**Why Software Project Management is Different**

The four areas where software project management is different are process methodology, resources (human), constraints/risk, and metrics. In process methodology, the initiating, planning, monitoring/controlling, and closing of a project remain the same but one great area of variation is which software development lifecycle is chosen for a particular project. One can chose between a waterfall SDLC or an Agile process that is becoming popular today. In resourcing, how to best utilize developers is always a challenge. “Software engineer” is a very generic term and software projects generally require diverse skill sets that may not be found in a single individual. There are also constraints/risks for every software project. How the project will allocate time to new releases/versions versus bugs/bug fixes is also a challenge. To further explore bugs/defects, how will a project systematically measure/track, prioritize, and solve defects can be different.

Based on my personal experience, I agree with the speaker. Certain SDLCs are appropriate in certain circumstances. I currently work on a small internally funded product team and because of the nature of our customers an Agile process works better for us. We are able to adjust each iteration based on a specific (and different) customer’s needs with a quick turn-around. Different SDLCs also segue into how new releases/versions and bug/bug fixes are planned. When I worked on a project with a waterfall development cycle, we designed/developed new features and when initial development was complete, we transition into a maintenance mode. In an Agile process, we had sprints/iterations where we would develop new features. After a few iterations, we would spend one or two iterations resolving defects. More complex defects could possibly be considered new user stories (features) depending on the complexity and second/third order effects of our fixes. In order to track defects, the major variance was the tool that we use to track it. On small programs, we would prefer something lightweight such as Rally and a Subversion connector to our repo. On larger programs with a full time configuration management analyst, we would use IBM Rational ClearQuest/Clearcase.

**Project Management for Beginners**

The 13 keys of project management for beginners are the following. 1. Know the project definition which means to understand the differentiation between project related and operational aspects. 2. Understanding the project life cycles and deliverables. There are many different references that you can go to in order. 3. Keep things simple. Make complex projects simple. 4. Seek help. Seek help in order to not become a bottleneck for your own project. 5. Ask questions. Be persistent in finding the support you need for your project. 6. Enlist mentors. Find someone that can help you not only for your project, but also for your development within that organization. 7. Identify go-to people. Find the people that will always give information, support, and escalation for your project. 8. Respect your team. Your team will make or break you. If you disrespect your team, they will break you. 9. Listen to customers and stakeholders. They will give you important information about the market you are serving. They are the ones who will give you information that you may not be able to receive as the project manager. They’ll know the market inside and out. 10. Discern input. As a new project manager, people may try to slip things by you or test you to see how much you know. Don’t be afraid to go back and ask questions. 11. Utilize templates. There are many sources for this and you can use them for your project. 12. Prepare yourself. Always be prepared for meetings and presentations. You can never prepare too much. 13. Continue to plan. Plan what you’re going to do to improve your project.

The five keys that are essential are understanding the project life cycle, enlisting mentors, identifying your go to people, respecting your team, and listening to your customers and stakeholders. Understanding the project life cycle is important because it allows you to plan accurately for your deliverables and keep the work within the scope of what is possible. Enlisting mentors gives you a person who may have had the same experiences in the past and can help you navigate your way to success. They may be able to help you avoid the common pitfalls of project managers. You need to also identify your go to people because you will need to be able to delegate project tasks and hold people accountable. They will then delegate parts of those tasks and hold their contributors accountable. You’ll also need people whose judgments you can trust. Respecting your team is very important as well. Your team needs to feel that they are an important part of a common goal.

This particular video was not useful at all. This video falls under the “easier said than done.” The concepts presented in this video are very basically – almost too basic. In a sense, software project managers usually aren’t beginners. Even to lead a small team of software engineers, you’re looking at someone with at least 2-5 years of experience at the very minimum. They’ve been around long enough to understand all 13 keys. Software project management at a team lead level is inherently complex and is usually taken on by a fully-kitted software developer.

**Project Management: The 14 Most Common Mistakes IT Departments Make**

This article brakes down common IT mistakes into a few categories: staffing, process, planning, and communication. Staffing problems are generally associated with being able to get the right people with the right skills from the entry level developers all the way to the project managers. Process can inhibit or facilitate the successful completion of a project. Too much process can be detrimental to a project as well as too little process. Poor planning can doom a project as well if the project manager doesn’t have a firm grasp of the project risks with an actionable way to mitigate those mistakes. Communication problems are also a frequent project management mistake when restrictions and constraints are not communicated well with project sponsors and stakeholders.

I generally agree with the author. I’ve been on projects that were doomed because of a combination of these factors and they are generally spot on. I’ve seen RFPs that were bid on where these was no way the contractor could achieve the results on a particular budget. Needless to say, it went or is currently going very badly.

The top five mistakes that I can relate to are the following: 1. Communication. I was once on a project where we would learn about news from a competing firm long before we heard it from the project manager or his managers. This resulted in absolutely no trust between management and employees. 2. Staffing. A project manager bid on a program where the government rates were too low to expect to sufficiently staff the program. Unfortunately, the project manager didn’t quite understand the local market as the project was transitioned from another state within the past 12 months. Employees were told they needed to take up to a 40% cut in income in a strong market. Needless to say, this turned out poorly because out of an entire team of more than 15 developers, all left within 30 days and there were no replacements. “You get what you pay for.” 3. Project managers lacking experience. We had a project manager that had plenty of experience but this specific market has his only experience. When the fundamentals of the market changed, he simply didn’t change his management strategy to go with it. 4. Failing to see the dependencies between projects. Opportunities were given to improve infrastructure and they were always sidelined because the program did not want to make the investment in cost saving and efficient architecture. Ultimately, this resulted in higher costs which could have been substantially reduced by an up-front investment.

Project managers have to be vetted for a long term commitment to a particular project. You need to be able to count on people who can see a project thru. I experienced a situation where my management was close to retirement age and they only had short term goals in sight which was simply to win a bid regardless of whether they could deliver on the expected cost.