



Quietly Making Noise

A Parrothead's Look at Software Process Improvement

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The organizational changes associated with software process improvement involve much more than just the technical aspects. The changes that affect the culture of the organization and the impact of those changes on the people involved are often overlooked. This article discusses some of the author's experiences in facing those people-oriented aspects of software process improvement by relating them to the lyrics of singer-songwriter Jimmy Buffett.

Every good cause should have a poet or songwriter to inspire its followers. Software process improvement (SPI) is no different. I propose the music of Jimmy Buffett, the Florida-based purveyor of laid back, Caribbean-flavored music. As a loyal fan (we call ourselves Parrotheads), I wear floral print shirts on a regular basis and go to his concerts locally and around the country. Much to the chagrin of the other members of my software engineering process group (SEPG), I have brought this off-center viewpoint to the office and applied it to what we do. In the following sections, I will share some of Buffett's lyrics to illustrate some lessons learned in our SPI efforts.

"You've got to roll with the punches, play all your hunches, and make the best of whatever comes your way. Forget that blind ambition and learn to trust your intuition. Plowing straight ahead, come what may."

— *Cowboy in the Jungle*¹

This is probably the first lesson any SEPG learns. Things often do not go as you planned, but occasionally a little opening will present itself and you need to make the best of it when it does. Blind adherence to the model you are following or to any plan you have set up may limit what you can do. Intuition and hunches play an important role in adapting to the changing environment you find. Often, the

organization's culture will surprise you and cause you to take a different approach. The trick is to stay light on your feet and adapt to what situations present themselves but never lose site of the goal you are moving toward, and do not let your efforts slip. Plans and processes should be regularly reviewed against the changing environment to ensure you maintain your straight course.

"I'm growing older, but not up.
My metabolic rate is pleasantly stuck."

— *Growing Older But Not Up*²

This is the anthem of the organization with which you are dealing. In particular, the middle managers of the organization will present this resistance to you. Remember, they may have gotten to their positions by way of the status quo and are possibly being rewarded for maintaining the status quo. These factors make process improvement an extremely tough sell for them. There are three things that can break this barrier: (1) change the reward system, (2) obtain strong senior management sponsorship, and (3) find out the middle managers' problems and identify how process improvement will help solve them.

The reward structure may not be the SEPG's to address. As in many change-related activities, senior management plays a critical role. The senior sponsor must begin to reward the desired behavior and question the status

quo. This is a delicate proposition because the day-to-day work must still get out. During the initial stages of process definition and implementation, productivity can drop off, which will fuel the flame of resistance. One key is to reward process improvement-related behavior in the same way other work efforts are recognized. A big danger lurks in allowing the perception that improvement-related activities are separate from "real" work.

"They're just changing channels, waiting for the sails to fill. They'll be changing channels, always will." — *Changing Channels*³

Senior management sponsorship cannot be stressed enough. Sponsorship requires a combination of commitment and involvement. Many sponsors are great at committing; they will commit their organizations, commit their resources, and commit their rhetoric. What they need to commit is their time. It is easy for them to say, "Here's a bunch of resources; tell me when we're better." It is difficult for them to commit their own time to get involved in the improvement efforts. If they do not get involved, they will have a committed boat but no wind to fill the sails.

Our organization's headquarters showed its level of commitment to process improvement, causing our director to follow suit. Once we began meeting with him on a regular basis, he began to understand the issues and to address problems we were facing. An-

other issue common to senior managers is their mastery of sending conflicting messages. In the ideal situation, senior managers would ask about software quality assurance reviews with the same conviction they ask about a project delay. Most often, that will not be the case, and process improvement issues can take a back seat to the crisis of the moment. The SEPG must work with its senior manager to point out the conflicting messages and minimize the situations where they can be issued. Although the SEPG cannot make the wind of change blow, it can certainly create favorable conditions.

“Something like a Swiss Army Knife. That’s my life.”
– *Schoolboy Heart*⁴

When dealing with middle managers, the SEPG cannot bring too many tools. Like the above mentioned knife, the SEPG must be prepared to fit any situation that presents itself. Middle managers bring a variety of needs to the table. They relate closely enough to the practitioners to be concerned with technical issues, yet they must respond to senior managers on a higher level. They can be a source of great information and of great frustration. Spending time talking to them and, more important, listening to them can be invaluable. The SEPG must identify the clues that will lead to middle manager buy-in. Once identified, the SEPG should target the concerns that, if remedied, can bring about the biggest pay-off. By concentrating on those, the SEPG can begin to get the middle managers involved. If senior management proves they are willing to reward middle managers for participating in improvement efforts, momentum can build quickly.

You are probably thinking, “That’s all well and good, but what about the one person in the corner who keeps saying nothing will work?” Rest assured, such people exist in every organization. Some will never buy in to what is going on, but we have found some success by turning things around and making these people “devil’s advocates.” Establish that role upfront and tell

them the rest of the group will determine a solution and send it to them to identify the problems with it. This channels their negative energy toward helping the group and gives them a specific role to fill. We have found that this gradually leads to more involvement, except in the most extreme cases.

