Transcript: How to Test Websites for Accessibility

Hello, I'm Michael Horton with the GSA Office of Government-wide Policy. Today is January 22nd, 2020, and I'm here to discuss the GSA IT Accessibility Program and this presentation is on Section 508 web testing, Trusted Tester, and automated tools.

For today's agenda, we'll talk a little bit about the GSA IT Accessibility Program and focus on Trusted Tester and the ICT (Information and Communication Technology) testing baseline.

The GSA IT Accessibility Program provides technical assistance to federal agencies through development, deployment, and management of policies, as well as guidance, tools, websites, training, and other resources.

Our primary goal is to improve compliance and conformance with Section 508 of the Rehabilitation Act.

Our goal is to raise awareness. We host Section508.gov, the federal government's primary portal for IT accessibility. We offer resources, such as the technology accessibility playbook, to help agencies implement Section 508.

We lead and coordinate training and professional development, and we convene industry and government to collaborate, network and explore new accessible technologies and best practices, such as universal design.

We support the revised Section 508 standards and we offer tools and resources to help agencies ensure that their websites are compliant with these revised 508 standards.

We host guidance on processes and best practices for building accessible digital products.

We build sustainable programs.

We provide information on how to review section 508 procurement requirements. We host guidance on acquisition regulations.

We manage the Accessibility Requirements Tool -- otherwise known as ART, which helps generate standardized language for procurement. We provide simplified Section 508 languages for solicitations through the Solicitations Requirements Tool or SRT, which evaluates solicitations for accessibility language.

We support agency stakeholders including:

- Agencies Section 508 program managers
- Agency employees
- Heads of federal agencies
- Agency chief information officer or CIO

- Agency chief acquisition officer or CAO
- Agency senior procurement executive

Now we're going to talk a little bit about Trusted Tester.

Before Trusted Tester, there were different approaches and different results; there were inconsistent testing approaches with different test results for the same standards. Users were unable to share test results with other users, mixed messages for vendors and developers on the testing process and test results.

And on this slide, we depict an apple and an orange with those apples and oranges sliced and stacked together to show a graphically kind of this inconsistent testing approach and how it impacts various stakeholders.

So, this brings us to why Trusted Tester. Trusted Tester brings a repeatable test process, a reliable test and reporting tool, scalable training, and a certification exam. The benefits of Trusted Tester provide a documented test approach for Section 508, it minimizes the subjectivity for 508 acceptance criteria, thus creating consistent test results, easy to use testing tools, and we're able to share those test results.

The image on this screen talk about the test process version 5, the testing tools, training and certification exam, on the outside of a container for the harmonized process for revised Section 508 baseline test for accessibility. And this combines web and software test processes, which softwares to be determined soon, the revised Section 508 standards that comprise and harmonize with the Web Content Accessibility Guidelines or WCAG 2.0 Level A and AA.

So why Trusted Tester version 5?

So, in January of 2017 the United States Access Board revised and refreshed the Section 508 standards again harmonizing with WCAG 2.0 A and AA. There's a growing preference for a broader range of operating environments. Across government, there is a growing use of various browser types: Chrome, Internet Explorer, Firefox, among others. There’s a growing need for collaboration and growth of open source tools and HTML5 and Aria Advancements necessitated this change.

So, the roadmap to Trusted Tester version 5. Some of the goals were to break out web and software components to create separate test processes, to create tool agnostic accessibility requirements that harmonized with the baseline, to create tool specific test processes, such as Trusted Tester, determine comprehensive requirements for test coverage, and enable unambiguous test result determinations.

The roadmap graphic here begins with the establishment of an interagency working group. The next step in this road map was to create a baseline that aligns with the revised Section 508 standards, then identify or develop those testing tools, create that test process, and then finally develop online training and certification exam tracks.

This brings us to the Trusted Tester for the web on Windows course track. Key training points include:

- The entire training is online
- Students may self-register for an account
- Students may self-enroll in their track
- There is incremental delivery
- The review questions present only missed concepts

So as you're working through the exam, you'll be presented with concepts that you have missed during the training, and you must score 90% on the practice exam to advance to the certification exam.

The next item we're going to cover is the ICT testing baseline. ICT testing baseline for web. The testing baseline is an interagency effort. It is the documented understanding of revised Section 508 web requirements. Determines what to test in multiple situation, including:

- Where evaluation guidance exists for test results
- For development of test processes, or
- When no testing tools have yet been identified

The baseline draft status can be found at
https://section508coordinators.github.io/ICTTestingbaseline

So, what is the testing baseline? The testing baseline comprises the revised Section 508 standards, again harmonizing with WCAG 2.0, plus what needs to be checked, and this equals the ICT Testing baseline. And we'll talk about that a little bit more.

The baseline tests are useful for developing a test process. It groups requirements together, so element categories where possible. It identifies applicable requirements and what to check, otherwise known as sufficient techniques for each applicable requirement. For example, the baseline tests for forms includes 8 WCAG success criterias, and they range across:

- Accessible name and description
- Visual label that is descriptive
- Error Handling
- Identification and suggestions, and
- Minimize and Prevents errors

And so the baseline attempts to group these together to help in the development of a test process.

So, the flow from the baseline to a test process is represented [in this formula]. We have the baseline (what to test), plus how to test, plus the specific testing tools you will use in how to test, and that equals our test process.

Baseline aligned test processes enable consistency across test processes as they must cover all 508 requirements and should yield the same test results for all requirements. They validate with baseline test cases, which are in progress, and they verify automated scan tool processes

are possible by identifying which tests are automated and include manual evaluation procedures where needed.

This highlights the current state of automated tools where there is a limit of about 30% of the baseline tests can be performed automatically and the other 70% would need to be accounted for in a manual evaluation process. Using automated tools and a baseline aligned test process, we have a graphic on the screen with a person climbing a ladder holding a little briefcase and they're about 30 percent of the way up this ladder. This represents automated tools and the limits to which they can evaluate. Next to it is another ladder with this person climbing up there holding their briefcase and above them is a Trusted Tester reaching down to help them complete that process. This is an example of combining both automated and manual inspection when evaluating against the baseline.

Baseline aligned test process results. In this graphic, the ICT testing baseline is connected to Trusted Tester, Scan Tool A process, and Scan Tool B process. All three of those link to a consistent 508 test result. So again, you can use just a manual process, a scanning tool, or multiple scanning tools in combination to create consistent test results.

Contacts and resources:

The DHS online training site for self-enrollment and self-registration is at https://training.section508testing.net

To contact the office of Accessible Systems and Technology or OAST their email address is accessibility@hq.dhs.gov and can be found at https://dhs.gov/accessibility

To contact the United States Access Board on Section 508 standards, their email address is 508@access-board.gov or through their website at https://access-board.gov

And to contact the GSA Government-wide IT Accessibility Program, we can be reached at section.508@gsa.gov or through our website https://section508.gov

Thank you very much and have a wonderful day.