

How to create a flexible and easily customizable

Web Widget with Rails

Pluit Solutions, Herryanto Siatono

Web Widget is

a third party item that can be embedded
in a web page

Source: [Wikipedia.com](https://en.wikipedia.org/wiki/Web_widget)

Javascript Widget : Google Adsense, Amazon, MyBlogLog, Twitter, BookJetty

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Now Reading



Will Richardson



via [BookJetty](#)



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Flash Widget : Flickr, Last FM, You Tube, Shelfari.com

My Playlist last.fm

last.fm

▶

lawrencecoburn's Playlist

Grandaddy - Miner at th..	5:21	URL
Beulah - Emma Blowgu..	5:22	URL
Spoon - The Beast and ..	4:16	URL
John Vanderslice - Whit..	4:19	URL
Wilco - War On War	3:48	URL
Pavement - In the Mout..	3:52	URL
The Mountain Goats - T..	3:52	URL
The Mountain Goats - D..	1:57	URL
Metric - Combat Baby	3:29	URL

GET YOUR OWN VIEW PROFILE



www.flickr.com

What is this?

A Flickr photo gallery widget displaying a grid of 12 small photographs. The photos show various groups of people in social settings. Below the grid is a text prompt "What is this?" with a blue link.

Image Widget : GoodReads.com

recently read widget

Add your recent book reviews and currently reading list to your website.

width:

- 355 pixels (good for myspace profiles, etc)
- 220 pixels (good for sites with a right/left column)

Herry recently read

06/15 The Collected Stories of Amy Hempel by Amy Hempel

05/08 Extremely Loud and Incredibly Close: A Novel by

Jonathan Safran Foer

05/08 4 stars: Agile Web Development with Rails: A

Pragmatic Guide by Dave Thomas

powered by goodreads.com

Copy/paste the below html into your website.

```
<a href="http://www.goodreads.com/user/show/123456789" >
  </a>
```

What's so good about Widget?

- **Out of Free Will**
- **Fast Distribution – Multi-Level Marketing Effects**
- **Happy and Active Users**

Hello World JS Widget

```
<script type="text/javascript"  
  src="http://domain.com/hello_world.js">  
</script>
```

[hello_world.js](#)

```
document.write('hello world');
```

Quick and Dirty Widget

(using URL parameters)

```
<script language="javascript" type="text/javascript"  
  src="http://www.domain.com/jswidget.php?reporton=nicky  
  &show=random&header=1&num=5&covers=small&text=all&  
  tag=alltags&css=1&style=1&charset=&version=1">  
</script>
```

The Big-Guys Way – *Amazon, Adsense* (using JS variables)

```
<script type="text/javascript"><!--  
  google_ad_client = "pub-32432432432432";  
  google_ad_width = 468;  
  google_ad_height = 60;  
  google_ad_format = "468x60_as";  
  google_ad_type = "text";  
  google_ad_channel = "";  
  google_color_border = "ffffff";  
  google_color_bg = "ffffff";  
  google_color_link = "1465b7";  
  google_color_url = "1465b7";  
  google_color_text = "000000";  
  //--></script>  
<script type="text/javascript"  
  src="http://pagead2.googlesyndication.com/pagead/show_ads.js"></script>
```

BookJetty Widget

(supports both 😊)

```
<script type="text/javascript"><!--  
    bj_username = "jugend";  
    bj_filter_category = "reading";  
    .....  
--></script>
```

```
<script type="text/javascript"  
    src="http://bookjetty.com/widget.js"></script>
```

JS variables are converted to URL params (not shown to user):

```
<script type="text/javascript"  
    src="http://bookjetty.com/widget.js?username=jugend&filter_category  
=reading"></script>
```

Widget Formatting

- **CSS Include**

```
<style src='http://domain.com/stylesheets/widget.css'>
```

- **Inline CSS**

```
<ul id="widget">  
  <li style="font-size: 1.2em; color: #ff0">Book Title</li>  
</ul>
```

- **Overridden styles (on user page)**

```
<script type="text/javascript" src="http://domain.com/widget.js"></script>  
<style>  
  ul#widget li { font-size: 2em; color: #cf0" }  
</style>
```

BookJetty Widget Form (new.rhtml)

Create a blog widget

It is easy to create a BookJetty widget, customize the widget or use it, copy the HTML codes and paste them on your page.

