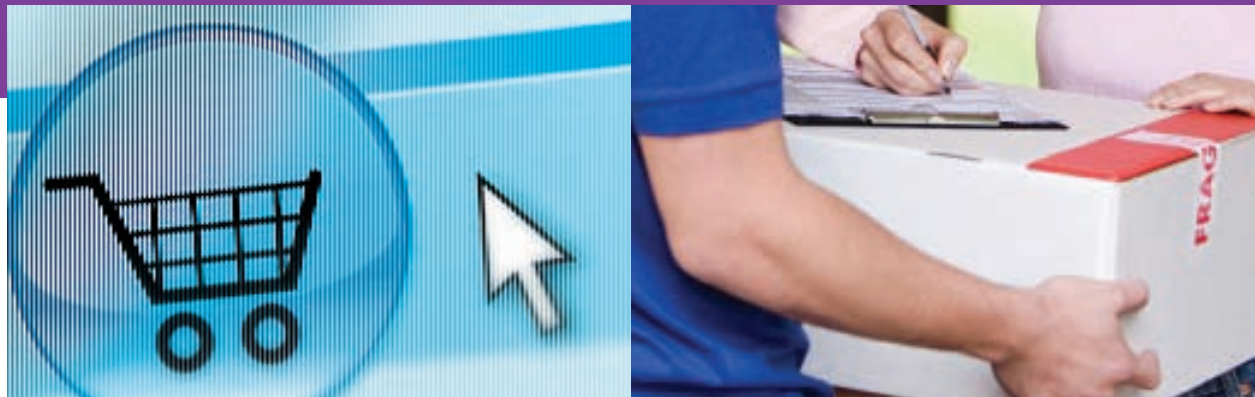


The SiteSpect Difference: A Unique Non-Intrusive Approach to Multivariate and A/B Testing



Testing and optimizing your website were never this easy.

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Introduction

Whether you are looking to increase the effectiveness of your pay-per-click advertising, convert more browsers into buyers, or increase the average order value from loyal customers, website testing and optimization should be a major part of your strategy.

Across every industry, web marketers are taking advantage of advanced testing and analytics applications to meet their growth and profitability targets. In this whitepaper, we'll take a look at some of the testing approaches that are available today. Whether you are just getting started or are already an expert, this document will help you to understand the major differences between today's testing solutions.

Overview of Primary Testing Approaches

Aside from traditional approaches to testing (such as focus groups) and manual, hard-coded testing methods, the majority of marketers who routinely test their website content utilize one of the following technologies:

No-Tag / No-Script Testing Applications (SiteSpect)	JavaScript-based Testing Applications	Server-side Software Plug-in Applications
Non-intrusive testing solution that enables you to run multivariate tests without making any changes to your website content.	Testing solution that allows you to test content variations in pre-defined locations through the use of JavaScript tags that are placed on each page.	Integrated software platform that requires either a software plug-in on your web server(s) or an implementation of tests within your content management system.

The SiteSpect Approach

SiteSpect is the only no-tag/no-script testing solution available in the marketplace today. The SiteSpect approach is unique in that **no changes are made to the actual website that is being tested**. Instead, the SiteSpect Server makes all of the appropriate content changes (test variations) on the fly and shows them to the appropriate users (test subjects) who visit your site. All of the changes occur after the content leaves your web server and before it is delivered to the browser (see Figure 1). All of this is done without making any changes to your existing website or web server and without users knowing that they are being served test content.

How SiteSpect's Non-Intrusive Approach Compares to the Alternatives

Unlike the alternatives, SiteSpect does not require any changes to the HTML or programming code that drives your website. This approach eliminates the need for ongoing IT involvement before, during, and after running tests—allowing marketers to focus on achieving their website and mobile optimization goals as opposed to overcoming technical hurdles.

JavaScript-based testing solutions require you to make changes to the code that underlies your website. The code changes typically involve embedding JavaScript tags into each page that you want to test, which enables you to swap content into pre-defined slots within each web page. This approach is considered intrusive, because you are required to modify your website in order to set up or remove your test campaigns. In addition, many mobile devices do not support JavaScript-based testing solutions or accept cookies to track users, leaving you unable to test mobile users.

