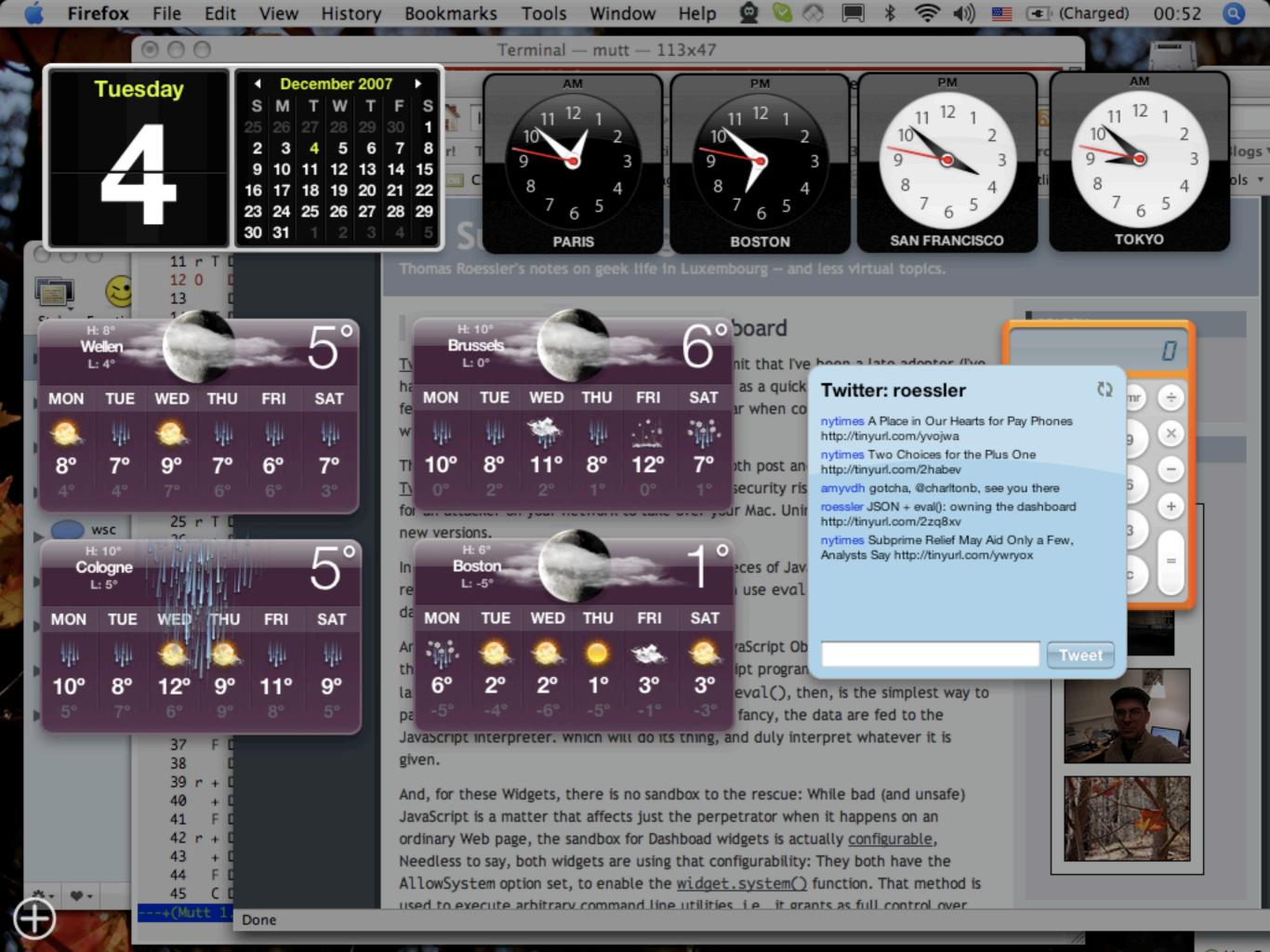
## widgets - web vulnerabilities for all

