

Browser & Cloud - The Future of IDEs?

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How will developer tooling look like in the future?

Or

”why is Google able to search the whole web in
10ms and my Eclipse needs 1000ms to open a type
hierarchy“

Everything changed
(in app development)



SEARCH MAIL

SEARCH THE WEB

[Show search options](#)
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Mail



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13 of 21



COMPOSE MAIL

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Drafts (2)

+ Hiking (3)

Urgent!

12 more ▾

Chat



Search, add, or invite

Hiking Fan

Set status here ▾

Call phone

Arielle

Emily

Michael

Paul

aanalouel

Long time! Inbox | X

Kenneth Joel

bakescakes@gmail.com

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More about...

[Meeting »](#)

★ Kenneth Joel to me

[show details](#) Mar 24

↩ Reply



Hey there!

Long time no speak. How have things been? Do you want to meet up for lunch tomorrow?

Hope to hear from you soon.

Kenneth

↩ Reply

→ Forward

★ Hiking Fan to Kenneth

[show details](#) Mar 24

↩ Reply



Hey Ken!

Things have been really good! And lunch sounds great. Want to go to our usual spot?

Let me know! :)

Bob

- Show quoted text -

↩ Reply

→ Forward

Open Tapestry (Public)

velocity 13

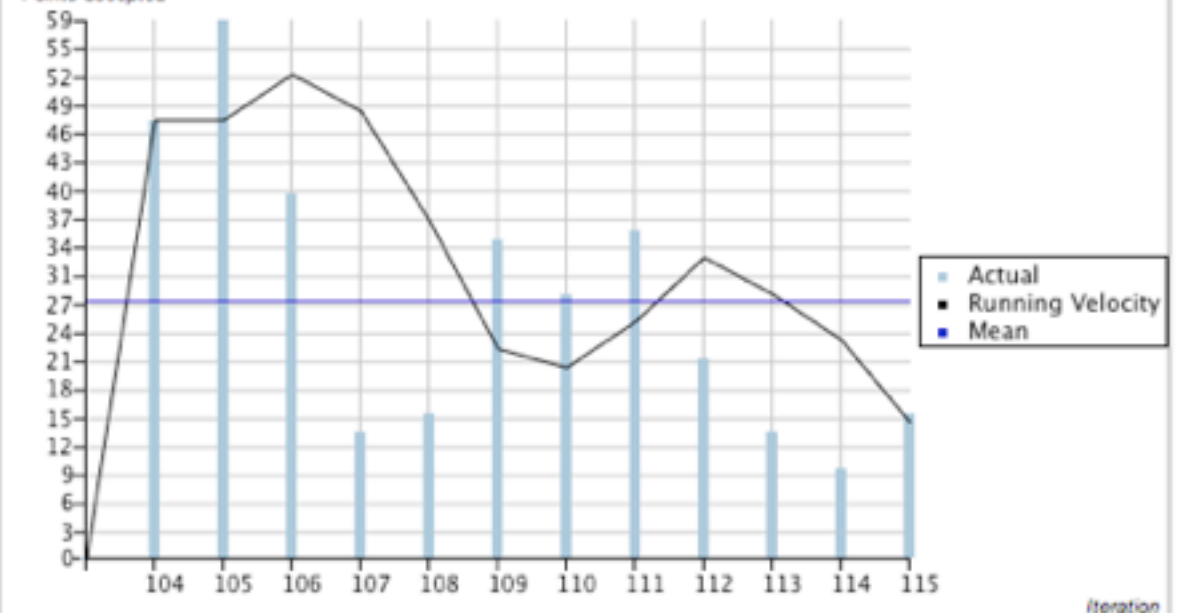
CURRENT BACKLOG ICEBOX EPICS MORE PROJECT STORIES JOIN PROJECT

CURRENT		
Getting Errors on IE8 after trying to clip or bookmark which make it so the clip/bookmark doesn't go through (RM)		
Investigate using a reset or !important in the bookmarklet CSS (JB)		
Release		
Change the title of Mashup in the clip dialog to Edit Page (TG)		
The + button in the launch view should be hidden until it does something (cp)		
In launch view, is the item's title supposed to be displayed as "Current Item" in drop down menu? (cp)		
When you click on Launch in a Tapestry, link back to tapestry isn't active. (KW)		
When you clip through the proxy it barfs (JB)	Accept	Reject
Move sort into proxy toolbar (JB)	Accept	Reject
Sequencing not working in staging. (cp)	Accept	Reject
proxy Center license modal on Proxy launch view (cp)	Accept	Reject
The tapestry title, license, and share links in the toolbar view should be colored, underlined or somehow indicate that they are links (cp)	Accept	Reject
uploads, weave/clip problems When uploading from hard drive it does not have copyright info (JC)	Accept	Reject
canvas When user resizes window to be 1/2 of the desktop a scroll bar needs to display across the bottom so the user can see the tapestry. (cp)	Accept	Reject
weave/clip problems Bookmarked files don't show an image in masonry view. (JC)	Accept	Reject
reclip of a document doesn't show anything in the masonry view. (JC)	Accept	Reject
PushState is causing problems on IE (cp)	Accept	Reject
In Following tab, when viewing tapestries, if I try to unfollow a tapestry, I get an error. (cp)	Accept	Reject
Add a weave button to the toolbar when viewing a tapestry that you own (JB)	Accept	Reject
Toolbar Mockup design (TG)	Accept	Reject

