



Cadalyst

CAD Manager's Newsletter (#474)

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By: [Robert Green](#)

CAD from Home, Part 1: Workstations

If your CAD team needs to work from home — whether from COVID-19 restrictions or work/lifestyle changes — they must have the right workstation to get CAD work done.

Just when we thought it was safe to return to the office, the COVID-19 Delta variant has raised its head and now everyone is asking, "Are we going to continue working from home?" This is a question I'm hearing from more CAD managers these days as the fundamental business thinking has evolved to home-based work becoming more permanent than temporary, at least for the near-seeable future.

In this edition of the CAD Manager's Newsletter, I'll begin a periodic series on the concept of remote-from-home CAD from a CAD manager's point of view. We'll get the conversation started with workstations and what type of hardware you need in your home office. Here goes.

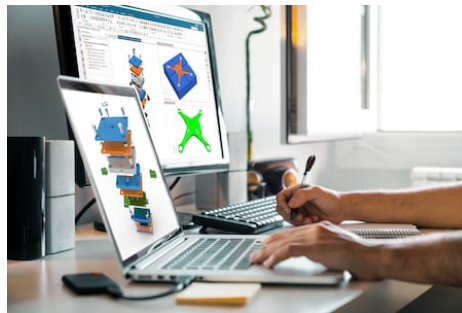


Image source: Pol Solé/stock.adobe.com, screenshots from Siemens NX Mold Designer.

Mobile Workstations vs Laptops

One question I'm asked quite a lot is, "What kind of laptops should I get for remote CAD workers?" I usually stop the conversation right there and insist that we no longer talk about laptops but mobile workstations instead.

Why the vocabulary lesson? Because, right from the start, I want to be sure upper management and companies understand that CAD work requires a workstation-level machine, not a cheap laptop. After all, if a BIM specialist must model a large building project, they need real workstation power — whether they're at home or the office. The same holds true for someone designing mechanical assemblies, rendering, animating CAD geometry, performing analysis, or any other heavy-use scenario.

Conclusion 1: *The era of cheap laptops has given way to the mobile workstation.*

What about Desktop Machines for Home Workers?

Another statement I hear quite often is, "I can't afford mobile workstations for everyone who works from home!" My reply is always that it is easy to ship a desktop machine to a user's home office, rather than buying an entirely new mobile workstation. And, for that matter, desktop workstations don't have to be huge towers either.

In my personal work, I've used HP Z Mini workstations to achieve workstation power in a compact format that can be easily shipped, thrown in a travel bag for trips to remote offices, or even mounted to the back of a monitor stand in the most crowded home offices. Other options are all-in-one-style computing devices in the form factor of a monitor such as the Dell OptiPlex. My point is that desktop machines don't have to take up tons of room or dominate your home office.

Conclusion 2: *Just because you work from home doesn't mean you have to have a mobile workstation, there are numerous compact desktop options.*

Peripherals Matter

I've been using a combination of mobile and desktop workstations at home for years and have travelled extensively with mobile devices. No matter where I am or go, I always take my trusty Logitech mobile keyboard and mouse with me and do everything I can to have a second monitor available.

What does this have to do with working from home? Good question. My point is that CAD users are generally used to full-sized keyboards, a particular style of mouse, perhaps a 3D space controller, and *absolutely require* a second monitor. At minimum, buy a 24" second monitor for mobile workstation users and dual monitors for desktop users. Most mobile workstations can accommodate these peripherals with on-board connectors but sometimes a docking station that supports more monitors or high-speed backup drives might be required.

While we're at it, don't forget to provide home-based workers with a business class headset/mic device for Teams meetings. My go-to devices are my Yeti Blue microphone with high quality headphones for my desktop and a Logitech H800 headset for mobile applications.

Conclusion 3: *A productive work from home CAD environment isn't just about the workstation.*

Don't be penny wise and pound foolish! Find out why you shouldn't skimp on your teams' workstation setups. Plus, learn what each should have on their desk to get their work done well.

