



Website Auditing Limited

Accessibility Audit

WAI Priority 1 (WAI/A)

www.lysol.com

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Prepared by - - Userite - Website Auditing Ltd
Prepared for – e-Centives & Reckitt Benckiser

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1. Executive Summary

The main findings of our report are as follows:

- The site is di

2. Methodology

This report has been prepared using a holistic approach to assessing the overall accessibility of the website and in particular the level of compliance with the W3C/WAI guidelines. Three main approaches have been used :

1. Software tools were used to check all accessible web-pages for adherence to the standards relevant to accessibility.
2. A small panel of disabled users were given some tasks appropriate to the target audience for the web-site to perform in their own environments. Their feedback has been collated into the report in the relevant section or sections.
3. A specialist in website accessibility carried out a comprehensive review of all major features of the site.

The first part of the report scores the website against the WAI guidelines. Each guideline is scored for compliance against the W3C Accessibility Initiative Guidelines version 1.0 available from the World-Wide-Web Consortium website (www.w3.org/TR/WCAG10-CORE-TECHS/). The Pass and Fail scores are quantitative measures; the Near score is a qualitative measure dependent on the frequency of the error and the level of importance to the site as a whole. Where appropriate, references are made to the main body of the report to explain the background to the test result.

The main report is broken down into four sections covering content, style, navigation and engineering. Both accessibility problem areas and good practices are discussed in the relevant section.

Finally the report includes an action plan which gives a prioritised list of the remedial work required to make the website compliant, firstly with WAI Priority 1 and secondly with WAI Priority 2.

3. Baseline

Although this report is written against the WAI Guidelines (Version 1) published in 1999 we have included some of the version 2 principles currently awaiting W3C approval. A new feature in Version 2 is the establishment of an agreed minimum standard (baseline) for the technology and users to be targeted by the application. We have used the following baseline for this report, this can be used when upgrading to version 2.

The user baseline for this website is the general public over the age of 16.

The technical baseline is any Internet browser (including assistive software such as screen readers) that can interpret HTML 4.

Other requirement: The current "look and feel" of the website should be maintained for as many users as possible.

4. Individual guideline scores for www.lysol.com

Scoring system

A **Pass** score indicates that no problems were found with this issue on the site.

A **Near** score indicates that a few problems were found on some pages, but in general the site complied with the guideline.

A **Fail** score indicates a serious problem with the relevant guideline throughout the site. This issue needs to be addressed as a priority.

Please note that the **N/A** score awarded for a particular technology that is not used on the site is the same as that awarded for a pass score. The assumption is that you have deliberately avoided using technology that might create a barrier.

http://www.lysol.com			
Result	WAI Ref.	In General (Priority 1)	Report Ref:
Fail	1.1	(a) Provide a meaningful text equivalent for every non-text element (e.g., via "alt", "longdesc"). Includes images, graphical representations of text, animations, bullets and spacing images.	5.1
Fail	1.1	(b) Provide alternative text for graphical buttons used for navigation to explain what the button will do when selected.	5.2 7.2
N/A	1.1	(c) Provide alternative text for any ascii art used within a page.	
N/A	2.1	Ensure that all information conveyed with colour is also available without using colour.	
N/A	4.1	Clearly identify changes in the natural language of a document's text and any text equivalents.	
Fail	6.1	Organize documents so they may be read without style sheets.	6.1
N/A	6.2	Ensure that equivalents for dynamic content are updated when the dynamic content changes.	
Pass	7.1	Avoid causing the screen to flicker.	
Pass	14.1	Use the clearest and simplest language appropriate for a site's content.	
And if you use images and image maps (Priority 1)			
N/A	1.1	(d) Provide alternative text for image map regions that explains the action to be taken when the region is selected	
N/A	1.2	Provide redundant text links for each active region of a server-side image map.	
N/A	9.1	Provide client-side image maps instead of server-side image maps except where the regions cannot be defined with an available geometric shape.	

