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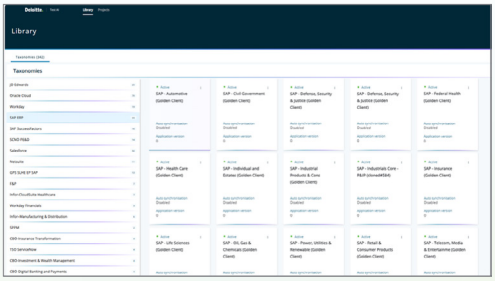
AGENTIC TEST AUTOMATION
WITH DELOITTE AND UIPATH

INTRODUCTION

In the rapidly evolving landscape of digital transformation, test automation has become a critical component for ensuring the quality and reliability of software applications. Deloitte and UiPath are collaborating to deliver leading test automation solutions, leveraging their strengths to drive innovation and efficiency for businesses across various industries.

INDUSTRY-SPECIFIC KNOWLEDGE REPOSITORY WITH:

PROCESS TAXONOMY | USER STORIES | TEST SCRIPTS | E2E SCENARIOS



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AI POWERED FROM START TO FINISH

Citrix Automation	Web Automation	Desktop Automation	SAP Automation	Mainframe Automation
Performance testing	**TEST MANAGER** Manage Tests		**STUDIO** Automate tests	API Automation
Integrations & Migrations				Mobile Automation
Test mining & Discovery	**ORCHESTRATOR** Distribute Tests		**ROBOTS** Execute Tests	CI/CD Automation
Manual Testing				Version Control
Data-Driven Testing	Test Data Management	Analytics & Reporting	Requirement Management	Distributed Execution

Deloitte.

UiPath

A key aspect of our combined approach is the adoption of the **shift-left testing** methodology. This approach advocates starting testing early in the project phase, which promotes higher accuracy, lowers defect rates, and facilitates broad test coverage.

By integrating testing activities from the beginning of the software development lifecycle, Deloitte and UiPath can help clients identify and address issues sooner, leading to more reliable and high-quality software applications.

KEY TENETS

SHIFT LEFT APPROACH

Engagements should adopt a "shift left" approach, and validate early and often by implementing continuous integration and testing practices

GENAI & AUTOMATION FIRST MINDSET

Utilize the power of GenAI and implement automations at-scale to limit the human interaction in the testing processes and improve the overall efficiency

COMPREHENSIVE TESTING COVERAGE

Enhance testing of variations such as product lines, countries as well as security roles. Minimize surprises post go-live

METRICS-DRIVEN QUALITY ENGINEERING

Continuously improve testing consistency and predictability with aligned KPIs and metrics. Establish a robust governance model to drive operational efficiency and maintain transparency

BENEFITS

Up to 20% **increase in testing coverage** by starting to validate end-to-end processes earlier

More than 30% increase in **automation ROI** by using AI/ML, RPA, and other techniques

Up to 40% improvement in **cost of quality and time to market** by eliminating manual work and inefficiencies

Up to 10% effort savings owing to standardization of testing processes, templates and metrics to monitor efficiency of testing processes

DELOITTE'S STRENGTHS

Deloitte brings deep industry knowledge and extensive experience in delivering high-quality consulting services. With a library of test cases and scenarios that span across business packages and industries, Deloitte is well-equipped to help clients address their various testing needs. This vast repository of test cases and scenarios enables Deloitte to provide tailored solutions that meet the specific requirements of different business sectors, facilitating broad and reliable software performance.

Deloitte Ascend™

Deloitte Ascend Test is Deloitte's advanced test automation tool that brings mature capabilities for test case writing, test step generation, and test scenario generation, using Deloitte's extensive test repository. This tool leverages Deloitte's deep industry knowledge and experience to create broad and effective test scenarios that are designed to help address the unique needs of various business sectors. Deloitte Ascend's key features include:

Test case writing:

Efficient creation of detailed test cases that cover a wide range of testing needs, facilitating validation of software applications.

Test scenario generation:

Automated generation of test scenarios based on industry leading practices, business process flows, and specific business requirements.

Test step generation:

Automated generation of test steps, leveraging Deloitte's extensive test repository, to enable broad and accurate testing.

Test data generation:

Ascend solution enables users to auto-generate test data for test scenarios using prompts. This solution also has pre-built queries to extract data from SAP S/4HANA.

Additionally, Deloitte offers a library of over 1,300 pre-delivered automations on UiPath, providing a strong head start to projects. This extensive library enables clients to quickly implement automation solutions, reducing the time and effort required to develop custom automations from scratch.

These capabilities enable Deloitte to deliver high-quality test automation solutions that can enhance software reliability and performance, helping clients reduce testing time and costs.

