiple saved views and sheet layers from Vectorworks files, whether open or closed. Do the same for PDF exports.

Improved Window and Door Interface

F A L S D ☐

You asked, and we listened. We've substantially re-designed the window and door interface for ease of use and fewer mouse-clicks when you create window and door objects.

Create Wall Using Core Component for the Control Line

F A L S D ☐

The straight and round wall tools now boast a new option that lets you set the wall control line relative to the core component.

Wall End Caps

Improved Window and Door Interface

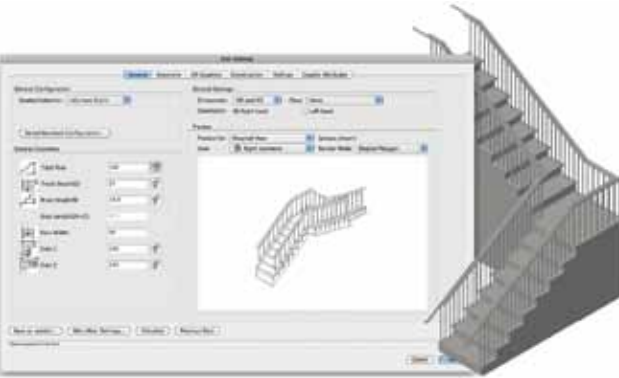Image courtesy of Legoretta + Legoretta

IFC Support Improvements
☐ A ☐ ☐ D ☐

As part of our ongoing commitment to support and enhance the BIM process, we've streamlined IFC export and import.
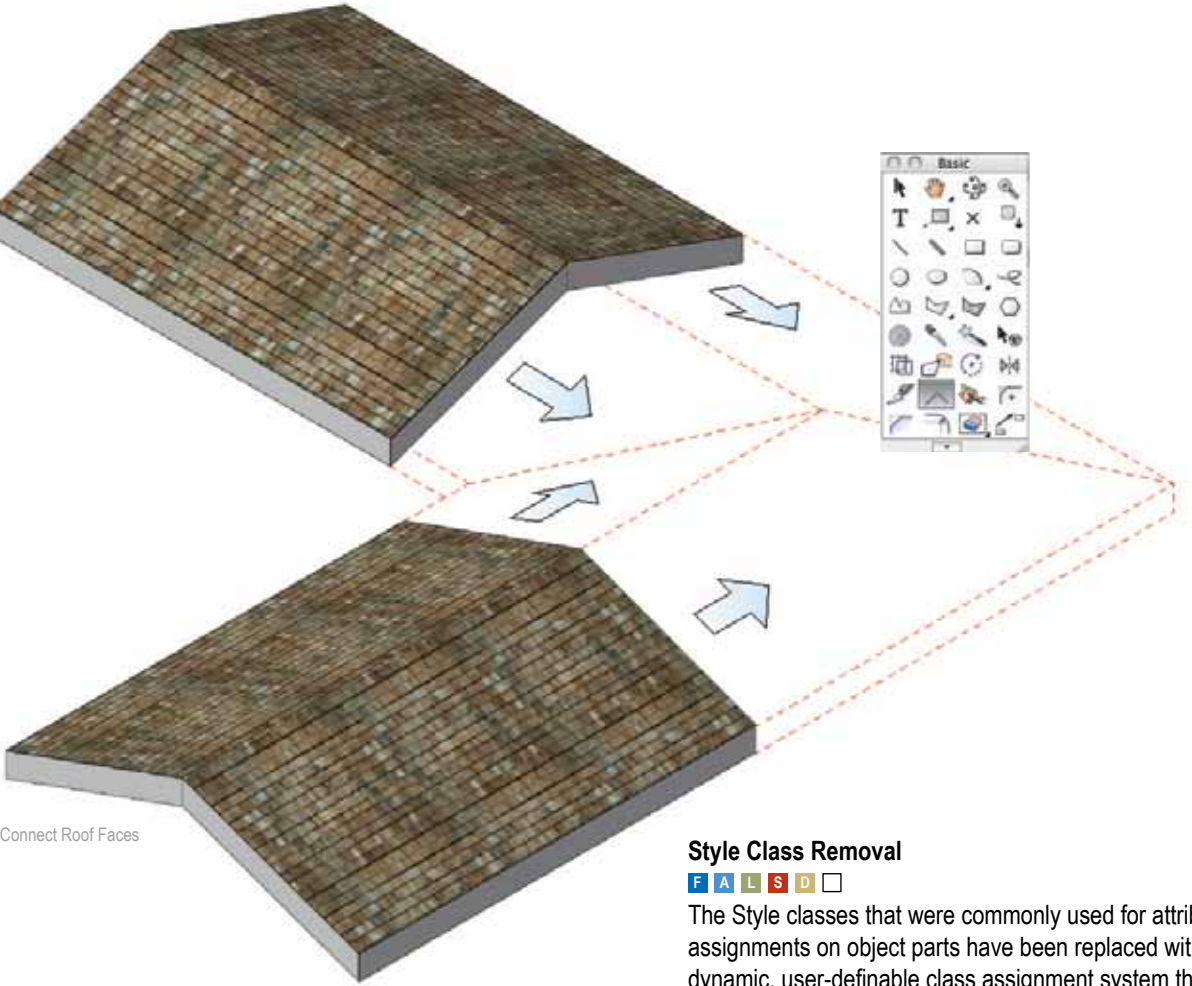
Improved Stairs
☐ A ☐ ☐ D ☐

