

AMS.com Section 508 Analysis

Repairs Based on JAWS Screen Reader Testing Results

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Version 1.02

DRAFT

AMS.com Home Page Section 508 Analysis

JAWS Screen reader

These are the observations and changes made after analysis of the site with the IBM JAWS Screen Reader with the assistance of Kate Walser, Bob Herndon, and Pierre Berryer.

Second Round of Testing

December 4, 2002

1. Menu Top / Masthead Changes

- a. **AMS Logo Alt Text** has been changed: “Changed to American Management Systems Home” in order to better describe the link destination
- b. **Menu links for rollovers** alt text: Added ALT attributes to main menu links (i.e. “About A M S” changed from “About A M S Menu”)
- c. **Dropdown menus** can be triggered without the mouse: Updated main menu links to display the popup menus when the user focuses on them. While this will work in standard browsers, the JAWS application prevents this functionality from working. This means that even with this functionality, the main index pages are still required. However, the functionality remains useful for those who are mobility impaired – i.e. individuals who use “mouthsticks” with a keyboard.
- d. **Tab order:** When navigating via the keyboard, the tab order has been modified to be logical according to the layout. This order may need to be reevaluated, however, it seems suitable.

Note: This tab order is quite complex as it takes into account tabbing through the dropdown menus. If the order of the links in the dropdown menus changes all following tabs must be shifted accordingly. These elements need to be in various parts of the menutop include file, making it difficult to renumber the links in the event of new link updates.
- e. *Pending:* **Search button** is read earlier than it should be. This is still under investigation.

- f. *Pending*: **Skip Navigation** in place, somewhat buggy: The screen reader will read a link to the user offering for them to skip past the masthead navigation. In the future, this should be set to skip over the left nav as and directly to the body area. This would require changing all pages and should be included in the future port to Documentum templates.
- g. **Global Business tagline** ALT tag updated to read “Global Business and IT Consultants tagline” rather than “About AMS” which is where the link leads. Accessibility guidelines dictate that images that contain text should have an alt tag with the text.
- h. **“AMS” in ALT attributes** is read as one word: Changed hidden alt attributes to “A M S” forcing reader to pronounce each letter.

2. Home page

- a. **Auto focus on load changed**: The JavaScript that would set the cursor focus to the first form field on the page has been deactivated. This was causing the focus to be on the search box when first loading the page. The original purpose for this code was to focus the cursor on the first field for the download list registration pages.
- b. **Phone numbers labeled**: There is now a small, invisible image with an ALT attribute in front of the phone numbers. This will force the screen reader to speak a label before reading the string of numbers, while maintaining the current look of the page. This change should be rolled out eventually to all occurrences of the phone number.

3. Search Page

- a. *Pending*: **Extraneous Image Map Links** are read at the top: Fix, requires editing Inktomi include pages. The edit is fast, however, it is somewhat complex to find the location where the code is called. This is still outstanding.

4. Screen Reader Notes

- a. *Pending*: **Flash content is skipped**: Title and ALT attributes have no effect. The newest version of Flash allows for extra accessibility information to be stored in the animation. This is currently being explored by Bob Herndon.

First Round of Testing

October 29, 2002

1. Home page

- a. **Tabbing to links** did not trigger submenus.
 - i. Fixed by adding JavaScript and tab order attributes. Problem: Tab numbering introduces large maintenance effort. Brainstorming on dynamic ASP based tab numbering but still no effective solution.
- b. **Image Maps**: Setup ALT/Title attributes for the links in the main image

2. Menutop/Masthead

- a. **Links are in wrong order**: Updated and tested for second round. See above, "Tab Order" and Note on complexity.
- b. **Image Maps**: Setup ALT/Title attributes for the links in the masthead

3. Screen Reader Notes

- a. **Table Construction**: Information tables need to be designed so that the data is read in a logical order by the screen reader
 - i. **Table Read Order**: The screen reader reads all cells in a table row before proceeding to the next row. If designing a table in which the columns need to be read from top to bottom, then make a larger table that contains a smaller single column table in each of its cells.
For example, here are two tables nested in a larger table:

Read 1	Read 3
Read 2	Read 4

- ii. **Multi Column tables** are described by their layout (i.e. x columns and x rows) before reading the contents. This should be taken into account when laying out complex tables to help avoid confusion.
- b. **Phone numbers:** Without the dash or identifying text, they are read as a series of unrelated numbers. See “Phone numbers labeled” above.
- c. **Clear pixels:** should be given empty ALT attributes (i.e. ALT=””). This has been done on the homepage, however, fixing this problem across the site may be very time consuming and should probably be left until the future port to Documentum templates.
- d. **Flash tag is skipped:** Title and ALT attributes have no effect. See “Flash content is skipped” above.
- e. *Pending:* **JavaScript links** to “#” read the link as a link to the current page. This is annoying to hear, however, there is no decent alternative.
- f. **Special Characters** are read out loud. Parenthesis, dashes, pipes, and colons are read. For example, the right nav in news reads the colon after each section header

4. Example Sites Recommended by Kate Walser

- a. <http://www.section508.gov>
- b. <http://www.medicare.gov>
- c. <http://www.webaim.org/>
- d. <http://www.ed.gov>

Original Issues Documented by Kate Walser

October 23, 2002

I'm worried that we don't reflect the best practices we advertise (e.g. accessibility and usability standards) in the design of

ams.com. I'm mainly concerned with accessibility as some major accessibility barriers caught my eye in just a quick glance at the site. As a couple examples, users who rely on keyboard (as people who are blind or mobility impaired would) will not be able to access the pop-up menus (and for that matter the rest of the site), navigation will be difficult and doesn't provide ways to skip repetitive bars, and I'm not sure if the Flash video is accessible (i.e. if it was made using Macromedia's accessibility kit). I'm not saying we can't have pizzazz and look hip/cool/flashy - you can have all that and still meet accessibility objectives.

I realize that there are priorities as there are with any project. Accessibility (besides usability) has to be a top one if we have ~50% of our client base that are government, and accessibility is a requirement for more and more of them (and a requirement they consider when choosing vendors and awarding work). (States are now implementing their own accessibility laws as well) These clients and potential clients use it in go/no-go decisions in picking products (i.e. your product meets 508, we'll consider you; yours doesn't, sorry for your luck) and if they go to our Web site to learn more about the major 508-compliant products we advertise and find that our site violates 508, it will be a hard sell.

1. Major Concerns

a. **Accessibility by mobility impaired individuals**

- i. Pop-up Menus: This has been edited to allow for keyboard access in a standard browser. Also, the main menu links will now take the user to a page listing that menu's links.
- ii. Tab order: The page now has a logical tab order, allow

b. **Accessibility by blind individuals**

- i. Screen Readability: The homepage and search page have been tested against IBM JAWS Screen reader. Significant repairs have been made to the homepage, however, this is still a work in progress and will be revisited.

- c. **Skip Navigation:** Hidden links have been added to allow the user to skip reading the masthead navigation. Still pending is the ability to skip the left navigation as well. As this will affect all the left navigation includes, this is may need to be held off until the Documentum port to templates.

Alternatively, if editing all the left nav files, this should be lumped with whatever other global change can be made to them.

- d. **Flash accessibility:** This is under investigation using the new Flash MX accessibility technology.
- e. **Client Recognition** of AMS.com Section 508 support
 - i. This concern still needs to be completely addressed. While the homepage has been edited to provide better compliance, the process is still incomplete. To gain the acceptance of potential clients, the 508 support would need to be improved and implemented throughout the site. Also, some sort of label or icon proclaiming this compliance should be located on the site.