

# Web Accessibility from the Start

## Solution for Online Accessibility links Section 508 testing, content management

**Integrated content and policy management tools provide conformance checks throughout Web life-cycle.**

One of the quirky legacies of the Internet revolution was that it outran some of the communities for which it seemed most ideally suited. People living too far from an Internet access point were one group; those isolated from their computers because of a physical disability – say blindness, or even a broken arm – were another.

Fortunately, at least in the U.S., policymakers have addressed this inequality with the passage in 2001 of an amendment to the Americans with Disabilities Act. Under Section 508 of the amendment, Congress required agencies to make government information – including government Web sites – accessible to all Americans with disabilities.

For the vision-impaired, it meant that a graphic, picture or movie, even a Java applet, had to be described accurately in a text format that could then be processed by a screen reader. Information also had to conform to a standard that makers of such assistive tools could incorporate.

A tall order, for sure, even if the amount of information to be made accessible was a finite stockpile. But in fact the sheer magnitude of information that now needs to be made accessible is staggering – and growing exponentially. Today, in the realm of information dissemination, most agencies face a quality assurance problem rolled inside a content management crisis.

“One of the challenges facing government agencies in meeting quality standards for their Web sites is that they have empowered so many people as Web content creators,” says Dana Louise Simberkoff, vice president of business development for Concord, N.H.-based HiSoftware Co., which makes quality

### SOA ADVANTAGE

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## HiSoftware: The Policy Minder

*HiSoftware Co. is one of the companies helping bring the untamed Internet into its adulthood. The Concord, N.H.-based company was started six years ago to market software for testing metadata compliance. Now it has expanded its portfolio to cover policy management of privacy, interoperability, as well as accessibility, qualities that will help turn the federal Internet into an organized, reliable, user-sensitive medium.*

“We see it as more of a quality assurance tool for any Web content that you are creating,” says Dana Louise Simberkoff, vice president of business development for HiSoftware. Working with Microsoft, HiSoftware has created the Solution for Online Accessibility (SOA), a package of tools that will enable users to put checks for Section 508 compliance right into the agency web development workflow.

*HiSoftware brings to the SOA a set of tools that can be integrated out of the box, including a client-driven desktop solution that allows agency developers to run dynamic tests for Section 508 conformance; a set of automated tools for remote testing and monitoring, and a program for repairing defective content.*

*On the Web development side, HiSoftware’s AccVerify is an enterprise test management system that validates Web architecture and content against Section 508 standards. The system can differentiate between all content types and is integrated with embedded viewers to complete the entire validation process.*

*On the server side, AccMonitor works with Microsoft Content Management Server to provide integrated checking and continuous monitoring of the site. It uses a software crawler to explore Web sites to report on their accessibility status. It is automated and designed to run with minimal user interaction, which particularly benefits agencies that need to monitor multiple Web servers. It can be scheduled to crawl Web sites daily, weekly, or monthly. Users can obtain on-demand reports on the accessibility status of their Web pages. The reports include the exact locations of the non-compliant Web elements so corrections can be made promptly.*

*Once a repair is identified, AccMonitor can guide Web content developers through the repair process. The Wizard shows why a Web element failed compliance and what is needed to do to fix it. Technical expertise is unnecessary as the Wizard insert the appropriate information into the HTML itself.*

*HiSoftware tools can be integrated out of the box with Microsoft Office, Content Management Server, SharePoint Portal Server, FrontPage, Visual Studio, and Visual Studio .NET*

## The Presidio: Managing Costs with .NET Solutions

The Presidio of San Francisco, once the Army’s largest installation on the West Coast, today is the country’s largest national park in an urban setting, with 5 million annual visitors, 2,000 private residences, and 210 commercial tenants. Like most small federal institutions, cost management is a priority. Therefore, as part of its e-government strategy, the Presidio is running several automated, Web-based applications that use Microsoft’s .NET platform to manage content and link directly into legacy systems and databases. Applications include a police alert reporting system and an electronic procurement status reporting system. The Presidio uses Microsoft eCommerce and Content Management Server, as well as the Solution for Online Accessibility, a solution for maintaining Section 508 compliance.



assurance tools. "Many any of those agencies are also decentralized so it becomes a challenge to really implement any type of policy across that broad IT environment."

