

COVO.js :

**A JavaScript Library to Utilize Subject Headings and
Thesauri on the Web**

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Profile



✧ NAME : Shun NAGAYA

✧ came from Japan 

✧ Working at the JAEA library

✧ editing JAEA Reports and JAEA R&D Review

✧ managing the grants for paper submission and conference presentations.



A teal speech bubble with a white outline and a small tail pointing downwards and to the left. The word "MESSAGE" is written in white, bold, uppercase letters inside the bubble.

MESSAGE

“Traditional library tools **can** assist organizing information on the web”

thesauri
subject headings
classifications

information retrieval
information architecture



By greeble

<http://www.flickr.com/photos/29598412@N00/3347082123>



By illustr

<http://www.flickr.com/photos/alper/2805069373/>

“Traditional library tools **can** assist organizing information on the web”

thesauri
subject headings
classifications

information retrieval
information architecture

metadata



By greeble

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By illustr

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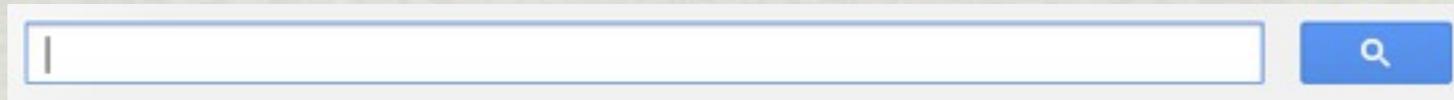
covo.js

TABLE OF CONTENTS

- ✱ **What is the covo.js**
- ✱ **Covo.js updates** (ver 0.1 -> ver 0.2)
- ✱ **How to use the covo.js**
- ✱ **Summary and Future Works**

A lot of “boxes” in this world

- ✱ search boxes



- ✱ input boxes

A screenshot of a form with three input boxes. The first box is labeled "Name (required)". The second box is labeled "Mail (will not be published) (required)". The third box is labeled "Website".

- ✱ etc.



By Skrewtape

<http://www.flickr.com/photos/skrewtape/851672959/>



By R/DV/RS

<http://www.flickr.com/photos/redvers/2656840476/>



By Paul Beattie

<http://www.flickr.com/photos/paulbeattie/494148127/>

When do we enter some words?

* **searching**

- * DB, Search engine, etc.

* **tagging**

- * SBM, Web-service, etc.

* **register**

- * input some information to sign up



By CETHompson

<http://www.flickr.com/photos/claire69/5578893436/>

Using a controlled vocabulary on the web-services

- ✱ Metadata is a very useful tool to organize various kinds of information.
- ✱ Librarians use metadata that are called “Controlled terms”.
Controlled terms mean thesauri, subject headings and authority files and so on.
- ✱ Controlled terms have the possibility to organize information on the web.

