TRANSFORM THE WORLD.

DESIGN WITH VECTORWORKS.

WHAT'S NEW 2018

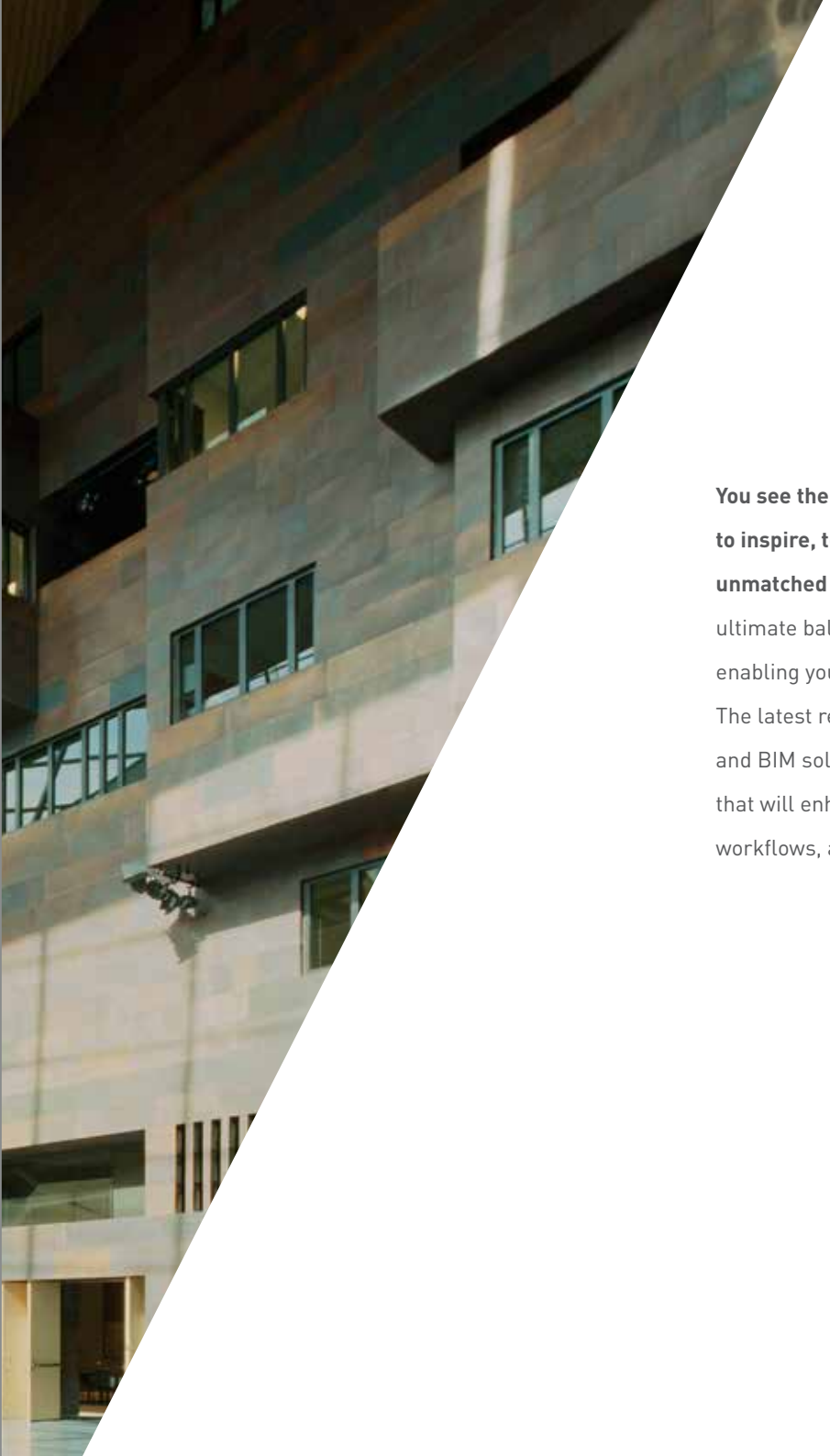
VECTORWORKS®
A NEMETSCHEK COMPANY

SANTUÁRIO PAPA SÃO JOÃO PAULO II COURTESY OF CAIQUE NIEMEYER ARQUITETURA E DESIGN

TRANSFORM THE WORLD.

DESIGN WITH VECTORWORKS.

IMAGE COURTESY OF **TIM HURSLEY**



You see the world differently. All designers do. You design to inspire, to enrich our environments, and to create unmatched experiences. Vectorworks 2018 presents the ultimate balance of flexibility and industry-specific tools, enabling you to adapt to challenges and realise your visions. The latest release of the Vectorworks® line of design and BIM solutions delivers a robust suite of capabilities that will enhance your modelling process, simplify your workflows, and help you create one-of-a-kind experiences.

2018

V18

PRODUCT KEY

- F FUNDAMENTALS
- A ARCHITECT
- L LANDMARK
- S SPOTLIGHT
- D DESIGNER

Shaded circles indicate that the feature is included in that product.

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01 ENHANCE
YOUR MODELLING PROCESS

Vectorworks 2018 gives you more capabilities than ever before to optimise your modelling process. No matter your project type or size, Vectorworks software provides you with intuitive and robust modelling functionality to help you save time and deliver exceptional results.

IMAGE COURTESY OF **KING + KING ARCHITECTS**

MULTIPLE
DRAWING VIEWS

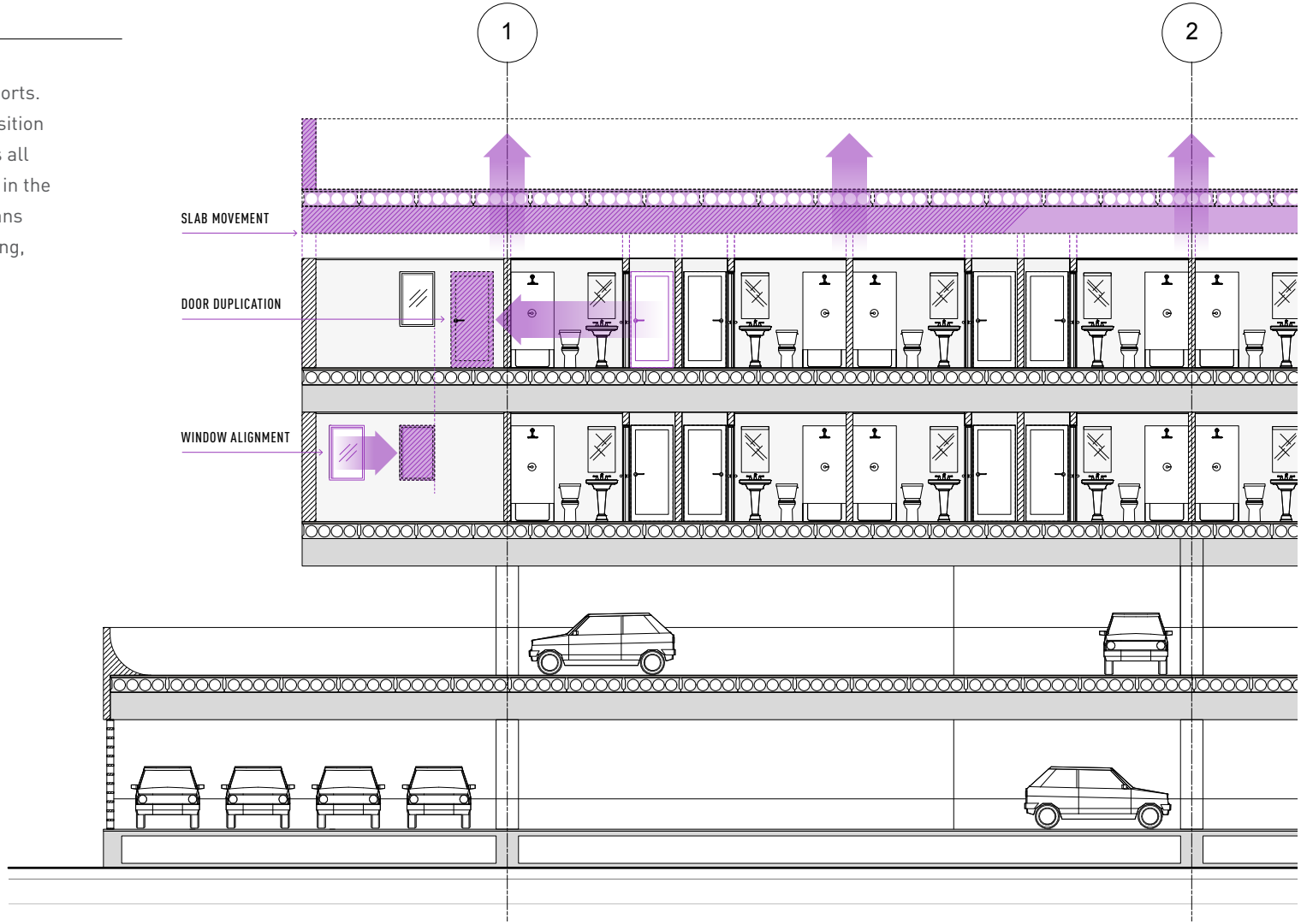
F A L S D

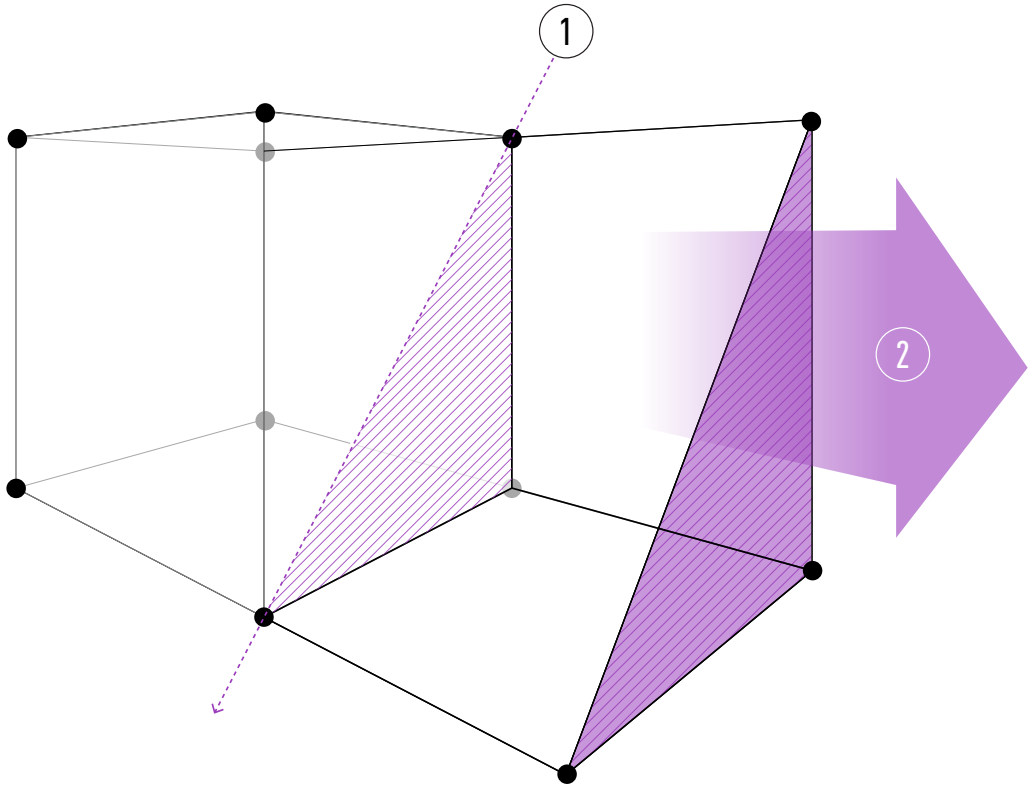
With the new Enable Multiple Views command, you can see views of your project simultaneously, and you can start your work in one view pane and finish it in another. Switch effortlessly between viewports, views, and visibility settings to do what you need — just set up your panes and view them all at once. Instantly gauge the impact of a design change across your 3D, plan, section, and elevation views, and even start a rendering in one view while you work in another.

