



Original Software

Delivering Quality Through Innovation

Overview

What is TestDrive:

An easy to use automated testing solution designed to test the functionality of GUI and browser applications with minimal effort and greater efficiency.

Features:

- Builds automated tests quickly for immediate re-use
- Supports data-driven testing, complex validations and linked tests
- Provides an easy to use intuitive and visual interface
- Handles UI changes automatically.
- Enables regression testing to be built within a sprint for Agile projects
- Built in auto-validations such as baseline, spelling, and link-checks enables regression testing out of the box
- Completely code-free and easy to use

Benefits:

- Delivers immediate ROI
- Automates previously recorded manual tests
- Increases UAT productivity and test coverage
- Reduces the maintenance burden of test scripts
- Perfect for Agile testing



Robust Test Automation for Everyone with TestDrive

The Challenge

Software test automation has been available for over a quarter of a century, but the practice still has many skeptics, and the biggest barrier to adoption remains the level of maintenance required to sustain it. Achieving just a moderate level of automation coverage requires considerable investment of budget and resource. With increasing software development complexity and more and more IT departments taking on an agile approach, traditional test automation has become too cumbersome for most to sustain. These traditional testing systems are built on programmatic frameworks and require complex programming skills and technical resources to create, manage and maintain their effectiveness. The expense for procurement, implementation and maintenance of these legacy tools are often cost prohibitive for the low value they deliver.

The Solution

TestDrive is our full-featured automated testing solution designed to test GUI and browser applications "out-of-the-box". Significant reductions in timescales and advanced levels of quality can be achieved without the complexity of traditional testing tools. TestDrive integrates with all the other elements of our solution suite so that tests can be run from within Quality, scripts can be built automatically from manual test results within TestDrive-Assist, and effects in the database can be simultaneously verified in TestBench.

Interrogate the Application Under Test Automatically

- Our unique full content analysis technology takes picture snapshots of the application under test every time the application completes a logical step.
- It captures, analyses and compares all of the objects, grids, controls and components of the application.
- Both the visible and non-visible content is captured and analysed automatically.



Original Software has filled out some yawning gaps in functional test automation and attempted to make test automation more accessible to non-technical testers.

Michael Azoff, Ovum, February 2011





Automatic Automation with BusySense Technology

- BusySense technology, controls the timing of screen captures and analyses the application automatically at each logical step, without user configuration.
- BusySense is essential to test automation success as this functionality controls all of the timing mechanisms associated with test automation.
- The technology determines events when screen rendering is complete, visible dialog, non-visible threads, unexpected dialogs and many other application activities.
- TestDrive's BusySense utilizes comprehensive algorithms to determine the state of the application under test by monitoring CPU activity, memory usage, TCP/IP, Windows messaging, accessibility messaging and many other events.

Take Advantage of Full Content Analysis

- Full-content analysis is unique to Original Software. Unlike other legacy systems that require object verification, the TestDrive approach provides the complete analysis of all objects and components without creating object libraries and validation points.
- All items are detailed with their relevant properties, class type, location and elements.
- The unique 'annotation' feature is able to associate the words on the screen with a control to make test scripts more logical. So for example, Key 01256 338333 into Phone Number rather than Key 01256 338666 into textbox1.
- We can also use this to match or find the right field for the phone number when the test is being executed automatically.
- This means a greater tolerance of application changes and less dependence on the coding consistency of programmers.

Separate the Script from the Test

- TestDrive takes the approach of separating the mechanics of driving an application from the actual testing of an application.
- An automated test consists of two main components:
 1. The Playlist describes how to test an application and controls the test execution.
 2. The Script(s) drives the application and gathers information about the application's behavior.
- This approach makes scripts much more reusable and, more importantly, significantly easier to maintain than an approach where the script and test criteria are coupled together.
- By cleanly separating these duties, a single Script can, and should, be used in many Playlists. When the application under test changes, a simple, single update to the affected screen(s) in the relevant Script will update all Playlists that use the script.

Reduce Your Script Maintenance Burden

- The way that TestDrive handles changes in the application under test differentiates it from all other tools.
- Users can run existing test scripts over updated versions of the application, without having to make changes to the test script. We call this 'self healing'.
- When a script is executed, the 'results' are in fact two scripts: the Actuals and the Expected.
- Users are able to select the Actuals and save them as the new Expected script. This is in effect creating a new baseline for subsequent test runs. This is the simplest means to 'healing' scripts.
- Users can adjust the scripts using drag and drop (within a script and from other scripts) in an intuitive way. There is no code, so the events (both on the screen and by user input) constitute the means to "drive" the application under test.
- Since the labels on the screen are used to 'annotate' the fields being used, it is clear what is happening and what may need to be adjusted.
- The recovery wizard executes scripts in a special mode where it warns the tester interactively if a bit of recorded user input will fail or that a different screen is about to appear. This provides the means to take over and record new screens or new inputs.





