Tech Mahindra

MAGiX

Intelligent Test Automation Framework

Connected World.
Connected Experiences.

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Connected Experiences.

MAGiX | Intelligent Test Automation Framework

Tech Mahindra's in-house cost effective test automation framework provides greater agility to the test automation teams
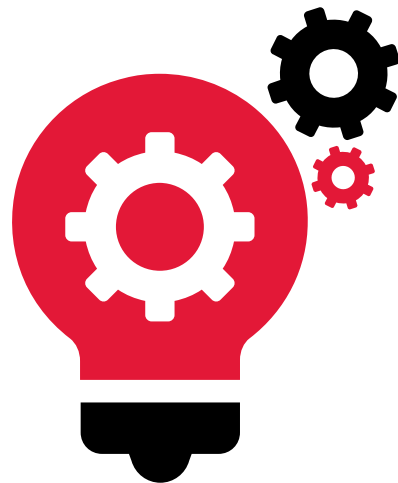
Introduction

Organizations are looking for viable testing solutions, not only accelerate the testing cycles but also ensure stable, high quality with near zero maintenance. The cost of testing also needs to be driven downwards along with the time involved in the process, the complex business applications and the pressure for faster go to market needs improved testing with increased automation.

Tech Mahindra's Solution

MAGiX is Tech Mahindra's in-house flagship automation framework designed for test automation, which helps in automating manual tests with minimal efforts, generating early return on investment. MAGiX supports in automating functional tests of different technologies, database validations, web services and mobile applications which leads to automate and execute end to end test scenarios which cut across multiple technologies.

Business
Challenges

- Define suitable automation framework for test automation

- High number of product/project releases with software enhancements require more time for development and maintenance of automation scripts

- Expertise in design and development of automation frameworks

- Standardize tools and follow a stringent testing methodology

- Reusable libraries and scripts across multiple domains and projects.

- Reduce time to market and cost while maintaining quality and performance

Need for
Automation

Automation is a proven mechanism for improving the quality, efficiency, risk reduction and cost effectiveness. Manual software testing is tedious, exhausting and often repetitive not only for source code changes and other situations like multiple operating environments and hardware configurations. An automated testing tool is able to re-run predefined actions, compare the results to the expected behaviour and report the success or failure of these manual tests to a test engineer. Once automated tests are created they can easily be repeated and can be extended to perform tasks impossible with manual testing.

Supports test execution on cloud

Parallel execution of scripts

Enables testers to write scripts in MS Excel

Easy and user friendly GUI

Schedule execution and creation of batches

Custom reports with auto email

Integration with Test Management tools

Custom object repository to reduce maintenance efforts

Tech Mahindra
Advantage

MAGiX provides a high quality Test Automation Service and caters to end-to-end automation requirements including the setup of a Test Automation Center of Excellence. This service takes your existing automation solution forward ensuring it adheres to best practice and delivers value to the business by addressing your current issues and problems first.

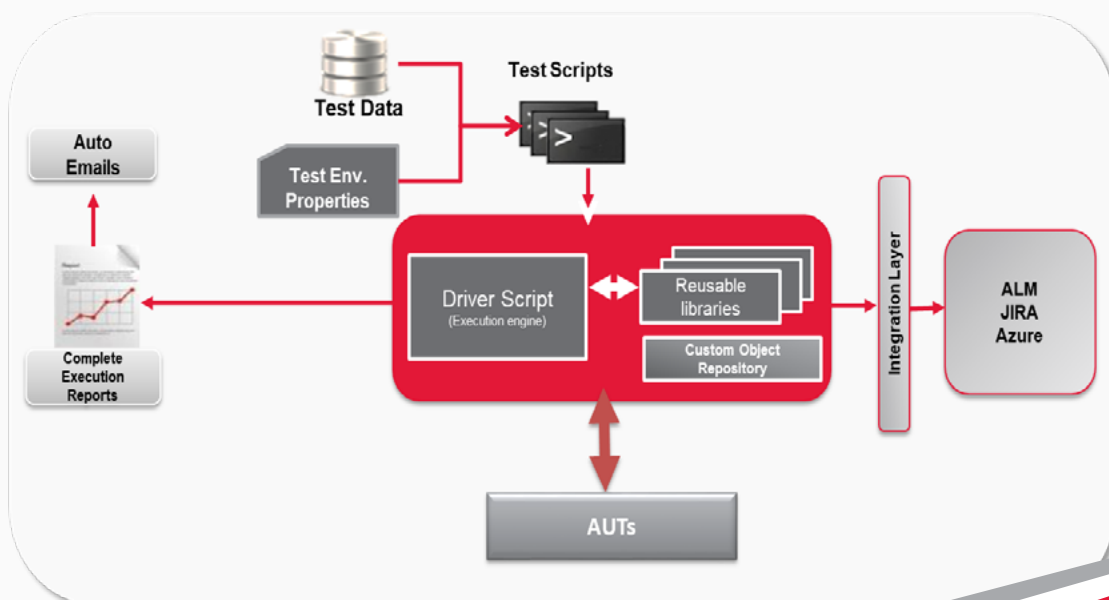**The Mahindra has proven credentials and assets in the test automation space:**