DIRECT SECTION
AND ELEVATION EDITING

Now you can edit models directly from your viewports. Add openings, align and distribute windows, reposition doors across multiple layers, reshape walls — it's all possible. You can even change the 3D views while in the section to see how edits simultaneously affect plans and model views. And you can create better-looking, more-accurate drawings in a fraction of the time.

F A L S D





IMPROVED SUBDIVISION MODELLING

F A L S D

Unlike other design and BIM applications on the market, Vectorworks already offers best-in-class 3D modelling technology to help you quickly model any form. With the latest enhancements to the subdivision modelling feature, based on Pixar® Animation Studio's OpenSubdiv libraries, you get several new editing modes that will not only make modelling faster and easier, but also let you create shapes you could only imagine before.

IMPROVED GRAPHICAL SCRIPTING WITH MARIONETTE

As computational design continues to evolve, you'll want to add scripting capabilities to your arsenal. With the latest improvements to our graphical scripting feature, Marionette, it's easier to create scripts directly within Vectorworks. We'll never force you to learn a separate application or store your code in proprietary formats. Based on Python® scripting, now you can easily assemble scripting nodes and then convert Marionette networks into custom commands. Scripts are now easier to debug, and new nodes and additional node descriptions make Marionette even simpler to use. Engage in the growing community of Marionette enthusiasts by visiting the Marionette Gallery.

F A L S D

02 SIMPLIFY
YOUR WORKFLOWS

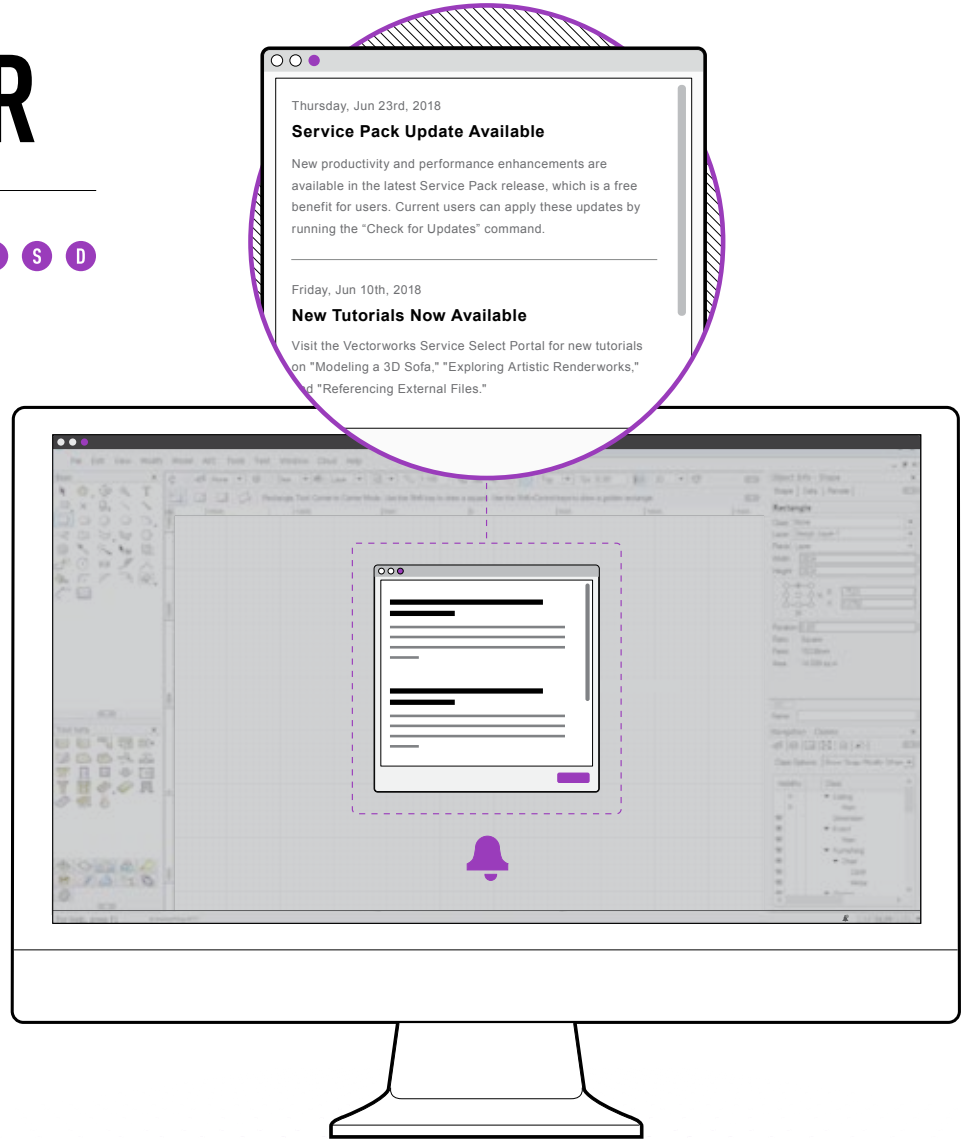
Efficiency and productivity are critical in all your projects, and you need the right tools to help you achieve your goals on time and on budget. Enhancements in Vectorworks 2018 help you streamline the creation of schedules, improve graphic output, and simplify drawing distribution, empowering you to work faster and be more productive than ever before.

IMAGE COURTESY OF **FEDERICO ADRIANI**

STAY INFORMED WITH THE NEW MESSAGE CENTER

The new Message Center will alert you to valuable news, such as service pack updates and the latest training videos. With the new Message Center, you'll never miss an important message related to your Vectorworks software. A simple alert will display in the Message bar when a new message is waiting for you.

F A L S D



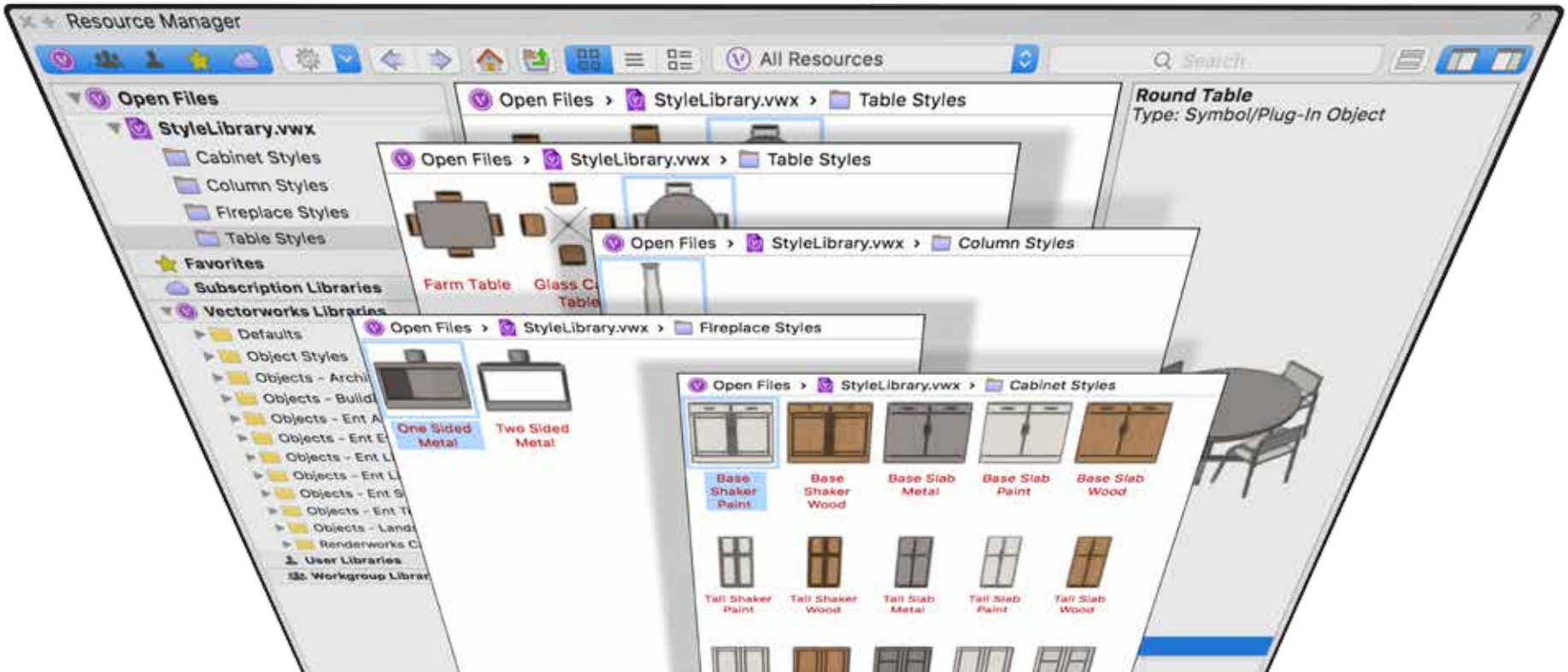
PLUG-IN STYLES

FOR MORE PARAMETRIC BIM OBJECTS

F A L S D

Vectorworks 2018 will save you time, as it revolutionises the process of change management of intelligent plug-in objects. You can now take advantage of the plug-in object styles introduced for doors and windows in Vectorworks 2017 on more plug-in objects in Vectorworks Architect.

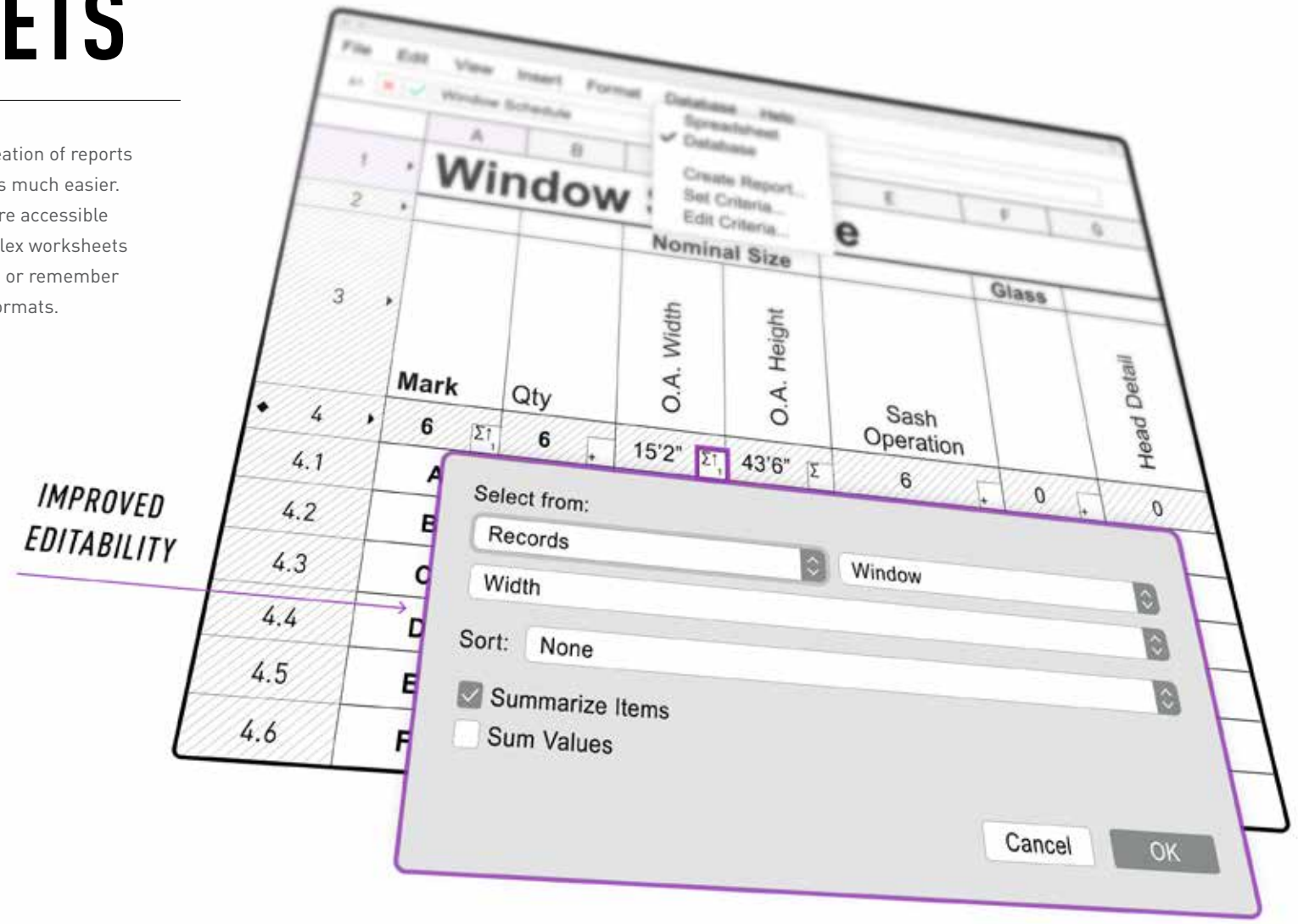
When you make changes to a single plug-in object style, those changes will be reflected in all object instances in your project, giving you a productivity boost that increases your profits.

