

# AlertSite DéjàClick™: Adaptive Performance Management for Dynamic Web Content

## Highlights

**Vendor name:** AlertSite

**Product name:** DéjàClick™

**Product Function:** Web application performance monitoring

**Operating systems:** Windows, MacOSX, Linux, UNIX

**Vendor contact:** Jim Chard, [jchard@alertsites.com](mailto:jchard@alertsites.com)

**Availability:** All products currently available

## Executive Overview

As EBusiness evolves, companies are entrusting an increasing percentage of potential revenue to their online presence. At the same time, the technology behind Web applications is constantly enhanced, resulting in Websites with an ever-higher level of sophistication and polish. The increasing reliance on Websites as revenue producers combined with the technology advances behind those sites adds risk, since many of the Web application management solutions on the market can't easily accommodate technology changes. This paper describes a solution: AlertSite's DéjàClick. DéjàClick was specifically designed to minimize the risks associated with managing revenue-critical Websites with a product that is continually updated to support today's rapidly evolving technology and competitive picture.

## Overview

In the mid to late 1990s, the Internet took on a role which had never been anticipated by its designers—it emerged as a consumer-driven phenomenon that revolutionized the way the world does business. Internet technology continues to evolve, and the most recent innovation, dubbed Web 2.0, has extended its reach as a social networking platform. With YouTube, MySpace and blogs gaining momentum, the Internet has become a massive collaboration platform for millions of people worldwide.

EBusiness has become a high stakes game with enormous potential revenues—and almost equal potential for revenue loss. Studies have demonstrated, for example, that 40% of online customers will abandon a transaction if they experience

undue performance problems, and EMA research shows that for a business-critical application, such as a commercial stock trading site, a fourfold decrease in performance can result in a \$10 million loss in a single hour. Customers give up on the site and take their business to a competing site where their stock trade transactions can be completed.

With companies trusting significant revenue to their online presence, ensuring optimal site performance has become a business priority. However, Web technology changes so quickly that this is easier said than done. Products designed to monitor and manage high-performance Web applications have had trouble keeping up with technology's rapid innovations and the sometimes unpredictable nature of the technology adoption curve.

Web 2.0 is an example. This is a term most often applied to newer types of Web content that are dynamic and flexible compared to the primarily static capabilities of early Web pages. Web 2.0 includes Rich Internet Applications (RIAs) such as AJAX, Flash, JavaScript, and Flex, all of which add interactive capabilities and polished look-and-feel to Web pages. While RIAs are foundational to the sophisticated interactive capabilities of sites such as Google Maps, they can be resource-intensive compared to more traditional Web page content, making performance a concern.

Managing these new types of content pushes the limits of application management vendors. With limited Research and Development (R&D) resources, they have to plan and prioritize which types of Web 2.0 content their product lines will address and when. The result is that IT organizations often find themselves developing and attempting to support Web applications based on technology that their application management products don't "understand" and can't manage.

## Background

AlertSite, founded in 1998, provides Web performance measurement, systems monitoring and security vulnerability scanning products. With over 2000 customers representing companies of all sizes, and remote monitoring facilities at 30 separate locations worldwide, AlertSite helps insure a high quality Web application experience all day, every day.

DéjàClick, AlertSite's active synthetic monitoring solution, was introduced to the marketplace in early 2007. DéjàClick is an "inside the browser" Web performance monitoring solution that

captures Web page content from the perspective of the end-user. It features a transaction recording and playback system that automatically builds production-grade scripts that are uploaded to the AlertSite monitoring platform to be run from monitoring stations worldwide. As scripts run, their results can be used to generate alerts, reports, and to feed “real user” information to complementary management platforms.

AlertSite engineered DéjàClick from the ground up to address the dynamic nature and inherent flexibility of today’s Web applications. Unlike other vendors with long product development cycles, AlertSite mitigated resource limitations by leveraging standards and Open Source. DéjàClick is built on a Firefox foundation. Firefox is an open, browser-based platform that is supported and continually updated by the Open Source community. As new types of Web content emerge, the Firefox developers update the code base to address it. In conjunction with this ongoing maintenance cycle, AlertSite developers

update DéjàClick to address the Firefox updates, ensuring that DéjàClick is updated to support new kinds of Web content almost as soon as the Firefox browser is updated. This ensures that AlertSite’s customers always have the latest software version—an “always current” alternative to the inflexible platforms of some competitors. The result is a robust solution that is updated on a weekly basis, on average, and that can support new technology almost from the day it is available. This is in contrast to some competitors which have longer development cycles and might take months to address new entries in the Web 2.0 technology lineup.

