Designing Reusable Web Components

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Agenda

What do we want to design?



Technology

HTML5 / Canvas
Google Web Toolkit
Vaadin Framework

Designing Web Component Step-by-step











Image: Spreadsheet component XLS upload demo Image: Spreadsheet Component XLS upload			
pload	a XLS file to view it		
Choos	se File no file selected	Upload	
.xls			
	1	2	3
42	42.0	1764.0	1 6232492903979003
42	42.0	1704.0	1.0232492903979003
43	43.0	1849.0	1.6334684555795864
44	44.0	1936.0	1.6434526764861872
45	45.0	2025.0	1.6532125137753435
46	46.0	2116.0	1.6627578316815739
47	47.0	2209.0	20978579357173
48	48.0	2304.0	12412373755872
49	49.0	2401.0	01960800285134
50	50.0	2500.0	1.6989700043360185
51	51.0	2601.0	1.7075701760979363
52	52.0	2704.0	1 716003343634799

http://jole.virtuallypreinstalled.com/spreadsheet

57	57.0	3249.0	1.7558748556724912
58	58.0	3364.0	1.7634279935629371



```
public class SpreadsheetUploadDemo extends Root implements Receiver
```

1

}

```
Upload upload = new Upload("Upload a XLS file to view it", this);
Spreadsheet spreadsheet = new Spreadsheet();
```

```
protected void init(WrappedRequest request) {
    setCaption("Spreadsheet component XLS upload demo");
    VerticalLayout vl = new VerticalLayout();
    vl.setMargin(true);
    vl.setSizeFull();
    vl.addComponent(upload);
    setContent(vl);
    vl.addComponent(spreadsheet);
    vl.setExpandRatio(spreadsheet, 1.0f);
    spreadsheet.setGraphEnabled(true);
}
```

```
public OutputStream receiveUpload(final String filename, String mimeType) {
    ByteArrayOutputStream baos = new ByteArrayOutputStream() {
        public void close() throws IOException {
            super.close();
            spreadsheet.setCaption(filename);
            spreadsheet.readXLS(new ByteArrayInputStream(this.toByteArray()));
        }
    };
    return baos;
}
```



Technology







<!doctype html>



Element	Description
<article></article>	An independent piece of content for a document e.g. blog entry, forum entry
<aside></aside>	A piece of content that is somehow related to the rest of the page
<audio></audio>	Audio media content
<canvas></canvas>	A component for rendering dynamic bitmap graphics on the fly. e.g games
<command/>	A command that the user can invoke: a button, radio button or checkbox
<datalist></datalist>	Together with the new list attribute for the <input/> element can be used to make combo boxes
<details></details>	Additional information or controls that the user can obtain on demand, to provide details on the document, or parts of it
<embed/>	Used for plug-in content
<figure></figure>	A piece of self-contained flow content referenced as a single unit from the main flow of the document
<figcaption></figcaption>	Caption for a <figure></figure>
<footer></footer>	Footer for a section; may contain information about author, copyright information, etc.
<header></header>	A group of introductory or navigation aids
<hgroup></hgroup>	Header of a section
<keygen/>	A key pair generation control for user authentication in forms
<mark></mark>	A run of text in one document marker or highlighted for reference purposes

"new shiny"



Cross-document messaging

Multimedia

WebGL

Offline storage Markup improvements

Forms

Geolocation



Drag-and-drop

Document editing

Microdata

Canvas

History management

File API





http://vj.jole.fi/



Refcardz! Visit refcardz.

More

Get

Canvas

HTML5

CONTENTS INCLUDE:

- Introduction to Canvas
- Browser Support and Hardware Acceleration
- What Canvas Can and Cannot Do
- A Comparison with SVG
- Canvas Performance
- Creating a Canvas and More!

HTML 5 Canvas

A Web Standard for Dynamic Graphics

By Simon Sarris

INTRODU	JCTION TO	CANVAS

The HTML <canvas> element allows for on-the-fly creation of graphs, diagrams, games, and other visual elements and interactive media. It also allows for the rendering of 2D and 3D shapes and images, typically via JavaScript.

<canvas id="canvas1" width="500" height="500"></canvas>

- <script type="text/javascript">
 Var can = document.getElementById('canvas1');
 var ctx = can.getContext('2d');

ctx.fillText("Hello World!", 50, 50);

Canvas is perhaps the most visible part of the new HTML5 feature set, with new demos, projects, and proofs of concept appearing daily.