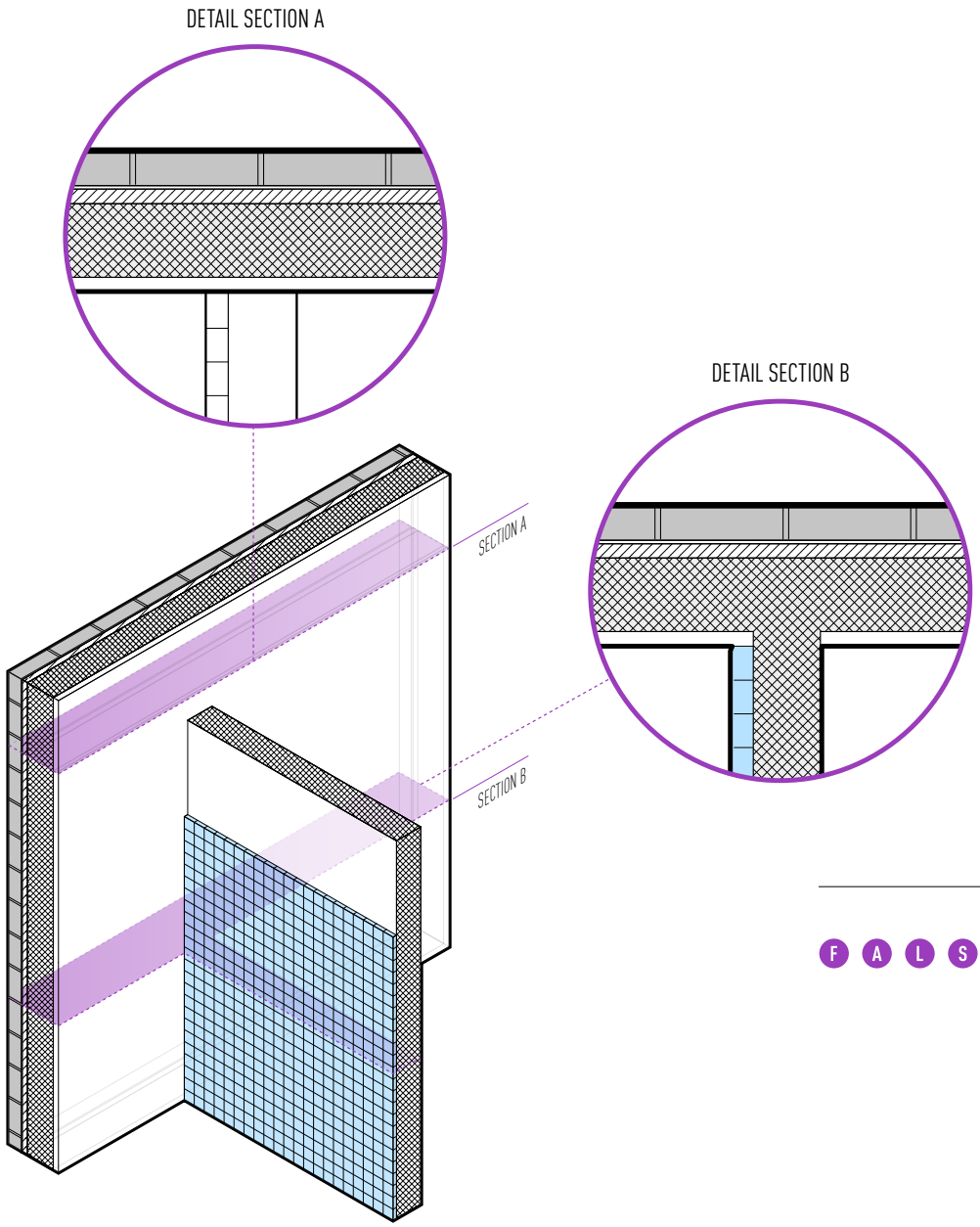


STREAMLINED
WORKSHEETS

We've streamlined the interface for the creation of reports and schedules and made using worksheets much easier. Creating reports and schedules is now more accessible and automated, and you can present complex worksheets without having to manually enter formulas or remember how to access data from different record formats.

F A L S D





IMPROVED

GRAPHIC OUTPUT

FOR ARCHITECTURAL DOCUMENTS

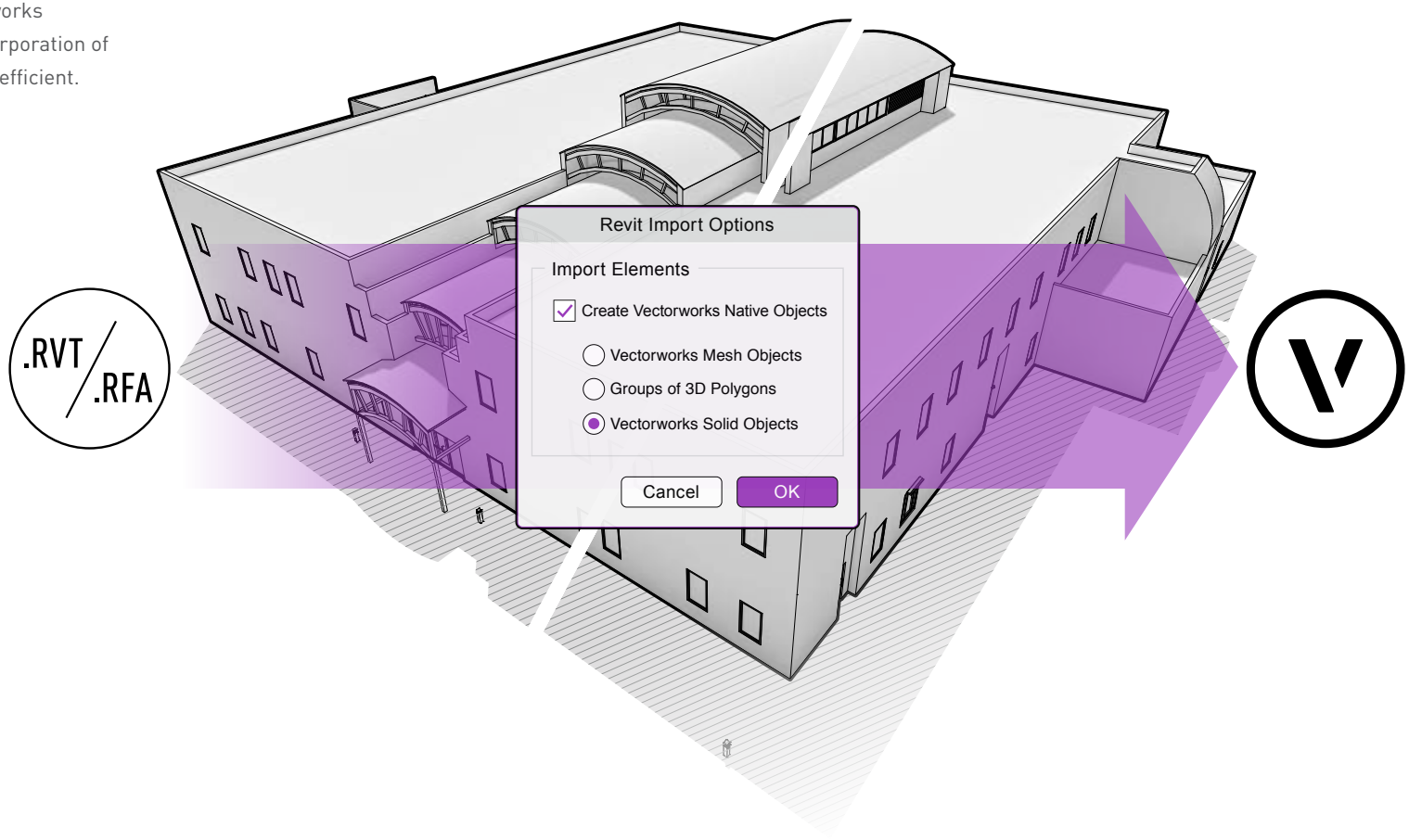
F A L S D

Generating documentation from your BIM file is now much more efficient. With improved graphic controls within section views of wall joins and wall, slab, and roof components, you have the flexibility to quickly achieve high-quality documentation from your 3D model.

IMPROVED REVIT IMPORT

F A L S D

Vectorworks was the first BIM authoring tool to provide Revit™ import using the Teigha BIM library from the Open Design Alliance. This year, we're going one step further by providing you next-level functionality with Revit file importing that translates Revit objects into native Vectorworks symbols and objects with textures, making incorporation of design information from Revit easier and more efficient.



EASIER TITLE BLOCK CUSTOMISATION

We've redesigned the title block to allow you to customise the look of items such as variables, orientation, etc. There are also an unlimited number of fields to help you include the information you want to show in your title block. And thanks to the support of styles, managing many title blocks across one or multiple projects is simpler than ever before.

F A L S D

STREAMLINED DRAWING DISTRIBUTION

Whether you're creating a BIM project or lighting a stage, drawing distribution can be a laborious process. With the ability to publish drawings based on issue date, and a tightly integrated new title block object, the generation and distribution of your drawing sets, issue information, and reports throughout the duration of your project is more automated, and greatly simplified.

(F) A L S D

ROBUST WALL
MODELLING OPTIONS

F A L S D

Control individual component heights by instance, attach information to them, insert component caps, and simultaneously edit multiple selected components from an easy-to-use dialog box. Plus, swiftly make wall graphic display changes with the new ability to switch all attributes by class.

BETTER DXF/DWG IMAGE
IMPORT AND EXPORT

F A L S D

Vectorworks now supports import and export of the alpha channel in transparent PNG images and cleanly translates them when exporting or importing DXF/DWG files, requiring less cleanup when exchanging files.

MORE ACCESSIBLE
IFC BIM DATA

(F) A L S D

We've streamlined the BIM process by promoting the display of all IFC-related data to the Data pane of the Object Info palette. Now, in one clear and accessible location, you can review, input, and edit the information you need to make your BIM project a success.