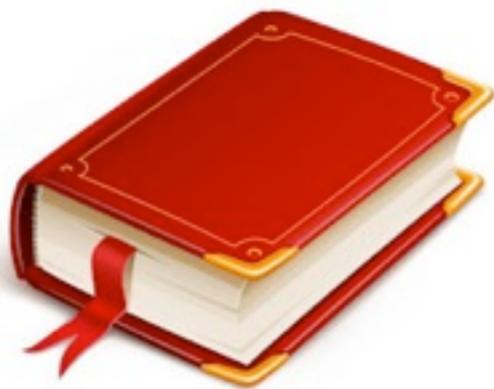


By BlackburnMike_1

<http://www.flickr.com/photos/mikeblackburn/6839218898/>

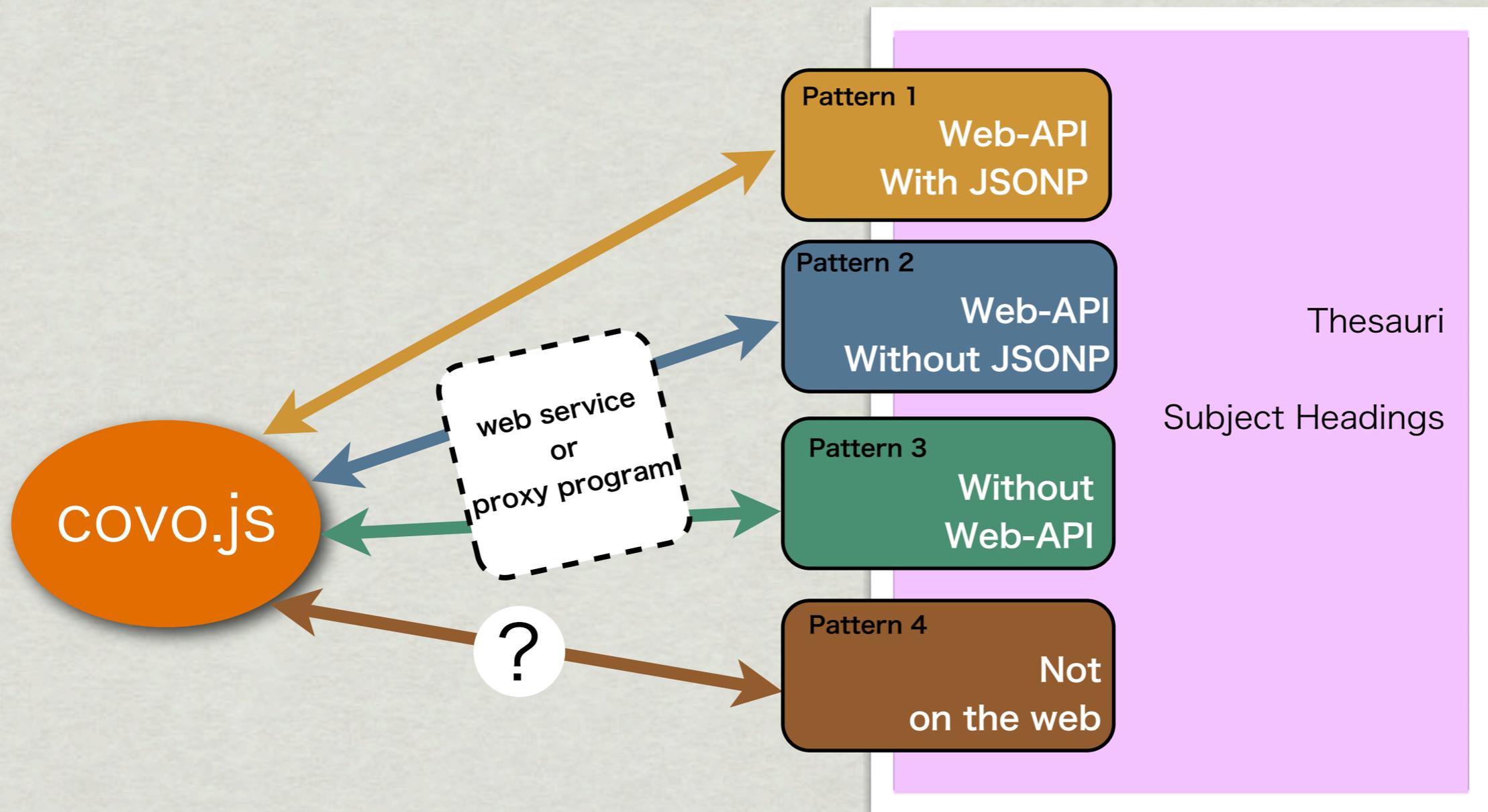
Technical issues

- ✱ There exist many kinds of controlled terms in the world.
- ✱ Some of the controlled terms are difficult to use on the web.
- ✱ Books, PDF or html are not suitable for programming.



Four patterns

- ✱ We found the following four patterns for using Web-based controlled vocabularies.



Why we choose the JavaScript ?