Canvas is a very low-level drawing surface with commands for making lines, curves, rectangles, gradients and clipping regions built in. There is very little else in the way of graphics drawing, which allows programmers to create their own methods for several basic drawing functions such as blurring, tweening, and animation. Even drawing a dotted line is something that must be done by the programmer from scratch.

Canvas is an immediate drawing surface and has no scene graph. This means that once an image or shape is drawn to it, neither the Canvas nor its drawing context have any knowledge of what was just drawn.

For instance, to draw a line and have it move around, you need to do much more than simply change the points of the line. You must clear the Canvas (or part of it) and redraw the line with the new points. This contrasts greatly with SVG, where you would simply give the line a new position and be done with it.

Hot http://www.whatwg.org/specs/web-apps/current-work/multipage/ Tip the-canvas-element.htm

Browser Support and Hardware Acceleration

Canvas is supported by Firefox 1.5 and later; Opera 9 and later; and newer versions of Safari, Chrome, and Internet Explorer 9 and 10.

The latest versions of these browsers support nearly all abilities of the Canvas element. A notable exception is drawFocusRing, which no browser supports effects.

Hardware acceleration is supported in some variation by all current browsers, though the performance gains differ. It is difficult to benchmark between the modern browsers because they are changing frequently, but so far IE9 seems to consistently get the most out of having a good GPU. On a machine with a good video card it is almost always the fastest at rendering massive amounts of images or canvas-to-canvas draws.

Accelerated IE9 also renders fillRect more than twice as fast as the other major browsers, allowing for impressive 2D particle effects [1]. Chrome often has the fastest path rendering but can be inconsistent between releases. All browsers render images and rects much faster than paths or text, so it is best to use images and rects if you can regardless of which browsers you are targeting.

	Canvas	SVG
Support	All modern versions of Chrome, Safari, Firefox, and Opera have at least some support. Internet Explorer 9+ has support. Almost all modern smart phones. Internet Explorer 7 and 8 have limited support through the excanvas library. Rapidly growing in popularity	SVG support in all modern brows- ers. Almost all modern smart phones.
Stateful- ness	Bitmapped, immediate drawing surface Shapes are drawn and nothing is remembered about their state.	Vector-based, retained drawing surface Every drawn shape is a DOM object.
Other Consider- ations	Generally faster All event handling and statefulness must be programmed yourself. Canvas will be effectively disabled (rendering nothing) if scripting is disabled.	Generally slower, especially past 10,000 objects. Since all SVG elements are DOM objects, statefulness is built in and event handling is much easier. Easier for a designer to work with, many programs such as Illustrator can output SVG SVG has built-in support for animation.
Accessi- bility	Difficult to interface with other DOM objects Working with text can be difficult. Recreating text-based DOM ele- ment functionality is strongly advised against, even in the specification itself. Cannot operate when scripting is disabled.	All SVG objects are already DOM objects. Text is searchable by the browser and web crawlers.



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DZone, Inc. | www.dzone.com



Google Web Toolkit



simpler • 100% Java Static typing Object oriented Excellent tooling



less bugs Stop debugging JavaScript spaghetti Ignore most browser differences



client-sideUI in client
Asyncronous RPC
Services (for UI)





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Vaadin is a UI framework for rich web applications







Web application layers



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Vaadin UI component architecture

Server UI comp.

Button, Table, Tree, ...
API you program with
State

HTTP(S)

Client UI comp.

- Rendering
- Event handling
- Runs on JavaScript

Java

• Compiled with JDK

Java

Google Web Toolkit



How does it work, really?



Mozilla Firefox New Tab	
	 Initial HTML CSS (theme) Images JavaScript 250k total



Mozilla Firefox > http://localhoststartApplication + * • • • • • • • • • • • • • • • • • • •	
Name Joonas Greet	<list-item><list-item></list-item></list-item>



public void buttonClick(ClickEvent event) { mainWindow.showNotification("Hi " + name); }



O O Mozilla Firefox	
Image: StartApplication Image: StartApplication	
Name Joonas Greet	name="Joonas"button clicked
HiJoonas	150 bytes
	• Add
	notification
	400 DYLES

