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CAD Manager's Newsletter
STRATEGIES AND SOLUTIONS FOR THE REAL WORLD
By Robert Green

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Issue #523

Is It Time for a New Workstation? Specs for 2024 (and Beyond)

Each year software gobbles up more workstation resources. What do you need to look for if you are buying new workstations for your team this year?

A persistent question I receive from CAD managers is, "What are the specs we should use for purchasing CAD workstations?" In fact, my periodic updates on this topic continue to be one of the most searched and read articles on Cadalyst's web site. The curiosity comes from all companies large and small, from CFO's, IT managers, and CAD managers alike. With so much misinformation and marketing hype around workstations, is it any wonder that confusion abounds?

In this edition of the CAD Manager's Newsletter, I'll update my workstation recommendations for 2024 and explain how I arrived at them in a format you can send directly to your boss or IT department. Here goes.



Image source: [tiero/stock.adobe.com](https://www.adobe.com/stock/tiero/).

Don't Go Cheap

I strive to purchase workstations that will successfully serve the power CAD user for 2 to 3 years and figure that the workstation will then be passed along to someone else with less taxing applications. Yes, this means I spend more up front, but I ultimately get a better investment return. I also avoid the long-term costs that come with cheap computers such as these:

Bad performance. Cheap workstations make software run slower, are more prone to resource-related crashes, they become obsolete sooner, and they frustrate the users who work on them.

Upgrading later is difficult and not cost effective. The idea that you can under configure a machine today only to upgrade it next year is flawed logic. Most mobile workstations (AKA, laptops) can't be upgraded because they're already maxed out and even expandable desktop machines can be prohibitive to upgrade when you consider the IT labor required. For anything other than adding another storage drive, or maybe a new graphics card, upgrading just doesn't make sense.

Powerful workstations actually help retain key staff. I see plenty of companies that have 5-year-old boat anchor computers that drive away CAD power users. As a user I talked with at a conference a few years ago rightly said, "If the company can't afford a workstation to make me way more productive, they probably don't care about keeping me."

Now that you understand how I'll approach the recommendations, let's dig in.

[<<READ THE COLUMN >>](#)

Tools & Resources



Allplan 2024 Update for Design to Build Workflows

Nemetschek recently updated Allplan 2024, an interdisciplinary BIM software solution for architecture, engineering and construction, to deliver extended tools to plan and execute construction more efficiently, according to the company. New cloud-based processes and enhanced BIM functions support more sustainable design and accelerated project delivery. The program now integrates with One Click LCA (Life Cycle Assessment), to access the carbon footprint of buildings and evaluate materials and construction. Other enhancements include a provision for voids, improved collaboration via cloud-based processes and extended construction planning tools. [Read more >>](#)

Video and E-book: The Value of Virtual Prototyping

ESI Group and industry analysts Aberdeen Strategy and Research present insights into the benefits of virtual prototyping for digital transformation in product development. The result of this collaboration is "Shift Left: The Value of Virtual Prototyping for Digital Transformation of the Product Development Lifecycle," an examination of how virtual prototyping can revolutionize industries such as automotive, aerospace, and heavy machinery. According to the company, the research found that top-performing organizations that embrace an early-stage digital approach to product performance testing were able to significantly reduce their reliance on physical prototypes by 75.6% and decrease engineering change orders by 73.8%, resulting in a 75.2% decrease in the overall development time. The research also explores the key challenges to a successful deployment and details the "Top 10" long-term benefits realized by organizations that adopt a solid virtual prototyping strategy. [Read more or watch the video >>](#)



Vectorworks 2024 Update 4 Offers AI Visualizer

With Vectorworks 2024 AI Visualizer, users can create multiple iterations of initial design concepts making it easy to share options with your clients, according to the company. With an initial idea created in Vectorworks, users can run it through the AI Visualizer and begin creating different permutations of a project. With these options, users can explore ideas or prompt the program to suggest different color combinations or shapes. [Read more >>](#)

