The Peer-to-Peer CAD Manager

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Learning Objectives

- Learn how to gain more respect and attention from peer users
- Learn how to establish more credibility with project managers
- Learn how to persuade the organization to follow standards
- Discover how to work toward formal CAD-management employment

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Description

DescriptionThis course will start with the assumption that many CAD / Building Information Modeling (BIM) managers have little to no direct managerial authority over the staffers they support, yet they're still expected to get results. To make things worse, many times these managers are also engineers, architects, or designers working under severe time constraints while expected to remain billable. This course will present strategies for peer-to-peer interaction with users and project managers that can help you persuade people to comply with key CAD/BIM management directives such as standards, file storage, training, and interdepartmental coordination. If you fit the peer-to-peer CAD/BIM manager profile, you're sure to pick up some solid ideas you can use immediately. And even if you do have full managerial authority, you can still benefit from using some of these collaborative and persuasive strategies. This class is designed for managers of numerous disciplines.

Speaker

Since 1991, Robert Green has provided CAD management consulting, programming, training, and technical-writing services for clients throughout the United States, Canada, and Europe. A mechanical engineer by training, Green has used many popular CAD tools in a variety of engineering environments since 1985. Green has acquired his expertise in CAD management via real-world experience as the "alpha CAD user" everywhere he has worked. Over time, he has come to enjoy the technological and training challenges associated with CAD management, and he now trains CAD managers via public speaking. Green is well known for his insightful articles in Cadalyst magazine, and for his book, Expert CAD Management: The Complete Guide (published by Sybex). When he's not writing, Green heads his own consulting practice, Robert Green Consulting, based in Atlanta, Georgia.

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Foreword

During the past few years I've noticed that there are more and more CAD managers who toil away at making things work even though they don't have a formal title or any real authority to manage the CAD office; they're what I call peer-to-peer CAD managers. As I've studied this issue, I've come to realize that many companies are moving away from rigid authority structures toward a more loosely managed, peer-driven structure. Because of this trend, I've been researching ways to manage CAD tools within these environments.

In this session I'll share some strategies I've helped my clients implement, in hopes that you can use them as well.

Competency and Leadership

In the old world of corporate management, the mantra was "authority rules," and everyone understood that power structure. Under today's looser management systems, employees tend to respect competency instead, and gravitate toward anyone who has the know-how to get the job done. In my experience, users look up to the alpha software user as the person with the most CAD competency, but it takes more than just software knowledge to function as a CAD manager.

A traditional manager can make employees conform to his or her desires with simple authority, but in a peer-driven management structure, people must want to follow you. How do successful CAD leaders inspire this kind of loyalty from the users in the trenches? I'd like to note a few traits that demonstrate competency and leadership. If you perform in these ways on a daily basis, you'll soon become the next peer-to-peer manager in your workplace.

Be the Go to Resource

There's an old saying that people only go to a well where there's water. The CAD management analog to this saying is users only to go a CAD manager who knows how to solve their problems. This truism has always made me believe that establishing your technical credibility by making sure your peers understand your expertise is the number one way to achieve CAD management success (be it peer driven or not).

Remember, your management will not advertise your skills so it's entirely up to you to do so. And since management isn't empowering you with a formal CAD manager's role you'll need to do your advertising in a way that requires no authority and, very likely, no budget. Let's take the plunge by exploring some possible methodologies.

<u>Master These Mannerisms</u>

In addition to knowing what you're doing it is important to have a constructive working style that makes people want to approach you. After all, you can't be a great CAD manager if nobody wants to interact with you.

Here are a few things I try to keep in mind:

Be pleasant to work with and easy to talk to. Nobody wants to work with someone who's grouchy, difficult, or sullen, regardless of how competent they are.

Make your case by teaching. Think of it this way — if you want people to follow your standards and best practices, they need to understand why they should do so. By teaching, I don't mean formal training sessions, but rather casual, frequent dispensing of tips and productivity-boosting advice. When users get their jobs done faster, they'll have proof of the value of standards and best practices.

