

Leading a Software Development Project

The words “leader” and “leadership” instill a sense of awe. These words evoke images of people who have made outstanding contributions to mankind. Names like John F. Kennedy, Martin Luther King, Jr., General Dwight D. Eisenhower and Abraham Lincoln come to mind—they are people who left a mark on the society they lived in. I believe General Douglas MacArthur is part of this list because he exhibits the typical characteristics of a successful leader.

MacArthur was a visionary during his service at West Point. He created a new culture in the classroom by encouraging debate. MacArthur also served as a symbol of leadership, adopting the role of hero during the Korean War. In this role, he instilled hope, courage and faith. During World War I, he emerged as a leader in the trenches, charging in the frontline side-by-side with his fellow soldiers. The focus of this article is **leadership in the trenches**, which I think exemplifies the qualities needed by a software project manager.

Project managers are confronted with leadership issues on a daily basis. For example, project managers are expected to resolve challenges such as not having clear mandates from customers. In addition, most project managers face situations when project team morale is low. There are also times when project managers are asked to make tough decisions like terminating a project or identifying a win/win solution for all stakeholders.



As a leader in the trenches, a project manager is responsible for:

- ✧ **Creating an environment where people can contribute and be productive**
- ✧ **Facilitating the decision-making and problem-solving process**
- ✧ **Managing relationships with vendors and customers**

The above responsibilities are supported by the following views:

- ✧ The role of the project manager has its own responsibilities just like any other team member, except that **the project manager has the sole responsibility for the success of the**

project. A project manager increases the probability of project success by creating an environment where people can contribute and be productive.

- ✧ The complexity of building and delivering a software product to the marketplace is very high. **A project manager depends on the input and contributions of many experts** in order to arrive at the best decisions for the project, product and people.

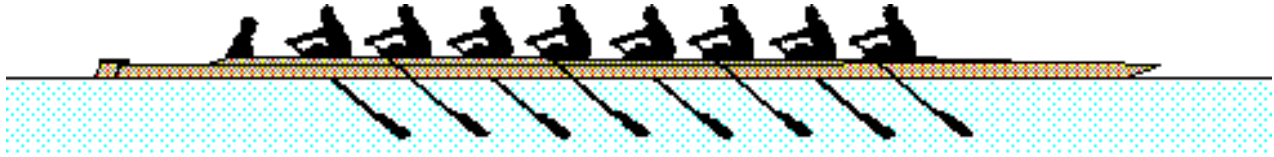
- ✧ **The goal is to create a win/win solution for all stakeholders.** A project manager needs to involve customers and vendors as stakeholders by understanding their language and adapting to how they work.

Assuming that the above three responsibilities describe the mandate of the project manager as a leader in the trenches, the question is: **What can project managers do to fulfill this mandate?**

To answer this question, I want to draw from the thoughts and insights of three experts. Judy Rosener in her article, “*Ways Women Lead*” (Harvard Business Review, November - December 1990) sheds some light on the topic of leading teams. In “*The Recipe for Doing the Impossible*,” David Schmaltz (www.projectcommunity.com) talks about dealing with rapid, unpredictable change and making decisions in the face of uncertainty. Finally, Peter Drucker in “*Managing Oneself*” (Harvard Business Review, March - April 1999) defines an agenda for professional growth.

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In “*Ways Women Lead*,” Rosener discusses the results of her survey on leadership styles. She found that women frequently characterize their leadership style as “getting subordinates to transform their own self-interest into the interest of the group through concern for a broader goal.” This style succinctly describes the agenda of a project manager building a team of people that work well together. Furthermore, Rosener labels the leadership style exhibited by many women as interactive. Women stated that as leaders they **encourage participation, share power and information, enhance other people’s self worth, and get others excited**, all of which contribute to an environment where people can contribute and be involved.

A project team is a group of experts where every team member owns a piece of the puzzle. Without everyone’s participation in information sharing and joint decision-making, it’s not possible to achieve the best results. In their positions, project team members are expected to accept the responsibility for the whole. This cannot be achieved without reciprocity of sharing power. Again, the overall success depends on each and every contribution no matter how large or small the team member’s function. This needs to be acknowledged publicly. There is no doubt that developing a software product causes stress, tension and possibly the experience of setbacks. Excitement about the work and a fun atmosphere help to overcome adverse situations.

Rosener also points out that an **interactive leadership style caters to the needs of people that want to share in the success, feel that they contribute to a higher purpose and seek an opportunity as individuals to learn and grow**. Who would deny that these are the incentives software professionals are looking for?

In “*Recipe for Doing the Impossible*,” Schmaltz points out that problems that were solved in the past are unlike those we are asked to solve today or in the future. Therefore, we cannot rely on old recipes to define the right course of action.

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Schmaltz notes that “tried and true” recipes derived from past experience result in being stuck trying to do the impossible. The question is: **What is the leadership contribution a project manager can make in such a situation?**

Schmaltz offers some concrete suggestions for how to solve the problem of being stuck doing the impossible. These also apply to solving problems in general. His first suggestion is **don’t overlook yourself as a piece of the puzzle or problem**. Often a problem you perceive as outside yourself can be solved by transforming your response to the problem. David cites the example of the technically competent CEO who as former chief technical guru and founder cannot separate himself from the engineering details. The answer lies in increased inclusion of the CEO through frequent meetings that still sometimes disrupt but never surprise the project.