Type:

Hide: Cover Title Author

Filter by category:

Filter by tag:

Max. entries:

Filter by ISBN:

If more than one, separate each with a comma.

Include no-cover books: Yes No

Show text below cover: Yes No

Hide BookJetty link: Yes No

Sort by: Recent Random

Cover size:

Link book to:


The widget width, font-type, text, background and link colours will follow the width and style of your sidebar or page, or you can do some customizations here. For a more advanced customization, overwrite the CSS styles.


[» Customize widget styles](#)


or [Restore to default](#)


Widget Form


PREVIEW

 **Extremely Loud and Incredibly Close**
by Jonathan Safran Foer

 **Advanced Rails Recipes: 72 New Ways to Build Stunning Rails Apps**
by Mike Clark, Chad Fowler

 **The Visual Display of Quantitative Information**
by Edward R. Tufte

 **Understanding Comics: The Invisible Art**
by Scott McCloud

 **Envisioning Information**
by Edward R. Tufte

Widget Preview

Iframe,
loading preview.rhtml

via [BookJetty](#)

HTML CODES

Copy the HTML codes below and paste them on your page.

```
<script type="text/javascript"><!--
bj_username = "jugend";
//--></script>
<script id="widget-script" type="text/javascript" src="http://bookjetty.com/widget.js"></script>
```

Tip: For those who are adventurous, you can replace the `bj_xxx` variable as `widget.js` query string parameter, but remember to remove the `bj_` prefix. [Click here](#) for an example to link to a book cover by ISBN no, aligned left.

Widget Codes

On submit:

```
params = $('form-id').serialize();
```

Update iframe location:

```
'preview?' + params +
'&last_request=' +
(new Date()).getTime();
```

Preview Output:

Load Widget Codes

```
<script src="http://
bookjetty.com/widget.js" ...
```

Update Widget Codes

When reloading iframe:

Don't use:

```
$('#frame-name').src = 'preview?' + params +  
    'timestamp=' + timestamp
```

Cache seems to stick around in IE, use:

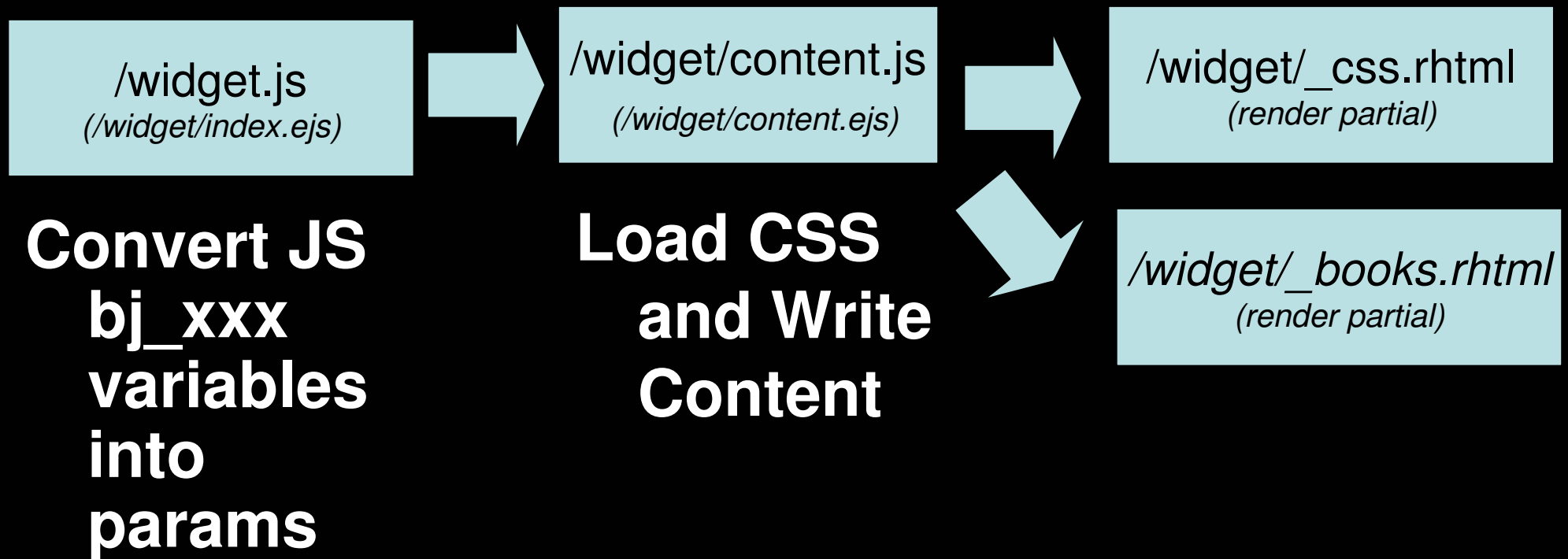
```
(document.frames || window.frames)['frame-  
name'].location.href = 'preview?' + params +  
    'timestamp=' + timestamp;
```

