

# 508 Application Test and Reporting Process

This Section 508 Compliance document is designed to be a guide to conducting the requisite testing to verify that your online learning package is compliant with Federal standards. This guide provides the context for the testing (compliance environment), the tools needed to test, and guidance on how to test/use the tools.

All this information is presented via five tabs:

The **508 STANDARDS** tab provides an overview of the Section 508 standards and the WCAG (Worldwide Consortium Accessibility Guidelines) priorities. You can further click on the individual code designations to learn about each individual standard and how it applies to e-learning. You will be provided with simple demonstrations of how to test for each requisite standard.

The **ASSISTIVE TECHNOLOGY** tab will direct you to various resources that will help you better understand what assistive technology is and how it works with Web-based resources.

The **TESTING TOOLS** section provides resources and links to the tools you will be required to use to complete compliance testing of your online learning package.

The **TESTING PROCESSES** tab provides the testing methods that you are required to use when testing modules for compliance.

We hope this guide provides you with the information and tools you need to validate that your online courseware adheres to Federal standards and is accessible to ALL learners.

We hope this tutorial will provide you with the information you need to ensure all your online materials adhere to federal standards and are accessible to ALL learners.



# What is 508?

## **What is 508?**

The purpose of Section 508 is to provide equal access and use of electronic information for people with disabilities and to eliminate barriers to employment.

Web and software application testing is necessary to determine if Section 508 Standards have been met.



Learn more about Section 508:

# 508 Defined

“ Section 508 was enacted to eliminate barriers in information technology, to make available new opportunities for people with disabilities, and to encourage development of technologies that will help achieve these goals.”

Subpart b) of Section 508 is composed of 6 standards: 1194.21-1194.26. The only standard applicable to PDF documents is Standard 1194.22 (Web-based intranet and internet information and applications.)

Each checkpoint has a priority level assigned by the WCAG Working Group based on the checkpoint's impact on accessibility.

## Priority 1

A Web content developer must satisfy this checkpoint. Otherwise, one or more groups will find it impossible to access information in the document. Satisfying this checkpoint is a basic requirement for some groups to be able to use Web documents. An example would be alternative text.

## Priority 2

A Web content developer should satisfy this checkpoint. Otherwise, one or more groups will find it difficult to access information in the document. Satisfying this checkpoint will remove significant barriers to accessing Web documents. An example would be a heading.

## Priority 3

A Web content developer may address this checkpoint. Otherwise, one or more groups will find it somewhat difficult to access information in the document. Satisfying this checkpoint will improve access to Web documents. An example would be a table summary.

For more information regarding 508 compliance standards, visit: <http://www.section508.gov>

**There are two main codes:**

# 1194.21

## Keystrokes, 1194.21a

When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually. All interactive interface elements and functions that can be accessed by mouse must be keyboard accessible for non-mouse users.

Section 1194.21 contains more standards than listed below. Because most of them are not relevant to online learning, only those that are applicable to developing e-learning modules have been included.

## Focus & Tabbing Order, 1194.21c

A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that assistive technology can track focus and focus changes. This can be accomplished through settingreading or tabbing order.

Making web and Flash content available to a screen reader and other keyboard-only users is not, by itself, enough to make your application accessible to those users. You must also take steps to ensure that your content is exposed to assistive technology (AT) in a meaningful sequence. You do this by controlling the reading order. Failing to set the reading order appropriately is one of the most common Section 508 violations.

# 1194.22

Listed below are the checkpoints required to make your online learning modules compliant. Click on the tabs below to learn more about that standard.

# Assistive Technology

## What is Assistive Technology?

Assistive technology refers to any of the devices, software or techniques used in assisting disabled individuals. Assistive technology enables those with disabilities to perform tasks that could be difficult or impossible otherwise.

### Screen Magnification

Screen magnification software connects with the graphical output of a computer to enlarge the content of the screen. This is especially helpful for those who are visually impaired.

### Voice Recognition

Voice recognition software allows a user to speak commands to the computer rather than input through a keyboard or mouse. This program can convert spoken words into text as well.