And if you use tables for presenting data (Priority 1)			
N/A	5.1	For data tables, identify row and column headers using the correct html code for table headings.	
N/A	5.2	For data tables that have two or more logical levels of row or column headers, use markup to associate data cells and header cells.	
And if you use frames (Priority 1)			
N/A	1.15	Provide a "no frames" alternative for people who cannot use frames. This alternative version should contain the same information as the frame version.	
Near	12.1	Title each frame to facilitate frame identification and navigation.	
And if you use applets and scripts (Priority 1)			
Fail	1.16	Provide text (html) equivalent to scripts, applets and programmatic objects, that perform a similar operation or direct to an html page that provides the same information.	5.3
Pass	6.3	Ensure that pages are usable when scripts, applets, or other programmatic objects are turned off or not supported, or provide equivalent information on an alternative, accessible page.	
And if you use multimedia (Priority 1)			
N/A	1.17	Provide text alternative for multi-media such as sounds (played with or without user interaction), stand-alone audio files, audio tracks of video, and video.	
N/A	1.3	Provide an auditory description of the important information of the visual track of a multimedia presentation.	
N/A	1.4	For any time-based multimedia presentation (e.g., a movie or animation), synchronize equivalent alternatives with the presentation.	
And if all else fails (Priority 1)			
Fail	11.4	Provide a link to an alternative page that uses W3C technologies, is accessible, has equivalent information (or functionality), and is updated as often as the inaccessible (original) page.	

The scoring system tolerates occasional minor errors where these have no impact upon accessibility in the context within which they occur. For example, one or two unclear alternative text tags for images that are not important to conveying content or navigation, such as occasional bullet points, would not fail the site. Similarly, many issues require human judgement, such as colour contrasts. For these issues, border-line cases are discussed prior to scoring. Bonus points can be awarded to sites that completely pass one level and achieve a high score without passing the next level. This is compatible with the WGAC 2.0 A+ currently under discussion.

5. Content

5.1. Images

Many of the images on this website have very basic alternative text tags (alt tags) and some have no tags at all. Images are external files that are imported into the web-page as it is loaded into the browser. These images are stored in their own proprietary format (usually GIF or JPG). Images cannot be described by screen readers and other assistive software used by disabled people. HTML code provides special attributes to help overcome this problem. The most common of these is the alternative text tag (called ALT tags) which can be included in the code that imports the image. This piece of text is usually hidden, but a visually impaired person can arrange for it to be shown (or read out loud) instead of the image.

The alt tag has the additional advantage that if the image does not arrive with the webpage for any reason then the HTML code will display the alternative text instead so that the user know what they would have seen if the picture had arrived.

The screen shot below show what your current home page looks without images. Clearly this version does not provide the same level of service as the site with images.

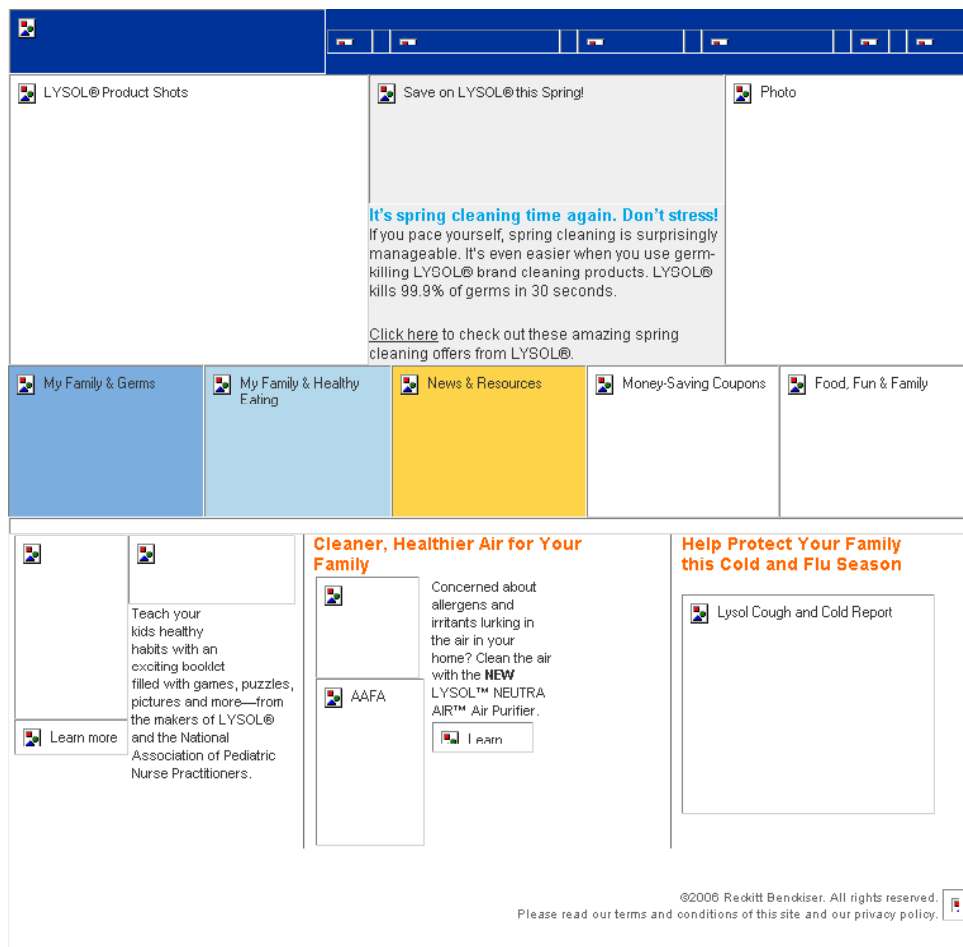


Figure 1 Home Page without images

- The lack of alt text tags for the navigation buttons across the top of the page will make navigation very difficult. (See section 5.2 below)