WORK GLOBALLY

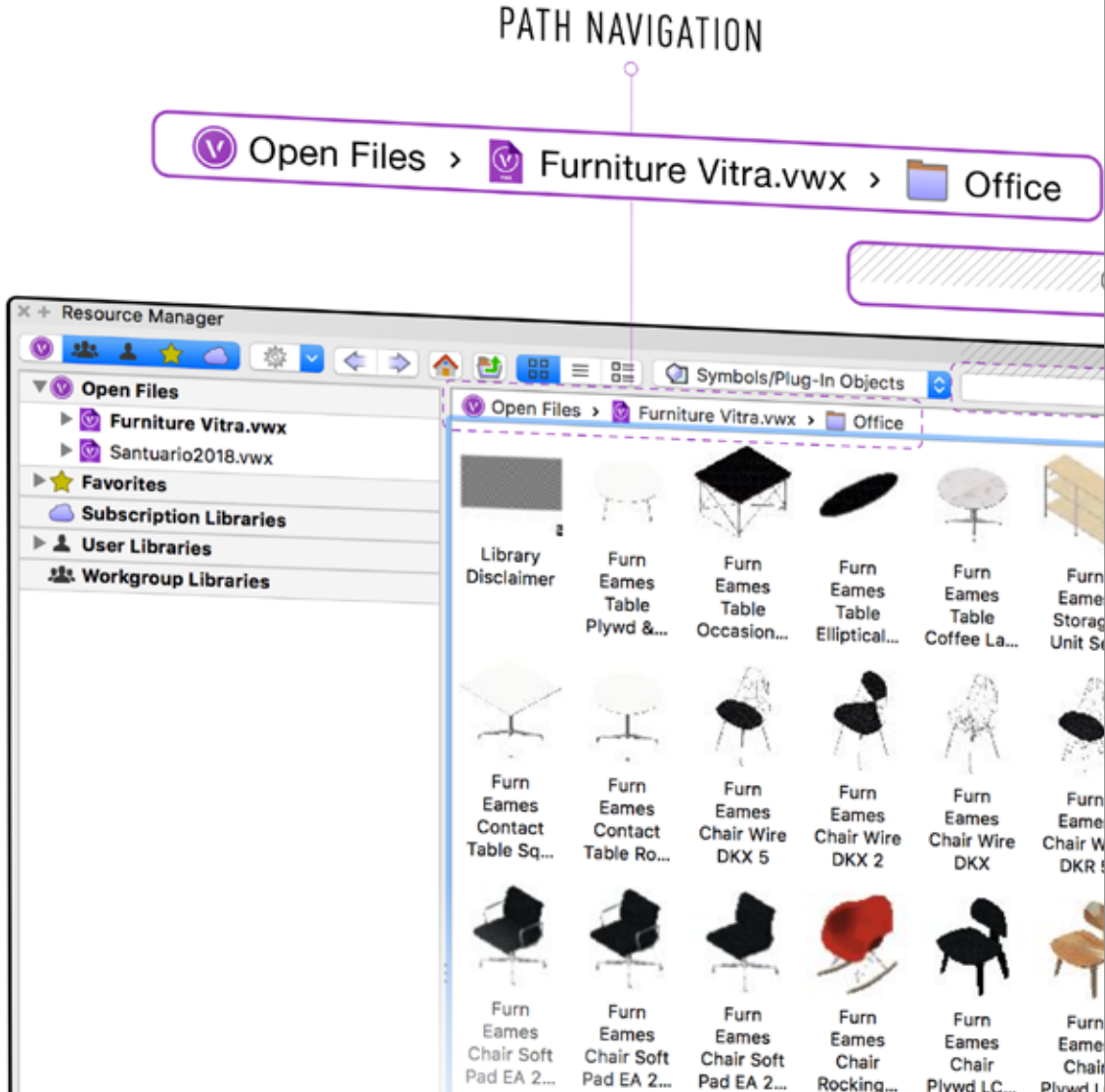
F A L S D

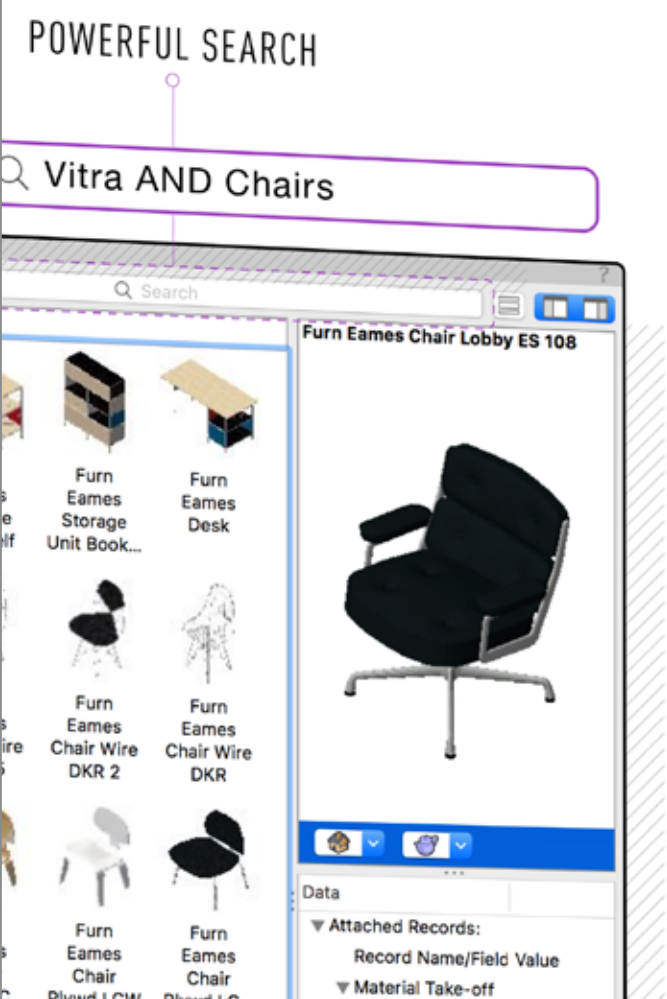
One of the great successes of Vectorworks software is its prevalence in so many countries throughout the world. With Vectorworks 2018, complete Unicode support makes it easy to collaborate, share, and work with files generated in other languages, whether they are Latin based, Japanese, Mandarin, and more.

ENHANCED
RESOURCE MANAGER

Spend less time managing thousands of resources with new search options, such as those that contain AND, OR, etc., that enable you to find aggregated or isolated results. Filtering for multiple criteria, such as object type and manufacturer, is now possible using tags and partial context searching. Plus, use the Resource Manager to find, edit, and manage your often-used resources, thanks to the improved layout that now includes folder breadcrumbs, additional navigation options, and vertical orientation.

F A L S D





MacBook Pro TOUCH BAR

SUPPORT

F A L S D

If you use a MacBook Pro®, you no longer need a separate numeric keypad to make use of Vectorworks' standard views shortcuts. Simply use the Touch Bar™ interface to use standard views or quickly access your favorite tools or tool palettes as you design — customise the combination of options that best optimise your workflows.

ADVANCE YOUR SITE DESIGN

FLEXIBLE HARDSCAPE JOINT PATTERNS

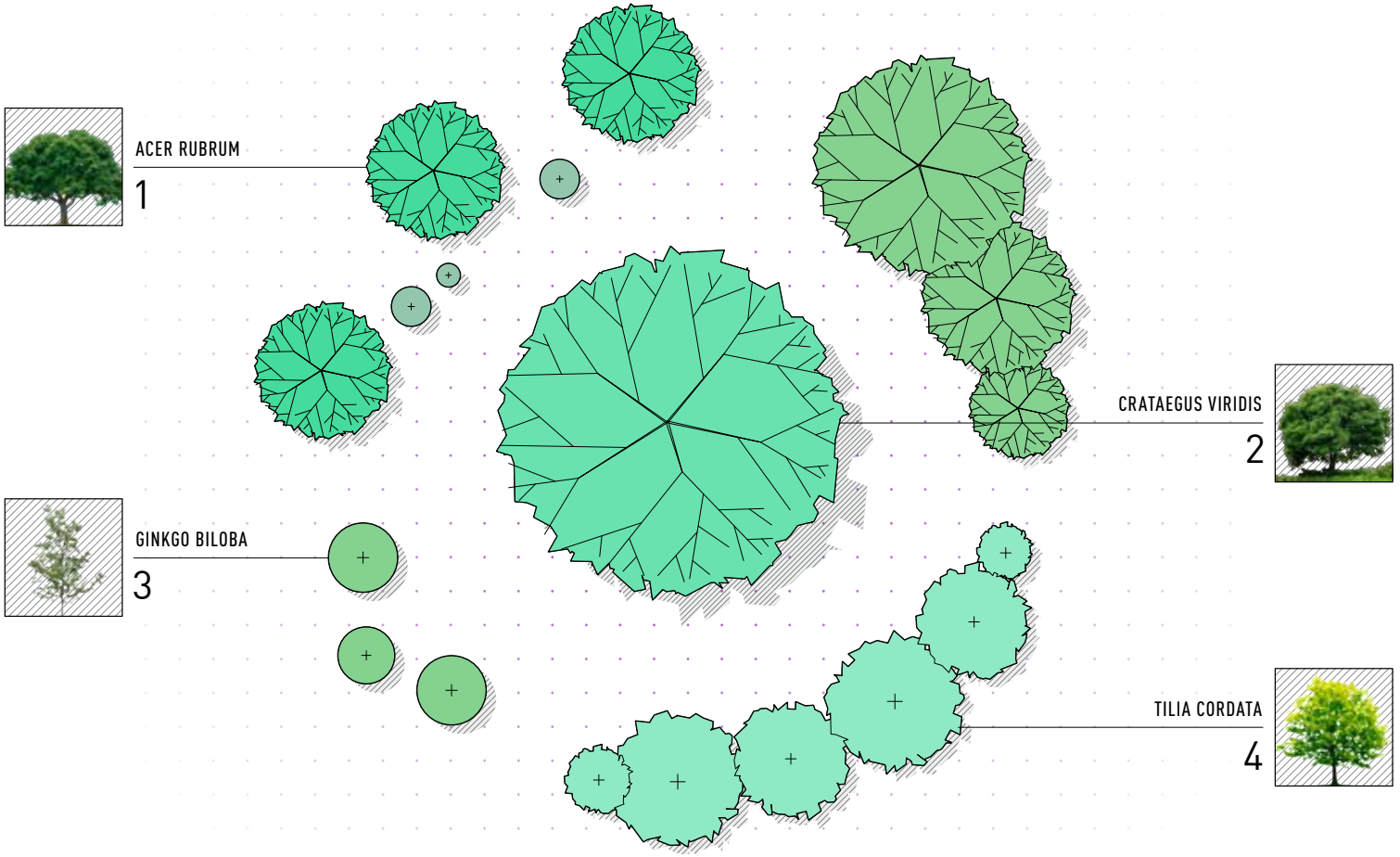
F A L S D

Easily control the graphic attributes and materials of paving objects with separate main area and border fills. And now, you can reduce time performing joint scaling of custom pattern sizes by using the Attribute Mapping tool to independently scale and rotate patterns on the different portions of hardscape objects.

REFINED IRRIGATION LAYOUT

F A L S D

We've improved the irrigation toolset to give you more flexibility and accuracy with your drip zone layouts. The branched drip line layout and calculation capabilities make it possible to perform calculations for snaked and branched lines. You can also maintain your choice of custom fills to achieve superior graphic output.



