Enhancing your record display

A gentle introduction to BibTemplate

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Motivation

• Most publicly listed and visible Evergreen catalogues use the out-of-the-box defaults

• We received “constructive feedback” on our use of the default record display at launch
  - A few days (and nights) of effort resulted in a much richer record display and happier users

• Circle of sharing
  - Mike Rylander brought us BibTemplate
  - I'll teach you the ropes today
  - You go home and make Evergreen look good!
Result 6 of 10

Record Summary

Title: Handmaid's Tale
Author: Atwood, Margaret Eleanor
ISBN
Edition
Publication Date: c1986
Publisher: Houghton Mifflin
Physical Description: print
Format: text
Abstract

Copy Summary  |  Shelf Browser  |  MARC Record

Library  |  Callnumber  |  Actions  |  Available  |  Checked out  |  In process  |  In transit  |  Resheving  |  On holds shelf  |  On order
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Piedmont Regional Library System

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**Book Review**

Approaches to Teaching Atwood's "The Handmaid's Tale" and Other Works

by Wilson, Sharon R. (Editor); Friedman, Thomas B. (Editor); Hengen, Shannon (Editor)

Full Text
BibTemplate basics

• Introduced in Evergreen 1.6

• **Goal:** Simplify access and display of arbitrary content from the underlying bibliographic record
  – Not just MARCXML, but MODS, FGDC, whatever

• **Basic usage:** Requires knowledge of at least one metadata format offered by Evergreen

• **Advanced usage:** Familiarity with JavaScript, CSS3 selector syntax, and XML
A few simple steps...

- Create a new skin to work with:
  
  ```bash
cd /openils/var/web/opac/skin/
cp -r craftsman super
cd super/xml/rdetail/
  ```

- All of the action is in `rdetail_summary.xml`

- Let's add MARC field 504 (bibliography note) to our display
Adding a MARC field

1. Add a row to the table of metafield attributes:
   <tr> </tr>

2. Inside the first table cell, name the attribute:
   <td>Bibliography note</td>

3. Inside the second cell, include the crazy SPAN tag identifying your MARC field of choice:
   <td>
     <span type='opac/slot-data'
         query='datafield[tag=504]'>
   </span>
   </td>
**Title**: Using open source systems for digital libraries

**Author**: Rhyno, Art.

**ISDN**: 159158065X

**Publication Date**: c2004

**Publisher**: Libraries Unlimited

**Physical Description**: print xvi, 150 p. : ill. ; 23 cm.

**Format**: text

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<tr>
<td><strong>Bibliography note</strong></td>
<td>Includes bibliographical references (p. 123-133) and index.</td>
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</table>
Review: a single MARC field

- This is all that we had to add to display the contents of an arbitrary MARC field:

```
<tr>
  <td>Bibliography note</td>
  <td type='opac/slot-data' query='datafield[tag=504]'>
  </td>
</tr>
```

- **Note**: If multiple fields match, they are displayed on consecutive lines within the same left-hand cell.
A specific MARC subfield

- To display a specific MARC subfield, add that subfield to the query attribute.
  - For example, subfield $a$ is the only user-oriented subfield in field 586 (Awards Note)

```html
<tr>
  <td>Awards note</td>
  <td type='opac/slot-data' query='datafield[tag=586] subfield[code=a]'>
  </td>
</tr>
```
Intermediate BibTemplate usage

- Thus far, we've just been using the (quite reasonable) defaults, but we can do more!

  1. We tag an element with attribute `type='opac/slot-data'`
  2. BibTemplate runs the corresponding CSS3 selector syntax-based query from the `query` attribute for that element against the bib metadata
  3. BibTemplate returns an item `NodeList` to process in the contained `type='opac/slot-format'` script
  4. If no script, just the text content is returned
Hiding empty rows

- Empty rows with no matching data are ugly. Hide them by default instead, and display them only if they have content:

```html
<tr class='hide_me' id='tag504'>
  <td>Bibliographic note</td>
  <td type='opac/slot-data' query='datafield[tag=504]'>
    <script type='opac.slot-format'><![CDATA[
      dojo.query('#tag504').removeClass('hide_me');
      return '<span>' + dojox.data.dom.textContent(item) + '
        '</span><br/>';
    ]]></script>
  </td>
</tr>
```
CDATA and <script>

- `<![CDATA[ ... ]]>` tells Evergreen Web server to treat the contents as literal “character data” - avoids hilarity of entity substitution
- `<script type='opac/slot-format'>...</script>`, contained within an 'opac/slot-data' element, receives a variable named `item` containing the results of the query (a NodeList)
- The rest is just plain old JavaScript!
Suppressing a subfield

• MARC data includes subfields like 650 $2 (source of heading) not meant for exposure to humans

• The CSS3 negation operator, and a more complex script, can save us...

