



MapleWorks' Assessment of SmartBear Test Complete 8

Introduction

The information presented in this document is based on the following:

- Use of SmartBear Test Complete version 8.0.290.7
- Use of Test Complete version 7.52.697.7
- Enhancements listed on the SmartBear (formerly Automated QA) blog website at <http://www.automatedqa.com/blogs/>

Test Complete 8 has been updated to align with the functionality supported by Microsoft, primarily support for Windows 7 and upgraded versions of Visual Studio. Test Complete 8 also has other enhancements providing added flexibility to existing Test Complete functionality.

These enhancements may or may not be required to validate the functionality associated with a given application. Each user needs to determine whether the enhancements delivered with Test Complete 8 will simplify their automated testing efforts or determine that Test Complete 8 provides limited added value.

Table 1: Test Complete 8 Enhancements

Item	Functionality	Test Complete V7.52.697.7	Test Complete V8.0.290.7
1	Test visualizer automatically captures screenshots during recording, playback, and test execution allowing the user to see what happens.	Not supported.	Added value that will consume added disk space to store bitmaps associated with every script.
2	Data driven tests made easier. Test Complete simplifies the mechanism used to access information in a spreadsheet used to drive tests.	Data Driven Tests supported for Keyword tests and scripts.	Introduced a wizard to keyword tests to simplify support Data Driver Tests. No enhancements made for scripts.
3	Allows the user to post the extended portion of HTML content in the test log.	The remark tab on the Test Complete log browser will display the HTML content as a string.	The remark tab on the Test Complete log browser will interpret the HTML tags and display the text accordingly.

Item	Functionality	Test Complete V7.52.697.7	Test Complete V8.0.290.7
4	Distributed test system improvements: <ul style="list-style-type: none"> <input type="checkbox"/> User sessions on remote computers are now opened automatically. <input type="checkbox"/> Can now view the images of remote desktops in Test Complete's user interface (UI). <input type="checkbox"/> Remote computers can be reloaded from the master project. <input type="checkbox"/> Distributed tests can be run under Windows Server operating systems. 	Listed enhancements are not supported.	New functionality does not dramatically change the behavior of distributed testing. The new functionality enhances the user experience.
5	Support for conditional name mappings which allows a user to: <ul style="list-style-type: none"> <input type="checkbox"/> Define a range of possible values for an identification property using conditions like greater than, less than, equal, not equal, and others. <input type="checkbox"/> Define multiple possible combinations of identification properties by grouping and combining them using the AND/OR logical operators. 	Listed enhancements are not supported.	Added flexibility in creating a name mapping representation.
6	UI improvements: <ul style="list-style-type: none"> <input type="checkbox"/> Basic and advanced View modes for object properties and methods. <input type="checkbox"/> Quick Search now has a list of common expressions that are typically used. <input type="checkbox"/> Updated Recording toolbar with a Record button that blinks during test recording. <input type="checkbox"/> Test Playback indicator improvements supports pause and stop buttons. <input type="checkbox"/> The Object Properties window has been renamed to Object Spy. 	Listed enhancements are not supported.	Functionality enhances the user experience.
7	Additional name mapping improvements: <ul style="list-style-type: none"> <input type="checkbox"/> Includes a convenient way to create new name mapping templates. <input type="checkbox"/> The new Refresh command in the Name Mapping editor. 	Enhancements for name mapping not present.	Functionality enhances user experience.

Item	Functionality	Test Complete V7.52.697.7	Test Complete V8.0.290.7
8	Provides a new feature that allows one to call methods of Java classes from one's test scripts.	MapleWorks has not validated this yet.	
9	<p>Makes it even easier to migrate external manual tests into Test Complete's Manual Software Testing feature.</p> <p>In earlier versions, one could import manual test instructions from external files into Test Complete's project elements using scripts.</p> <p>Now, Test Complete 8 offers a special wizard that helps one import manual test instructions from text files, Microsoft Word, and Microsoft Excel documents. The new wizard recognizes the hierarchy of manual test steps in the external files and creates a manual test with the same step hierarchy, which can then be included in Test Complete testing processes.</p>	MapleWorks has not used the manual test capability of Test Complete. Manual testing in essence is a text file listing manual test steps.	
10	Support for Visual Studio 2010 and .NET Framework 4.	Did not evaluate.	
11	<p>Web pages that contain dynamic controls and menus that change when the mouse hovers over them (without clicking).</p> <p>During test recording, Test Complete 8 detects mouse hover actions that cause changes in the contents of the tested web page and automatically records these actions as calls to the HoverMouse method simulating mouse hovering when playing back the test.</p>	Listed enhancements are not supported.	<input type="checkbox"/> Worked using Internet Explorer. <input type="checkbox"/> Did not work with Google Chrome. <input type="checkbox"/> Did not try other browsers.

