

# Welcome!

## Section 508 Best Practices Webinar Series

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# Captioning

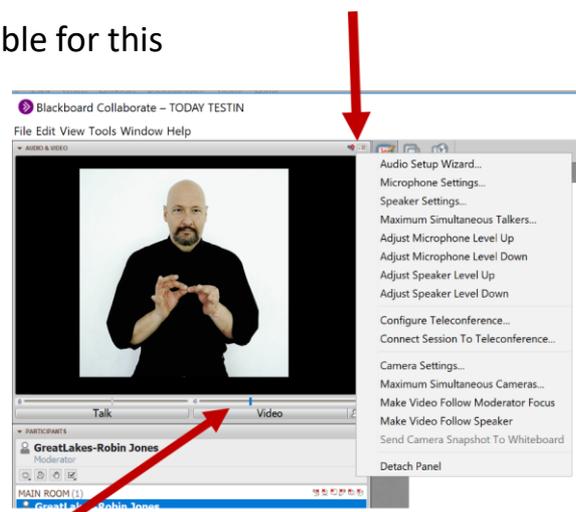
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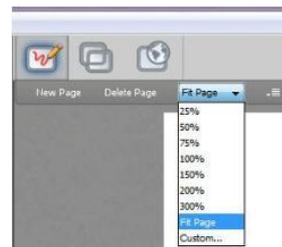
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The default is "fit page".



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- Email: [info@adaconferences.org](mailto:info@adaconferences.org); or
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# Welcome

This webinar is part of a series showcasing “Best Practices in Federal Section 508 Implementation”. Other presentations can be viewed at:

- [www.adaconferences.org/CIOC/archives](http://www.adaconferences.org/CIOC/archives) and
  - [www.fedlink.org/allqual/resource-shared-webinars.cfm](http://www.fedlink.org/allqual/resource-shared-webinars.cfm)
- A best practice is a policy, process, procedure or technique proven effective over time and repeatable by multiple agencies.
  - A best practice is generalized so that diverse agencies may use it in their own organizations but specific enough to provide useful guidance and instruction.
  - The CIO Council’s Accessibility Community of Practice has published a library of 508 Best Practices at [www.Section508.gov](http://www.Section508.gov).

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# Section 508 Best Practices Webinars

Webinars are bi-monthly:

- January, March, May, July, September, November

Next Webinar: July 30, 2019

- Topic: Accessible Documents– PDF
- Time: 1:00 to 2:30 p.m. Eastern

This webinar series is a collaborative program between the Accessibility Community of Practice of the CIO Council and The U.S. Access Board.

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# Trusted Tester Version 5.0

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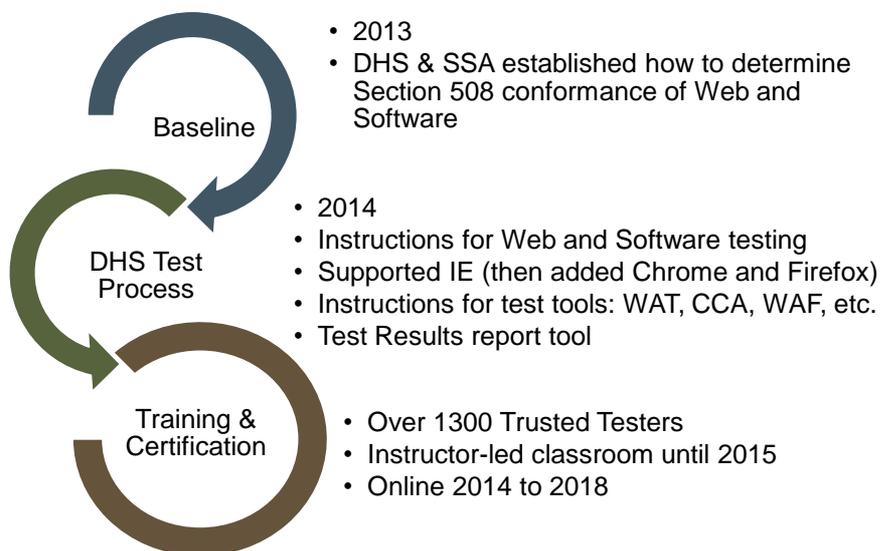
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# Agenda