### Screen Reader

A screen reader is an assistive software that interprets what is displayed on a computer screen by speaking aloud. This technology is designed with the vision impaired user in mind.

# Testing and Validation Tools

Click the buttons below to link to the location where you can download these tools.

**Testing**

Click the buttons below to link to tutorials that provide guidance on using the compliance feature of some common authoring tools.

**Tutorials**

# Testing Processes

Click the buttons below to learn more about each testing process that you will use in validating compliance.

## Testing

The WAT enables easy web page compliance testing.

The OI tool assesses highlighted objects within a software application (i.e. Adobe Flash) for compatibility.

The Impact Report is used to document the result of WAT and OI tests.

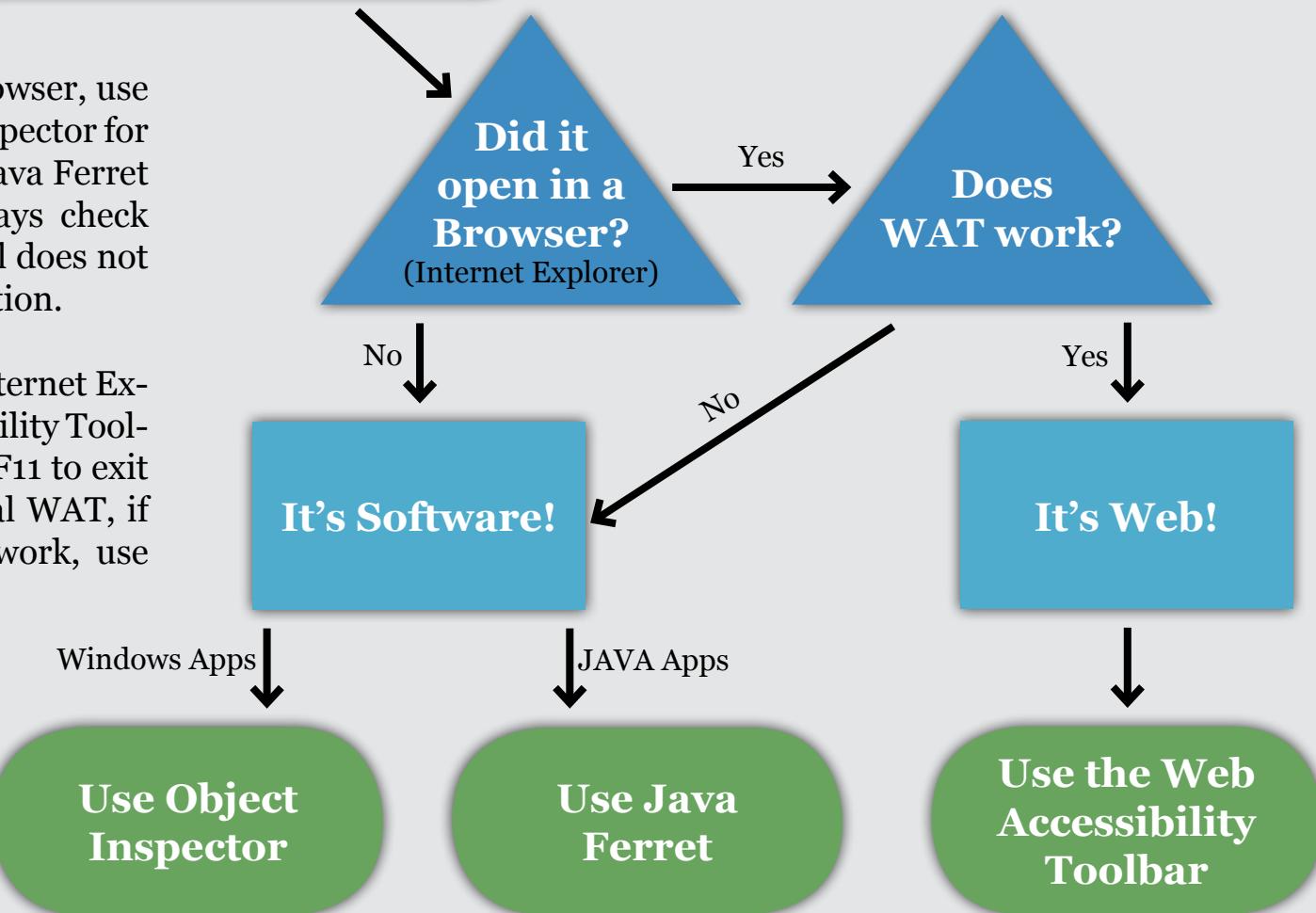
# Which Testing Tool Should I Use?

