

Meet a Member of Our Staff

In past issues we've introduced you to several members of the VHA Section 508 office staff. This month we'd like to introduce Sue Martin.



Q: Tell us a little bit about yourself.

I'm a GRITS, Girl Raised in The South. I grew up with dogs and horses and 20/20 vision. I hold a BA in English from the University of the South, Sewanee. In my youth, my passions were horses, whitewater kayaking, the great outdoors, and literature.

When I was twenty six, my life took a dramatic detour from the life I had always imagined I would lead. Deeply depressed, thinking I was out of options, I put a loaded gun to my head and pulled the trigger. My suicide attempt failed but I had to face living the rest of my life with blindness.

When I speak of the results of that desperate, impetuous act, I speak of "becoming blind" rather than saying that "I lost my sight." Because what I've gained since that day far exceeds what I lost. I met my husband of twenty eight years, Jim, at Western Michigan University, from which we both hold masters degrees in blind rehab. I discovered that I'm a true teacher and enjoyed over twenty years in the field. The greatest thing I've learned since becoming blind is that, with the right attitude, determination, and education, I can do just about anything I put my mind to.

Last month I published my first book. It's a memoir entitled, *Out of the Whirlpool*, a memoir of remorse and

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reconciliation. Because VA has been an integral part of my life, it gets mentioned often in my book. I deal with issues that are important to VA: suicidal depression, traumatic blindness, rehabilitation and recovery.

Q: Tell us about your VA career.

I began my career at VA over thirty years ago. I worked as a volunteer at the Southeastern Blind Rehab Center at the Birmingham VA Medical Center. I returned to that same facility twenty years later as the subject matter expert for the computer access training section. In the intervening twenty years I developed my passion for teaching, for assistive technology, and for accessibility of technology. In 2007, I left the field of rehab to take my current position as a Section 508 analyst.

Q: How did you get involved with Section 508 and accessibility?

In a way, my involvement with Section 508 was a matter of survival. I knew about Section 508 and thought that the law meant that, once I came to work for VA, all of my dealings with inaccessible technology would be over. Although we're a dozen years past the implementation of Section 508, there are still plenty of barriers to those of us with disabilities.

Section 508 is right up there, in terms of importance, with security and privacy. I believe what's needed is recognition of the importance of 508. It has to be recognition from every level in the agency. Section 508 applies to all information and communication technology used in VA. There's a lot of education that's necessary. We've recently released three training courses on Section 508. They are all on the TMS and it is my hope that one or more of them be mandatory for all employees, just as privacy and security courses are.

Q: What accessibility barrier concerns you most? Can you suggest a solution?

Attitude. All too often, we encounter the attitude from developers that 508 means their content has to be boring, that 508 is to be avoided, and that it takes forever to get content tested and approved. We continue to work hard to help change this attitude. We advocate and educate so these barriers can be avoided. Our goal is that Veterans and employees with disabilities have equal access to electronic information.

Q: If you could give just one piece of advice to developers about avoiding accessibility barriers, what would it be?

Consider accessibility early and often. Come to us with your ideas, not your finished products. I'm convinced we have the expertise on our team to help you make just about anything, no matter how cutting edge and creative, Section 508 compliant.

Q: What Section 508 resources would you recommend?

Depending on your role in the agency, I recommend one or more of our training courses on the VA Learning University Talent Management System (TMS)*:

VA Learning University Talent Management System (TMS)

- Item ID# 3855065, *Section 508 – What Is It And Why Is It Important To You?*
- Item ID#1717414, *Testing HTML for Section 508 Compliance*
- Item ID#3855064, *Developing Section 508 Compliant HTML Content*

*TMS courses are available to VA users only.

New Section 508 Courses Available at VA

Two new courses developed by the VHA Section 508 office are available to employees and contractors who have access to the VA's Talent Management System (TMS).

“Developing Section 508 Compliant HTML Content” is an in-depth course designed to teach developers techniques for implementing HTML content that meets the Section 508 requirements. The course provides detailed information about methods that make web pages accessible, and includes pass/fail criteria for testing web-based content to determine if it meets the Section 508 requirements that apply.

The course provides web coding techniques and examples using the Microsoft Windows operating system and the Microsoft Internet Explorer browser. **Note:** To fully benefit from the concepts and techniques in this course, developers will need a working knowledge of HTML, JavaScript, and CSS concepts and methodology.

