Vectorworks 2016 Review

We take an in-depth look at the recently launched Vectorworks 2016 as a tool of choice for many within the Design industry.

For more information please contact us on 0207436 9004 or email sales@cadventure.co.uk

VECTORWORKS INSTALLER

The new installer standardises the way you install the software including options add content library packages to your copy of Vectorworks products, including industry specific content libraries that can be added to drawings through the resource library. It easy and simple as it should be. In addition, it comes with an uninstaller which saves you the inconvenience of locating where Vectorworks is installed on your machine if you have any reason to remove and reinstall the software.
No files are backed up by the installer and this is typically not a problem, but if you have customised your Vectorworks environment by modifying files (such as workspaces or object libraries) within your Vectorworks directory, we strongly encourage you to make a backup before running the updater, as some of these files may be overwritten without further warning.

MIGRATION TOOL

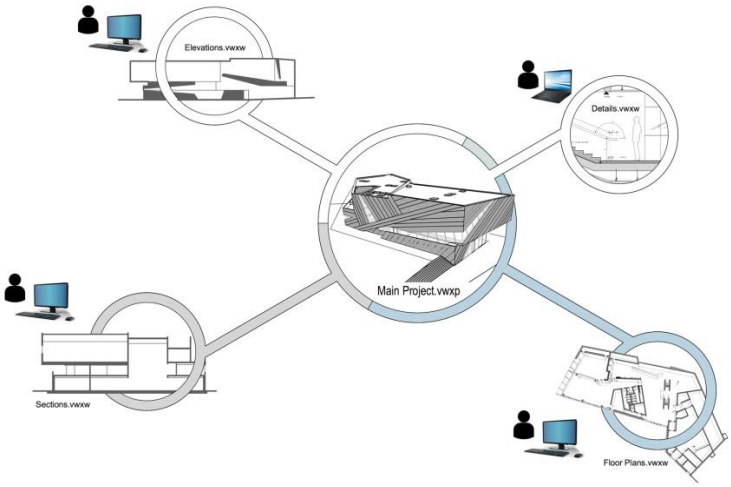
It has long been the industry norm to complete a project using the same software version to avoid any risk of data loss attributed to a mid-project software upgrade. The latest version of Vectorworks has a migration manager tool to convert existing data to the next version.
The migration tool automatically migrates your user data, consisting of workspaces, template files, library files, resource Browser favourite files and preferences to the new version.
Remember your responsibility to protect your project data and we recommend before you commence any migration process in any application you have a secure backup of your files.

At this time, we recommend some caution when using this tool as this is a new feature on its first service pack releases. For example, “If you skipped a Vectorworks version, only the menu commands and tool items from the new version are added to a custom workspace. Commands and tools from the skipped version are not included.”

PROJECT SHARING

Vectorworks Project Sharing is an integrated, peer based, multi-user environment, streamlining project organisation and Vectorworks user access management, enabling design teams to concurrently work in the same Vectorworks project, designing and creating documentation without requiring expensive server software and/or hardware.

Project sharing enables customers to divide and conquer larger projects through distributing the information of a single project, in as many directions as needed, for internal design team collaborators to effectively table the workload.



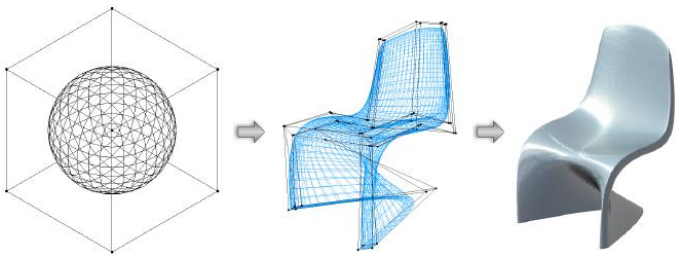
File sharing is limited to sharing layers rather than objects.
This may be viewed as a positive as it continues to build upon the existing user's knowledge of the layer system within Vectorworks.