“Who’s the blond stranger that entered my life? Making me over in the moonlight.”
– *Who’s the Blond Stranger*⁵

This is often asked when the SEPG starts its improvement efforts. The SEPG should make itself visible to the organization by giving its members some initial orientation on what process improvement is and what it will involve. Senior managers play an important role here as well—they should identify a specific set of criteria when appointing SEPG members, including good people skills, a desire to effect change, and respectability within the organization. When introducing the SEPG to the organization, senior management should make the selection criteria known, which will help the group’s credibility. The process improvement efforts should be treated like a project by management and given the same type of visibility as the development projects. If people are still asking who is in the SEPG several months into the improvement efforts, some catch-up work is needed to make things more visible.

“Quietly making noise, it starts with kindergarten toys.”
– *Quietly Making Noise*⁶

Often, the process improvement efforts start quietly by organizing people into work groups to address specific issues. As the group comes together, people will bring biases from their work backgrounds and different levels of acceptance to the efforts at hand. One thing we found to be effective in meetings is to bring toys. The toys provide an icebreaker as people enter the room. They help create a casual atmosphere and often start the group interaction before more serious

issues are brought up. This can lead to a more open discussion. Most people prefer items that can be thrown at each other, like soft-textured balls. Balls, spring toys, and other small toys help loosen up the mood. There is just something special about watching two senior managers fight over a child’s toy.

“It’s my job to be cleaning up this mess and that’s enough reason to go for me. It’s my job to be better than the rest and that’s a tough break for me.”
– *It’s My Job*⁷

The SEPG holds the unenviable position of sitting somewhere between management and the practitioners. As a result, it must address the issues faced by each group. A lot of the problems we found in our organization were caused by the interaction between management and practitioners and the distance that existed between the two. One key was for the SEPG to operate at a higher process maturity level than the rest of the organization. We had to apply the Capability Maturity Model disciplines to our own activities and develop processes for the activities we perform. To be taken seriously, we had to exhibit the behavior we expected them to adopt.

“Changes in Latitudes, Changes in Attitudes. Nothing remains quite the same. With all of our running and all of our cunning, if we couldn’t laugh we’d all go insane.”
– *Changes in Latitudes, Changes in Attitudes*⁸

As time passes and various “latitudes” are crossed along the course of process improvement, a number of things change. Attitudes are foremost among them. People begin to see the advantages of doing business a new way and efforts move from the early adopters to the majority of people affected by the change. As latitudes change, new and different challenges present themselves. The SEPG must adapt to the changing situation and draw on their cunning and imagination to face the new challenges.

Along this course, the SEPG needs a sense of humor-it should not take itself too seriously. SPI is a serious matter, but the approach needs to have a light touch. There will be false starts and roadblocks that must be dealt with along the way, and the SEPG cannot let those obstacles bring them down. It is rare that things go exactly as planned, but the SEPG must accept any progress that is made. We learned that SPI is a series of little victories for the SEPG that can lead to big victories for the organization.

“The years grow shorter not longer, the more you’ve been on the road. Feelings for moving grow stronger, and you wonder why you ever go home.”

– *Wonder Why You Ever Go Home*⁸

The above represents the desired attitude of the organization after process improvement efforts have taken hold. The time between improvements shrinks as people see the benefits of previous changes. Over the course of time, people begin to look for ways to move to new, improved methods of doing business, and the old ways begin to fade from memory. It can be a long, frustrating road to get to this point, but after a few little victories the SEPG can expect to see this on the horizon.

“Quietly making noise, [Ticking] off the old killjoys. Not too soft, not too loud, just enough to draw a crowd.”

– *Quietly Making Noise*¹⁰

The SEPG can make noise with the changes brought about by process im-

provement, but it is the entire organization that gets the fanfare for big improvements. The SEPG’s role is to beg, cajole, educate, hand-hold, facilitate, monitor, and ease the organization along the journey to improvement. The old killjoys will definitely resist and get ticked off about changing the way things are done, but some will listen. As little victories are won, more will listen, and the noise will build. The key is to keep plowing straight ahead on the course, adapting to the changing conditions and gathering a crowd as you go. As the crowd builds, the momentum changes, and the little victories come closer together. This makes more and more noise until the crowd grows, and bigger victories are won. u

Acknowledgment

Thanks to Jimmy Buffett for the inspiration and insights. When the frustrating moments come along, and they will, I suggest quietly making a little noise with some of those kindergarten toys.

About the Author

Paul Kimmerly has 12 years experience in information systems development for the different incarnations of the Defense Finance and Accounting System (DFAS), Financial Systems Activity. For four years he has served as a member of the SEPG, and has been chairman of the group for the past two years. In addition to his local duties, he chaired a group that represented six sites within his organization’s parent agency, the DFAS Financial Systems Organization (FSO). This corporate group addresses FSO-wide process im-

provement issues. He presented part of a tutorial entitled Transition Successes from the Field at the 1997 Software Engineering Symposium.

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