The course is divided into eleven topic areas: Keyboard access, Focus, User interface controls, Navigation and Frames, Text Equivalents for Non-Text Elements, Color and Contrast, Flashing, Timeouts and Dynamic Content, Multimedia and Embedded Content, Page Structure, Tables, and Alternate Versions.

“Section 508 - What Is It and Why Is It Important To You?” is a course designed to help VA employees and contractors gain an awareness of Section 508 and understand their responsibilities for complying with the law. The course is divided into four lessons: *Introduction, What is Section 508? What Are Your Responsibilities?* and *Getting Help with Section 508*. This course should take no more than an hour to complete.

Item ID #3855064, *“Developing Section 508 Compliant HTML Content”*, and Item ID #3855065, *“Section 508: What is It and Why is It Important to you?”* are both available in the VA Learning University Talent Management System (TMS). For each course, a certificate is available to anyone who successfully completes the final exam.



Avoiding Section 508 Violations

Here are some of the most common Section 508 violations our office helped remediate during the fourth quarter of fiscal year (FY) 2013, and some tips to help you avoid them.

WEB

Ensure that the reading order of content is logical

Reading order means the order in which screen reading software presents a page to the user. Screen readers use the source file to determine reading order. When style sheets are used to position text and images, a screen reader will announce them in the order in which they appear in the source file, regardless of where the style sheet positions them on the screen. To provide content in an accessible reading order, make sure the order of the content in the HTML markup is also the logical order in which the content should be read.

Ensure images provide informative alternative text

All images that convey meaning need to have informative alternative text. For regular images and image links, this can be accomplished using the alt attribute (alt="meaningful text alternative text") used with the img tag. The key here is "meaningful," because a person who cannot see the image and is using a screen reader to browse the web needs to know what the image is or what it is meant to convey. Using alternative text like "image" or "picture" isn't meaningful, since it naturally prompts the question, "of what?" Alternative text should convey a sense of the purpose of the graphic so that it is meaningful to someone who cannot see it. For example, when images of arrows are used for navigation, "back" and "next" provide a better description of the purpose of the images than "left arrow" and "right arrow".

You can find more information about how to avoid Section 508 violations in your web content in the [Testing HTML for Section 508 Compliance](#) course.

PDF

Ensure tags are used to structure content in a valid manner

The only way to create PDFs that are Section 508 compliant

is to tag them for accessibility. Tagged PDFs allow various assistive technologies (AT) to interact with documents and make sense of them.

There is no automated solution for creating accessible PDFs. The most effective way to begin the process is to create a document directly from an authoring application that produces tagged PDFs, such as Microsoft Word, and then convert it to PDF format.

To complete the process of making a document accessible after conversion, it will usually be necessary to touch up the tagging and reading order using a product such as Adobe Acrobat Professional or Net Centric Technologies CommonLook.

Ensure headings are denoted through structure and not implicitly

Structured heading elements help users understand how information is organized and allow them to navigate quickly to specific content. Headings should be structured with H1-H6 heading levels applied uniformly without skipping levels.

If your source document is created in Microsoft Word, applying headings through the Styles dialog box will make the conversion to PDF more accessible. You can also assign the appropriate levels of heading tags in PDFs you create using Adobe Acrobat Professional or NetCentric Technologies CommonLook.

Learn more about using headings and other types of page structure to make PDFs accessible in the [Creating Accessible PDF Documents tutorials](#).

FLASH

Ensure objects and graphics provide textual name, description, role, state, and value

It is important that Flash objects have textual names

and descriptions, and that the role, state and value of interactive objects are also made available for assistive technologies to identify and report to users. Without this information, Flash content will be inaccessible to AT users. Using standard components, such as standard checkboxes and radio buttons, will help ensure such information is accessible.

What do these terms refer to?

- An accessible name in Flash provides a text alternative for a Flash object. If the object contains text, the name should contain that text as well.
- Description contains additional information. Depending on the AT, the description will be read immediately after the name, on request, or not at all.
- Role is the type of control – checkbox, radio button, etc.
- State indicates the status of the control – a checkbox is checked, a radio button is selected, etc.
- Value describes what the control is about – a checkbox that says, “Yes, add me to your mailing list”.
- Ensure text and images of text provide sufficient color contrast

Providing sufficient color between foreground and background is important to many users, especially those with low vision and color blindness. Information may be misinterpreted when the color contrast is not sufficient for users to accurately read the content. Applying the following guidelines is an easy way to ensure sufficient contrast in most cases.