QuickTickets Dashboard



My Dashboard





\$29014.34

Zero Dark Thirty

Django Unchained \$34352.09

Zero Dark Thirty 10

9

Vaadin Charts

X



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	Accounts		
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	🕣 Hotvail		>
	🕜 Vahoo!	300	>
	or vCloud	1	>
(Updated 9/30	/11 12:31	/





In Data Components by Risto Yrjänä

In Data Components by Lokesh Jain

Download for Free vaadin.com/book

Book of Vaadin

~700 pages

Designing Step-by-step


Designing Step-by-step



PILA Printype Design Implement Test Distribute



Need We can not get the UX we need with the existing widgets



Goals

 List of • real quantifiable requirements • for UX



Example goals

- Load and view data in XLS files
- Show visual overview for numeric cols
- Must support 1000 cell tables
- Supports the latest Firefox & Chrome



Nail down the minimum viable set of supported browser versions with the customer

ldea UX [how it is used] Tech [how it works]



Sample	Measured value	Date
1	9,983341664683	1.1.2012
2	19,86693307951	2.1.2012
3	29,55202066613	3.1.2012
4	38,94183423087	4.1.2012
5	47,94255386042	5.1.2012
6	56,4642473395	6.1.2012
7	64,42176872377	7.1.2012
8	71,73560908995	8.1.2012
9	78,33269096275	9.1.2012
10	84,14709848079	10.1.2012
11	89,12073600614	11.1.2012
12	93,20390859672	12.1.2012
13	96,35581854172	13.1.2012
14	98,54497299885	14.1.2012
15	99,74949866041	15.1.2012
16	99,95736030415	16.1.2012
17	99,16648104525	17.1.2012
18	97,38476308782	18.1.2012
19	94,63000876874	19.1.2012
20	90,92974268257	20.1.2012
21	86,32093666489	21.1.2012
22	80,84964038196	22.1.2012
23	74,57052121767	23.1.2012
24	67,54631805512	24.1.2012
25	59,8472144104	25.1.2012
26	51,55013/18215	26.1.2012
27	42,73798802338	27.1.2012
20	22 02/022021/	20.1.2012
20	14 112000000000	20.1.2012
31	4 158066243329	31 1 2012
32	-5.837414342758	1.2.2012
33	-15,77456941432	2,2,2012
34	-25,55411020268	3,2,2012
35	-35.07832276896	4.2.2012
36	-44,25204432949	5.2.2012
37	-52,98361409085	6.2.2012
38	-61,18578909427	7.2.2012
39	-68,7766159184	8.2.2012
40	-75,68024953079	9.2.2012
41	-81,82771110644	10.2.2012
42	-87,15757724136	11.2.2012
43	-91,61659367495	12.2.2012
44	-95,16020738895	13.2.2012
45	-97,75301176651	14.2.2012
46	-99,36910036335	15.2.2012
47	-99,99232575641	16.2.2012



ample	Measured value	Date
1	9,983341664683	1.1.2012
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6	56,4642473395	6.1.2012
7	64,42176872377	7.1.2012
8	71,73560908995	8.1.2012
9	78,33269096275	9.1.2012
10	84,14709848079	10.1.2012
11	89,12073600614	11.1.2012
12	93,20390859672	12.1.2012
13	96,35581854172	
14	98,54497299885	\wedge
15	99,74949866041	
16	99,95736030415	
17	99,16648104525	
18	97,38476308782	
19	94,63000976874	
20	90,929742	
21	86,3209366	$\langle \rangle$
22	80 84964038	
23	74 57052121767	
24	67 54631805512	
25	59 8472144104	
20	51 55012712015	
20	40 79708900938	
28	33 40881501550	Avg: 0.95
20	23 0240320214	20 1 2012
20	14 11200080500	20.1.2012
21	4 158066040000	21 1 2012
00	-5 927414240750	1 0 0010
32	-5,657414342758	0.0.0010
33	-15,77450941432	2.2.2012
34	-25,55411020268	3.2.2012
35	-35,07832276896	4.2.2012
36	-44,25204432949	5.2.2012
37	-52,98361409085	6.2.2012
38	-61,18578909427	7.2.2012
39	-68,7766159184	8.2.2012
40	-75,68024953079	9.2.2012
41	-81,82771110644	10.2.2012
42	-87,15757724136	11.2.2012
43	-91,61659367495	12.2.2012
44	-95,16020738895	13.2.2012
45	-97,75301176651	14.2.2012
46	-99,36910036335	15.2.2012
47	-99,99232575641	16.2.2012