- ✱ De facto standard as a client-side programming language.
 - ✱ without any browser plug-in
 - ✱ such as Flash and Java need plug-in
- ✱ additional functions as a User Script
 - ✱ Greasemonkey
 - ✱ Native add-on for browser

Output of results

Shun NAGAYA, Yutaka HAYASHI, Shuhei OTANI, Keizo ITABASHI
“Controlled Terms or Free Terms? A JavaScript Library to Utilize Subject Headings and Thesauri on the Web.” *Code4Lib* 15 (2011)

The screenshot shows the Code4Lib Journal website. At the top left is the logo 'code{4}lib JOURNAL'. To the right are navigation links: 'Mission', 'Editorial Committee', 'Process and Structure', and 'Code4Lib'. Below the logo is a search bar with a 'Search' button. The main content area shows 'Issue 15, 2011-10-31' and 'ISSN 1940-5758'. The article title is 'Controlled Terms or Free Terms? A JavaScript Library to Utilize Subject Headings and Thesauri on the Web'. The abstract text reads: 'There are two types of keywords used as metadata: controlled terms and free terms. Free terms have the advantage that metadata creators can freely select keywords, but there also exists a disadvantage that the information retrieval recall ratio might be reduced. The recall ratio can be improved by using controlled terms. But creating and maintaining controlled vocabularies has an enormous cost. In addition, many existing controlled vocabularies are published in formats less suitable for programming. We introduce a JavaScript library called "covo.js" that enables us to make use of controlled vocabularies as metadata for the organization of web pages.' At the bottom, it says 'By Shun Nagaya, Yutaka Hayashi, Shuhei Otani and Keizo Itabashi' and provides the URL <http://journal.code4lib.org/articles/5994>. On the left sidebar, there are sections for 'Current Issue' (Issue 17, 2012-06-01), 'Previous Issues' (listing issues 16, 15, 14, 13, and Older Issues), and 'For Authors' (Call for Submissions, Article Guidelines).

WHAT IS THE COVO.JS

- ✱ Covo.js is a JavaScript Library to Utilize Subject Headings and Thesauri on the Web.
- ✱ a tool that was created to solve a technical issues, except for pattern 4.
- ✱ quickly find and select controlled terms from a list in the input form.
- ✱ extend possibilities for command line interface in the web.
- ✱ Released version 0.1 in Oct, 2011.
- ✱ version 0.2 released recently

Supporting controlled vocabularies

- ✱ covo.js is supporting the following thesauri and subject headings

1. National Diet Library Subject Headings

2. Faceted Application of Subject Terminology

3. Form and Genre Terms for Fiction and Drama

4. Library of Congress Annotated Card Program Subject Headings

5. Library of Congress Subject Headings

6. Medical Subject Headings

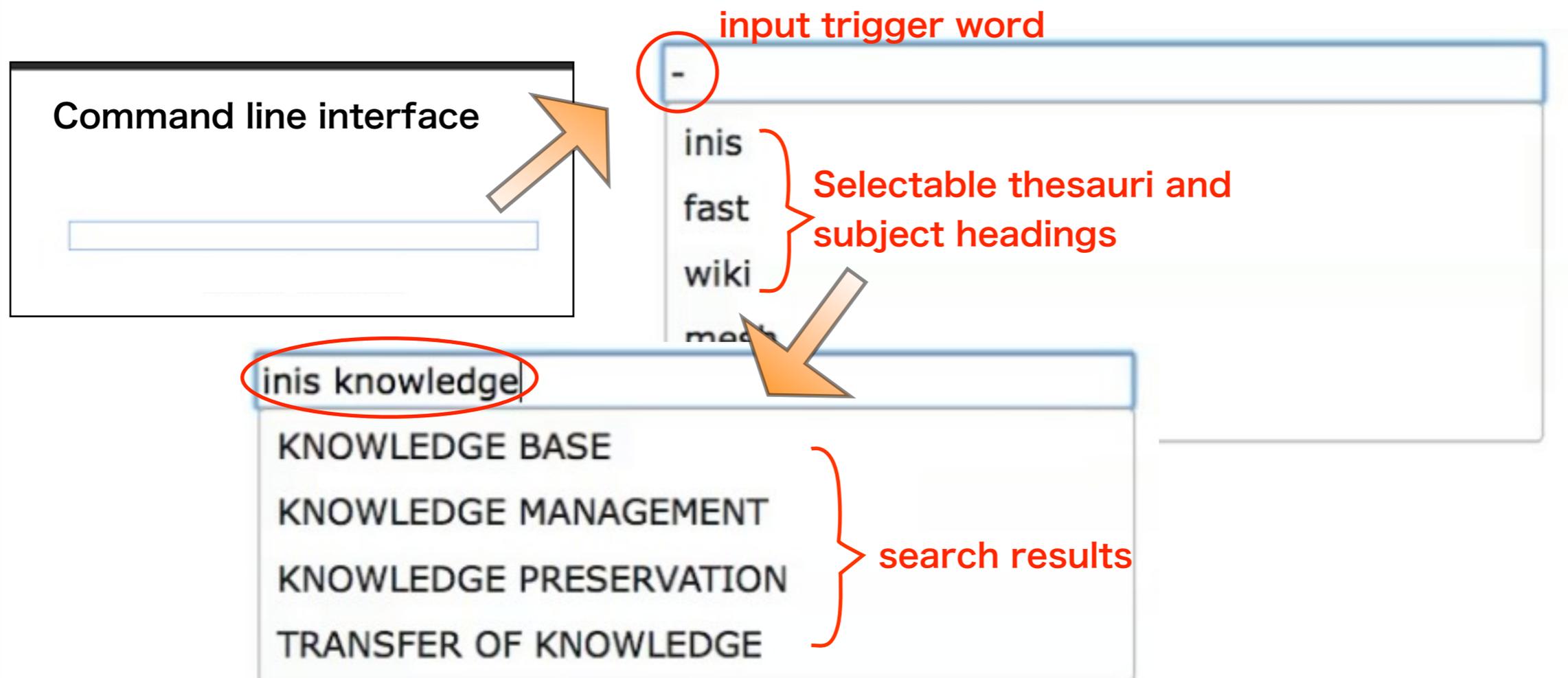
7. TGM I, Subject Terms: Thesaurus for Graphic Materials