The tool is intuitive and also manageable for CAD managers and interactive from a user's perspective. Project management is enhanced through improved project control recording the files in use, user read/write file permissions including layer control.
Project sharing may be disabled if required at any point during the life of the project.

Working outside the office environment is achievable with project sharing. Deploying a VPN with a standard internet connection appears to work adequately.
Consider project sharing as not a replacement for work group referencing but a tool to provide a complimentary feature for project collaboration within your practice by using project sharing features alongside workgroup referencing.

SUBDIVISION

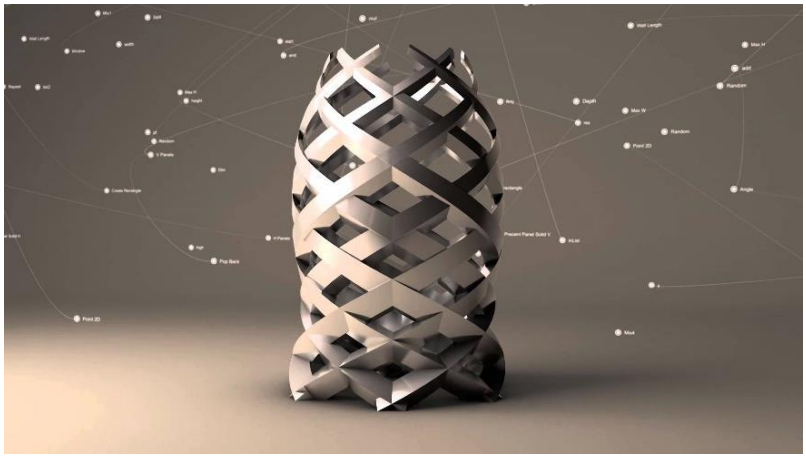
Subdivision modelling is a method of representing complex curved smooth surfaces by creating a polygonal mesh of the shape and applying further subdivisions of regions of the mesh where required, to better approximate complex curved surfaces.
Create free-form shapes using the **Create Subdivision Primitive** command to create a primitive object, a cube or a sphere as an example. There is an option to subdivide the object and this includes a range of editing options to create shapes. This tool can be used for unique building structures to bespoke furniture.



VISUAL SCRIPTING

The new Marionette tool for creating parametric objects is a new and useful introduction to parametrics and is similar to the Generative Components aka GC from Bentley Systems.
The Marionette tool provides a visual scripting interface, allowing inexperienced users to quickly understand and create complex scripts in the Vectorworks program without needing to understand the underlying programming language, Python.