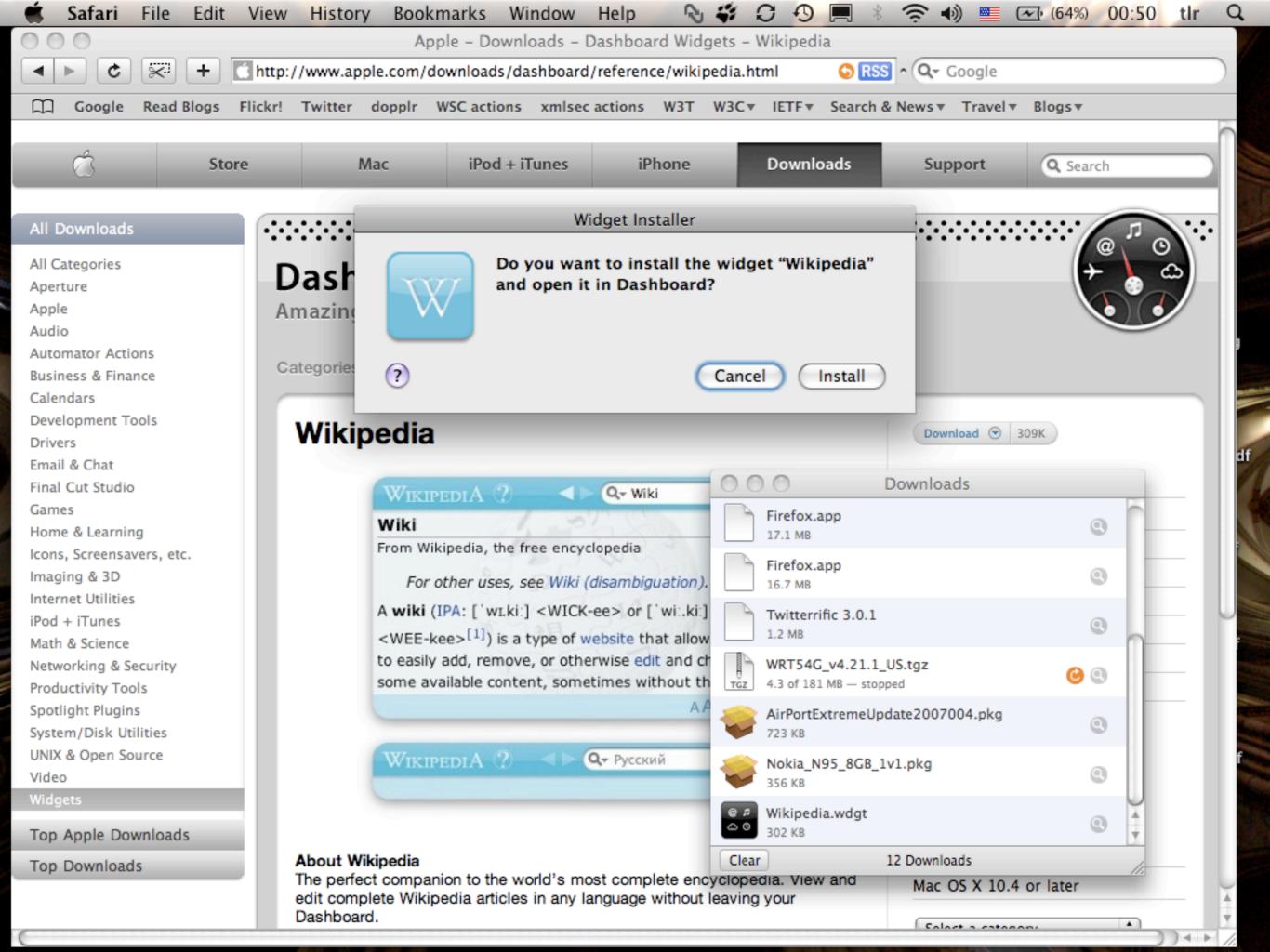


### little helpers

# 

## html/css/ javascript

### easy to install





## safe secure convenient

# 

### javascript outside the web

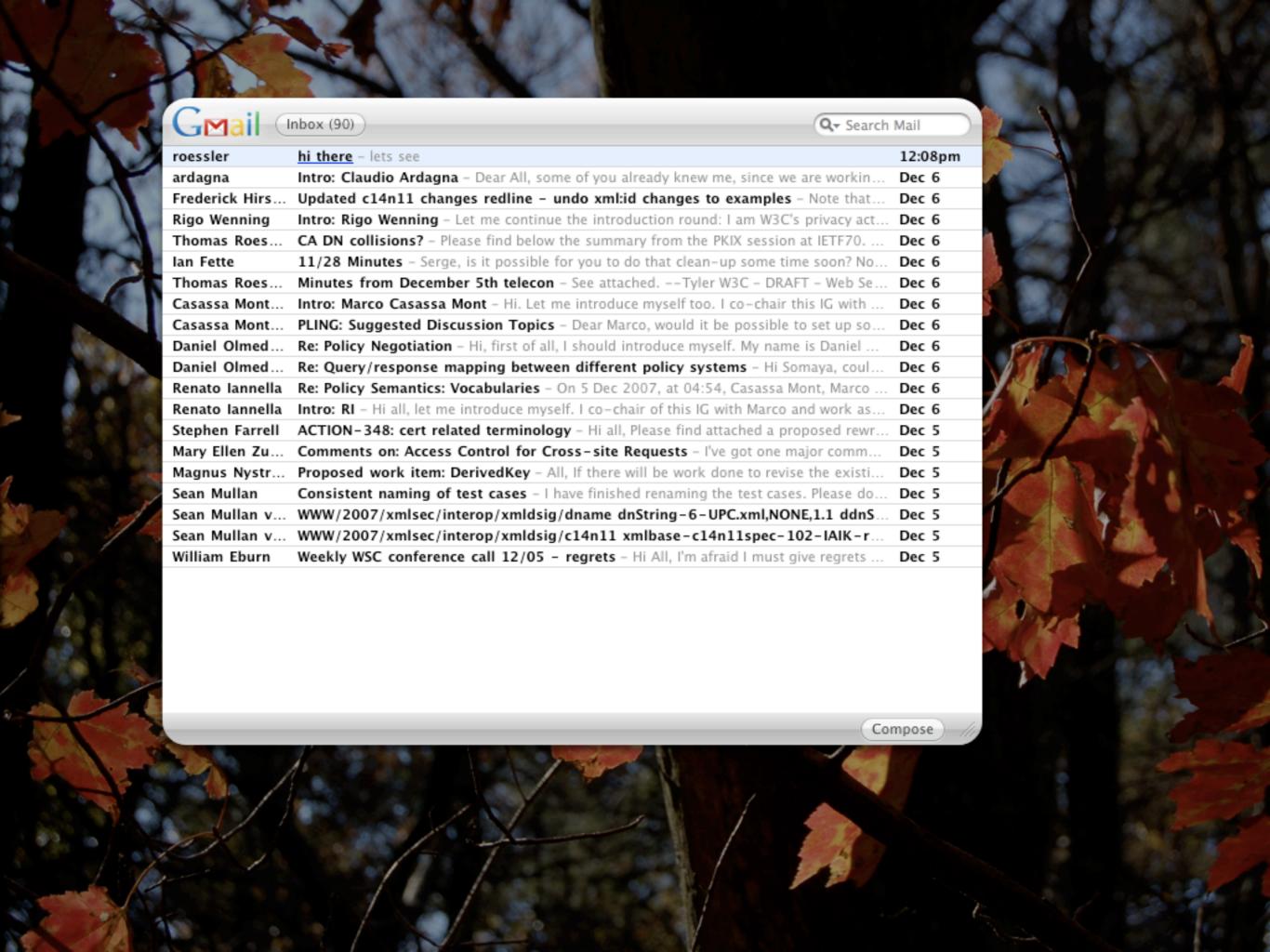
# with full control over the local machine