8. TGM II, Genre and Physical Characteristic Terms: Thesaurus for Graphic Materials

9. INIS Multilingual Thesaurus

10. Wikipedia Thesaurus

Basic operation



Sample movie

* <http://www.youtube.com/watch?v=bzAYID4sg6Q>

COVO.JS UPDATES !

- RELEASED 0.2 ! -

* Additional some functions

Browser add-on

1

Handling of two
vocabularies

2

Customizable

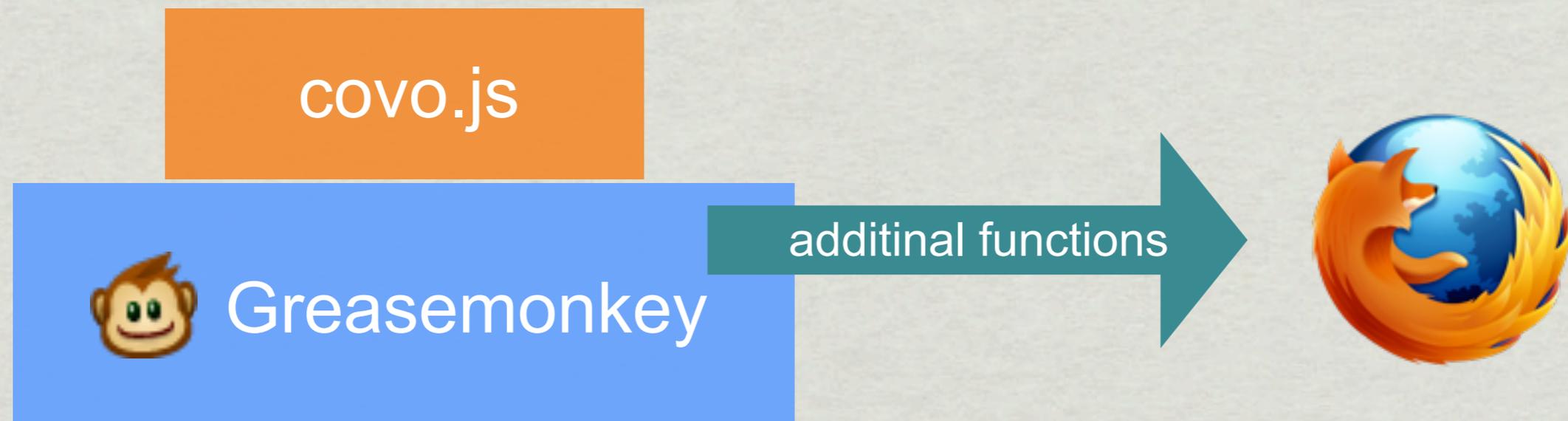
3

Notification

4

1. Browser add-on version

- * Released “Browser add-on version”
- * Greasemonkey is a Firefox extention that allows users to install user script.
- * We can added covo.js as a user script.
- * Once you install covo.js on your browser, you can use it for a lot of input forms.

