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**CAD Manager's Newsletter**

STRATEGIES AND SOLUTIONS FOR THE REAL WORLD

*By Robert Green*

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Issue #517

## Data Management for WANs

### How to manage CAD and BIM data across your company without losing important information.

I get a good number of questions about how to best manage CAD and BIM data across wide area networks (WANs) to support distributed- and home-based work teams. What continues to surprise me is that the problem has gotten worse over time as data set size and expectations have exploded while Internet speeds have remained static.

In this edition of the *CAD Manager's Newsletter*, I'll start to guide you through discovering your WAN needs and talk about how to manage your data, plus offer some possible solutions of how to manage work via WANs. Here goes.

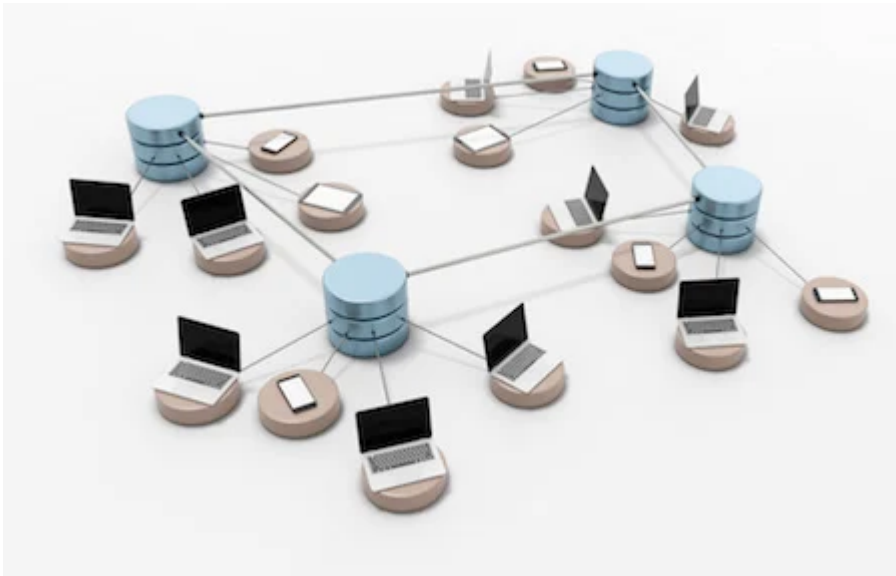


Image source: [MR/stock.adobe.com](https://www.adobe.com/stock/mr/).

### What's Really Required?

Perhaps the best first question in the process is: What should a good WAN data management strategy include? Here, in no particular order, are the key components I've come to believe are required.

**An enforceable storage, numbering, and revision scheme.** This is how you know where the current versions of files are and assure that everyone is on the same page. Whether you use a software application or file folders and manual file naming, the point is to achieve consistency. Note that enforceability (via software tools or management edict) is key — users cannot be allowed to improvise on naming, revising, and storing files!

**A file locking mechanism.** In cases where multiple team members may need access to the same file, there must be a way to assure that one team member doesn't write over another team member's file. There are a variety of software and WAN management tools that can provide file locking, which we'll explore later.

**A data synchronization tool.** The only thing better than keeping track of everything is not having to and that's what data synchronization is. A transparent file service that makes it seem like all the data you need is on your local server even when it isn't. More on this later.

**Durable backup/restore for disaster recovery.** This is most likely taken care of by your IT department and includes the ability to store massive amounts of data offsite and then retrieve it rapidly to bulk-restore entire servers, user email accounts, etc. (CAD managers typically need not worry about this unless retrieval times are too long.)

**Local project archive storage.** These archives contain all data needed to "reload" an old job and work on it again. Archives typically are made at key points in a project timeline (bid, initial submittal, final submittal, as-builts, etc.). The archive data must be locally available to the CAD manager so jobs can be quickly pulled from archive (no waiting two days to download something from the cloud).

### Company Size and Topology

Now that we know what to manage, let's turn our attention to how our company size affects our approach. The first thing to consider for your data management plan is how your company is configured from a topology point of view. The reality is that the farther your offices and workers are from each other, the bigger an IT problem

you're going to have. So, think about which of the following categories your company best fits into:

- Smaller company with all data in one server location, with some remote-based and travelling workers.
- Medium-size company with a few branch offices and travelling workers.
- Large company with many branch offices and travelling workers.