CHARTS

Chart Type: Velocity

Points accepted



Over the project's visible history, the mean (average) Velocity is 28.3. The standard deviation is 16.3. The volatility is 57.7%.

nutsnbolts freckle: Report

http://nutsnbolts.letsfreckle.com/time/report/people/3811,3814/from/2009-08-01/to

Inquisitor

freckle

time

helpsettingsadminsign out

LAST MONTHLAST WEEKTODAYTHIS WEEKTHIS MONTHAUG 1 - AUG 31

NARROW YOUR REPORT

CLIENT OR PROJECTTAGS

Amy Hoy

Dieter Komendera

Joe Markovics

Thomas Fuchs

RUN IT

Report Aug 1 - Aug 31

save permanentlydownload as CSV

Joe M., Amy H.

BILLABLE HOURS

Total: 30¼ hours

1½h	Widget Corp	<div>Amy H.</div>	meeting signing & kickoff meeting	Aug 10	
30m	Sprockets Inc	<div>Amy H.</div>	phone call reviewing accts page with George	Aug 10	edit✕
1¼h	Sprockets Inc	<div>Amy H.</div>	design picking colors 4 accts pg	Aug 10	
2h	Sprockets Inc	<div>Amy H.</div>	design mockup accts page	Aug 7	
4½h	Monkeywrench	<div>Joe M.</div>	code js charting w/ raphael	Aug 7	
4h	Sprockets Inc	<div>Joe M.</div>	code js for the walkthru	Aug 6	
4¼h	Sprockets Inc	<div>Amy H.</div>	research reading ACM for latest on video interactivity	Aug 5	
3½h	Sprockets Inc	<div>Joe M.</div>	code js for the walkthru	Aug 5	
3½h	Monkeywrench	<div>Amy H.</div>	design chart ui mockup	Aug 4	
15m	Sprockets Inc	<div>Amy H.</div>	phone call Sally called	Aug 3	
2¼h	Sprockets Inc	<div>Amy H.</div>	collaboration briefing Anne on icon needs	Aug 3	
2¼h	Gear GmbH	<div>Amy H.</div>	meeting closing out the project!	Aug 1	

30¼ hours Total

UNBILLABLE HOURS

Total: 6¼ hours

DASHBOARD

PULSE

PEOPLE

PROJECTS

TAGS

REPORTS

feedback

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get help

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Martin Lippert

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Hamburg, Germany · <http://www.martinlippert.org/>

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Tweets



EclipseFoundation @EclipseFdn

30 Oct

There's still time to sign up to attend or speak at a DemoCamp this November! wiki.eclipse.org/Eclipse_DemoCa...

Retweeted by Martin Lippert

Expand



Martin Lippert @martinlippert

21h

Congrats!!!! -> "@Erdbeervogel: Yay! Will start working @Thoughtworks / @ThoughtWorksAus Melbourne, Australia in January. Can't wait :)"

Expand



Peter Friese @peterfriese

30 Oct

If you're in Hamburg on November 14th and fancy some cool Eclipse stuff, drop by the Eclipse DemoCamp: bit.ly/NwhUHP

Retweeted by Martin Lippert

Expand



Victoria Schiffer @Erdbeervogel

23h

Dilbert on change management and strategies
dilbert.com/strips/comic/2...

Retweeted by Martin Lippert

Expand



DevOps Borat @DEVOPS_BORAT

29 Sep

Worst mistake is always happen in batch.

Retweeted by Martin Lippert

Expand



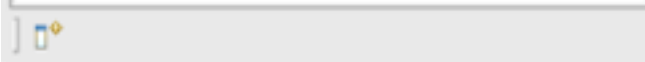
Martin Lippert @martinlippert

26 Oct

wanna see Scripted in action? Join the Eclipse Demo Camp Bonn (Nov 19: wiki.eclipse.org/Eclipse_DemoCa...) or Hamburg (Nov 14: wiki.eclipse.org/Eclipse_DemoCa...)

tooling developers





Problems | Javadoc | Declaration

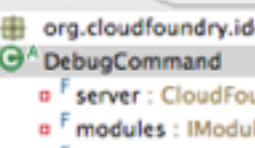
0 errors, 1,905 warnings, 0 others (Filter matched 100 of 1905 items)

Description

▼ ⚠ Warnings (100 of 1905 items)

- ⚠ ".classpath" should not be added to src.includes list as it is not required in source build.
- ⚠ ".classpath" should not be added to src.includes list as it is not required in source build.
- ⚠ ".classpath" should not be added to src.includes list as it is not required in source build.
- ⚠ ".classpath" should not be added to src.includes list as it is not required in source build.
- ⚠ ".classpath" should not be added to src.includes list as it is not required in source build.
- ⚠ ".project" should not be added to src.includes list as it is not required in source build.
- ⚠ ".project" should not be added to src.includes list as it is not required in source build.
- ⚠ ".project" should not be added to src.includes list as it is not required in source build.
- ⚠ ".project" should not be added to src.includes list as it is not required in source build.

