CAD Leadership: Beyond the Standard

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Some offices seem to hum with productivity; others struggle with differing opinions and methods. And some never seem to advance in the use of their software tools. What makes the difference? Often the answer is CAD leadership and the CAD Manager. Learn principles and tips and tricks that can help you be the best CAD Manager your company could ever want. We'll go beyond enforcing a list of standards and procedures to cover everything from asking the right questions to interacting with users, from training to dealing with troublemakers. Learn how to work these principles into your management style while creating a great work environment.

About the Speaker:
Mark has more than 20 years of hands-on experience in the administration, configuration, deployment, coordination, development, and integration of CAD technology. As a technology manager, he understands the impact of CAD on the bottom line. He has implemented CAD for many firms and extensively customized CAD programs. He has developed corporate CAD standards conforming to client and military guidelines. He has instructed over 1000 operators at company sites and for local colleges and tech schools. Mark coordinates production of CAD documents from design concept to final construction documentation. He directed the use and structure of CAD for a nationwide, multiple-office AutoCAD deployment. Mark is the president of the Core Technology Group, a consulting firm based in Southern California.

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CAD Leadership: Beyond the Standard

Leadership

- It is time that the Management of CAD is recognized for what it is: MISSION CRITICAL
- Management is not necessarily leadership
- What the industry needs is CAD Leaders!

Career Stages
developed by Dalton and Thompson in "Strategies for Career Management"

- **Stage I – Depending on Others – CAD Drafter**
- **Stage II – Independent Contributor – CAD Super User**
- **Stage III – Contributing thru Others – CAD Manager**
- **Stage IV – Leading thru Vision – CAD Leader**

Your ability to Lead will impact:
- Productivity level
- Adherence to your CAD Standard
- Advancement of Technology
- Saving Money

Leadership Can be Taught

- 81% of CIO's surveyed felt that Leadership can be taught.
- If leadership can be taught then you need to learn it.
- Leadership is based more on who you are and less on what you know.
- Leadership will take you farther in your career than your understanding of technology.

What Leadership is not...

- Leadership is not a title
- Leadership is not management
- Leadership is not salesmanship
- Leadership is not how much you know

What leadership is...

- Leadership is influencing people to get things done.

    o "He who thinks he leads, but has no followers, is simply taking a walk"

Levels of Leadership

Developed by John Maxwell

- Level One: Positional Leadership
    o People follow because they have to
    o It lasts as long as you have the title
    o You get people to do things by pulling rank

- Level Two: Allowed Leadership –
   o People follow because they allow you to lead beyond your stated title

- o Others have chosen to place you in charge
- o It is actually a test to see what you can do
- o It lasts as long as others grant you the power
- o You get people to do things by small successful endeavors

- Level Three: Production Leadership
  - o Others follow because of what you have done or can do for the organization
  - o It lasts as long as you have influence and succeed
  - o You get people to do things by keeping them on the team

- Level Four: Provisional Leadership
  - o People follow because of what you have done or can do for them
  - o It lasts as long as you give more than you take
  - o You begin to develop other leaders
  - o You get people to do things by empowering them

- Level Five: Personal Leadership
  - o People follow because of who you are and what you represent
  - o It last as long as your character holds out
  - o You get people to do things just because you have asked
  - o They want to be part of your team – they volunteer to go the extra mile.

