

4th Annual NAAUG - University of Iowa - 31 May to 2 June, 2003

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# Web Standards and the Aleph OPAC

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## Overview

- What are the standards?
    - W3C
    - XHTML
    - CSS
    - WAI
  - Why use standards?
    - stable
    - efficient
    - interoperable
  - Aleph and standards - two examples
    - The Web OPAC at McGill
    - Tables
    - Forms
    - Links
    - Accessibility Features
  - Conformance issues
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    - tag soup
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  - Conclusion
    - well formed html/xhtml and css
    - improved forms, tables, generated code
    - text instead of images
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- 

## 1. What are the standards?

- W3C
- XHTML
- CSS
- WAI

These standards are established by the World Wide Web Consortium (W3C).

HTML/XHTML, and Cascading Style Sheets (CSS) are well implemented by modern browsers.

The Web Accessibility Initiative (WAI) ensures accessibility of documents made available over the Web.

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## 2. Why use standards?

Conforming to the standards of HTML/XHTML, CSS, and WAI has the following benefits:

- Site wide look and feel consistency
- Improved User Experience: Uses less bandwidth, loads faster
- Accommodate Multiple Platforms
- Future-proof
- Extensibility
- Reduce cost of maintenance
- Benefits of CSS over JavaScript
- Well-formed HTML code
- Compatible with newer browsers (non-IE, non-Netscape)
- Accessibility

[Taken from: The Business Benefits of Web Standards  
Tristan Nitot, Standards and Technology Evangelist, Netscape Communications  
Published 21 Mar 2003  
<http://devedge.netscape.com/viewsource/2003/why-web-standards/>]

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## 3. Aleph and standards

- Implementing the frameless OPAC at McGill
- Tables
- Forms
- Links
- Accessibility Features

With the advent of standard-compliant browsers like Internet Explorer 5+, Netscape 6.x, and Opera, Web developers began a concerted effort to develop valid Web pages using cascading style sheets instead of the traditional tables. The resulting pages page should be:

- considered valid HTML and CSS
- liquid
- and built without tables

Quote from:  
 CSS Layouts  
 by Craig Salla  
<http://www.salla.com/usage/layouts/>

## Implementing the frameless OPAC at McGill

- Strict markup
- CSS for presentation and positioning
- Flexible fonts and styles
- Reduce page weight

## Original Table

```
<p class=title>
  Full View of Record
</p>
<table>
  <tr>
    <td class=text3>Choose format:</td>
    <td class="text1">
      <a href=&server_f?func=full-set-set&set_number=$0800&set_entry=$0500&format=999>
        Standard format</a>
    </td>
    <td class="text1">
      <a href=&server_f?func=full-set-set&set_number=$0800&set_entry=$0500&format=037>
        Catalog card</a>
    </td>
    <td class="text1">
      <a href=&server_f?func=full-set-set&set_number=$0800&set_entry=$0500&format=040>
        Citation</a>
    </td>
    <td class="text1">
      <a href=&server_f?func=full-set-set&set_number=$0800&set_entry=$0500&format=002>
        Name tags</a>
    </td>
    <td class="text1">
      <a href=&server_f?func=full-set-set&set_number=$0800&set_entry=$0500&format=001>
        MARC tags</a>
    </td>
  </tr>
</table>
<table width=100%>
  <tr>
    <td class=text3 align=left>
      Record $0100 out of $0200
    </td>
    <td align=right>
      $0300    $0400
    </td>
  </tr>
</table>
```

```

</td>
</tr>
</table>
<table cellspacing=2 border=0 width=100%>
<!-- filename: full-999-body -->
<tr>
<td class=td1
    id=bold
    width=15%
    nowrap>
    $0100
</td>
<td class=td1>
    $0200
</td>
</tr>
<!-- filename: full-set-tail -->
</table>

```

## Adapted Table

A more concise table that includes summary, caption, thead and tbody attributes and tags. The table has an id assigned allowing CSS rules applied at the table level, rather than the cell level.

```

<table id="full" summary="This table contains the full bibliographic record.
The first row offers display format options. Field labels are in the first column,
and field entries are in the second column.">
<caption>Full View</caption>
<thead>
<tr>
<td class="display" colspan="2">
<p>Formats:
<a href=&server_f?func=full-set-set&set_number=$0800&set_entry=$0500&format=999>Standard</a> :
<a href=&server_f?func=full-set-set&set_number=$0800&set_entry=$0500&format=037>Catalog Card</a> :
<a href=&server_f?func=full-set-set&set_number=$0800&set_entry=$0500&format=040>Citation</a> :
<a href=&server_f?func=full-set-set&set_number=$0800&set_entry=$0500&format=001>MARC</a>
</p>
</td>
</tr>
</thead>
<!-- filename: full-999-body -->
<tbody>
<tr>
<td class="field">$0100</td>
<td class="entry">$0200</td>
</tr>
</tbody>
<!-- filename: full-set-tail -->
</table>