Writable	Smart Insert	31 : 4	169M
----------	--------------	--------	------



The screenshot shows the Eclipse IDE's Outline view. At the top, the package path is `org.cloudfoundry.ide.eclipse.internal.server.core.debug`. Below it, the `DebugCommand` class is expanded, showing its fields and methods. The fields include `server` of type `CloudFoundryServer`, `modules` of type `IModule[]`, `debugAction` of type `ApplicationAction`, `debugConnectionID` of type `String`, and `listener` of type `ICloudFoundryDebuggerListener`. The methods include `debuggerConnectionMap` of type `Map<String, DebugCommand>`, `DebugCommand` (constructor), `getListener()` of type `ICloudFoundryDebuggerListener`, `getDebuggerConnectionIdentifier()` of type `String`, `getDebuggerConnectionIdentifier(CloudFoundryServer)` of type `String`, `getDebugApplicationAction()` of type `ApplicationAction`, `getCloudFoundryServer()` of type `CloudFoundryServer`, and `getModules()` of type `IModule[]`.

```

Outline
org.cloudfoundry.ide.eclipse.internal.server.core.debug
└─ DebugCommand
   ├─ F server : CloudFoundryServer
   ├─ F modules : IModule[]
   ├─ F debugAction : ApplicationAction
   ├─ debugConnectionID : String
   ├─ listener : ICloudFoundryDebuggerListener
   ├─ S F debuggerConnectionMap : Map<String, DebugCommand>
   ├─ C DebugCommand(CloudFoundryServer, IModule[], Appl
   ├─ getListener() : ICloudFoundryDebuggerListener
   ├─ getDebuggerConnectionIdentifier() : String
   ├─ S getDebuggerConnectionIdentifier(CloudFoundryServer
   ├─ getDebugApplicationAction() : ApplicationAction
   ├─ getCloudFoundryServer() : CloudFoundryServer
   └─ getModules() : IModule[]
  
```

[illegible]

sounds and looks outdated...

big downloads
painful installation
version upgrades awful
plugin installation tedious
incompatibilities among extensions

consumes a lot of resources
getting slow for large projects

...

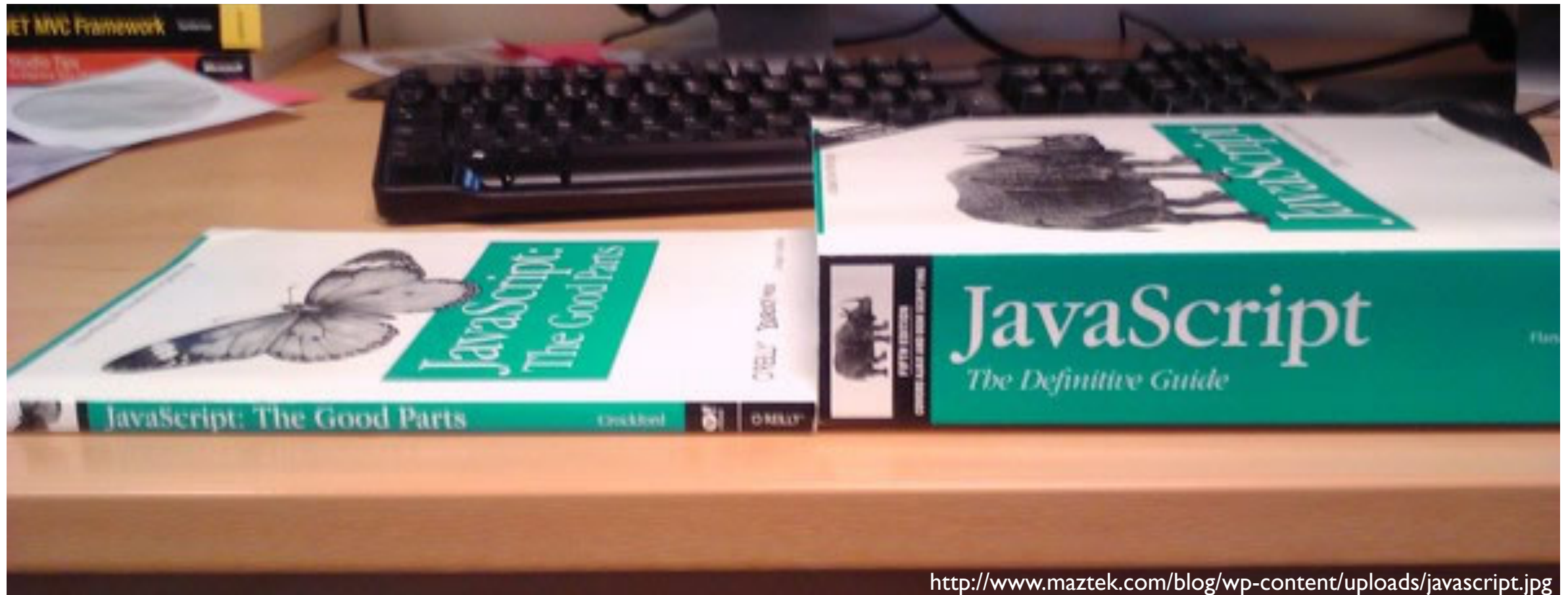
So what instead?