You asked for more stair options…so we've streamlined the stair interface to create a simpler yet more robust Stair tool. New options and improvements include:

• General and Geometry settings dialog box enhancements
• Graphical attributes centralization
• Auto-classing and standard naming features
• Creation of straight stairs with two landings
• Support for flights and landings with different widths
• Stair text improvements
• New fixed angle winder configurations
• Stair railing enhancements

Improved Stairs

Connect Roof Faces

Style Class Removal
F A L S D ☐

The Style classes that were commonly used for attribute assignments on object parts have been replaced with a dynamic, user-definable class assignment system that responds to the current document's class list definitions and preserves class information in all standard editing contexts.

Connect Roof Faces
F A L S D ☐

Building complicated irregular roof faces just got a whole lot easier. With version 2011, you can use the Connect/Combine tool to trim or extend a roof face to another roof face.

Updated Content
☐ A ☐ ☐ D ☐

We've included new slab styles, slab textures, and slab hatches, IFC data for wall styles, default textures for 3D wall components, stair styles, and updated Pantone colors.
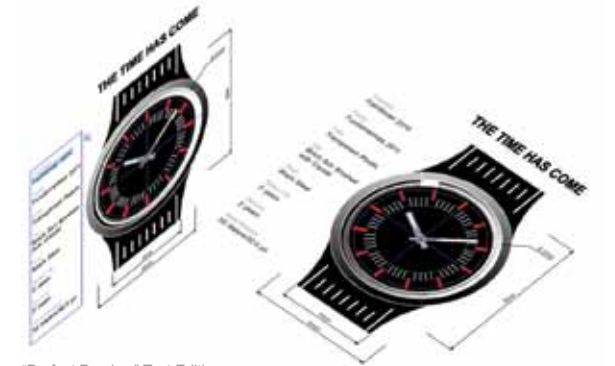
Exceptional Text Features

The Vectorworks 2011 version is packed with new and improved text capabilities. Text styles, perfect preview of text while editing, improved text fills, and easier access to check spelling are just some of the new options that make creating text even better.

"Perfect Preview" Text Editing
F A L S D ☐

We're taking the guesswork out of your work. With perfect text preview, text appears the same when editing as it does on the drawing, saving you time and effort. Rotated text can be edited in place, or un-rotated if necessary.

"Perfect Preview" Text Editing

Text Styles
F A L S D ☐

Use text styles to quickly and easily apply and maintain a consistent look to all text throughout a file, including text in sheet borders, dimensions, and callouts. Text styles are resources that can be shared among files to facilitate compliance with office standards.

"I don't think I ever saw such an overflow of fulfilled desires in a release. I have no idea how you managed to do all this in such a short time."
- Carlotta Birelli, Architect, Düttmann + Kleymann

Improved Text
F A L S D ☐

Check out these additional options:

• Use a "tight fill" for optimal text background fill effects
• Check spelling from the context menu during text editing
• Rotate text with the Selection tool
• Left and right justify your text at the same time
• Make units look more accurate with sub- and superscript options

Viewport Text and Object Scaling
F A L S D ☐

This advanced viewport property scales objects that surround text along with the text, such as the circle that surrounds a reference marker.

Tap into Power Tools

Both the larger and smaller additions we've made to the Vectorworks 2011 program will make your work much more efficient. These power tools all have one thing in common—they help you power through your workflow with innovative technology.
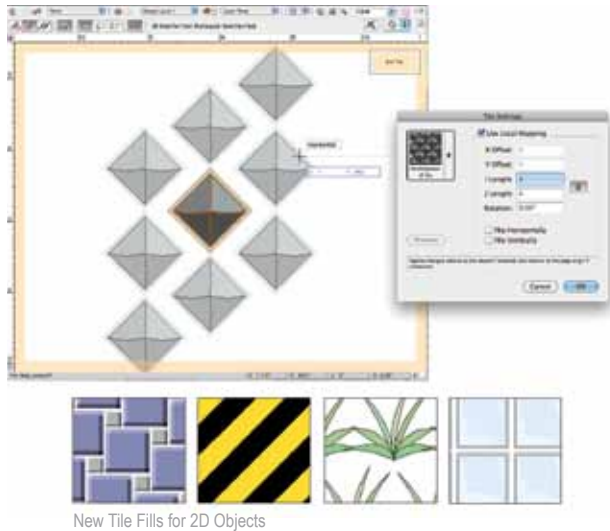
New Scalable Symbols
☐ A ☐ S D ☐

Now you can adjust the scale of a symbol right from the Object Info palette, without having to create a new symbol for each size that you need. When you import symbols, you won't get a new symbol for each size, simplifying your files. That's not all—symbols can now be page-based or world-based when created, so if you have an annotation symbol, it will always display at the size you want.