Few people are successful, unless many people want them to be.
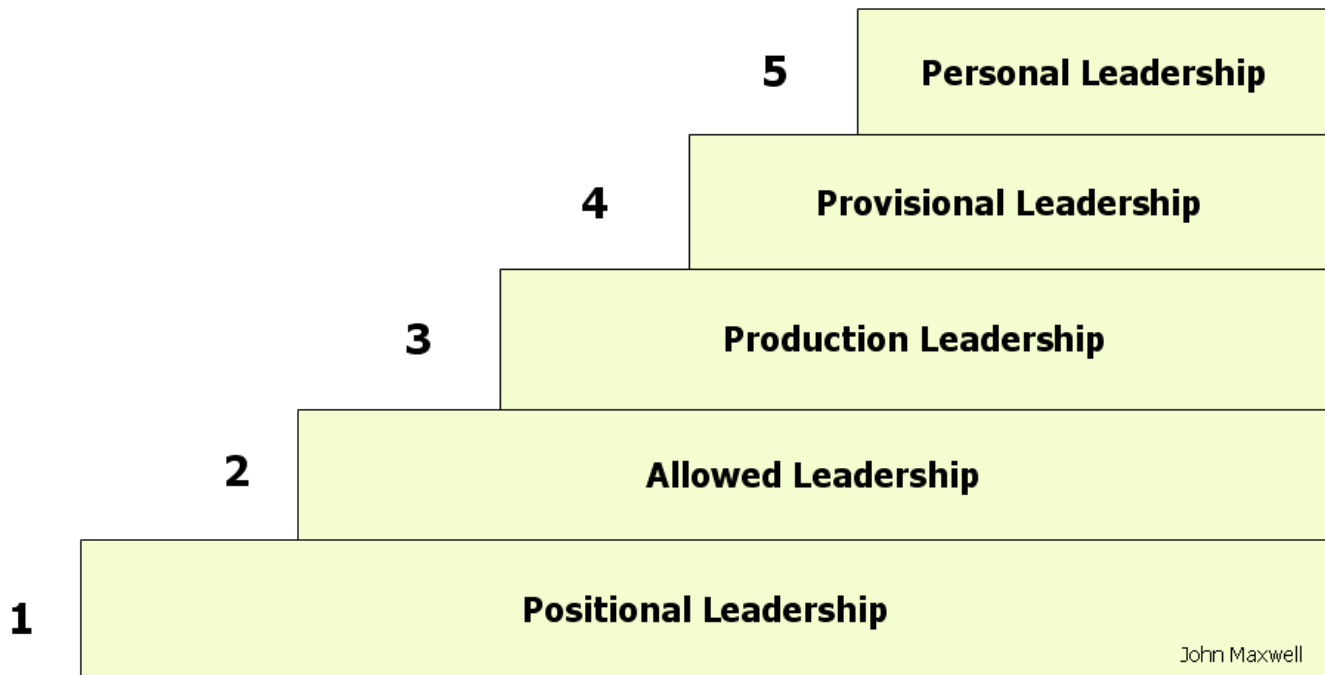
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Technology is not Turnkey

- o Unlike the services you company may supply, technology is not something you deliver as an event
- o Technology is more than the proper tool, installed, configured and running.
- o CAD technology constantly must be upgraded, modified, reevaluated and reviewed.
- o Users must be lead to greater use.

Leadership Tent – from "The Extraordinary Leader" – John Zenger & Joseph Folkman

Character – the Center Tent Pole

- Making decisions for the good of the company – not your agenda
- Constantly learning
- Keeping commitments
- Being approachable
- Trusting people
- Not competing with others
- Not being arrogant
- Not giving up
- Being emotionally resilient
- Doing what you say you will do
- Not promoting yourself at the expense of others
- Not blaming others for failure
- Doing the Right thing

Interpersonal Skills – Supporting Pole #1

- Communicating powerfully and prolifically
- Inspiring others to high performance
- Building positive relationships with others
- Being an effective team member
- Influencing others above you, along side you and below you
- Teaching others
- Building other peoples self-esteem
- Responding positively to feedback
- Handling stress well
- Recognizing and rewarding other peoples contributions

Focus on Results – Supporting Pole #2

- Establishing stretch goals
- Take personal responsibility for the outcome of the group
- Provide feedback and coaching of team members
- Initiate new programs, projects, processes
- Focus on organizational goals and translate them into actions
- Operate at top speed and intensity
- Accelerate the pace of the team
- Balance long term and short term objectives
- Constantly look for ways to improve and refine
- Keep a list of team accomplishments

Capabilities – Supporting Pole #3

- Expand and refresh your Technical Knowledge
- Increase your level of understanding of your companies product and services
- Fine tune your problem solving skills
- Develop your professional skill levels in writing
- Be innovative
- Take initiative – make it happen
- Expand your use of technology

