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cadalyst



CAD Manager's Newsletter

STRATEGIES AND SOLUTIONS FOR THE REAL WORLD

By Robert Green

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How to Audit Your Office CAD Software

Use this process to fix problems and errors throughout your organization to keep work moving.

In the last edition of *The CAD Manager's Newsletter*, I mentioned having a great conversation with a couple of CAD managers and promised we'd cover one of the big topics we discussed. That topic is how to audit your CAD practices and optimize performance in the organization. The actual question asked was this:

Our management wants us to do an audit of our CAD use and practices and recommend how to make things better. So, how do we go about doing that?

In this edition of *The CAD Manager's Newsletter*, I'll share a synopsis of our discussion about this topic. Here goes.



Image source: *WrightStudio/stock.adobe.com.*

Start by Finding the Problems/Errors

In my experience, any CAD performance audit begins because there are problems (errors) that need to be addressed. So the logical place to start is to identify what the problems are. After all, if you're trying to get more efficient doesn't it stand to reason that eliminating problems would be the goal? It also turns out that when everybody is focused on eliminating the problem, then there is a common purpose to doing the audit. The natural progression then becomes finding where errors happen then identifying the root problem causing the error.

To start the process here are some steps I've found always work when trying to root out errors:

Ask CAD users where the problems are. They'll tell you. Of course they'll tell you what the problems are from their production point of view, but you'll have a good starting point to begin the audit.

Ask senior and project managers (PMs) where they think the problems are. They'll tell you something different than the CAD users will as they're focused almost entirely on deadlines and customer satisfaction.

Ask IT if they see any problems with CAD tool usage. They'll give you an entirely different spin on the issue that'll focus on security, costs, and licensing.

If you keep track of all the responses, you'll have a balanced assessment of your CAD problems from all different perspectives. In my experience, you can't solve CAD problems by focusing on any one perspective (user, PM, or IT), rather you must consider all stakeholders.

Filter and Collate Your Answers

Now that you have a list of problems from all stakeholders, it's time to start correlating and looking for common threads. Here's the hierarchy of filters I use along with a few examples:

Problems listed by everyone. If everybody is telling you that you that capturing PDF output for submittals is an issue, then it probably is. Of course, users may talk about standards configurations, PM's will site missed deadlines, and IT may talk about configuration with Bluebeam, but the point is you have some consensus to work with.

Problems listed by users and PMs. If users and PMs are all telling you that sending data back and forth to clients is problematic, then it probably is. The problem may be with different software versions, intermediate formats like IFC, or simply data standards.

Problems listed only by PMs. If PMs tell you that meeting client timelines are a problem, but CAD users do NOT tell you, then the situation is usually that the CAD users don't know until too late — a simple communication problem.

Problems listed only by CAD users. If users tell you that sending information to clients is like pulling teeth because there's no standard way to do so, but PMs say nothing about the issue, then users are typically solving the problem on their own.

Problems listed only by IT. Typically security issues related to cloud apps or license server issues that CAD users may not even know are causing them problems.

Obviously, this isn't a comprehensive list of problems you'll encounter, but in my experience it covers the majority. Do not go any further in your CAD auditing process until you've filtered and collated your findings.

Read on to help find out how to discover the best solution, without just following the easy answer. [Read more >>](#)

Tools & Resources

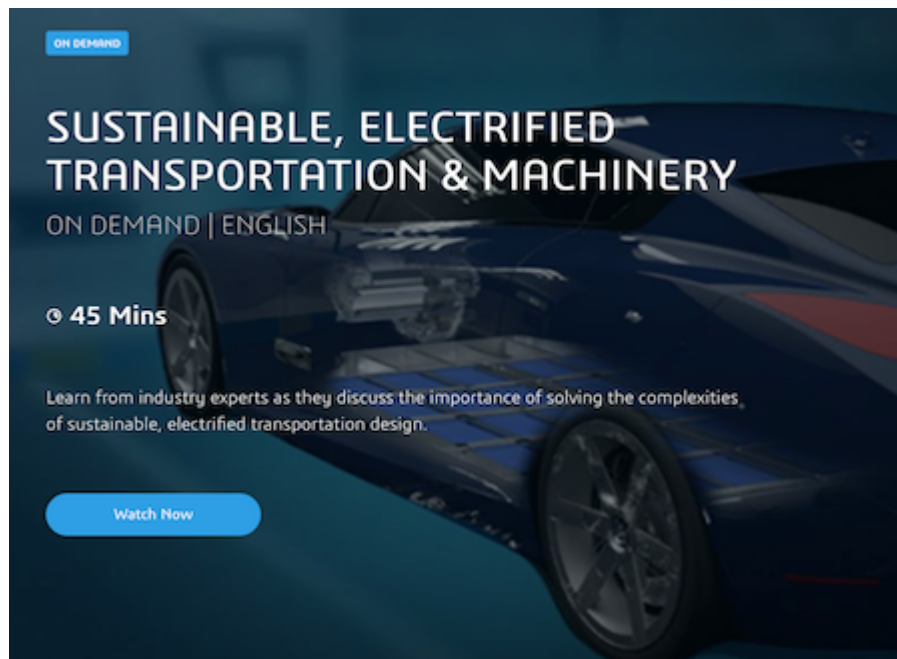


On-Demand Webinar: Introduction to Optics into Your Product Designs
Rand SIM has added the Ansys optics and photonics software products to its portfolio, adding to its existing engineering and design consulting services around the core physics of fluids, heat transfer, structures, and electromagnetics. To learn more about optics products from Ansys, view this on-demand webcast hosted by Yaelle Olivier, electromagnetics simulation specialist, as she introduces optical software, and explores Zemax, Lumerical, and SPEOS while sharing common applications. [Watch webinar >>](#)

Live Webinar: The Digital Thread in Aerospace & Defense, Current State, and Future Direction

22 September 2022, 11 EDT. The Digital Thread has been a core element of the PLM vision for decades. The concept of linking multiple representations of a product, each tuned to the needs of various creators and consumers along the lifecycle, is powerful, and commercial PLM solutions have advanced to a point where the enablement of the Digital Thread is technically possible. But do these creators and consumer views lie neatly like beads along a single strand, or do some lie along the main strand while others are beads arranged in a web around one of the principal lifecycle views?