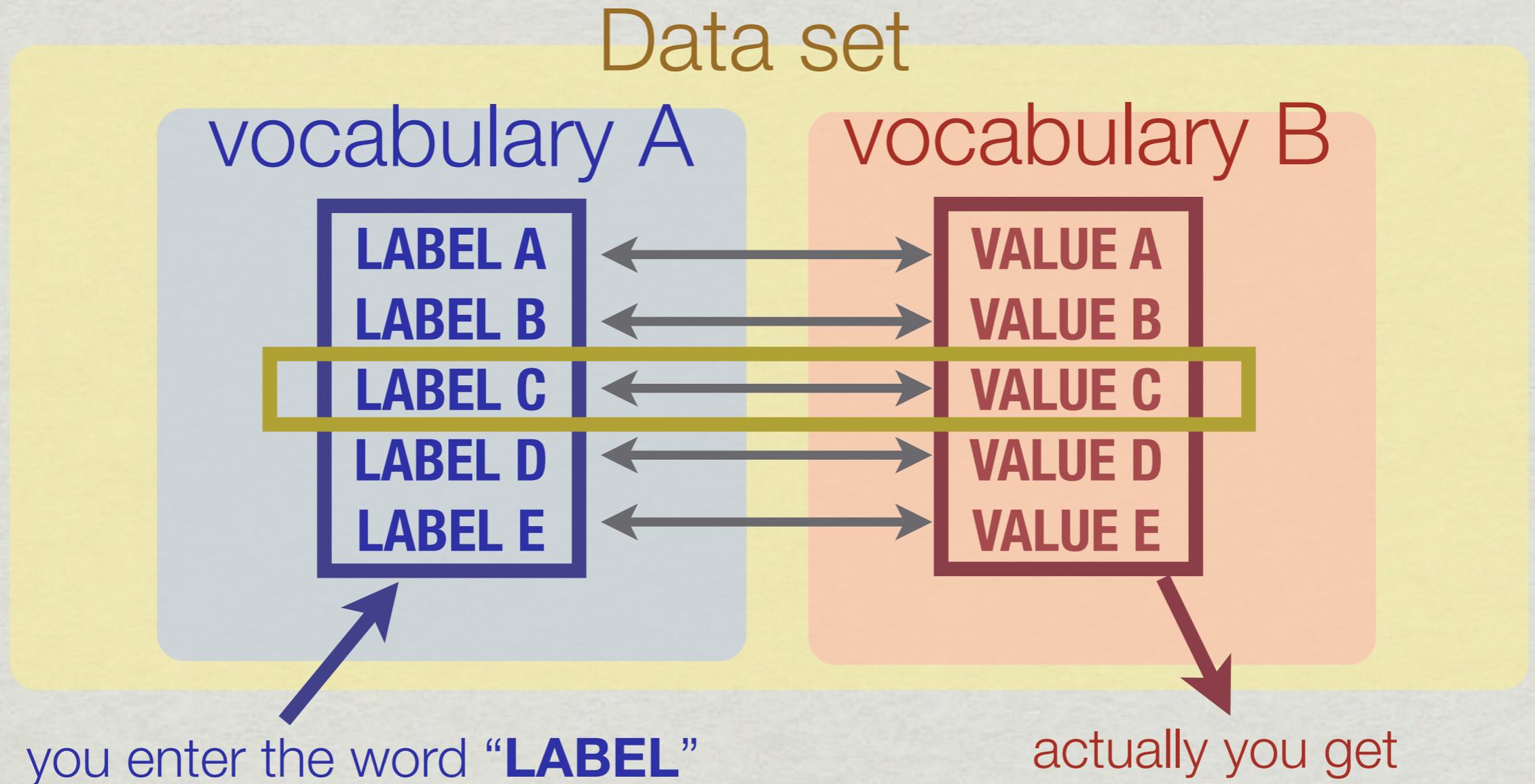


1. Browser add-on

* <http://www.youtube.com/watch?v=d4uwy-g0TVo>

2. Handling of two vocabularies