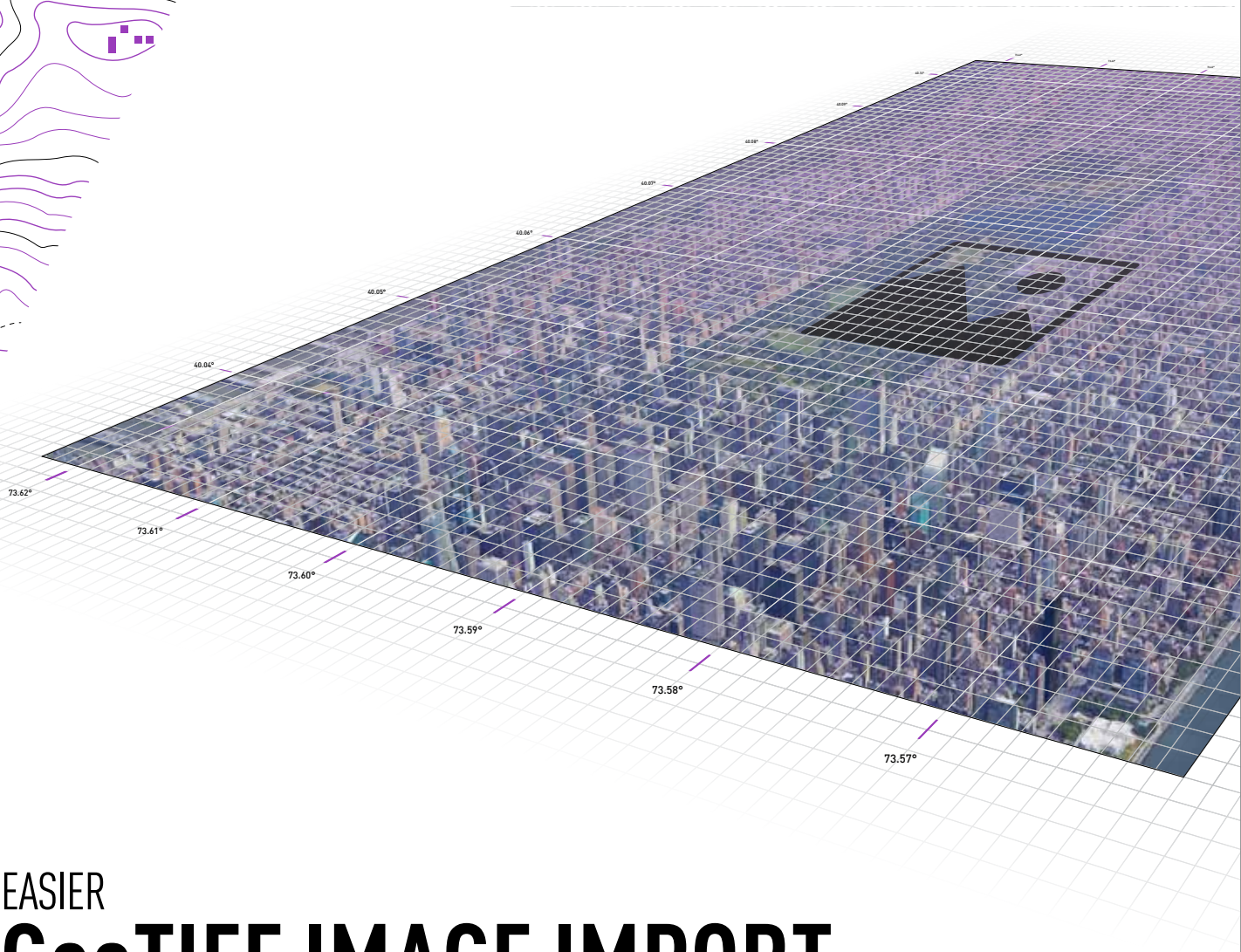
ENHANCED

PLANT TAGS

Vectorworks Landmark is changing the game when it comes to landscape design software by enabling you to include plant images within your 2D plant tags, increasing the readability of your landscape plans by displaying images in line with plant tags and in worksheets as keys or legends.

F A L S D

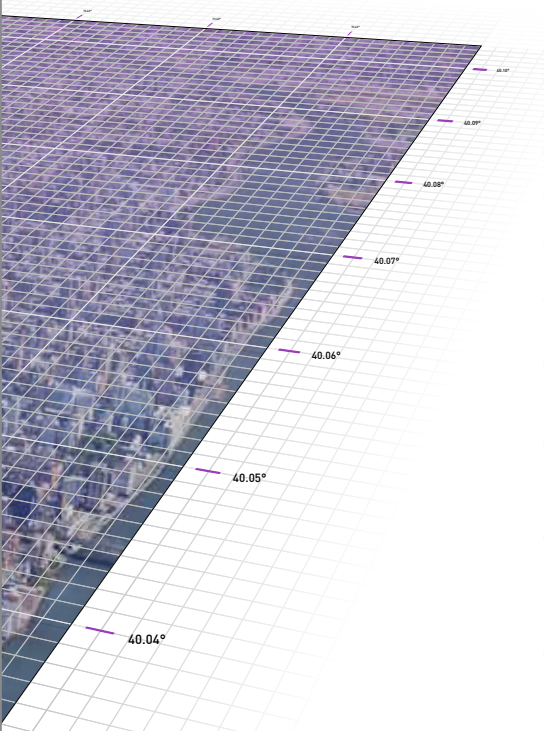
ADVANCE
YOUR SITE DESIGN



EASIER
GeoTIFF IMAGE IMPORT

F A L S D

Now you can import TIFF files with embedded georeferenced information (GeoTIFFs). The image will automatically match the map projection of the current Vectorworks layer, similar to capabilities found in programs such as ArcGIS and GRASS GIS.

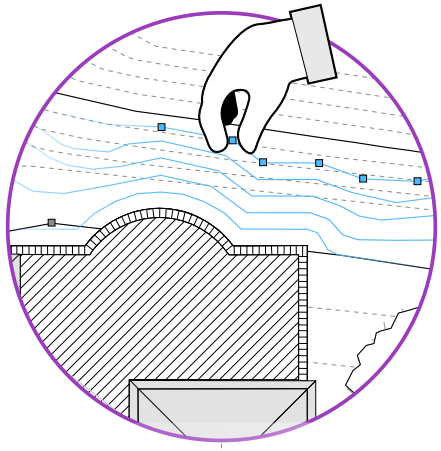


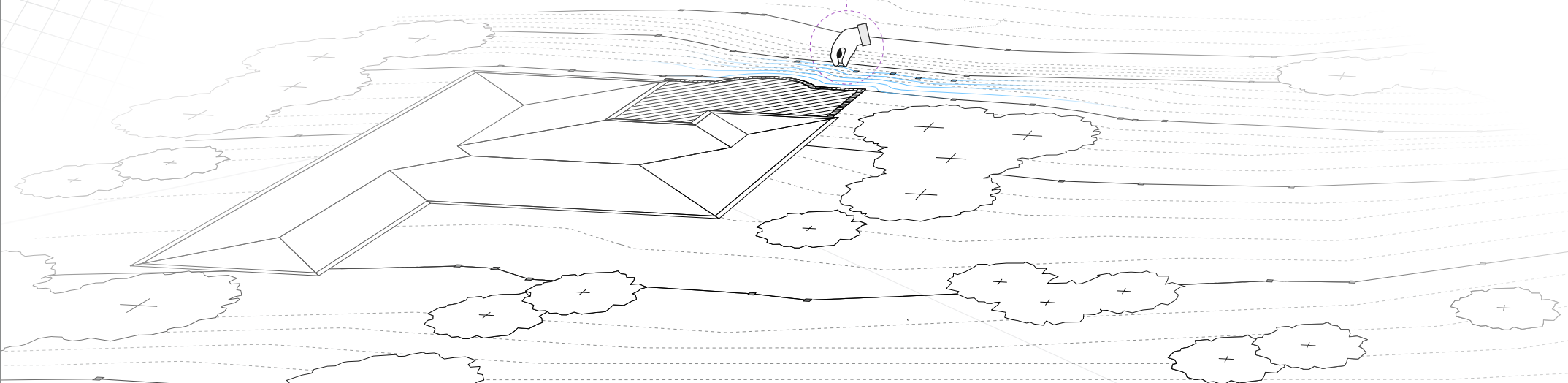
F A L S D

DIRECT SITE MODEL

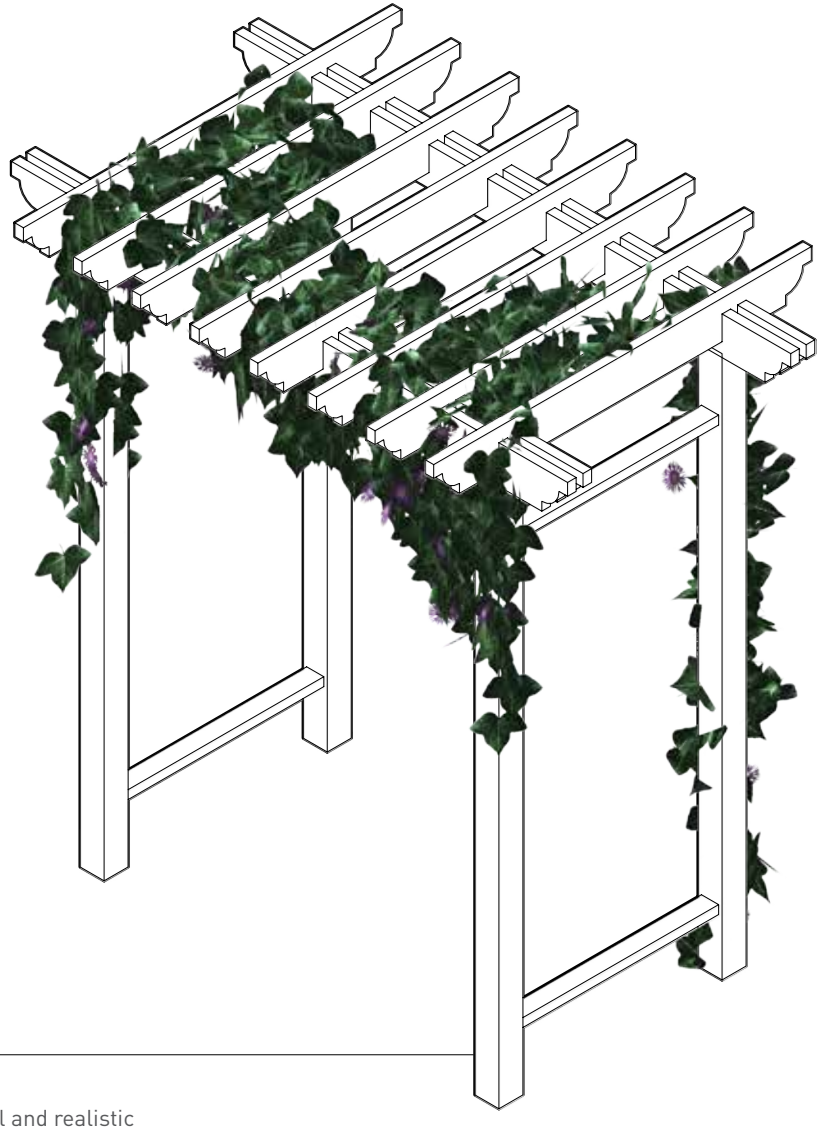
CONTOUR EDITING

Now editing your site model is easier than ever with improved site model settings and direct 2D contour editing. Modify each contour line as easily as you can edit a polyline.





ADVANCE
YOUR SITE DESIGN



NEW
FOLIAGE TOOL

Our amazing new Foliage tool creates beautiful and realistic hedges, leafy areas on topiary shapes, car ports, pergolas, and more to enhance your realistic landscape designs and impress your clients.