Secondly, **transforming relationships with others may lead to a positive change**. He refers to a situation where a sales person made negative assumptions about potential customers. Instead, looking for positive traits creates new choices for getting out of being stuck with a bad business relationship.

A solution to getting unstuck may also lie in **reframing the objectives by learning to speak the language of the domain, adding clarity or narrowing the scope**. If the project objective sounds as ambitious as feeding the world’s hungry, clarification and redefinition of the scope are probably in order.

Above all, a project manager needs to **show flexibility and be willing to adapt and modify the process** used to achieve the project’s objectives. This means, for example, abandoning the template for the work breakdown structure and adapting the process to the changing needs.

Peter Drucker in “*Managing Oneself*” says that professionals have to know themselves in order to succeed. This is especially true for those who lead.

As mentioned earlier, a project manager facilitates the decision-making process, but ultimately has to be willing to make the final decision. Unless a project manager understands his or her personal values, it will be tedious and difficult to make day-to-day decisions. Also, personal values greatly influence any decision-making. For example, these values are about directing work and people through either policies or rules versus motivation and example.



Values are also about respect for the individual expressed through communication and information sharing. Holding group consensus in high esteem results in a participatory leadership style.

Project managers as leaders in the trenches lead by example, which means that they participate actively in technical project work. In order to do so, project managers need to be keenly aware of their strengths. Given the limited time for technical project work, it is especially important that project managers select work that matches their strengths. Finally, project managers have to ask the question, “What results do I have to achieve in order to make a difference?” For example, given the particular conditions of a project, these results may be in the area of leading the technical work, fostering a high performance team or creating a software engineering culture.

For Peter Drucker, managing oneself also requires taking responsibility for relationships. There are two sides to the coin. For project managers, this means the responsibility of knowing the strengths and values of each team member and how each team member performs. Conversely, project managers also have to communicate their values and how they work. This is especially important for projects, because teamwork depends on trust.

In summary, let me suggest what a project manager as a leader in the trenches can do. A project manager can create an environment where people can contribute and be productive by:

- ❖ Leading by example
- ❖ Fostering participation
- ❖ Encouraging open communication
- ❖ Catering to the professional needs of each individual team member

When facilitating decisions and the problem-solving process, a project manager may want to explore the following options:

- ❖ Transform oneself
- ❖ Transform relationships with others
- ❖ Transform the objective
- ❖ Transform the process

Any leadership work begins with personal work. Project managers need to understand their strengths and values in order to define their contributions and take responsibility for relationships with all stakeholders.

Management Activities in the Different Project Phases

Following are lists of management activities for a custom software development project involving a vendor and a customer.

Management Activities in the Inception Phase

- Meet with customers and vendors
- Prepare a preliminary staffing estimate
- Prepare job descriptions
- Evaluate the new project against the company project portfolio
- Present the proposed approach and solution to the customer
- Participate in contract negotiations
- Prepare a cost estimate
- Arrange training for staff

Management Activities in the Elaboration Phase

- Hire staff
- Establish a cost and time tracking system
- Agree on the communication and coordination process between the customer/vendors and the project team
- Purchase hardware and software
- Define project roles and responsibilities
- Initiate and oversee configuration management
- Define reports
- Decide on engineering artifacts to be produced
- Specify the method for verifying the engineering artifacts
- Get sign-off from the customer
- Create an environment for team building

Management Activities in the Construction Phase

- Run the change control board meeting
- Monitor the project progress
- Take corrective actions
- Interface with third party vendors for defect resolution
- Conduct project status meetings
- Communicate with all stakeholders
- Prepare reports
- Track hours and dollars
- Make product and process decisions
- Provide resources (hardware, software, desks, manuals, etc.) for team members
- Track issues
- Balance people's personal/professional goals and the project goal

Management Activities in the Transition Phase

- Plan the hand-off to the customer (installation, training)
- Organize a party for the team
- Prepare the final time and cost accounting
- Conduct a project retrospective
- Administer a customer satisfaction survey
- Reward exceptional contributions

P2E Calendar of Activities

- ✧ **Tuesday, March 7 and Thursday, March 9, 2000**
Introduction to Microsoft Project98, 2 days
Registration: (303) 492-8668, Location: CU Computing Center, Cost: \$190
- ✧ **Wednesday, February 9, 2000**
Legal Topics for Emerging Software Companies, Dan Meehan, Davis, Graham & Stubbs, Boulder Software Club
For time an place, visit www.dimensional.com/~sms/bsc
- ✧ **Monday, March 20 - Friday, March 24, 2000**
Software Development Conference SD2000
San Jose Convention Center
For more information, visit www.sdexpo.com



With this anniversary issue, I want to extend my best wishes to all my readers. May the year 2000 be rewarding and fulfilling.



Without feedback, there is no community. Please let me know what you think about **Project Press**.



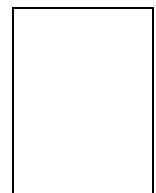
Send your answers to the following questions to UllaMerz@aol.com:

- What aspects of **Project Press** do you most value?
- What can be improved?
- Please provide an address of a colleague who would benefit from receiving **Project Press**

For every complete response, you will receive "The Project Managers Planning Handbook" as a free gift! Don't forget to include your mailing address. Thank you.

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