#### widget.system runCommand System.Shell. execute

#### run a command in the system's shell

#### when was your computer's last cross-site scripting vulnerability?

# e.g., GMail



```
var titleText = MessagesTable.
 getTitleTextFromEntryElement(currentEntry);
titleText =
  '   <span class="title-class">'
 + titleText + '</span>';
// (skipping code to build message summary)
titleText =
   "<div class='table-overflow-col'>"
  + titleText + "</div>";
titleColumn.innerHTML = titleText;
```

#### 

# who controls titleText?

#### Subject: <i>hi!</i>

# we can write html into the dom, by sending e-mail

## scripts?

# innerHTML handles <script> strangely

## event handlers work just fine

# <a><a>onmouseover=""</a>

# <img src="404.gif" onerror="...">

## hacking through e-mail

# output sanitization

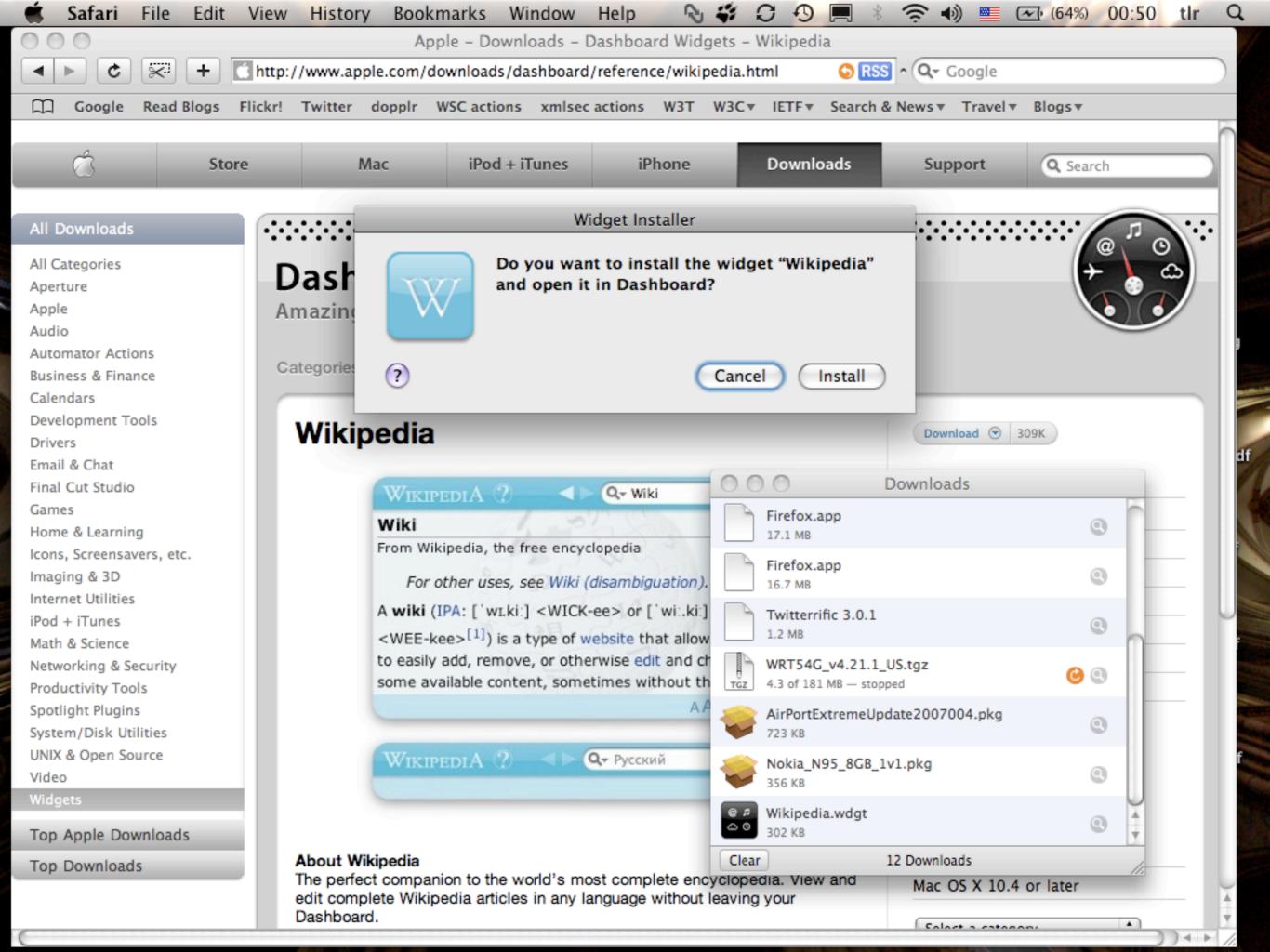
# entity-escape strings before writing them to the dom

