

Accelerate Your Designs

Discover what's new in Vectorworks 2012.

Vectorworks® 2012

Vectorworks® 2012

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Color Key

Please refer to the guide to discover what features are in your Vectorworks product.

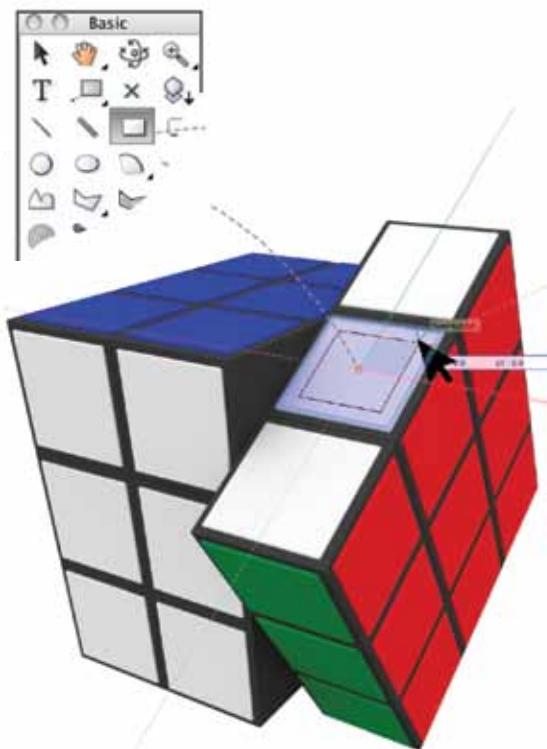
- F** Vectorworks Fundamentals
- A** Vectorworks Architect
- L** Vectorworks Landmark
- S** Vectorworks Spotlight
- D** Vectorworks Designer
- R** Renderworks

Accelerate Forward

Wondering what's new? We've added over 100 new features and improvements to save you time and help you bring your visions to life. With the new technology in Vectorworks 2012 software, you can create whatever you dream up—with even greater efficiency and increased productivity. Our flexible, intuitive, and smart features continue to give Vectorworks applications the edge in 3D modeling, BIM, and integrated rendering, in addition to site and entertainment design. You get better collaboration, easy usability, and seriously efficient features. So where would you like to take your work? Where will it take you? Start here. Accelerate your designs in 2012.

Best in 3D Modeling

There's no competition when it comes to our 3D capabilities. Some of our new features calculate data such as coordinates and time zones so you don't have to. Some create working planes as you slide your cursor across the model. And some reveal the objects hidden behind others so you can easily select them. But all have been created to allow you to model your visions while giving you the ease of use that you've come to expect from Vectorworks applications.



Modeling tools automatically infer the plane you want to draw on.

Automatic Working Plane

F A L S D □

Significantly improve your modeling efficiency by using modes in modeling tools to automatically infer working planes as you move your cursor around the model. Simply select a tool and click to create objects on any 3D surface.

Instant Push/Pull Mode

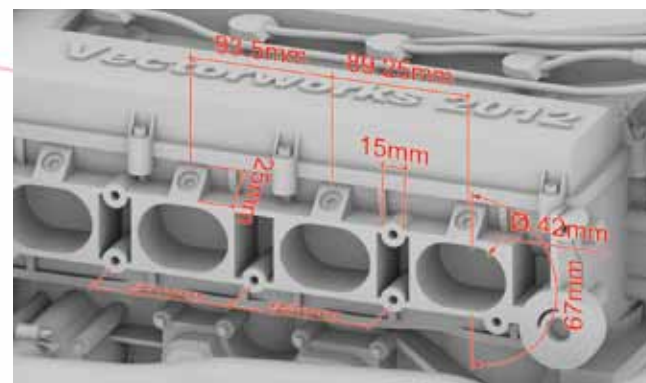
F A L S D □

We added this user-friendly feature to our planar tool set so you can instantly push or pull profile geometry without additional steps. It's a great time saver.

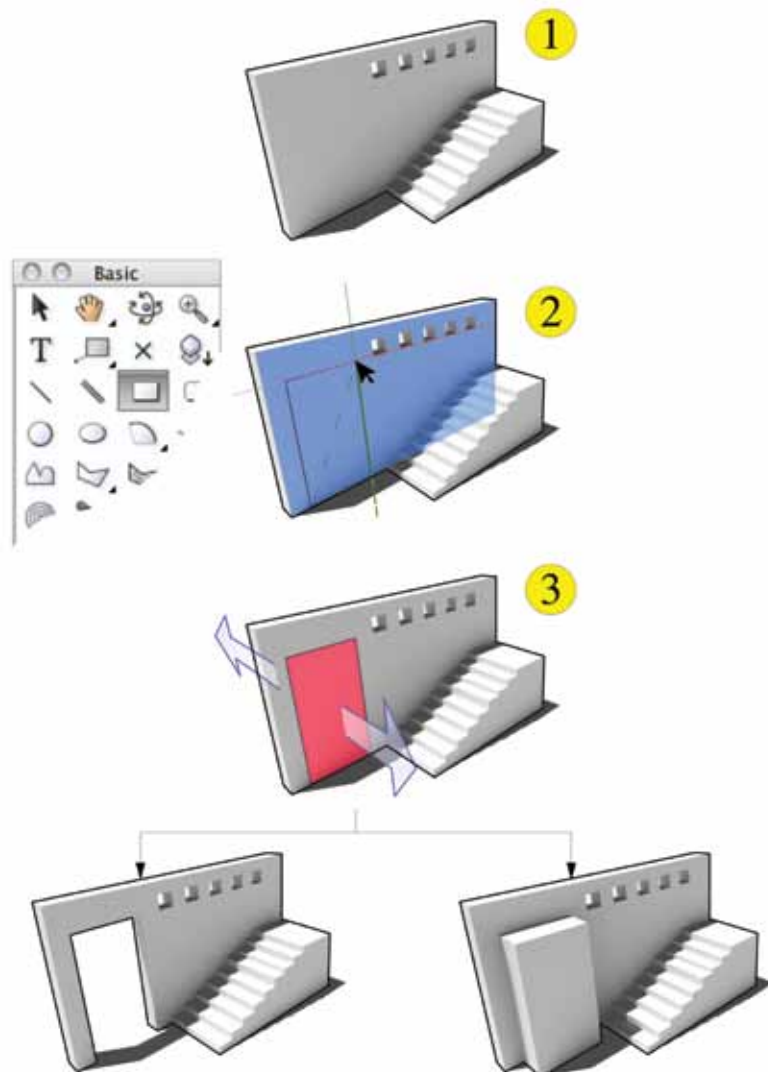
Optimized 3D Dimensions

F A L S D □

It's easy to dimension 3D features by sensing the 3D working planes with the mouse. Simply click on 3D features with your constrained, angular, or radial dimension tools and dimension away.



Dimension on any plane in 3D.



Instant Push/Pull Mode. It's as easy as 1, 2, 3.

Heliodon

F A L S D □

With this easy-to-use tool, you no longer need to know coordinates or a time zone to place a Heliodon object with a directional light when it contains attached data like the region and city. You can create QuickTime solar animations and create "view from sun" animations too.