1. Open the application

2. If it does not open in a browser, use the software tools: Object Inspector for Windows applications and Java Ferret for JAVA applications. Always check the other tools when one tool does not display accessibility information.

3. If it opens in a browser (Internet Explorer) and the Web Accessibility Toolbar works, use WAT. (Press F11 to exit fullscreen browser and reveal WAT, if needed.) If WAT does not work, use the software tools.

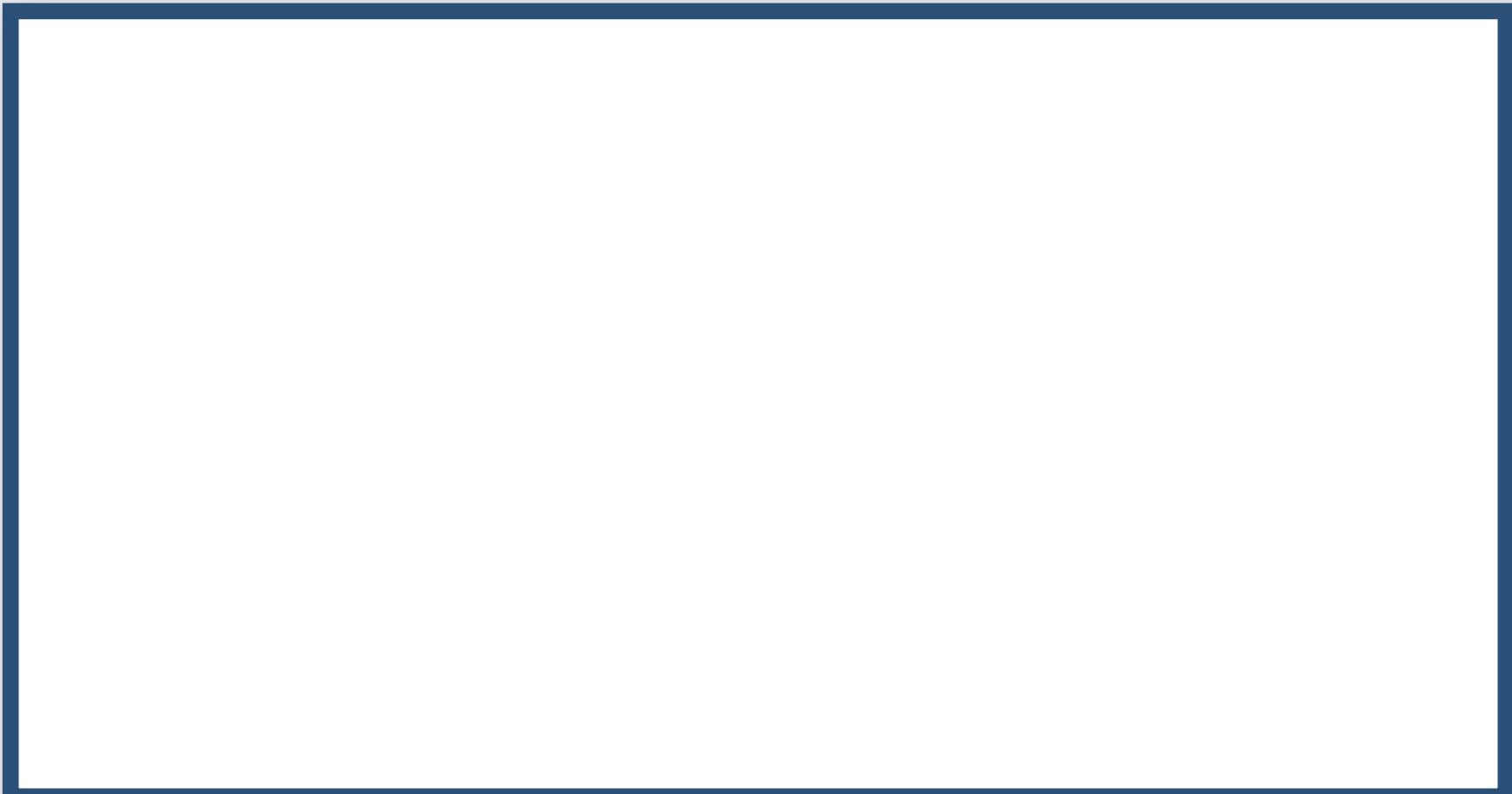
## Open the Application



# Web Accessibility Toolbar



# Object Inspector



# Impact Report

The Impact Report is the document that will provide a snapshot report that indicates those issues have on various groups of individuals.

The screenshot shows a Microsoft Excel spreadsheet titled "508 Impact Guide & Score Sheet". The table has two main sections: "1194.21 Software Standards" and "1194.22 Web Standards". The columns represent different disability groups: Test Results, Blind, Low Vision, Deaf/Hard of Hearing, Mobility, and \*Other. The rows list various accessibility features or tests. A red oval highlights the "1194.22 Web Standards" section.

|                     | Test Results  | Blind        | Low Vision | Deaf/<br>Hard of<br>Hearing | Mobility                    | *Other   |
|---------------------|---|--------------|------------|-----------------------------|-----------------------------|----------|
| 1 Application Name: |   |              |            |                             |                             |          |
| 2                   | <b>Section 508 Software and Web Failures Impact Report</b>  |              |            |                             |                             |          |
| 3                   | The results of testing for 508 Software and Web standards are shown below. C=compliant, NC=not compliant, NA=not applicable. The table shows the impact of 508 standards on specific disability groups. (*Other includes color blindness, cognitive and seizure-related disabilities.) If 1 or more disability groups are unable to use the application due to non-compliance with 508 standards, the application fails. The testing outcome is shown at the bottom of this page. |              |            |                             |                             |          |
| 4                   | <b>1194.21 Software Standards</b>   | Test Results | Blind      | Low Vision                  | Deaf/<br>Hard of<br>Hearing | Mobility |
| 5                   | a. Keyboard access  | NA           | X          |                             |                             | X        |
| 6                   | b1. Accessibility feature Narrator test   | NA           | X          |                             |                             |          |