Don't gripe or complain. Even though all of us have wanted to scream about the frustrations of CAD management at some point, the best managers never let anyone hear them gripe. It is fine to calmly state why things aren't working, but do your best to stay positive and offer solutions rather than complain. Griping makes you much less pleasant to work with (see the second point above) and therefore diminishes the chance that you'll be able to teach and influence users.

Talk to project managers. Open the lines of communication early, and keep them that way! The best way to avoid griping is to tell project managers how things could be going better. Project managers do have authority, and they can help you change things if they understand why they should listen to you. Do everything you can to make your project managers your biggest fans, and talk with them often.

It's all fairly straightforward, if you think about it: Know what you're doing and explain your actions to those around you in a pleasant way, and people will come to view you as a credible leader and teacher.

<u>Turn Problems into Teachable Moments</u>

We all know that CAD problems are going to surface. We also know that (due in large part to our demonstrated competency) we're going to be involved in fixing those problems. As this process plays out, it is important for us to put on our manager/teacher hat and make sure that the organization learns from the problem so as not to repeat it. So instead of saying, "I can't believe they've messed up again!" try, "How can we keep this from happening?" as you dive into fixing the problems.

Here is how I manage the problem-solving process:

Ask "Why?" as often as possible. Why did this happen? Why didn't we catch this? Why are our processes allowing this to slip through the cracks? You get the idea. You may need to ask a combination of users, project managers, IT staffers, and customers these questions to find the complete answer.

Pay attention to departmental boundaries. Are the problems we're having due to different departments using software tools in dissimilar ways? Do our departments talk with each other? Asking these types of questions can help you understand whether your problems are simply due to communication and standards issues.

Teach somebody as you fix the problem. Once you know why the problem happened, you can fix it — but as you do so, make sure you teach others what you're doing. Then they'll be equipped to help you detect and fix similar problems that arise in the future.

Briefly write up what you find. It doesn't have to be formal, but take the time to jot down what happened and how you fixed it. Then send it to the users, departments, and project managers involved so they know what happened and learn how integral you were to getting things fixed (which goes back to demonstrating competency).

As you fix problems with your peers, you'll be demonstrating a clear leadership persona by trying to make the company run better. Senior management will be delighted that an employee is bettering the operating environment for all involved. Wouldn't it be great if everybody had this sense of ownership?

Get Users Organized

Wouldn't it be great if you could share tips, ideas and time saving work methods with other power users in your company? Further, wouldn't it be great if you could do so in an unofficial way without time pressures? Wouldn't it be awesome if you could get users to share their ideas for bettering the overall CAD systems in your office?

User Groups

Start your user group meetings as a potluck lunch break once a month and ask members to share their best tips and tricks. Don't feel a sense of pressure to do anything but organize the meeting and encourage people to come share their knowledge. Even if nothing much comes from your user group you will have still brought users closer together and will most likely have done at least some good in the process.

Of course creating a user group will require some time and effort on your part but the benefit that you'll receive in terms of user trust and leadership credibility can be invaluable. And as a side note, when your management team sees you take on leadership initiatives they're more likely to think of you when advancement opportunities come up!

Start a Suggestion Box

If you're a peer to peer CAD manager then you don't have any power to impose new standards or procedures on everyone else. But this limitation does not stop you from asking others better ways to do things.

As a part of your user group exercise create a CAD suggestion box so any CAD user in the company can propose better ways to do things and watch the ideas roll in. You can then volunteer to sort through the suggestions and see which ones should be considered by the company. Using this method you'll get other users to think about doing CAD/BIM better and you'll be viewed as their trusted sounding board. By the way, I recommend that ALL CAD managers use the suggestion box methodology simply because you can never have too many good ideas!

Bypass Politics with Optimization

In the January 22, 2014 edition of Cadalyst's *CAD Manager's Newsletter*, I introduced a CAD superhero I like to call the Optimizer. Every CAD manager should strive to be like the Optimizer, continually looking for ways to make processes better, faster, and easier for all involved. It stands to reason that pushing for optimization is a good business practice, but it also brings practical political advantages for CAD managers.