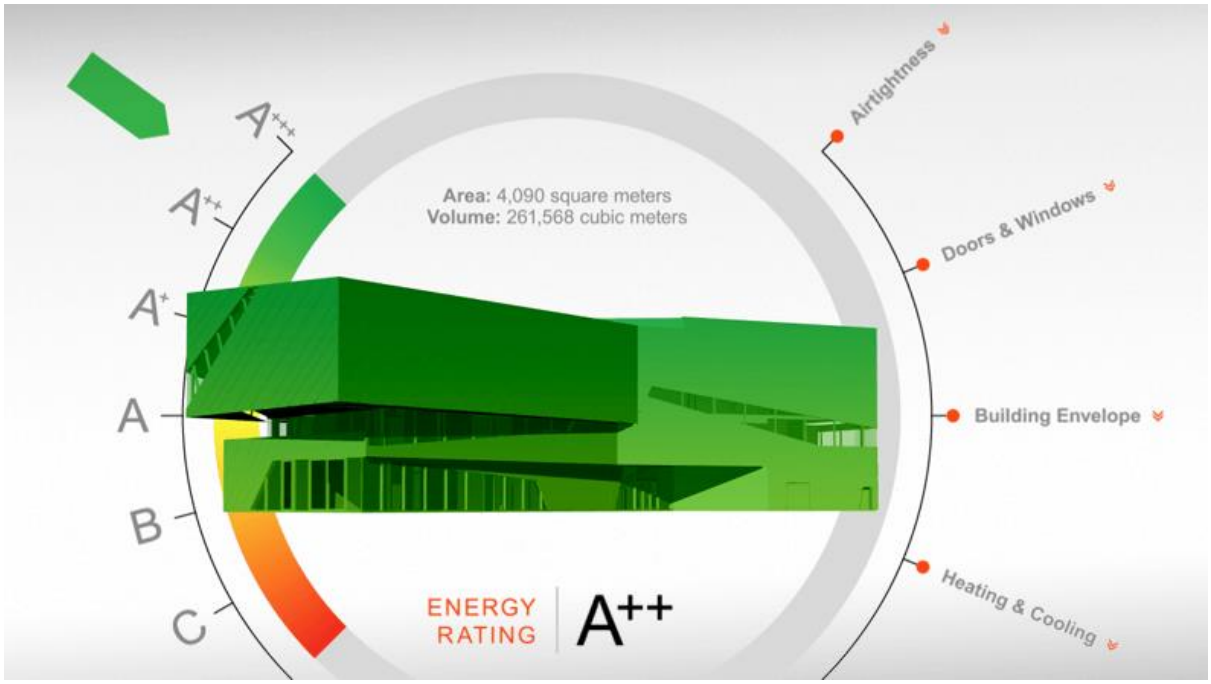
Vectorworks Marionette tool is a new design workflow, the first and only cross-platform graphical scripting (or "visual programming") environment available in a BIM authoring software for the AEC industry. The tool algorithmically generates geometry and other Vectorworks objects using a flow-chart like language; over 600 nodes (basic building blocks) are provided to help you start scripting.



Marionette offers designers 'optioneering' functionality to define, build, and explore form and function throughout the design process.

ENERGOS

As sustainable designing becomes ever more important, the need for architects to create more eco-friendly buildings becomes more imperative. With this in mind Vectorworks have provided another feature built directly into the software to process options and derive solutions. An intelligent building energy use simulation and analysis module based on the Passivhaus calculation method. Vectorworks claim no other architectural authoring BIM tool uses this internationally recognised calculation method. Architects are able to assess critical building performance decisions based on real-time feedback from a Vectorworks building model. It affords a visual rating system which provides feedback on the design's energy efficiency in real-time as the project model evolves.