Unified Reshape Tool

F A L S D □

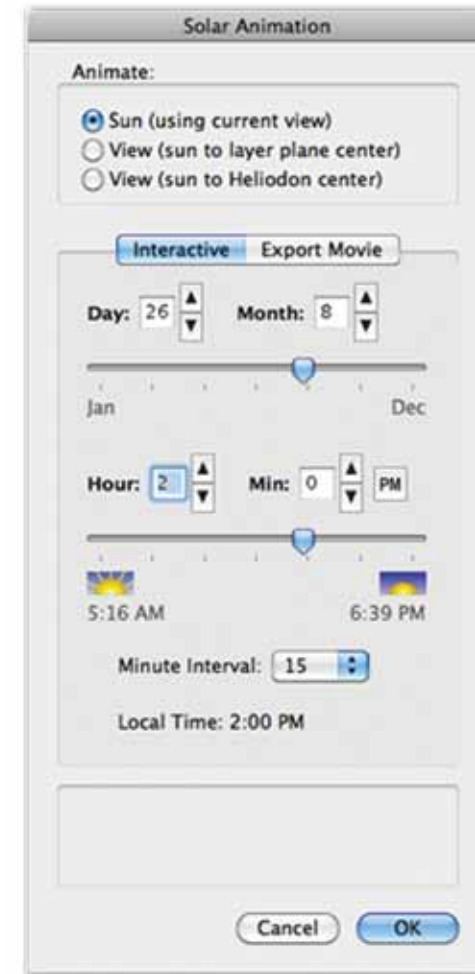
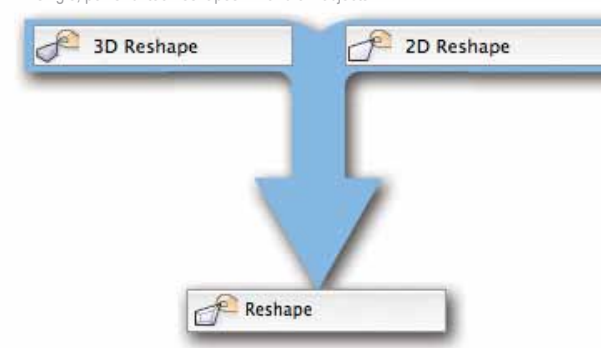
The 2D and 3D reshape tools have been consolidated into a single powerful tool that reshapes both 2D and 3D objects.

Reshaping Multiple Vertices of NURBS Curves

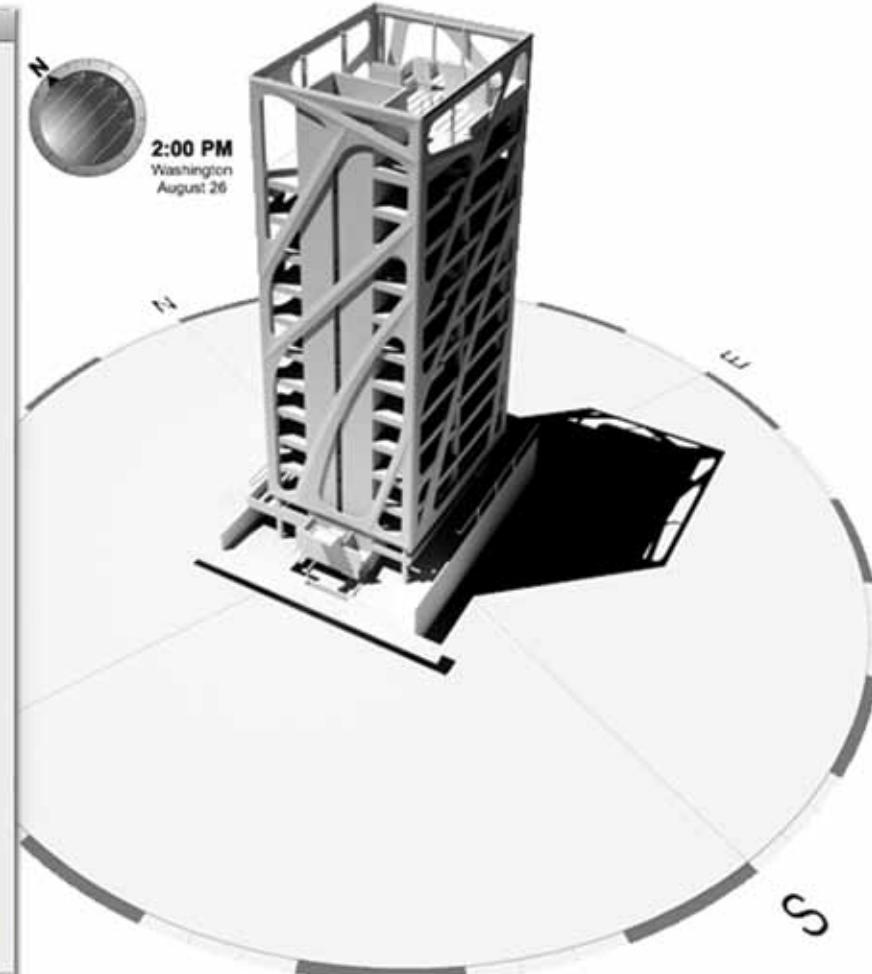
F A L S D □

With one drag, you can reshape NURBS curves with great precision and control by moving individual or multiple vertices.

A single, powerful tool reshapes 2D and 3D objects.



Place a Heliodon object to view accurate shadows for the real world time and location of your project.



Model courtesy of Modo Forma.

Better BIM

Having powerful BIM capabilities is only part of the story. We strive to significantly improve our capabilities with new technology as it is discovered. Whether we're giving you more freedom to create customized stairs, doors, and windows, or automating tasks so they move with your cursor, better BIM is all about making your work more efficient and more productive. These new features are groundbreaking in their technology, but jaw dropping in their simplicity. While the real power of BIM is behind the scenes, the results will shine through in your work.

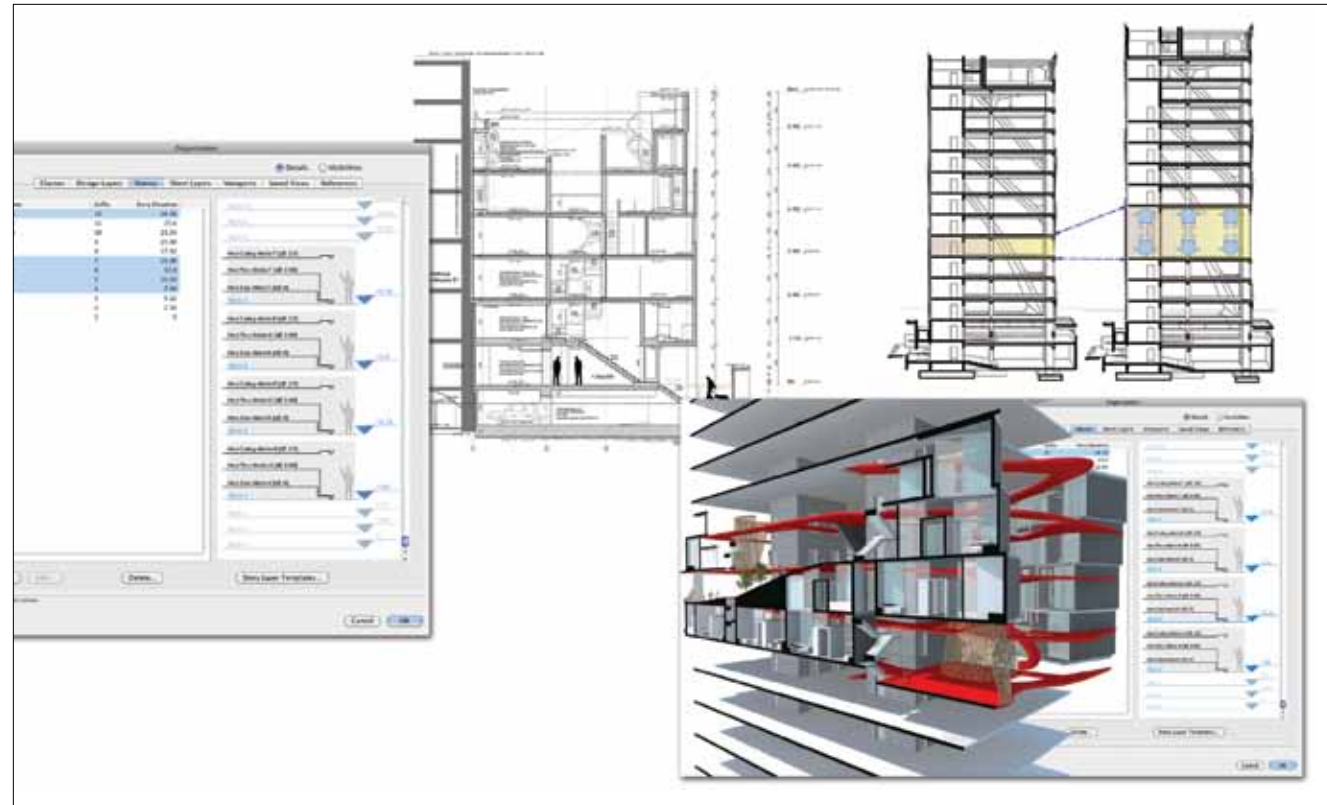
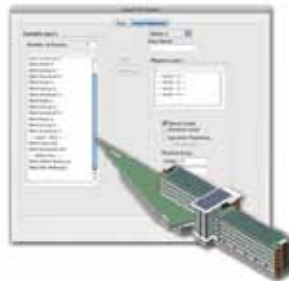
Stories