The Engineering Bill of Materials (eBOM) is a principal lifecycle view. There are views of product intent from which it is created, views by which it is optimized, and other views by which it is realized and sustained. This webinar will describe the Digital Web of product views at the front end of the product lifecycle with the eBOM at its center. They will present and discuss the architectural principles for designing this structure of views to enable collaboration between creators and consumers along the product lifecycle within an enterprise. [Register for the webinar >>](#)



On-Demand Webinar: Sustainable, Electrified, and Transportation & Machinery

In this on-demand webinar from Dassault Systèmes, learn from industry experts, as they discuss the importance of solving the complexities of sustainable electrified transportation design. Webinar highlights include detail design, thermal management and battery performance, cabin comfort, overall verification and validation of EV systems, Model-Based Systems Engineering (MBSE) and Model Based Design (MBD) solutions. [Watch webinar >>](#)

Virtual Tradeshow: NVIDIA GTC 2022 — The Design & Simulation Conference for the Era of AI and the Metaverse

19–22 September 2022.

At NVIDIA GTC users can learn from experts how AI and the evolution of the 3D Internet are impacting industries—and society as a whole. Choose from focused GTC sessions to take your skills to the next level. Each session is delivered by tech innovators or business leaders using the latest tech advancements to tackle the world's greatest challenges. Explore real use cases, discover new interests, and get

tips from subject matter experts doing groundbreaking work in your field of interest.

[Read more and register for free>>](#)

What's New from Our Sponsors



The Right Technology Solution for Generative Design

Follow our quick software and hardware checklists to help ensure your generative design solution package is up to the task.

By Cadalyst Staff

The Equipped Architect: The Right Technology Solution for Generative Design

With generative design (GD), AEC software is undergoing a time of powerful transition. Suddenly architects can use artificial intelligence (AI) to explore thousands of design possibilities in the time a human being can explore one. As you look at this technology to find out if you're ready to give it a try, Cadalyst and Z by HP joined forces to bring you a series to help you find how to break into this tech, get the hardware you need, and to get your upper management excited about the possibilities. Follow our quick software and hardware checklists to help ensure your generative design solution package is up to the task. [Read more >>](#)

What's New at Cadalyst



CAD Programming: More Fun with Python

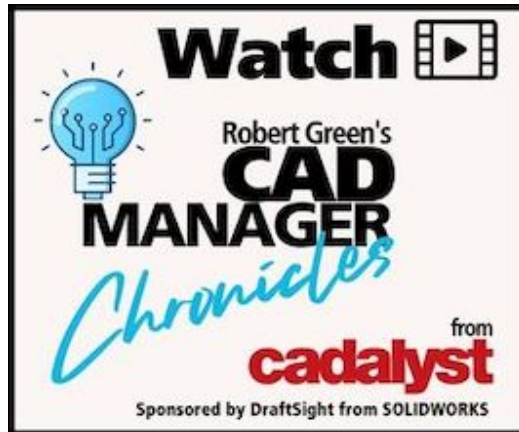
Because Python is a high-level, interpreted language, you can readily develop applications that automate repetitive tasks, either in a standalone environment or within a CAD environment. In the AutoCAD world, a handy library called pyautocad can help you write ActiveX Automation scripts for AutoCAD using Python. In this article, we'll review how to get started with pyautocad, and write some simple code to automate AutoCAD tasks. We'll also explore some ideas on how to use pyautocad to develop more complex applications down the road.

By Andrew G. Roe [Read more >>](#)

CAD Manager's Column: Workstation Minimums for 2022 and Beyond

One of the most asked questions I continue to receive from CAD managers from all sizes of companies is: "What are the minimum specifications for CAD workstations?" With the introduction of new workstation technology recently released, it's time to investigate the latest specifications for CAD. By Robert Green [Read more >>](#)

Free Resources



CAD Manager Chronicles Video Series

Episode 2: CAD Management Plan

Having a plan is your first step towards success. Watch this easy-to-follow introduction on how to streamline your process, ensure you have the right software and hardware, keep your team up-to-date with training, and save money. By Robert Green

WATCH NOW

From the editors of
cadalyst

Herrera on Hardware:

The Evolving Role of the Mobile Workstation


White Paper

Mobile vs. Desktop Workstations for CAD

The Evolving Role of the 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.

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cadalyst Pro Tips #9

TRAINING CHECKLISTS FOR CAD MANAGERS

Conducting training can be overwhelming. Whether you're an experienced trainer or new to the process, it's easy to overlook details that you need to succeed. With a little guidance from CAD management expert, Robert Green, you can be sure you're ready.

Cadalyst Pro Tip:

Training Checklist for CAD Managers

Training is an essential task on every CAD manager's to-do list. But with all those little details to remember, preparing a clear, informative training session can ve overwhelming. Use this handy checklist from CAD management expert Robert Green to help you be successful.

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