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## CAD Manager's Newsletter

STRATEGIES AND SOLUTIONS FOR THE REAL WORLD

*By Robert Green*

April 26, 2023  
Issue #511

## Creating Productivity Standards Made Easy

**Follow these clear guidelines to bring efficiency to your CAD standards and training at the same time.**

I often receive questions about CAD standards. Mostly the questions focus on the best way to standardize a solution to a certain problem and are thus specific in nature. As I answer these questions, I like to stress that there is a process to generating standards that starts with an idea and ends with implementation. I'd like to review this process in this edition of The CAD Manager's Newsletter.

I'll present the process chronologically and give you a few tips along the way that I use with my clients to identify the right standards to work on and manage those standards, in hopes you'll find them as useful as I do. Here goes.



Image source: Mathias Rosenthal/stock.adobe.com.

## What is a Good Standard?

***One that boosts productivity and is easy to follow.***

A good standard is simply a way to use software to get a desired result with the lowest number of clicks and picks possible. The other characteristic of a good standard is that it makes errors and rework much less likely because getting the right result is made so easy that users actually want to use the standard. Whether it is standard layers in AutoCAD, naming protocols in SOLIDWORKS assemblies, using correct families in Revit, or how to capture PDF construction documents, a good standard makes it easy for a user to get good results.

And, another thing that good standards do is to make training much easier. When a standard is well thought out and easy to use, then creating a training document for that standard is simple because the hard work is already done. More on this in a moment.

### Capturing your Standards

So, if users need to be trained on a standard, it makes sense to view each standard as a best practice training tool. If you create a training document for each standard as you create the standard, you'll get two jobs done at once.

I tackle this process differently than most CAD managers I've talked to, so let me give you an overview of how I create standards and training materials at the same time in detail.

1. **Create an outline:** Let's say you want users to insert Xref files at the right point, scaled correctly, with visibility set correctly, and pathing set for easy archiving of the project later. Start by writing down the list of steps that is required in the standard procedure.
2. **Expand the outline:** Take the rough outline and note any system parameters that must be set, network folders where XRefs are located, any template files used, etc. This step simply makes sure that all the technical details you'll need to track are in the same order as the parameters you're trying to control. The key here is to not miss anything and to get the steps in the right order, so you'll want to run through everything on a test machine as many times as needed to get every step listed.
3. **Imagine a training class:** Now imagine what you'd do for a training class to show people how to follow the standard procedures you want to document. Take the time to make some example files that will illustrate all the standard parameters, using actual files in their correct network locations. Now practice the procedure and note the order in which you do everything. Do this until the steps become smooth and you're almost done.
4. **Record, record, record:** I use Camtasia Studio to record my training session practice runs so I can review the steps and be confident that I've captured everything. An added benefit to this is listening to myself on recordings has made me much more aware of how I speak and sound so I can become a better presenter.
5. **Write the standard:** Now, using your expanded outline as the starting point, you can write down all the steps in the standard in the exact order that your practice training class used. The benefits to this approach are that you'll never miss anything, you'll get the topics in the right order, and you'll automatically check the standard for accuracy as you run through the training practice.

***Bonus:*** *I can always listen to my practice recordings to verify proper wording. If I can't remember exactly what I said, I just listen to the recording. Simple.*

6. **Turn the standard into a training guide:** Take the standard document you wrote in the step above and add screen captures taken from your training practice and you'll have a high-quality training document that users can use to learn the standard. If your power users understand the standard they won't

