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# cadalyst

Navigate the world of design technology



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## Chaos Prevention Tips

**Look for warning signs of problems and solve them before they cause serious issues.**

In the last [installment of the CAD Manager's Newsletter](#), we began an examination of what happens when a company allows their CAD management protocols to lapse and descends from order into chaos.

In this edition, I'll conclude my examination by pointing out more warning signs, corrective actions, and management communication tips you can use in your company in hopes that you can either prevent these problems from happening or halt them before they get worse. Here goes.



Image source: [carballo/stock.adobe.com](#).

## Root Causes

In the last edition, I made the case that the symptoms of chaos setting in usually include the following:

- “Just get it done” trumps “do it right.”
- Basic file management problems.
- Standards no longer followed.
- Software configurations devolving.
- “Just get to work” with no pre-project coordination or planning.
- Output plots, PDF’s, etc., become harder to generate.
- Things that used to just “work” no longer do.

The first three issues usually surface first and are the root causes of chaos I see in the companies I work with while the remaining issues are outgrowths of the first three issues and generally take longer to become apparent.

If you’re seeing the first three issues, then you have a problem that can still be fixed with some targeted corrections. But, if you already see the remaining issues, then chaos has taken root and a radical intervention is usually required. Simply knowing the signs is a huge advantage or as Miguel de Cervantes famously stated, “Forewarned is forearmed; to be prepared is half the victory.”

## Software Configurations Devolve

As users are encouraged to “just get it done” they no longer feel bound by standards and will thus start to customize their CAD software via use of untested utilities, shortcuts, custom libraries of details/parts/components/families, etc. I also see way too many users create their own plotting standards that bear little to no resemblance to how other users work. In short, users set things up in a way that makes sense to them, consume a lot of time doing so, and create incompatibilities that adversely affect other users later. I’ve found this problem to be much more common after the COVID remote work paradigm became more normal which made monitoring software configurations much harder for CAD managers.

If you’ve ever been in the position of receiving a vendor DWG file with non-standard layers, a sub-contractor’s mechanical assembly with a non-standard coordinate system setup or an architect’s BIM project that isn’t coordinated you’ve spent countless hours trying to rectify those files so you can work with them, right? Now think about what happens when this level of chaos permeates your internal workgroups so that your departments can’t even communicate with each other? The mental picture that emerges isn’t pretty.

And, from a technical support point of view, it becomes almost impossible for the CAD manager to assist with software configuration because each machine is constantly devolving to an unknown state of disrepair. Simply put, it is very hard to work on user’s workstations when you have no clue how their CAD applications are setup.

To quantify these types of issues ask yourself these questions:

- What does it cost the company to deal with non-standard software use between users? Between departments? Between clients and suppliers?
- What type of project delays and errors might we anticipate as non-standard software configurations cause issues that “slip through the cracks” through the lifecycle of a project?
- What does it cost the company in CAD support to keep all these dissimilar workstations debugged and working properly given the lack of standard configurations — particularly on remote workstations.

***Have you seen these types of problems at your company? If so, you have deeply rooted chaos that needs to be challenged and uprooted ASAP. Use these tips!***

**[READ MORE >>](#)**

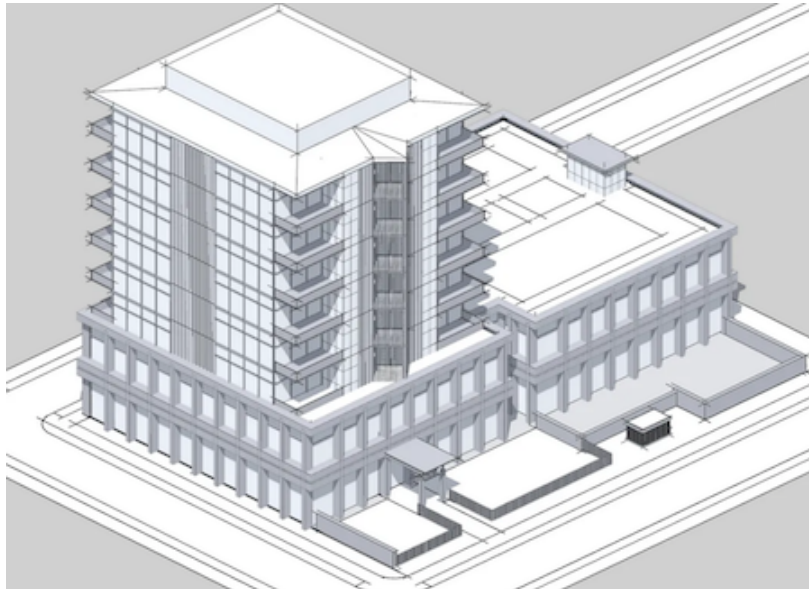
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## Tools & Resources