### Soup-to-Nuts Solution

To address the challenge of Section 508 compliance, Microsoft Corp. has joined forces with HiSoftware to offer government Web developers a solution that integrates Microsoft's Web development technologies with HiSoftware's quality assurance tools. The resulting Solution for Online Accessibility (SOA) is an integrated bundle of Microsoft and HiSoftware products that build in Section 508 testing and monitoring from the start of Web development to the latest bit of content as it is added.

Using this technology solution, Web content creators and subject matter experts no longer have to double as Web technicians. In the past, "people that know and create the content have either had to learn HTML programming or they've had to give that content to the Web developer to put it on the site," says Microsoft Federal Solution Specialist Margery Reynolds. "Well, it's a different era. We've put content creation, editing, approving AND the quality assurance testing right into the deployment content expert's environment. It's soup-to-nuts."

Using SOA, Web developers might use Microsoft Visual Studio .NET to build Section 508 compliance checking right into Web page templates. A range of notification and enforcement options could be added: For instance, templates could be designed so a content expert could not save a file could that is not 508 compliant. A softer approach might be to provide prompts as part of the save process. In either case, the policy controls are embedded in the site architecture.

For creating Web content itself, authors and designers can use either Internet Explorer, Word 2002, or Word 2003, to check files. "Right from the browser the user can click on the report for HiSoftware's tools to check the content. They don't have to throw it back to the developer or learn to be a developer to test for accessibility," says Simberkoff.

"We've put content creation, editing, approving and quality assurance testing right into SOA."

Margery Reynolds,  
Microsoft

Once the content is launched, SOA tools can monitor a site or a network of sites to ensure there are no broken links or other glitches.

### The 'Curb-Cut' Theory

Although Section 508 is intended to make Web sites accessible to people with disabilities, it has had the effect of improving the overall design of the site. "We use the analogy of curb cuts in sidewalks," says Simberkoff. "Under the (ADA) Act, they're there for people who need to access the sidewalk in a wheel chair, but they benefit a much broader audience, say people riding bicycles or pushing shopping carts."

Another constituency that benefits from the policy are those who access the Web via wireless, mobile phones, or PDAs, from locations where they might not be able to read Web multimedia. A text description would give them a content translation. In the same vein, a person accessing a Web audio presentation from a library computer that is not equipped with a sound card could read a captioned version of the presentation, another one of Section 508's requirements.

"I think the government to a great extent is implementing these solutions because there is a (508) requirement but also because they do find that (Web sites) are generally more available to their users that are accessing information with these alternative methods," says Simberkoff.

In the future, a big beneficiary of the Microsoft-HiSoftware alliance might be developers of emerging XML Web Services, a set of standards for application integration and data re-use over the Internet. Web Services, which Microsoft supports through its .NET initiative, allows one Web site to both "publish" and/or "consume" data or an application — say a spreadsheet or a digital timer app — with a few mouse clicks.

Using SOA-type tools to test for XML Web Services conformance could help expand the use of the standard, which promises to make it much easier to integrate legacy applications and to move content from one Web site or database to another.

Whatever the policy arena that needs to be addressed — Section 508, privacy regs, or even agency-specific rules, the Microsoft-HiSoftware specialists caution that it's better to start managing content now instead of waiting. "It's far, far more expensive and time-consuming to retrofit a site for compliance than to build it into the design," says Microsoft's Reynolds. "It's very important because right now there are agencies and departments that have over 2,000 Web sites under their dot.gov space. In fact they are growing like mushrooms."

## SOA: What's Inside the Bundle?

The Solution for Online Accessibility contains a complete solution for managing Section 508 compliance from the start of the Web site development planning to the last piece of added content.

All products are integrated out of the box, with no coding required. For Web site development and content creation, SOA includes:

- Web architecture: Microsoft Content Management Server running on Microsoft SQL Server and Internet Information Server.
- Web construction: Microsoft Visual Studio .NET, or the Microsoft Developer Network, (MSDN) Universal Subscription, for smaller developers.
- Content creation: Microsoft Internet Explorer, Microsoft Word 2002, Microsoft Word 2003, or Microsoft SharePoint Portal Environment.
- Section 508 validation: HiSoftware's AccVerify.
- Section 508 monitoring and repair: HiSoftware's AccMonitor.

## FOR MORE INFORMATION

To learn more about SOA and its components, to request a demonstration CD, or to speak to a sales representative, please contact [fedsol@microsoft.com](mailto:fedsol@microsoft.com) or visit the SOA Web sites at [www.hisoftware.com/soa](http://www.hisoftware.com/soa) or [www.microsoftgovernment.com/soa1](http://www.microsoftgovernment.com/soa1)