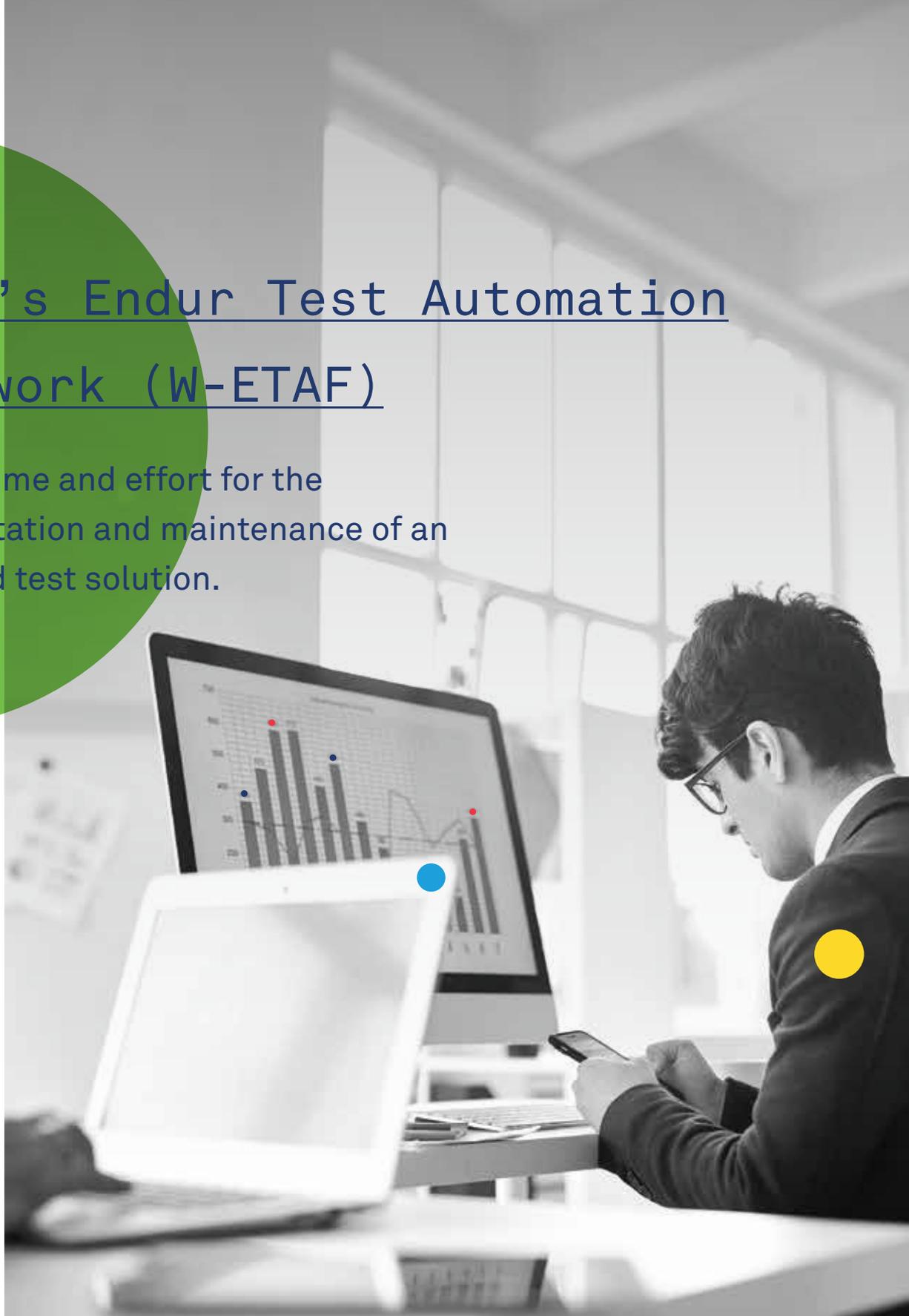


Wipro's Endur Test Automation Framework (W-ETAF)

Reduces time and effort for the implementation and maintenance of an automated test solution.