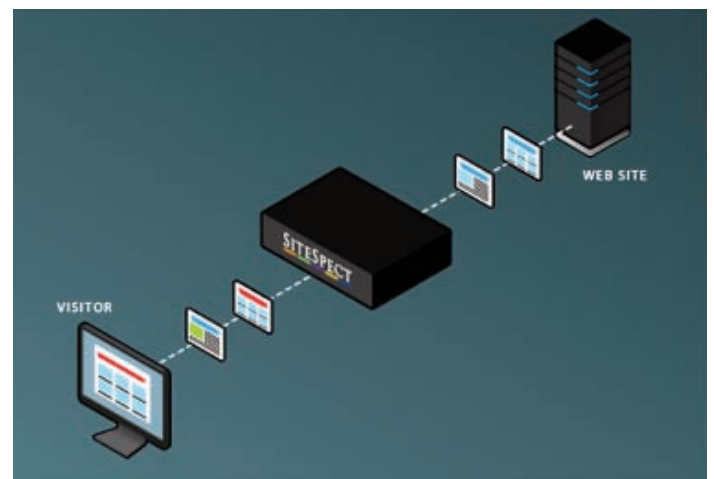


Figure 1: The SiteSpect Approach

While implementing a server-side testing solution removes some of the issues that exist with JavaScript-based testing solutions, it requires extensive changes to the systems and processes needed to create, manage, and publish content to your website. In addition to requiring significant IT involvement for the initial implementation of the solution, server-side testing software typically requires ongoing IT involvement with each test that is implemented.

Let's look at the seven specific ways SiteSpect compares with different approaches.

Seven Advantages of SiteSpect's Non-Intrusive Approach

Advantage #1: Tests can be created, run, and analyzed without any involvement from your IT staff or website development resources.

Tests that require significant time and costs to implement act as a deterrent to ongoing testing and can mean the difference between success and failure. In order to understand the total cost of your testing efforts, make sure that you consider the resources required for both the initial and ongoing implementation of the testing solution.

SiteSpect—All of your test variations are created within SiteSpect using its browser-based interface. Whether you are running simple A/B tests or complex multivariate analyses, SiteSpect's wizard-driven campaign creation feature enables you to implement test campaigns quickly and cost effectively. Since no changes are made to the actual pages you are testing, you avoid the need for IT and QA resources. SiteSpect's unique approach not only reduces time and costs, but it also empowers marketers to test and optimize websites without IT involvement.

JavaScript—JavaScript-based testing applications rely upon code that is placed on each page that you want to test and track. Because of this, IT and QA resources are typically required for implementing and validating the operation of each test campaign. Multiple cycles of review are often required to verify that there are no scripting errors before each test is launched.

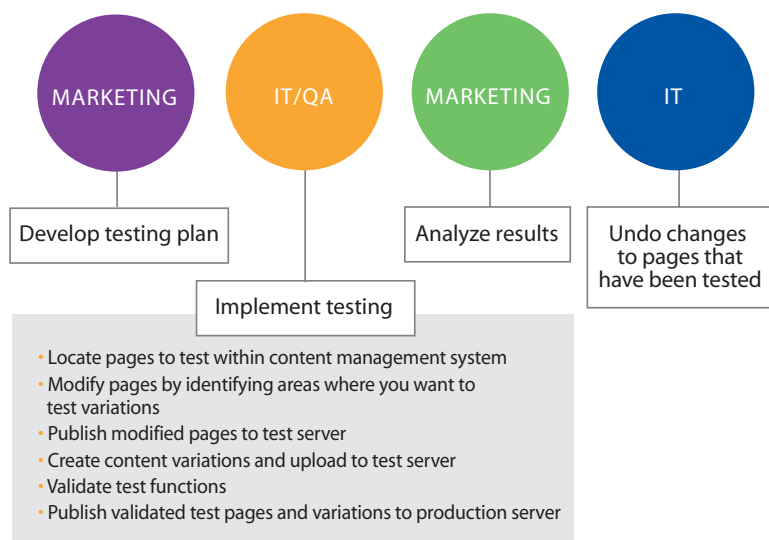
Server-side—IT and QA resources are generally required, although their level of involvement varies, depending on the application. This approach requires software integration and development effort (not just HTML or "front-end" modifications), so the skill and cost of the engineering resources will be higher than with other testing solutions.