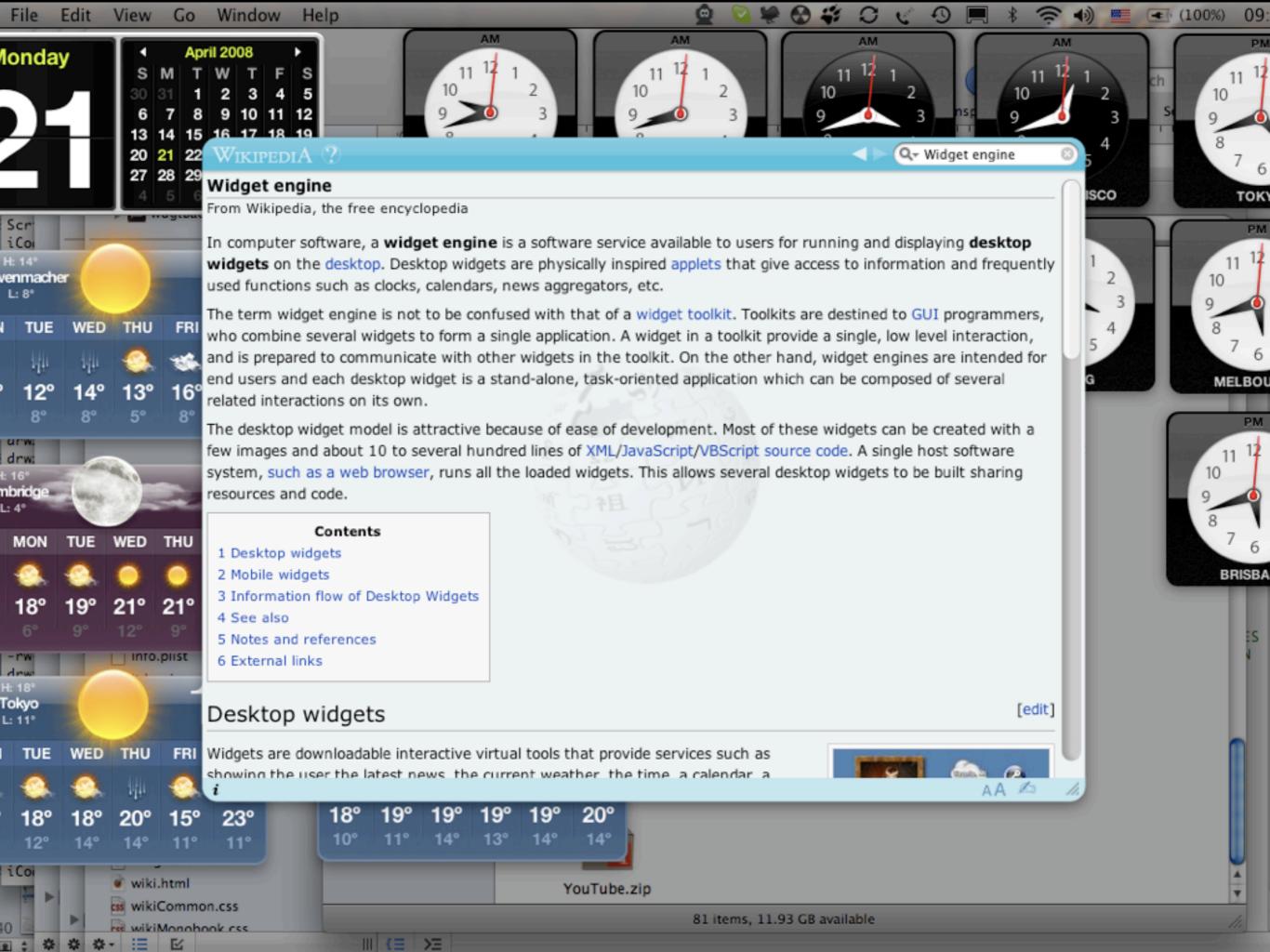
# Google announced fix in December

# vulnerable versions don't work any more

# how