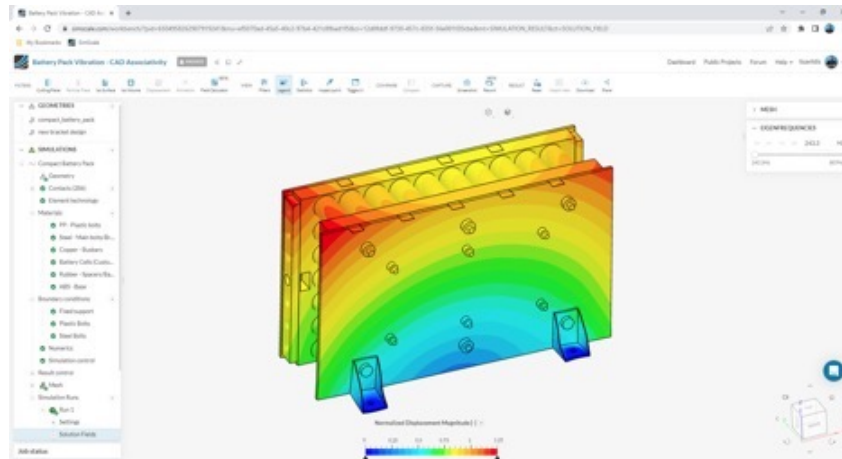
need the training guide, but other users may need it.

7. **Record again:** Run through your training exercise and capture a final version of it via screen/audio capture and you'll have a training video that users can watch.

**Now that you have a clear way to create standards and standards training, how do you choose which to implement first? [READ MORE >>](#)**

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## Tools & Resources



### Product Watch: SimScale Launches SOLIDWORKS Plugin

The SOLIDWORKS Plugin for SimScale is a SaaS application that takes users step by step through a simulation workflow. Engineers' SimScale account connects directly to SOLIDWORKS using a simple API key. According to the company, SimScale offers accelerated physics in the cloud and is accessed from a web browser. The associativity between SimScale and SOLIDWORKS speeds up the simulation process and simplifies design iterations, reducing the number of steps required to set up simulations following a design change, according to the company. [Read more >>](#)

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### Webinar Watch: Engineering Webinars

ANSYS is offering two webinars:

**May 2, 2023, 10 AM EDT.** *Connecting Model-Based Systems Engineering and Digital Mission Engineering* webinar with JJ Vergere, Senior Application Engineer, Ansys. This presentation will discuss an approach to DME that leverages the SAM the benefits of both MBSE and DME and to simulate and evaluate interactions between your models and the common operating environment to predict mission outcomes and performance.

**May 30, 2023, 10 AM EDT.** *ASoTs, Digital Threads, and Views — Oh My!* webinar with J Simmons, Digital Engineering Consultant to explore how engineers are taking ownership of terms to redefine how these definitions are used in conversations about digital engineering.

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### Release Watch: What's New in Creo 10—and Creo+

PTC introduced Creo 10, with new composites tools and enhancements to design for electrification, MBD, ergonomics design, simulation-driven design, and advanced manufacturing, according to the company. In addition, the company released Creo+, a SaaS product with all the capabilities of Creo 10 plus cloud-based tools for real-time collaboration and streamlined license management and deployment. [Learn more >>](#)

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### Case Study: How Dräger Does Digital Transformation in the Cloud

This case study explores how Dräger, an international manufacturer of medical and security technology, employed Aras Innovator as part of their digital transformation efforts. The implementation of the Aras software in the cloud is expected to provide Dräger with more security, easier scalability, higher performance, and IT cost savings, according to the company. [Learn more >>](#)

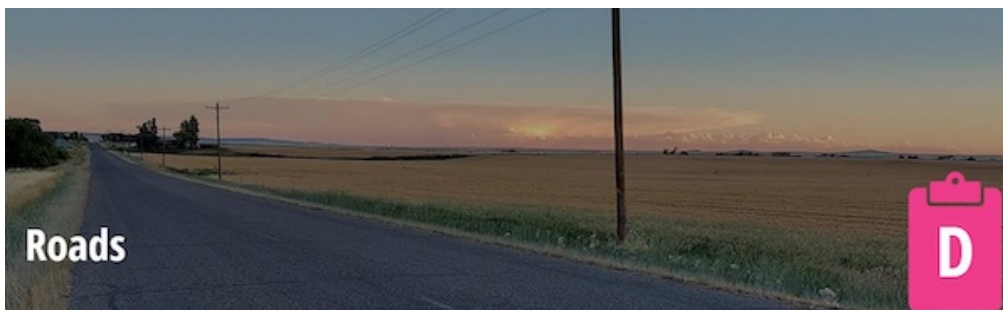
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### Email Help