New Scalable Symbols

New Tile Fills for 2D Objects

New Tile Fills for 2D Objects
F A L S D

This creative new fill type will amaze you! Enjoy creating beautiful tiled patterns on planar objects.

Quick Prefs
F A L S D

This bar tops the Vectorworks 2011 interface, so you can modify preferences and access commonly-used settings through shortcut buttons. It will top your list too.

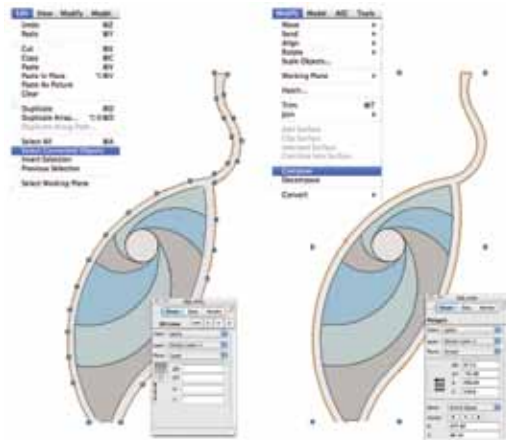## New Select Connected Objects Command
F A L S D

Here's a handy command that will save you time. Select one or more objects and all other objects that are connected end-to-end are also automatically selected. It then takes just a click to compose them into a single object. This is especially useful for imported DWG survey drawings.

General Dimension Improvements
F A L S D

Simplify your work with these new features:

• Related controls are grouped together on the Object Info palette
• Assign text styles to custom dimension standards
• The Selection tool modifies several dimensions or witness line offsets at one time for linear and chain dimensions
• The Floating Data bar displays useful information when you edit dimensions

New Select Connected Objects Command

Improved Dimension Leader Line
F A L S D

Now you can add leader lines to dimension text, so it's easy to know which dimension and text go together after text has been moved.

Saved Settings for the Eyedropper Tool
F A L S D

We've added more functions for transferring attributes, so you can:

• Save and manage sets of attributes to transfer
• Quickly switch between saved sets from the Tool bar

New Even Divide Command
F A L S D

This convenient command divides lines, arcs, circles, and rectangles into even subdivisions.

Line from Center Mode
F A L S D

This new Line tool mode adds the option to draw a line starting from its center.

Line from Center Mode   Even Divide Command

New Create Dividing Lines Command
F A L S D

Quickly create lines or loci that evenly divide the space between two existing lines.

Scaled Line Creation
F A L S D

This new option for the Line tool scales a line by a specific value as it's being drawn.
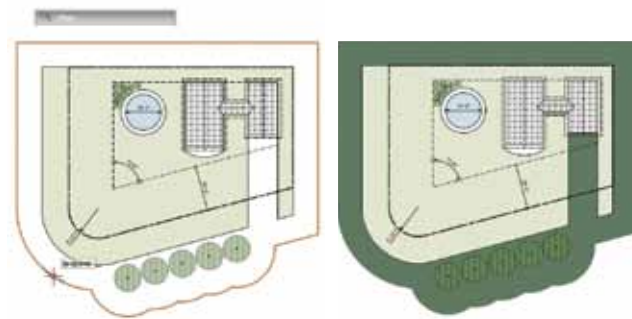
New Triangle Tool
F A L S D

Add the new Triangle tool to your tool set to quickly create triangles by a variety of methods.

New Roof Slope Preference
F A L S D

Use traditional rise over run formulas to define or edit roof slopes.

Offset Group Improvements

Saving Render Settings in Saved Views
F A L S D

When you create saved views, you can choose to save the render settings too. This is an easy way to restore custom rendering options!

Improved Witness Line Length Control
F A L S D

Now you can override dimension standards by editing the length and offset of specific witness lines.