- Text under 18-point requires a ratio of 4.5:1.
- Bold text under 18-point or text that is 18-point or greater requires a contrast ratio of 3:1.
- Use a color contrast checking tool such as one of the following:
 - [SSB Bart Group Color Contrast Checker](#)
 - [Paciello Group Contrast Analyzer](#)
 - [WebAIM Color Contrast Checker](#)

Follow these steps:

1. Open the document.
2. Use the tool to check that all text and meaningful images have contrast ratios within the appropriate range.
3. Note: Black and white text will pass and does not need to be tested.

More information about Flash accessibility techniques is available in the [Creating Accessible Flash](#) course.

POWERPOINT

Ensure images provide informative alternative text

Images are used in many ways in PowerPoint presentations. Examples are photos, clip art, diagrams, charts, and other forms of content that are not simply conveyed by actual text on the screen. In order for assistive technology users to understand images and other non-text elements, an alternative must be provided.

To add alternate text to an image:

1. Select the image
2. Activate the context menu or press SHIFT+F10
3. Select “Format Picture”
4. Confirm the “Format Picture” dialog appears
5. Select the Alt Text tab from the options on the left
6. Enter appropriate alternate text for the image in the Description field

Note: Do not place alternate text in the Title field. The Title field is not read by assistive technologies.
7. Navigate to and activate the Close button
8. Confirm the alternate text has been applied by hearing it spoken by AT or navigate back to the Format Picture options and confirm the text is visible on the Alt Text screen.

Ensure that slide content is rendered in the proper order

By default, the reading order of a slide is the order in which objects are added. As you add and remove objects such as content placeholders, graphics and WordArt on a slide, PowerPoint keeps track of the order in which they are layered. This order is called the “Z-order”. The Z-order is the order of layers from back to front on the slide with the object furthest back having the lowest Z-order. Some screen readers use the back to front (Z-order) to determine how to read the content on a slide; therefore, the first item read will be the bottom (last) item listed in the selection pane.

However, other screen readers use the X, Y coordinates of the objects on the slide, reading objects from left-to-right, top-to-bottom based on the precise location of the top left corner of each object’s border, not the location of text or graphic content contained in the object. Still other screen readers do not currently support PowerPoint at all. To make sure that the largest number of screen reader users can read PowerPoint slides, both the Z-Order and horizontal and vertical alignments will need to be set properly.

Setting the reading order:

1. Navigate to the toolbar and select the Format tab.
2. Locate the Arrange pane.
3. Select the Selection Pane button.
4. Use the Re-order buttons to set the reading order from bottom (read first) to top (read last).

Learn more about making presentations accessible in the [Creating Accessible Documents with Microsoft PowerPoint 2010](#) tutorials.



New PowerPoint Tutorials Available!

The VHA Section 508 training team has developed a series of innovative tutorials called “Creating Accessible Documents with Microsoft PowerPoint 2010” that explain accessibility barriers of Microsoft PowerPoint 2010 and provide solutions to address them.

Using short, topic-specific modules and brief videos, the tutorials will help you gain an understanding of barriers that could prevent users of assistive technology from accessing your presentation. Through the step-by-step directions, you will learn to create PowerPoint documents that comply with Section 508 and make your content available to your entire audience.

Topics include:

- Reading order
- Images
- Color
- Links
- Lists
- Tables
- Animation
- Embedded objects
- Conversion tips

The tutorials are available at

www.ehealth.va.gov/508/tutorials/powerpoint/index.asp

Introducing the Web Accessibility Toolbar (WAT)

The Web Accessibility Toolbar is a VA-approved, free toolbar provided by the Web Accessibility Tools Consortium (WAT-C). It can be added to your Internet Explorer browser. You can use this software to check web site accessibility including document structure, colors, HTML, CSS, links, images, and other web page elements.

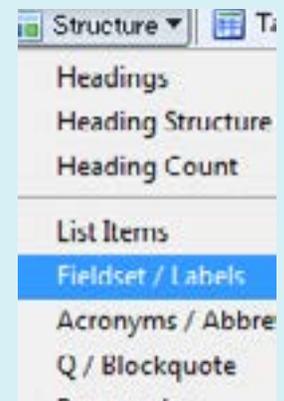
This toolbar was created to help you manually examine web pages while developing and testing for accessibility. Using this toolbar, you can:

Identify different components of a web page.