- DHS Trusted Tester
- Why Trusted Tester v5?
- Approach to developing TTv5 and Goals
- TTv5 Highlights and ANDI
- Where are we today?
- More about the Baseline

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# DHS Trusted Tester



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## DHS Trusted Tester 3.x/4.x

- Manual Section 508 Conformance Test Process for Web and Software
  - Aligned to original Section 508 requirements
  - Decommissioned online training and certification on **9/30/2018**
- Federal CIO Council Accessibility Best Practice Subcommittee approved the Harmonized Baselines and Trusted Tester Processes
- 1300+ Trusted Testers worldwide

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## Why DHS Trusted Tester v5?

- Section 508 Standards Refresh in Jan 2017
- Growing preference for broader range of operating environments
- Growing need for collaboration and growth of open-source tools
- HTML5 and ARIA advancement

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## Approach to developing DHS TTv5

1. Establish Interagency Workgroup
2. Align to Revised Section 508 Standards
3. Create new Baseline to align with Revised Standards
4. Identify/develop test tools
5. Create new Test Process
6. Develop online training and certification exam tracks

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## DHS Trusted Tester v5 Goals

- Adherence to the WCAG Success Criteria and conformance requirements
- Development of tool-agnostic requirements (Harmonized Baseline)
- Development of a tool-specific test process (Trusted Tester)
- Comprehensive test coverage of the requirements
- Unambiguous test result determinations
- Breakout Web and Software components to create separate test processes

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# DHS TTv5 Highlights

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## DHS TTv4 Testing Approach

- Each accessibility coding technique checked for an element
- Example: <img> element
- Tools used: WAT and WAF, aria favelet
- Check EACH techniques used to achieve conformance with a different tool:
  - ALT
  - ARIA (aria-labelledby, aria-label, aria-describedby)
  - TITLE
  - LONGDESC

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# Accessible Name and Description

- Properties of an element computed by browser and provided for assistive technology
  - **Accessible Name:** the name of the user interface element
  - **Accessible Description:** provides additional information about an interface element, complements the accessible name
- W3C Specifications
  - HTML Accessibility API Mappings
    - (<https://www.w3.org/TR/html-aam-1.0/>)
  - Accessible Name and Description Computation
    - (<https://www.w3.org/TR/accname-1.1/>)
  - Accessible Rich Internet Applications (ARIA)
    - (<http://www.w3.org/TR/wai-aria-1.1/>)

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# Accessible Name - img

## img Element Accessible Name Computation

1. (ARIA) The **img** element's valid [aria-labelledby](#) attribute.
  - Next is a non empty [aria-label](#) attribute.
2. (ALT) Otherwise use **alt** attribute
3. (TITLE) Otherwise use **title** attribute
4. If none of the above yield a usable text string there is no [accessible name](#)

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# Accessible Description - img

## **img** Element Accessible Description Computation

1. (ARIA) The element's valid [aria-describedby](#) attribute.
2. (TITLE) Otherwise use the **title** attribute if it wasn't used as the [accessible name](#)
3. If none of the above yield a usable text string there is no [accessible description](#).

(Note: LONGDESC is not a part of the computation.)

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# ARIA-ROLE in HTML

- The ROLE of an element determines the accessible name and description computation that will be used.
- These attributes hide an <img> from assistive technology and should only be used for decorative images:
  - **Role="presentation"**
  - **Role="none"**
  - **Aria-hidden="true"**
- **Role="img"** assigns properties of an image to an element

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Tester, compute the accessible name and description...of everything



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## ANDI to the Rescue!