```

---

## Original Form

```

<form method=get
  class="searchform"
  name=form1
  action="/server_basic/find-b"
  onsubmit="return require(V1,'Keyword missing')">

<table cellpadding=2 border=0 width="100%">
  <tr>
    <td class=td2 nowrap>
      Type word or phrase
    </td>
    <td class=td2 >
      <input size=40 name="V1" value="">
    </td>
    <td class=td2 rowspan=3 valign=middle align=center nowrap>
      <input type="image" alt=" Go " src="/icon_path_eng/icon/a-go.gif" border=0>
      or
    </td>
  </tr>
  <tr>
    <td colspan=2>
      <a href="javascript:document.form1.reset();">
      </a>
    </td>
  </tr>
  <tr>
    <td class=td2 width=15% valign=top nowrap>Field to search
    </td>
    <td class=td2>
      <select name=F1>
        <option value=WRD>All Fields
        <option value=WTI>Title
        <option value=WAU>Author
        <option value=WSU>Subject
      </select>
    </td>
  </tr>
  <tr>
    <td class=td2>
      Words adjacent?
    </td>
    <td class=td2>
      <input TYPE="radio" NAME="A1" VALUE="N" checked> No
      <input TYPE="radio" NAME="A1" VALUE="Y"> Yes
    </td>
  </tr>
</table>
</form>

```

## Adapted Form

The form is laid out without the use of tables. Proper use of fieldset, legend, and labels identifies various parts of the form. Accessibility features such as "accesskey" are also added. The form is assigned a class and an id to allow for greater control of presentation through CSS.

```
<form method="get"
  class="searchform"
  id="findbform"
  action="&server_f"
  onsubmit="return require(V1,'Keyword missing')">
<div>
<input type="hidden" name="func" value="find-b" />
<fieldset><legend>Keyword Search</legend>
<label for="V1"><span class="noshow">Type word or phrase:</span></label>
<input size="25" name="request" acceskey="s" id="V1" value="" />
<label for="F1"><span class="noshow">Field to search:</span></label>
<select name="find_code" id="F1">
<option value="WRD" selected="selected">Keyword in all fields</option>
<option value="WTI">Keyword in Title</option>
<option value="WAU">Keyword in Author</option>
<option value="WSU">Keyword in Subject</option>
</select>
<input type="submit" value=" Search " />
<br />
<label for="A1W">Search as Words:</label>
<input type="radio" name="adjacent" id="A1W" value="N" checked="checked" />
<br />
<label for="A1P">Search as Phrase:</label>
<input type="radio" name="adjacent" id="A1P" value="Y" />
</fieldset>
</div>
</form>
```

---

## Original Link

```
<a href=&server_f?func=full-set-set&set_number=$0800&set_entry=$0500&format=001>MARC</a>
```

## Adapted Link

The ampersand is assumed to begin an entity. Ampersands in URLs should be replaced with ascii or hexadecimal equivalents.

```
<a href="%26server_f?func=full-set-set%26set_number=$0800%26set_entry=$0500%26format=001">MARC</a>
```

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## Accessibility Features

### Alternate Style Sheets

- Increase text size
- High contrast
- Different layouts

### **Access Keys**

- Keyboard only navigation

### **Proper Labeling of Forms and Tables**

- Code reads logically and is accessible to text only browsers, and text to speech readers.
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## **4. Conformance issues**

- web files vs. generated code
- tag soup
- a compromise (top level vs. secondary pages)

The Aleph OPAC allows one to modify some, but not all the markup that is generated.

So while one may take care to conform to standards, code generated automatically by Aleph will invariably invalidate the page.

The resulting page results in "tag soup", a mixture of markup. "Tag soup" will render satisfactorily in most browsers, but it is invalid and can be quirky.

One compromise is to create valid pages where one can, usually top level pages, and accept the fact that lower level pages will remain, for the time being, a mixture of valid and invalid code.

Other problems with regards to accessibility and flexible pages occur with the substitution of images for form input elements and links, rather than using simple inputs or text.

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## **5. Conclusion**

- well formed html/xhtml and css
- improved forms, tables, generated code
- text instead of images

There are identifiable instances of poorly formed markup in Aleph. It should be possible to correct these to conform to the standards established by the W3C.

A more rigorously constructed set of web files would result in smaller overall pages, and

easier to implement style sheets.

Specifically, extra care needs to be taken with tables and forms, to include accessibility features and appropriate use of html/xhtml elements (caption, summary, etc.).

Generated links should translate characters such as ampersands, into their ascii or hex equivalents (i.e &#38; or %26, etc. )

Finally, the use of images for form inputs and links should be eliminated in favour of native elements and text which can then be styled with CSS.

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## 6. Bibliography

Here are just a few resources dealing with standards, style sheets, and accessibility.

- The Web Standards Project  
<http://www.webstandards.org/>
  - The Daily Report  
<http://www.zeldman.com/>
  - A List Apart  
<http://www.alistapart.com/>
  - Eric Meyer  
<http://meyerweb.com/>
  - Netscape DevEdge  
<http://devedge.netscape.com/>
  - Owen Briggs  
<http://thenoodleincident.com/>
  - Made For All  
<http://www.madeforall.com/>
  - Evolt.org  
<http://www.evolt.org/>
  - A list of Web standards and accessibility weblogs, etc.  
<http://www.lynnparkplace.org/vot/archives/accessibility/000015.html>
  - css-discuss.org  
<http://www.css-discuss.org/>
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[McGill University Libraries](#)

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Last updated 26 May, 2003

Prepared for the 4th annual North American Aleph Users' Group meeting at the University of Iowa, 31 May to 2 June, 2003.





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[XHTML](#) | [CSS](#) | [WAI](#)