Understanding the Software Development Process

~ By Mark Spenser

The software development process has undergone drastic changes over the years. Initially only requiring a developer to write the code of the software, advances in the industry have expanded development into a more complex process. Involving architects, analysts, programmers, testers and users to develop code, it is now capable of delivering more advanced results. You can avoid some of the most common problems that occur with software development by understanding the three most common reasons for project failure:

1. Project objectives not fully specified: When undertaking a software development project, it is important to know what your needs and expectations are. What do you want the software to do exactly? A comprehensive approach that envisions the precise outcomes before clearly stating objectives is the way to a successful beginning for a software development project.

2. Bad planning and estimating: A thorough understanding of the functions that will be needed by end users of the software will determine what its features should be. In addition, the desired integration, exporting, hosting and mobile interface capabilities should be clearly defined. It is important to estimate a budget and timetable that is realistic and in accord with these objectives. Planning for these variables will help ensure that a successful software development project can be completed.

3. Inadequate or no project management methodology: The importance of the role of project manager in the software development process can not be underestimated. A successful development programme will be difficult to achieve without the right leadership to co-ordinate the many aspects of the project. The project manager will oversee the process, anticipate obstacles, and keep things going on the right track.

Because of the complex nature of software projects and the technology involved, new software development requires a systematic approach. Careful planning and a step-by-step process are the foundation for implementing an effective software development project. It is critical to have in place a process that includes proven guidelines to ensure the delivery of expected results. The phases of a successful software development project should include:

- Analysis
- Designing
- Implementation
- Testing
- Deployment
- Maintenance
A reputable web solutions provider that specialises in software development will use this comprehensive process to help you create solutions to automate and improve business functions. A software development company that is highly qualified in project analysis, project documentation, test planning, and project maintenance will help ensure success. Keeping in mind that application and website development is a continuous process, it is important to employ professionals that stay on the cutting edge of technology.

Application and website development using outdated software can only provide basic, ordinary results. On the other hand, Flash developers and developers with expertise in newer technologies can create stunning visual designs and offer more up to date results. XP developers can provide the tools to create custom applications with Office and other Microsoft applications enabled programs. Mobile application development companies with top notch expertise can provide the most innovative custom application development for your organisation.

It can be difficult to find a .NET developer with enough experience and a thorough understanding of business processes, infrastructure and needs. A highly qualified .NET developer with skills in C#, Visual Studio and the .NET Framework can provide the latest technology in software development for your organisation. If you want a website that stands out from the rest, you should find a web solutions firm that is up to date on the latest technologies, such as:

- **SQL Developer**: SQL (Structured Query Language) is a popular database computer language that provides data query and update, schema creation and modification, and data access control. Oracle SQL Developer is a graphical version of SQL*Plus that gives database developers a convenient way to perform basic tasks such as browsing, creating, editing, and deleting database objects. It also also allows users to run SQL statements and scripts; edit and debug PL/SQL code; manipulate and export data; and view and create reports.

- The Microsoft Developer Network (MSDN) manages the firm’s relationship with developers, including hardware developers interested in the operating system (OS), developers standing on the various OS platforms, developers leveraging the API and scripting languages of Microsoft’s many applications. Microsoft Developer utilises a variety of media, including websites, newsletters, developer conferences, trade media, blogs and DVD distribution.

There are a multitude of technologies and options available in the field of software development. Look for a web solutions provider that can offer all of these options, and the results that you obtain will be reflected in that choice. An experienced developer that can create a project to meet your precise requirements will deliver the best results.