Improved Nudge for Objects in Walls
F A L S D

It's now possible to nudge objects inside walls. We know that every detail counts!
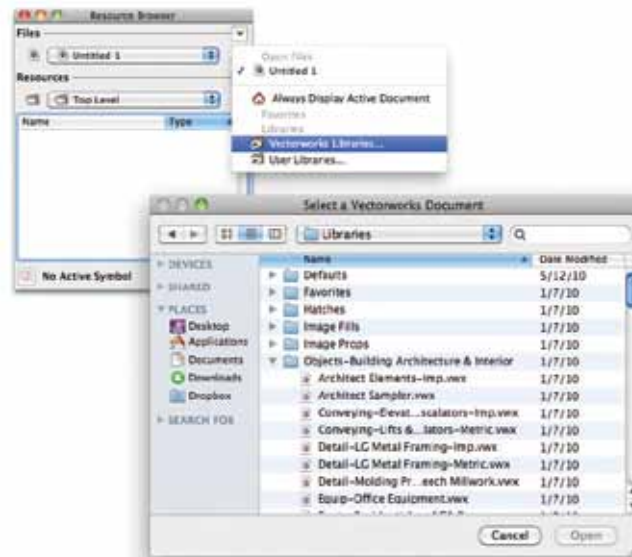
Offset Group Improvements
F A L S D

This improvement to the Offset tool allows you to offset grouped objects. You can set the offset to be outside or within the group.

Rename Referenced Resources
F A L S D

We've made it easy to rename most types of referenced resources, without having to find and open the associated files.

Resource Browser Library Access Improvements

New Option to Replace Existing Classes During Class Import
F A L S D

When you import a file, you can now replace existing classes in a drawing with imported classes of the same name. This is very useful for enforcing office standards for classes.

Thousands Separators in Dimension Text
F A L S D

Use regionally-appropriate thousands separators, like the comma in the number "1,000," in your dimension values.

Number-Aware String Sorting
F A L S D
Your alphanumeric list will sort correctly, whether it contains a 1 or 01!

New Worksheet Inquiry Functions
F A L S D
Reports can include exact object coordinates.

Improved Mirror Tool for Objects in Walls
F A L S D
The Mirror tool can now mirror objects that are inserted into straight or round walls.

Resource Browser Library Access Improvements
F A L S D
It's much easier to find the comprehensive libraries of resources that ship with the Vectorworks 2011 software. Use shortcuts to the Vectorworks libraries, workgroup or user folders to find what you need in no time.

Disassociate Dimensions Context Menu Command
F A L S D
You now have the option to disassociate a dimension from its associated object from the context menu.

"I used to do all my modeling with different software, but I have switched over to Vectorworks for everything now. As this whole BIM thing becomes more of a reality for me, working in Vectorworks from the beginning is a much better workflow. The Vectorworks tools have advanced enough in the last few versions that any advantage I used to see in the other program is gone." - Patrick B. McConnell, Vector Depot

Simplify File Exchange

With the new Vectorworks 2011 version, dramatically smaller file sizes and ever-increasing import and export support makes exchanging files with colleagues easier than ever.

Improved File Sizes
F A L S D
Imported file sizes have been substantially reduced for DXF/DWG files with significant numbers of 2D polylines with line or arc segments, 3D polygons, 3D circles, and hatched objects with multiple boundaries and islands.
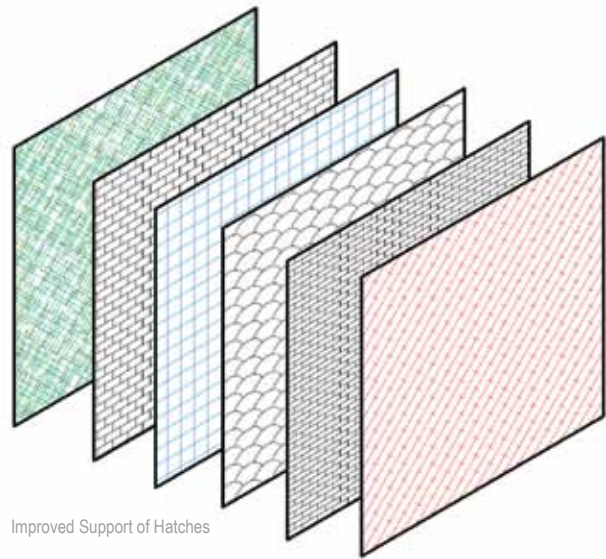
Improved Support of Hatches
F A L S D
Imported DXF/DWG hatches of different scales and angles import as a single Vectorworks hatch definition. Imported hatches with different colors import as different Vectorworks hatches.

Improved Export of Planar Objects
F A L S D
So that planar objects display properly when exported, design layer objects are exported in Top view and the DXF/DWG view is changed to match the view in the original Vectorworks file. Planar objects now display on the appropriate plane, not as if they are on the screen plane.

Improved Support of Hatches

DXF/DWG Export of Design Layer Viewports
F A L S D
Define Design Layer viewports as either separate DWG external referenced files or as entirely bound into the current master DXF/DWG file.

Import/Export Support for Arc Length Dimensions
F A L S D
Import or export arc length dimensions with full support.

