

Automated Testing framework for Pega

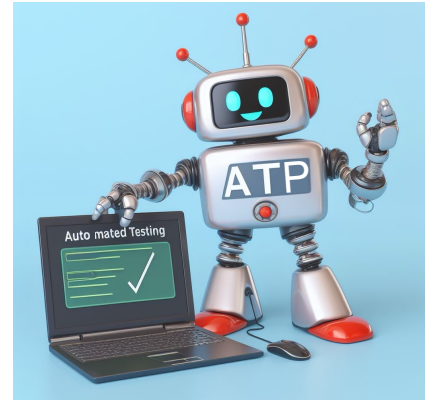


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Adqura's Automated Test Framework for Pega (ATP) is a one stop solution for testing Pega applications

Automation tools are software applications or platforms designed to execute tasks and processes with minimal human intervention. They streamline repetitive, manual tasks by employing programmed instructions, thereby increasing efficiency, reducing errors, and saving time.

Why is the Manual Testing approach no longer viable?

Enterprise test teams burn a huge amount of man hours on manual testing every month and still war rooms and defect triaging calls are inevitable. With new Digital apps coming up every now and then, we need to test everything from generated **Actions** to variety of **Recommendations**. Performing all these different types of testing with traditional methods is possible but takes more time and with tight deadlines, we need faster launch times.

Challenges with Traditional Testing Approach

1. Developing and Maintaining Test Scripts is Tedious

- ✔ Applications continuously evolve and with Agile approach changes are released more frequently. Teams are playing catchup to keep the scripts aligned and updated with each new 'release'.
- ✔ Testing scripts needs to be updated more frequently. Outdated test scripts cause issues within the testing lifecycle.
- ✔ Integration or SIT Scripts needs to be developed considering end-to-end testing of the application.

2. Time to Deliver

- ✔ Tests are manually executed, so every incremental change needs more time to be spent on execution than the earlier.
- ✔ Go To Market (GTM) time is impacted due to longer testing cycles. And, trying to reduce the cycle time may impact the quality of the application.
- ✔ Lack of skilled resources, compounded with overheads of scalability impacts time to test

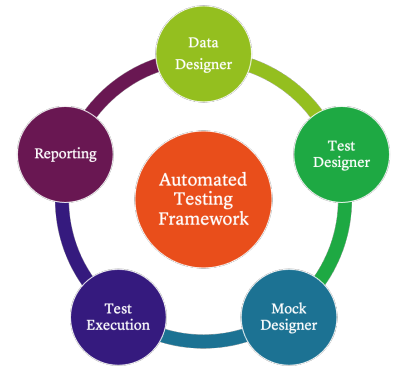
3. Inefficient Complex Testing and Tracing

- ✔ Manual testing becomes increasingly complex and difficult within an interconnected Architecture with multiple parallel releases (for most mature organisations)
- ✔ It gets difficult to maintain the sync between test scripts based on changes and there are high chances of missing steps in testing
- ✔ The more complex the application, the more complex and time consuming is the Defect tracking

How Adqura's ATP helps automate testing in Pega

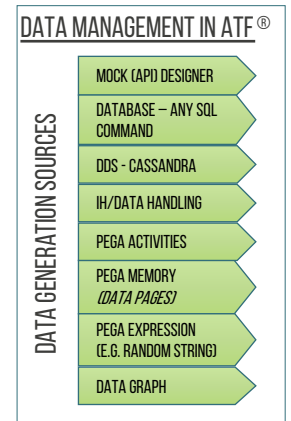
Adqura have built a Native Pega Application to automate test execution in all Pega implementations. ATP enables Pega CDH or Platform testers to create test cases, test plans, test scenarios, test data and much more.

Being a Pega native app, ATP can sit alongside any existing Pega implementation. It can integrate with, mimic and execute native Pega artefacts such as pages, strategies etc – to allow building of sophisticated test scenarios.