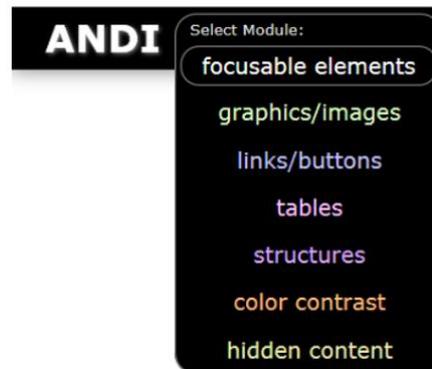
- ANDI (Accessible Name & Description Inspector) is a free tool to test web content for accessibility.
- U.S. Social Security Administration



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# ANDI Features

- Browser bookmarklet
- Computes accessible name and description
- Accessibility Alerts for Developers
- Modules for testing



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## ANDI: focusable elements

Two screenshots of the ANDI bookmarklet interface. The top screenshot shows the "focusable elements" module active on a page with a form. It displays the element: `<input type="text">`, "Focusable Elements Found: 23", and "Accessibility Components: 4". The ANDI Output shows: "Your Name: As shown on your Social Security Card. First". The bottom screenshot shows the same module on a different page, displaying "Focusable Elements Found: 108" and "Accessibility Alerts: 28". It lists three alerts: 1. Textbox has no accessible name, 2. Image has no accessible name, and 3. Link has no accessible name. The ANDI Output shows: "Your Name (required)".

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# ANDI: graphics/images

The screenshot shows the gANDI tool interface. The top bar includes the gANDI logo, a dropdown menu set to 'graphics/images', and options for 'hide 5 inline', 'hide 8 background', and 'find 8 background'. On the right, there are icons for refresh, settings, chat, help, and close. The main panel displays the following information:

- Element: <a>
- Accessibility Components: 2
  - title: The United States Department of Justice
  - child <img> alt: The United States Department of Justice
- ANDI Output:
  - The United States Department of Justice

On the right side of the panel, it states: 'Images Found: 13', '5 inline images, 5 image links, 8 background-images', 'Accessibility Alerts: 1', and 'Graphics Alerts: (1)'. Below this, a preview of the website header is shown, featuring the Department of Justice seal and logo, a search bar, and a navigation menu with links for HOME, ABOUT, AGENCIES, RESOURCES, NEWS, CAREERS, and CONTACT. A pink box highlights the Department of Justice logo and seal.

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# ANDI: tables

The screenshot shows the tANDI tool interface. The top bar includes the tANDI logo, a dropdown menu set to 'tables', and a 'markup' icon. The main panel displays the following information:

- Element: <td>
- Accessibility Components: 2
  - innerText: January 14
  - headerText: Birthday | by marriage | Beth |
- ANDI Output:
  - Birthday | by marriage | Beth | January 14

Below this, a preview of a table is shown. The table is titled 'Shelly's Daughters' and has three columns: 'Name', 'Age', and 'Birthday'. The table content is as follows:

	Name	Age	Birthday
by birth	Jackie	5	April 5
	Beth	8	January 14
by marriage	Beth	8	January 14

A pink box highlights the 'by marriage' row, and a pink box highlights the 'January 14' cell in that row. A pink arrow points from the 'January 14' cell in the 'by marriage' row to the 'January 14' cell in the row above it.

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# ANDI: links/buttons

ANDI links/buttons 5 links 3 buttons

Element: <a>  
Accessibility Components: 1  
href: #fv-content  
ANDI Output:  
Skip to Content

Links Found: 5  
hide links list  
all links skip links (1) external links (4)  
# Alerts Accessible Name & Description href  
1 Skip to Content #fv-content next tab

Skip to Content

Social Security  
The Official Website of the U.S. Social Security Administration

ANDI links/buttons 4 links 2 buttons

Element: <a>  
Accessibility Components: 2  
innerText: Click Here  
href: #  
ANDI Output:  
Click Here ⚠ Link text is vague and does not identify its purpose.