Innovation happens here

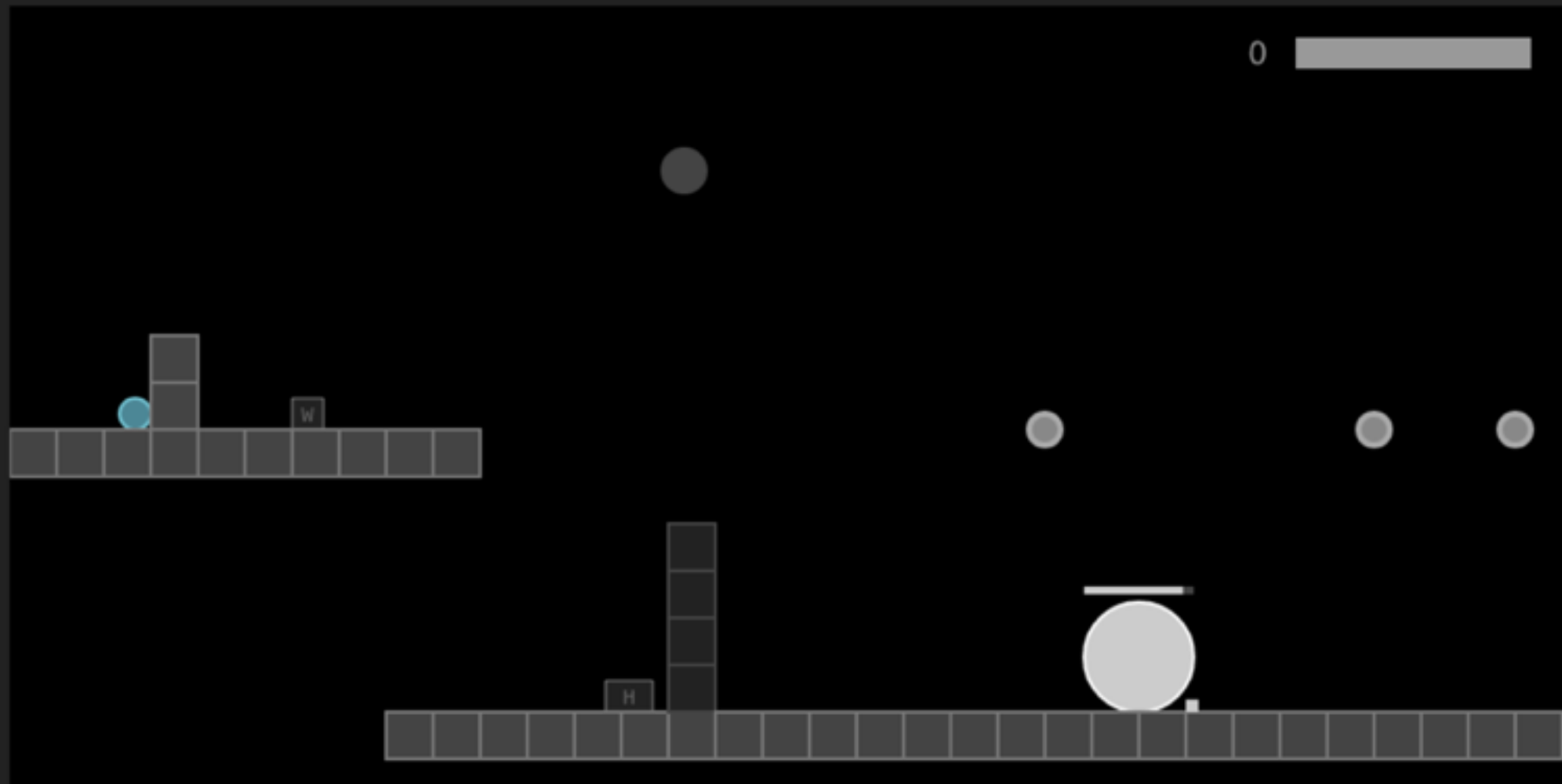
HTML



The JavaScript Story



Light Table



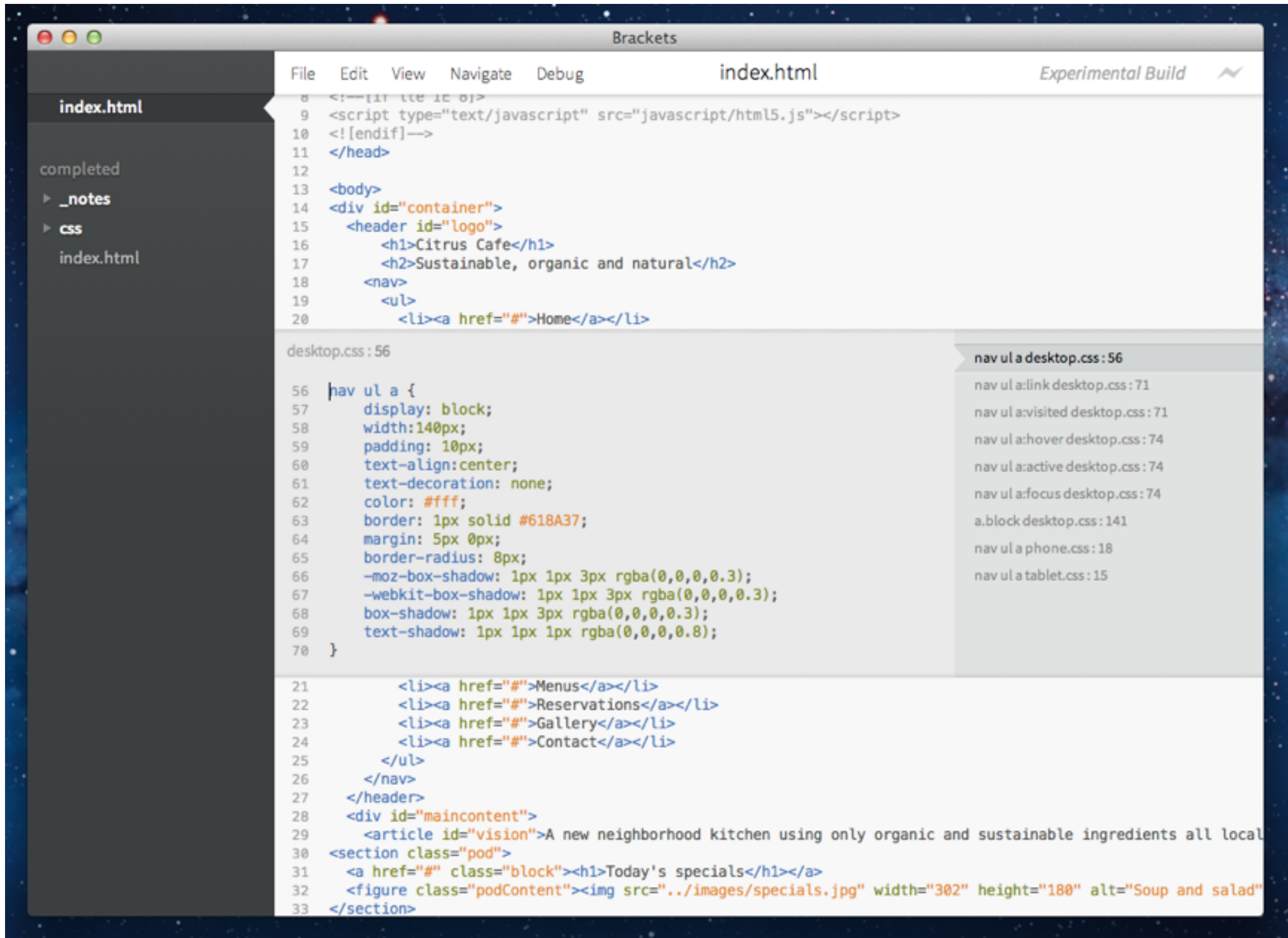
```
(defn draw-player [ctx me]
  (-> ctx
    (fill-style :#449)
    (stroke-style :#68d)
    (stroke-width 2)
    (circle me)
    (stroke)))
```

```
(defn update-player [me]
  (-> me
    (gravity)
    (move)
    (jump)
    (reset)))
```

```
(defn move [me]
  (let [speed 5
        vx (cond
              (input? :left) (- speed)
              (input? :right) speed
              :else 0)
        moved (update-in me [:x] + vx)]
    (if (zero? vx)
      me
      (if-let [block (colliding? moved)]
        (let [block-edge (if (< vx 0)
                          (+ (:x block) (:w block) (:r me))
                          (- (:x block) (:r me)))]
          (assoc me :x block-edge)
          moved)))
      (assoc me :x block-edge)
      moved))))
```

```
(defn gravity [[:keys [vy y] :as me]]
  (let [g 0.5
        vy (or vy 0)
        neue-vy (+ vy g)
        dir (if (< neue-vy 0) :up :down)
        moved (update-in me [:y] + neue-vy)]
    (if-let [block (colliding? moved)]
      (let [block-edge (if (= dir :up)
                          (+ (:y block) (:h block) (:r me))
                          (- (:y block) (:r me)))]
        (assoc me :y block-edge
                  :jumping (= dir :up)
                  :vy 0))