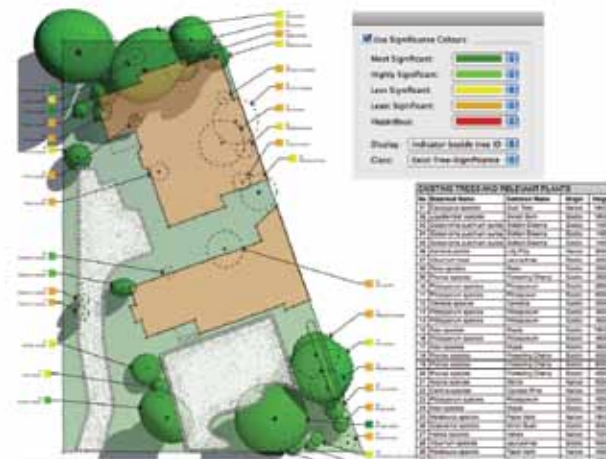### ISO Dash Styles
F A L S D
Default dash styles are now named as defined by International Organization for Standardization (ISO).

Landmark

With new tools to further assist in the creation of plans and to simplify their interpretation, the new Landmark 2011 version just makes change easy. Try your hand at converting a 3D locus to a stake object to begin creating a site model. Site models update faster than ever before, and contour colors make your drawings and presentations as beautiful as their inspiration. With the Vectorworks Landmark 2011 software, you can take your plans even further than before.

New Existing Tree Tool

"All new Renderworks is fantastic! I LOVE the simplified interface - it will make it so much more accessible to some of my more novice users." - Tamsin Slatter, Vectorworks Trainer

New Retaining Wall Site Modifier
L
Architectural walls can be used to create retaining wall site modifiers, increasing the accuracy of cut and fill calculations for the site model. This new parametric object allows you the flexibility to sculpt the terrain around the wall.

"An extremely useful new capability. Fabulous!" - Dan Jansenson, Architect & Author

New Existing Tree Tool
L
Document existing site trees for evaluation before construction work or landscaping, or use it for management and reporting purposes.
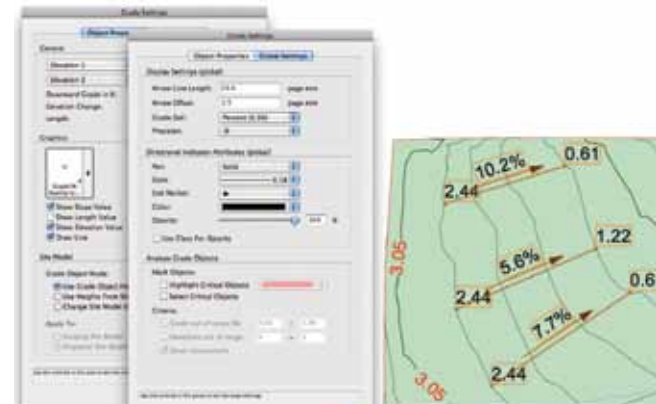
New Grade Tool
L
This innovative new tool creates a parametric grade object to annotate terrain slopes on site plan documents. Grade objects can be networked together to show slope characteristics across a surface.
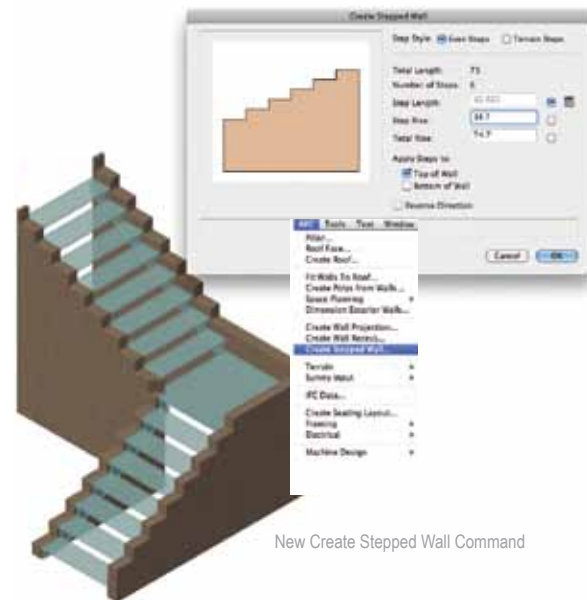
New Create Stepped Wall Command
A L
Now a simpler method for creating a stepped wall that contains wall peaks at even intervals—create with a constant rise at each interval, or one with a variable rise conforming to the underlying terrain.

