



THE SMARTER WAY

Large musical instrument manufacturer prepares itself for future Web Applications - The Smarter Way – with the Unified Process and IJI Services

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A leading musical instrument manufacturer needed to extend its existing traditional software development skills to cater to its future rich internet applications. By working with IJI mentoring services on an iterative development project it was able to incrementally improve its web development capabilities while delivering its new application on-time and on-budget.

The Challenge

To create a rich customer user experience, the manufacturer wanted to introduce new technologies and applications built with Web 2.0. The management team had introduced the Unified Process in preparation to tackle these larger and more complex software developments in a controlled and repeatable way. However, they were struggling to put together the right pieces to make it work.

To compound this issue, they had recently hired people with very different creative skills that needed to be integrated into their existing development processes and team.

They knew they were facing tough challenges in making their process work and recognized that it could be much more efficient and effective.

Web Development

Driving Business
Differentiation>

In, 2007, the musical instrument manufacturer saw the need to build new client applications that provided a richer user experience by introducing new technologies and applications built on the Web 2.0 paradigm. To meet market demands, the manufacturer needed to work quickly to expand their web development and user experience design capability – all in a controlled and sustainable way.

Clearly Understanding Client Needs >

IJI started the project with a small engagement effort to understand the situation and challenges faced by the people responsible for the development projects. This enabled fixing some important immediate issues while producing a set of project recommendations. These recommendations allowed IJI to confirm its understanding and to agree on future mentoring priorities with the client.

A dedicated IJI mentor was assigned for continuity and to provide a consistent level of mentoring each week. The mentoring level was enough to provide reactive support to whatever came up on the project, and proactive mentoring on the areas agreed, without building up any dependencies on the mentor.

Solution

One of the best ways of learning is by experience, so the company ran an iterative project to build their first Web application. While most projects see their key objective as delivering a working system, this project treated learning and the building of development capabilities as equally important. IJI provided mentoring services throughout the project to transfer skills to key individuals and to guide the overall Way of Working.

Benefits

The company delivered a Web application and developed their in-house expertise to build similar applications in the future. They developed their capability to design positive user experiences and to integrate interaction and graphic design skills with their existing software engineering skills. Combining the learning with a real development project meant that the team developed proven skills and the knowledge of what works and, as important, what doesn't work in their organization.

Less really is More! >

Determining how much information to create and capture in the software definition process is often a difficult task. Generally, this needs to be decided on a case-by-case basis. IJI provided the manufacturer with the Essential Unified Process. Rather than giving them all the answers, the framework provided for the creation of much richer information that was more likely to be read and understood.

An IJI mentor, combined with the use of pre-defined 'levels of details' from the Essential Unified Process to provide a common language helped the development teams hit the sweet-spot for clear and sufficient information in a short document. Right-sizing was first applied to the iterations, and then applied to many other areas, such as Requirements, Architecture, Testing, etc.

Essential Unified Process

The Essential Unified Process, or “EssUP” for short, is a new “Practice” centric software development process that stands on the shoulders of modern but established software development best practice. It is a fresh new start integrating successful practices sourced from the three leading process camps: the unified process camp, the agile methods camp and the process maturity camp. Each one of them contributes different capabilities: structure, agility and process improvement.

EssWork

EssWork provides an organization with everything they need to get started with a practice-oriented approach to software development. EssWork consists of an environment for browsing, composing, building and customizing practices into a process.

EssWork introduces agility into all aspects of a project. It fine-tunes the level of formality from work products to delivery mechanisms as well as the collaboration of team members in the development environment.

Controlled Agility >

Everyone wants to be quick, nimble, and react to events in a timely fashion. However speed alone, without the appropriate levels of control, can lead to chaos. The answer is to introduce iterative based planning to maintain control while moving quickly.

Working with the IJI mentor the project was able to produce short and clear iteration plans that got everyone on the same page. These brief and ‘to-the-point’ plans demonstrated the relationship between risks being tackled, objectives to be met, priorities, and the criteria by which they would be evaluated.

Clearer short-term plans allowed the team and stakeholders to reach agreement up front, post them on the wall (both physical and virtual), and then annotate with ‘real-time’ progress. This was a good ‘point of truth’ for the project as it clearly demonstrated to all stakeholders the meeting of project objectives and not just the completion of tasks, which may have had no relevance to the real objective. In addition, developers had more context so that they knew why they were performing certain tasks.

Iterative Learning >

Objectives were set for the iterations that included building up the skills of the team, and then proving them by building parts of the application. Combining the development of the team with the development of the software into one simple iteration plan allowed them to be tightly coordinated and for the new skills to be gained incrementally and put into practice straight away.

<<Once skills are proven they can then be built upon in subsequent iterations. IJI promotes this style of holistic iteration planning that allows effective just-in-time training and mentoring to occur in a planned way that benefits both the project and the team members.>>

User Experience >

Many different factors affect the quality of a user's software experience. Ensuring a good user experience requires a coordinated and skilled multi-disciplinary effort.

Traditional software engineers generally do not have key skills in the areas of interaction design or graphic design, and generally good creative designers are not software development experts. To ensure any newly developed software would provide a strong user experience, the company decided to hire new people with the right creative skills and set about integrating them into the team.

User experience design does not have an industry standard process to follow but currently relies on skilled people applying semi-standard techniques. For the manufacturer to have a good quality, repeatable process that was integrated with their development process, IJI worked with the manufacturer to create an EssWork practice. The goal is to share this practice with the larger user design community in the future.

A Repeatable Model >

By working with IJI mentoring services on an iterative development project the manufacturer was able to incrementally improve its web development capabilities while delivering its new application on-time and on budget.

Perhaps, even more important is that the development team is fully equipped to build similar applications in the future.

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Ivar Jacobson International

Ivar Jacobson International is a global services company that helps software organizations transform and improve the way in which they develop software solutions as well as guide them in meeting the expectations of the business. Our consultants provide an environment of experiential learning to develop the right competency levels amongst all roles and functions by becoming an intricate coach and mentor to the entire team. We have a framework that we adapt to effectively define and communicate business and technical expectations across the organization as well as create collective responsibility by teams and individuals for project outcomes. We introduce a proven practice driven approach that is goal oriented, incremental and measureable and is highly successful with either an existing software project or the implementation of new systems. We support our customer engagements with a rich set of technology assets inclusive of training materials, practice guides, and tooling.