UIPATH STRENGTHS

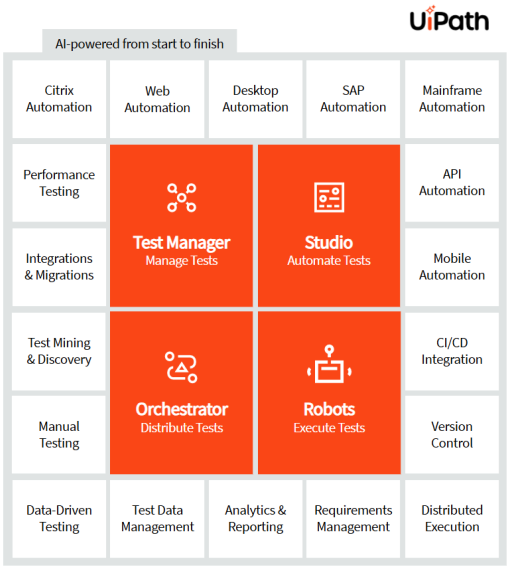
UiPath, a global leader in agentic automation, contributes its deep technology expertise through UiPath Test Cloud for software testing. This powerful suite of tools is designed to streamline and enhance the test automation process, offering features such as advanced test management, seamless integration with various development environments, and robust reporting capabilities. The UiPath Platform empowers organizations to achieve higher levels of automation, reduce testing time, and improve overall software quality.

UiPath Test Cloud

UiPath Test Cloud is an AI-powered testing solution that is part of the UiPath Platform. It offers enterprise-wide, production-grade test automation capabilities to deliver automations and applications quickly and continuously at scale. The Test Cloud comprises four main components:

Test Cloud is a fully-featured offering for modernizing testing

We equip our customers with everything to scale testing for the largest and most complex projects



UiPath Studio:

An integrated development environment (IDE) for test automation development, enabling the creation of test cases with both low-code and coded automation capabilities.

UiPath Test Manager:

A test management tool that offers full requirements traceability, visual logging, and integration with existing tool stacks and 60+ different lifecycle solutions.

UiPath Orchestrator:

A platform that allows for the publishing, centralizing, and execution of tests, either from Orchestrator or using a Continuous Integration and Continuous Delivery (CI/CD) pipeline.

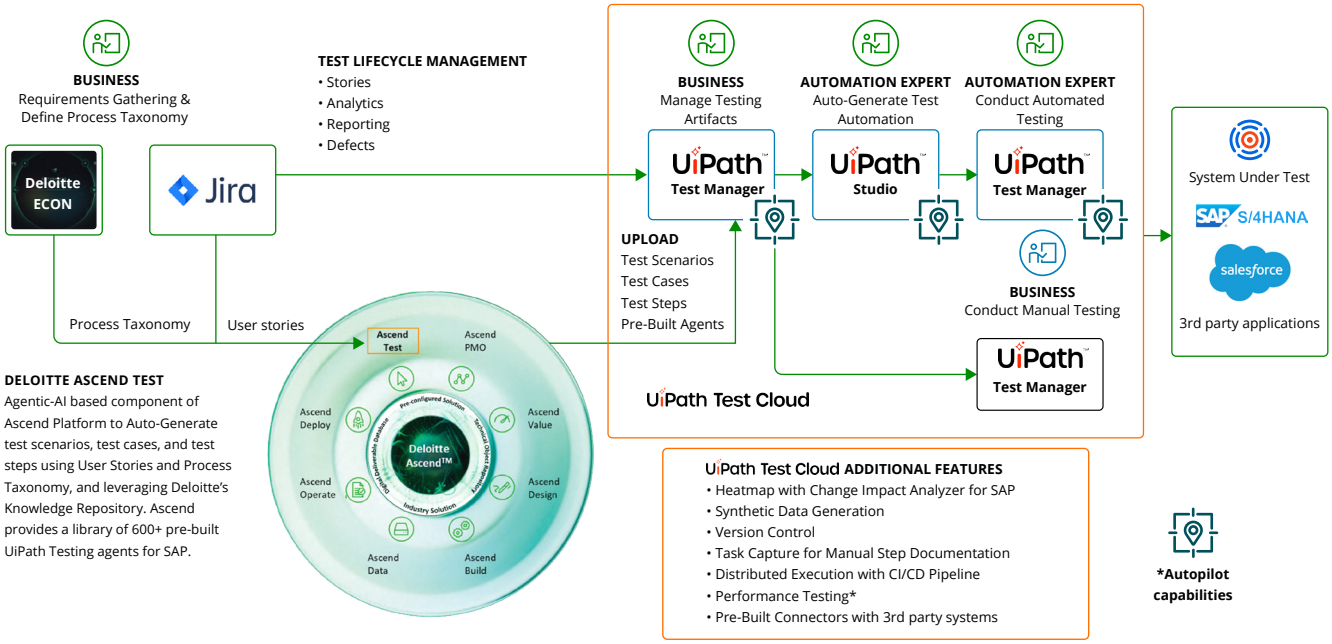
Test Robots:

Agents and robots connected to Orchestrator that execute processes, including tests, on-demand, continuously, and at scale.

