Opencast Case Study see:detail independent software testing

Opencast Software – TMMI Project

Introduction

see:detail, as a partner of Opencast Software, was commissioned to review the software testing policies, processes and practices with one of their clients. The client had developed an in-house application, to process business transactions between internal departments and their customers, indicating that there were several issues within their existing testing practices. The client sought to "industrialise" and transform its current testing services to reduced risks, save costs and time, meet the needs of the business and improve software quality.

Problem Statement

To conduct a high-level assessment of the current state of software testing services provided by their in-house test team. Identify where the company "sits" on the TMMI model and make recommendations for improvements.

Test Methodology

The Test Maturity Model Integration (TMMI) model was adopted.

The TMMi Model

The TMMi model looks at software testing at different maturity levels, with the assumption that all organizations start at TMMi level 1 of the maturity ladder. The more mature an organizations' testing practices, the higher level of TMMi maturity the organization fulfils.

What we did

Review Document and Test Artefact Analysis

This included test policy, test strategies, test traceability, test plans, test scripts and scenarios, test results, test progress reports, test defect reports, test outcome reports and test estimation models.

Test Process Shadowing Sessions

Our consultant spent time with the test teams in meetings and in day-to-day operation to understand their approaches to testing, and to assess how the expected standards and activities were applied across the current project portfolio.

Test Process Governance and Traceability Review

Our consultant reviewed the current usage of test management tooling and reporting methods, including how test artefacts are base-lined, change-controlled, version-controlled and aligned, to help meet business goals.

We reviewed and reported on how effective the current testing governance processes were. We measured the traceability of these through the development lifecycle and made recommendations on reuse, and compliance to internal standards and industry practice.

Test Tooling and Automation readiness assessment

The assessment reviewed the current level of testing and rate of change on key programmes, to

assess if there can be a business case for automation. In addition to a review of the current maturity of process and script coverage, we will also reviewed the technology platform and technology roadmap to assess what range of tools may be appropriate to the client.

Non-Functional Testing Assessment

Our report provided the current state of these areas how they compared to industry standards and what can be done to provide appropriate improvements throughout the SDLC.

Test Data and Environments review

see:detail's consultant conducted:

- Face to face interviews with the Test Team
- Identified the current test process and its objectives, scope, roles, responsibilities, activities, and deliverables
- Evaluated the current test process with the TMMI requirements for each maturity level, from level 1 (initial) to level 5 (optimising)
- Identified the strengths and weaknesses of the current test process and highlighted any gaps and improvement opportunities

Conclusion

A TMMi report was provided to the client which identified:

- The client's current maturity level
- General recommendations for the standardisation of test planning and test design
- Recommendations for improvements to process areas to progress to higher levels
- Recommendations for improving and adopting measurements to monitor progress
- Guidance on how to apply TMMi in the existing agile development environment
- A roadmap covering a gap analysis between the current situation and the desired maturity model, an improvement plan and progress KPIs