Now it's even easier to make changes that move with your design. You can express the elevation of design layers relative to a story elevation. As you edit the story elevation, all design layers with that story adjust their elevation by the same amount. Optionally, design layers with any story can change up or down, as well. When you place story 'aware' objects like walls, columns, slabs, and stairs on a layer, their top and/or bottom elevations can be linked to the elevation of any design layer with the same story or span to any design layer with an adjacent story.

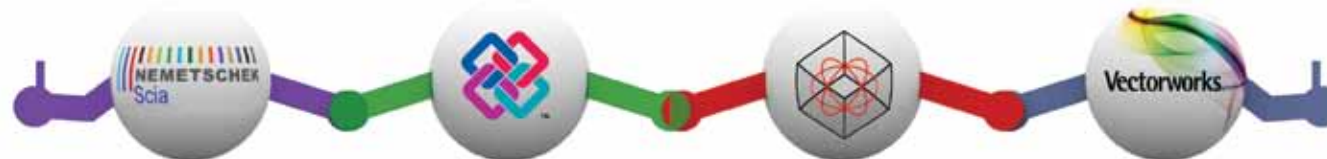
IFC Support Upgrades

Vectorworks Architect's support of the openBIM file standard, IFC, allows data and geometry to be input or imported, stored, retrieved, and exported in a much cleaner fashion.

IFC Support upgrades provide a clean experience for inputting, storing, and exchanging model data in the openBIM file standard.



Easily manage the elevations of building elements with the Stories feature. Image courtesy of Steve Socha.



The Open BIM file standard, IFC, enables valuable and clean exchange of your building information model between Vectorworks Architect and other software used in the building process, such as Scia Engineer for structural modeling and analysis and DDS-CAD for M/E/P modeling.

Component Joins at Wall Y-Joins

With more robust wall joining you won't have to fix component joins. Now you'll quickly achieve joining of walls and wall components no matter what kind of connection you wish to make.

Slab Support in Create Joists from Poly

The "Create Joists from Poly" command can now be used with the slab object to provide a boundary polygon for the slabs.

Window Sash Offsets

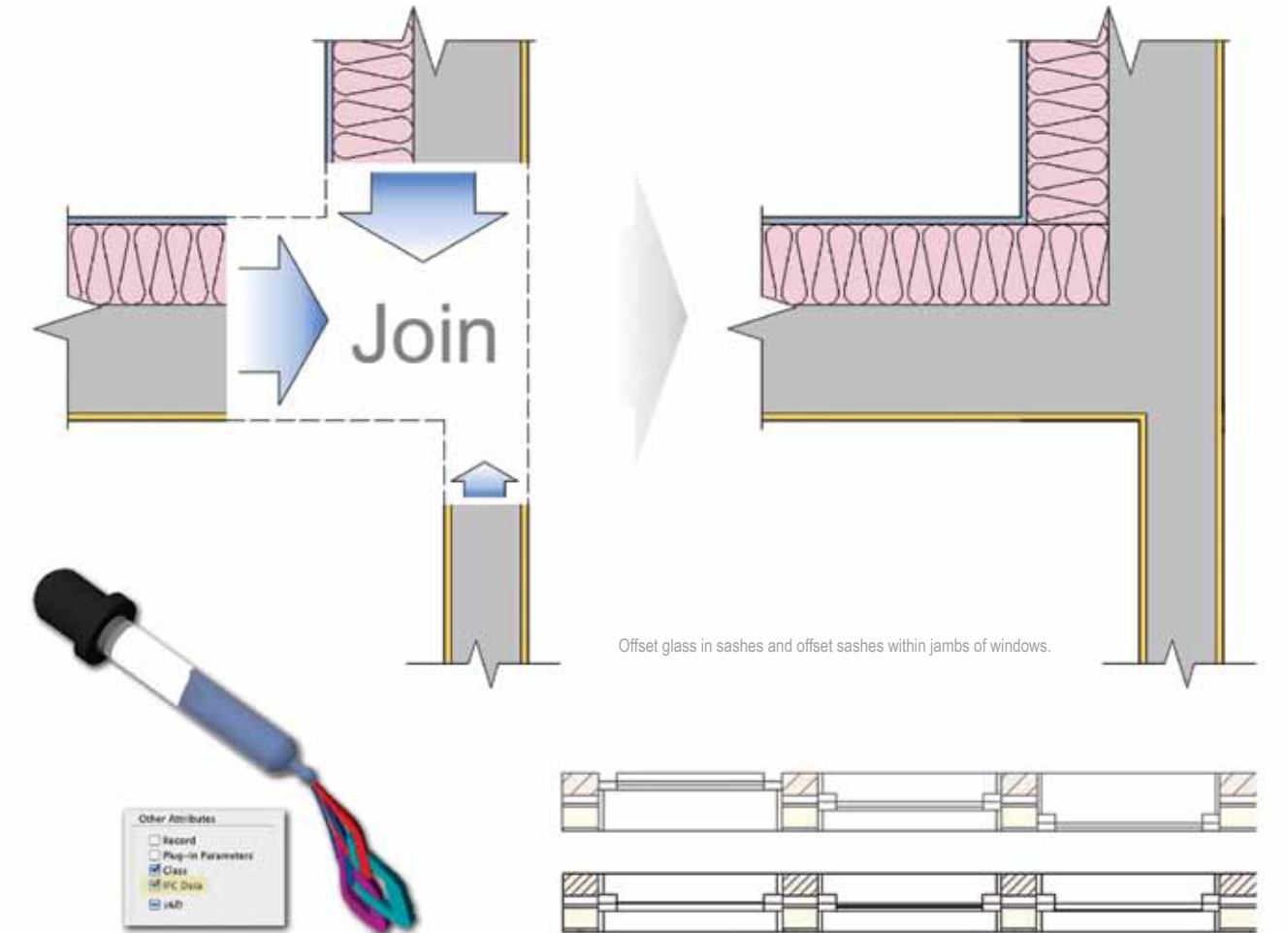
You can exert greater control over the geometry and insertion of windows. Specifically, you can now offset glass in sashes and offset sashes within jambs of a window object.

Window Transom Options

Now you can also choose configurations for transom muntins.

New Eyedropper Preference: IFC Data

With a support preference for IFC data, this tool allows you to transfer IFC data to objects while maintaining each object's unique IFC identifier.



Offset glass in sashes and offset sashes within jambs of windows.



Eyedropper support for IFC makes applying data to your model very efficient.

Quickly achieve joining of walls and wall components no matter what kind of join you wish to make.

Door and Window: User Control for Default Visibility Classes

A L D

It's easier to class the components in doors and windows by specifying your own classing standards for components like sills, slabs, swings, lintels, and overhead door paths.

New Opening Types for Doors and Windows

A L D

Further define and display your doors and windows with options for delineating the opening using leaf size, unit size, sash opening, and rough opening measurements.

Better Door Capabilities

A L D

With these new features, you'll build the exact door you're envisioning. Use new options to create unequal bi-part leaves and several bi-part and double acting door configurations. Define a door's threshold to extend into and even beyond the doorjamb. Even define door muntin depths for glass leaves, transoms, and sidelights. Choose from a host of new attributes for doors that also give you additional stylistic controls over line styles and class options.