While Web 2.0 and related dynamic content have ushered in a new era of Web experience, they also present significant management challenges. On many Websites, for example, Web pages are

different each time they are displayed. Live content including ads, shopping carts, pictures and news headlines are constantly updated, creating a varied and compelling Web experience. This dynamism can wreak havoc with traditional synthetic testing solutions that rely on end-user recorded scripts to do their work.

Within such products, as scripts are created, every component on every Web page is tabulated. When the scripts run, recorded content is matched against the content found on the site. The theory is that if the two don’t match, there is a problem with the site. However, with today’s dynamic sites that change from visit to visit, products have to be able to accommodate a reasonable degree of content variation. Otherwise they time out or trigger “false alarms” on Web pages that are actually performing normally. Some products do this well, and some do not, and this is one area where DéjàClick shines.

## DéjàClick’s Differentiators and Benefits

DéjàClick’s design and versatility address both evolving technology and the dynamic nature of today’s Web deployments. Built-in adaptive capabilities ensure that DéjàClick scripts can manage sites with highly variable content via user-specified thresholds that quantify acceptable levels of change tolerance. DéjàClick builds on the “active” synthetic monitoring concept, preserving all of its benefits, such as protection of confidential information, while minimizing or eliminating the challenges of competing products.

DéjàClick’s differentiators include:

- *User recorded scripts:* DéjàClick’s script recording capabilities are a less expensive alternative to vendors that require their own engineers create scripts. The scripting tool includes multiple capabilities that ensure that scripts can accommodate changing content and remain viable within user-specified thresholds. Playback results are displayed in a simple, easy to read format. (See Figure 1).
- *Feature-set tailored for dynamic content reduces or eliminates “false alarms” and insures that only valid alerts are triggered:*
  - *Dynamic menus:* DéjàClick scripts accommodate Websites with cascading menus that are dynamically generated in real time.
  - *Scoring:* DéjàClick’s scoring capabilities ensure that reasonable variation in page content does not generate false alarms. The process centers around three proprietary algorithms which together generate highly reliable scores on content viability. The combined scores are compared to

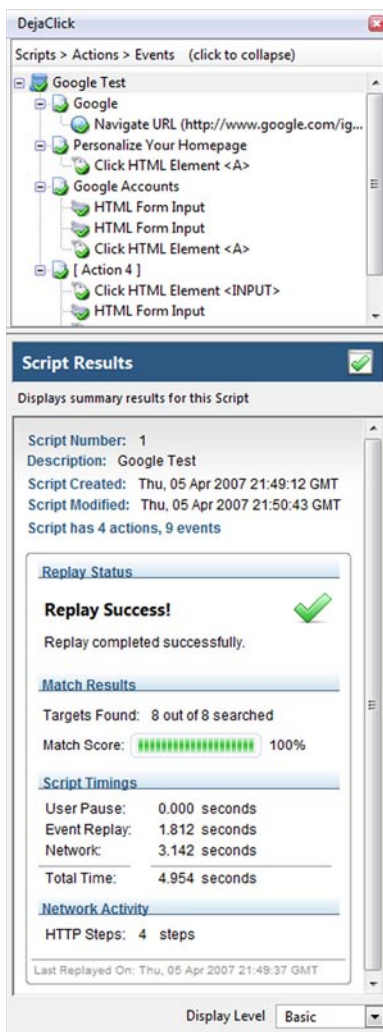


Figure 1: Playback Sidebar with Results

user-entered thresholds, and as long as the match rate is within threshold, no alarm is generated.

- **Keywords:** Keywords reduce false alarms by specifying particular content that, if found, indicates that a page has been completed successfully.
- **Autosuggest:** During script recording, autosuggest provides and pre-validates keywords based on elements on a page. If DéjàClick hovers over an area, it can capture that area and use it as part of the replay. (See Figure 2.) This is particularly useful for content that is included in the Web page coding, but doesn't appear on the screen, such as HTML entities, and AJAX and JavaScript rendered content.
- *Scripts run from AlertSite-maintained servers:* There is no need for customers to invest in servers and/or staff to monitor from remote locations. AlertSite provides monitoring sites in 30 cities worldwide.
- *Scripts immediately available:* Once a script is generated and edited, the user uploads it to the AlertSite Web hosting/monitoring platform. Scripts can begin monitoring sites immediately, without the four or five day delay characteristic of some competing solutions.
- *Multiple notification options:* The AlertSite platform can send out alerts and notifications to a wide variety of platforms including email, voice system software, and SMS messaging.
- *Continuous updates:* Because of its Firefox foundation, DéjàClick evolves along with Web technology. As updates are made to the Firefox browser by the Open Source

community, those changes are added to DéjàClick as well. Updates average once a week, and are done automatically.