### Product Update: Enterprise Software

HP Anyware is the enterprise software for IT that according to the company keeps people and teams productive with secure access to their digital workspaces from any mix of infrastructure (cloud, data center, edge, workstation) and end-user device (PC, Mac, laptop, tablet, thin and zero client), anywhere. This new version adds a variety of languages, including European and Asian languages. [Product Update >>](#)

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### Product Watch: Codesign

Codesign is an i-pad based app used to bridge the gap between sketching on paper and visualizing and modelling concepts in BIM programs, originally called Spaces. According to the company, Codesign allows architects to turn sketches into models, and access a range of features such as site, sun studies, context, and utilization measures. [Read more >>](#)

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### Video Watch: Solidworks — Optimize Your Design from the Start

If you produce your products using additive manufacturing, the way those parts are designed and manufactured is changing. Parametric optimization tools automate design iterations when a set performance goal is used to find the most optimal candidate design. Topology optimization adds an additional layer of sophistication: it guides designers from the beginning of the design process. Topology optimization is the most common type of structural optimization. You can use it to predict optimal material distribution within the initial design space of a structure. It considers applied loads, fixtures, and manufacturing constraints. Watch the video to learn how you can go from an initial concept to an ideal finished part using topology optimization in Solidworks Simulation, according to the company. [Watch the video >>](#)

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### GIS Blog Watch: Will AI Revolutionise the Geospatial Industry?

To get a better idea of both where we are now, and where we are going when it comes to AI, Geo Week spoke to industry experts for their latest report, *Harnessing the Power of AI in the Geospatial Industry*. In this article, written by Carla Lauter and published on Geo Week News, industry experts weigh in on the potential and the pitfalls of the AI technology boom. [Read the Blog >>](#)

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### Cloud-based AEC Viewer

Hexagon launched HxGN AEC Project Viewer: a cloud-based software to visualise, federate and control project data easily. Based on BIM, AEC Project Viewer

connects model, schedule, and document management processes within one cloud solution to improve visibility, collaboration, and communication in construction projects, according to the company. [Read more >>](#)

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## What's New at Cadalyst



### **Civil Engineering: AI in Construction, is it Ready for Prime Time**

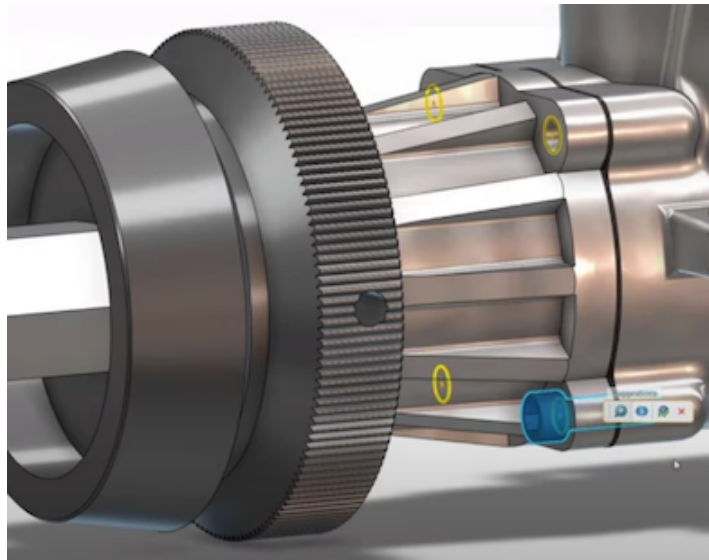
Starting at the high end, Ada's prowess in 3D graphics, rendering, and compute acceleration is poised to push CAD workflows forward. Find out how Ada gen stands up against other technology. *By Andrew G. Roe* [Read more >>](#)

