

Training Your Development Process

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Introduction: Understanding Process Behavior

Often the key to successfully increasing business value by leveraging best practices is not in the selection of an individual software development process, but in the care and feeding of the chosen process.

Too often, we get enamored with the ability of a process to add value, rather than realizing that if your process is nimble, reliable and efficient, it can be used to provide whatever value your evolving business needs demand - whether it is fast to market, quality products, predictability or cost reductions.

To illustrate, you may have noticed that some dog owners are excited when they can prove that their pet dog has learned a trick such as "sit down". However, the true excitement comes when they realize that their dog can be quickly trained to do any number of tricks, based solely on the owner's whim. Similarly, you can train your development process to be able to react to changing business needs. To do this, you need to ensure that your process exhibits the correct behavior by becoming nimble, reliable and efficient.

Lesson 1: Becoming Nimble

Nimble - quick and exact in movement and thoughts; able to adapt to changes quickly and easily with a sense of purpose [agile].

To ensure that your development process is nimble and stays flexible to accommodate growth and change, it is first critical to understand that implementing a new development process can be a major change to the established culture at your business. Too often, new processes are implemented through a short, intense project with a well-defined end marked by a "drive-by delivery" of the final documentation. This leads to reluctance by the end users to see the value of the new process and to adopt it into their everyday business activities.

To overcome this, treat the implementation of a new development process as part of a continual change management activity. Like any other change management project, activities associated with ensuring top level executive buy-in and commitment, planning, communication and empowerment are key. You may also establish a central library for informal guidance and information on the new process.

Keeping your process nimble also implies a focus on the process, rather than the tools that support it. Yes, it is important to have proper tools, but they should support, not drive, the overall process.

To ensure flexibility in the use of the process, focus only on the high-value artifacts and keep the mandated set of artifacts to a minimum. You must realize the trade-off

inherent between having a “consistent, enterprise-wide process” and allowing team members to tailor the process to the needs of the project based on project goals, staffing and the level of risk.

Lesson 2: Becoming Reliable

Reliable - can be trusted because it works well or worthy of trust due to a history of providing consistent results [dependable].

A reliable process should provide a certain level of consistency and predictability across your enterprise. To ensure this, there are certain aspects of the process that should remain consistent, regardless of the level of tailoring provided by each project. For instance, adhering to an enterprise-wide set of terminology can be extremely powerful. Terms such as quality, integration testing, test suites, baselining, and version control should be defined and available in the form of an enterprise-wide glossary to all project teams.

In addition to consistency, the implementation, evolution and current state of your development process should be highly visible to project teams, executives and your internal clients. Ensure that all team members have access to the latest version and are well-versed on how to provide feedback so that the process evolves as your business needs do.

Lastly, all projects should have a focus on early risk mitigation and an ability to learn from their mistakes. Providing project teams with helpful hints, best practices and examples related to the activities and artifacts embraced by your development process helps to jump-start new project teams while avoiding confusion and mistakes of the past.

Lesson 3: Becoming Efficient

Efficient - operating quickly and effectively in an organized way to get results without wasting time, effort or expense; exhibiting a high ratio of output to input [sleek].

Efficiency is gained through three mechanisms. The first of these is to ensure that all team members and stakeholders are empowered. This implies a need to educate them on the specifics of the process, timely communicate process changes to them, and instill a strong sense of ownership across the individual team members. The team needs to be given control over the day to day changes that are occurring so that they will commit to the big picture.

The second mechanism is accomplished by tailoring the core process to fit the needs of the project. This supports the need of the team members to feel “part of the process” and ensures that the project team focuses on the higher value activities of the process. This step also helps to remove some of the perceived overhead of the process, allowing team members to deliver faster while maintaining the use of several best practices.

The final mechanism is achieved through the use of metrics to track the success of applying the process in real world projects. Simple comparison of core metrics such as earned value analysis, defect trend or density charts or the ratio of pre-production

and production defects can provide valuable insight into the return on the investment to deploy an enterprise wide process.

Summary: Ensuring New Tricks Are Remembered

Once your new development process is deployed, it is important to maximize the adoption of the process by your teams and to ensure that they do not revert back to old practices.

Evaluation is perhaps the most important but least used tool in the change management process. Commonly you will run into the statement of "Why do we want to take time to evaluate the project - everything is going fine, just let us do it and leave us alone?". If evaluation does not take place the process can not be repeated on other projects and you may not be aware of concerns. Continuous evaluation is important for all the stakeholders to identify concerns, wins, and progress of the project. Some of the ways to evaluate are to hold short planned meetings in small groups. In some cases individual meetings may be the most effective depending on the makeup of the team. Send out questionnaires that are to the point and allow people to put their concerns in writing. Also review after each stage in the process to make sure that the change that has occurred is meeting the needs of the customer. Always be open to comments and changes and look for what the final result will be.

The change management process can be effective in deployment of a new development process if you have the support on all levels and can show how the change will help everyone.

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