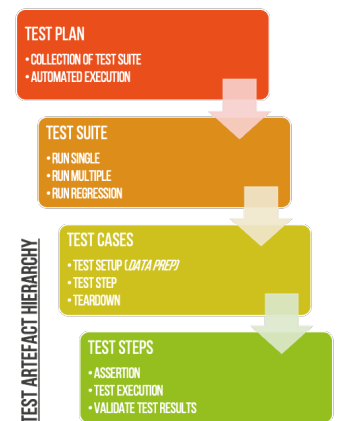
ATP Features and Capabilities

1. Data Designer: Test Data Generation using provider data generators.
 - ✔ Data can be generated into multiple target datasets, stored as a 'Graph'
 - ✔ Ability to store library of graphs to be able to generate test data on demand
 - ✔ Graphs can be - Cloned, Searched, Imported & Exported
2. Test Designer: Testers use User Story Acceptance scenarios to create Test Suites. Each Test Suite will have one or more Test Cases. Each Test case has:
 - ✔ Ability to trigger Data Graphs (created in Data Designer)
 - ✔ Define Assertion (what is expected). This is used to validate results once test is run
3. Mock (API) Designer
 - ✔ Easy to Create & Test API stubs to mimic Services with complex rules based responses based on required test scenarios
 - ✔ Data Driven Testing and Rest API Testing - Verification & Validation of Request & Responses
4. Test Execution
 - ✔ Validate data in Pega components – Decision Data Store, Execute Cases, Activities, Data Sets, Data Flows, Strategies, WHEN Rules & Properties validate results
 - ✔ Tests can be executed for single Test Case, Test Suite (multiple test cases), Test Plans (multiple test suites).
 - ✔ Tests can be run manually / automated including from a Devops Pipeline



Test Data Teardown

- ✔ At the end of test execution, this step clears Data Sets/Flush Data Pages using available built-in mechanism
 - ✔ This avoids data redundancy in Database for data generation / garbage collection in memory.
5. Test Outcomes, Defect tracking and Reporting
 - ✔ ATP is able to show test outcomes based on assertions defined as part of test design
 - ✔ Being a Pega native app, we have built ability to trace any failure to which exact Pega rule failed in which component, expected and actual results.
 - ✔ All test evidence is auto recorded
 - ✔ In a regression testing setup, the outcomes can be fed back to Devops pipeline for automated progression



TEST DESIGN

TEST OUTCOMES

Test Case Run ID	Test Case ID	Name	Start Time	End Time	Result
104,802	11_2016	102274 - Bring Admin to change CTR for Customer Customer - Channel - REC	13 November 2023 02:28:48 PM	13 November 2023 02:28:48 PM	Success
104,803	11_2016	102274 - Bring Admin to change CTR for Customer Customer - Channel - REC	13 November 2023 02:28:48 PM	13 November 2023 02:28:48 PM	Success
104,807	11_2016	102274 - Bring Admin to change CTR for Customer Customer - Channel - REC	13 November 2023 02:28:48 PM	13 November 2023 02:28:48 PM	Success
104,808	11_2016	102274 - Bring Admin to change CTR for Customer Customer - Channel - REC	13 November 2023 02:28:48 PM	13 November 2023 02:28:48 PM	Success

Outcome & Benefits

ATP is already in use by 3 enterprise clients for their CDH implementations with proven savings in test timelines and testing efforts.

Examples:

1. European Comms provider achieved
 - 70% reduction in data preparation step
 - 70x faster automated regression testing
2. A leading bank in EMEA achieved
 - 50% reduction in test maintenance
 - Reduces time-to-market time at least by 25%

ADQURA'S AUTOMATED TEST FRAMEWORK FOR PEGA – AT A GLANCE

Assurance

- Lower risk exposure
- Assure quality of testing
- Quick learning curve
- Proven at real clients
- Various test modes
- CI/CD Integration

Time saving

- Quicker time to test
- E.g.
 - 70% reduction in data preparation step
 - 70x faster automated regression testing

Cost saving

- Less Testers can cover more tests increased test effort
- E.g.
 - 50% reduction in test maintenance
 - Reduces time-to-market time at least by 25%

Delivery Excellence

- Native Pega app
- Client Advisory Board – allows customers to drive roadmap
- Fully customizable to work with existing testing tools

ADQURA /
A PEGA VENTURES COMPANY

THANK YOU

For More Information or Request a Demo,
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