

ACS 567 - Software Project Management

Spring 2009 - Kalyan Govindu

SWEBOK Knowledge Area : Software Engineering Process

Focus:

This is synonymous with Software Development LifeCycle (SDLC) or Software Life Cycle. From a software development point, this is the single most important process that should be established and documented, before any successful development effort can take place. There are several models for this process defined over the years and new ones keep appearing seemingly on a daily basis.

Major Steps:

The main aim behind this process is to find a repeatable, predictable process that improves productivity and quality. In other words it is an effort to systematize or formalize the seemingly unruly task of writing software.

The industry in general agrees upon the different stages of the process, maybe not their definition, and these are;

- Requirements
- Design
- Implementation
- Verification
- Maintenance

These can be accomplished in different phases of the software development and these phases differ from one model to another.

Experience:

I think the key is to find a process that works for your team as a whole and stick to it, because this keeps changing and trying to keep up during a development effort is not fruitful.

Out of all the models out there, the more recent and popular, for good reason, model is Agile Unified Process (AUP) which is based on Rational Unified Process (RUP) developed by IBM. Agile is what we now call iterative, where you identify iterations of software development and the tasks that are completed by the project teams in that iteration. Agile achieves better productivity and results mainly by mitigating risk. After each iteration, the new iteration is reassessed and put together by the PM and team. So any changes to the design of the software forced by the client can be accounted for in the next iteration. Whereas in a classic waterfall model, the change cannot be incorporated without a lot of effort and severing the flow of the development.