Resources required for tests:

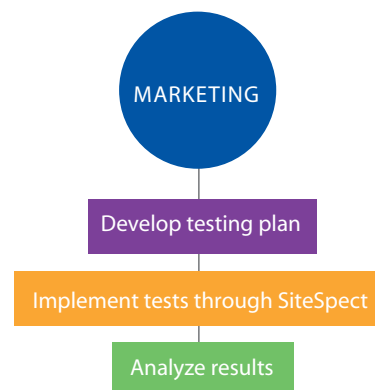
SiteSpect	JavaScript-based Testing Applications	Server-side Software Plug-in Applications
Marketing	Marketing IT QA	Marketing IT QA

Testing Workflow Overview

Without SiteSpect



With SiteSpect



Advantage #2: Any content can be tested.

The increased use of dynamic content and interactive web applications multiplies the number of “moving parts” on a website and enhances the value of testing. In order to avoid missing potentially significant opportunities for optimization, it is important to make sure that your testing solution isn’t limited to testing only certain types of content. It is also important to understand whether your content will need to be reworked within the web server code in order to be testable.

SiteSpect—SiteSpect can test content variations on pages that are formatted using virtually any mark up language (e.g. HTML, WML), stylesheets (CSS), or scripting language (e.g. JavaScript). Within those pages, SiteSpect can test variations of virtually any type of content, whether it is static and/or dynamic, including audio and video files as well as Ajax and Flash-based applications.

JavaScript—JavaScript-based testing applications are limited to testing content areas within which JavaScript code can be placed. Since JavaScript code can only be placed within HTML, you are generally limited to testing within HTML pages. In some cases, pages that take advantage of XML, WML, or CSS can be tested, but only after being reworked specifically for testing purposes with the vendor’s tool. Multiple versions of each page may need to be created in order to address browser-specific issues that exist.

Additionally, because the content tested through JavaScript-based applications needs to be static, this may prevent you from effectively testing key areas of your website that include dynamic content (such as search results, product details, shopping cart, personal account settings, etc.). As well, the majority of mobile devices worldwide, because they are not smartphones, do not support JavaScript — making it impossible to use script-based testing solutions to present content variations or track user behavior. The result is that you may be unable to test and target segments of your audience who don’t have the newest mobile devices.

Server-side—Server-side testing applications generally don’t have limitations regarding the types of content that they can test. However, substantial IT involvement is required at various stages of the testing process, which increases the time, cost, and complexity of each test campaign.

Content and markup language types that can be tested:

SiteSpect	JavaScript-based Testing Application	Server-side Software Plug-in Applications
HTML CSS XML Text WAP/WML Etc.	HTML	HTML CSS XML Text WAP/WML Etc.

Advantage #3: All user actions can be tracked.

The key to optimizing your website is in being able to compare how site variations influence user behavior relative to your Key Performance Indicators (KPIs). While some KPIs may be tied to easily measured activities (such as completed purchases), the increased use of dynamic content (such as site search, personalized content, checkout) can make it difficult to measure and quantify the performance of critical elements of your website. As such, your ability to measure the true value of your website may be limited.

