HCLTech | Supercharging Progress™

Business process automation for optimized WMS implementations

Leveraging supply chain solutions with HCLTech and ADvantage

Introduction

A supply chain process solution specifically focusing on warehousing operations have pre-defined standard operational procedure depending on site specific requirements. These standard operational procedures are broadly categorized into inbound, outbound, inventory management along with extended MHE /WCS systems integration.

Vendor based WMS solutions, which are executed either as on-premise solutions or on the cloud solutions, follow a specific implementation lifecycle model. Along with all the configuration activities like system testing and system integration testing for the WMS categorised processes, the inbound, outbound, inventory management and MHE become key exit points for a successful WMS solution live.

HCL Technologies has been one of the leading SI partners for WMS solutions over the years. Through the standardised WMS process across multi-site specific implementations, we have eliminated the recurring manual effort required by a WMS tester for validation and verification activities.

Native process of WMS functional testing

Test design
Repeatable manual effort to redesign WMS test cases for standard WMS processes.

Test execution
Manual effort and time consumption in test case execution

Test log repository
Tracking and re-updating the logs based on multiple execution runs increase in manual effort and intervention.

Customer focused business challenges – requirement of a reusable test framework

The requirement was to have a solution which could be an automated standard approach for software test lifecycle. It needed to be able to cover the pre-defined, ready to deploy and execute test scripts focussing on the standard WMS process - inbound, outbound, inventory management and MHE integrations.

These pre-designed and ready to execute automated test scripts will be agnostic to any WMS site specific implementation with an easily extensible framework to add more test scripts identified as a ready-to-use key WMS scenarios for other implementations.

Requirement	Challenges	HCL Technologies proposition	Gain for business
Multiple applications getting implemented/integrated/upgraded

Testing is a fundamental requirement for any business transformation programme at various stages of different phases | Creating a repository of the manual test cases

Creating automation scripts to execute them multiple times

Executing a large number test cases in defined period

Creating the automation scripts for every manual test case individually

Manually managing the execution | HCL Technologies own proprietary automation tool

Defining and coding the common business functions one time for all the test cases and re-using them | HCL Technologies own proprietary automation tool

Defining and coding the common business functions one time for all the test cases and re-using them |

What HCLTech brings

HCL Technologies already has a repository of standard test cases on by WMS
This repository has both manual and automated test cases ready
Has highly skilled and experienced resources on automation and by WMS
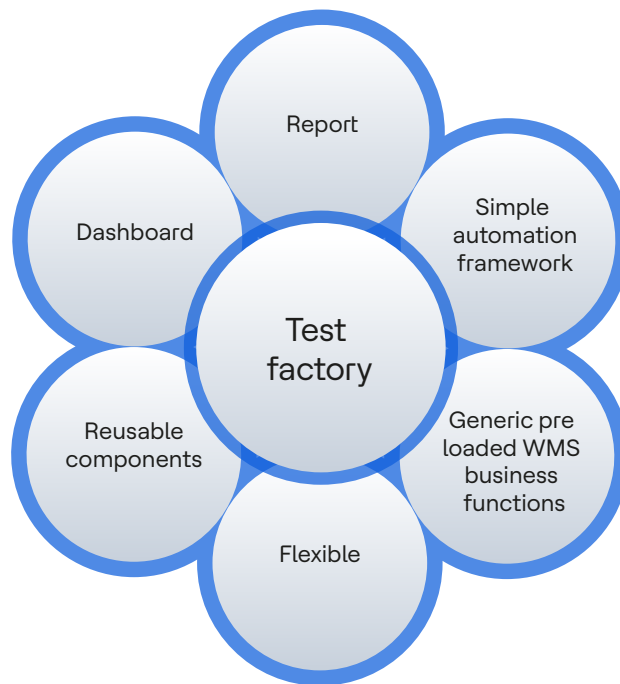
Solution highlights

- Pre-designed and ready to rollout reusable automated test cases.