F A L S D

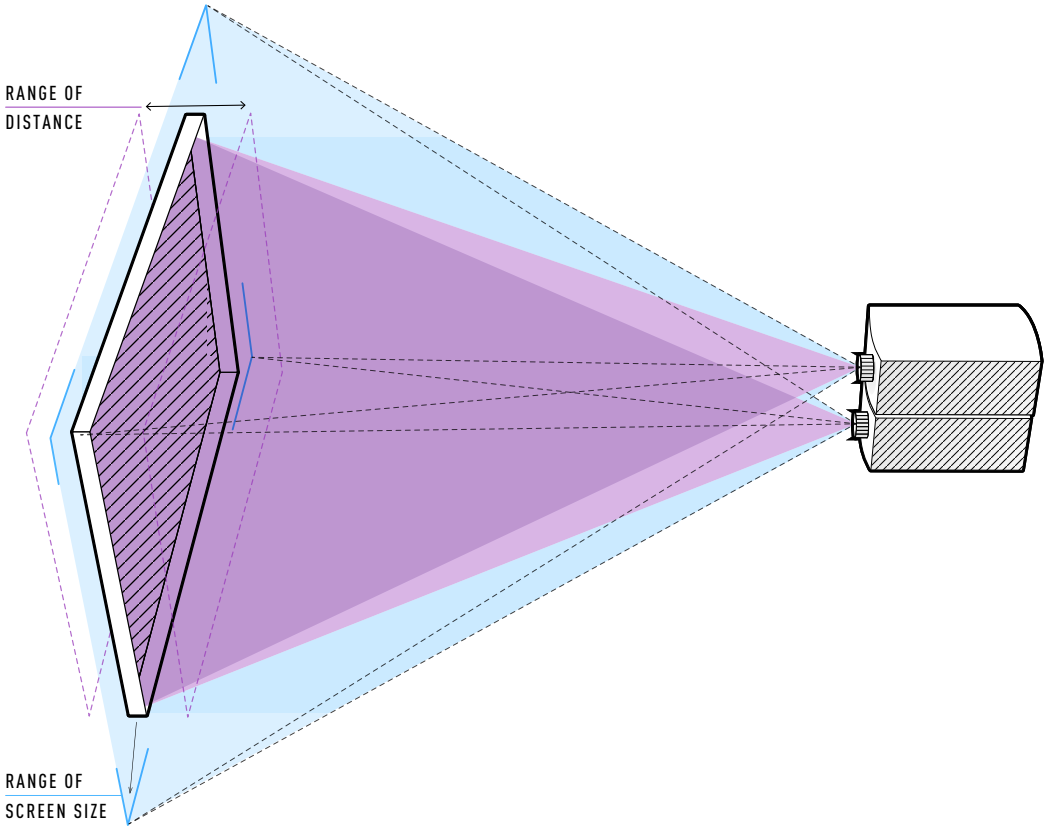
NEW IMPORT/EXPORT

TREE SURVEY OPTIONS

Generating existing site conditions from GIS and tree survey data often involves conversion tools. With Vectorworks 2018 there is no need for external tools. Just use geolocated tree species data to create existing tree objects and export back to clients via Shapefile (SHP), TXT, and DXF formats.

F A L S D

COMMAND
THE SPOTLIGHT



NEW ZOOM OPTION
FOR VIDEO AND BLENDED SCREENS

F A L S D

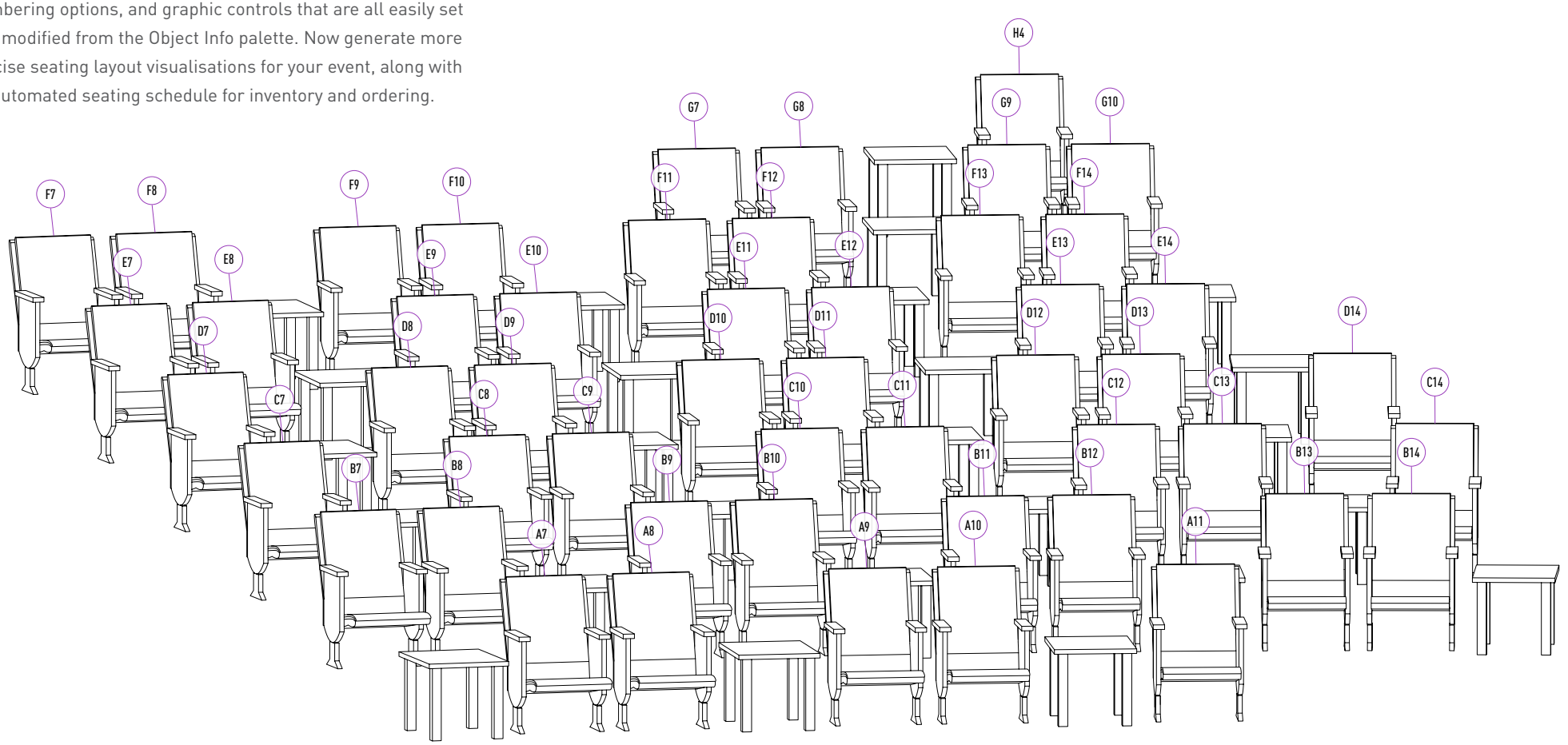
Managing the planning and visualisation of video screens in your designs is easier than ever. With new graphic output capabilities, you can more accurately understand, estimate, and adjust available throw and zoom, enabling you to make final equipment choices earlier in the design process.

ENHANCED

SEATING SECTION COMMAND

F A L S D

Enhancements provide additional layout methods, multiple seat numbering options, and graphic controls that are all easily set and modified from the Object Info palette. Now generate more precise seating layout visualisations for your event, along with an automated seating schedule for inventory and ordering.



COMMAND
THE SPOTLIGHT

AUTOMATIC
TRUSS AND LOAD CONNECTIONS

F A L S D

With the new auto-connect mode, you can quickly connect trusses and loads, so that they can be analysed with Braceworks and documented correctly for installation of the rig. With the mode enabled, you get easy-to-understand visual feedback as you draw. Automatically attach loads, such as lights, speakers, drapes, video screens, and more directly to the truss or hanging position.

NEW
TRUSS INSERTION TOOL

Build your rigging structure using specific truss manufacturer content in just a few clicks. Plus, you can automatically incorporate manufacturer data, such as weight, cross-section data, and connections, for performing rigging analysis calculations.

F A L S D

INSERT CONNECTION TOOL

F A L S D

After the initial placement of trusses, you can control the truss stacking order and insert drops between them as needed.

NEW PRODUCT MODULE

BRACEWORKS

ENTERTAINMENT RIGGING ANALYSIS

F A L S D

Regulatory requirements, such as the Eurocodes and increasing requirements from venues, municipalities, and building owners, are leading to the need for event design, A/V, and rigging companies to produce load and structure calculations that can be signed off by structural engineers. Braceworks™ provides you with the peace of mind that you can not only generate certifiable documentation, but that you can do so in the same file containing your event design, saving countless hours and reducing costs in the process.

An add-on module for Vectorworks Spotlight and Designer, Braceworks provides design, production, and rigging professionals with an easy way to gauge the performance of temporary entertainment structures under load to ensure safety and compliance with engineering standards.

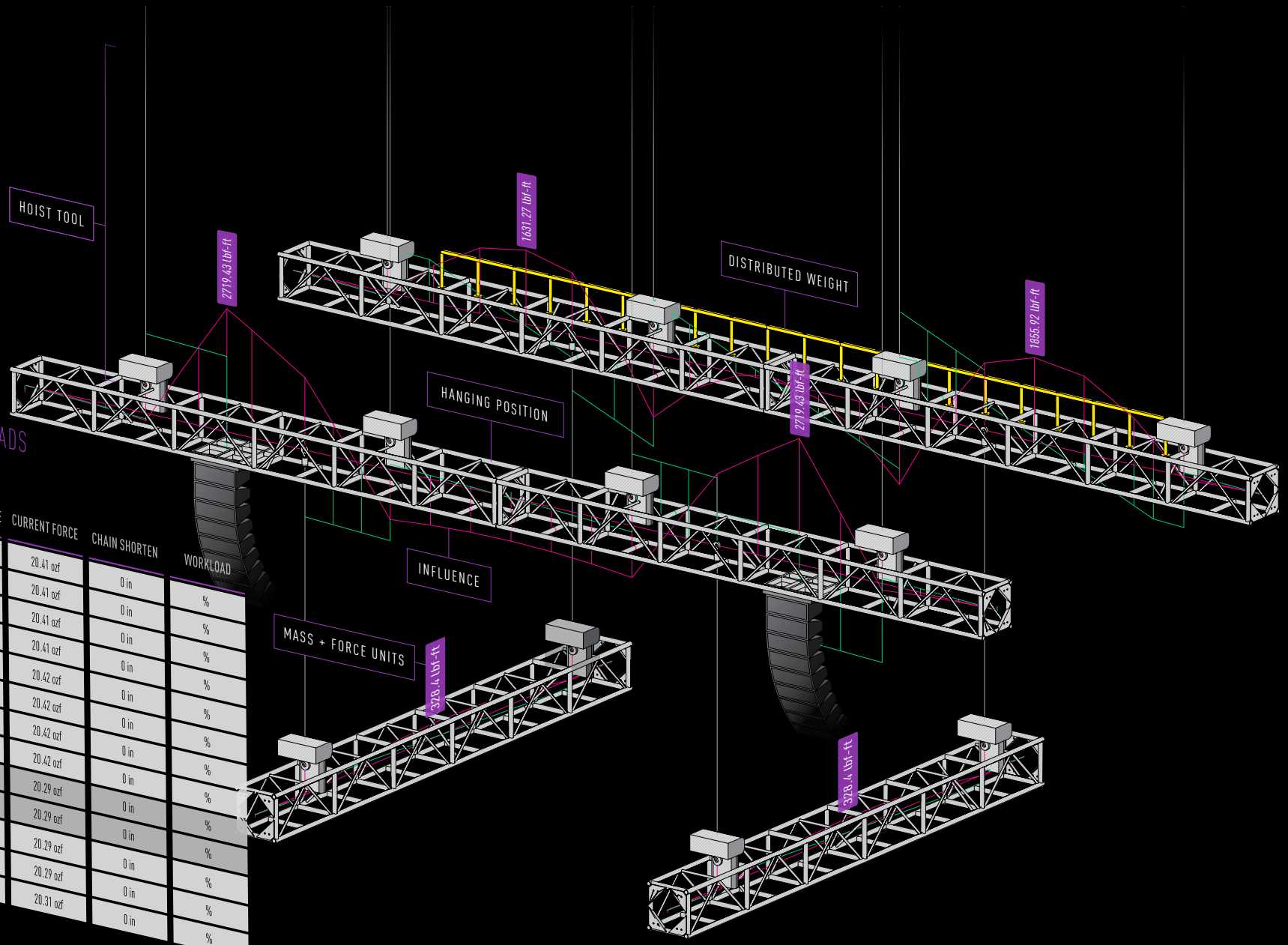
By adding Braceworks into Spotlight, design, production, and rigging professionals have a completely integrated entertainment modelling, analysis, and documentation solution for the first time.