***Find out what your company needs to consider when setting up a WAN. And, why CAD users must use one, even when they are tempted to circumvent it.***

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## Tools & Resources



### Product Watch: Vectorworks 2024 Arrives

Vectorworks released Vectorworks 2024, including Vectorworks Architect, Landmark, Spotlight, Design Suite, Fundamentals, ConnectCAD, Braceworks and Vision. According to the company, the new version features advancements in its core technology, designed to save users time. From a modernized user interface to the introduction of Viewport Styles and continued dedication to providing a data difference, designers will have access to new functionalities that enable efficient exploration of design concepts with this latest version, enabling a more rapid design development and documentation process, according to Vectorworks.

[Read more >>](#)

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### Benchmarking Test

Maxon has released Cinebench 2024, a tool for computer performance evaluation. According to the company, key features include: redshift rendering engine integration, dual performance evaluation: CPU and GPU, wider platform compatibility, unified benchmarking scene, revamped user interface, and more.

[Read more >>](#)

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### Design Collaboration

CCE recently updated its design collaboration software, EnSuite ReVue, used to manage design changes without Product Data Management (PDM) software.

According to the company, with ReVue, design changes can be understood and managed easily. Users can securely share 2D & 3D CAD designs and capture design feedback, track design changes in the context of the CAD and manage their designs by implementing their own design release process easily by accepting or rejecting changes and automatically update their Bill of Materials (BOM) and generate engineering change documentation (ECN) on-demand.

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### **Bentley Systems' Going Digital Awards in Infrastructure 2023 Finalists**

Every year, Bentley Systems honors users of its products showing off what's possible when designers Go Digital. Find out more about the finalists in categories such as bridges and tunnels, construction, rail and transit, structural engineering, surveying and monitoring, and more. Winners will be announced soon!

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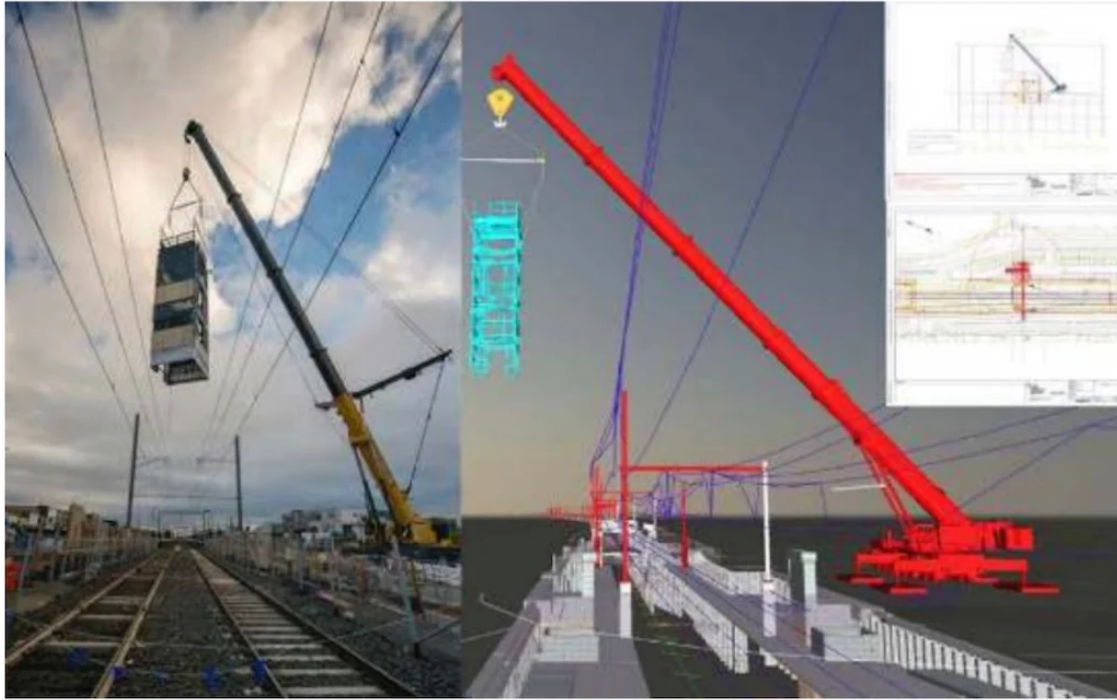
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## **What's New at Cadalyst**