| 7                   | b2. Accessibility feature High contrast test  | NA           |            | X                           |                             |          |
| 8                   | b3. Accessibility feature Sound Sentry test   | NA           |            |                             | X                           |          |
| 9                   | b4. Accessibility feature Sticky Keys test  | NA           |            |                             |                             | X        |
| 10                  | c. On screen focus  | NA           | X          | X                           |                             | X        |
| 11                  | d. Sufficient information for user interface elements   | NA           | X          |                             |                             | X        |
| 12                  | e. Bit map image consistency  | NA           |            |                             |                             | X        |
| 13                  | f. Textual information through operating system functions   | NA           | X          |                             |                             |          |
| 14                  | g. User color and contrast settings   | NA           |            | X                           |                             |          |
| 15                  | h. Animation alternative  | NA           | X          | X                           |                             |          |
| 16                  | i. Color dependency   | NA           | X          | X                           |                             | X        |
| 17                  | j. Color selection variety  | NA           |            | X                           |                             | X        |
| 18                  | k. Flickering elements  | NA           |            |                             |                             | X        |
| 19                  | l. Label form fields  | NA           | X          |                             |                             |          |
| 20                  | 21 Disabilities Impacted by all 508 Software Failures   |              |            |                             |                             |          |
| 22                  | <b>1194.22 Web Standards</b>  | Test Results | Blind      | Low Vision                  | Deaf/<br>Hard of<br>Hearing | Mobility |
| 23                  | a. Text equivalents   | C            | X          |                             |                             |          |
| 24                  | 508 Impact Guide & Score Sheet  |              |            |                             |                             |          |

# Top Ten Issues



# Begin Testing Now