SiteSpect—SiteSpect’s analytics capabilities are based upon an event-based model that allows you to instrument and measure every page viewed and every action taken while users visit your site. Even the content within a page, such as cart or checkout value, can be tracked. Examples include:

- Clicking an add-to-cart or checkout button
- Average order value of shopping cart
- On-page actions such as checking a box, selecting a drop-down list, etc.
- Consumption of non-HTML content (e.g. Flash, audio, video)
 - How many visitors requested each item
 - How much / how long each item was viewed

JavaScript—JavaScript-based testing applications only track page views and clicks within HTML content. Clicks that occur within non-HTML content (such as Flash or streaming media) cannot be tracked unless the vendor’s code has been integrated with the client-side application (for example, within the web application’s JavaScript or Flash ActionScript). Also, while you can track how many users accessed a given piece of non-HTML content, you typically cannot track how much time they spent retrieving the content or how much of the content they viewed.

Server-side—There are no limitations to user actions which can be tracked, although access to some tracking metrics may require IT involvement and a combination of logfile analysis and packet sniffing.

User actions which can be tracked:

SiteSpect	JavaScript-based Testing Applications	Server-side Software Plug-in Applications
All	Page views* Clicks within HTML content*	All**

* Note: All pages would have to be tagged in order to track user actions.

**Note: May require IT involvement and a combination of logfile analysis and packet sniffing.

Advantage #4: Testing is transparent.

Ideally, your testing program should be completely invisible to users. With online testing, your goal should be to eliminate the possible effects that may be caused by users when they know that they are participating in a test.

SiteSpect—SiteSpect renders and displays your content variations to the browser without the use of any special tags or code that can be detected by looking at the page or underlying source code.

JavaScript—JavaScript-based testing applications rely upon proprietary tags that are placed within the HTML code that makes up each page that is being tested. In most cases, this code can be easily identified within the source of each page. Additionally, these applications may retrieve content variations from a third-party server, which visitors can detect from their browser’s status bar. Since both of these JavaScript-based methods can be detected by visitors (and competitors), they can be potentially exploited. Also, browser plug-ins exist that alert users to the presence of JavaScript-based testing products, potentially undermining the test results.

Server-side—Server-side testing applications generally don't require the use of tags or code that can be detected by users.

Testing transparency:

SiteSpect	JavaScript-based Testing Applications	Server-side Software Plug-in Applications
Non-detectable	Detectable	Non-detectable

Advantage #5: No end-user software or browser requirements.

The proliferation of browsers and devices that can access your content greatly increases the potential reach of your website. At the same time, not all browsers share the same capabilities and some have limited or no support for client-side operations used for rendering pages. The result is that you may be unable to test everyone who visits your website (such as mobile users), which introduces a potential sampling bias into your testing program.

SiteSpect—Since SiteSpect doesn't rely upon JavaScript operations for generating content variations, you don't have to worry about what browser, version, or settings your users have. You can even test and track users who have disabled JavaScript and/or cookies, have browsers that don't support cookies, or have chosen to only accept temporary session-based cookies.

JavaScript—JavaScript-based testing applications rely upon JavaScript calls to compose pages within the browser. Users that don't have JavaScript support available or enabled cannot be tested. Also, JavaScript has limited support within mobile devices, including PDAs and SmartPhones. In fact, mobile site operators have estimated these devices to be as high as 50% of their audience, thus precluding pervasive JavaScript-based testing of these mobile users. In some cases, alternate versions of the JavaScript code may be used to support different browsers and devices. It should also be noted that introducing the JavaScript calls onto pages requires IT and QA involvement to ensure that the new scripts do not have any unintended side effects on page content or performance. In terms of performance, JavaScript can introduce additional latency for page-load times, which is particularly apparent on mobile devices that are not using high-speed connections.

Server-side—Server-side testing applications generally don't require the use of tags or code that can be detected by users.

End-user browser requirements:

SiteSpect	JavaScript-based Testing Applications	Server-side Software Plug-in Applications
None	Requires JavaScript (turned on)	Varies based upon use of cookies

Advantage #6: No impact on Search Engine Optimization efforts.

Achieving and maintaining high organic search engine rankings requires a significant investment of time and resources. Thus, it is important to be certain that your multivariate testing solution doesn't negatively impact those rankings. While search engines each use different algorithms for ranking sites, you should avoid making any changes to your website that may prevent search engine spiders from fully crawling your site.