Our new "simple opening" configuration for doors and windows lets you draw clean breaks in 2D and properly sized holes in 3D walls without any added geometry. You can now see hinge markers on the interior sides of door and window objects in Vectorworks Architect, for a new simple documentation option. Additionally, the door and window objects now have localised terminology for United Kingdom users.



Better Door Capabilities



Stair objects are "story aware" so they can auto-calculate rise and display connection between layers.

Image courtesy of Erick Recke, DATENLAND.

Floor-to-Floor Linking and Display of Stairs

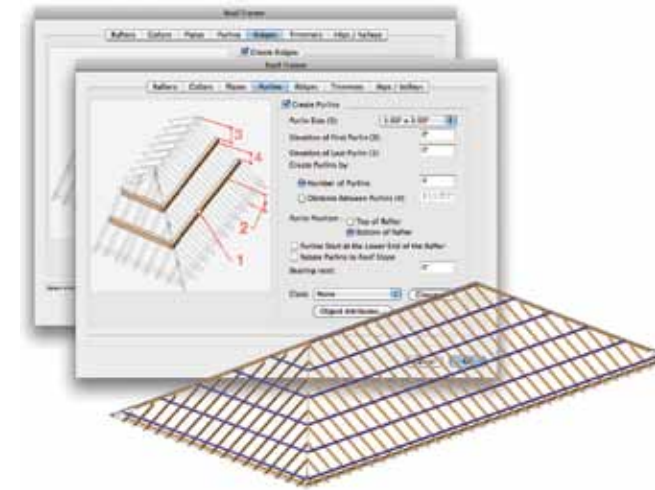
A D

Enjoy a more capable and efficient stair object that can calculate total rise based on the layers to which the stair connects. You'll also see the 2D representation of the stair on both layers of connection.

Roof Framer Improvements

A D

We've increased the overall precision and detailing of roof framing by giving you the ability to specify sizes, elevations, positioning, and the creation method of Ridges and Purlins.



Specify size, elevation, position, and creation method of Ridges and Purlins.

Enhanced Stair Options

A D

We've added some easy-to-use new features that will make your stair designs even sharper. With a single click, you can now specify class styles for all components of stairs—individual attributes or all attributes—for a fast way to make significant changes to all stairs in your design. Define a stair's maximum angle through the settings dialog to adhere to any defined codes. But if you desire complete freedom in stair modeling, you can now turn off the Minimum/Maximum settings completely and define stairs exactly the way you want.

With our new Create Stair Top Riser and Nosing option you can specify whether or not the top riser and nosing of a stair should be drawn. We've updated the fill settings dialogs in stair and space objects to be identical to the options you already know in the Hatch, Tile, Gradient, and Image settings dialogs. We've also improved the stair settings to have all the render modes available in the core product listed in the general settings tab. And better feedback messages take the guesswork out of invalid stair configuration values. We provide detailed error messages with easy options to resolve them.

Clearer Management of Space Label Symbols

A D

We've greatly simplified the creation, editing, and storage of space label symbols. You can now directly create space labels using the space label settings dialog—no need for creating specific space label symbols. Also, you can edit existing space labels to quickly adjust the definitions and attributes of text tags in your label. We've also defined space labels as page-based symbols, so you can easily edit space labels using an intelligent dialog that specifies new definitions and attributes of text tags in your label.



Many new options in the enhanced stair make controlling the graphic display and construction of the stair easier.



Whether you're creating new or updating existing Space Label Symbols, you'll find the process much easier in 2012.

Better Boundaries for Auto-bound Spaces

A L S D

You now have greater editing control with auto-bound spaces. We've defined them as polyline-based spaces so you have more editing handles and reshaping options.

ODBC Improvements

A L S D

With the ODBC database enhancements you'll see better flexibility and ease of use for database connection. We've improved driver support, added a new database reconnect button, and given you greater control over the connection with the ability to manually edit and delete the reading and writing queries.

Notes Manager Improvements

A L S D

Enjoy increased flexibility when creating and placing notes. You can make multiple selections, rotate the callouts, and specify absolute or relative path connections to the active database.

Wall Top and Bottom Heights

F A L S D

Customize the top and bottom heights of each wall component for your own configurations.

Insulation Fills

F A L S D

Have you ever struggled to draw insulation fills? With our fast and flexible tile fills, it's a cinch to create insulation fills that automatically scale to fit the thickness of a wall component.



Best Integrated Renderer

As you know, an image is incredibly powerful—no amount of words can equal the impact of a single striking picture. For years, we've been the leader in rendering with our state-of-the-art Renderworks® application. With new advances, you can customize your lighting and backgrounds to your specifications, employ artistic styles that set you apart, and incorporate improved shaders that will make your work even more realistic. Create amazing graphics that truly move your audience—and honor your designs.

Renderworks Styles

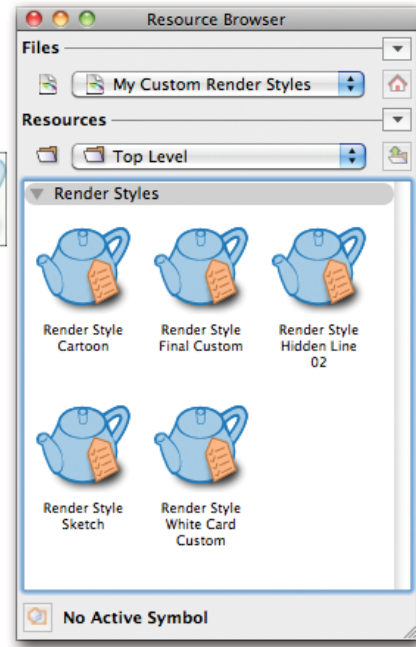
R

Make a statement with your own signature rendering style. You can create custom configurations of lighting, backgrounds, and render settings as re-usable and sharable resources. When you're ready to render, just drag and drop your custom resource and all your settings will be applied.

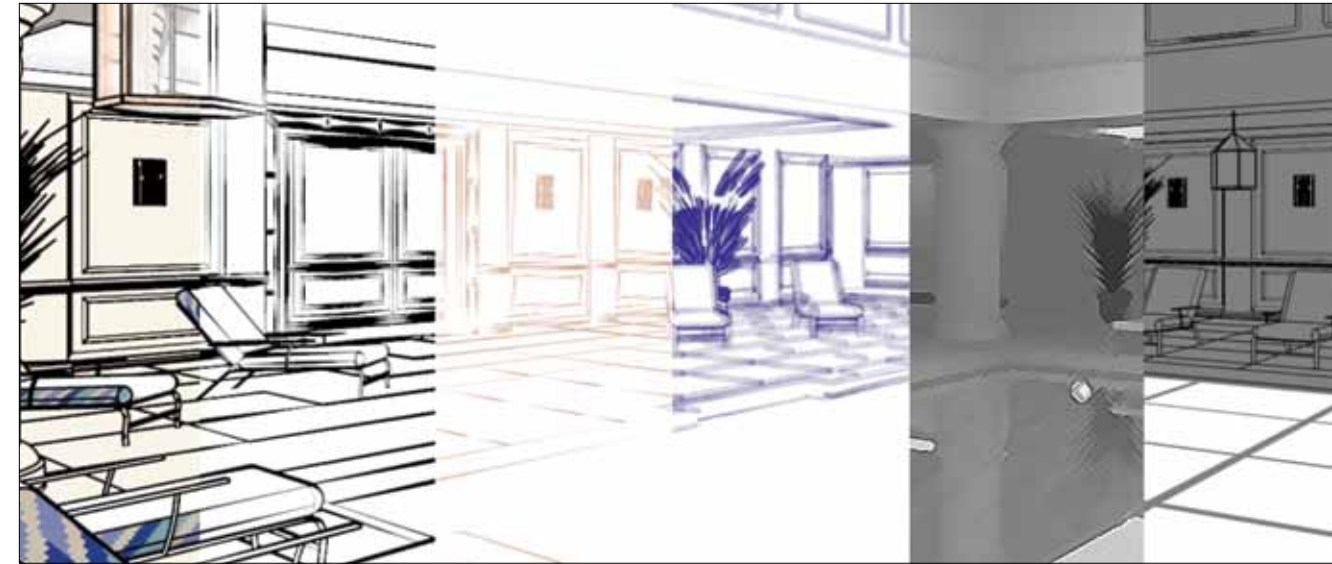
Realistic OpenGL Shadows

R

Better accuracy, better quality—need we say more?