Leading Change – Supporting Pole #4

- Develops and articulates a dynamic vision
- Champion change in the organization
- Being an effective Marketer
- Have a strategic perspective
- Know the impact of change on the company
- Connected to the outside world
- Helping others overcome resistance to change
- Constantly communicating the big picture
- Encourages others to let go of the "old ways"
- Create a climate of participation and involvement by all
- Making tough decisions in a timely manner
- Actively seeking out information, thoughts and perspectives from others

A Leaders Personal Assets:

- Focus – dedication, commitment, passion – call it what you will – Leaders keep the goal in mind
- Insight – They see through the cloudy waters to get to the root of the problem – Leaders see over the top of the next hill
- Charisma – people want to be around them - Leaders make people feel good about themselves
- Talent – Leaders have some natural skills that they capitalize on
- Ability – Leaders make things happen and get things done
- Communication Skills – Leaders can share the vision and goals in clear and understandable ways
- Character – A scout is trustworthy, loyal, helpful, friendly, courteous, kind, obedient, cheerful, thrifty, brave, clean and reverent – I still remember these things. Leaders have character. Character can be developed.

A Leaders Corporate Assets:
CIO Magazine

- Researching: The ability to quickly gather information from a broad variety of sources, analyze it, and synthesize a method or model that solves a problem, or various problems, in a creative or innovative manner

- Interviewing: The ability to formulate questions used in conversation to elicit facts or statements from another individual, and a willingness to listen to what the individual has to say
- Engineering: The ability to apply principles of logic, science, and mathematics to the understanding of systems and processes to improve them
- Lecturing: The ability to expound on an important subject delivered before audience members to inform and instruct them, as well as convince or persuade them to further action
- Arbitrating: The ability to reconcile the differences in components of networked resources or assets to achieve a common objective
- Coaching: The ability and willingness to transfer knowledge about a subject to individuals, enabling them to succeed at a given task, and (if necessary) identify their weaknesses and aid them in correcting those weaknesses
- Organizing: The ability to put things together in an orderly, functioning, and structured whole

Leadership is based on who you are then what you do

What you do flows out of who you are:

What you are:	What you do:	Result:
Honest	Do the right thing	Credibility
Encouraging	Believe in people	High morale
Visionary	Set direction and goals	Results
Teachable	Apply myself to learning	Growth
Relational	Care about others	Support
Humble	Admit mistakes	Forgiveness
Confident	Make decisions	Security

The Road to Leadership...

- Leadership does not come overnight.

So how do I become a leader?
- Leaders have some common traits...

Trait One: Leaders have Character

- Do the right thing
  - If you make mistakes you can be forgiven, but deception, conniving, playing overt politics will get you into trouble.
  - It is easier to keep a good reputation than to rebuild one.
  - Lying makes a problem part of the future; telling the truth makes it part of the past.
- Know your non-negotiable
  - Don't compromise on your principles.
  - Be flexible and adaptive but don't sacrifice your core principles.

Trait Two: Leaders pay their dues.

- Get in the trenches to get the work done.
- Roll up your sleeves.
- Put others needs above yours.
- Do the work
- Help out
- Stay late
- Come in early

Trait Three: Leaders are respected

- Make sound decisions
- Seek consensus
- Be consistent
- Admit your mistakes and shortcomings
- Put the needs of your people above your own
- Put the organization above you personal agenda

Trait Four: Leaders have the Ability to Inspire Others

- Tell others what can happen
  - Paint a picture of what tomorrow can look like.
  - Look farther into the future to see the positive outcome and tell others what it will be like.
  - Raise a passion for what might be. This helps alleviate doubts.
- Tell others how it can happen
  - Predetermine a course of action
  - Lay out your goals
  - Adjusts your priorities to make it happen
  - Notify key players – get buy in – one by one
  - Allow time for people to process the change
  - Break down the process into smaller parts
  - Plan for problems
  - Rally around the small successes
  - Review your plan along the way

Trait Five: Leaders Motivate People to Follow

- Let people make significant contributions
- Let them help create the goals
- Create Positive dissatisfaction
- Give them recognition
- Provide clear expectations
- Don't belittle anyone
- Don't manipulate anyone
- Don't be insensitive
- Don't discourage personal growth

Trait Six: Leaders are learners

- Five Phases of action in gaining knowledge

  Step 1: I don't know that I am ignorant, so I don't care

  Step 2: I know that I am ignorant, but I don't care

  Step 3: I know that I am ignorant but I decide to change

  Step 4: I find out what I need to know and I learn it.