UiPath Test Cloud also includes features such as synthetic test data generation, adaptive test execution, and real-time, actionable test insights.

UIPATH TEST CLOUD INTEGRATION WITH DELOITTE ASCEND

The joint solution architecture is built to combine the individual strengths of Deloitte and UiPath and deliver an AI-driven, high-maturity testing solution for our joint customers.



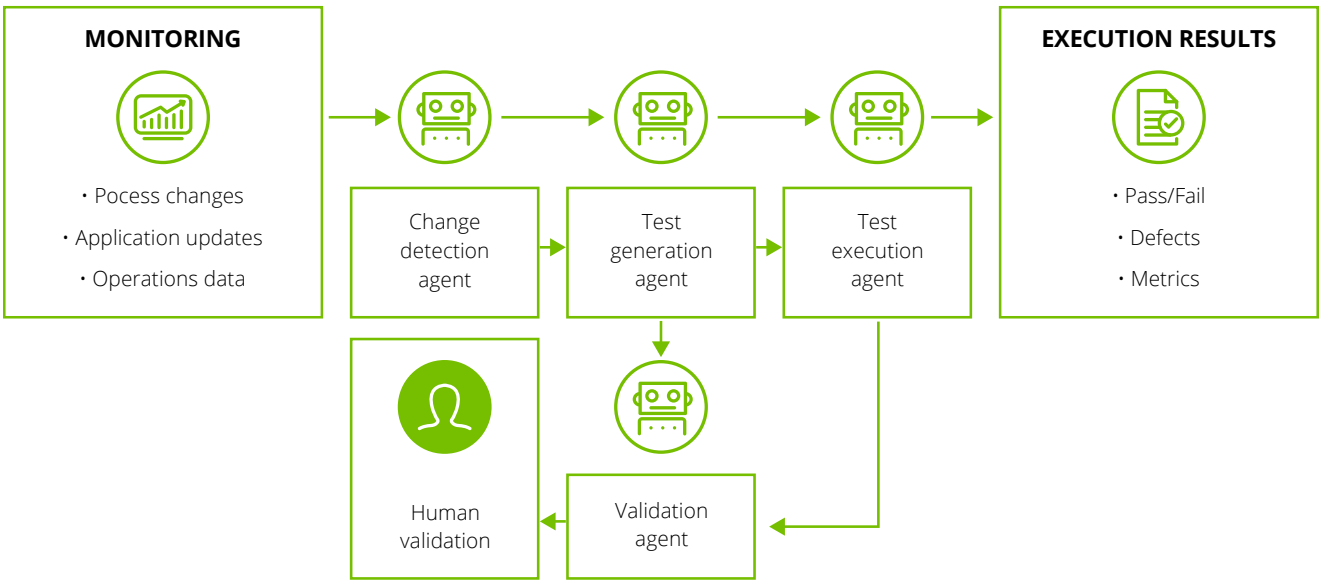
Deloitte's Enterprise Consciousness solution enables end-to-end-process design based on industry-leading practices. The Jira platform, integrated with Deloitte's Ascend ecosystem, enables sprint management and hosts user stories.

Ascend Test Solution leverages process taxonomy from Enterprise Consciousness and Jira user stories to generate Test Cases, Test Steps, and Test Scenarios using Generative AI (GenAI). Ascend Test has a built-in repository of Test Cases and Test Steps across business packages, industries, and countries, which it uses as a grounding layer for AI to provide high-maturity output.

These generated testing artifacts are integrated with UiPath Test Cloud for either automated or manual execution. Ascend Test Solution provides a prebuilt library of common testing automations across business packages as a starter kit. The Autopilot capability in UiPath Test Manager enables Automation testers to auto-generate UiPath Testing automation from manual test cases and self-heal automations, enhancing efficiency and return on investment (ROI).

AGENTIC CAPABILITIES IN ASCEND AND TEST CLOUD

Upcoming features in Ascend Test AI include agentic capabilities to autonomously execute testing based on events in the target application landscape, or changes in business processes. The multi-agent architecture will monitor changes in the system and autonomously create and execute test cases and scenarios with minimal human inputs and validations to test the system change, covering multiple variations for achieving enhanced quality.



Agentic testing in UiPath Test Cloud augments testers with AI agents—not replacing them, but acting as collaborative partners. Key components include Autopilot for Testers, which automates test design, execution, and management, and Agent Builder, which allows testers to choose from a catalog of prebuilt agents and create custom agents for tailored solutions.