- The alt tag “photo” for the photograph of the mother & daughter cleaning the refrigerator does not tell the user anything about the image
- The alt tags for the row of five images across the centre of the page linking to different sections are clear and adequate, these are good practice cases.
- Some of the other images have no alt tags at all

A clearer example of the importance of adequate alt tags is given by looking at the seven “product finder” pages. The left-hand panel of these pages consists of a series of promotional images as shown below. On the right is a screen shot of the same area but without the images. Any user with assistive software, or no access to images, would have little idea as to what these images portray.



Figure 2 Left-hand panel with images



Figure 3 Left-hand panel without images

To make matters worse the bottom three images all have the same alt tag (“Find the Germs”) but actually lead to different sections of the website. As a result it took our blind panel member 15 minutes to find the activity booklet (which his grandchildren greatly appreciate).

An automatic testing system such as Bobby or Lift would pass these images as compliant with WAI level 1 because they do have some sort of alt tag. However, in the practical world of real users, these tags are not sufficient, particularly as some of the images contain important text. If this text is to be available to many disabled users it must also be included in the alt tag, or provided as a separate, but linked file. The preferred option is not to include text in images but to include it as part of the main textual part of the page, this way it becomes available to all users.

5.2. Images for navigation buttons

The use of images to display the text of navigation buttons is not recommended for a variety of reasons, some of which are discussed in section 6.1 below. However if images are used for navigation it is vital that these include alt tags that tell the user where the link is going. Otherwise, if the picture is not clear, or does not arrive, all users will have serious problems navigating the site.

Paradoxically our blind panel tester found this method of navigation easier to use than some of our other testers because he was able to deduce the destination of the link from the file-name of the image (nav_home.gif, nav_faq.gif, nav_contact.gif etc) or the file-name of the destination page .

5.3. Flash applications

The web-site makes some use of animations created using the Macromedia Flash application. This enables the site to deliver some interesting applications for young people, but creates barriers for disabled users similar to the problems caused by including images without alternative text tags.

Most modern screen readers and assistive applications can interpret Flash applications that have been written using the accessibility options built into the latest Flash editing software (Flash 8). It is possible to add captions to the animation for deaf people and textual descriptions for screen readers. Details of how to apply these accessibility options is available from the Macromedia/Adobe web-site (http://livedocs.macromedia.com/flash/8/main/wwhelp/wwhimpl/common/html/wwhelp.htm?context=LiveDocs_Parts&file=00000894.html)

However there will always be some users who cannot access Flash at all because they do not have the latest software, do not want to install the Flash viewer application or are behind a restrictive corporate firewall. For these people a non-Flash alternative is required. It is possible that the downloadable activity booklets might provide a suitable alternative for people who cannot access the Flash applications

6. Style

6.1. Style Sheets

The site uses style sheets to control the “look” of the website. This is good practice as it allows the creation of concise web-pages separating structure from content and allows disabled users to apply their own style sheets where necessary. The stylesheet, like images, is a separate file that the webpage imports as it loads into the users browser. It is important to check that the page still makes basic sense to the user if the style sheet fails to import correctly, or if the user has turned

the stylesheet option off. The figures below show how the top half of the home page look when the style sheet is available and when it is not.



Figure 4 Current page as you wish it to be seen



Figure 5 Current Home Page as it appears if the stylesheet is not available to the browser.

Although the main content of the page is still readable without a stylesheet the top row of navigation buttons become lost. This is because the images are primarily white text and require a contrasting dark background area to be seen. The figure below shows the image used for the Home Page button actual size.



Figure 6 Image of navigation button

The stylesheet defines the background colour for the area around these navigation buttons as being dark blue. This makes the white text of the images stand out. When the stylesheet is not applied the background colour remains white and the text virtually disappears, as can be seen above. One solution would be to increase the size of the images to allow a blue border to be included to help the text stand out. However, as mentioned earlier, the preferred solution is to use text rather than images for navigation buttons.