GEO Business 2024 Expo & Digital Construction Week Programs Announced 5–6 June 2024. London ExCel. This free-to-attend expo is also a CPD-accredited education programme curated to help GIS professionals keep up with the fast pace of geospatial innovation. A whole host of free-to-attend talks, workshops, and demos delivered by expert speakers from across the profession. There are eight theatres that focus on key applications of geospatial, including infrastructure, GIS and data, surveying and mapping, satellites, drones, UAVs, and the built environment. In an adjacent hall, at Digital Construction Week, learn about the latest trends in digital construction, from BIM and AI to robotics and sustainable solutions. Meet companies driving architecture and design, construction, engineering and operation forward. Discover how to use new technology to improve projects, teams, business and the built environment. [Sign up to attend GEO Business >>](#) or [Digital Construction Week >>](#)

Nvidia's Building Interoperable 3D Workflows With OpenUSD

Universal Scene Description (OpenUSD) from Nvidia is an open and extensible ecosystem for describing, composing, simulating, and collaborating within 3D worlds. Originally invented by Pixar Animation Studio, OpenUSD encompasses a collection of fundamental tools and capabilities that accelerate workflows, teams, and projects, whether you're creating assets and environments for large-scale, AI-enabled virtual worlds or building the tools that will make these worlds possible. Pixar, Adobe, Apple, Autodesk, and NVIDIA have formed AOUSD, an open, non-profit organization dedicated to promoting the interoperability of 3D content through OpenUSD [Read More >>](#)

What's New at Cadalyst

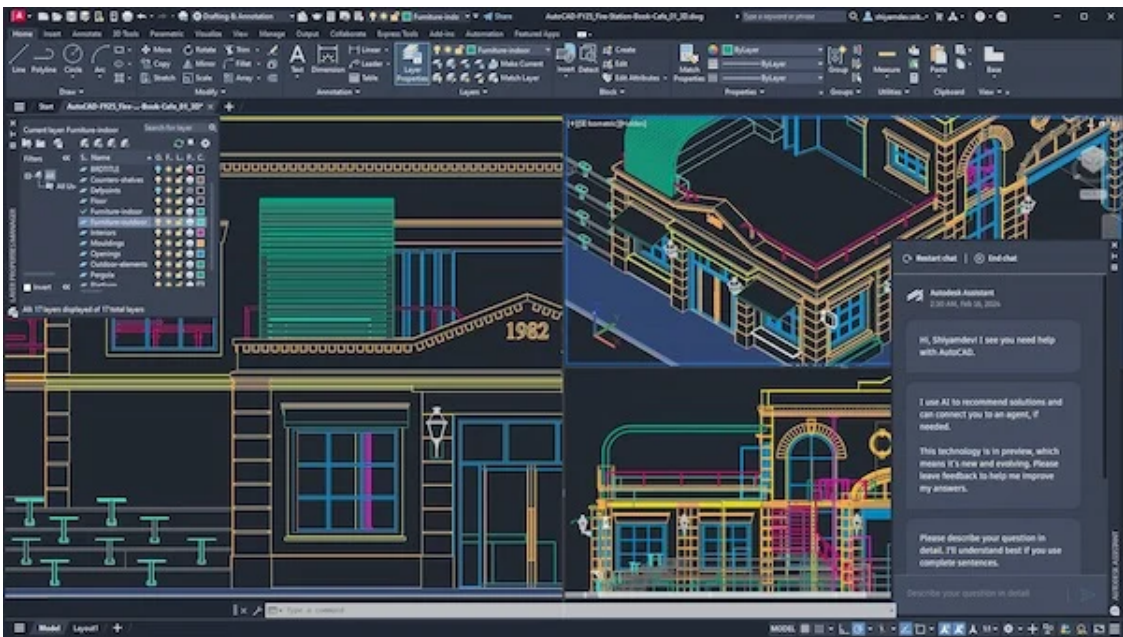


AEC Solutions: Go Ahead, Throw 'Em a Curve

Technologies such as CAD and BIM have eased the design of curved surfaces in buildings and other structures, but construction teams still often have to factor in extra time and materials to build curved shapes. Find out more about a framing manufacturer that specializes in fabricating curved and complex shapes, helping bring challenging designs to life. *By Andrew G. Roe. [Read more >>](#)*