Braceworks analyses complete 3D structural systems modeled in Spotlight. It supports point and distributed load types, straight and curved structural members, and multiple materials. The Finite Element Analysis (FEA) model enables static analyses with results displaying graphically on the model for easy reference. Braceworks also includes support for load calculation and truss structure Eurocodes and upcoming ESTA standards, such as the E1.6. It also automatically generates detailed calculation reports and exports files as DTSV for easy sharing with structural engineers. To see Braceworks in action, visit **vectorworks.net/braceworks**.

EVALUATION OF HOIST WORKLOADS

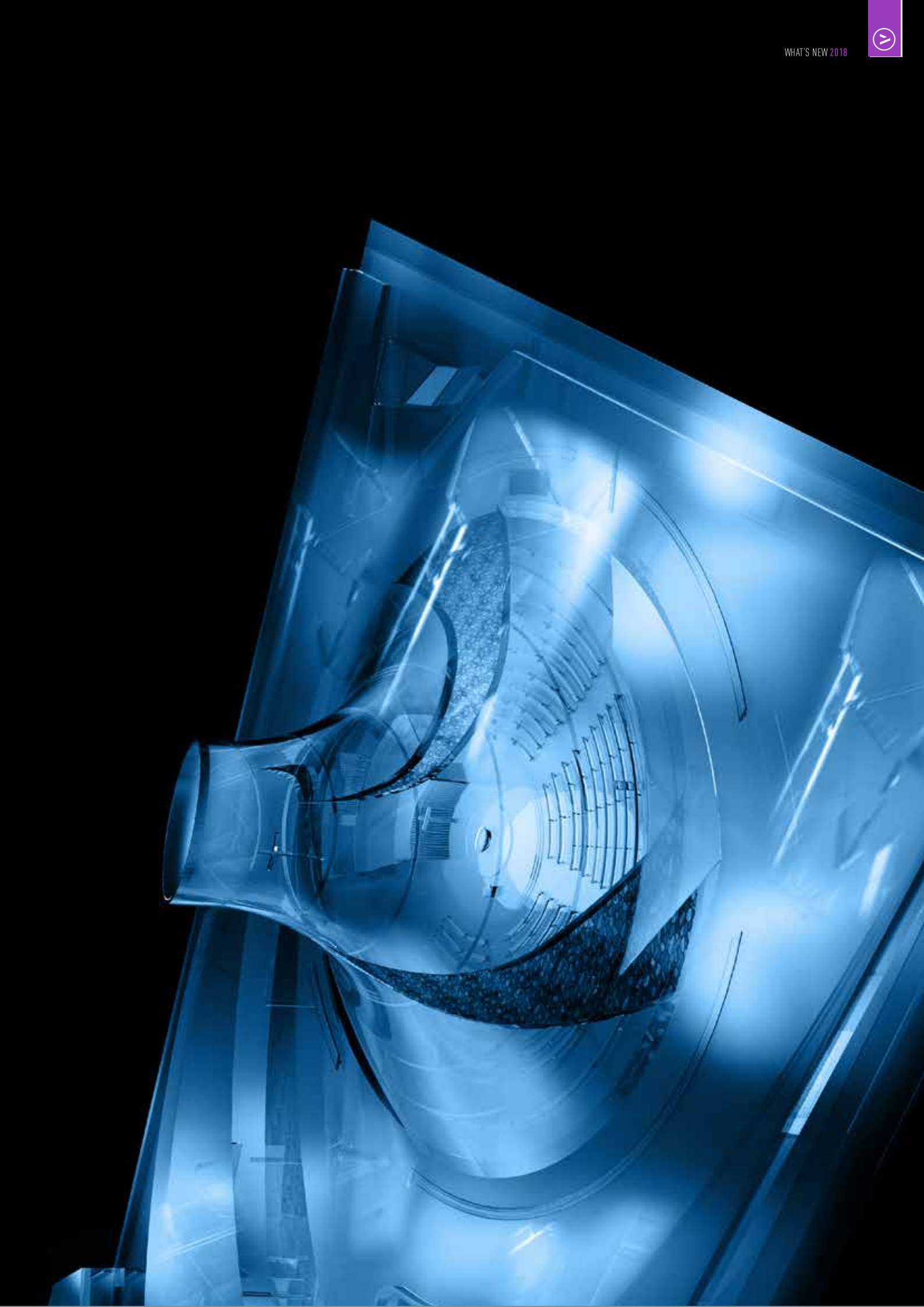
Suspension Points

ID	NAME	ALLOWABLE FORCE	CURRENT FORCE	CHAIN SHORTEN	WORKLOAD
M4	HP	0.00 ozf	20.41 ozf	0 in	%
M5	HP	0.00 ozf	20.41 ozf	0 in	%
M6	HP	0.00 ozf	20.41 ozf	0 in	%
M7	HP	0.00 ozf	20.41 ozf	0 in	%
M8	HP	0.00 ozf	20.42 ozf	0 in	%
M9	HP	0.00 ozf	20.42 ozf	0 in	%
M10	HP	0.00 ozf	20.42 ozf	0 in	%
M11	HP	0.00 ozf	20.42 ozf	0 in	%
M12	HP	0.00 ozf	20.29 ozf	0 in	%
M13	HP	0.00 ozf	20.29 ozf	0 in	%
M14	HP	0.00 ozf	20.29 ozf	0 in	%
M15	HP	0.00 ozf	20.29 ozf	0 in	%
M16	HP	0.00 ozf	20.31 ozf	0 in	%



03 SHARE
YOUR VISION

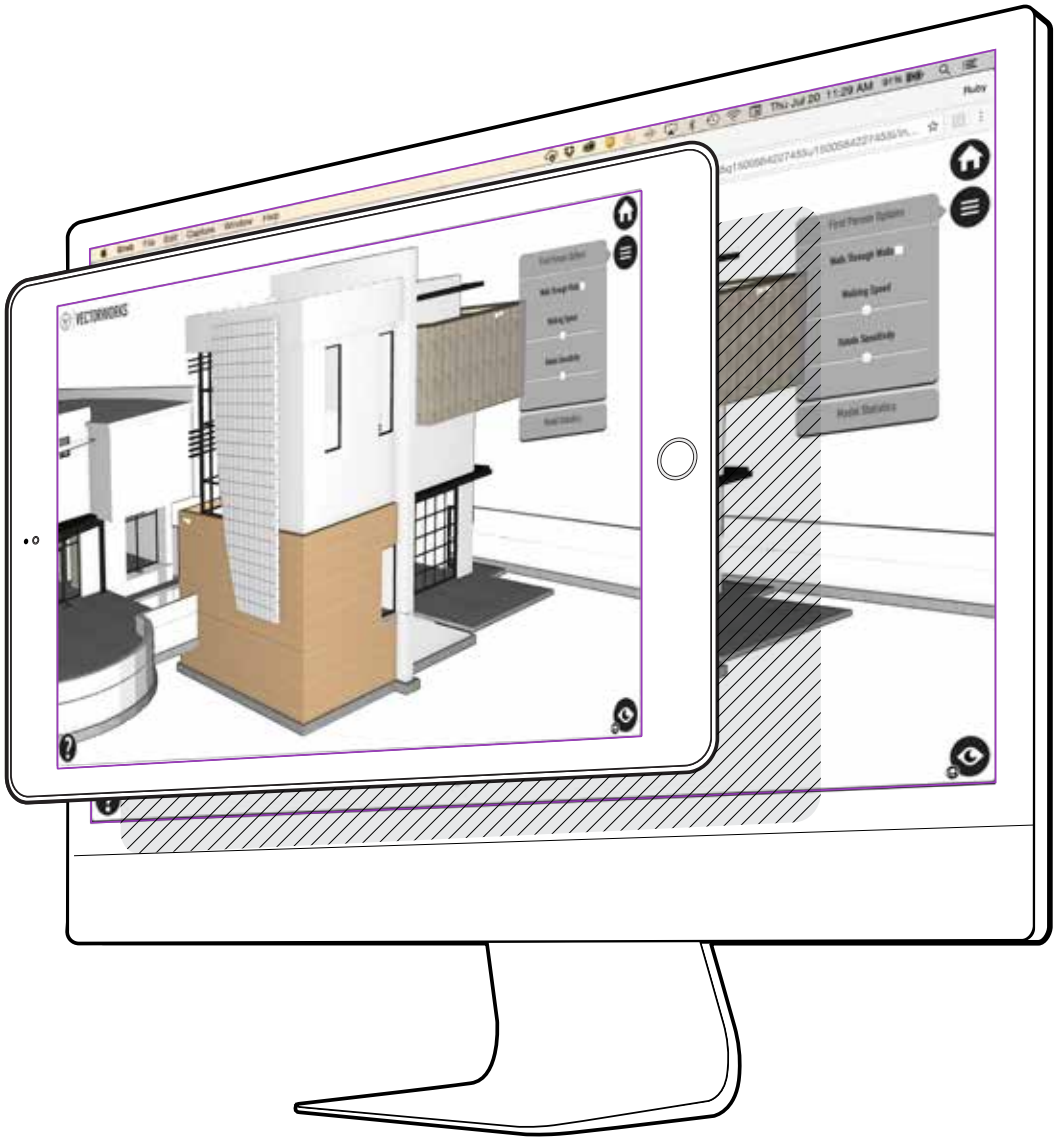
As designers, sharing your vision in high-quality, engaging, and distinctive ways creates experiences for your clients that are critical to helping you win more business. With the latest Maxon CineRender render engine, rendered panoramas, high-quality shaders, and single-click model export for web viewing, you now have a suite of tremendous cutting-edge capabilities that are seamlessly integrated with the tools you use for design and documentation.

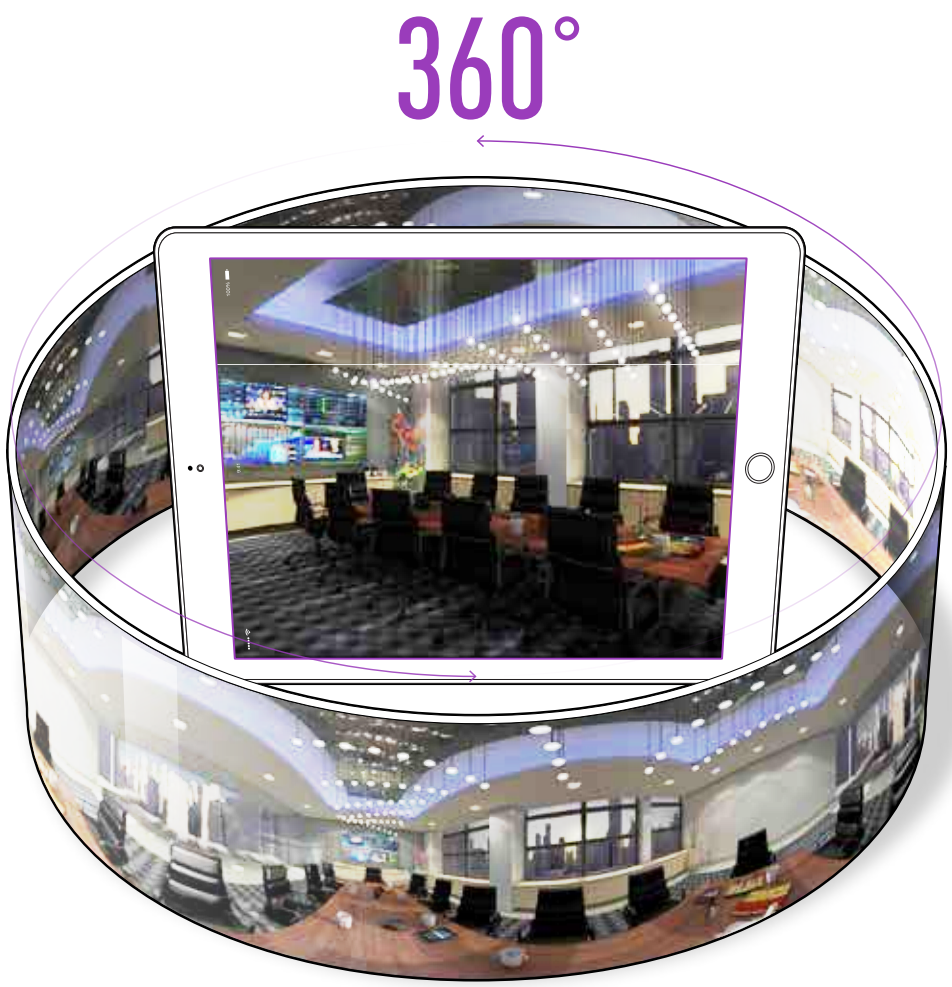


ENHANCED
WEB VIEW EXPORT

Web View now supports Vectorworks' clip cube and provides enhanced file optimisation and desktop rendering options that produce lighter-weight models with better performance, resulting in higher-quality web and virtual reality experiences for your clients.

