

PLM Quality Assurance Best Practices

Risk mitigation strategies during upgrades

About Trissential

Trissential, an Expleo Company is a trusted partner in providing end-to-end quality services and management consulting for digital transformation. We help businesses harness unrelenting technological change to successfully deliver innovations to help them gain a competitive advantage and improve the everyday lives of people around the globe.

Trissential is active in the technology-intensive sectors that make business and society more connected, sustainable and secure. We offer unique access to industry-specific expertise and best practices across the following services:

management consulting and business agility, as well as continuous quality.

Our 15,000 people bring the right balance of boldness and reliability that businesses need to succeed in this disruptive era. We are active in more than 25 countries, generating \$1.35B in revenue.

We make a difference in the following areas: Aerospace, Automotive, Banking & Financial Services, Defense, Energy & Utilities, Healthcare, Insurance, Manufacturing, Public Sector, Retail & Logistics, Telecoms, and Transportation.

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The Evolution of PLM

PLM has increasingly become an enterprise system of record for most manufacturing companies managing complex Engineering and Manufacturing product data. Over the past decade, more and more companies of all sizes have embraced and adapted to a PLM environment. Easy access to enterprise-wide information through such systems and the ability to collaborate and store information intelligently has increased the user base for PLM, beyond just Engineering or Manufacturing. With more users relying on a PLM system for their day-to-day activities and tasks, it has become more important than ever to ensure a stable PLM environment is made available to all the users at all times. Given the complexity of a PLM solution, this would require a thorough IT quality assurance process to be in existence at these organizations.

Minimizing system downtime and loss of productivity thereof is critical to the success of every business. IT departments are tasked with identifying proven solutions to mitigate this risk of system downtime. Having a flexible risk management framework with automation is key to having a robust PLM environment. Flexibility is the key word here, without which the cost of maintenance of such a solution can be significantly higher.

The HP technology solutions with HP Quality Control (QC) and Unified Functional Testing (UFT) tools enable delivery of a proven quality assurance process. Leveraging these technologies from HP, Trissential has built a robust test automation framework that enables Teamcenter (PLM) customers to ensure high quality PLM environments.

“ **A well-managed asset is a lot easier to maintain and incrementally build upon as your company progresses with increased scope of PLM implementations.** ”



Our Framework

HP QC with its rich capabilities has been a tool of choice for most companies invested in a test automation tool. Leveraging these capabilities, Trissential delivers a robust and flexible automation framework that is easily configurable to any customer PLM environment. The framework is kept up-to-date with new technology and features, delivered in the newer releases of PLM solutions, thus allowing customers to upgrade to newer releases sooner than later - taking advantage of the new features and functionalities delivered. The maturity of the framework also ensures lower cost of maintenance year upon year.

HP QC allows for methodical storage thus increasing the reusability and easy access to the test assets. Trissential leverages these capabilities in helping customers implement best practices around PLM quality assurance processes. A well managed asset is a lot easier to maintain and incrementally build upon as companies progress with increased scope of PLM implementations.



Client Benefits

Manufacturing companies have experienced a wide range of tangible and intangible benefits from automation of test cases.

Tangible Benefits:

- 1500% increase of testing scope coverage in the same amount of time
- As much as 50% lower cost of testing with automation, compared to manual testing
- 75% reduction in resolution time due to timely issue identification
- Ability to run tests overnight or off-shift hours allowing more time for workday accomplishments
- Improved bug reporting and traceability

Intangible Benefits:

- Users are able to focus on new functionalities and increase ROI from the PLM investments
- Reduce time spent on non-value add tasks
- Higher user satisfaction and acceptance rate

Lowering the Cost of Maintenance:

Often companies that have tried automation of testing have noticed and complained of high costs of maintaining the automated scripts. This is largely dependent on the methodology adopted for automation. Often bad practices such as hard coding data points in the test cases [and lack of reusable object oriented coding practices have led to these higher costs.

Our customers have lowered their cost to maintain automated scripts by as much as 70%. HP UFT tool gives us the flexibility to allow a breakdown of the test case automation scripts in a modular component based approach allowing for higher reuse. The one-to-many mapping of objects to scripts allows a change to be made at the object level and be inherited by all subsequent scripts referencing that object.

In Summary

PLM environments are mission critical and downtime is not tolerated. Identifying the correct amount of testing necessary is crucial in ensuring a smooth rollout.

No amount of manual testing is comparable to the results of automated testing.

The most efficient way to ensure adequate coverage during testing of a PLM solution is through automation testing.

Automation of software testing has significant benefits if done right using the HP technology. It allows companies to create reusable test assets that can be managed with ease.

Maintenance of automated scripts doesn't have to be expensive if done right using proven technologies.

HP technology solutions, HP Quality Control (QC) and Unified Functional Testing (UFT) enable manufacturing companies to implement advanced software quality assurance processes.

With years of experience, Trissential, an Expleo Company is perfectly positioned to help you navigate your PLM journey and achieve the desired success.

To learn more, or if you have any further questions, please don't hesitate to contact us.

We would like to hear from you!



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