about rendering html?

# say, from Wikipedia





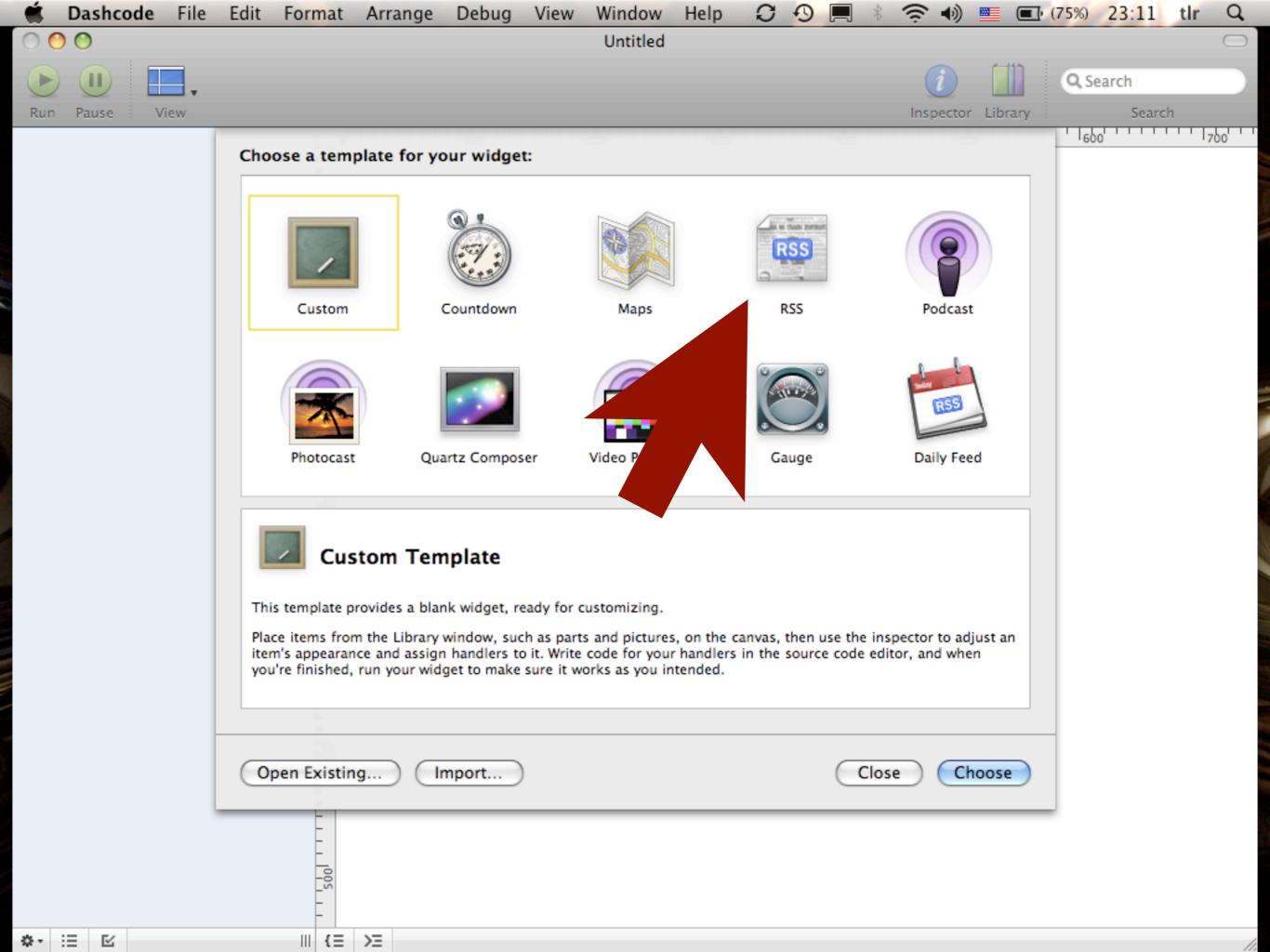
# html parsing required by