      (-> moved
        (assoc :vy neue-vy))))
```

Adobe Brackets



GitHub

← → ↻ 🏠 <https://github.com/SpringSource/spring-ide/commit/eaf672274fcf3d9b488c83b0f6d523825275b3d4> ☆ ☰

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STS-3022: Spring preference page has no keywords assigned [Browse code](#)


 **zaza** authored 25 minutes ago 1 parent eb73df6530 commit eaf672274fcf3d9b488c83b0f6d523825275b3d4

Showing 1 changed file with 5 additions and 2 deletions. [Show Diff Stats](#)

7  plugins/org.springframework.ide.eclipse.ui/plugin.xml [View file @ eaf6722](#)

... @@ -2,7 +2,7 @@
2 2 <?eclipse version="3.0"?>
3 3 <!--
4 4 /*****
5 - * Copyright (c) 2005, 2009 Spring IDE Developers
6 + * Copyright (c) 2005, 2012 Spring IDE Developers
7 * All rights reserved. This program and the accompanying materials
8 * are made available under the terms of the Eclipse Public License v1.0
9 * which accompanies this distribution, and is available at
10 *****/
11 @@ -125,8 +125,11 @@
125 125
126 126 <extension point="org.eclipse.ui.preferencePages">
127 127 <page id="org.springframework.ide.eclipse.ui.preferencePage"
128 - name="Spring"
129 + name="XprojectPropertyPage"
130 class="org.springframework.ide.eclipse.ui.dialogs.ProjectPropertyPage">
131 + <keywordReference
132 id="org.springframework.ide.eclipse.ui.keywords">
133 + </keywordReference>
134 </page>
135 </extension>