Procrastinationman	N	N	N	N	N
UserExperienceboy	Y	Y	N	Y	N
Inclusionwoman	Y	Y	Y	Y	Y

For more information [Click Here](#)

Previous Next

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# ANDI: structures

ANDI structures 19 headings 7 lists 7 landmarks 0 live regions (reading order) more details

Element: <h2>  
Accessibility Components: 1  
innerText: Table Captions  
ANDI Output:  
Table Captions heading level 2

Headings: 19  
hide outline  
Structure Outline:  
<h2>Marking Up Data Tables</h2>  
<h2>Table Captions</h2>  
<h2>Identify Row and Column Headers</h2>  
<h2>Associate the Data Cells with the Appropriate Headers</h2>  
<h3>The scope attribute</h3>  
<h4>Expanded headers</h4>

Other table markup

Marking Up Data Tables

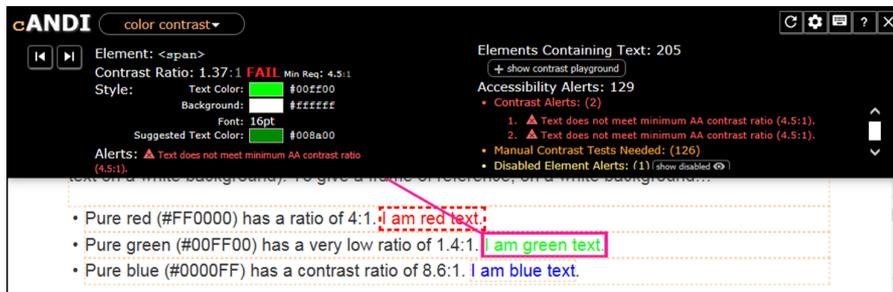
The purpose of data tables is to present tabular information in a grid, or matrix, and to have column or rows that show the meaning of the information in the grid. Sighted users can visually scan a table. They can quickly make visual associations between data in the table and their appropriate row and/or column headers. Someone that cannot see the table cannot make these visual associations, so proper markup must be used to make a programmatic association between elements within the table. When the proper HTML markup is in place, users of screen readers can navigate through data tables one cell at a time, and they will hear the column and row headers spoken to them.

Table Captions

Data tables very often have brief descriptive text before or after the table that indicates the content of that table. This text should be associated to its respective table using the <caption> element. The <caption> element must be the first thing after the opening <table> tag.

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# ANDI: color contrast



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## Get ANDI

### Install ANDI

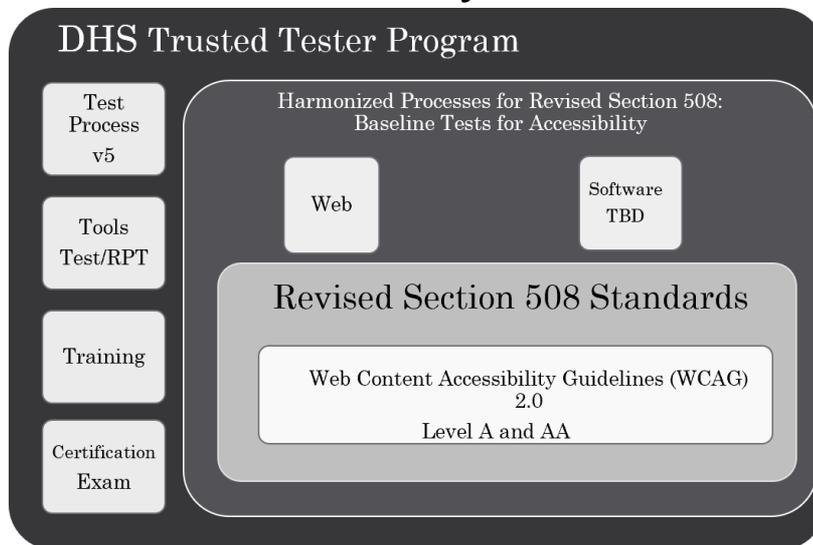
- <https://www.ssa.gov/accessibility/andi/help/install.html>

### ANDI is open source

- <https://github.com/SSAgov/ANDI>
- Contribute to the project
- Secure networks and opting out of auto-updates
- Integrate into existing tools

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# Where are we today?



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## DHS Trusted Tester Program Status

### 2018

- Trusted Tester Process v5.0 created
- Online training Self-Registration and Enrollment
- Trusted Tester Track created
  - FAC049 – “What is Section 508” course
  - FAC051 – “WCAG Standards” course

### 2019 Spring

- Trusted Tester Process training course for Web
- Tools installation course for Web
- Practice Exam and Certification Exam for Web
- Accessibility Conformance Reporting Tool (ACRT)

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# More about the Baseline

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## Harmonized Baseline for Web

- Interagency effort
- Documented understanding of Revised Section 508 Web requirements
- What to Test
  - Evaluation guidance for test results
  - For development of test processes
  - No testing tools identified
- Draft status
  - <https://section508coordinators.github.io/ICTTestingBaseline/>

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# What's in the Baseline?