design

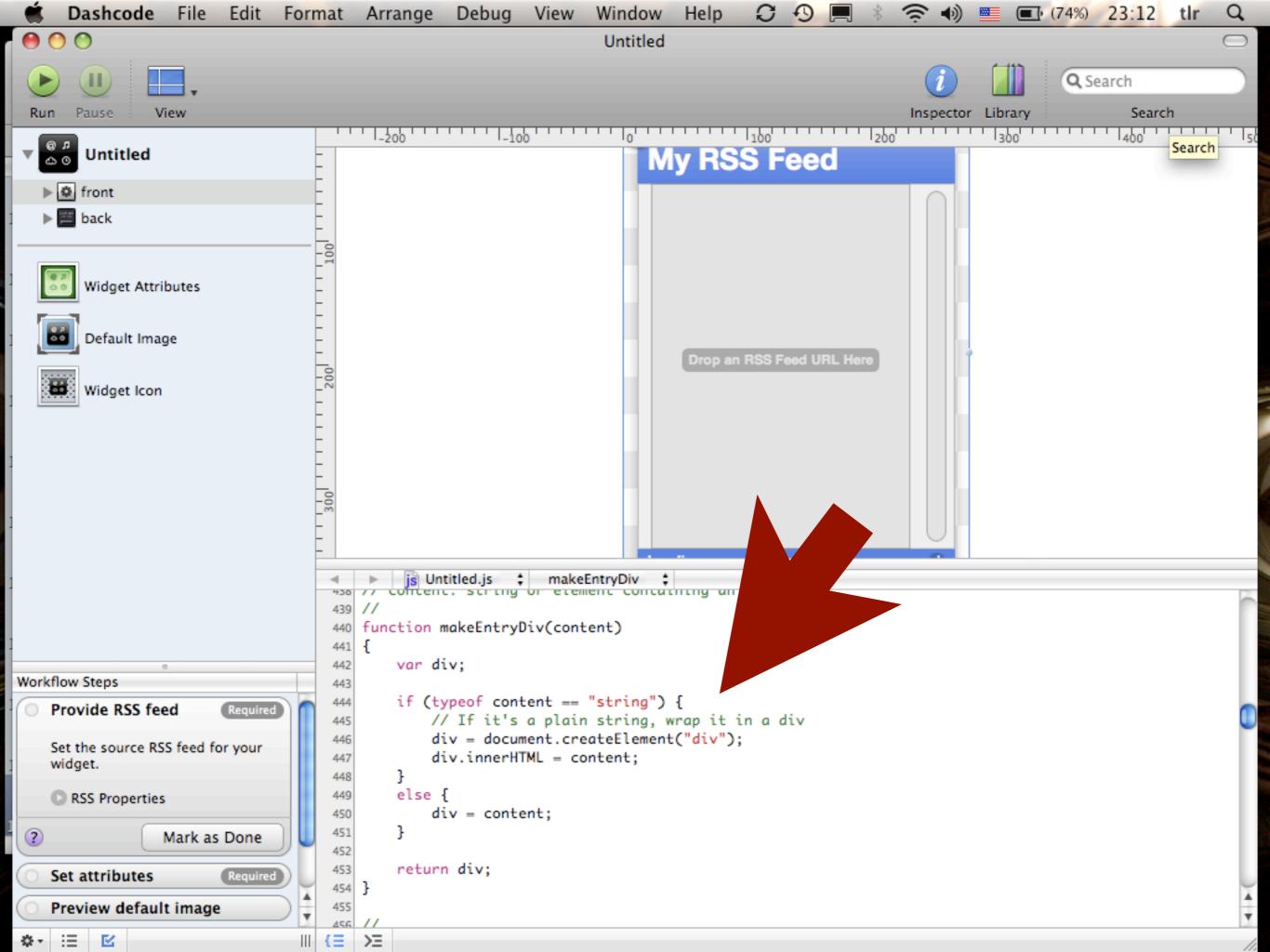
## bake your own?

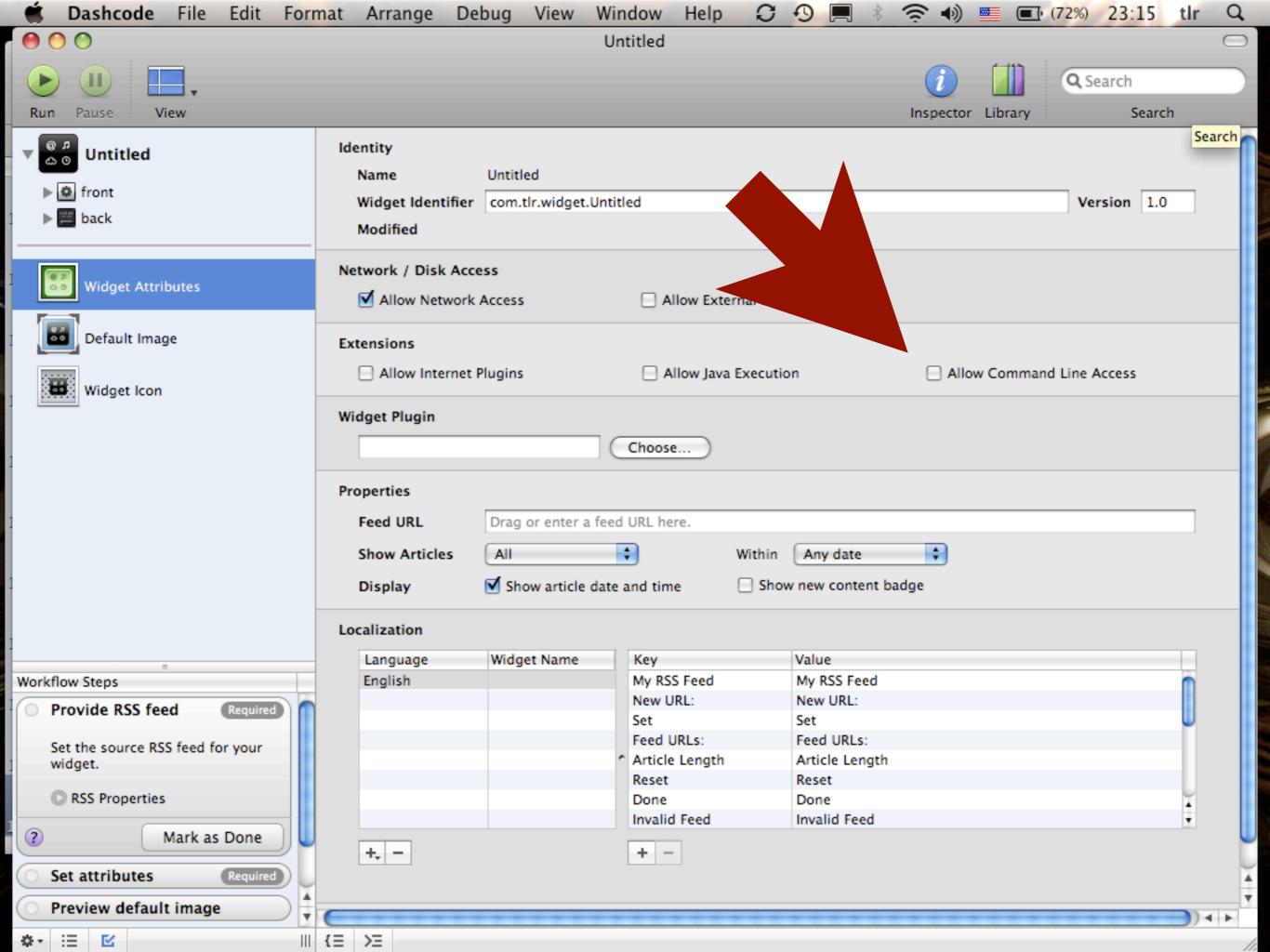
### innerHTML!