Just drag and drop a custom Render Style resource and watch your model render exactly the way you expect.



New style controls give you great flexibility when creating custom Artistic Renderworks Styles.

Artistic Renderworks Styles

R

Try your hand at these intuitive editing style controls; you can even save Artistic settings as style resources to use with a simple drag and drop action.

Attribute Mapping Tool Improvements

R

We've simplified the tool by improving the responsiveness of surface snapping, adding a new scale by center option in the mode bar, and addressing additional interface complexities, making attribute mapping more intuitive and more reliable—just simpler to use.

New Metallic Shaders

R

You'll be stunned by the clearer definition and true-to-life appearance of shiny, brushed, or turned metal.



Clarify Render Settings for Saved View

F A L S D R

It's even easier to create Save Render settings with a new check box that lets you specify whether you are saving a render mode, a view orientation, or both.

Bricks Shader Dimensions

R

Create your perfect brick shader by editing width, height, and gap parameters based on real world coordinate values.



Enjoy greater control over customizing dimensions in Brick Shaders.

Better Collaboration

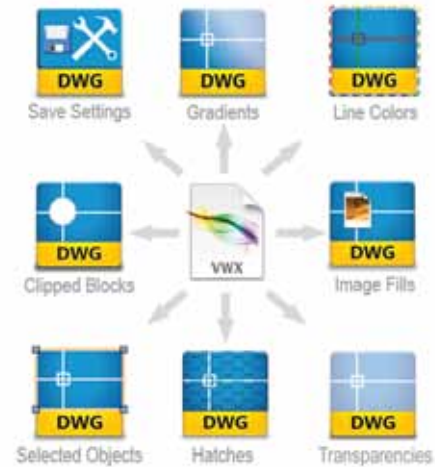
As the use of technology increases, it's more important than ever to communicate effectively with your colleagues. What's lost in translation can mean the difference between a successful project and one hampered by needless changes and lost productivity. We've made great strides with DXF/DWG support and compatibility with other applications—even previous Vectorworks versions—so you can collaborate with ease. Seamless communications will allow you to reap the true benefits of teamwork.

Increased DXF/DWG Support

F A L S D □

Discover the advantages of efficient collaboration. You'll have better support for image fill export and import, transparencies, and gradient types—plus a new ability to save user defined settings for DXF/DWG export. You can pick and choose the objects you want to export to DXF/DWG—even hatches. You can interface seamlessly with AutoCAD 2012 files and even

import clipped AutoCAD blocks as cropped Design layer viewports or as symbols without cropping. We've also made it simpler to save your defined mappings of DXF/DWG colors to Vectorworks line weights.



Export to Five Previous Versions of Vectorworks

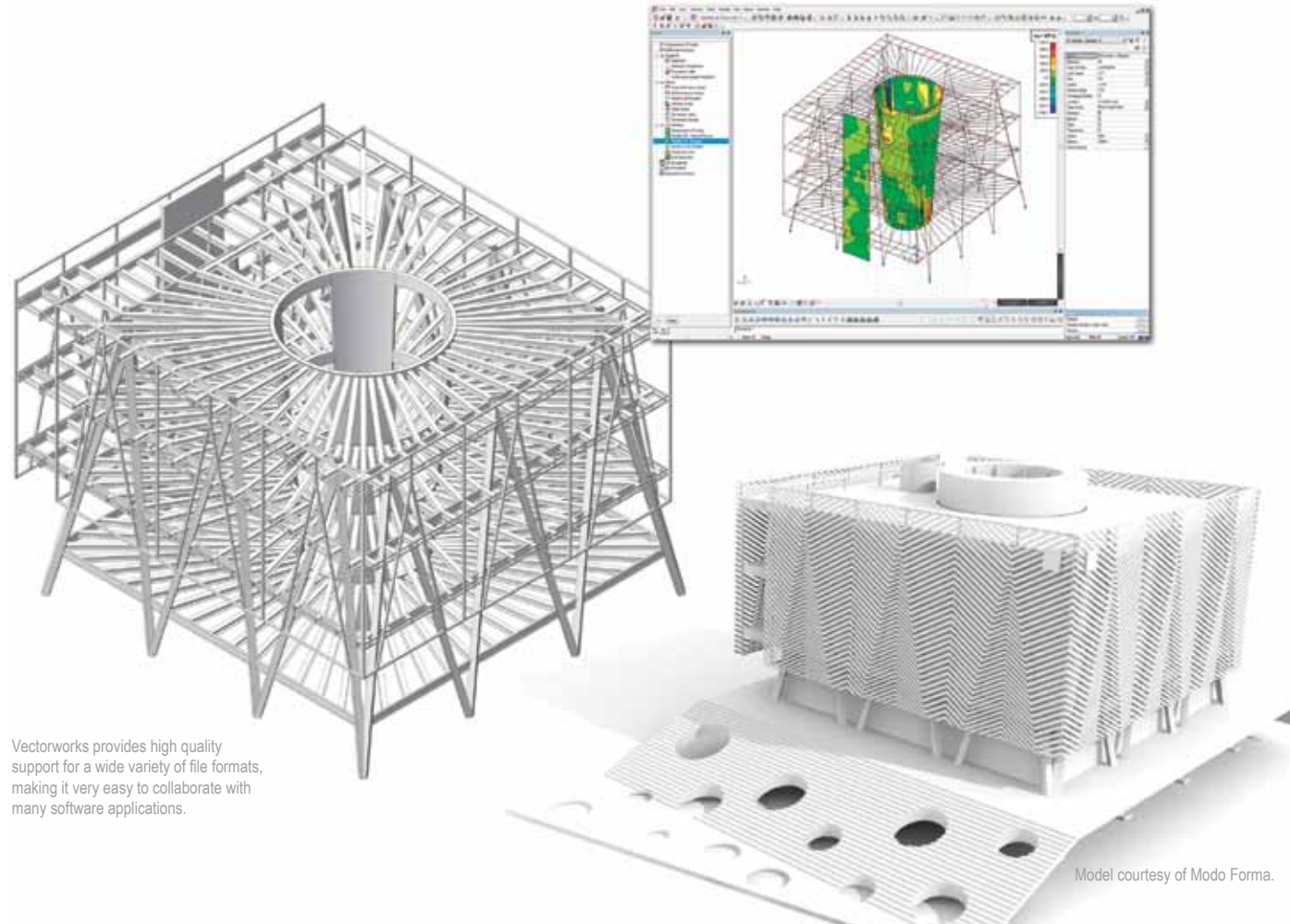
F A L S D □

Now it's easier to collaborate with users of previous versions of Vectorworks software with the ability to export all the way back to Vectorworks 12.

Add New Parasolid Version Number in Export Parasolid X_T

F A L S D □

Use this new option to specify a version number on the Parasolid X_T file format export.



Vectorworks provides high quality support for a wide variety of file formats, making it very easy to collaborate with many software applications.

Model courtesy of Modo Forma.