6.2. Fonts (Proportional)

The website uses absolute font sizes (normally Arial 12px) throughout. This means that users with poor eyesight or poor quality screens cannot enlarge the font size. The W3C recommends that only proportional fonts are used for general public web-sites. The most common proportional font ranges are xx-small to xx-large (seven sizes) or percentage (%) though other proportional scales are available. The user can then use the View-Text Size option on their browser to change the font size to suit their conditions. At present this operation has no effect on the size of text displayed.

The use of proportional; fonts is not considered a top level priority (WAI/A) by the current guidelines and therefore does not affect the scoring system of this report. Because it is relatively easy to convert the current absolute font sizes to proportional sizes by editing the style sheet used by this site we recommend that this issue be addressed regardless of it not affecting compliance with the basic (level 1) priority.

7. Navigation

7.1. Images for navigation buttons

The problems associated with using images for navigation buttons have been discussed in section 5.2 and 6.1 above. Essentially our recommendation is that these images should be replaced with text, or at least made larger and include suitable alternative text tags. One of our panel was only able to navigate this site with help from a family member.

7.2. Site Map

The web-site does not include structured site map This is currently a level 2 (WAI/AA) issue and has not been scored for this report. Our experience is that a dedicated site index is an extremely useful tool for all users, and particularly so for disabled users and we strongly recommend that a site map be included as soon as possible.

8. Engineering

8.1. Java Scripts

The web-site makes frequent use of Java scripts to perform various actions, including the top navigation bar. These scripts tend to rely upon the user moving the mouse so that the cursor is positioned over the navigation button. Most disabled users do not use a mouse. They rely upon keyboard strokes such as the tab key to move from link to link or the scroll buttons to move up and down the page. For the Tab key to have the same effect as the "Mouse-over" Java provides the "onFocus" and "onBlur" elements. These should be used instead of, or in conjunction with, the current elements.

IBM provide some useful guidelines and sample scripts for overcoming accessibility problems with Java (<http://www-306.ibm.com/able/guidelines/java/javakeyboard.html>)

In addition to making the Java applications work with the keyboard it is important to ensure that any page works even if Java is not available. For this purpose HTML offers a <noscript> element

that can immediately follow a Java script's closing </script> tag and define a standard HTML alternative. If the user's browser interprets the script it will ignore the <noscript> alternative. If the browser does not support scripting then it will display the <noscript> alternative in the same way that the alternative text is displayed when an image fails to arrive. This technique is particularly important for the JavaScript's that are used for navigation within the content area of your pages. A user without Java enabled would be unable to view the directions or ingredients of your products as the links to the pop-up windows all use Java not html. Here the <noscript> alternative would be an HTML hyperlink specifying the target properties.

To be safe when using Java scripts it is recommended by the W3C that scripts are included within a comment tag (<!-- script language=etc.....). This will prevent very old browsers trying to display any textual part of the Java tag whilst modern browsers will still implement the Java script even though it is commented. The <noscript> alternative should not be commented.

8.2. Validation of HTML

All the pages on the web-site contain some errors in HTML coding, although these are mostly minor errors and are not serious enough to cause problems for modern browsers. However they may cause problems to older browsers and assistive software. We checked the validity of HTML code on the Home Page and found thirty seven (37) errors, most of these were missing alt tags. However if it is intended to proceed to level 2 (WAI/AA) accessibility it will be important to ensure that the HTML code is correct. This will include declaring the version of HTML used at the beginning of every document and ensuring that the requirements of that version are adhered to.

In order to ensure that a web-site is sufficiently robust to provide reliable results in all sorts of browser (user agent) it is important to be accurate with the underlying HTML code. There are a number of on-line and commercial validation services that can be used for checking the accuracy of code. The most popular free service is that provided by the W3C at <http://validator.w3.org>

9. Action Plan

The current web-site is an effective marketing tool that could be made considerably more accessible without changing its "look and feel". However to make it universally accessible would require considerable changes to the current look of the site. We therefore recommend that you make the current site as accessible as possible without changing its look and feel and then consider creating a universally accessible alternative site. This second version can still look impressive and still use your current style sheets and images.

To make the current web-site compliant with WAI guidelines level 1 (WAI/A)

1. Include suitable alternative text tags for all images, including all navigation buttons.
2. Include <noscript> alternatives for all Java applications.
3. Provide non-Flash alternatives for all Flash applications
4. Ensure that the top level navigation buttons are readable when stylesheets are turned off

To create a more accessible website (and progress towards level 2 compliance) we also recommend that the following tasks are undertaken as soon as possible

1. Include a site map with links to all the different sections of the website
2. Replace absolute font sizes (pixels) with relative sizes with the style sheet.
- 3.

