

Web 2.0 Application Development using jMaki



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Who am I ?

- Member of GlassFish team
- Technology Evangelist for Web services and “Web 2.0” Applications @ Sun
- With Sun for over 9 years
- Specifications, Engineering, Standards, Interoperability, ...
- <http://blogs.sun.com/arungupta>

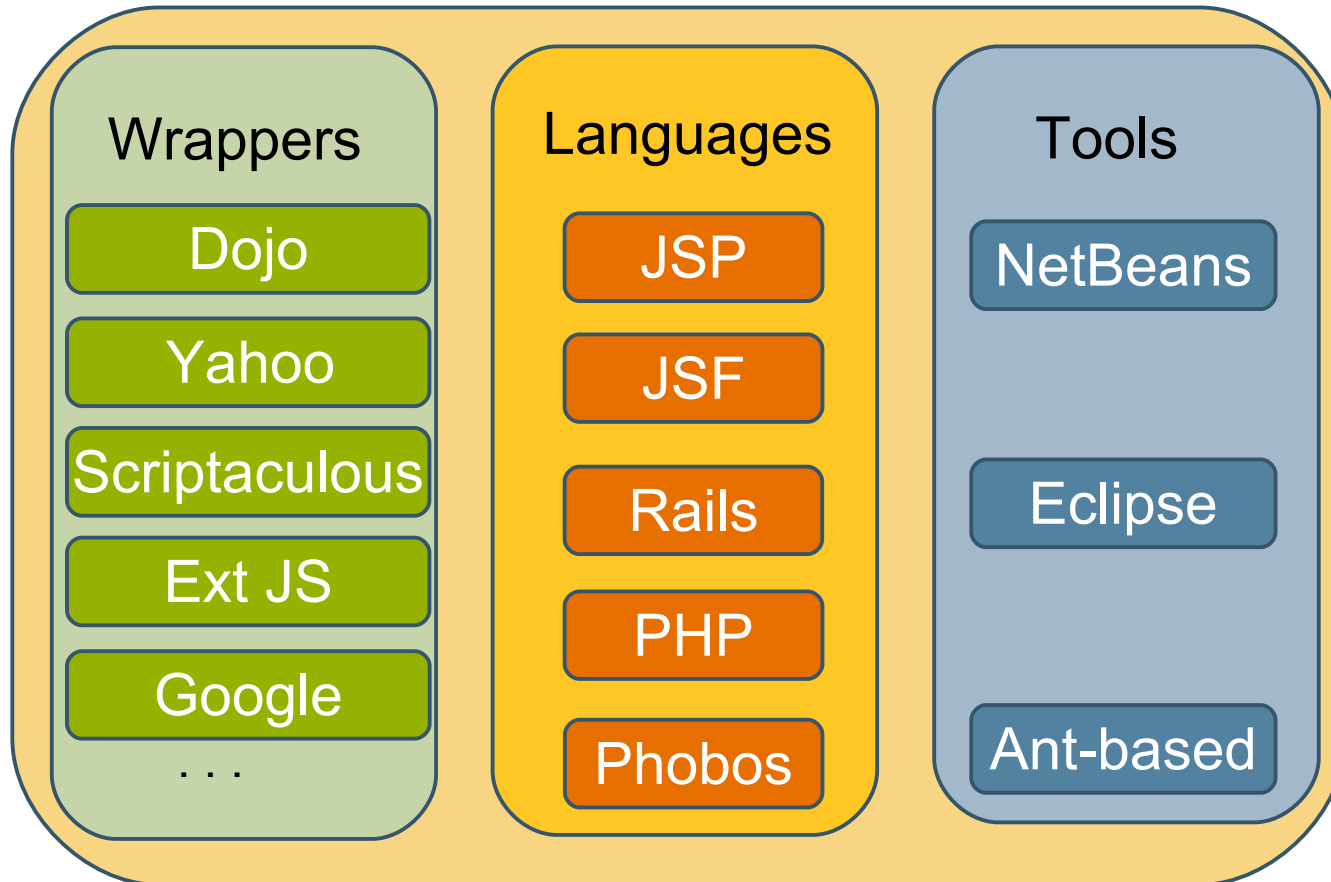


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Goal

Build **Ajax-enabled** web applications following **standard practices** using the best **toolkits and libraries**.

What Is jMaki?