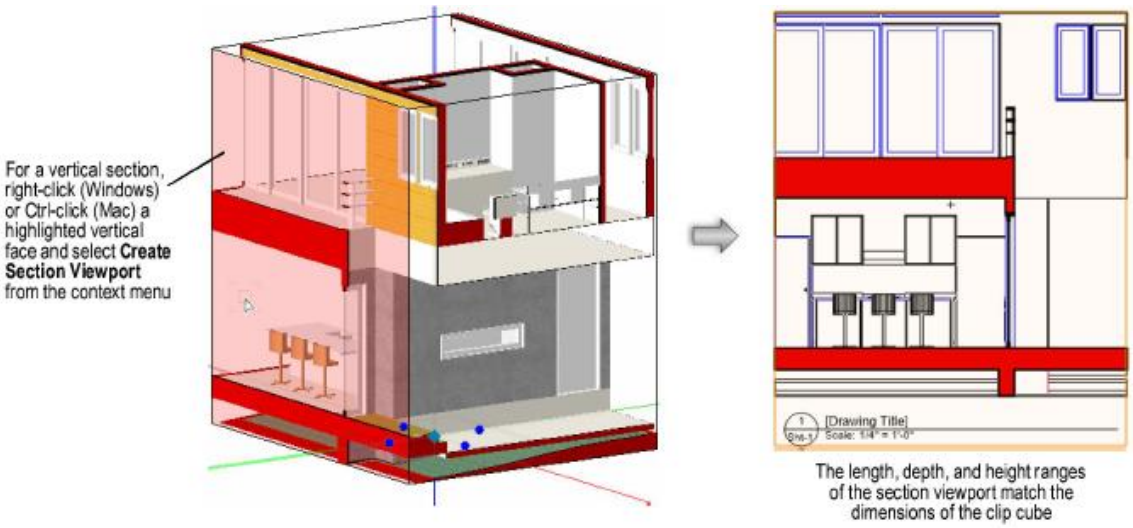


RENDERING/RENDERWORKS

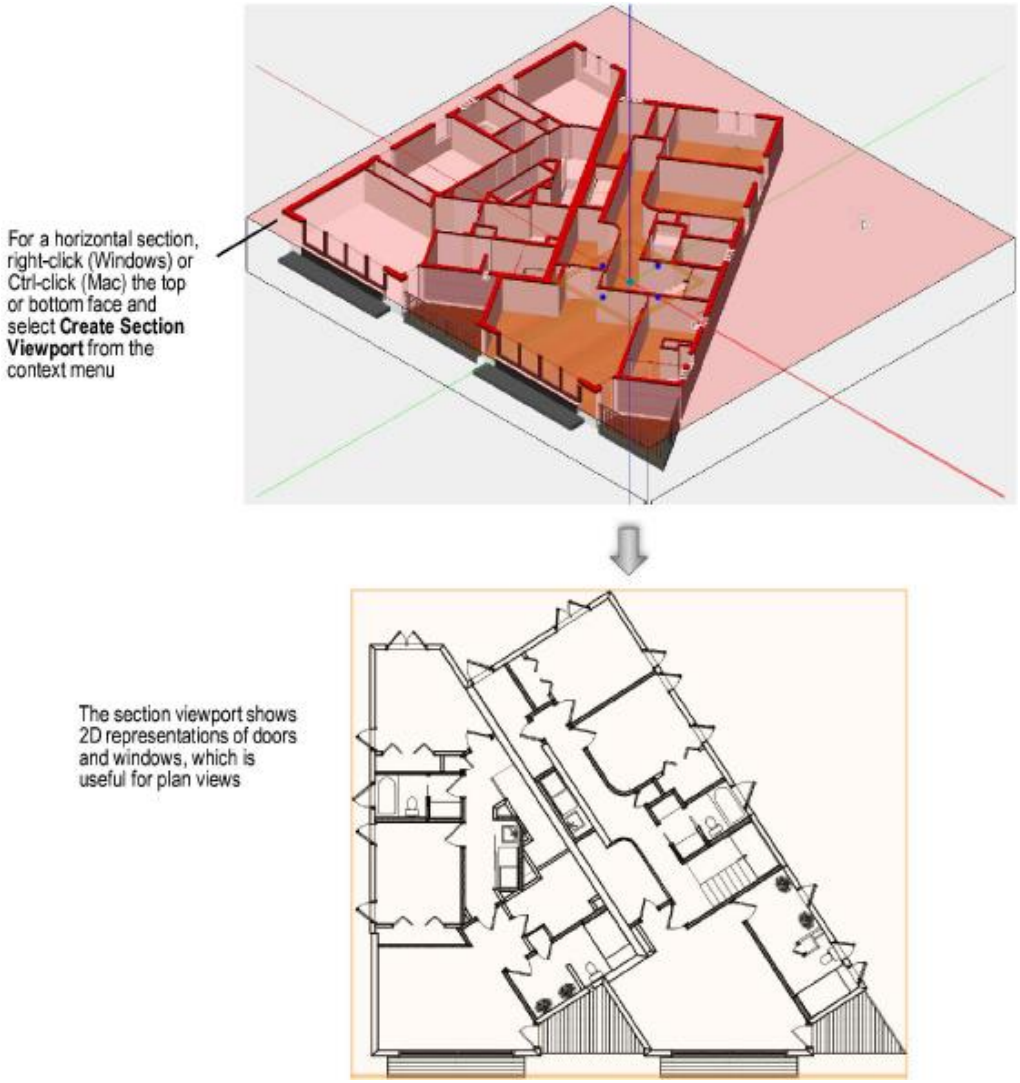
Further improvements are evident in the rendering package delivered by a Vectorworks partner. This year they have upgraded the MAXON Cinema 4D ® render engine and the quality of the images are clear and accurate renderings and allows you to create striking photorealistic and stylised, or non-photorealistic visualizations and dynamic animations no matter what kind of projects you design. One rendering feature worth a special mention is the new ambient occlusion render option, which just gives that extra depth and realisation to your project renders, especially when utilising the white card rendering for initial design visuals.