  Step 5: I put it into practice, and blissfully return to step #1

Trait Seven: Leaders are people oriented.

- They are Servant-Leaders
- Care for the people first
- Give to others first – then they will give to you – take the extra step of helping out, teaching a new trick, covering for other shortcomings, sharing the blame.
- Leaders must initiate relationships
- Leaders must be good at the Art of Listening

Trait Eight: Leaders Govern wisely.

- Set up a system of small groups to assist in the Leadership of CAD
  - Having a strong CAD decision-making structure in place can force business people to think of CAD's role in the overall enterprise (not just location or division by division).
  - It can also better align CAD strategy with corporate strategy—making sure that they are one and the same.
  - Group One: Office CAD Liaisons
    - Two people from each discipline.
    - We get together on a regular basis and discuss new software, Standards, Projects, LISP Routines, etc.
    - These people are pivotal to getting my job done.
    - They are an extension of me.
    - I commission them to be my deputies.
    - I pour into them the need for holding the line on CAD Standards.
    - I gather information from them on the impact of my decisions.

- Group Two: Department Managers
  - We get together once a month
  - Discuss technology issues as they affect Design
  - Discuss training issues
  - Discuss workload
  - Discuss what will be happening in the future

- Group Three: Corporate CAD Standard Review Committee
  - The CAD Managers from all offices gather once a week via conference call to develop and refine the corporate CAD Standard.
  - We haggle and argue sometimes, but come away in agreement as to how the company will standardize CAD use.

- Group Four: Corporate Management Team
  - Much less formal team of office managers and division managers.
  - Interact with them on a one on one basis since it is hard to get them all together in one place at one time.
  - Find out the current flow of production between offices and if a location needs special attention.
  - Try to find out what technology successes they have and spread them to other locations
- Group Five: The Inner Circle
  - Leaders have an inner circle - This is not a negative thing. These people are key to your success. A smaller group to gain insight, get things done and rally the troops.
  - Leaders typically check with 3 to 4 persons before making a decision. Having too much input is as bad as having too little.

- Your Teams…
  - Build 'em before you need 'em
  - Gather people with different talents
  - Engender Loyalty
  - Delegate responsibility based on ability
  - Don't lock out the squeaky wheels
  - Understand your own strengths
  - Recognize and respect the strengths of others
  - Blend differences among team members and harness the unique abilities of each member

Trait Nine: Leaders Empower People

- Create an atmosphere and culture that empowers people to get their job done.
- Encourage the sharing of information.
- Encourage people to share their knowledge of the tools.
- Spur them on to help each other out.
- Create an open environment of learning and constant improvement.
  - Fight to keep the environment open.
  - Trust People.
  - There is no limit to success when you do not limit people.

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- How do we limit?
    - Having a closed, negative, confrontational environment.
    - Telling people they are not allowed to experiment
    - Keeping power through fear
    - Withholding information
    - Allowing limited access to data

- How to empower people… a USC Professor studied this issue and found some common traits

    - Clear and challenging Vision – your office/company/department goals
    - Atmosphere of Teamwork – everyone is in this together – if you fail, we all fail.
    - Clearly defined rolls – know who does what and what they are allowed to do without asking.
    - Secure feeling – mistakes are learning experiences not grounds for dismissal.

