

HOW ATLISSIAN TOOLS to achieve CMMI Level 5



THE COMPANY

CRITICAL Software is a software development company specialising in solutions and safety services for critical areas in various high-risk industries.

Since its foundation in 1998, CRITICAL Software has worked on projects in various industries considered risk industries, such as the aerospace, banking, energy, transportation and telecommunication industries.

Being present in four countries (Portugal, UK, Germany and USA), CRITICAL Software already has 600 employees.

The company now has the highest accreditation in the CMMI model: level 5. All internal processes for software development and testing are supported by a small number of Atlassian tools, Jira Software being the main management tool.

THE CHALLENGE

CRITICAL Software had a problem common to all areas of operation: "Yet another tool".

In other words, information was spread out through various tools and that delayed processes, making them less agile. There was a different tool for each operation: Issue Tracking, Task Management, Bug Tracking, Project Management, Test Management...

There was a problem with data management in CRITICAL Software. It was starting to become heavy and barely effective.

Furthermore, all registration of risks identified in the software development scope was performed in spreadsheets.

This meant that a document was edited for only one person, and only that person was responsible for updating this document, therefore making risk management heavy and barely effective.

These were problems that delayed the whole development process and jeopardised time to market; it also prevented the progression of the maturity level of the company in the CMMI model.

CRITICAL Software set as a priority to streamline software development, with the aim of centralising all processes in one tool capable of addressing every area within the company.

THE SOLUTION

Implementing Jira Software to make processes more agile and to reduce possible errors to the maximum.

Implementing three apps, Xray, Xporter and Risk Management, that were used to complement some existent gaps in Jira Software, such as: management of tests, exportation of issues in pre-set templates and risk management.

Crucible

Crucible was installed to perform all code review, since this process is fundamental to assure that the final product is delivered to the client in its best possible version. It is possible to detect errors through code reviewing before sending the product to testing and even before arriving to production, therefore improving its quality and saving costs.

Jira Service Desk

Jira Service Desk helped to answer some questions that the employees were having, since when an issue is created, Jira Service Desk automatically provides hints on possible solutions, to avoid creating redundant issues.

Jira Core

A complaints management process was implemented with Jira Core. It was possible to process clients' complaints through customised issues and workflows. This way, the complaints were solved faster.

Bitbucket

Bitbucket provided a Git repository, which provided teams with a centralised access. Therefore, the collaboration in the source code was facilitated and allowed CRITICAL Software to improve their control system on software versions.

Confluence

Implementing Confluence allowed to address and retain all knowledge acquired in various projects throughout the whole organisation, thereby encouraging collaboration between teams and departments.

XPORTER

Xporter is the solution to exportation problems. The company needed the exportation to be done in a specific template which would identify to which company it belonged. The exportation provided by Jira Software did not prove to be sufficient and, with the help of Xporter, it was possible to export all information from the desired templates

XRAY

CRITICAL Software swapped the testing tool for Xray. This choice allowed to improve execution control of the tests, visibility (state of the tests) and traceability between requirements and tests (essential practice in the CMMI model).

Risk Management

Risk Management leaves the spreadsheets as a way to register risks behind. Before, this was the role of the project manager. However, with this app all members can identify risks, therefore improving efficiency and reducing errors.

ADVANTAGES

All company processes are located in a single place: software development, testing, deployment, incident management, bug management and risk registration.

Easy to understand what the development path of products is, since the creation of issues leaves a trail (software traceability). This feature improves the quality of the product to be delivered.

Less errors in information updates, formerly dispersed in spreadsheets.

Achieving maximum level on CMMI accreditation (level 5), therefore becoming a more mature company when it comes to processing, allowing for the constant and continuous improvement of processes.

Improvement of the overall quality of products and solutions delivered in a shorter period of time.

Easy exporting and template customisation.

In order to implement the CMMI process areas, many of them were improved using Atlassian tools



CRITICAL Software opted for the Atlassian tools to consolidate and improve the practices provided for development in the CMMI model, thereby contributing to its CMMI-DEV accreditation improvement from level 3 in 2006 to level 5 in 2009, which resulted in the strengthening of its app and Jira utilization in the following years.

CRITICAL Software