Semantic Expressiveness and RPG-Dev-Wiki

By Daniel Werner, SMWCon Fall 2012
The RPG-Dev-Wiki Plattform

- Tool for designing *Role Play Games* (RPGs)
- Bundle of about 800 wiki pages
  Templates, Property definitions, categories, help pages
- Uses MW, SMW & many other extensions
  including several RPG-Dev tailored extensions
- Extensive documentation with best practice
- Currently, only available in German
http://rpg-dev.org

- Repo for ongoing development of the system
- Went online in early 2010
- Host for actual projects (RPG-Dev-Wiki Clients)
  E.g. http://gom.rpg-dev.org (‘Gothic Open Mod’ project)
• Templates for describing game contents
e.g. NPCs, Locations, Quests, etc.
  – Usually one per wiki page
  – The RPG-Dev-Wiki System is all about managing their relations

• Everything is work in progress
  – Lots of the content is very likely to be changed several times, redundancies can be very expensive
  – The RPG-Dev-Wiki System is all about avoiding those redundancies

This can’t be enforced. Authors have to follow certain guidelines. They should know about and use the provided technology.
Semantic Expressiveness (SemEx)

• Originally developed for RPG-Dev-Wiki

New, short syntax/\textit{parser function} for inline queries

\texttt{<\texttt{Property::Page}>}

\texttt{or}

\texttt{{}\texttt{[:Property|of=Page]}}
Semantic Expressiveness (SemEx)

• Originally developed for RPG-Dev-Wiki
  
  New, short syntax/parser function for inline queries
  – Against redundancy in article text (flowing text)
  – Ensures “expressive result”

```{NPC
| Name = Peter
| Gender = male
| Age = 42 years
...
```

```XML
<?Name> is the reigning king of <?Name::Kingdom>. Ever since he has turned <?Age>, he...
```
Semantic Expressiveness (SemEx)

Also,

<?Name> is the reigning king of <?Name::Kingdom>. Ever since he has turned <?Age>, he...

vs.

{{#show:{PAGENAME}|?Name}} is the reigning king of {{#show:Kingdom|?Name}}. Ever since he has turned {{#show:{PAGENAME}|?Age}}, he...

Peter is the reigning king of <Name of Kingdom>. Ever since he has turned <Age>, he...

vs.

Peter is the reigning king of . Ever since he has turned , he...
SemEx in RPG-Dev-Wiki (1)

- RPG-Dev-Wiki Documentation encourages to name articles in a descriptive way
  - Sequential IDs (prefixed) might be useful sometimes
  - Having redundant information in the name can be useful in some rare cases
  - A good balance serves the workflow
SemEx in RPG-Dev-Wiki (2)

In RPG-Dev-Wiki, “Quests” follow a special concept of defining “Roles”. A role can be taken by a NPC, a Location or an Item. (Roles are special properties, prefixed with “R:”)

- **Coal Miner 24**
  - R:Worker

- **Funny Pirate**
  - R:Troublemaker

- **Drunken Worker in Trouble**
  - R:L:Bar

- **Rural Bar**

Allows us to use stuff like `<?Age::R:Worker>` or `<?Name::R:L:Bar>` within the quest.

All roles stay exchangeable!
Examples for Quest roles and Quest relations
SemEx: Development

• Originally implemented as simple template:?
  (about 50 lines of code)

• Now, proper extension in experimental state
  (about 5,000+ lines of code)
  – Requires MW 1.20 and SMW 1.7 or 1.8
  – Requires Jeroen De Dauw’s Validator extension
  – Offers many advanced features...
SemEx: Advanced features (1)

- Nested syntax, allows:

  `<?Name::*<?Capital City>>`

  (2) Will ask for the “Name” property of the inner query’s result

  (1) Will ask for the “capital city” property of the current article. (Should be a reference and single-valued)
SemEx: Advanced features (1)

- Nested syntax, allows:

```
<?Name::<?Capital City>>
```

Equivalent to:

```{json}
{#show:
   {#show:{PAGENAME}}|<?Capital City |link=none } } |
   ?Name
}
```
SemEx: Advanced features (1)

- Nested syntax, allows:
  
  ```
  <?Name::<?Capital City>>
  ```

- Can go as deep as you want, e.g.
  
  ```
  <?Name::<?Vather::<?Vather:::Someone>>>>
  ```

- Or alternatively:
  
  ```
  <?Name:::Vather:::Vather:::Someone>
  ```
SemEx: Advanced features (1)

• Nested syntax, allows:

<?Name::<?Capital City>>

• Can go as deep as you want, e.g.

<?Name::<?Vather::<?Vather:::Someone>>>

• Or alternatively:

<?Name::Vather::Vather:::Someone>

Could look like:

<Vather of <Vather of <Vather of Someone>>>>
<Vather of <Vather of John F. Kennedy>>
<Vather of Joseph P. Kennedy>
SemEx: Advanced features (2)

Each successful short query can display additional information in tooltips.

This will be configurable, so it will be possible to display fact-boxes or other information from the queries target page or via the API.
SemEx: Advanced features (3)

- Parser function `{{?:}}` for using short queries in templates or in case a new syntax is considered undesirable.
  - Template version with some additional parameters

- `<?!...>` and `{{?!:...}}` which work just as `<?...>` but won’t print any “expressive result” in case the query fails

- `{{?to?!:...}}` parser function for making templates compatible with `<?...>`
  - Replaces all “expressive results” with their plain value or no value

- Early defined properties could be queried even before sent to the store (experimental).
SemEx: Future Plans

• First stable release

• Putting more thought into some features
  – `<?...>` Syntax
  – `?to?!` parser function
  – Accessing incomplete store in short queries
  – Grammatical issues of `<?...>` in running text

• New special properties for property definitions. E.g. for defining that a property should be single valued.
<?questions?>
Want to contact me?

IRC: Danwe or Danwe_WMDE
    in #mediawiki, #wikimedia-wikidata and #semantic-mediawiki

Email: DanWeEtz@web.de