SiteSpect—SiteSpect automatically excludes search engine spiders from seeing and indexing your test variations. Instead, when spiders visit, they are shown the original, non-test content as it exists on your web server. Thus, organic search engine rankings are never affected by SiteSpect.

JavaScript—While the impact to search engine rankings varies, content that is rendered solely through JavaScript is less likely to be crawled by search engines, thereby losing its SEO value. The less JavaScript that you use, the more likely a search engine spider will be able to crawl your entire site. Also, search engines will not crawl links that are embedded within JavaScript. Those links will not be indexed and your search engine rankings could be negatively impacted.

Server-side—There is no impact since JavaScript use is not required.

Impact on SEO efforts:

SiteSpect	JavaScript-based Testing Applications	Server-side Software Plug-in Applications
No impact	Moderate risk	No impact

Advantage # 7: All pages can still be monitored for availability and performance within your datacenter.

The fastest way to resolve availability and performance issues is to have full visibility into the experience of your end users. Applications from vendors such as Tealeaf, Coradiant, and NetQoS offer performance management solutions that allow you to monitor your website from the perspective of an end user. However, testing solutions that rely upon client-side operations to render pages reduce your ability to monitor and detect problems that may prevent users from completing key tasks on your website.

SiteSpect—Because SiteSpect Enterprise renders all of your content variations before each page leaves the datacenter, your IT staff can continue to use performance monitoring tools to ensure that your customers don't encounter any performance issues when visiting your site.

JavaScript—JavaScript-based testing applications rely upon the visitor's browser to render the complete version of the pages that are being tested. This approach limits your ability to audit pages since performance monitoring applications are unable to "see" and capture any pages that are composed with content supplied by the external testing system. While workarounds may exist, they can slow down the end user's experience and are generally not recommended by the monitoring vendors.

Server-side—In general, server-side testing applications will not have an impact on your ability to monitor performance since they are installed within your datacenter.

Website performance monitoring:

SiteSpect	JavaScript-based Testing Applications	Server-side Software Plug-in Applications
100% auditable	Limited audibility	100% auditable

Summary

The SiteSpect Difference: Seven Advantages of SiteSpect's Non-Intrusive Approach

As you've seen, SiteSpect's intuitive, easy-to-use features automate the complexities of website testing and optimization. It's easier to determine the best way to motivate and persuade customers to take the desired action. And because SiteSpect doesn't require changes to your website's coding, you can quickly optimize your site, without any barriers. To summarize, here are the seven key advantages of non-intrusive multivariate testing with SiteSpect.

- 1) Create, deploy, and manage tests without IT involvement.
 - 1a) Analyze test results in real time and quickly create follow-on tests.
- 2) Test any content, including dynamic and mobile content.
- 3) Track any behavior.
- 4) Implement tests without using any techniques that can be detected by your visitors.
- 5) Test any visitor, without having to worry about what browser, version, settings, or mobile/wireless device they have.
- 6) Perform tests without the risk of affecting Search Engine Optimization efforts.
- 7) Gain valuable insight into the effectiveness of your website without losing any performance monitoring capabilities.

About SiteSpect, Inc.

SiteSpect provides the world's only non-intrusive optimization platform, enabling web and mobile marketers to significantly improve key metrics such as conversion rate and engagement. SiteSpect's solutions include rapid A/B testing, multivariate testing, behavioral targeting and personalization, landing page optimization, mobile web optimization, and web performance optimization. With SiteSpect, marketers enjoy unmatched speed and flexibility without the need for ongoing IT involvement. SiteSpect's patent-pending technology and professional services are used by many of the world's leading online businesses, such as Wal-Mart, Staples, Mozilla, JCPenney, MTV, ASOS, Overstock.com, VEGAS.com, and Unitrin. For more information, visit www.SiteSpect.com or call 617-859-1900.

For more information:

- Visit www.sitespect.com
- Send email to info@sitespect.com
- Call 617-859-1900

SITESPECT

SiteSpect, Inc.
10 Milk Street, Suite 820
Boston, MA 02108
617-859-1900
info@sitespect.com
www.sitespect.com