0 notes on commit eaf6722 ☐ Show line notes below



Write Preview

Comments are parsed with [GitHub Flavored Markdown](#)

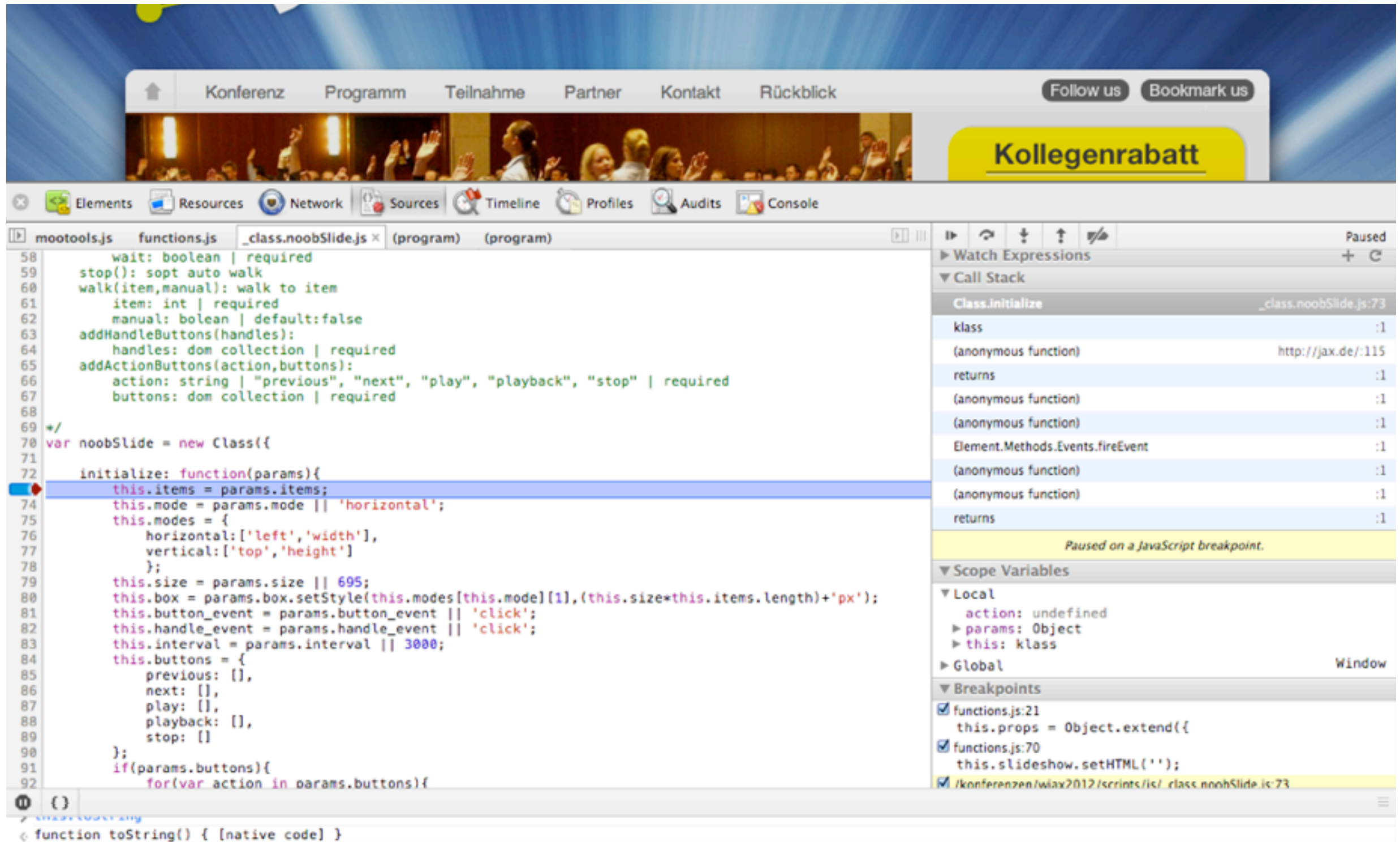
Leave a comment

 38 58
39 59
40 60

Tip: You can also add notes to lines in a file.
Hover to the left of a line to make a note