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### **VIEWPOINT: File Sharing and Collaboration for CAD for CAD Designers and Engineers in the Global Era**

As companies hire talent from all over the world, file sharing and collaboration has become even more important. *By Jimmy Tam* [Read more >>](#)

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### **MCAD Solutions: MCAD in the Age of Artificial Intelligence**

What does AI do for product design and engineering. *By Cadalyst Staff* [Read more >>](#)

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### **VIEWPOINT: Four Print Tools for Building a Productive CAD Office**

How businesses can improve efficiency and deliver high-quality results. *By Jacob Hardin* [Read more >>](#)

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## CAD Cartoon

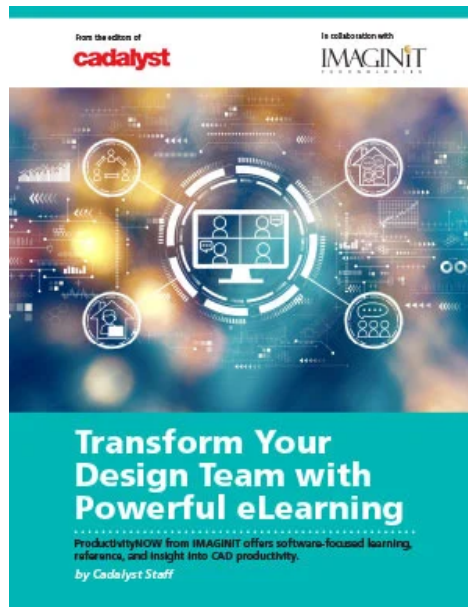


By [Roger Penwill](#)

[Keep 'em Laughing!](#)

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## Free Resources

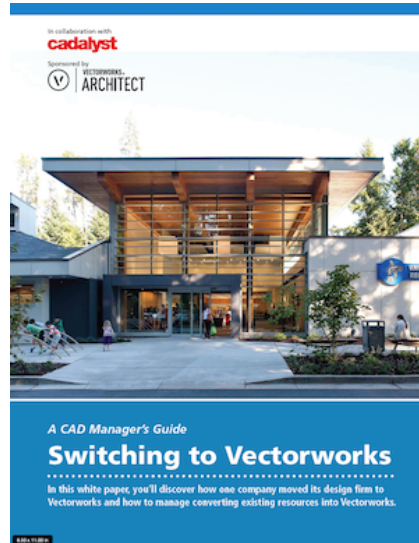


### Transform Your Design Team with Powerful eLearning

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*

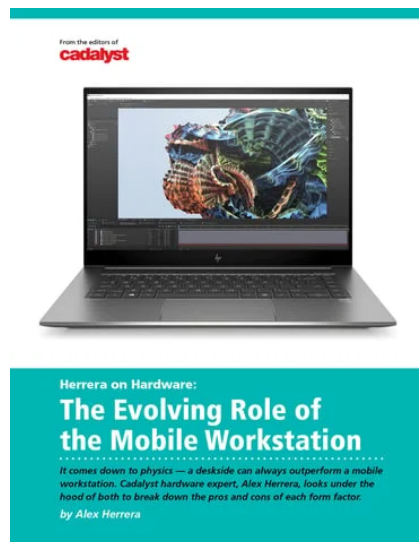
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## A CAD Manager's Guide to Switching to Vectorworks

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

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## The Evolving Mobile Workstation

It comes down to physics — a desktide can always outperform a mobile workstation. Cadalyst hardware expert, Alex Herrera, looks under the hood of both to break down the pros and cons of each form factor. For the bulk of CAD professionals, a mobile workstation makes the ideal complementary computing device. For some, it can suffice as the one and only workstation. *By Alex Herrera*

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