Trait Ten: Leaders Live in the Future

- Focus on the future.
    - Respect your corporate history – but move them to change.
    - Move to make things better.
    - Have short term goals to manage the present.
    - Have long term goals to plan the future.
- Act, do not react – poor leaders lack vision.
    - Don't get too locked in to the present – even if you created it.
    - Free yourself from the tyranny of the urgent.
    - Take time away to plan and prepare for tomorrow.
- Always think about the Future – don't lose sight of your vision.
    - Even when everyone else is trapped in the present.
- Don't rest on past accomplishments
    - They are yesterday's news.
    - They are history lessons.
- Constantly sell your product
    - Your successes, dreams, vision and goals must constantly be resold.
    - Don't let them go stale.
- Be looking for the next generation of Leaders
    - Leaders are not afraid of other leaders.
    - They nurture them.
    - Only leaders are capable of developing other leaders, Followers cannot do it.

Leadership Losers

If you no longer want to be a leader – do the following:

- Be indifferent
- Be disagreeable
- Hoard information
- Be two faced
- Compete with others
- Be opinion-less

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- Be a Lone Ranger
- Be egotistical
- Give in to everyone else
- Have no discipline
- Be un-dependable
- Pass the buck
- Only tell people "what" to do – never "why" they should do it

Becoming a real leader

- Understand that Character Counts - True leadership comes from within – it is who you are that matters
- Develop relationships – with your followers and your leaders.
    - Shoulder to Shoulder
    - Back to Back
    - Face to Face
    - Get a 360 degree view of your abilities, strengths and shortcomings.
- Gather knowledge and wisdom – you need the facts and you need to know how to interpret them
- Expand your common sense and intuition
- Rely on your backlog of experience to encourage faith in your leadership
- Develop a track record of success
- Deliver on your promises.

People naturally follow stronger leaders than themselves.

Strong leaders will not be afraid to:

- Draw the line on issues that demand compliance
- Say no to those above them
- Follow others
- Cash in some chips to gain something
- Let others become leaders

A leader's intuition

- Read trends
- Read your available resources
- Read people
- Read yourself
- Intuition or gut feelings are the core of a leaders processes.
- There are those who naturally do this, those who are nurtured to have it, and those who may never get it.
- Listen to others – their complaints – their desires – their ideas. Write them down. Think them thru. Come up with a plan to get them addressed.

A Leaders Priorities

Which do you do first?

- The Urgent – Letting others set your priority
- The Hardest – Get the worst out of the way first
- The Leftovers – Get the stuff you didn't get done yesterday done today

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- The Quickest – Get the small things out of the way
- The Easiest – Get the no brainer stuff done – procrastinate on the others
- The Best – Prioritize each day, week, month, year and after each task
- When was the last time you spent a good amount of time organizing your efforts?

Organize or Agonize – 80/20

- Spend 80 percent of your time with people who are the top 20 producers
- Try to do at least 20 percent of your priorities each day
- Prioritize like you are leaving the office for a week
- Give 80 percent of your mundane work away so you can do the 20 percent that really matters
- Always put a due date on tasks

Visioneering

- A leader sees farther than others see.
- They see more than others see.
- They see things before other see.

- Creating the Vision
    - Gather information
    - Talk to everyone
    - Read as much as you can
    - Get opinions – pro and con
    - Find out what others are doing

- Casting the Vision

    - See it – clarify your vision before you start marketing it.
    - Believe it will happen – if you think it will never happen then maybe it is the wrong vision.
    - Make it happen – take initiative. Don't take no for the final answer.
    - Defy defeat - Never give up. You live in a technology world. Most of the time you will have to push people into new areas. Comfort with existing tools will work against you.
    - Be Direct – make sure that you have the vision down to an understandable level.
        - Make sure that others know you need their help and want them to be a part of the success.
        - Let them know that change is coming and that the old way of doing things won't work any longer
        - Phrase everything as a question or concern
    - Get people excited – don't underestimate passion both for your ideas and against them.
        - Make people understand the positive parts of change.
        - Downplay the negative side.
    - The Vision should belong to everyone.
    - You are all in this together – Success belongs to all of us.
    - You cannot succeed without others.

Tips and Tricks

- Get Upper Management clout behind you – then try to never use it.
- Do not let a technology question become merely a financial question.
    o The cost of software is only one facet of your decision.
    o Try to quantify the dollars lost by not taking a technology step forward.
    o Try to minimize the impact of dollars by spreading it over the life of the product.
- Don't let a management problem become a technology problem.
    o Keep focused on providing the most tools you can – but realize that many problems are people problems

Commit to the Care and Feeding of Top Management.

