

# PERPETUAL BETA AGILE DEVELOPMENT

Shifting to a Perpetual Beta development philosophy requires attention and skills. By applying its well-known competences in the field of technology innovation and Web 2.0, Reply is able to support customers and projects with an agile development cycle, aware of the Internet Age requirements.

## THE SCENARIO

In a world where talking about a software product's "versions" does no longer make much sense, where, on the other hand, users expect that services are improved tacitly, with no need to explicitly reinstall, restart or update them, facing the market with Perpetual Beta solutions becomes imperative.

Business model changes are therefore essential:

- The software development cycle must adjust itself, in order to ensure quality despite the short time-to-market of the Internet Age
- Operations management becomes crucial, in order to easily manage almost ongoing releases and support activities

The benefits clearly offset the effort required for these changes:

- Reduced time-to-market and faster ROI
- Reduced risks
- Tighter relationship with the end-user
- More Real-time information on the results of the choices made in order to refine future ones
- Quicker reaction to changes
- Reduction of investments in unnecessary functions (it is estimated that about 45% of functions developed in a product are never used)

## THE ANSWER - AGILE SOFTWARE DEVELOPMENT CYCLE

Reply provides the market with its competence in agile methodologies, by emphasizing the most efficient and useful procedures in projects requiring frequent releases and rapid adjustments to the market:

### **PLANNING GAME**

Planning Game is a periodical meeting (organized at any development iteration) during which the team and the client define the project's priorities by reviewing them both with regards to the single development iterations as well as the release plan. The objective is to first develop the most significant functionalities which maximize the product's business value. With regards to Perpetual Beta, the aim is to develop only functions leading to competitive advantages and to focus on the most cost-effective competitive advantages.

### **TEST DRIVEN DEVELOPMENT**

TDD is a software development method requiring the drafting of automatic tests before the functions to which the test refer are actually developed; all this within short development iterations. TDD's advantages are numerous: quick feedback, code better quality and strong protection against regression bugs; all these being indispensable features in order to keep the release speed of new functions constant.

### **WHOLE TEAM**

Whole Team is the activity providing for tight and on-going interaction between the client and the development team. Having a whole dedicated team, committed to understanding, in-depth, not only the project's technical part but also its functional profile improves product's quality and facilitates the identification of new value functions to eventually introduce in the following release, even though not initially planned.

### **CONTINUOUS INTEGRATION**

The CI activity stresses on the continuous integration of the new developed functions within the database, accompanied by continuous monitoring (automatic whenever possible) of the functioning of both new functions as well as pre-existing ones. The advantage of such an activity lies in the on-going feedback on the application integrity and in the reduction of time spent to solve regression bugs.

### **DESIGN IMPROVEMENT**

Within the scope of a Perpetual Beta project, it is important to keep a high quality standard of the code, so that this latter may easily and quickly adjust to the introduction of novelties and changes. For this reason, particular attention is paid to the on-going refactoring of the code base, in order to keep high legibility and maintainability of the code base itself.

## THE REPLY VALUE

Starting from a consolidated competence in the field of Web 2.0 in all its nuances, a long-lasting experience with the most popular Agile technology standards (technology link a stack), experience both with regards to development (link a Caringbee) as well as training (Reply takes part every year to ESSAP, the European Summer School of Agile Programming), Reply is able to support its customers in the management of services in Perpetual Beta modality, both with regards to consulting as well as to software development.



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