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*Solutions for the Real World*

PDSA Special Report

Develop an IT Plan

## If You Fail to Plan, You Plan to Fail

If you do not have a set of guidelines, templates and documents which describe and assist you in the many phases of a software project and the many challenges of running an IT organization then what are you doing in IT management? You must have these items in place in your IT organization in order to run a lean, efficient, on-time and on-budget shop. There are several items you must have in order to have a successful development team.

- Software Development Lifecycle
- Architectural Guidance
- Management and Human Resource Practices

Let's look at each of these to see the kinds of guidelines, templates and documents you must have for each one of these different sections.

## Software Development Lifecycle

There are many facets of managing a software development project. The Software Development Lifecycle (SDLC) document describes the basics of a typical lifecycle and what issues you need to address at each point in the process. You need to have a set of documents that describe the Project Management Guidelines you use, how to gather requirements, and how to put together an estimate. In addition you will need documents that describe programming standards, database standards and how to use a source code control system such as Team Foundation Server.

You should create a set of tools and templates for starting a new application. You need to have a common location where everyone can post tips and tricks they have learned so you do not have people re-creating the wheel for each project. Implement a "10-minute rule" where if a programmer has a problem they cannot solve within 10 minutes through research and/or experimentation then they get up and ask for help from a peer or a more senior developer. Documents, procedures and checklists on how to perform a code design review and performance review on your application should also be in your SDLC process. Concrete examples and templates for how to QA and test your applications is also essential within your SDLC document.

## Architectural Guidance

Your Architectural Guidance document includes documents on how to configure a standard development environment for all programmers in your shop. This includes installing software on your machine and configuring your development environment. An infrastructure document will describe how your servers and networking is setup for your company. You might want to also include a standard machine configuration for all of your end users, including which machines to buy, what OS to use and how to create a disk image that all users will use for their machines.

An Architectural Guidance document will present a higher level overview of your IT organization rather than the nuts and bolts of how to specifically run the department. This document describes how IT is aligned with the business goals of your company. It should include an updated section each quarter or year that shows senior management how well your IT organization is doing, and what they are doing to support the business units of your company. You should create an "Executive Summary Report" template to help you communicate regularly with your boss about what IT is doing for the company.

Other documents to include in your Architecture Guidance section will be a decision tree on how to choose between creating a web, mobile app, or desktop application. Also specify how to architect web, Web API, desktop, mobile, batch-style and any other types of applications. Include sections on how to manage global settings, application errors, users, single-sign on and other important architectural topics.

## Management and Human Resource Practices

Managing vendors and employees is a large undertaking and should be documented thoroughly. Many IT managers come up through the technical ranks and suddenly find themselves having to learn about managing personalities. You may find that this is not so easy. There are all sorts of legal, moral, ethical and other implications of managing any group of people.

Some of the different documents and guidelines you should put in place include a non-disclosure agreement, and 1099 contractor rules for dealing with vendors. For hiring new employees, and/or contractors, create a set of templates and documents for interviewing and hiring. For example, have a standard "job posting template", prepare a list of interview

questions, have a standard "offer letter" for your new employees, and, of course, you will need an Employee Handbook.

Your company may have a standard employee handbook, but you should augment this with what you expect an IT person will do as well. This handbook should include a set of roles and responsibilities that you expect that person will take on. Have a clear map of the advancement potential that each employee can expect. For example, there should be two routes an IT person can take to advance up the corporate ladder. They could remain technical and move from "junior programmer", to "programmer", to "senior programmer", and maybe even "analyst" to "senior analyst" as an example. Or they could go the management route in which case they would go through all the previous levels, but then become a "project manager", or "senior project manager".

Just as important as the hiring process, you also need to think about the on-going management of people and potentially the firing of employees as well. You should have a standard employee performance review form that you use consistently for all employees. You might modify this review sheet for each level of person. For example, the review for a junior programmer will be a little different from the one for a senior programmer. These reviews should happen at the 30 or 60 day mark after hiring a person, and regularly thereafter, for example 1 time a year at a minimum. You will also need to have a standard Termination Letter template available as well, with documented procedures on how you let someone go.

## Summary

As you can see, this is a lot of documents and plans to put into place. However, they are absolutely essential if you wish to succeed as an IT manager. If you do not have the time to put all of these together, PDSA, Inc. offers our **PDSA Agile ALM** that will provide you with templates of all these documents. You can purchase this **PDSA Agile ALM** (<http://www.pdsa.com/agile>) complete with all of the resources mentioned in this article and much more.

## Contact Information

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