New Grade Tool

New Create Stepped Wall Command

Image courtesy of Michael Schanné

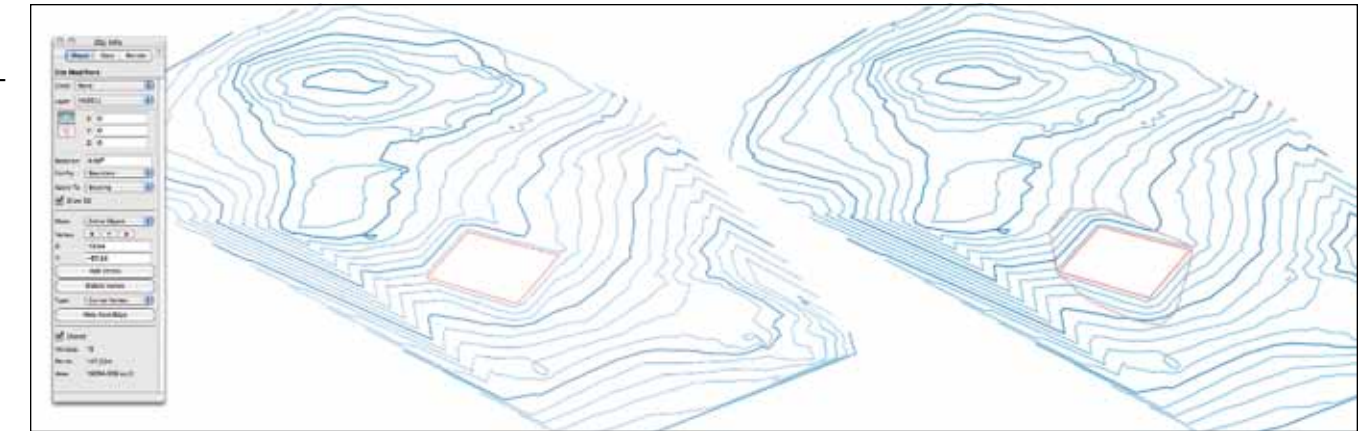### New Stake Object from 3D Locus Command
☐ ☐ L ☐ D ☐

Convert 3D locus points to stake objects, which can store Landmark-specific information and are recognized by the site model as modifiers. This is a great way to quickly begin creating a site model.

Site Model Improvements
☐ A L ☐ D ☐

Site models are more robust than ever with these enhanced options:

- Easily map aerial images onto site models
- Use color to illustrate grade changes between contour lines
- Display cut and fill with a new option
- Pick different colors to delineate existing and proposed major/minor contours, and enjoy the smoother 2D contour display improvements
- Get the list of all calculations used in the creation of cut and fill volume so you can provide verification of your calculations to those reviewing your site model

Improved Display of Site Modifiers in 3D

Hardscape Component Classing

Hardscape Component Classing
☐ ☐ L ☐ D ☐

Now you can assign classes to both the main area joint pattern and the border joint pattern of a hardscape to control the visibility of these components separately from the hardscape object.

Improved Hardscape Settings
☐ ☐ L ☐ D ☐

With several informational fields such as footprint area, main perimeter, and border perimeter, it's easier than ever to create accurate materials and costing worksheets.

"Kabaamm!!! This one tool is worth the upgrade...Thank you, thank you, thank you."
- Stanley Paul Rostas, Partner, Shook Kelley

New Apply Saved Hardscape Settings to Existing Hardscapes
☐ ☐ L ☐ D ☐

Once a hardscape is set to the desired appearance, save it as a resource. You can then drag the resource onto a different hardscape to automatically apply your saved settings in just seconds!

Improved Display of Site Modifiers in 3D
☐ A L ☐ D ☐

Boundary, grader, and texture bed site modifiers now have an improved display in 3D views.

Updated Content
☐ ☐ L ☐ D ☐

We've added hardscape paver default classes, grade markers, existing tree symbols and worksheets, and updated Pantone colors.
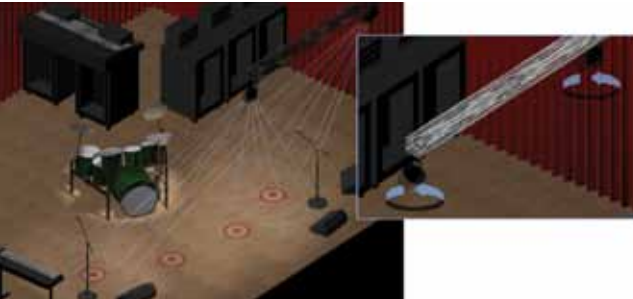
Spotlight