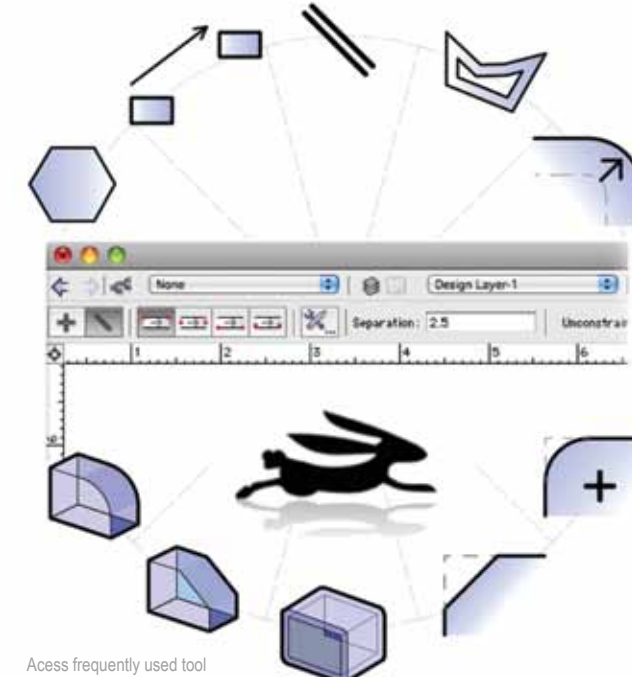
Your Wish—Granted

You asked, and you'll receive. We consistently ask our users about the overall functionality and efficiency of our applications. From one less mouse click to a quick change of views, to granting you the freedom to design without encumbrances, our goal is to support your design process and help you realize your most inspired visions.

Faster Access to Frequently Used Settings

F A L S D □

Get ready for a super time saver. Now you can access frequently used tool settings directly in the tool bar without having to open a settings dialog.



Access frequently used tool settings directly in the tool bar.

Modify by Record Value

F A L S D □

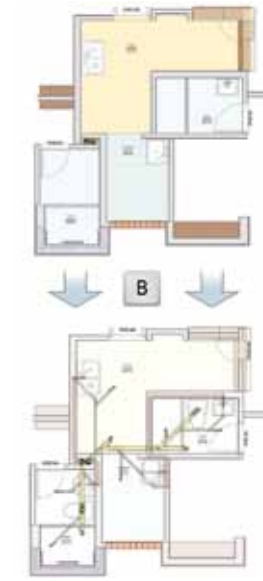
You've received a very powerful set of options for making modifications to selected objects or an entire drawing based on record values. With this command you can automatically modify the attributes of objects, resize objects, and even create extrudes for objects sharing a specific record value.

The Modify by Record Value command makes it easy to make changes to object geometry or attributes based on a common record value.

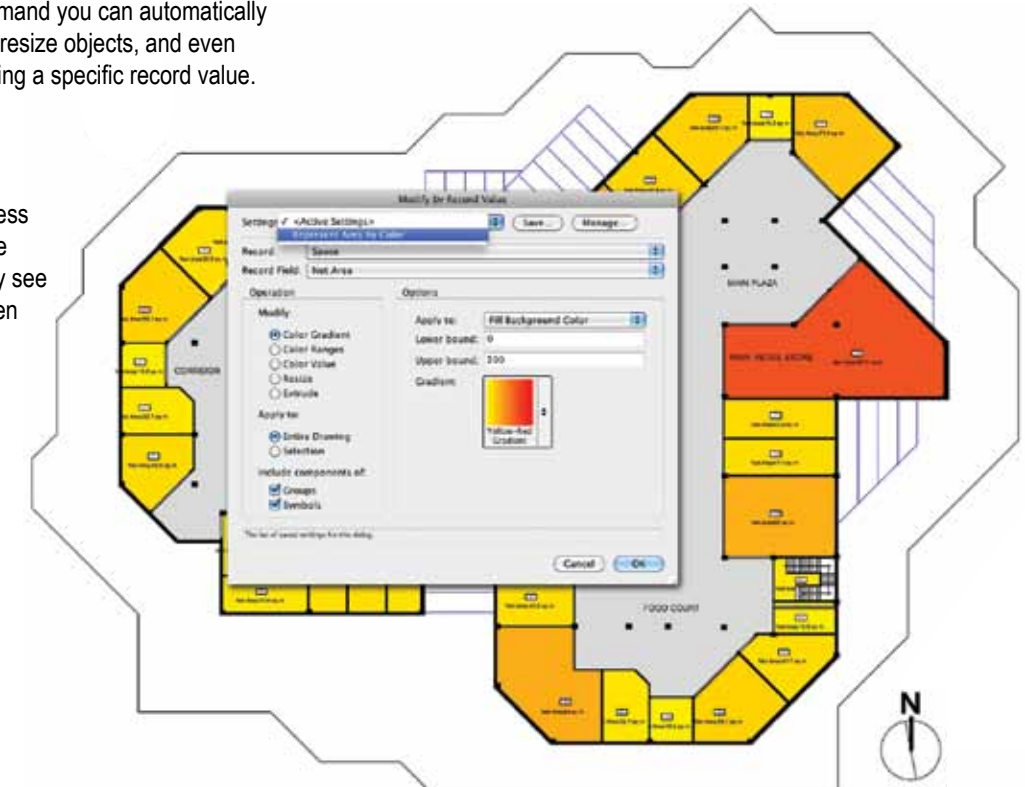
2D X-Ray Mode

F A L S D □

No more hide and seek! Just press the 'B' key while you're using the selection tool and you can easily see and select objects that are hidden behind filled objects.



2D X-Ray Mode is a huge time saver. Simply use the 'B' key and see, select, and modify hidden objects.



Coincident Selection

F A L S D

Mouse over multiple edges or vertices of objects, and your cursor will give you a visual cue to indicate there is more than one object available to select. You can use the right-click menu command or the 'J' key to navigate to the object of your choice.

Hidden Line Intersection Edges

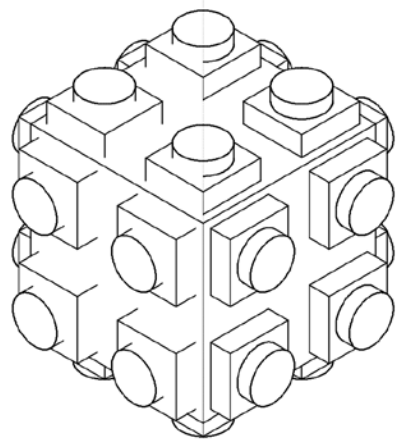
F A L S D

A new option in Hidden Line rendering modes gives you the flexibility to have Vectorworks calculate and draw the lines between intersecting geometry.

Faster Viewport Visibility Navigation

F A L S D

Another huge time saver—we've significantly improved the speed of navigation between sheets and from sheet layers to design layers for larger files.



Hidden Line rendering now has the option to draw lines for intersecting geometry.

Vectorworks 2011 Vectorworks 2012



You'll see great improvement in the zoom speed in Vectorworks 2012. Original drawing courtesy of Jeffrey Brauer.

Streamlined Zooming

F A L S D

Get better WYSIWYG zooming, with less pixelation in non-complex files.

New Working Background Options

F A L S D

With this handy new feature you can specify custom background colors for Top/Plan, 3D views, and Sheet layers and visually recognize the view you're in right away.

Edit Page Based Symbols

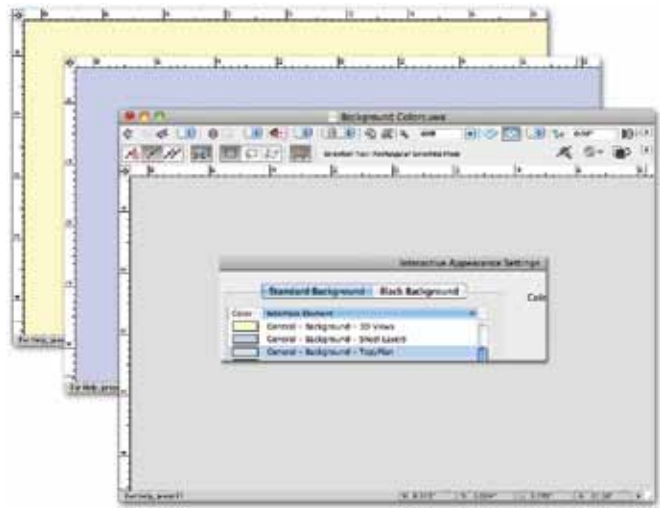
F A L S D

Now you can edit page-based symbols based on page size—not world size.

