Deloitte.



Total Testware™
AI & Intelligent Automation

2. AI & Intelligent Automation

2.1 AI & Intelligent Automation — Overview

HERO

Make test automation more intelligent.

Bring AI-enabled capabilities into the way tests are designed, automated, validated and maintained. Deloitte TotalTestware's AI and intelligent automation proposition is focused on helping quality engineering teams reduce repetitive effort, support more effective test creation and respond to the complexity of modern enterprise applications.

Primary CTA: Explore AI Capabilities | Secondary CTA: Request a Demo

Why intelligent automation matters

Enterprise applications change continuously. Testing teams must keep pace with evolving requirements, application interfaces, business processes and release cycles. Intelligent automation can help teams address these challenges by supporting selected activities across the testing lifecycle.

GenAI-Powered Test Design — Support test scenario creation and refinement using AI-enabled approaches.

Agentic AI & Autonomous Automation — Explore the potential for AI agents to support selected automation activities and workflows.

AI-Driven Computer Vision — Use visual understanding approaches to support application interaction and validation.

Self-Healing Automation — Help address automation maintenance challenges when application interfaces or elements change.

Intelligent Test Coverage — Support the assessment of testing needs and coverage across business processes and applications.

AI-Powered Test Data Generation — Support the preparation or generation of test data for relevant testing scenarios.

AI across the testing lifecycle

- Test Design — assist with the creation and refinement of test scenarios.
- Automation — support selected automation development activities.
- Validation — enable intelligent visual recognition and validation approaches.
- Maintenance — help identify and respond to changes affecting automation.
- Coverage — support the assessment of test coverage needs.
- Test Data — assist with relevant test data activities.

Closing CTA

Move beyond traditional test automation.

Discover how intelligent automation can support your quality engineering journey.

Primary CTA: Request a Demo

2.2 GenAI-Powered Test Design

HERO

Accelerate test design with generative AI.

Transform the way testing teams approach test scenario creation. Generative AI can help teams interpret available requirements and testing inputs to support the creation and refinement of test scenarios. By reducing repetitive test design activities, teams can focus more attention on coverage, validation and quality.

Primary CTA: Request a Demo

Key areas of value

Reduce repetitive test design effort — Support the creation of test scenarios from available source material.

Improve test design productivity — Help testing practitioners spend less time on repetitive drafting activities.

Support requirement-based testing — Use requirements and other approved inputs as a basis for developing test scenarios.

Strengthen test design consistency — Encourage a more structured approach to scenario creation and refinement.

A proposed GenAI-assisted workflow

1. Provide test inputs — start with available requirements, specifications or approved test documentation.
2. Analyse the inputs — apply AI-enabled interpretation to identify relevant testing information.
3. Generate test scenarios — create proposed test scenarios for review.
4. Review and refine — have testing practitioners validate and improve the generated content.
5. Prepare for automation — use approved scenarios as inputs to subsequent automation activities.

Closing CTA

Spend less time drafting. Spend more time improving test quality.

Primary CTA: Request a Demo

2.3 Agentic AI & Autonomous Automation

HERO

Explore the next step in intelligent test automation.

Agentic AI introduces the possibility of AI systems supporting multi-step tasks, responding to context and assisting with selected activities across a workflow. Deloitte TotalTestware's agentic AI proposition is intended to explore how autonomous and AI-assisted approaches can help evolve enterprise test automation.

Primary CTA: Request a Demo

Where this can help

Task-oriented assistance — Support selected testing tasks through AI-driven interactions.

Context-aware workflows — Use available context to help guide relevant testing activities.

Multi-step task support — Explore how connected activities can be coordinated as part of a broader workflow.

Human oversight — Retain appropriate review, validation and control over important testing decisions.

A responsible approach to autonomy

Enterprise automation requires reliability, security and governance. Autonomous capabilities should operate within defined permissions, approved environments and appropriate human oversight.

Closing CTA

Explore what intelligent automation can make possible.

Primary CTA: Request a Demo

2.4 AI-Driven Computer Vision

HERO

Bring visual intelligence to application testing.

Modern applications can present complex interfaces, dynamic elements and changing layouts. Visual understanding can help testing teams interact with and validate application experiences. AI-driven computer vision uses visual information to support recognition and interpretation of application interfaces.

Primary CTA: Request a Demo

Key areas of value

Visual recognition — Use visual information to identify relevant application elements.

Interface understanding — Support the interpretation of application screens and layouts.

Visual validation — Help assess whether application presentation and behaviour meet expected outcomes.

Support for changing interfaces — Explore visual approaches to application interaction where traditional identification methods may be less suitable.

Designed for evolving application experiences

As enterprise applications evolve, testing approaches must adapt. Visual intelligence can complement other automation techniques and contribute to a more flexible automation strategy.

Closing CTA

Make application testing more visually intelligent.

Primary CTA: Request a Demo

2.5 Self-Healing Automation

HERO

Reduce the effort of keeping automation up to date.

Application changes are a natural part of enterprise technology evolution. However, changes to interfaces and application elements can affect existing automation. Self-healing automation approaches aim to help identify and respond to changes that might otherwise require manual automation maintenance.

Primary CTA: Request a Demo

Key areas of value

Identify changes — Support the identification of changes affecting automation assets.

Explore alternative identification approaches — Use relevant intelligence to help identify application elements when their attributes or structures change.

Support automation recovery — Help teams address selected automation failures caused by application changes.

Keep teams in control — Provide appropriate review and validation of proposed changes before relying on updated automation.

Business value

- Reduce repetitive maintenance activities.
- Improve the manageability of automation assets.
- Support automation resilience as applications evolve.
- Help testing teams focus on higher-value quality activities.

Closing CTA

Build automation that can better adapt to change.

Primary CTA: Request a Demo

2.6 Intelligent Test Coverage

HERO

Make test coverage more intelligent and purposeful.

Enterprise applications support complex business processes, integrations and user journeys. Determining what to test—and how much to test—requires a clear understanding of requirements, risks and application changes. Intelligent test coverage approaches can help teams assess testing needs and identify areas that may require additional validation.

Primary CTA: Request a Demo

Key areas of value

Requirement alignment — Relate test scenarios to the requirements and functionality they are intended to validate.

Coverage visibility — Help teams understand which identified requirements or scenarios are addressed by testing.

Gap identification — Support the identification of areas where additional test coverage may be required.

Change-aware testing — Explore how application or requirement changes can inform testing priorities.

A more informed approach to testing

Intelligent coverage approaches can help teams focus testing effort on relevant business processes and areas of change, while retaining the judgement of experienced testing practitioners.

Closing CTA

Focus testing effort where it matters.

Primary CTA: Request a Demo

2.7 AI-Powered Test Data Generation

HERO

Support smarter test data preparation.

Effective test automation depends on having suitable test data. Preparing data for different business scenarios can be time-consuming, particularly in complex enterprise environments. AI-enabled test data approaches can help support the preparation or generation of relevant test data for testing activities.

Primary CTA: Request a Demo

Key areas of value

Scenario-aligned data — Support the preparation of data relevant to identified test scenarios.

Reduced manual effort — Explore AI-enabled approaches to reduce repetitive data preparation activities.

Broader testing conditions — Support the creation or preparation of data for different testing scenarios.

Data governance awareness — Ensure that test data practices respect privacy, security and organisational data policies.

Responsible test data practices

Test data generation and use must align with enterprise data governance requirements. Any use of synthetic, masked or production-derived data should be described according to the product's confirmed functionality and applicable controls.

Closing CTA

Give your automated tests the data they need.

Primary CTA: Request a Demo

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