• … so let's see an example.

• **Note:** you can cut and paste this example and replace '700' and '4' as desired for your own purposes.
### Subfield suppression

A `script` tag dynamically removes the class `hide_me` from the `#tag700` element, then iterates over all subfields except those with code 4, concatenates their text contents, and returns the result wrapped in a `<span>` element:

```javascript
<script type='opac/slot-format'><![CDATA[
dojo.query('#tag700').removeClass('hide_me');
var text = '';
var list = dojo.query('subfield:not([code=4])', item);
for (var i =0; i < list.length; i++) {
    text += dojox.data.dom.textContent(list[i]) + ' ';
}
return '<span>' + text + '</span><br/>';]]></script>
```

This approach ensures that any additional authors are displayed unless they are specifically intended to be suppressed by setting the `tag=700` parameter.
Other metadata formats

- BibTemplate supports other Evergreen metadata formats:
  - MODS 3.3: `datatype='mods33'`
  - Dublin Core: `datatype='rdf_dc'`
  - FGDC: `datatype='fgdc'`

- To use: add the corresponding `datatype` attribute to your `type='opac/slot-data'` element and adjust your `query` attribute accordingly

- But sadly, we just use `marcxml-full`...
marcxml in brief

<record>
   <leader>00706cam a2200241 a 4500</leader>
   <controlfield tag="005">20040427145408.0</controlfield>
   <controlfield tag="008">030731s2004    ctua          001 0
gen</controlfield>
   ...
   <datafield tag="020" ind1=" " ind2=" ">
      <subfield code="a">159158065X (alk. paper)</subfield>
   </datafield>
   <datafield tag="100" ind1="1" ind2=" ">
      <subfield code="a">Rhyno, Art.</subfield>
   </datafield>
   <datafield tag="245" ind1="1" ind2="0">
      <subfield code="a">Using open source systems for digital libraries</subfield>
      <subfield code="c">Art Rhyno.</subfield>
   </datafield>
   ...
</record>
marcxml-full (holdings!) in brief

<record>
  <leader>00706cam a2200241 a 4500</leader>

  <volumes xmlns="http://open-ils.org/spec/holdings/v1">
    <volume lib="OWA" label="ZA4080 .R48 2004">
      <copies>
        <copy barcode="31862016946721" circ_modifer="CIRC" holdable="t" opac_visible="t">
          <status ident="0">Available</status>
          <location ident="598">Leddy: Main Bldng</location>
          <circlib ident="109">Leddy Library</circlib>
          <circ_lib shortname="OWA" name="Leddy Library"/>
          <copy_notes/>
          <statcats/>
        </copy>
      </copies>
    </volume>
  </volumes>
</record>
CSS3 selectors

- Most useful attribute match operators:
  - `datafield[tag=245]` - exact match
  - `datafield[tag^=65]` - match start of value

- Selectors always narrow, so select broadly and iterate through the NodeList

- See:
  - [http://api.dojotoolkit.org/jsdoc/1.3/dojo.query](http://api.dojotoolkit.org/jsdoc/1.3/dojo.query)
  - [http://www.w3.org/TR/css3-selectors/](http://www.w3.org/TR/css3-selectors/)
Anticipated questions

• *Will a lot of record display customizations affect display performance?*
  – Not much: it's just one extra server request per bib record data type, the rest is just JavaScript.

• *Can we use this outside of record details?*
  – Yes, practically anywhere. Kevin Beswick is rewriting the search results page at Laurentian to display availability, call numbers, URLs, and basic bib record metadata via BibTemplate.

• *How's the browser compatibility?*
  – Good, if you like Internet Explorer 6-8, Firefox, Chrome/Chromium, and Safari. Opera fails, sadly.

• *What's in store for the future of BibTemplate?*
Advanced BibTemplate

• Most of what we do at Laurentian is intermediate record display enhancement

• But we have made our ISSN fields work harder:
  – Populate the “ISSN” field with the value(s)
  – Check our OpenURL server to determine if we have any electronic holdings for that periodical
  – Populate the “Online resources” field with the value(s)

• We have also customized our electronic resource display
More more more

- Laurentian University's customized record details page is available at http://ur1.ca/tj4t - along with lots of other stuff in the Evergreen contributions repository

- The Dojo Toolkit (http://dojotoolkit.org) is the JavaScript framework of choice for Evergreen – great optimized cross-browser support for DOM manipulation, asynchronous calls, etc
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