- A ready-to-deploy pool of automation subject matter experts for faster transition

- perience and a TMMi level 5 Certification

Client Benefits

- EASY TO DESIGN AUTOMATION TEST SCRIPTS.
- SAVES 70% OF TECHNICAL RESOURCES.
- 80% OF EFFORTS SAVING IN DESIGN OF LIBRARIES.
- 30 TO 40% OF EFFORTS SAVING IN TEST AUTOMATION.
- LOW TEST MAINTENANCE EFFORTS WITH 20% SAVING.
- END TO END JOURNEY WITH MULTIPLE APPLICATIONS.
- SCHEDULE AND BATCH EXECUTION OF TESTS.
- INTEGRATION WITH TEST MANAGEMENT TOOLS AND CONTINUOUS INTEGRATION/TESTING. HIGH SCRIPT REUSABILITY.

Dedicated test automation competency with global labs.

Test Data — Test Scripts — Auto Emails — Test Env. Properties — Driver Script (Execution engine) — Reusable libraries — Custom Object Repository — Integration Layer — ALM JIRA Azure — Complete Execution Reports — AUTs

Tech Mahindra Advantage	Client Benefits
MAGiX provides a high quality Test Automation Servie and caters to end-to-end automation requirements including the setup of a Test Automation Center of Excellence. This service takes your existing automation solution forward ensuring it adheres to best practice and delivers value to the business by addressing your current issues and problems first. The Mahindra has proven credentials and assets in the test automation space: - A ready-to-deploy pool of automation subject matter experts for faster transition - 25 years of testing experience and a TMMi level 5 Certification - Dedicated test automation competency with global labs	- Easy to design automation test scripts - Saves 70% of technical resources - 80% of efforts saving in design of libraries - 30 to 40% of efforts saving in test automation - Low test maintenance efforts with 20% saving - End to end journey with multiple applications - Schedule and batch execution of tests - Integration with test management tools and Continuous Integration/ Testing

MAGiX
At a Glance

Supported Methodologies

BDD

Behavior Driven Development approach to support
- Java / Cucumber
- C# / SpecFlow

Script-less

Rapid Test Automation Development
- Java/Selenium/ RESTAssured
- Appium/Mobile Center/SeeTest C#/LeanFT
- UFT/TOSCA/ Worksoft
- SAP Automation Engine (In-house tool for SAP test automation)

Scripted

Tailored Automation Solutions
- Java/Selenium/ RESTAssured/ Appium
- C#/LeanFT
- JS/Protractor/ Jasmine

Supported Technologies

Open Technologies
- Web Applications
- Mobile Apps
- API/Web-Services
- Databases

COTS / ERP
- SAP, PeopleSoft
- .NET
- SFDC, Siebel

Desktop Apps
- Windows WPF, JAVA
- Legacy (PB, TE)
- Electron
- Terminal Emulators

Cloud Apps
- AWS
- Azure
- GCP
- Heroku/Digital Ocean/VMWare

Continuous Testing

DevOps Enabled
- Easy CI/CD Integration
- Test every developer commit

Cloud Native
- Host / Run tests on cloud
- Kubernetes/ Container Enabled
- AWS/Azure/ Openshift hosting of tests

Centralized Reporting
- Centralized test execution report
- Org wide test dashboard
- Tool agnostic reporting

Test Management
- Integration with ALM, JIRA
- E2E execution using ALM

Tech
Mahindra

Tech Mahindra represents the connected world, offering innovative and customer-centric information technology experiences, enabling Enterprises, Associates and the Society to Rise™. We are a USD 4.9 billion company with 131,500+ professionals across 90 countries, helping 946 global customers including Fortune 500 companies. Our convergent, digital, design experiences, innovation platforms and reusable assets connect across a number of technologies to deliver tangible business value and experiences to our stakeholders. Tech Mahindra is the highest ranked Non-U.S. company in the Forbes Global Digital 100 list (2018) and in the Forbes Fab 50 companies in Asia (2018).

The Mahindra Group is a USD 20.7 billion federation of companies that enables people to rise through innovative mobility solutions, driving rural prosperity, enhancing urban living, nurturing new businesses and fostering communities. It enjoys a leadership position in utility vehicles, information technology, financial services and vacation ownership in India and is the world's largest tractor company, by volume. It also enjoys a strong presence in agribusiness, aerospace, commercial vehicles, components, defense, logistics, real estate, renewable energy, speedboats and steel, amongst other businesses. Headquartered in India, Mahindra employs over 2,40,000 people across 100 countries.

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