- Simple ready to learn user friendly tech stack framework using UFT automation tool.

- Testers do not need any prior functional knowledge of WMS as the testing life cycle Is automated to execute and log test cases without any manual intervention.

- Enables parallel test runs for multiple parallel WMS implementations

- Robust and flexible solution to add more testing scenario.

Challenges

- Lack of testing time
- Lack of test report support
- Impact on test coverage
- Time taken to create framework
- Lack of skilled resources
- Cost of running frequent env. changes

Test factory diagram with surrounding components:
- Report
- Dashboard
- Simple automation framework
- Test factory
- Reusable components
- Generic pre loaded WMS business functions
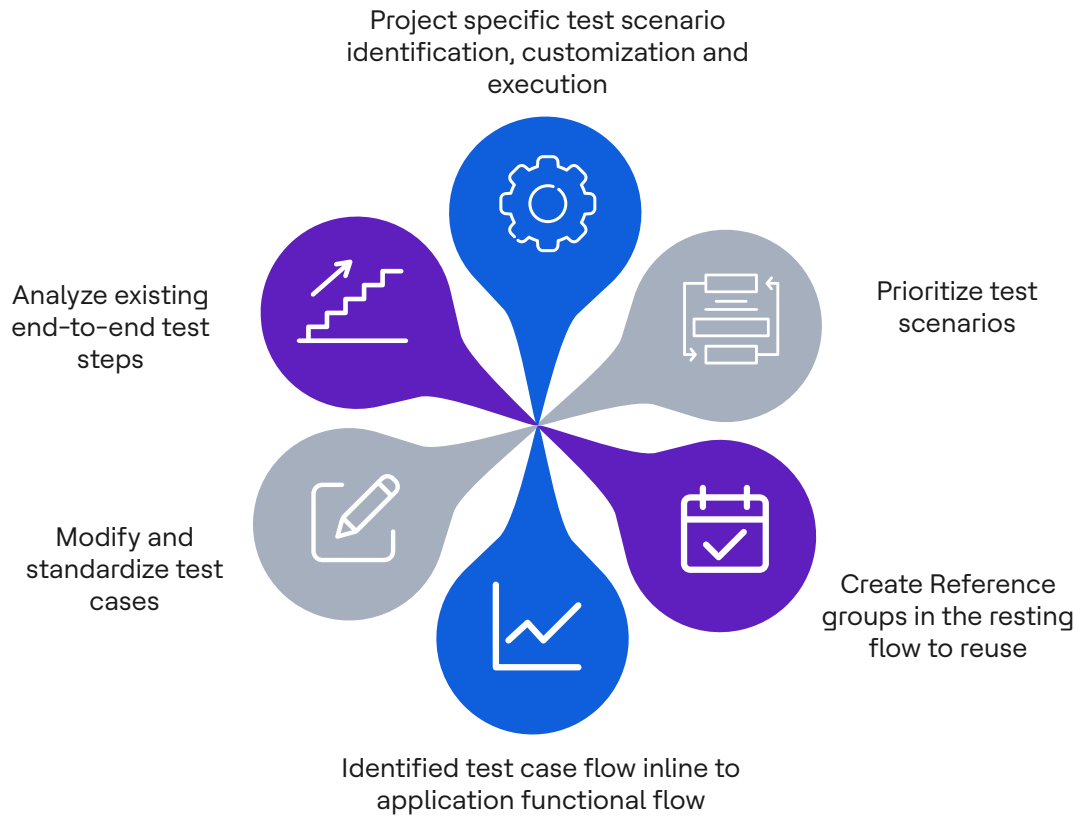- Flexible