MCAD Solutions: Computer Hardware Drives Engineering Performance

As technology continues to need and use more memory and power, hardware companies continue to build faster options to match. *By Cadalyst Staff [Read more >>](#)*



AutoCAD 2025 Takes the Stage

Autodesk recently announced the latest version of its flagship program, AutoCAD 2025. Every spring the company unveils the latest in its technology and offering and

this year is no exception. The new version of AutoCAD offers further automation and more. Find out more! *By Cadalyst Staff* [Read more >>](#)

CAD Cartoon



By [Roger Penwill](#)

[Keep 'em Laughing!](#)



Free Resources



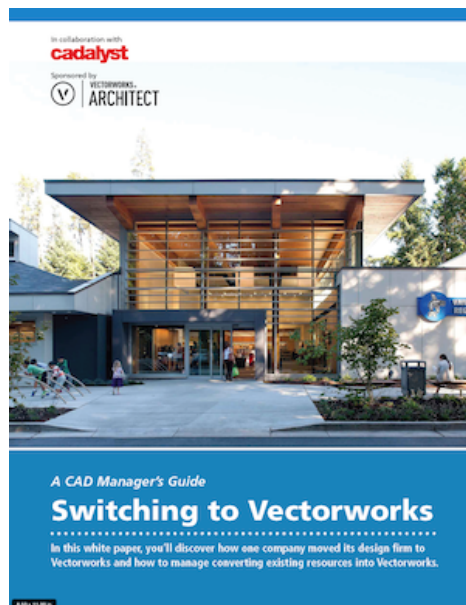
Digital Transformation in Manufacturing

Innovation within manufacturing helps create a culture of continuous improvement to improve product quality and reduce waste, ultimately making companies more successful.

Implementing a digital MES can help you drive innovation on your production floor.

Find out how a digital manufacturing execution system (MES) can transform your factory.

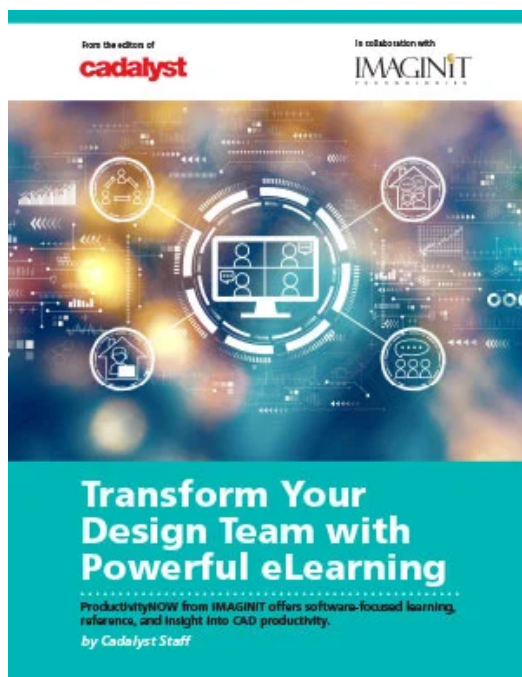
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A CAD Manager's Guide to Switching to Vectorworks

Discover how one company moved its design firm to Vectorworks and how to manage converting existing resources into Vectorworks.

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Transform Your Design Team with Powerful eLearning

Training your workforce continues to be one of the most important pillars to forming a strong and efficient team. The challenge becomes making sure your staff are using their design software to the best of their abilities and following your CAD standards. How do you build this foundation and continue to invest in your employees?

Find out how ProductivityNOW from IMAGINiT offers you software-focused learning, reference, and insight into CAD productivity. *By Cadalyst Staff*

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