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Chrome Dev Tools



summary

browser is full featured UI toolkit
everything is possible

promises of running in the cloud

no installation

no setup

no updates/upgrades

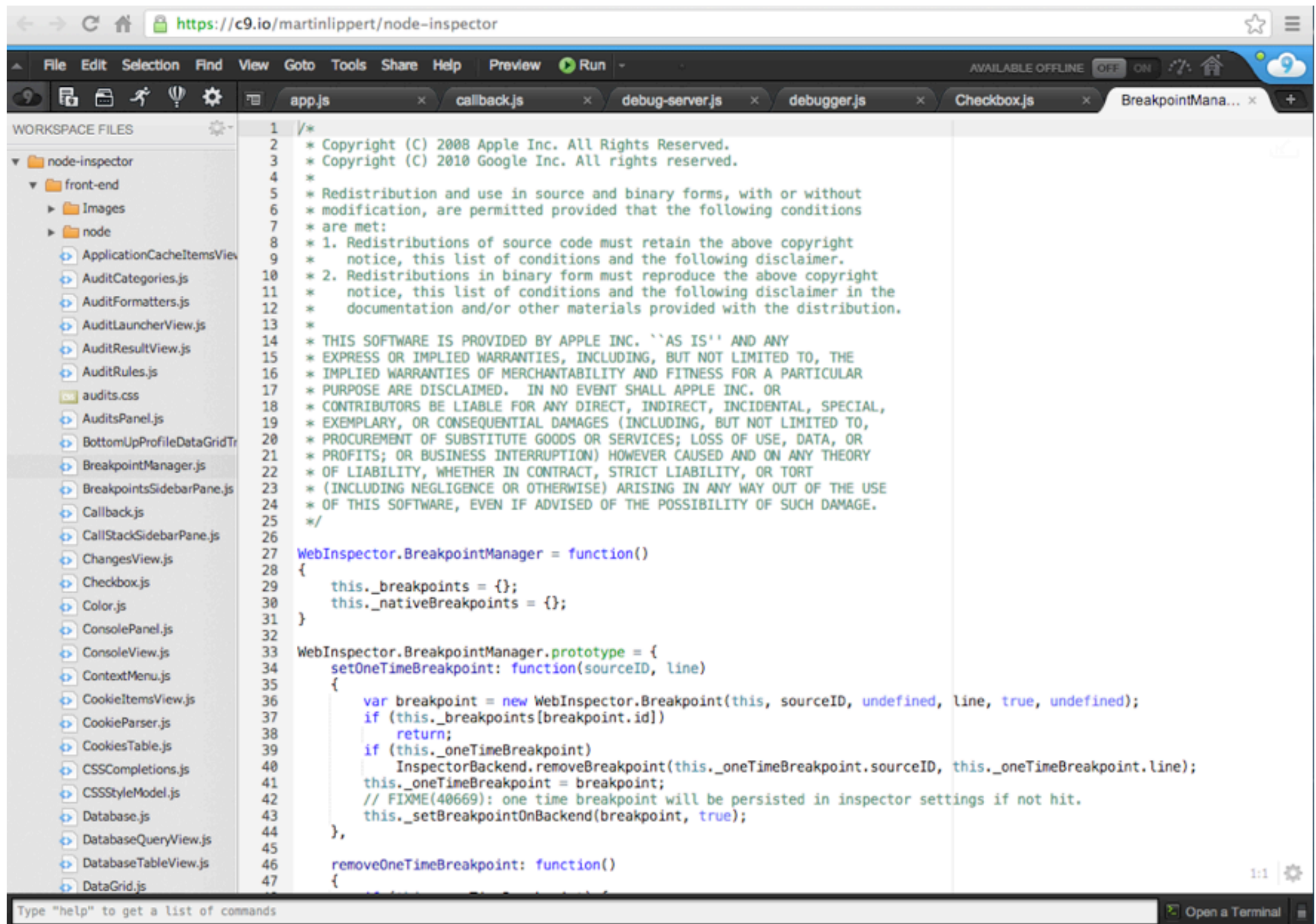
accessible from everywhere

infrastructure & environment ready-to-use

”unlimited“ and shared resources

new ways of collaboration

Cloud 9 IDE



Exo Cloud IDE

The screenshot displays the Exo Cloud IDE interface. The top bar shows the URL `lippert.cloud-ide.com/cloud/ide.jsp` and a menu with options: File, Project, Edit, View, Run, Git, PaaS, Window, Help. Below the menu is a toolbar with various icons for file operations and development tools.

The main workspace is divided into several panels:

- Package Explorer:** Located on the left, it shows the project structure. The project is named `spring-test`. Under `src/main/java`, there is a package `org.springframework.samples.mvc` containing several Java files, including `AccountController.java`, which is currently selected.
- Code Editor:** The central panel displays the source code of `AccountController.java`. The code includes package declarations, imports for various Java and Spring classes, and the implementation of the `AccountController` class. The code is as follows:

```
1 package org.springframework.samples.mvc.ajax.account;
2
3 import java.util.Collections;
4 import java.util.HashMap;
5 import java.util.Map;
6 import java.util.Set;
7 import java.util.concurrent.ConcurrentHashMap;
8
9 import javax.servlet.http.HttpServletResponse;
10 import javax.validation.ConstraintViolation;
11 import javax.validation.Validator;
12
13 import org.springframework.beans.factory.annotation.Autowired;
14 import org.springframework.stereotype.Controller;
15 import org.springframework.ui.Model;
16 import org.springframework.web.bind.annotation.PathVariable;
17 import org.springframework.web.bind.annotation.RequestBody;
18 import org.springframework.web.bind.annotation.RequestMapping;
19 import org.springframework.web.bind.annotation.RequestMethod;
20 import org.springframework.web.bind.annotation.RequestParam;
21 import org.springframework.web.bind.annotation.ResponseBody;
22
23 @Controller
24 @RequestMapping(value="/account")
25 public class AccountController {
26
27     private Map<Long, Account> accounts = new ConcurrentHashMap<Long, Account>();
28
29     private Validator validator;
```
- Outline:** Located on the right, it provides a summary of the code structure, showing the package `org.springframework.samples.mvc.ajax.account`, import declarations, and the `AccountController` class.
- Build Output:** At the bottom, there is a panel for build output. It shows the command `Build project` and the output message:

```
Building project spring-test
Finished building project spring-test.
Result: Successful
You can download the build result here
```

The status bar at the bottom of the IDE shows the current file path: `spring-test / src / main / java / org / springframework / samples / mvc / ajax / account`. The page number `1 : 1` is displayed in the bottom right corner.