### **Herrera on Hardware: The Workstation Processor Triumvirate — Intel, Nvidia, and AMD — All Deliver Major Advances in CAD Hardware**

This year, the industry has witnessed one of the broadest and deepest refreshes ever, from all three vendors across all workstation-focused product lines, and all delivered in close succession. Those introductions have been rippling through OEMs workstation models in the last few months, now offering CAD users one of the more compelling opportunities to dial up their workflow throughput in years. Find out more! [Read more >>](#)

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### **SPONSORED: 4D Planning Expands Digital Delivery of Construction Projects**

The use of 4D technology on construction projects has progressed from novelty to necessity for many construction contractors, as firms find new ways to put digital delivery to use. Find out how technology helps save time and money, while reducing field problems. *By Cadalyst Staff*

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## **CAD Cartoon**



By [Roger Penwill](#)

[Keep 'em Laughing!](#)

## Free Resources



### Take the Gradual Path to BIM

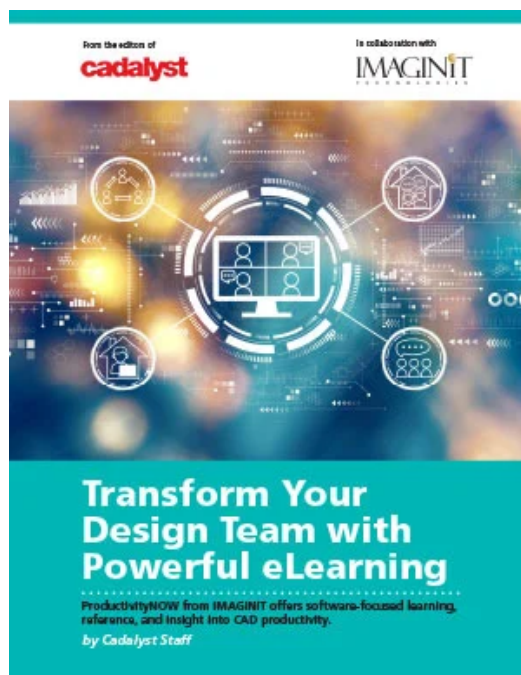
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Implementing building information modeling can be an overwhelming challenge fraught with risk and uncertain benefits, but you don't have to take on everything at once — Bentley MicroStation allows you to make progress one step at a time.

## Take the Gradual Path to BIM

Implementing BIM can be an overwhelming challenge, but you don't have to take on everything at once — Bentley MicroStation allows design and construction firms to progress one step at a time.

To learn how incremental advances leveraging your existing investments in CAD and related technologies can yield big benefits over time — for both your company and the project owner — download your copy of this free white paper today.

DOWNLOAD NOW



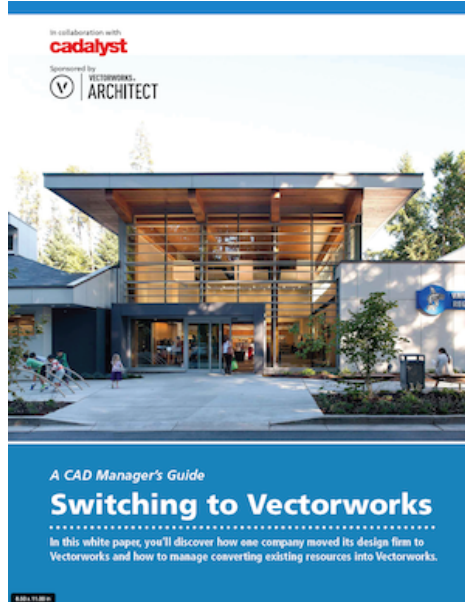
## Transform Your Design Team with Powerful eLearning

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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