Benefits

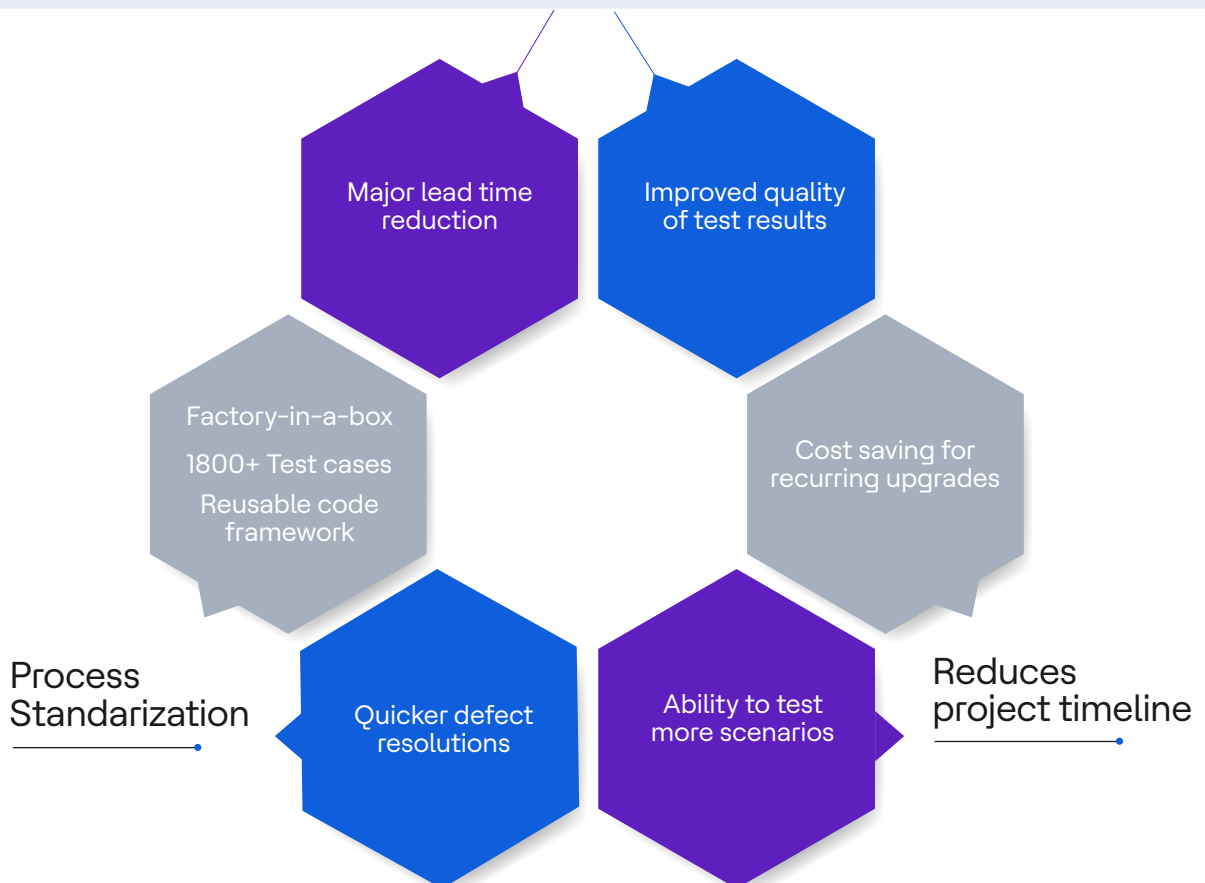🕐 Reduction in testing time

🕐 Faster time to market

💰 Effective utilization of availiable resources leads to reduced operational cost

📄 Effective test coverage with minimal test scripts

Business test automation

Project specific test scenario identification, customization and execution

Analyze existing end-to-end test steps

Prioritize test scenarios

Modify and standardize test cases

Create Reference groups in the resting flow to reuse

Identified test case flow inline to application functional flow

Early realization

Major lead time reduction

Improved quality of test results

Factory-in-a-box

1800+ Test cases

Reusable code framework

Cost saving for recurring upgrades

Process Standarization

Quicker defect resolutions

Ability to test more scenarios

Reduces project timeline

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