HORIZONTAL SECTIONS

There is an improvement in the workflow to create plans and sections. Previously, the clip cube function would generate sections on a vertical plane adequately and it is now possible to create sections and plans from all six faces of the clip cube. Use this command to isolate segments and create conceptual and diagrammatical views.

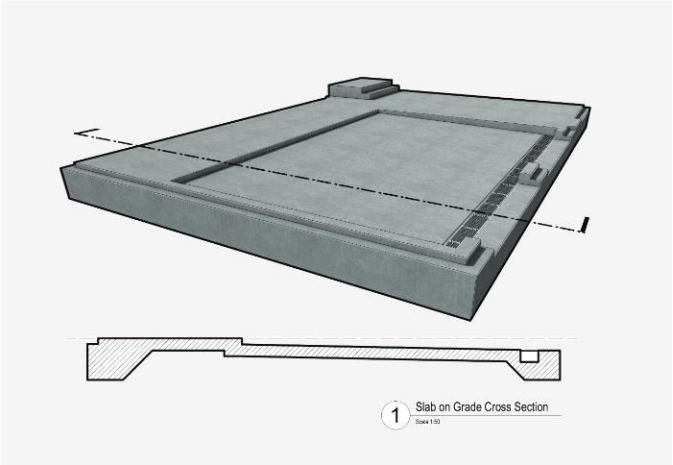


3D



MODIFIERS FOR SLABS AND CREATES SLAB STYLES:

Improvements to the existing functionality are efficient and time saving. Slab 'styles' can be saved in libraries and used on other projects. Geometric flexibility is extended to slabs, allowing surfaces to be shaped to match design construction requirements.



CONCLUSION

Vectorworks 2015 improvements have been eclipsed by Vectorworks 2016.

Similar to many other BIM applications, Vectorworks is still evolving and improving everyday design tools. Cloud services are available under this release and worthy of further study as a Vectorworks Service Select member. While it is beneficial for users to understand scripting prior to using the Marionette tool, it is not essential.

Project sharing is a welcomed addition and it will be interesting to see this develop further.

The Energos module has been reported as 'an easy to use tool'.
User permissions are important and are required to be Full access. Read, Write, Rename, Delete, Create, etc.
A note about file translations, there is an improved dxf/dwg export of classes from design layer viewports including improved dxf/dwg sheet layer exports.
We look forward to multiple views and a search facility for the classes being introduced.

Vectorworks 2016 System Requirements

If you considering purchasing or upgrading to Vectorworks 2016 it is important to firstly know what the minimum system requirements are and if your machine is compatible.

OPERATING SYSTEMS:

MAC:	Mac OS X 10.9 Mac OS X 10.10
Windows:	Windows 7 SP 1 (64-bit) Windows 8 (64-bit) Windows 8.1 (64-bit) Windows 10 (64-bit)
PROCESSOR:	64-bit Intel Core i5 (or AMD equivalent) or better
RAM:	4GB minimum 8GB recommended 8GB – 16GB recommended for large files and complex renderings.
GRAPHICS CARD:	OpenGL 2.1 compatible graphics card VRAM: 1GB (minimum), 2GB-4GB (recommended) A dedicated graphics card is highly recommended
SCREEN RESOLUTION:	1440 x 900 minimum 1920 x 1080 or higher recommended

Please contact Cadventure for additional information and to enquire about our software, consultancy and training services.