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# Refreshing an Icon

## Refitting the Joan Sutherland Theatre

SHOW REVIEW: ISE, AMSTERDAM • TF: CHAUVET'S OVATION B-1965FC • PROFILE: BRYTE DESIGN  
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# classic gear

MiniCad/Vectorworks | by Rob Halliday . . .



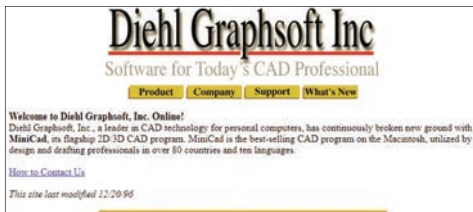
It's always slightly disappointing to realise that even though our 'products' - the shows we create - capture the attention of many, we remain a relatively small industry in global terms. That's why the key tools we use are often hand-me-downs from other industries, whether that be LED sources, or Ethernet, or the programmes we use to design shows - CAD software.

Take AutoCAD, probably the biggest player in this field. You can of course use it to design shows - many do - but I don't think you'll find any mention of stage lighting within the software itself. Conversely, there are specialist tools in our field - in lighting, the web-based Drafty or the powerful WYSIWYG are both great, but they are not wider CAD solutions.

However, can paying attention to a niche while being a broader solution help you grow your company? One tool suggests it can.

In 1985, Richard Diehl, had been working on high-end computers in the aerospace industry and not paying any attention to the lowly PC market - until Apple launched the Macintosh. Diehl saw that this was something remarkable and new - the future. He took out a loan, bought a Mac development system and started working on what would become MiniCad. At first conceived as a 'resume project' to show what both he and the Mac were capable of, Diehl then started selling it, having realised there was demand for computer-aided design solutions, particularly such that felt like Mac applications - mouse-driven through a graphical user interface - rather than the command syntax AutoCAD relied on. Besides, AutoCAD wasn't available for the Mac.

MiniCad wasn't quite the only Mac CAD package, but it was powerful - with core support for 3D modeling, with the ability to track objects in the drawing, and with a built-



Diehl Graphsoft's website from the 1990s

in programming language, so you could extend its functionality if you had the inclination. Ultimately, Diehl did also pay attention to PCs: with MiniCAD 6 in 1996 (the software's history is littered with changes in capitalisation!) the software became available for Window as well, allowing users to share files across platforms.

Diehl also seems to have paid attention to who his users were: by the mid-90s, MiniCAD was touting support for particular industries, one of which was theatre lighting. Diehl had hired theatre professional Frank Bault to create theatre-specific macros and symbols. As MiniCAD evolved into VectorWorks, Kevin Moore and Kevin Linzey expanded this functionality into an optional entertainment lighting add-on called Spotlight. Which surely means that we in entertainment were instrumental in Diehl Graphsoft first floating successfully on the stock exchange, then being bought by the European software company Nemetschek Group for \$30m in 2000. Who says we aren't good customers?

Vectorworks, as the name has settled to, has continued to evolve since, Spotlight gaining the ability to interchange information with industry stalwart Lightwright, with Vision pre-vis software the company now owns, and in Vectorworks 2018 with Braceworks, a new tools for performing load analysis on truss structures.

Vectorworks is not particularly cheap - and many entertainment users don't come anywhere close to tapping into its full potential. But as well as its power, it has two key advantages: it's widely used, so there's a high chance others you're working with are also using it, and if they're not, it does a good job of importing and exporting most of the other file formats you're likely to have to deal with. ✕

**Vectorworks now:** [www.vectorworks.net](http://www.vectorworks.net)  
**Vectorworks then:** [//plasa.me/diehl](http://plasa.me/diehl)

Rob has been working in and writing about lighting for more than 25 years, on shows around the world. He wonders if this makes him a classic... or just old!

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