F A L S D





F A L S D

NEW

RENDERED PANORAMAS

Provide your clients a 360-degree interactive view of your model with this new capability in the Renderworks® feature set. Put your clients in the middle of your vision, no matter how big the model is.

UPGRADED RENDERWORKS
WITH MAXON CineRender

With the natively integrated Maxon CineRender, Renderworks provides faster, higher-quality rendering directly within the Vectorworks design environment to help you create incredibly realistic visualisations and presentations of your designs. The upgrade introduces better rendering of metals, especially brushed metal; a new cloth shader for visualisation of woven-cloth patterns; a new shadow catcher feature that allows shadows on virtual objects to be composited properly onto real photos; controls for up to sixteen light reflections; and a new Parallax shader effect to achieve displacement mapping quality in less overall time.

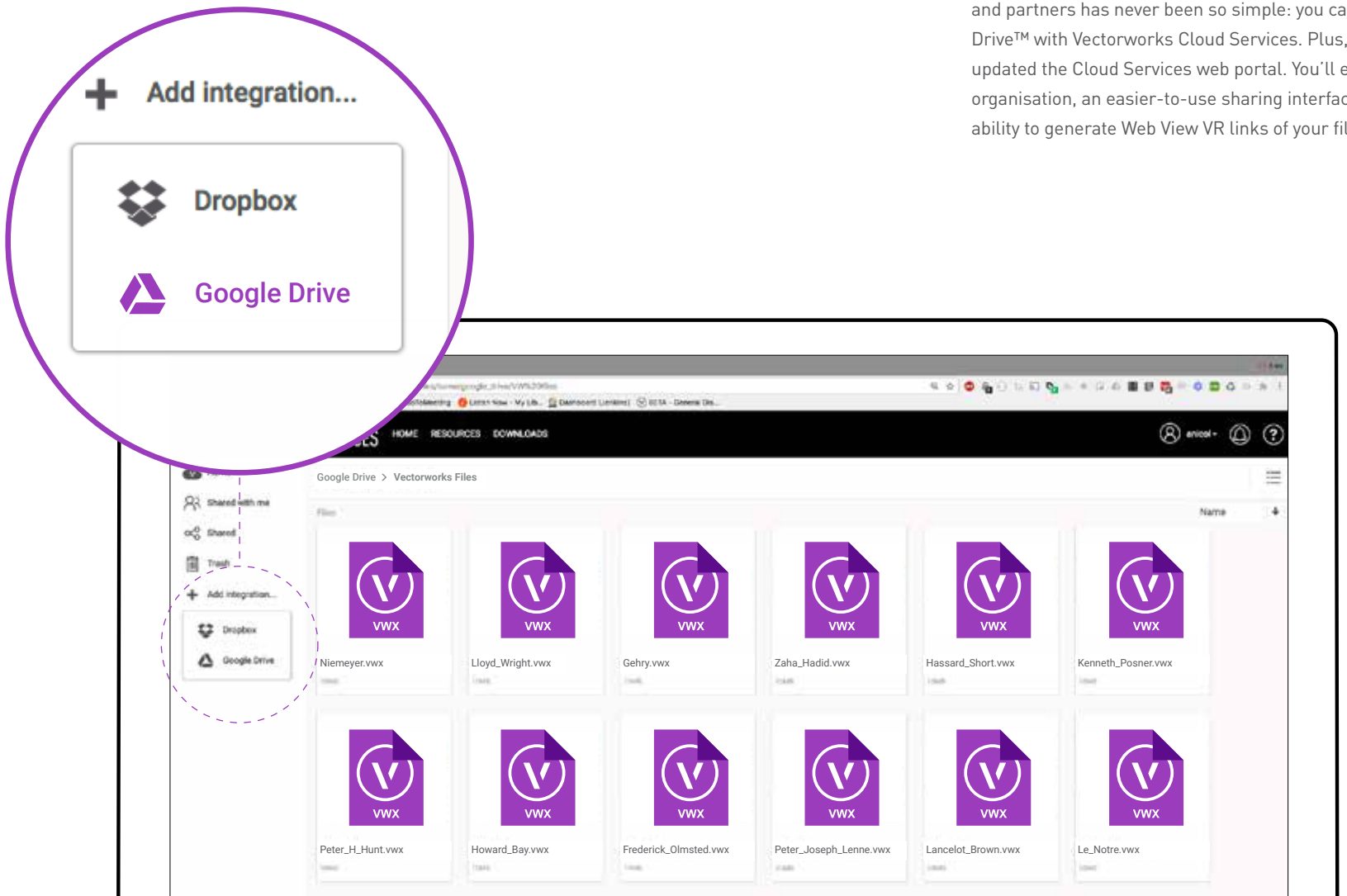
F A L S D

IMPROVED

VECTORWORKS CLOUD SERVICES

F A L S D

Sharing your designs, drawings, and 3D models with clients and partners has never been so simple: you can now use Google Drive™ with Vectorworks Cloud Services. Plus, we've completely updated the Cloud Services web portal. You'll enjoy better file organisation, an easier-to-use sharing interface, and even the ability to generate Web View VR links of your files in the cloud.



2018

NEW FEATURE MATRIX

	F FUNDAMENTALS	A ARCHITECT	L LANDMARK	S SPOTLIGHT	D DESIGNER
ENHANCE YOUR MODELLING PROCESS					
Multiple drawing views	●	●	●	●	●
Direct section and elevation editing		●	●	●	●
Improved subdivision modelling	●	●	●	●	●
Improved graphical scripting with Marionette		●	●	●	●
SIMPLIFY YOUR WORKFLOWS					
Stay informed with the new Message Center	●	●	●	●	●
Plug-in styles for more parametric BIM objects		●	●	●	●
Streamlined worksheets	●	●	●	●	●
Improved graphic output for architectural documents	●	●	●	●	●
Improved Revit import		●	●	●	●
MacBook Pro Touch Bar support	●	●	●	●	●
Streamlined drawing distribution		●	●	●	●
Robust wall modelling options	●	●	●	●	●
Better DXF/DWG image import and export	●	●	●	●	●
More accessible IFC BIM data		●	●	●	●
Work globally	●	●	●	●	●
Enhanced Resource Manager	●	●	●	●	●
Easier title block customisation	●	●	●	●	●

	F FUNDAMENTALS	A ARCHITECT	L LANDMARK	S SPOTLIGHT	D DESIGNER
ADVANCE YOUR SITE DESIGN					
Refined irrigation layout			●		●
Flexible hardscape joint patterns			●		●
Enhanced plant tags			●		●
Easier geoTIFF image import			●		●
Direct site model contour editing		●	●		●
New Foliage tool			●		●
New import/export tree survey options			●		●
COMMAND THE SPOTLIGHT					
New zoom option for video and blended screens				●	●
Enhanced seating section				●	●
Automatic truss and load connections				●	●
New Truss Insertion tool				●	●
New Insert Connection tool				●	●
New product module – Braceworks*				●	●
SHARE YOUR VISION					
Enhanced web view export		●	●	●	●
New rendered panoramas	●	●	●	●	●
Upgraded Renderworks with Maxon CineRender	●	●	●	●	●
Improved Vectorworks Cloud Services	●	●	●	●	●

*Braceworks is a new add-on product module that can be added to Vectorworks Spotlight or Vectorworks Designer.

SYSTEM RECOMMENDATIONS

Performance of Vectorworks and Vision may vary depending on several factors, including hardware configurations and project types.
To get a full list of minimum system requirements and recommended hardware profiles, please visit **vectorworks.net/sysreq/**

Mac OS 10.12 (Sierra)
Mac OS X 10.11 (El Capitan)
Mac OS X 10.10 (Yosemite)

Windows 10 64-bit
Windows 8.1 64-bit
Windows 8 64-bit
Windows 7 SP1 64-bit

PROCESSOR

- (E) 64-bit Intel Core i5 (or AMD equivalent) or better
- (M) 64-bit Intel Core i5 (or AMD equivalent) clocked at 2GHz or better
- (H) 64-bit Intel Core i7 (or AMD equivalent) clocked at 3GHz or better

RAM

- (E) 4GB or more
- (M) 8GB-16GB or more
- (H) 16GB-32GB or more

GRAPHICS CARD

- (E) OpenGL 2.1 compatible graphics card with 1GB of VRAM or more
- (M) Dedicated OpenGL 2.1 compatible graphics card with 2GB-4GB of VRAM
- (H) Dedicated OpenGL 2.1 compatible graphics card with 4GB of VRAM or more
- (V) Dedicated OpenGL 3.0 compatible graphics card with 4GB of VRAM or more

SCREEN RESOLUTION

1920x1080 or higher recommended

NETWORK REQUIREMENTS FOR PROJECT SHARING

Project sharing requires high-speed network connections. As the network bandwidth increases, so does project sharing performance. Slower network speeds can still provide a satisfactory user experience if you minimise operations that transfer large amounts of data over the network (such as committing changes to the project file or refreshing a local working file).

Key:

(E) Entry-level profile (M) Mid-level profile (H) High-end profile (V) Vision profile

ABOUT VECTORWORKS

Vectorworks cares about design. Since 1985, we have served the architecture, landscape, and entertainment industries, drawing inspiration from the world around us and encouraging the more than 650,000 designers who use our software to create experiences that transform the world.

Our commitment to develop the world's best cross-platform design software has taught us a simple truth: great design begins with the inspiration of the designer. Vectorworks supports that inspiration by guiding the exploration of discovery and finding creative solutions. We provide powerful tools to help designers capture ideas, nurture innovation, communicate effectively, and realise their vision.

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

VECTORWORKS HELPS BRING NIEMEYER PROJECT TO LIFE

The image featured on the front cover is a model of the Santuário Papa João Paulo II, a project by Caique Niemeyer of Caique Niemeyer Arquitetura & Design. Caique Niemeyer is the great-grandson of prominent architect Oscar Niemeyer, a pioneer of modernist architecture known for his designs of the buildings of Brasília, Brazil's capital city.

"This project began with a request asking for a religious temple, and our proposal was so well accepted that it became the Shrine of St. John Paul II," said Caique Niemeyer. "My experience with [my great-grandfather] the architect Oscar Niemeyer in the conception of so many other cathedrals helped me to create this complex."

The project is planned to be built on 12,000 square meters of land in Rio de Janeiro adjacent to Ilha Pura, home to the 2016 Olympic Games Village of Athletes. The 1,961.60-square-meter building will include a sanctuary and a museum, as well as an auditorium, shop, cafeteria, and underground parking garage.

Caique Niemeyer and his team are using Vectorworks to create the building's design and BIM model. "It is critical to emphasise the importance of Vectorworks in the development of this project," said Caique Niemeyer.

"Its practicality and BIM capabilities provided three-dimensional modelling in an easy, fast way, simplifying the preparation of the boards in two dimensions and in coordination with our design partners at Loggia Architecture, who are responsible for lighting, engineering, and installations for the project."

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