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Project Management/Evo Programming Methodology

Evolutionary Project Management embraces the idea that a software program is never truly completed and that improvements can be accomplished in a short period of time if the requirements are outlined clearly. Evolutionary Project Management (Evo in short) combines many techniques seen in Agile processes, Project Planning processes, and in the Communication of stakeholders to determine the least path of resistance and the fastest path to success. The primary techniques employed include: 1) Short cycles of development, 2) Constant feedback, 3) Employing the use Quantifiable time/effectiveness data to establish a baseline, and 4) Communication at the immediate start of the project. There are many other processes mentioned throughout sources explored in the class discussion. However, these four techniques have commonality among the articles explored.

Shorter development cycles allow the team to be challenged to develop a solution that is focused on one underlying problem, rather than attempting to solve many large chunks of problems over time. This keeps the team focused and maintains a level of control over the workflow that is finite in scope. In addition, the shorter development cycles establish a baseline for resources; time and money. These baselines are generally charted and viewable by all involved in the project so that expectations are set for each goal. This also improves the level of communication among everyone involved because there is a commonality of information present.

Using an Impact Estimation Table is one method common to the EVO SDLC:

|  |  |  |
| --- | --- | --- |
| **Requirements/Design Ideas** | **Example Step A – Expected Probability of Achievement** | **Example Step A – Actual Results of Achievement** |
| Achieve Time Saving of 11 Seconds vs 1 Second | 80% to 40% | 60% at 3 Seconds |
| Achieve Goal X under $1,000 or $10,000 | 10% to 100% | 100% at $10,000 |

By establishing a clear line of communication, centered on honest feedback, the client, developers, and managers can share information and ideas up front. This allows those involved to focus on the immediate problem at hand, scraping the top of the foam off of the beer, per se. In the “Fundamental Principles of Evolutionary Project Management” by Tom Gilb, he describes this in a real world scenario where communication was all that was needed to solve a major project problem for the US Army Persincom System. Without taking the evolutionary process, the US Army would have spent years and billions of dollars developing a separate system to improve radar performance.

In managing the iterations of the project, it is important to explore the largest unknowns first, by bringing them into the discussion and making them an achievable reality. This allows the group to think towards the problem, rather than against it, or never address it due to its unknowns. This allows you to solve 80% of the problems upfront under 20% of the costs expected.

This process of EVO can best be seen in the following diagram:

Plan the Evo Step

Decide next Action

Analyze  
Feedback Results  
from the Evo  
Step & the Current  
Environment

Perform the Evo Step

Victory is achieved when the team is adaptable and can react quickly to changes in knowledge and to the reality presented. Some fundamental concepts tie together the EVO SDLC. These are quoted from Tom Gilb and Kai Gilb (2015) in “Evo: The Agile Value Delivery Process, Where ‘Done’ Means Real Value Delivered; Not Code:”

* Do some *useful* improvements for your stakeholders, early and frequently;
* *Learn* from real user measurable systems experience, what really works and what does not;
* *Quantify* your critical stakeholder objectives; no BS.
* *Estimate* numeric impacts of design ideas on your requirements;
* *Measure* the value and cost effects of each Evo value delivery step;
* *Prioritize* delivering ‘highest available values for resources-used’ at every step;
* Don’t plan *too* far in advance – you have long-term objectives, but you need to *consistently react* to short-term realities in order to meet long-term objectives. Like in football, tennis, golf, and chess.

References:

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