With the Vectorworks Spotlight 2011 version, you'll see changes that will help you design lighting, scenery, sets, corporate events, theatrical productions, or exhibits with minimum time and maximum ease. New features like better focus point support make visualizing your models more intuitive. New seating layout options give you more options when designing events and shows. And new Lightwright™ enhancements make sharing information very simple. With Vectorworks Spotlight 2011 software, your designs will be stronger and smarter than ever.
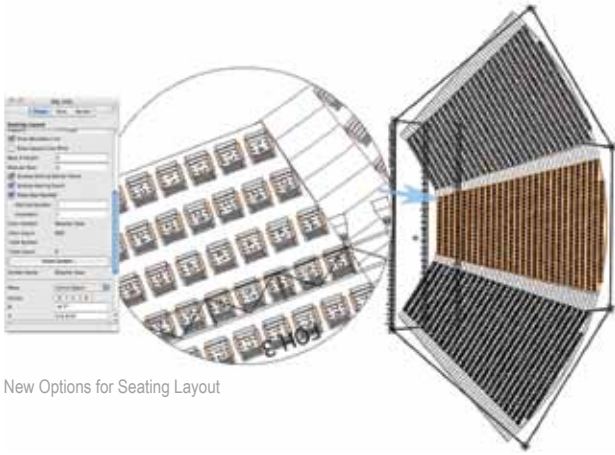
Better Focus Point Support for Lighting Instruments
☐☐☐ S D ☐

Now you can focus light exactly where you need it most. Lighting instruments and everything associated with them—their light source, accessories, associated 3D geometry, and beam—now always point toward your desired focus point, both when there are actual focus point objects or virtual representations displayed in design layer viewports. No other software package can boast the ability to properly represent a lighting design with non-horizontal lighting positions in Top/Plan view and then render the model in 3D.

Better Focus Point Support for Lighting Instruments

New Options for Seating Layout

Lightwright Data Exchange Improvements
☐☐☐ S D ☐

The automatic data exchange with Lightwright can now:

• Place new lights created in Lightwright between existing lights on a lighting position
• Allow Lightwright to set the selection state of lighting devices when updating

Ganging Tool Preferences Dialog Box
☐☐☐ S D ☐

We added a Preferences dialog box to the Ganging tool so you can set preferences for the two-fer object before it is created.

Automatic Position Sensing Preferences
☐☐☐ S D ☐

Gain even more control over lighting device placement by disabling the automatic positioning option and specifying a custom pick radius.

New Options for Seating Layout
☐ A ☐ S D ☐

Now you can note the seating section name, seating count, and seat numbering along with the starting seat number and seating number incremental value on your drawing.

Improved Focus Point Object Graphics
☐☐☐ S D ☐

Choose from new options to control the visibility of text and select from a library of default content graphics for the Focus Point object.

Updated Content
☐☐☐ S D ☐

The Create Event Seating command accesses additional default content through the seating layout defaults library. We've also updated Pantone colors.
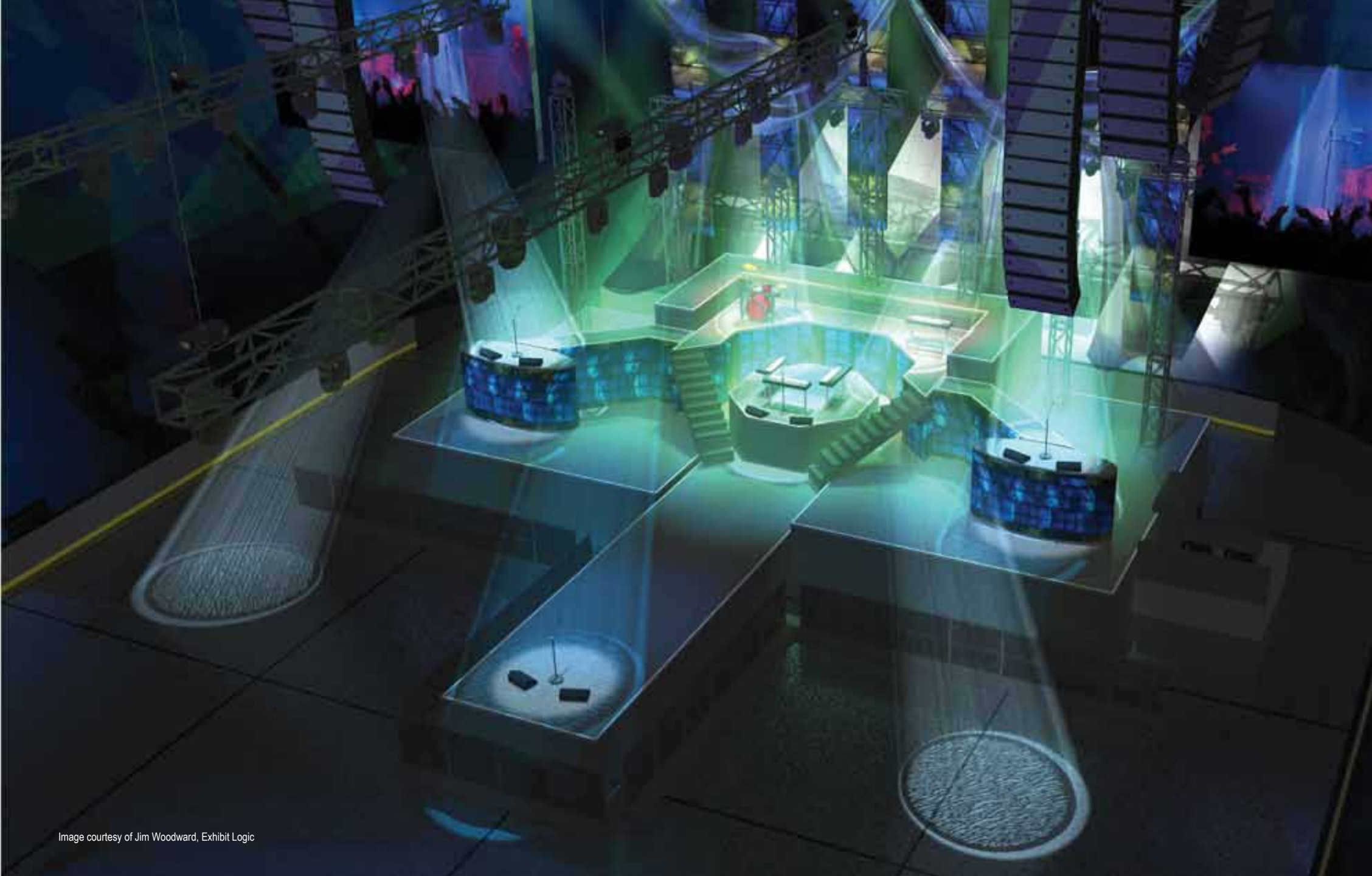
Image courtesy of Diana Kesselschmidt