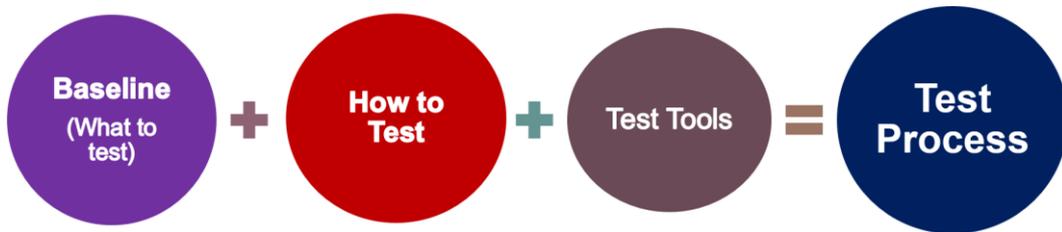
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## Baseline Tests

- Grouped requirements
  - Element categories (where possible)
  - Identify applicable requirements
  - What to check for each applicable requirement
- Some examples:
  - Images (3 WCAG SCs)
  - Forms (7 WCAG SCs)
  - Synchronized Media (4 WCAG SCs and Section 508 503.4)
  - Timed Events (3 WCAG SCs and Conformance Req 5)
- Helpful for developing a test process

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# From Baseline to Test Process



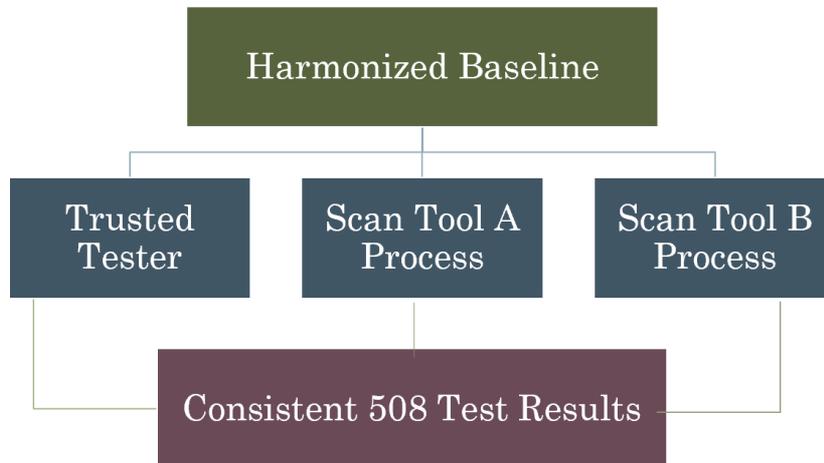
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## Baseline-aligned test processes

- Validated with Baseline test cases (in progress)
- Consistency across test processes
  - Must cover all requirements
  - Yield the same test results for all requirements
- Automated scan tool processes possible
  - Identify which tests are automated
  - Include manual evaluation procedures where needed

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# Baseline aligned Test Process Results



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## Contacts and Resources

- DHS Online Training site (Self-Register/Enroll)
  - <https://training.section508testing.net/>
- Office of Accessible Systems and Technology (OAST)
  - [accessibility@hq.dhs.gov](mailto:accessibility@hq.dhs.gov) (Email)
  - <https://www.dhs.gov/accessibility> (Website)

U.S. Access Board – Section 508 Standards

- [508@access-board.gov](mailto:508@access-board.gov)

ANDI help and how-to

- <https://www.ssa.gov/accessibility/andi/help/howtouse.html>

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**Contact us!**  
**U.S. Access Board**

800-872-2253 (voice), 800-993-2822 (TTY)  
[508@access-board.gov](mailto:508@access-board.gov)

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**Thank you for participating in  
today's webinar**



**Next session:**  
**July 30, 2019**  
**Accessible Documents – PDF**

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