## say, in an rss reader







## the disaster is one click away

# (incidentally, forget your firewall)

# can we have shrimps in that turducken?

# widget.system and friends call the shell

### Secure Unix Programming FAQ

1999/05/17

### 6.3) How do I safely pass input to an external program?

### "One of the biggest mistakes is to use a shell..."

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### Widgets

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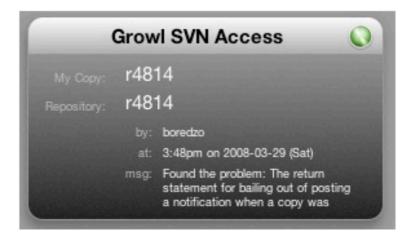
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### **Dashboard Widgets**

Amazing widgets for your Mac OS X Dashboard.

Categories Just Added Top 50 Submit a Widget Feedback RSS

### **SVN Notifier**



### About SVN Notifier

Version control is essential for collaborative development, and we do a lot of collaborative development at Arc90, so we rely heavily on our Subversion repositories. One of the things we've noticed is that it's hard for developers to keep up with their repositories' and working copies' statuses: Is my copy out of date? Has someone committed something to the repository?

So we wrote a Dashboard widget that monitors working copies and repositories to make sure that it's always clear what's what. And we threw in Growl support to make the package extra appealing. It's a great way to keep tabs on your development efforts.



### **Download Details**

Company: Arc90

Version: 1.0

Post Date: April 2, 2008

License: Freeware

File Size: 624K

URL Type: Download

Download ID: 18438





### System Requirements

Mac OS X 10.4 or later

Select a category...



# what's new in that syn repository?

## notification through growl

```
command = baseCommand
     // title (note the trailing space)
     + '"' + projLabel + ' is out of date" '
     // message
     + '"You have revision r'
     + my_rev
     + ', and the repository has been updated to r'
     + repos_rev + ' by '
     + repos_rev_author
     + ' with the following message:\n\n'
     + repos_rev_msg + '"';
```

"; touch /tmp/gotcha; echo "

## hacking through syn commit messages

## there's similar code in the wikipedia widget

## 

## 

## 

# twitgit twitterlex facebook



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### Widnets

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### **Dashboard Widgets**

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### **Facebook**



### About Facebook

Look up student information on the facebook.com community. Limitations:

- If not already specified, users must set their Safari preferences to accept cookies "Always." If not already set to "Always," the widget will facilitate changing this setting upon a first attempt at searching using the widget.
- When searching by attributes other than name, results are limited to only those in the user's personal network. This limitation is imposed by facebook.com, not by the Facebook Search Widget.

### What's Next?

Look for the following features in future releases:

- Bug fixes
- Results displayed as a list of names in a drop-down drawer within the widget interface itself, rather than linking to an external browser window.

### What's New in this Version

- Fixed a bug in which users would be directed to the cookies setup page even after correctly configuring their cookies.
- Fixed a bug that caused the widget to begin a search with no user input.
- Added support for searching only within your personal network. When



### Download Details

Company: Carl Wiemann

Version: 1.6

Post Date: January 2, 2006

License: Freeware

File Size: 28K

URL Type: Download

Download ID: 7928

### System Requirements

Mac OS X 10.4 or later

A facebook.com account

Select a category...



## json based apis

### XIVILHttpRequest

eval

### twitter

### facebook

## not quite a JSON example

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### **Hockey Widget**



### About Hockey Widget

Allows you to keep track of your favorite NHL team - daily schedules (game times are converted to your local time zone) with past and current results and upcoming schedules as well as current standings (both division and full conference). Hovering the pointer over a game that has concluded (or is currently in progress) shows the period by period breakdown of scores as well as game leaders (or last play and last goal for games in progress).



