

CASE: Creating Accountability

Case Study: Reassigning Duties and Creating Accountability

Accomplishments

- Create a culture of accountability for quality of work completed.
- Negotiate the transfer of responsibility and headcount between Information Technology (IT) and engineering business unit.
- Coordinate all change management processes between Engineering and IT.
- Shorten mean-time-to-repair of both software and configuration data bugs.
- Shorten software release cycles by 50%.
- Create greater resource availability allowing the addition of a new maintenance capabilities.
- Improve quality of end product.
- Reduce animosity between engineering, marketing, and IT.



Client Profile

Our Client is a global vehicle manufacturer whose vehicles are highly configurable. This requires that their dealers across North America have accurate data on how to configure vehicles. Configuration options number in the thousands and include cup holders, engines, transmissions, fuel tanks, filters, vehicle color, interior design, to name only a few. A properly designed tool requires two components: 1) A user friendly, intuitive interface to easily select the base vehicle and add customer selected configuration options, and 2) configuration data and rules that allow only valid vehicle configuration to be created, sold, and ordered.

Configuration data was developed in a modeling language much like a programming language. The engineering team developed the configuration information using IF and CASE statements to restrict vehicle options based on user selected configuration.

The Client Challenge

Two different groups developed the data. IT was responsible for building and testing software that dealers would use to configure the vehicles and the vehicle design engineering group built the configuration data. Quality assurance and testing was historically performed in IT as they were the legacy coding development group. When the configuration data was transcribed from books to software, IT was assigned the task of doing QA on both the software and the configuration data. However, engineering had to train IT on proper testing processes for the configuration data. Constant arguments arose as to whether an error was in the testing process or in the data. In addition, limited resources in IT created situations where they were constraining the throughput of engineering configuration data to the dealers.

VISION to VALUE

Process

eCameron uncovered these issues in an audit of a troubled project. Prior to the audit the client's assumptions were that the IT group was incapable of running large software development projects, while the audit showed:

- IT had sub-standard development tools.
- Communication between IT and the business was contentious
- Lack of an IT maintenance team created long lead times to fix software bugs.
- Push for new features created large amounts of technical debt.
- Bottlenecks in testing caused by antiquated philosophies about QA's role.

One of the five areas identified showed that the IT group's QA department was very good at developing acceptance test procedures (ATPs) for software based on functional specifications. When it came to engineering data, though, the team was not trained in decomposing engineering data into proper test procedures. This lack of expertise led to redundant testing in some areas while other areas were left untested. Animosity grew, while trust and effective, productive communications waned.

The suggested solution was to move configuration data testing to the engineering group. This was met with resistance in every nearly every organization in the company. The two groups were four miles from one another. Due to the visual aspects of the configuration data colocation of engineering and test teams was essential. This distance was cited as a major issue. Engineering did not have the budget to pay for a test team, nor did they have the physical space. IT did not want to give up their budget or headcount and felt that the engineering group should not QA their own work.

eCameron developed the plan to move the testing from IT to engineering that included:

- Working with finance to develop an equitable method of moving budget.
- Working with individual contributors that would be moved for IT to engineering to allay their fears.
- Explaining that as IT could test its own code, engineering should do the same for their data, resulting in them being accountable to the dealer and sales order entry for any errors.

The result was faster turnaround of upgrades, increased quality, and decreased animosity, all resulting in cost savings to our client.

For More Information

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