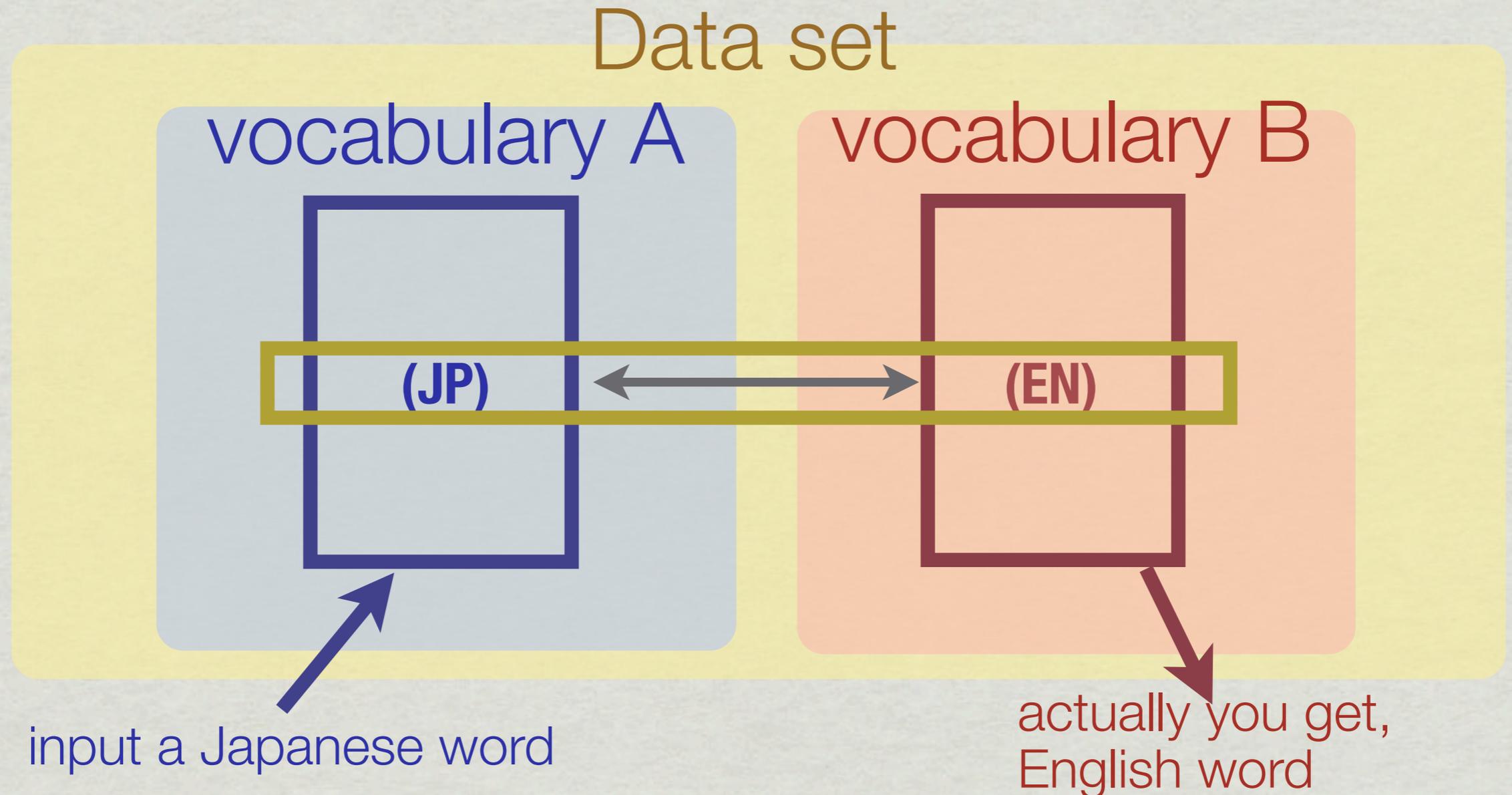
- * User can handle the vocabulary set which are included two types of data such as “label” and “value”.