There will always be users and project managers who want to do things their own way. Unfortunately, that can sometimes cause problems for other users and departments. When this situation arises, the peer-to-peer CAD manager is in a hopeless position, caught between disagreeing parties with no authority to fix the problem. What's my solution? Don't pick a side — preach optimization instead. Here's an example:

"I don't know whether Julie's layering scheme is better than Jeff's, and I don't have a preference. I do know that using two different schemes is causing problems as we try to generate project PDF documentation. In the interest of optimizing our processes I'd like for us all to agree, right now, on which layering scheme we should use and stick to that decision."

Have this conversation in the presence of the project manager — who is in desperate need of properly generated PDF documentation — and he or she will assume the challenge of determining which layer standard is most appropriate.

Notice the key points of this strategy:

I demonstrated competency. I know what the issue is, and why it's a problem.

I was neutral. This allows me to remain on good terms with both Julie and Jeff when it's all over.

I was reasonable. The only things I asked for were consistency and optimization.

I pushed for a prompt decision. By resolving the issue now, I won't have to suffer the consequences of this problem again.

In my experience, when you take this approach both Julie and Jeff will respect you, the project manager will thank you, and you'll actually get the problem resolved.

Mentoring Others

Do you have users in your company that want to learn much more about CAD or BIM? Do they look to you for advice and skill building? If so you're in a great position to build peer relationships and achieve some extra productivity as you do so. Here's how:

Offer to teach specific skills. And make sure these skills help the company achieve actual project goals so that worker productivity will go up.

Establish a trade. If you spend time teaching someone else a skill then isn't it reasonable to ask for them to help you? For example, you could say "I'd be happy to show you how to create a linked Excel table if you'd watch over the plotter supplies and maintenance next week when my big project is due."

For peer to peer CAD managers the equation is simple: I'll help you become a better CAD user if you help me keep the CAD infrastructure running. Do this and CAD users will become smarter, more independent and productive and you'll actually have some help!

Instigate Improvement

I'm not saying be a troublemaker but I am saying to instigate improving things. Somebody has to be the squeaky wheel that calls attention to what can be done better so why not you? So long as you point out things that can be done better to save time/money and improve quality who can complain?

I find that all the approaches I've outlined above can be used to focus attention on constructively solving problems via collective input from your company's user community. And as a peer to peer CAD manager there's no way to change how your company does CAD without involving users and sharing the credit when you improve things. Think of yourself as the catalyst/instigator that helps it all come to fruition and you'll establish great peer relationships with users.

Your Role Can Evolve

You've probably noticed that many of the peer management strategies I've outlined are interrelated. For example, when users and departments view you as competent, they ask you to help solve their problems, and when you solve those problems you'll be perceived as even more competent. Keep at it and your reputation will surely grow. This cumulative buildup of credibility among users, project managers, and company departments may eventually reach other branch offices — or even the corporate level.

As you gain more stature and credibility, you may find yourself becoming more and more central to the CAD management in your company. As a result, your senior management team may come to value you more as a CAD manager than as an architect or engineer or whichever type of CAD user you are. I know this is true, because it is exactly what happened to me!

When you reach this point, you may be able to make the career leap into a more traditional CAD manager's role if you choose to pursue it. If you do want to move in that direction, keep that career goal in mind during every user interaction or problem-solving session you participate in to help motivate yourself to communicate, teach, and optimize as much as possible.

Summing Up

I hope you've found these ideas for building credibility and leadership credentials useful for operating in a peer-driven CAD management environment. I think you'll find that if you focus on these concepts you'll spend more time being successful and less time fighting problems that you don't have the authority to fix in the first place.

I'd also like to point out that CAD managers who do have full authority can still benefit from using these peer-driven strategies to create an environment where users want to follow their well-defined technical leadership.

Updated Materials and PowerPoints

You can download updated course handouts (with any additional notes or corrections) for all my presentations at my web site www.CAD-Manager.com on the **AU017** page immediately after AU concludes. You can find a wide range of information on customization, programming and CAD management elsewhere on my web site.

I will send you a PDF copy of the session PowerPoint presentation if you request it. Just send an email to me at **RGreen@CAD-Manager.com** and be sure to put the course title in the subject line of your message so I'll know which class you want.