Eclipse Orion



The screenshot shows the Eclipse Orion web IDE interface. The browser address bar displays the URL `orionhub.org/edit/edit.html#/file/mlippert/ml-test/hello.js`. The Orion header includes navigation links (Navigator, Sites, Repositories, Shell, Get Plugins), a search bar, and a user profile dropdown for 'mlippert'. The breadcrumb trail shows 'Orion Content / ml-test / hello.js'. A 'Save' button is located above the code editor. The code editor displays the following JavaScript code:

```
1  /*****  
2  * @license  
3  * Copyright (c) 2012 IBM Corporation and others.  
4  * All rights reserved. This program and the accompanying materials are made  
5  * available under the terms of the Eclipse Public License v1.0  
6  * (http://www.eclipse.org/legal/epl-v10.html), and the Eclipse Distribution  
7  * License v1.0 (http://www.eclipse.org/org/documents/edl-v10.html).  
8  *  
9  * Contributors:  
10 *   IBM Corporation - initial API and implementation  
11 *****/  
12 /*global define document*/  
13  
14  
15 var today= new Date();  
16 var month = today.getMonth() + 1;  
17 var day = today.getDate();  
18 var year = today.getFullYear();  
19 var node = document.getElementById("date");  
20 if (node) {  
21     node.innerHTML = "<p>You are running this sample on " + month + "/" + day + "/" + year + "</p>";  
22 }  
23
```

Chrome Dev Tools

(again)

The screenshot displays the Chrome DevTools interface with the Sources panel open. The left pane shows the source code of `_class.noobSlide.js`, with a breakpoint set at line 73. The right pane shows the Call Stack, which includes the current function call and its callers. The Scope Variables panel shows the local variables `action`, `params`, and `this`. The Breakpoints panel shows the active breakpoints.

Source Code (Left Pane):

```
58 wait: boolean | required
59 stop(): sopt auto walk
60 walk(item,manual): walk to item
61 item: int | required
62 manual: boolean | default:false
63 addHandleButtons(handles):
64 handles: dom collection | required
65 addActionButtons(action,buttons):
66 action: string | "previous", "next", "play", "playback", "stop" | required
67 buttons: dom collection | required
68
69 */
70 var noobSlide = new Class({
71
72 initialize: function(params){
73   this.items = params.items;
74   this.mode = params.mode || 'horizontal';
75   this.modes = {
76     horizontal: ['left', 'width'],
77     vertical: ['top', 'height']
78   };
79   this.size = params.size || 695;
80   this.box = params.box.setStyle(this.modes[this.mode][1], (this.size*this.items.length)+'px');
81   this.button_event = params.button_event || 'click';
82   this.handle_event = params.handle_event || 'click';
83   this.interval = params.interval || 3000;
84   this.buttons = {
85     previous: [],
86     next: [],
87     play: [],
88     playback: [],
89     stop: []
90   };
91   if(params.buttons){
92     for(var action in params.buttons){
```

Call Stack (Right Pane):

- Class.initialize _class.noobSlide.js:73
- class :1
- (anonymous function) http://jax.de/:115
- returns :1
- (anonymous function) :1
- (anonymous function) :1
- Element.Methods.Events.fireEvent :1
- (anonymous function) :1
- (anonymous function) :1
- returns :1

Scope Variables (Right Pane):

- Local
 - action: undefined
 - params: Object
 - this: klass
- Global Window

Breakpoints (Right Pane):

- functions.js:21 this.props = Object.extend({
- functions.js:70 this.slideshow.setHTML('');
- /konferenzen/wiax2012/scripts/js/_class.noobSlide.js:73

problems & challenges

transform existing IDEs into the browser window?

what about connectivity (aka offline)?

files/resources only in the cloud?

what about re-using existing (local) tools?

we are working on

Scripted

a lightweight JavaScript editor
that runs in your browser

Inside Scripted

Scripted Client (all JavaScript client)

simple navigator

inplace outline

single page layout

Editor Component

content assist

cross file
analysis

JSLint

CommonJS
support

AMD support

Scripted Server (local, all JavaScript)

serve JS/HTMS/CSS/files

search

cross file analysis

node.js

Outlook

Scripted becomes your
favorite JavaScript editor :-)

working on:

add more innovative features
continue to think beyond the borders

Outlook

**cloud IDEs not mainstream
yet or anytime soon**

**not a replacement for Java
development yet**

**the browser is the future UI
toolkit for IDEs (no
limitations anymore)**

**cloud-based IDEs will
become reality in the future**



Q&A

and thank you for your attention

Martin Lippert, VMware
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