Image courtesy of Jim Woodward, Exhibit Logic

Renderworks

We're thrilled to introduce you to the new Renderworks 2011 version, which includes a robust new CINEMA 4D render engine, camera views in viewports, and more intuitive texture mapping. If you think that Renderworks looked good before —wait until you see this!

New Renderworks with CINEMA 4D Render Engine
☐ ☐ ☐ ☐ ☐ ℝ
Introducing the award-winning CINEMA 4D, the exciting and powerful new 64-bit rendering engine in the Renderworks 2011 version. Together, they provide dramatic speed and quality gains, with a robust integrated rendering option that's right inside your Vectorworks application. You'll be blown away by simpler, more intelligent controls, and render speeds that are five to seven times faster for indirect lighting rendering!

New Send to CINEMA 4D Command
☐ ☐ ☐ ☐ ☐ ℝ
Now you can seamlessly export your Vectorworks model directly to any CINEMA 4D product, giving you access to the same features used to create many of Hollywood's blockbuster movies.

Image courtesy of Grant van Zevern, GvzMedia

More Than Three Times Faster (2.4GHz Core 2 Duo - 4GB Memory - OSX 10.6.4)

Vectorworks 2010 - Custom Renderworks
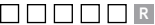Render Time: 48 minutes and 23 seconds

Vectorworks 2011 - Custom Renderworks
Render Time: 12 minutes and 36 seconds

Linking Camera and Viewports
☐ ☐ ☐ ☐ ☐ ℝ
We've given you what you asked for! Now, when you link a camera to a viewport, the viewport's view derives from the camera's view. And, the camera view can be edited from the viewport.

Attribute Mapping Tool Improvements
☐ ☐ ☐ ☐ ☐ ℝ
You can edit texture mapping directly in the drawing window with simplified tool controls and if the selected part or object has an unsupported mapping type, you're automatically assisted with switching to a supported type.

Move Forward with Vectorworks 2011

The new Vectorworks 2011 version will make your work easier. Take your designs to the next level with new tools and capabilities that enhance the 3D environment, improve the BIM workflow, offer more text options, improve usability, simplify DXF/DWG exchanges, and give you more features, content, control, and flexibility than ever. Get started at www.vectorworks2011.net.

Vectorworks Software
Realize Your Most Inspired Visions

System Recommendations
Mac OS X 10.5.7 or later
QuickTime
Intel Core 2GHz or better
DVD-ROM drive (dual layer)
Screen resolution 1280 x 800
Display color depth 15 bit or higher

Windows XP SP 3
Windows Vista SP 2
QuickTime 7.6.0 to 7.6.6
(higher versions not recommended)
Pentium 2GHz or better
DVD-ROM drive (dual layer)
Screen resolution 1280 x 800
Display color depth 15 bit or higher

Vectorworks
RAM 1GB minimum, 2GB recommended
Hard drive space 10GB free

Vectorworks with Renderworks
RAM 2GB minimum, 4GB recommended
Hard drive space 10GB free

Vectorworks Designer
RAM 1GB minimum, 2GB recommended
Hard drive space 10GB free

Vectorworks Designer with Renderworks
RAM 2GB minimum, 4GB recommended
Hard drive space 10GB free

See www.vectorworks.net/sysreg.php for updated information.

FSC Mixed Sources
FPO