- *Standards-based:* Firefox was chosen as the foundation for DéjàClick because its open nature, as opposed to Microsoft Explorer's "Black Box," was instrumental to building a powerful product. A standards-based solution also means that the product is compatible with other standards-based deployments, such as those built over Web Services and Service Oriented Architectures (SOA).
- *Rich reporting:* Increasingly, business owners as well as operations personnel need insight into Web performance. For example, while a sales manager requires overall site performance statistics, Website administrators need to monitor utilization trends to justify upgrade expenditures. DéjàClick accommodates reports targeted at diverse areas of the business.
- *Stand-alone or complementary to Web analytics solutions:* While DéjàClick provides valuable end-user perspective, it also adds value when used in conjunction with products that monitor from inside the firewall. For example, together with passive monitoring appliances, AlertSite monitors from multiple cities and inserts a user tag into the DéjàClick script. While AlertSite shows availability and performance outside the firewall, the passive monitoring system shows the same transaction from inside the corporate network. This multi-dimensional perspective adds cross-enterprise analytic capabilities that can dramatically impact the amount of time required for root cause analysis.

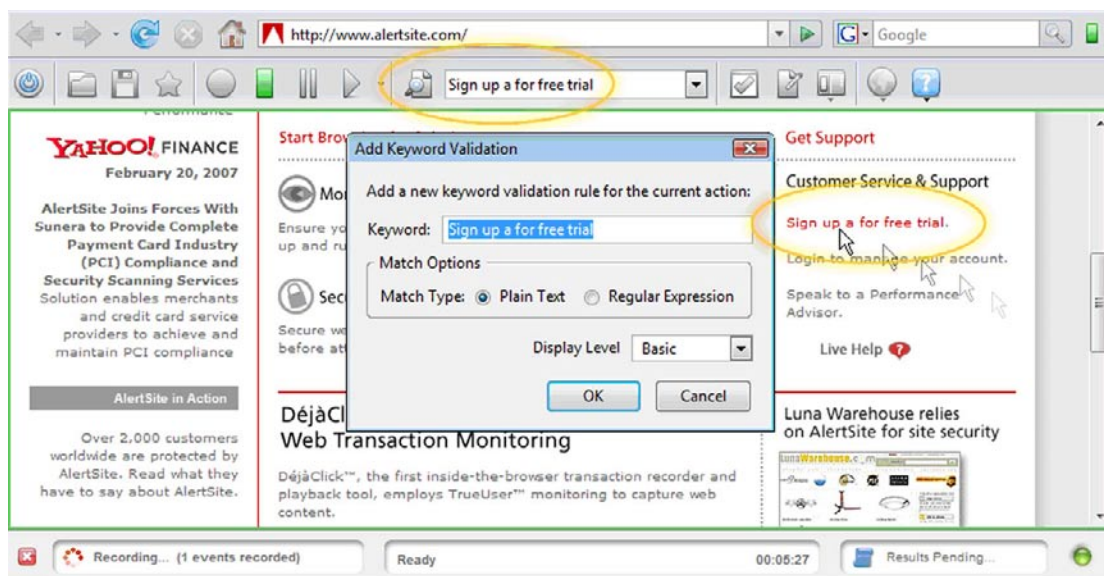


Figure 2: DéjàClick Autosuggest

## EMA's Perspective

As technology evolves and the Web morphs into an enormous collaboration platform, the pressure is on for Web performance monitoring solutions to change with the times. The research is showing that for companies that rely heavily on the Web to deliver their products, Web performance translates directly to revenue. For this reason, products that address the changing face of technology with simple to deploy, cost-effective technology yield high Return on Investment (ROI) and tend to be easy to justify cost-wise.

For companies considering such a purchase, DéjàClick is definitely an intriguing contender. Built over Firefox, an Open Source platform, DéjàClick enjoys several advantages over competing products. Without an Open Source foundation, companies are always slightly behind the curve, struggling to keep up with technology additions and enhancements. Instead, AlertSite has leveraged the insight, expertise and continuous development of the Open Source community to assist with this process, resulting in an always timely solution that is difficult for competitors to match.

Scoring, keywords, autosuggest, and other functionality specifically designed to manage dynamic content are a real plus for administrators struggling to monitor “real world” Web applications. Integration with Web analytics products already in the enterprise provides an additional, multi-dimensional perspective that can materially reduce the time required for root cause analysis, and rich reporting makes the solution useful to multiple areas of the business.

One caveat is that companies considering DéjàClick should specifically check to make sure their existing products integrate to the AlertSite platform, if that is functionality they require. Another would be to weigh the advantages of scripts maintained in-house versus those maintained by trained engineers. That being said, DéjàClick is an innovative and well-thought-out solution to a problem plaguing many companies—that of optimizing Web performance. Combined with AlertSite's competitive price points, this solution can be a compelling option for companies of any size.

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