2. Handling of two vocabularies

✱ Ex. Multilingual thesaurus

✱ automatic change



3. Customizable

- * You can use your vocabulary through the covo.js more easily.
- * additional vocabulary more easily
- * need to prepare file of json format

```
mytag.json
1 mytag([
2   {
3     "keyword":"inis"
4   },
5   {
6     "keyword":"mesh"
7   },
8   {
9     "keyword":"test"
10  }
11 ]);
```



```
mytag ini
inis
```

4. Notification

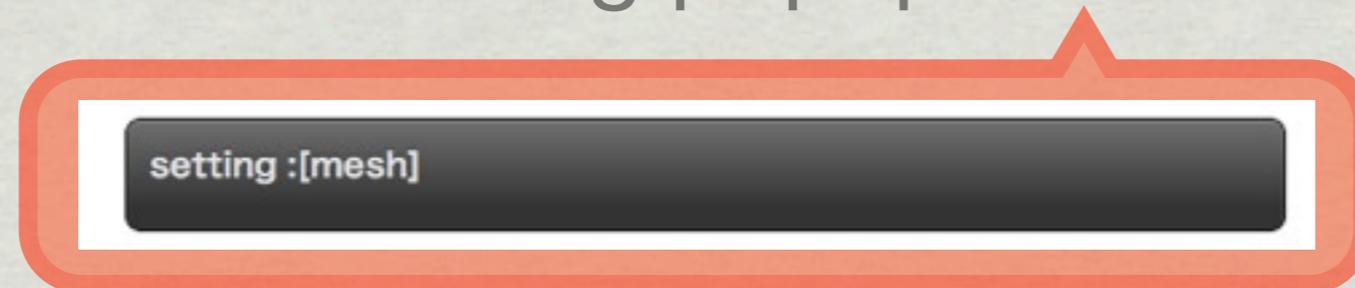


<http://growl.info/>

- * looks like the “Growl”

- * Growl is the notification systems for Mac OSX.

- * covo.js alert us using popup list



- * when user selecting vocabulary, word, etc

- * not essential function

- * it makes us more fun and familiar with inputting some words.

4. Notification

* <http://www.youtube.com/watch?v=XWai6IDaOAAQ>

for Users

HOW TO USE

for Developers

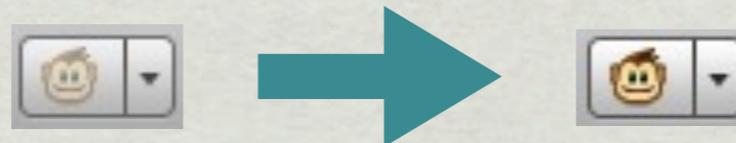
HOW TO USE

- FOR USER -

- * Install covo.js Browser add-on version
- * Install **Greasemonkey** and **covo.js**



- * Greasemonkey ON



- * without setting each web-pages

HOW TO USE

- FOR DEVELOPER -

- * Download and include



- * jQuery , jQuery UI, covov.js

- * Add covov.js to the HTML <head> element:

```
01. <script src="covov.js" type="text/javascript"></script>
```

- * And create the covov.js widget in your <body> element:

```
01. <div class="ui-widget">  
02.   <label for="covov">Let's covov.js ! : </label>  
03.   <input id="covov" />  
04. </div>
```

SUMMARY AND FUTURE WORK

Summary

- ✱ Controlled terms have the possibility to organize information on the web.
- ✱ covo.js will be able to assist you to input controlled terms and some words.
- ✱ However not all controlled terms support access via a Web API.
- ✱ extremely important to publish controlled terms lists in formats suitable for programming such as xml, json.

Future works

- ✱ Support to handle hierarchical structure
- ✱ A term is connected with other related terms and it forms the network.
- ✱ visualization
- ✱ Browser version covov.js can be used on only firefox
- ✱ Native add-on : Google chrome, Mozilla Firefox

THANK YOU !

THANK YOU !

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