Chapter XVI
Practical Application of a Software Development Framework in an Accountant Office

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ABSTRACT

The present chapter exposes the definition and practical application of a framework in the system area of an organization. Due to the total lack of the process, this framework has permitted us to generate the need of the implementation of a definite process model for software development. The described framework has been applied in a study case, just as has been done in other opportunities by different organizations with similar characteristics. This work provides the possibility of applying the framework slowly against an improvised and indefinite process, in which a methodology, a process model, and a collection of techniques and tools converge. These elements are advisable for small- and medium-sized software development companies and would facilitate their way to implement an integral process model which would continuously improve.
INTRODUCTION

This chapter describes the experience of a framework implementation in the IT area of a company where the absence of a formal process has permitted it to generate the need of the introduction of a clearly-defined process model for software development. This case study intends to show how a software development process is influenced by the organizational structure of a company, its culture, and the way it grows. This framework has been applied to an accounting company, the core business of which is the advice and consulting of economic results management and impact for companies with different business activities. This company was selected for this example because it fulfills the most important characteristics of a small and medium enterprise: a single owner, who has been first growing in the main areas of need, and then in other complementary areas of the “business core” moved by the needs produced by the growing company.

The enterprise has been covering different functions, moved by the dynamic of a growing company, creating structures like a group of islands, without any connection among them. At the management level, this produced the need to define an ordering process; for this, the whole enterprise was committed to a business focused quality certification system while leaving behind the IT area, considering it secondary and making no emphasis on its organization.

The process definition for the development area that is presented here allows companies to progressively put a work model into practice opposite an indefinite and improvised process, where a methodology, a process model, and a collection of techniques and recommended tools for small and medium enterprises or software development areas converge and which would facilitate the road for the initial implementation of an integral continuous improvement process model.

COMPANY DESCRIPTION

The main activity of the company is the administration and valuation of business assets, especially the analysis of fixed assets, financial assets, warehouses, supplies, procurement, reliable valuations, and corporative contacts. It has its own software development area which provides all the systems for the internal management of the company and the data administration for its customers. The company, based on the acquired experience in this area, started to sell the internally developed software products as management products for other companies, together with consulting and training services of the products. The company has a payroll of 50 people, with a team of eight developers in the IT area who are in charge of the system resources management, software development, and technical support to the company.

DESCRIPTION OF THE EXPERIENCE

The company had accomplished the ISO 9001:2000 certification for the quality management systems of its processes (ISO 9001, 2000); the IT management office was in charge of a developer who had an empiric training in software development and who had developed the first information system for the company. This developer had wide and vast experience in the problem domain but had poor knowledge in software development project management. The company was growing in customers and services; its software had limited customization options and there was no application of a clearly defined process or a work methodology, despite the fact that the company was certificated by ISO regulations.

New team development members were assigned with tasks based on required features and not based on roles within the development team.