The “Semantic Bundle”

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National Library of Israel
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Semantic MediaWiki

An extension to MediaWiki that allows for storing and querying text in the wiki as data, turning the wiki into a “collaborative database”.
“Semantic Bundle”

A collection of Semantic MediaWiki-based extensions that can be downloaded together – I help to maintain it.

These also represent, in my opinion, the ideal set of extensions to be used jointly with SMW (although there are many other helpful MediaWiki extensions).
Some of the Semantic Bundle extensions

- Semantic MediaWiki
- Semantic Result Formats
- Semantic Maps
- Semantic Compound Queries
- Semantic Forms
- Semantic Drilldown
- Semantic Internal Objects
- External Data
- Data Transfer
- Approved Revs
- ParserFunctions
- Widgets
- Header Tabs
- Replace Text
- Admin Links
Semantic Result Formats

Additional display formats for Semantic MediaWiki: calendars, graphs, etc.
The following timeline shows the next 50 events with articles in this wiki.
### Veranstaltungen

#### Dezember 2009

<table>
<thead>
<tr>
<th>Sonntag</th>
<th>Montag</th>
<th>Dienstag</th>
<th>Mittwoch</th>
<th>Donnerstag</th>
<th>Freitag</th>
<th>Samstag</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>30</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
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<tr>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Organisches Service-Level-Management in Service-orientierten Architekturen (Graduiertenkolloquium)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>14</td>
<td>15</td>
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<td>17</td>
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<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
</tr>
</tbody>
</table>

**Organisches Service-Level-Management in Service-orientierten Architekturen (Graduiertenkolloquium)**

**Adaptive and Reactive Rich Internet Applications (Graduiertenkolloquium)**
The 10 most popular topics:

- Comprehensive Immigration Reform Act of 2007
- Economic crisis of 2008
- North Korean nuclear crisis
- 2006 Israel-Lebanon conflict
- Military Commissions Act of 2006
- Gaza War
- America's Affordable Health Choices Act of 2009
- Iranian nuclear crisis
- Post-invasion Iraq
The 10 most popular topics:

- Post-invasion Iraq
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- America's Affordable Health Choices Act of 2009
- Iranian nuclear crisis
“exhibit” format
Semantic Maps

Map-based display and input of coordinate data.
Semantic Maps: Google Maps

Map of Clean Energy Companies

Add a new Company

Map
Satellite
Hybrid
Terrain

Indian Ocean
Australia
Pacific Ocean
South America
Atlantic Ocean
Europe
Africa
Asia
Semantic Maps: OpenLayers
Semantic Compound Queries

Can display multiple Semantic MediaWiki queries at the same time.
Semantic Compound Queries: map
<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
</table>
|        | A Bailout Is Just a Start  
A Main Street Rescue  
Beg, Borrow, or Steal | Congressional Neroes | McCain for president: A certain leader for uncertain times  
A Vote Against Rashness | | | |
| 28     | 29     | 30      | 1         | 2        | 3      | 4        |
|        | P-I endorsement: Elect Obama | | | | | |
| 5      | 6      | 7       | 8         | 9        | 10     | 11       |
| It's Obama: We need a president who will break with the past | | | | Barack Obama for president | | |
| 12     | 13     | 14      | 15        | 16       | 17     | 18       |
|        |        | McCain for President: A real leader for America | | Barack Obama for President (Washington Post) | We recommend John McCain for president | |
Semantic Forms

Allows for making forms for creating and editing template-based wiki pages.

Forms can also be used to run search queries.
Semantic Forms

Features include:

- many input types (text, textarea, dropdown, radio button, checkboxes, listbox, combo box, date field)
- autocompletion (single and multiple values)
- other extensions can define additional input types (Semantic Maps defines a map-based input)
- field validation (mandatory fields, etc.)
Semantic Drilldown

Provides a drill-down interface for SMW data.
Semantic Internal Objects

 Allows for saving “n-ary data”, such as a table of information, within a wiki page.
External Data

Can query the information from a web-based API, database or LDAP server, and display it (and, using SMW, store it) on a wiki page.
"External Data" on OpenCongress.org

<table>
<thead>
<tr>
<th>From the Sunlight Foundation API</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Office:</strong> U.S. House of Representatives</td>
<td></td>
</tr>
<tr>
<td><strong>Title:</strong> Rep</td>
<td><strong>First name:</strong> Nancy</td>
</tr>
<tr>
<td><strong>Suffix:</strong></td>
<td><strong>Nickname:</strong></td>
</tr>
<tr>
<td><strong>Party:</strong> D</td>
<td><strong>State:</strong> CA</td>
</tr>
<tr>
<td><strong>Gender:</strong> F</td>
<td></td>
</tr>
<tr>
<td><strong>Phone:</strong> 202-225-4965</td>
<td><strong>Fax:</strong> 202-225-8259</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DC office:</strong> 235 Cannon House Office Building</td>
<td></td>
</tr>
<tr>
<td><strong>Bioguide ID:</strong> P000197</td>
<td><strong>Votesmart ID:</strong> 26732</td>
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<tr>
<td><strong>CRP ID:</strong> N00007360</td>
<td><strong>Eventful ID:</strong> P0-001-000016548-5</td>
</tr>
<tr>
<td><strong>OpenCongress Wiki URL:</strong></td>
<td><strong>YouTubeID:</strong> nancypelosi</td>
</tr>
<tr>
<td><a href="http://www.opencongress.org/wiki/Nancy_Pelosi">http://www.opencongress.org/wiki/Nancy_Pelosi</a></td>
<td></td>
</tr>
</tbody>
</table>
Data Transfer

Can import and export template-based information into and out of the wiki, via either XML or CSV.
Approved Revs

Lets administrators mark a certain revision of a page as approved; that revision (and its semantic data) are then displayed to users.

(This is a simpler alternative to the FlaggedRevs extension, used on Wikipedia.)
ParserFunctions

Helpful parser functions for logic (like “#if”), math, and string manipulation.

Not at all semantic-related, but indispensable!
Widgets

Enables adding pre-set bits of HTML and Javascript to pages, to enable video players, audio players and many others.

Eliminates the need for many 10-line MediaWiki extensions.
Header Tabs

Allows for easily creating tabbed sections in both regular pages and forms.
Replace Text

Global text search-and-replace.
Admin Links

Provides a page of helpful links for administrators.
Admin Links

Admin links

**General**
Statistics · Version · Special pages · System messages · Edit sidebar · Edit CSS file · Edit name of main page
Approved pages · Replace text · Delete batch of pages

**Users**
User list · Create a user · User rights management

**Data structure**
Categories · Templates · Properties · Unused properties · Forms · Semantic statistics
Create a class · Create a property · Create a template · Create a form · Create a category · Admin functions for Semantic
Semantic MediaWiki documentation · Semantic Forms documentation

**Data display**
Inline queries help · Semantic Result Formats documentation · Maps documentation · Semantic Maps documentation

**Browse and search**
All pages · Search
Browse wiki · Semantic search · Search by property
Browse data · Filters · Create a filter · Semantic Drilldown documentation