ProjectReady, a collaborative project information management software solutions provider for the AEC industry, released its newest email management feature, “Connect and Attach.” ProjectReady’s Connect and Attach allows users to find and access project-specific content from connected systems, attach multiple files, and send email. According to the company, users are seeing an average 75% reduction in time spent searching for content across systems. Connect and Attach is compatible with AEC software systems, including Autodesk Build, BIM360, PlanGrid, Box, Procore, SharePoint, and Teams. [Read more >>](#)

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## What's New from Our Sponsors

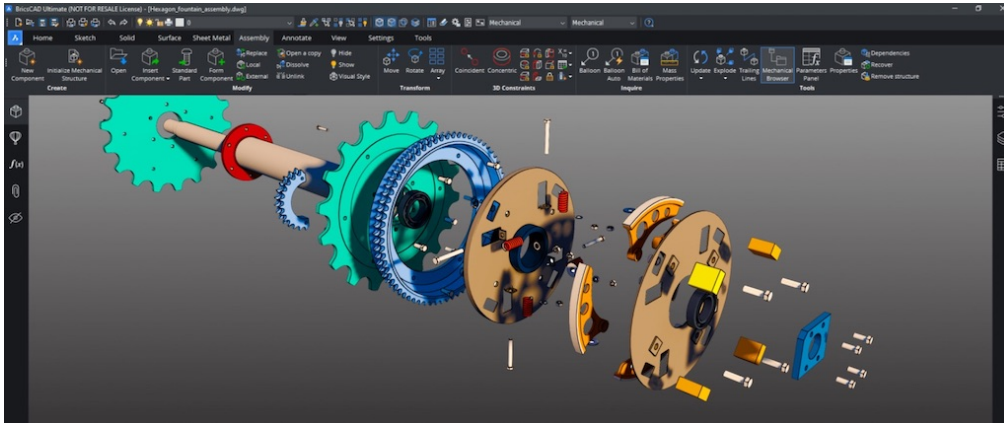


### Digital Delivery for a Safe, Durable, and Reliable Future

While aging infrastructure around the world continues to need investment, how can Bentley Systems help your business solve those problems using technology and saving time and money. *By Meg Davis, April 4, 2023.* [Read more >>](#)

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# What's New at Cadalyst




**MCAD Solutions: Why 2D CAD Remains Popular for Mechanical Design**  
From legacy data to cost of programs, there are a few reasons why 2D CAD continues to thrive. *By Cadalyst Staff* [Read more >>](#)

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## Free Resources

From the editors of  
**cadalyst**



Herrera on Hardware:  
**The Evolving Role of the Mobile Workstation**  
It comes down to physics — a deskside 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.  
*by Alex Herrera*

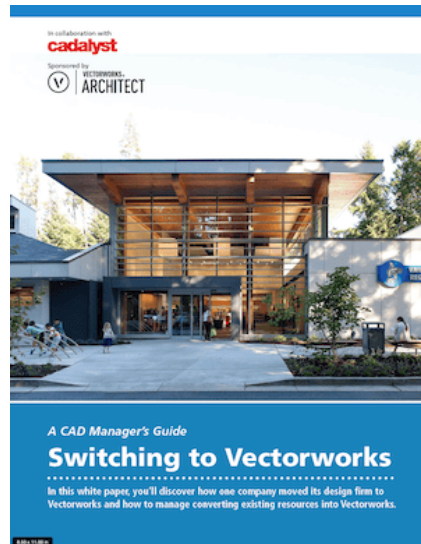
## The Evolving Mobile Workstation

It comes down to physics — a deskside 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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## 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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