- Tell your story whenever you get a chance. Share your outlook for the future at every turn.
- Upper Management is anyone above you.
- Get the word out anyway you can on the following issues.
    o Impact of using a Client CAD Standards
    o Cost of CAD
    o Training – the positive impact of doing it and the negative impact of not doing it
    o New Software release upgrades
    o Standardization
    o Need for best equipment
    o Deliverables
- Make sure that management knows what you are doing, when you are doing it and who it affects.
- Communicate good news quickly – communicate bad news faster.
- Always tell the PM when troubles will impact Deadlines or Dollars
- Couch all of your conversations in dollars and cents.
- Make sure you keep a good rapport with the right people
- Always keep the clients interests in mind

A Foot in Both Camps

- You have to be an advocate for the front line workers.
    o Seek the best tools for the users.
    o Seeking new ways of squeezing productivity out of the tools you have.
    o Make sure that you encourage high moral and dedication.
- You also need to be an advocate for Management.
    o Never loose sight of management's goals.
    o Get the job done.
    o Meet the clients requirements.
    o Save money.
- You must play in both camps.
    o Do not relate to one too highly at the cost of the other.
    o If the users see you as management, then communication may stop.
    o If management sees you as only a glorified user you may lose your influence on business decisions.

CAD Leaders - Who are you?

- You are a Cop
- You are CSI
- You are a Lawyer
- You are a Judge

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- You are a Jury
- You are a Corporate Body Guard (Enforcer)
- Above all – you are a Servant

Dealing with troublemakers.

- Keep them involved. They often make your best critics.
- 20 percent of your users – take 80 percent of your time.
    - Often these people will also be your biggest trouble spots. Ignoring and avoiding the standards and methods that must be followed.
    - Don't take it personal and don't give up.
    - Do not let them step on the standard and not use it.
    - Talk to them first.
    - Employ pier pressure.
    - Call on their boss or the project manager as a last resort
- Be patient – do not come down to their level. Don't ignore them. If they are breaking the rules, do not let them escape, do not let them hide.
- Do not let things fester – deal with problems head on when they arise. Deal fairly but forcefully.

Dealing with confrontation

- Deal with it privately, not publicly
- Do it as soon as possible
- Speak to one issue at a time
- Make your point and stick to it
- Avoid sarcasm or attacking the persons character
- Avoid words like "always" and "never"
- Present suggestions as questions
- Don't apologize for confronting problems
- Compliment whenever possible

Encourage, encourage, encourage

- Never forget to give credit to others.
    - They may have contributed to your development of the standard, or some new tool that was purchased.
    - Make sure that everyone knows they helped.
    - They will be back to help again.
- Playtime
    - Let technology driven employees have some play time.
    - Let them experiment, but keep it focused.
- Keep track of the progress of individuals and praise them.

Financial Focus

- Buy the best hardware you can get away with
- Build your toolkit before you need it
- Build your toolkit on the Project budget
- Always have a wish list handy
- Track you plotting - Outsource your plotting – charge for your plotting
- Tighten your budget before you are asked – define the non-negotiable items and hold tight

Financial Focus

- Manage your vendor relationships – They are crucial and should not be neglected. Talk with your vendor often.
- Manage the IT support
- Remember that the financial strings of the company are where the controls are.

Project Deadlines first

- Never forget that your job is to get the drawings out the door.
    - o You are not to hold the CAD Standard so high that the files never make it to the client on time.
- Remember – the CAD Standard is a tool to increase productivity.
    - o If I could be more productive without one – I would throw mine away.

Where do I begin?

- Do a 360 degree assessment of yourself
    - o Talk to someone above you, along side you and below you
- Define your top three talents and build on them
- Target the next three character attributes you would like to add or improve
- Define your fatal flaw and eliminate it
- Keep moving ahead

The Next Step

- Most of you have begun the process of transitioning from User to Manager to Leader. Continue your development by researching the keys to Leadership and put them into practice.

Pass it on...

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