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Always start from defined goals never let idea to rule your design

1 Stat; c Pictormice TML CHOSS 1 Browser Compat: 1

```
.v-spreadsheet .row13 { height: 12px; top: 177px;}
.v-spreadsheet .row14 { height: 12px; top: 190px;}
.v-spreadsheet .col1 { width: 99px; left: 50px;}
.v-spreadsheet .col2 { width: 99px; left: 150px;}
.v-spreadsheet .col3 { width: 99px; left: 250px; }
.v-spreadsheet .col4 { width: 99px; left: 350px; }
.v-spreadsheet .col5 { width: 99px; left: 450px; }
.v-spreadsheet .col6 { width: 99px; left: 550px; }
```

<div class="v-spreadsheet" id="elem">
 <div class="sheet" id="sheet">

<div class="c col1 row1"></div>
<div class="c col2 row1"></div>
<div class="c col3 row1"></div>
<div class="c col3 row1"></div>
<div class="c col4 row1"></div>
<div class="c col5 row1"></div>
<div class="c col6 row1"></div>
<div class="r col6 row1"></div>
<div class="r row1">1</div></div></div</pre>

<div class="c col1 row2"></div>
<div class="c col2 row2"></div>
<div class="c col3 row2"></div>
<div class="c col3 row2"></div>
<div class="c col4 row2"></div>
<div class="c col5 row2"></div>
<div class="c col6 row2"></div>
<div class="r col6 row2"></div></div</pre>

<div class="c col1 row3"></div>

Works with target browsers?



```
Interactions
   padding-top: 2px;
   border-right: 2px solid #d6d6d6;
                                                                      work with target
   border-bottom: 2px solid #d6d6d6;
   border-top: 1px solid #d6d6d6;
                                                                      browsers?
</style>
</head>
                                                                      Performance is
<body>
                                                                      good enough for
   <div class="v-spreadsheet" id="elem">
       <div class="sheet" id="sheet">
                                                                      target data?
       </div>
   </div>
   <script>
          var totalrows = 100;
          var totalcols = 13;
          var isIE = navigator&&navigator.userAgent&&navigator.userAgent.match(/\bMSIE ([678])\./);
          function insertCSS(css) {
              var stylesheet = document.styleSheets[0];
              if (isIE) {
                 stylesheet.cssText += css;
              } else {
                 stylesheet.insertRule(css, stylesheet.cssRules.length);
              }
          3
          document.getElementById("elem").onscroll = function() {
              var e = document.getElementById("elem");
              var l = e.scrollLeft;
              var classes = document.styleSheets[0].rules || document.styleSheets[0].cssRules
```

}

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Proto DOD
Includes main use-cases
Works in target browsers
Handles enough data



Never start design or implementation before prototyping browser compatibility and performance



Design UX and API first. Never continue from the prototype implementation Drawing detailed wireframes & mockups and testing them with users will save time later

00		Ur	ntitled				R _M
Helvetica Neue 🔹 Regular	‡ 10 ·			± 🗆 Wrap	1,0 € % ✓	· 4,00 ,0 ·	
Sheets II							=
V Sheet 1	::: A	В	С	D	E	F	G
	1						
Table 1	2		ļ				
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	7						
	8						
Styles =	9						
Basic V	10						
Basic (No Crid)	12						
	13						
Gray	14						
Gray Headers	15						
Gray Fill	16						
Beige	17						
Ledger	18						
Leoger	19						
Blue	20						
Blue Headers	21						
Blue Fill	22						
	23						
	24						
sum and a second second	25						
avg	26						
min	27						
	28						
max	29						
count	100% 1 5						

Shamelessly copy UX. Then your users already know how to use it.



Aim for multilayered design that lets your users (developers) change behavior of your component



DOM classes and CSS restrictions must be documented to make styling easy



Keep component project separate from your real application project Demo application must include all features and serve as example for your users

spreadsheet [spreadsheet master]
▼ 📇 src/main/java
V dorg.vaadin.spreadsheet
Spreadsheet.java
org.vaadin.spreadsheet.gwt
V Compublic
spreadsheet
styles.css
SpreadsheetWidgetSet.gwt.xml
org.vaadin.spreadsheet.gwt.client
SpreadsheetConnector.java
SpreadsheetModel.java
SpreadsheetState.java
SpreadsheetView.java
X rebel.xml
▶ 🔠 src/test/java
JRE System Library [J2SE-1.5]
Maven Dependencies
design
► 🚰 src
target
licensing.txt
pom.xml
README.markdown

Invest in project setup with a rapid save-to-see cycle and a robust build script. These might not be the same thing.

