

Case Study:



The NYS Forum Builds a Validation Tool for Testing Compliance with State Standards

QUICK FACTS

Customer

NYS Forum
New York State
Chief Information
Officer/Office for
Technology
(CIO/OFT)

Industry

State and Local
Government

Application

Web Accessibility

Solutions

Online Validation Tool

AccRepair®

Background

As governments rely more on Web-based technologies for information and service delivery, they must implement strategies to assure all users can fully access Web content. For many, making accessible Web development a standard practice can seem daunting. The NYS Forum built a holistic Web accessibility program that includes standard support, training, technical resources, and automated testing tools that streamline testing and remediation.

The Business Problem

The NYS Forum has been a strong advocate and key organization involved in sharing information on the importance of accessible information for people with disabilities and in developing strategies to disseminate information and provide training to State government.

The problem confronted by New York's web developers stemmed from the fact that the state's standards were a hybrid of other standards, thus no single testing tool was available or sufficient for testing compliance. This led to a significant investment of time on the part of New York's government web developers for state compliance testing.

The NYS Forum's Methodology for Finding a Solution

New York State's Web accessibility policy was modified in 2004 to require compliance with 14 custom standards, taken from both the Worldwide Web Consortium's (W3C) Web Content Accessibility Guidelines (WCAG) 1.0 and U.S. Section 508. Additionally, some of the selected guidelines had been modified slightly. Due to the unique hybrid nature of New York's standards and the custom modifications there was no single tool that could test against New York's accessibility standard. This situation significantly hampered compliance as few Web developers understood the standards well enough to identify which tests were relevant and which were not.

The NYS Forum's Webmasters' Guild and the Forum's IT Accessibility Committee co-sponsored a survey of Web developers across

NYS government and Higher Educational facilities. The survey generated two significant products: a white paper entitled Mastering the Web Revolution in New York State Agencies, and a set of recommendations to advance both Web development and Web accessibility.

One of the recommendations from the white paper included creating a validation tool that specifically tested for New York's standards. The Committees convened a multi-agency group to establish requirements for an automated tool to test web content against the NYS standards and, where possible, remediate accessibility problems with State agency Web sites. Shortly thereafter work began to develop an RFP for selecting a contractor to develop the recommended NYS-specific tool.

The validation tool proposal called for the development and/or customization of a desktop-based tool to test intranets and content behind firewalls, with some automated remediation capabilities, and an online-based tool that could be used to check published content. In addition, the proposal required training, reporting, and maintenance capabilities.

Proposals from multiple vendors were evaluated by a team of volunteers including Web developers from NYS agencies, State University of New York representatives and NY State agency managers. Ultimately, HiSoftware was selected to build the NYS-specific tools using their AccRepair® product, with customized reports testing specifically to New York's standards for the desktop component.

Gregory Benson, Jr., executive director of The NYS Forum, underscored the importance of the compliance testing tool, "As more state and local government information and services migrate to the Internet, equitable access for all is essential," said Benson. "Viewing this as a priority, The NYS Forum has worked in partnership with the NYS Office for Technology and Office of the State CIO to create state standards that address Web accessibility and usability for the disabled. We were pleased to have worked with HiSoftware and the best of New York State's government Web development staff on the creation of this

compliance testing tool. We are confident that his has and will continue to contribute to the efficiency and substantial cost savings for those who create the thousands of state and local government Web pages for public access.”

The Bottom Line

The application resulting from this project is the NYS Forum Validation Tool powered by HiSoftware. In addition to providing two ways to test content – the desktop and the online versions – the validation tool provides links to other resources, including colorblindness testers, and best practice advice on how to best repair errors to comply with the NYS standards.

The online tool, while limited to public sites, is very easy to use and can be documented as saving considerable fiscal and human resources—a key consideration in this difficult environment for New York and all states across the country. Both applications provide summary reporting capabilities. Each agency has an agency administrator who approves access to the tool for agency employees and contractors working on web content for the agency. Agency administrators can use the online tool administrator’s interface to generate reports on validation activities and results. The NYS Forum Validation Tool Administrators can access aggregate information on which areas yield the most errors, in order to target their training efforts. Individual agency information is not accessible to the Forum administrators.

Both applications can also test to full versions of the two de facto standards for accessibility: the W3C’s WCAG and U.S. Section 508. The ability to test for Section 508 compliance is especially useful for those agencies or campuses administering federally-funded programs. Both versions of the tools can also test pages in batch mode. The desktop application includes some capabilities for automated remediation, and both tools can check links.

The applications also provide a checklist for those items that require human judgment (e.g. whether the text provided for an image’s alt attribute is accurate and meaningful, etc.), along with links to accessories such as a tool that evaluates the “fog index” of Web content, the W3C’s HTML/XHTML code validator and the W3C’s CSS validator.

Debi Orton, Manager of IT for the NYS Governor’s Office of Employee Relations, said, “Most of the new web developers I hired had never heard of web accessibility. Having the tool available for use solved two problems – I was confident we were providing compliant content, and my new web developers were learning a lot about accessibility in a very practical way.”

About 1,500 scans covering more than 30,000 pages occurred the first six weeks the NYS Forum Validation Tool was available, and nearly 250,000 pages checked in the initial six months. Each check represents the explicit analysis of more than 75 checkpoints. On average, without the tool, Web site developers would have a choice of checking each page and checkpoint by hand, or running multiple checks and sorting through the results for the tests pertinent to the NYS standards. The onerous checking required in the past led many developers to bypass validation entirely.

Benson said, “We had a tremendous response to the Validation tool when it was made available. Over 64 New York state agencies immediately started using the desktop validation tool. In addition, 66 agencies, totaling 324 individual New York state web developers, quickly became registered users of the online tool. We were extremely pleased with the extraordinary results of this successful development effort with HiSoftware and the acceptance of the tool by New York State government’s professional web developers.”

As part of the initial state roll-out of the NYS Validation Tool, the tools were provided to agencies at no cost by The NYS Forum for the first year of the program. State agency administrators, appointed by their CIOs, were responsible for approving both desktop licenses and contractor access to the online tool. They also provide reports to agency managers on usage and results. Additionally, the Forum’s statewide initiative included unlimited State agency access to an online validation tool, and a limited number of copies of HiSoftware’s commercial offering AccRepair, with components to assist with NYS specific standards reporting: NYS MTS and Usability.

With the New York State CIO’s release of Bulletin 09-AQA-01 on May 14, 2009, the State has reaffirmed and underscored the importance of the work undertaken by The New York State Forum and HiSoftware, making the tool available through the New York State contract procurement process. Learn more about the NYS Forum Online Validation Tool at <http://nysf.hisoftware.com>.



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