Create Closed Shapes from Open Curves

F A L S D

Create closed shapes from open curves using the Offset Tool.



Use the New Working Background Options to visually identify the view you're in.



Image courtesy of GDP Architects Sdn Bhd.

Planar Object Support for Symbol Editing

F A L S D

Enjoy more intuitive default behavior for standard edits like pasting in 2D objects.

Viewport Crop Visibility Settings

F A L S D

With a simple option in the Object Info palette, you'll easily control the visibility settings of viewport crop objects.

Newly Developed Worksheet Options

F A L S D

Our enhanced database worksheets remove barriers and make the entire process of building valuable worksheets much more efficient. You'll see unlimited character count support, greatly increased limits for column sorts and sums, and accurate calculations for functions and document units.

Ungrouping Record Preservation

F A L S D

With this huge time saver, your data stays associated with contained objects even when you ungroup them.

Streamlined Polyline Arc Editing

F A L S D

Editing polylines (and plug-in objects based on polylines) has never been simpler. Use reshape controls and Object Info palette controls to edit specific vertex controls like arc, radius, corner, and cubic.

Unlimited character count support with greatly increased limits for column sorts and sums.

New Hatch from Customized Hatch

F A L S D

Save your newly customized tiles and hatches as standard tiles and hatches so you can easily reuse them.

Tangent/Normal Curve Creation Using Analysis Tool

F A L S D

It's a breeze to create tangent NURBS curves—just use the Analysis Tool to create a curve from a clicked point on a NURBS curve or surface.

Integrated Worksheet Developments

F A L S D

We've given you more room for names. Record field names support up to 63 characters and field descriptions support an unlimited number of characters. The built in worksheet can also handle functions and document unit calculations with greater accuracy.

More Quick Prefs

F A L S D

Due to popular demand, we've enhanced one of the favorite features of Vectorworks 2011. Quick Prefs now supports the options Show/Hide Grid and Show Page Boundary.

More Levels in Class Menu

F A L S D

We've expanded class hierarchy to support up to four levels.

"By Class" Choice for Dialog Popups

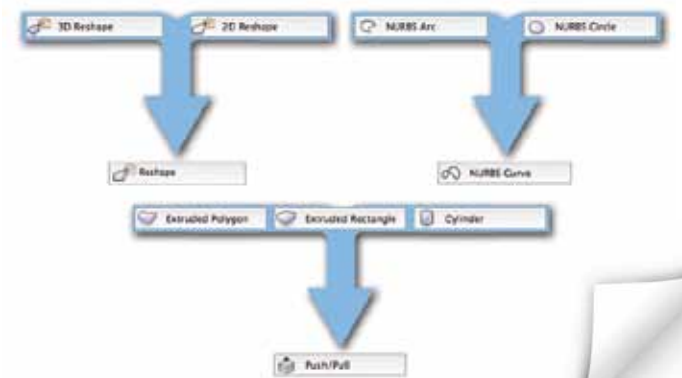
F A L S D

Now you can control graphic visibility "By Class" for color, line style, and marker dialog popup controls.

Workspace Changes for 2012

F A L S D

As 2D and 3D become even more integrated, we've consolidated tools so the reshape, symbol insertion, NURBS circle and arc tools, extruded rectangle tool, extruded polygon tool, and cylinder tool all do double duty as both 2D and 3D.



The Leader in Site Design

Our GIS capabilities are the best you'll find in any CAD/BIM solution. With Vectorworks, you can easily georeference with the most accurate information. We let you know when the site model is out of date, and we've given you more control over hardscape design than ever before. With these enhancements, you can build with greater confidence.

GIS



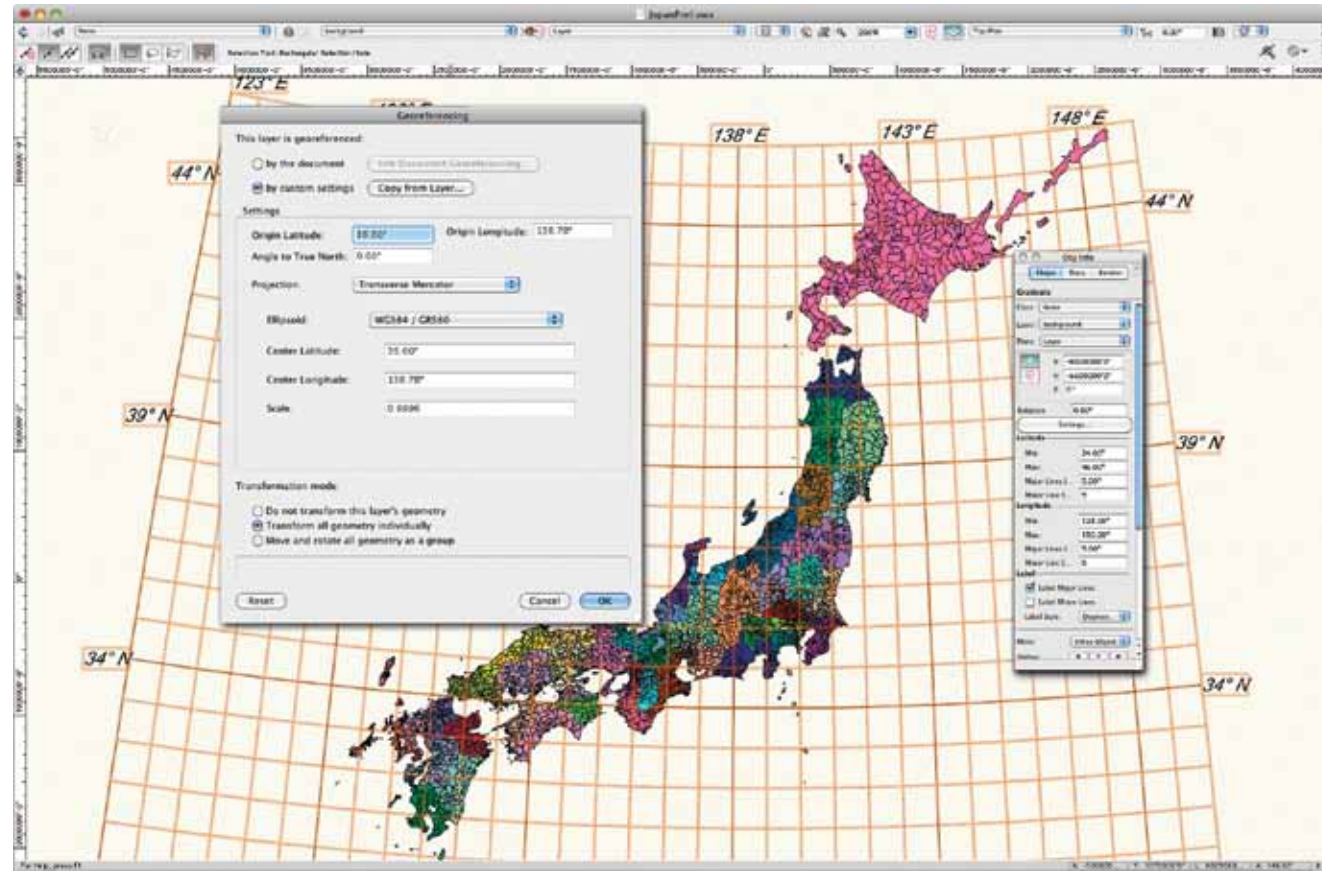
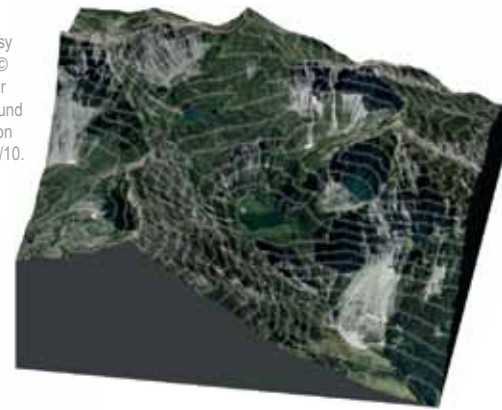
With our new GIS capabilities, you can store georeferenced information on each Vectorworks design layer, transform geometry to a different map projection or georeferenced coordinate system, and enjoy improved Shapefile import and export functions.