Component Add-on Project Setup HOWTO

This howto walks you through a complete setup for a project for developing, building and publishing your own Vaadin UI component add-ons. The goal here is not to teach how to write an add-on, but to make the process of setting up your project environment as smooth as possible. I hope this encourages you to try building and publishing your own add-ons :)

Goals for the project environment

- · Fully automated build with Maven
- Allow anyone to re-build your project easily regardless of the IDE:s
- Almost instant save-build-deploy-try cycle
- Simple
- Projection
- Easy

Install

<u>https://vaadin.com/wiki/-/wiki/Main/</u> Component+Add-on+Project+Setup+HOWTO

If you do r

- Eclipse IDE for Java EE developers from http://www.eclipse.org (Indigo Service Release 1 was used in this howto)
- Google Chrome browser from https://www.google.com/chrome/ (other browsers will do, but Chrome is recommended)
- · Eclipse plugins: m4e-wtp, vaadin, egit (optional) and jrebel (optional) from Marketplace (just select Help->Marketplace... from the menu)

Create a new widget project

Start project creation wizard: File -> New -> Other ... -> "Maven Project"

Give a proper name for your project and save it under workspace. For this exapmle I am building a list widget and name it MyList.

Ensure that your Maven architype catalogs contain http://repo1.maven.org/maven2/archetype-catalog.xml as remote catalog and select it.

Select vaadin-archetype-widget from the list.



There is no substitute for manual testing and user experience testing Skip test driven development, but invest in regression testing Pixel level regression tests take time to set up, but will be worth it
Never trust that your changes would not break other browsers and skip cross-browser testing

It is impossible to use too much time in polishing UX for a reusable component.





Upda https://github.com/jojule/spreadsheet

·67b1

spreadsheet /

C Lates

name	age	message	history
🛅 design	a day ago	Developing [Joonas Lehtinen]	
🛅 src	19 hours ago	Version 0.1 [Joonas Lehtinen]	
README.markdown	4 hours ago	Update README.markdown [jojule]	
licensing.txt	19 hours ago	Version 0.1 [Joonas Lehtinen]	
pom.xml	18 hours ago	Fixed add-on name [Joonas Lehtinen]	

README.markdown

Spreadsheet for Vaadin

The widget shows a spreadsheet - either from XLS file or by setting the cell contents programmatically.

This version is very limited and should be considered to be an early alpha -version. Try out the demo to see if it would be useful for you. I mainly built it for an upcoming presentation.

SpreadsheetView class should be also usable in GWT without Vaadin Framework, but then you must implement SpreadsheetModel by yourself.

Dependencies

- Apache POI 3.8 http://poi.apache.org/
- Apache Commons Codec 1.5 Required by POI http://commons.apache.org/codec/

Release notes

Initial release with severe limitations:

- All columns and rows have fixed sizes
- No cell styling is supported
- No graphs are supported
- No merged cells are supported
- Performance for larger spreadsheets is really bad
- Only one spreadsheet widget is supported on screen at once