### Download Details

Company: Independent private developer

Version: 1.0.7

Post Date: December 5, 2007

License: Freeware

File Size: 59K

URL Type: Download

Download ID: 15550





### System Requirements

Mac OS X 10.4 or later

```
var xmlResponse = xmlRequest.responseText
xmlResponse = xmlResponse.replace(/[\n\r]/g,"");
var NHLatl = null;
var gameData = xmlResponse.match(/script[^<]*var NHLatl.*?<\/
script>/)[0].replace(/.*?var /,"").replace(/,
\s*myScoresIcon.*/,"}");
eval(gameData);
```

## screenscraping through eval

# another pattern: use JSON to check for updates

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Dirt Nap	5 days
Scrubs BUY	Fri, Jan 25
My Bad Too	8 days
Lost BUY	Fri, Feb 1
LOST: Past, Present & Future	15 days
South Park BUY	Thu, Mar 13
ТВА	56 days
Battlestar Galactica	Sat, Apr 5
He That Believeth In Me	79 days

### About TV Forecast

If you've ever missed an episode of your favorite TV show, tuned in only to find that it wasn't airing or are just looking for a TV guide personalized to your taste, then look no further than TV Forecast.

TV Forecast helps you to keep an eye on all of your favorite TV shows by



### **Download Details**

Company: Big Bucket

Version: 2.3.2

Post Date: January 17, 2008

License: Freeware

File Size: 200K

URL Type: Download

Download ID: 13225





### System Requirements

Mac OS X 10.4 or later

# this.\_checkVersion (transport. responseText. evalJSON());









http://www.prototypejs.org/







**API Docs** Tips and Tutorials Blog



Prototype is a JavaScript Framework that aims to ease development of dynamic web applications.

```
cells: function(row) {
 if(row == undefined) return this.tab
 return $(row).getElementsBySelector(
```

Prototype is a JavaScript Framework that aims to ease development of dynamic web applications.

Featuring a unique, easy-to-use toolkit for class-driven development and the nicest Ajax library around, Prototype is quickly becoming the codebase of choice for web application developers everywhere.

### Prototype 1.6.0.2: Bug fixes, performance improvements, and security

Today we're releasing Prototype 1.6.0.2 to address several compatibility and performance issues and to protect against a potential security issue for developers using Prototype outside of a web browser environment.

### Download

Get the latest version-1.6

### Learn

Online documentation and resources.

### Discuss

Mailing list and IRC

### Contribute

Submit patches and report bugs.

Who's using Prototype? Meet the developers

## default json parser: eval

# widget doesn't turn on sanitization

## frameworks may be less secure than you think

# "You're trusting them anyway, so why bother?"

## 

## leverage network attack into machine takeover

# security of update servers at all times

## robustness against crosssite scripting

### Dancho Danchev's Blog - Mind Streams of Information Security Knowledge

In the overwhelming sea of information, access to timely, insightful and independent open-source intelligence (OSINT) analyses is crucial for maintaining the necessary situational awareness to stay on the top of emerging security threats. This blog covers trends and fads, tactics and strategies, intersecting with third-party research, speculations and real-time CYBERINT assessments, all packed with sarcastic attitude

WEDNESDAY, MARCH 12, 2008

### More High Profile Sites IFRAME Injected



The ongoing monitoring of this campaign reveals that the group is continuing to expand the campaign, introducing over a hundred new bogus .info domains acting as traffic redirection points to the campaigns hardcoded within the secondary redirection point, in this case radt.info where a new malware variant of Zlob is attempting to install though an ActiveX object. These are the high profile sites targeted by the same group within the past 48 hours, with number of locally cached and IFRAME injected pages within their search engines:

NCSU Libraries - lib.ncsu.edu - 372,000 pages FullDownloads.us - fulldownloads.us - 13,000 pages Central Statistics Office Ireland - cso.ie - 10,300 pages DBLife Frontpage - dblife.cs.wisc.edu - 1,130 pages

School of Mathematics and Statistics - www-history.mcs.st-andrews.ac.uk - 1040 pages eHawaii Portal - ehawaii.gov - 992 pages

The World Clock - timeanddate.com - 944 pages Boise State University - boisestate.edu - 471 pages The U.S. Administration on Aging (AoA) - aoa.gov - 425 pages

Gustavus Adolphus College - gustavus.edu - 312 pages

About Me



Dancho Danchev

Independent Security Consultancy, Threat Intell Analyses and Competitive Intelligence research on Demand. Insightful, unbiased, and client-tailored assessments, neatly communicated in the form of interactive reports - because anticipating the emerging threatscape is what shapes the big picture at the end of the day. Approach me at dancho.danchev@gmail.com

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## "more high profile sites iframe injected"

## widgets are a predictor

## javascript as programming language of choice?

## SMS application, web-based, widget-style?

## social network worms that create zombies?

## targeted attacks with plausible deniability?

## the flaws aren't rocket science

### Secure Unix Programming FAQ

1999/05/17

## bugtraq 1996

### widespread

## trivial to exploit

## easy to find

## json-based api?

### shows html?

## uses external programs?

### 0000ps



tlr@w3.org