Introduction:

Commodity trading, transaction and risk management – a changing landscape

Commodity trading continues to be driven by significant changes in the business landscape due to several exogenous parameters such as assurance of supply, constantly changing regulatory and compliance requirements, need for improved performance and profitability while addressing environmental concerns. The current state of CTRM technology solutions largely focuses on supporting trading operations, portfolio management, asset optimization and risk modeling activities, while subtly addressing the issues of platform compatibility, quality assurance and workflow management. This provides opportunities for CTRM market players to explore niche areas and embed advanced features such as strategic planning, mathematical modeling, credit exposure management and multi-segment trading into their value proposition.

Frequent system changes – more testing to maintain system integrity

Changes in system functionality, patch installation and add-on implementation systems result in multiple rounds of testing and test management, thereby increasing the efforts and costs of making a change. A significant part of the testing effort comprises regression testing in an endeavor to maintain the existing functionality. Considerable business involvement is also required to maintain system integrity. All these factors contribute to increased cost of change and longer lead times.

Automated software testing is a proven approach to increase the effectiveness, efficiency and coverage of testing.

Solution:

W-ETAF: Wipro Endur Test Automation Framework

In order to considerably reduce the time and effort for the implementation and maintenance of an automated test solution, Wipro has devised an Endur Test Automation Framework which can reduce the TCO of test automation by as much as 45% during upgrade, testing and support and E2E lifecycle management.

Leveraging our in-depth CTRM domain knowledge and extensive testing experience, Wipro has formulated the innovative and comprehensive solution: W-ETAF – Wipro Endur Test Automation Framework. It enables the rapid deployment of OpenLink Endur, streamlines testing workflow and optimizes the testing cycle of the customer.

W-ETAF is a hybrid framework combining modular and data-driven models. Reusability, modularity and customization are at the crux of the offering, driving partial convertibility and extensibility in various business flows, where the logic, actions to be performed and input data are repeated. A brief outline of the model has been summarized in Figure 1 along with its objectives, architecture and core features.

Challenges

- Speed of execution in testing
- Defect identification at early stage
- Manual effort and overhead cost
- Breadth of testing



Solutions

- Test automation framework
- Faster deployment and customized reporting
- Quality assurance and workflow optimization
- Best practices and flexible delivery

