

# Case Study

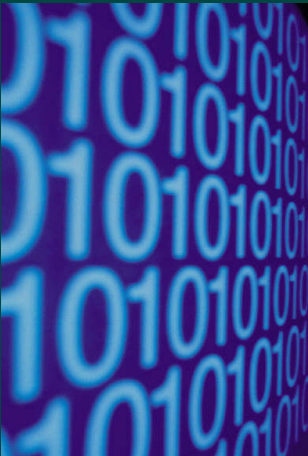
## Reduce errors in the code upload process for complex IT systems



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### Project background

An organisation's IT systems had dependencies on several inter-related systems which communicated via a central hub. As more systems were developed, the procedures for controlling changes became inconsistent, time consuming and error prone.



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### Problem

Change control procedures for IT build and upload processes were generating excessive defect levels. A Six Sigma project was set up. The team discovered that time to agree and upload code for testing was exceeding planned times. Errors in uploading code exceeded 23,000 dpmo. 1200 man hours of IT resource were wasted per year. Significant extra test time was required which cost in excess of €40,000 in IT man hours alone. A blame culture had developed which affected morale between the developers and the test department. Time available for systems testing was reduced because the code upload process took longer than expected. Less testing time increased the incidence of 'bad' code being released into production. The team mapped the processes involved.

They found numerous opportunities for improvements. For example, diagrams of changes were being done by costly developers when configuration analysts could take on these tasks with appropriate training. Static data scripts were run even when they had not been changed. Changes were not applied because the team was not asked to apply the latest build. New objects did not receive the necessary upload permission. Code was not promoted because it was missing due to errors in the build scripts. Data scripts were not always run because analysts were not told to apply the builds required. Sometimes data scripts were run but were not committed. The links documenting which builds were in which system's environment were not always created.

### Solutions

Once the various types of defects had been established and prioritised it was agreed that configuration analysts, who though less skilled, were perfectly capable of doing selected parts of the work and cost 30% less per hour. A new process for giving notice when an upload was required was established. A new electronic form, initially filled out by the tester, was sent to the configuration analysts, with the remaining sections being completed by the configuration analysts during the upload planning process. Standard operating instructions were developed for configuration analyst tasks, for testers requesting uploads and for developers creating static data scripts.

### Business benefits

Time spent by developers sorting out code upload problems was cut by 75%. This generated time that could be spent on other information technology developments crucial to the business. Over 900 man hours per annum were saved, and the work was redistributed to allow the more skilled staff time to concentrate on accelerating the rate of IT improvements seen by end users.