Complete End to End Testing with Playlists

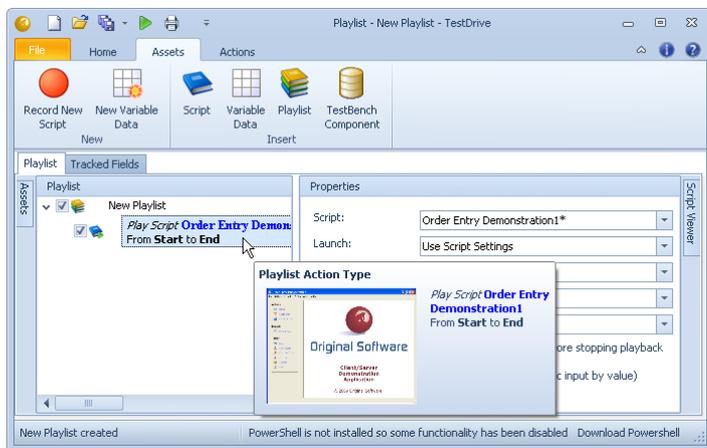
- Our 'Playlist' functionality can help you build a complete end-to-end system test across multiple technologies, applications and systems, together with logic to determine recovery actions for unexpected events.
- This feature can incorporate other areas of our solution suite, e.g. a Playlist might include steps to build a reduced test database, scramble personal details, checkpoint the state of the dataset, create a customer via a client server app, add an order via the web, run a batch process to release the order, test the order confirmation PSF, validate the order interface file produced and roll back the data to its initial state.
- The real power of this functionality comes when you ask the Playlist to apply a set of checks (checking rules). If you want to spell check you just tell the Playlist to use your spelling rule. This means you can use the same script, running over the same application function, and perform many different test types, e.g. spell checks, link checks, verify information, etc.
- You can progressively extend the scope of your tests, that start simply and then become extremely well-defined, focusing in on just those areas they are interested in.

Automate Your SAP Application Quality

- SAP upgrades or upgrades for other packaged applications, place additional constraints and different needs on your business users, QA and development teams.
- Frequent updates and specific integration requirements are handled effectively with TestDrive, which enables easy regression testing.
- SAP objects are instantly captured and analysed for their content and properties. This capability is fundamental for dealing with frequent application changes and script perpetuity.
- TestDrive elegantly handles application change.

Manage Quality at the SOA & Process Layer

- Testing of SOA (Service Oriented Architecture), ESB (Enterprise Service Bus), Web Service or message-oriented middleware solutions is a time consuming procedure and introduces a great deal of complexity for the quality management process.
- TestDrive provides an integrated best of breed solution which analyses, simulates and tests middleware, batch and web service components to deliver quality and impact assessment, from the visual layer through the underlying processes and into the database.



Creation of a Playlist

Achieve Agile Automation

- TestDrive fully supports the agile development process with its automatic regression testing capabilities, providing full automation for the agile iterative cycles.
- Ease of use enables the team to deliver automatic regression testing capabilities as part of the 'sprint'.
- Manual test results created early in a sprint can be easily converted into automation as the project progresses.
- When used together with Qualify, we provide a full management platform for your agile environment.

The Bottom Line

For too long, software testers have had to make do with automated testing solutions based on complicated and restrictive script languages which lack the flexibility to cope with changing applications without costly manual, code-centric maintenance. For short and long term success, testing solutions need to be dynamic, flexible and be able to be deployed easily and quickly amongst the broadest possible user base. TestDrive is the only solution in the market place that is fast and unobtrusive, where the user can execute test at accelerated speed. It provides repeatable, reusable, automated test assets for unattended regression testing.

About Original Software



With a world class record of innovation, Original Software offers a solution focused completely on the goal of effective quality management. By embracing the full spectrum of Application Quality Management across a wide range of applications and environments, the company partners with customers and helps make quality a business imperative. Solutions include a quality management platform, manual testing, full test automation and test data management, all delivered with the control of business risk, cost, time and resources in mind.

More than 400 organisations operating in over 30 countries use Original Software solutions. Current users range from major multi-nationals to small software development shops, encompassing a wide range of industries, sectors and sizes. We are proud of our partnerships with the likes of Coca-Cola, HSBC, Unilever, FedEx, Pfizer, DHL and many others.



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