Accelerators

Key elements

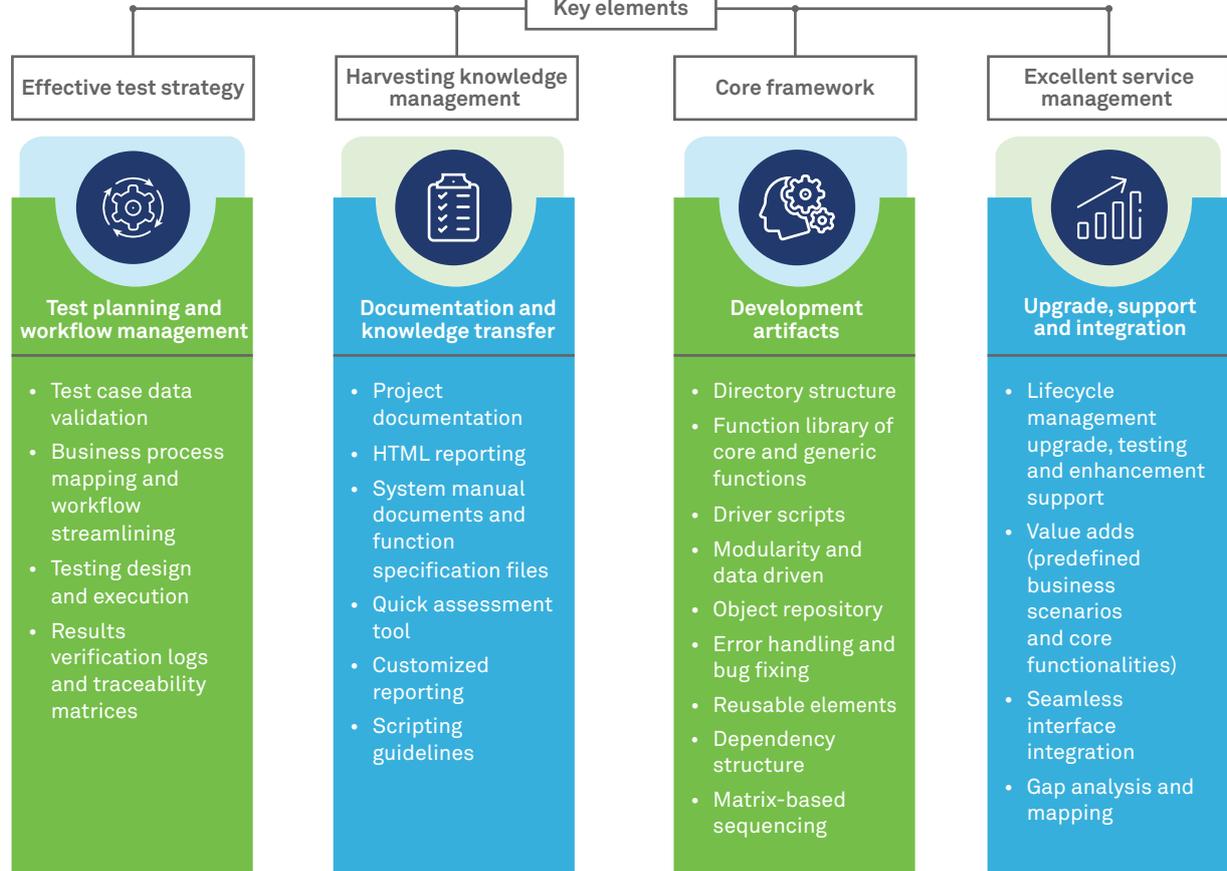


Figure 1: Wipro Endur Test Automation Framework

Automation of regression testing and life cycle management

Benefits:



Rapid deployment of enhancements

- Reduced script creation time by optimized framework
- Reusable components to accelerate script development
- Optimized tools usage and integration with freeware tools



Increase test coverage

- Increased coverage by data-driven testing
- Enhanced test cases without increasing the execution time
- Integration with the requirement management tools



Reduced test execution cycle

- Automated script execution
- Results and report integration with test management tools

Features:

- Built on HP QTP test advantage plug-ins to ensure compatibility with Endur GUI upgrades and version releases in the future
- Includes Endur regression test pack across commodity trade lifecycle, EOD processes, trade and credit events, and settlement/accounting operations
- Contains test cases structured in a matrix format, which allows selecting a subset of test cases according to functional requirements. Delivers the process document for running full or partial regression tests based on project requirements
- Follows a simple layered architecture for higher script execution performance. This layered approach enables faster maintainability for any changes to the test case, which are localized to a particular module in the framework
- The driver script drives all the functions defined, based on modules (for example deal capture, confirmation, settlement, etc.)
- Test execution results, customized reporting and status updates in HTML
- Provides easy handling of change request and traceability for debugging
- The help file contains the structure and syntax of core and generic functions to ensure reusability and agile development

Success story:



Challenges

The client, one of the largest Europe-based energy companies, wanted to set up a Unified and Integrated Testing Support Platform and use Openlink Endur System for CTRM functions.

- Cluttering and complexity of system required large manual efforts to complete the testing of new upgrades and releases by product vendor and restructuring in business process
- Burgeoning overhead cost of IT support, risk management and testing activities
- Client was looking to streamline testing workflow and speed up test lifecycle



Solution offered

- Implement Endur Go Automation Framework (data-driven, modular and portable solution)
- Iterative testing methodology and redesign testing workflow
- Develop and design shared library of objects, test data files and reusable components
- Execution of scripts to automate test execution and synchronize business processes
- Interface integration, code review, UAT and quality management



Benefits achieved

- Complete upgrade and testing in a timely, cost-efficient and stable manner to minimize business disruptions
- Helped maximize ROI by reducing 50 to 60% in effort/cost across test lifecycle
- Seamless and quick execution of EOD processes
- Customized reporting and agile deployment
- Improved quality assurance, workflow optimization and effective performance management
- Leveraged best practices, ensured low risk and timely implementation
- Customized reporting and KPIs traceability



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