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Tools and Resources

36" and 44" Scanners

Paradigm Imaging Group, the North American Distributor of Colortrac scanners, announces the introduction of the new Colortrac SmartLF SGI scanners. The new SGI Series brings new patented technology and is available as mono, color, or enhanced in 36" or 44" models. Features include scans at 13 ips (mono) and up to 8.0 ips (color), USB 3.0 data transfer rates up to 85 MB/sec, 36" and 44" scan width and 1200dpi optical with 9600dpi maximum resolution, CCD technology with extra long-life, instant-on Bi-directional LED illumination, SureDrive paper transport system for reliable document handling, new optional SmartWorks Imaging Software Link tablet app right on the scanner, plus a free on-site warranty and free SmartWorks Touch Software. [Read more »](#) ▼▼▼



New NX Suite of Solutions

for Industrial Electrical and Automation Design

Siemens Digital Industries Software released NX Automation Designer software and NX Industrial Electrical Design software, a new suite of solutions that provide a central design application for industrial electrical and automation design. These new tools can help manufacturers of production systems to manage design complexity, shorten development lifecycles, and increase the quality of their designs. Direct integration with Teamcenter software for product lifecycle management (PLM) and the entire NX design software portfolio provides a unified multidisciplinary design environment for production systems engineering. [Read more on NX Automation Designer](#) and [More on NX Industrial Electrical Design](#)»

3D BIM CAD Models for Bike Infrastructure

Saris Infrastructure has added a 3D online configurator for bike parking and infrastructure products, including instant access to BIM and CAD model downloads for designers and architects. The product catalog powered by CADENAS includes e-bike charging stations and various bike racks. Architects can use an online digital catalog, including a bicycle rack configurator, to find, design, and download the correct bicycle infrastructure products for their plans. [Read more »](#)

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Dassault Systèmes announced the official availability of 3DEXPERIENCE SOLIDWORKS for Makers, enabling creative individuals to design, share, and collaborate through cloud-based access to a digital environment for design, engineering, and collaborative innovation. Hobbyists, inventors, tinkerers, designers, engineers, artists, and other makers who want to make their personal, non-commercial projects, can now rely on the same digital applications used by professionals for their workflow, whether to visualize a digital mockup of their idea, try designs to find the best solution before buying materials, or seek new skills or services for a project. Makers can purchase a one-year license to 3DEXPERIENCE SOLIDWORKS for Makers for \$99 for individual use, or up to five licenses to use working together with family and friends, for an unlimited number of personal projects. A monthly subscription to 3DEXPERIENCE SOLIDWORKS for Makers for \$9.99 will be available later in 2021. [Read more »](#)

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CAD CARTOON



— By [Roger Penwill](#).

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BIM & Digital Twins

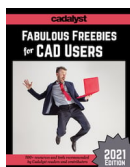
A new way of doing business — or a fad? *Cadalyst* finds out how architects, designers, and contractors are taking advantage of this technology. By [Andrew G. Roe](#) [Read more](#) » ▼▼▼



Image credit: Bentley Systems.

Sponsored: How to Ask for Tech Funding

Cadalyst and Z by HP joined forces to develop a three-part series on generative design for AEC. In the third installment, find out how to secure funding for your hardware upgrade. [Read more](#) »



NEW! Cadalyst's Fab Freebies for CAD Users 2021

Why buy it if you can get it for free!

The editors of *Cadalyst*, with help from our contributing editors and readers who are in the CAD trenches day in and day out, have updated everyone's favorite guide to helpful tools and resources that don't cost a cent. [Download our guide](#) and you'll soon be asking yourself, "How did I live without this?"

The latest edition of the "Fabulous Freebies for CAD Users" guide has something for everyone, including unit converters, file and text utilities, PDF converters, BIM tools, CAD management tools, and more!

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