- See alternate views of page content.
- View HTML markup.
- Use additional third party online applications.

You can use this tool during development and testing of web content to:

- Inspect the document structure of the page you’re testing. It is essential to inspect the HTML code of a page to verify that it reflects the visual structure of the page accurately. For example, you can verify if form controls have explicit labels by selecting Fieldset / Labels under the Structure menu.
- View your pages in various preview modes. This is a useful feature to modify the browser settings such as JavaScript and CSS to verify that the page does not depend on any of these settings. For example, from the Images menu, you can choose to “Remove CSS Images” to verify that background images have text equivalents. You can also Toggle CSS and verify that a page is readable without style sheets.
- View a list of elements on the page. For example, you can view the List Links to determine if link text is meaningful.
- Use WAT highlighted information to provide screenshots within accessibility test reports so that website or application owners can see the accessibility issues found
- More information and download instructions for the WAT can be found on the Web Accessibility Tools Consortium website.



VA employees and contractors can find step-by-step instructions for using WAT and other accessibility testing tools on the VA Learning University Talent Management System (TMS), in a new course called **Developing Section 508 Compliant HTML**. The TMS Item ID number is 3855064.

Pushing The Nest Out of the Table

A common practice that is often flagged by the VHA 508 team is the use of nested tables in Microsoft Word documents. Many times, individuals wishing to convey a variety of types of content within a Microsoft Word file employ the strategy of “nesting” a table to format this content so that it is visually easy for the reader to access. A nested table is merely a table placed inside of another table, sometimes referred to as the “host” table. Nested tables” can even be formatted to fit inside of a single cell of the “host” table. The contents of these nested tables may include both graphics and text. The reader may interact with these nested tables by placing their mouse pointer within the host table, or the cell in which the nested table resides and the contents of the nested table is at their disposal.

While this is an efficient means for organizing data, it presents a number of difficulties for those who have limited to no vision when attempting to access the data inside of the nested tables. Today’s Windows-based screenreading and screen magnification solutions enable the user to navigate throughout the columns of a table by using tab and shift+tab key combinations; rows are navigated by either up or down arrow keys or alt+up or down arrow key combinations, depending on the user’s adaptive technology preference. When a nested table is encountered, readers may not be able to review the data within it, and are forced to tab through the entire nested table before they are able to exit this subtable. Often, they will not even realize that they are entering or exiting a table within a table which can cause confusion and frustration.

You can alleviate such user headaches by opting to forego nesting tables within tables. If you want to place additional information within the cell of a table, you can format the

information in a paragraph , using the enter key to insert line breaks to add more information. Another alternative is just to add another row to the host table in which additional data can be placed and organized. Regardless of which option you choose, you will have eliminated one Section 508 violation from your Word document by foregoing the practice of using nested tables.

B.Y.O.D.

- Are you responsible for creating and distributing documents on behalf of VA?
- Do you know how to make documents accessible but have a challenge in a particular document?
- Have you taken our tutorials and still feel you need a little extra help?
 - [Creating Accessible PDFs with Adobe Acrobat](#)
 - [Creating Accessible Documents with MS Word 2010](#)
 - [Creating Accessible Documents with MS PowerPoint 2010](#)

If you answered **YES** to these questions, then...

YOU are invited to **Bring Your Own Document!** The VHA Section 508 Office will be kicking off a new program in the year for internal VA customers. Our accessibility experts will work with you interactively to share your documents and work through accessibility challenges. You’ll see how it’s done and have an opportunity to try it on your own documents.

[See our website for more information on BYOD*](#).

**Links designated with an asterisk are available to VA users only.*

Get Onboard!

It is now possible to be alerted when a new edition of the 508 XPress becomes available. Just visit <http://www.ehealth.va.gov/508/newsletter/> and activate the link to subscribe to our list.

Visit the VHA Section 508 Web site to review Section 508 checklists; training materials for developing accessible content in Flash, HTML, Word, PDF and PowerPoint; and to locate additional resources.

Internet: www.ehealth.va.gov/508/

Intranet: vaww.vista.med.va.gov/508workgroup/ *

**Links designated with an asterisk are available to VA internal users only.*