Use MinusR Plugin (DannWebb.net)

- JS + ERB
- Add .ejs template

```
alert('No more silly Ruby in my JavaScript!');  
$('thing').setStyle(<%=js @style_options %>);  
$('boob').update(<%= partial('new_boob') %>);
```

Widget Framework



[/widget.js \(widget/index.ejs\)](#)

```
BookjettyWidget = {
  BASE_URL: 'http://<%= request_host %>',
  CONTENT_URI: '/widget/content.js',
  VARIABLE_PREFIX: 'bj',
  PARAMS: ['<%= Widget::ATTRIBUTES.join("'", "'") %>'],

  init: function() {
    this.requestContent(this.url_for(this.CONTENT_URI) +
      this.prepareParams());
  },

  requestContent: function(content_url) {
    script = "<script type='text/javascript' src='" + content_url +
      "'></script>";
    document.write(script);
  },

  ...
}
```

```
.....
prepareParams: function() {
  params = ''
  for (var i=0; i<this.PARAMS.length; i++) {
    if (value = this.defined(this.VARIABLE_PREFIX + this.PARAMS[i])) {
      params += '&' + this.PARAMS[i] + '=' + escape(value);
    }
  }

  <% unless request.query_string.blank? -%>
  // load from query string
  params += '&' + '<%= escape_javascript(request.query_string) %>';
  <% end -%>

  if (params.length > 0) {
    params = '?' + params.substr(1);
  }

  return params;
},

url_for: function(uri) {
  return this.BASE_URL + uri;
},

defined: function(name) {
  try {
    return eval(name);
  } catch (e) {};
}
}

BookjettyWidget.init();
```

[/widget/content.js \(widget/content.ejs\)](#)

```
var bjwidget_css = "<style><%= escape_javascript(render :partial  
=> 'css') %></style>"  
var bjwidget_html = "<%= escape_javascript(render :partial =>  
'books') %>"  
document.write(bjwidget_css);  
document.write(bjwidget_html);
```

/widget/_book.rhtml

```
<% unless @books.blank? %>
<div class="bj-widget">
  <div class="bj-list">
    <% @books.each_with_index do |book, i| %>
      <div class="bj-item">
        <% unless include?(params[:hide], 'cover') -%>
          <div class="bj-cover">
            <%= link_to(cover_image(book), book_link(book), {:target => "_top", :border
              => 0, :title => book.title}) -%>
          </div>
        <% end %>
      </div>
    <% end %>
  </div>
</div>
```

.....

```
</div>
```

```
<% end %>
```

```
</div>
```

.....

```
</div>
```

```
<% end %>
```

/widget/_css.rhtml

```
.bj-widget {
  <%= unless_css (params[:border_color], 'border: 1px solid ') -%>
  <%= unless_css (params[:text_color], 'color:') -%>
  <%= unless_css (params[:background_color], 'background:') -%>
  <%= unless_css (params[:padding], 'padding:', 'px') -%>
  <%= unless_css (params[:width], 'width:', 'px') -%>
  overflow:hidden;
}

.bj-widget .bj-title {
  <% text_align = 'center' if true?(params[:show_text_below_cover]) -%>
}
```

Notes

- Don't be lazy, use **JS variables** for your widget customisation.
- Use **CSS include** for complex widget and **inline CSS** for simple widget.
- **Prefix** JS variables, CSS id/class names to avoid conflict.

Notes *(Not done yet, but last slide I promise)*

- Hide JS variables with default values, because it's **quite scary** to copy codes with so **many variables**.
- Be **forgiving** with your variable values, e.g. accept 1/0, true/false, yes/no for boolean value.
- Do not include Javascript framework, such as **Prototype, Dojo, Yahoo UI**, etc... You do not want your widget to mess up your user's script.
- If you doing a widget preview using iframe, remember **slide 13**.

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