This approach enhances productivity and job satisfaction by enabling testers to focus on complex tasks while AI handles recurring, cognitive processes. UiPath Test Cloud's agentic capabilities facilitate accuracy and efficiency, reducing incidents and accelerating time-to-market.

Where our built-in AI meets your tailor–made AI

01

Built-in AI Agents

Harness a broad collection of built-in & customizable AI agents across the lifecycle

UiPath Agents

02

Custom AI Agents

Build your own AI agents tailored specifically to your unique testing needs

Your Agents

Assisting testers from start to finish with built–in agents by Autopilot

Test Design	Test Automation		Test Management
Detect obsolete & missing tests (2025)	Autonomous testing agent (2025)	Self-heal test automation (2025)	Assisted manual testing (2025)
Identify test requiring updates (2025)	Generate low-code test automation (24.10)	Fix validation errors in test automation (24.10)	Proactive change detection (2025)
Generate tests for SAP transactions (24.6)	Perform fuzzy verifications (24.6)	Generate UI & API test automation (24.6)	Search project in natural language (24.10)
Generate test for requirements (24.6)	Generate synthetic test data (24.6)	Refractor test automation (24.6)	Import manual tests from Excel (24.10)
Quality-check requirements (24.6)	Generate coded test automation (24.6)	Generate expressions (24.6)	Generate test insights reports (24.6)

AI Trust Layer - Usage Auditing, Cost Control, Context Grounding (RAG), Feature Governance, Content Filtering, PII Masking

CASE STUDY:
FRENCH PHARMACEUTICAL COMPANY'S SAP S/4HANA IMPLEMENTATION ACCELERATION

When a French Pharma Company engaged Deloitte to implement SAP S/4HANA, the project team strategically chose the Deloitte Ascend platform to drive efficiency and quality in testing activities. Leveraging Ascend Test AI, project team members were able to:

- **Rapidly Generate Test Assets:** Ascend Test AI enabled the team to create a comprehensive suite of test scenarios, test cases, and test steps for a broad ERP program scope in under 48 hours—a process that would typically take weeks using traditional methods.
- **Drive Efficiency with High-Quality, Ready-to-Use Test Cases:** The AI-generated test cases were of such high quality that they significantly reduced the time and effort required for business review, freeing up resources for higher-value activities.
- **Comply with Industry Standards:** Test steps and acceptance criteria were automatically aligned with life sciences process guidelines, ensuring full compliance with Computer System Validation (CSV) requirements—a critical factor for regulated industries.

Complementing Ascend Test, the Deloitte project team utilized the UiPath Test Cloud in conjunction with Deloitte's proprietary automation library to further enhance the testing process:

- **Accelerated Integration Testing:** Automated test execution sped up integration testing cycles, allowing the team to validate complex end-to-end business processes faster than manual testing would allow.
- **Expanded Test Coverage:** Automation helped to achieve a level of test coverage that would have been unattainable within the project's limited testing window if relying solely on manual efforts.
- **Reusable Automation Assets:** The combination of UiPath Test Cloud and Deloitte's automation library provided reusable components, increasing efficiency for future testing cycles and ongoing regression testing.

CASE STUDY:
SOFTWARE COMPANY INCREASED COVERAGE WHILE DECREASING TESTING TIME

By choosing Deloitte to implement a comprehensive SAP automation solution—leveraging Deloitte Ascend for intelligent test scenario generation and UiPath Test Cloud for robust execution—a leading software products company significantly advanced its testing capabilities.

Key Features and Achievements:

- **Extensive End-to-End Automation:** Over 400 highly complex end-to-end (E2E) test scenarios were automated, ensuring thorough validation of critical business processes.
- **High-Volume Test Execution:** The solution enabled more than 350 test executions per week, resulting in over 6,000 test executions across just four testing cycles—a scale and speed unattainable through manual testing alone.

Advanced Mass Order Testing:

- Developed a Test Automation Mass Order Validation process capable of processing, activating, and validating over 700 orders for the Quote-to-Cash (QTC) workflow.
- Built a Test Automation Mass Order Creation capability that auto-generates test data for more than 300 orders, streamlining data preparation and enhancing test reliability.
- **Accelerated and Expanded Coverage:** The combined approach led to a 20% reduction in testing time and a 30% increase in test coverage, directly contributing to faster, higher-quality software releases.

THE POWER OF COLLABORATION

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CONCLUSION

The alliance between Deloitte and UiPath in test automation is a testament to both organizations' commitment to innovation and excellence. Together, they deliver transformative solutions that help clients enhance software quality, accelerate time-to-market, and drive operational efficiency for businesses worldwide.

FOR ADDITIONAL INFORMATION,
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