Item	Functionality	Test Complete V7.52.697.7	Test Complete V8.0.290.7
12	Delphi enhancements: <ul style="list-style-type: none"> <input type="checkbox"/> Support for Unicode. <input type="checkbox"/> Enumeration support for a collection of items. <input type="checkbox"/> Calling Routines in DOM models located in the tested web page when the DOM model is active. <input type="checkbox"/> No Size Limitations for Delphi scripts. <input type="checkbox"/> Debugging of DelphiScript routines is now more effective; however, like debugging of code written in other scripting languages, it now requires Microsoft Script Debugger or Microsoft InterDev to be installed. 	Have never run into any issues using Delphi scripts.	
13	Introduces built-in support for the Axosoft OnTime, Atlassian JIRA, and Software Planner issue-tracking systems. This support means one can easily add error reports to these systems directly from Test Complete's test log.	MapleWorks does not use these source control capabilities with Test Complete.	
14	Image comparison enhancements: <ul style="list-style-type: none"> <input type="checkbox"/> Alpha Channel Support for dealing with transparent objects. <input type="checkbox"/> Color tolerance to ignore certain differences between the colors of compared pixels. <input type="checkbox"/> Comparison mask which defines which areas of the images should be compared. 	Listed enhancements are not supported.	New functionality geared to support capabilities offered with Windows 7: <ul style="list-style-type: none"> <input type="checkbox"/> Added functionality gives user added flexibility.
15	Load Testing enhancements: <ul style="list-style-type: none"> <input type="checkbox"/> Custom Response Codes to indicate which http response codes are acceptable. <input type="checkbox"/> A new type of load testing task called – complex tasks allowing virtual users to combine several sub-tasks and specify the number of repetition on the sub-tasks. 	Listed enhancements are not supported.	Added flexibility to define a success response and the ability to run combined http load tests under a single test header.

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16	<p>Improvements that allow one to perform comparisons even faster and easier:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A new check method that provides a consistent interface to the user regardless of the object being compared. <input type="checkbox"/> Unified checkpoint interface whether doing keyword or other types of tests. <input type="checkbox"/> New more informative log message if the checkpoint comparison succeeds. <input type="checkbox"/> Property checkpoint results that are posted to the test log now contain more details. <input type="checkbox"/> Viewing the Selected Object in the Object Checkpoint Wizard. 	Not supported.	<p>Enhancements to the user's experience because a common approach is available to perform bitmap comparisons, file comparisons, and all other supported comparisons.</p> <p>The log system explicitly generates a log indicating that the comparison passed or failed.</p> <p>The object selection wizard presents the user with an image of the selected object allowing the user to confirm wizard captured the intended object.</p>
17	Support for 64-bit dynamic link libraries.	32 bit DLL libraries supported.	
18	Ability to automate existing manual tests by replacing the entire test or its individual steps with keyword-driven tests.	Not supported.	
19	Automated Build Studio 6 supports Test Complete and Test Execute and allows one to use this functionality in macros.	Mapleworks has no experience using SmartBear's Automated Build Studio.	
20	Support for Windows Mobile 6 series (Windows Mobile 6.1, 6.1.4, and 6.5).	Test Complete could not control the objects on a Windows Mobile 6 device. Test Complete had no issues interfacing with a Windows Mobile 5 device.	GUI testing possible on a Windows Mobile 6 device.

Conclusion

MapleWorks evaluated SmartBear Test Complete version 8.0.257.7 functionality in comparison to Test Complete version 7.52.697.7. Overall, SmartBear has improved the user experience of the test automation tool. There is added flexibility in defining operations associated with a test suite and new functions that enhance the information being presented to the user when recording or running a test script. The benefit of using Test Complete 8 is dependent on the application under test and on which Windows operating system is being used.

MapleWorks Technology's engineering team has vast experience working with SmartBear Test Complete. If you have questions, please contact MapleWorks by phone at 781.897.1727 or send email to info@mapleworks.com.

THE AUTHOR OF THIS WHITE PAPER

The author of this white paper, MapleWorks Technology, is an experienced source of **software development services** for developers of **networking and communication products** for both the service provider and enterprise markets.

MapleWorks offers clients the following value:

- Rich communications DNA
- Average of 15 years experience in the network communications domain
- Located in Silicon Valley North, their staff has experience from Nortel, Mitel, Siemens, RIM, etc.
- Staff is technology focused and invest in staying on top of emerging technologies
- Factors contributing to MapleWorks' proven track record of bringing products to market on time and on budget are the company's expert engineers and a proprietary **fluid, hybrid development processes called MapleWorks OnTrack™ and Agile OnTrack™**
- Business practices
- IP protection is respected and is the same as in the USA
- Onshore service provider; therefore, visas are not required
- Face-to-face knowledge transfer at client's site
- Management philosophy is one of minimal handholding, operating in a fluid environment, and successfully adapting to each client's development processes
- Business environment
- Development culture is the same as the USA
- English is the primary language
- Close proximity to the Ottawa International Airport enables day trips or single overnight stays
- Similar time zone
- Geopolitical stability means no risk to client projects
- Variable development cost is 30-40% less than in the USA

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- Massachusetts Technology Leadership Council (MTLC) – www.masstlc.org
- Massachusetts Network Communications Council (MassNetComms) – www.massnetcomms.org
- Canadian Advanced Technology Alliance (CATA) – www.cata.ca
- Ottawa Centre for Research and Innovation (OCRI) – www.ocri.ca

If you have questions about your outsourcing project, we invite you to contact us by phone at 781.897.1727 or send email to info@mapleworks.com



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