License & Author

preadsheet/src/main/ja	ava/org/vaadin/spreadshee	t/gwt/SpreadsheetWidgetSet.g	wt.xml - Eclipse - /Users/phoenix/dev/workspace
🖉 🤔 🖨 🖋 • 🖹 🕸	🗈 🀐 📝 🖢 · 🖓 • 🏷	⇔ • ⇒ •	🗈 🔓 🐉 🍄 😫
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	Select a launch config m2 spreadsheet (1) : m2 spreadsheet (2) : m2 spreadsheet (3) : m2 spreadsheet (3) : m2 spreadsheet (5) : m2 spreadsheet (5) : m2 spreadsheet (7) : m2 spreadsheet : jett	guration to run: gwt:run package war:war update-widgetset widgetset-update package y:run	<pre>be widgetset for one browser only. nificantly when debugging. oyment to production !.0.3 as a comma separated it of writing were: ! later and <u>safari</u> is used hrome. !"/></pre>
	Pro		
	spread ?	Cancel	OK ersions/1.6.0/Home/bin/java (Apr 15, 2012 8:14:44 PM)
	2012-04-15 20:14:54.406 JRebel: Directory '/Use JRebel: Directory '/Use 2012-04-15 20:14:54.631 2012-04-15 20:14:54.997 [INFO] Started Jetty Se Apr 15, 2012 8:15:08 PM WARNING:	:INFO::jetty-6.1.24 rs/phoenix/dev/workspace/spr rs/phoenix/dev/workspace/spr :INFO::No Transaction manage :INFO::Started SelectChannel rver com.vaadin.terminal.gwt.ser	eadsheet/target/classes' will be monitored for changes. eadsheet/target/test-classes' will be monitored for changes. r found - if your webapp requires one, please configure one. Connector@0.0.0.0:8080 ver.AbstractApplicationServlet checkProductionMode
	Vaadin is running in DE Add productionMode-true To show debug window, a	BUG MODE. to web.xml to disable debug dd ?debug to your applicatio	features. n URL.
			1

0 0	Vaadin Add-on Package Export
Vaadin Add-on Packag	e Export
Define which resources s	hould be exported into the Vaadin add-on package.
Select the resources to ex	port.
v iest €	
Manifest:	
Implementation title:	My Fancy Widget
Name of the add-on. I	Jsed in Vaadin Directory.
Implementation version:	1.0.0
Version of the addon.	A "major.minor.revision" format is suggested.
Widgetsets:	com.example.test.TestWidgetset
Comma separated list	of widgetsets included in the add-on. Refers to the GWT xml files (.gwt.xml).
Select the export destination	ion:
JAR file:	Browse
Options:	
Overwrite existing file	es without warning
?	< Back Next > Cancel Finish



Upload New Add-on

Select a category to post your new add-on to.

Note, that if you're updating a previous add-on, that is done by editing the add-on from the list above.



Upload Add-on Package





In Data Components by Risto Yrjänä

In Data Components by Lokesh Jain



004.









Try out my Spreadsheet! vaadin.com/addon/spreadsheet

ED00864B

00		Issues · jojule/sp	preadsheet		≞ <u>⊮</u> ª
< ► + ● http	ps://github.com/jojule/spr	readsheet/issues	GitHub, Inc. 🔝 🖒 🚼	Google	
github as	earch	Explore Gist Blog Help	p	🧃 jojule	° ³⁵ % ⊡
jojule / spread	sheet		📌 Admin 💿 Unwatc	h 💪 Fork 🏛 Pull Re	equest 📀 1 🖧 1
Code	Network	Pull Requests 0	Issues 0	Wiki 0	Stats & Graphs
Browse Issues	Milestones		Search:	Issues & Milestones	Q New Issue
Everyone's Issues	bttpc		com/ioi		I shortcuts available 🔛
Assigned to you		<u>s.//yıtılup</u>		Upd Upd	ated Comments
Mentioning you	<u>S</u> [oreadshe	<u>et</u> /issue	S	
No milestone selected					
Labels					
bug	0				
duplicate	0				
enhancement	0				
invalid	0				
question	0				
wontfix	0				
Manage Lab	els				

0		New Issue – joju	ile/spreadsheet		
🐝 + 🛞 https:,	//github.com/jojule/sp	preadsheet/issues/new	GitHub, Inc. 🔝 🖒 🔧	Google	
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Does not worl	c properly if th	nere are two instan	ces of the compon	ent	bug ×
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No one is assigned 🔯 🔹			No	milestone 🔅 🔹	invalid
Write Preview			Comments are parsed with GitHub Fl	avored Markdown	question wontfix
When two instances of th	e Spreadsheet are put t	o screen at the same time, scrolling	ng either scrolls the headers in bo	oth. This	
makes the component ur	usable for any screens	with two spreadsheets.			
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Assigned to you	0	1 open issue 0 closed issues		Submitted Updated	Comments
Mentioning you	0	Close Label • Assignee • #1 Does not work prope	Milestone -	s of the component bug	
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Labels					
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wontfix	0				
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Support HOWTO

Issue reported by actual user! Ignore. wont-fix in best case. (the usual open source way)

Fix after 6 months, maybe...

Fix immediately and thank the user who reported it



Tue Vaadin & 20:00 C4 GWT BOF Wed Intro to 14:00 C4 Vaadin 7

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