10. Annex - Glossary of Terms

Accessible Content is accessible when it may be used by someone with a disability.

Applet - A program inserted into a Web page.

Assistive technology - Software or hardware that has been specifically designed to assist people with disabilities. Common software-based assistive technologies include screen readers, screen magnifiers, speech synthesizers, and voice input software that operate in conjunction with browsers (among other user agents). Hardware assistive technologies include alternative keyboards and pointing devices.

ASCII art ASCII art refers to text characters and symbols that are combined to create an image. For example ";-)" is the smiley emoticon.

Authoring tool HTML editors, document conversion tools, tools that generate Web content from databases are all authoring tools. Dreamweaver is an authoring tool.

Backward compatible Design that continues to work with earlier versions of a language, program, etc.

Braille Braille uses six raised dots in different patterns to represent letters and numbers to be read by blind people using their fingertips.

A Braille display, commonly referred to as a "dynamic braille display," raises or lowers dot patterns on command from an electronic device, usually a computer. The result is a line of braille that can change from moment to moment.

Content developer Someone who authors Web pages or designs Websites.

Deprecated A deprecated element or attribute is one that has been outdated by newer constructs. Deprecated elements may become obsolete in future versions of HTML.

Device independent Access to the information must not depend upon using one particular input device (eg mouse). It must be possible to control events using alternative input devices.

Document Content, Structure, and Presentation

- The content of a document refers to what it says to the user through natural language, images, sounds, movies, animations, etc.
- The structure of a document is how it is organized logically (e.g., by chapter, with an introduction and table of contents, etc)
- The presentation of a document is how the document is rendered (e.g., as print, as a two-dimensional graphical presentation, as a text-only presentation, as synthesized speech, as braille, etc.)

Dynamic HTML (DHTML) DHTML is the marketing term applied to a mixture of standards including HTML, style sheets, the Document Object Model [DOM1] and scripting.

Equivalent Content is "equivalent" to other content when both fulfill essentially the same function or purpose upon presentation to the user.

Image A graphical presentation.

Image map An image that has been divided into regions with associated actions. Clicking on an active region causes an action to occur. When a user clicks on an active region of a client-side image map, the user agent calculates in which region the click occurred and follows the link associated with that region. Client-side image maps allow the user agent to provide immediate feedback as to whether or not the user's pointer is over an active region.

Linearized table A table rendering process where the contents of the cells become a series of paragraphs (e.g., down the page) one after another. The paragraphs will occur in the same order as the cells are defined in the document source. Cells should make sense when read in order and should include structural elements (that create paragraphs, headers, lists, etc.) so the page makes sense after linearization.

Link text The rendered text content of a link.

Natural Language Spoken, written, or signed human languages such as French, Japanese, American Sign Language, and braille.

Navigation Mechanism A navigation mechanism is any means by which a user can navigate a page or site. Some typical mechanisms include

- *navigation bars* - A navigation bar is a collection of links to the most important parts of a document or site.
- *site maps* - A site map provides a global view of the organization of a site. Unless specified otherwise this report uses the term "site maps" to imply a table of contents (see below).
- *tables of contents* - A table of contents generally lists (and links to) the most important sections of a document.

Screen magnifier A software program that magnifies a portion of the screen, so that it can be more easily viewed. Screen magnifiers are used primarily by individuals with low vision.

Screen reader A software program that reads the contents of the screen aloud to a user. Screen readers are used primarily by individuals who are blind. Screen readers can usually only read text that is printed, not painted, to the screen.

Style sheets A style sheet is a set of statements that specify presentation of a document. Style sheets may have three different origins: they may be written by content providers, created by users, or built into user agents. In CSS the interaction of content provider, user, and user agent style sheets is called the *cascade*.

Presentation markup is markup that achieves a stylistic (rather than structuring) effect such as the B (bold) or I (italic) elements in HTML.

Tabular information When tables are used to represent logical relationships among data -- text, numbers, images, etc., that information is called "tabular information" and the tables are called "data tables". The relationships expressed by a table may be rendered visually (usually on a two-dimensional grid), aurally (often preceding cells with header information), or in other formats.

Tags The special hypertext mark-up language (html) code used to determine how and where your text and images appear on the screen.

User agent Software to access Web content, including desktop graphical browsers. There is a wide range of software available to help disabled users access websites ranging from simplified browsers, through screen readers that read out loud the text as it appears on the screen, to programmes that understand HTML coding and work out what is important and what is merely decoration. These assistive software packages are referred to as "User Agents"