Site Model Enhancements



New visual feedback notifies you when the site model is out of date. We've also added alert dialogs to let you know if you're losing contours when elevation ranges are not updated.

Image courtesy of Geodaten © Landesamt für Vermessung und Geoinformation Bayern, 3754/10.



Easily store georeferenced information on Design Layers, or transform existing geometry to a specific map projection. You can do it now in Vectorworks Landmark.

Miscellaneous Landmark Changes



Now the Landscape Area Object has clearer control over the distribution rate and custom coverage percentages. Also, we've enhanced the Offset settings for the Create Stepped Wall command and we've improved the New Water Needs and Climate Zone fields in the Plant database.

Better Stake Objects



Among other smart enhancements, you'll see the following new parameters and new values for existing parameters in the Stake mark offset and marker rotation fields: "None," and "Filled Triangle" marker styles, and XY and XYZ Coordinate Point options.



Enjoy the improved Stepped Wall command, Landscape Area Object, and the ability to include the addition of water needs and climate zone information in the Plant database. Image courtesy of Tamsin Slatter.

Retaining Wall Site Modifier Improvement

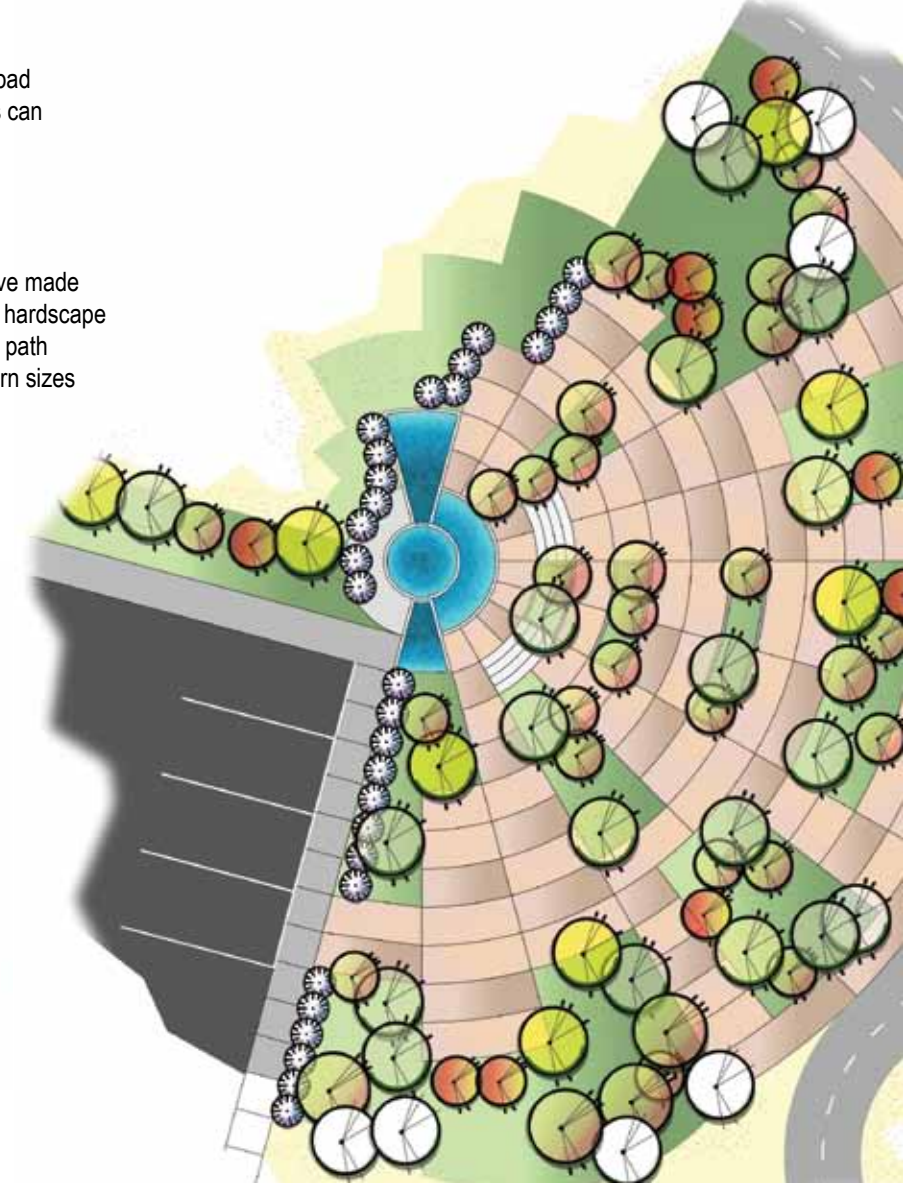
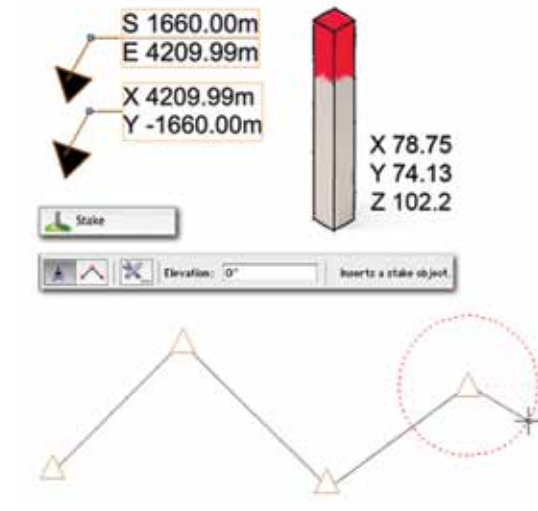


Customize the shape and elevation of the underlying pad of the site modifier. Additionally, the site modifier sides can be reshaped around retaining walls.

Hardscape Improvements



Thanks to your detailed feedback on hardscapes, we've made some significant changes. Look for better control over hardscape creation, a new convert option between boundary and path configurations, and the ability to specify different pattern sizes for Grid and Running pavers.





The Leader in Entertainment Design

We're proud to be the gold standard in lighting design. We've earned the trust of award-winning designers worldwide, and we continually work to keep it. So we've added an intuitive focusing tool, introduced an intelligent Soft Goods Object, and even improved the already easy-to-use Lightwright®. Here are some recent enhancements that will keep your work at the top.

Lighting Device Color Names

To save you time, gel colors assigned to a lighting device are now automatically added as a named Vectorworks color in the document. Use any of the unlimited color choices in the named color palettes.



Make use of the new Soft Goods Object to create your pipe and drape elements.

Soft Goods Object

Originally from Landru Design, the new Soft Goods Object enables you to easily create curtain, border, and pipe-and-drape models in both straight and curved configurations.

Multi-circuit Lighting Device Focus

Multi-circuit lighting devices now automatically orient to focus points. Simply move your focus point and watch your instrument update to follow the focus.

Upgraded Lightwright Data Exchange

We've enhanced our connectivity with Lightwright, the standard in Lighting paperwork. Now the data exchange file not only updates when the Vectorworks document receives focus, it also updates when a layer is deleted. We've added support for the undo command, included proper documentation for duplicated lighting devices, and removed file path limitations.

Improved Handling of Duplicated Lighting Devices and Positions

Make more efficient use of duplicate and mirror operations and trust that the lights and positions have unique data that does not duplicate existing data like position names.

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Cover imagery courtesy of Marcelo Maia.

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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

Windows 7

QuickTime 7.6.0 to 7.6.9 (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, 4GB recommended

Hard drive space 10GB free

Vectorworks with Renderworks

RAM 2GB minimum, 4GB recommended

Hard drive space 10GB free

Vectorworks Designer

RAM 1GB minimum, 4GB recommended

Hard drive space 10GB free

Vectorworks Designer with Renderworks

RAM 2GB minimum, 4GB recommended

Hard drive space 10GB free

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