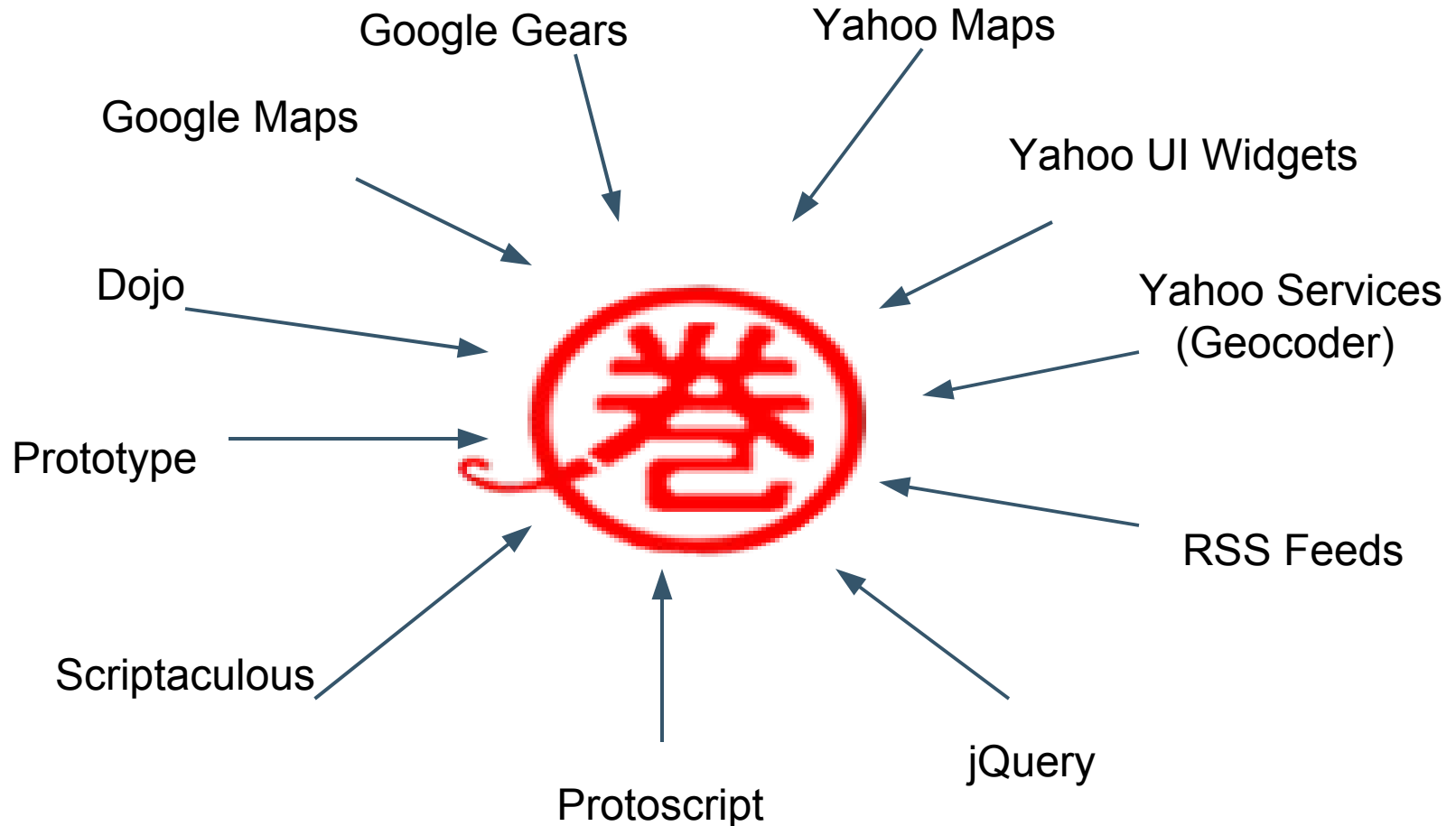


**jMaki – Web 2.0 Apps Your Way
(jmaki.com)**

Why use jMaki ?

- Standardizes Event / Data Models
 - > Consistent programming model
 - > Widget component model
- Defaults set out of the box
 - > Convention over configuration
- Portable Widget libraries
 - > Share your extensions / widgets libraries
- Use the tool of your choice
- Layouts/Theming Support

jMaki Ecosystem



Multi-Server Support

JSP technology: index.jsp

```
<%@ taglib prefix="a" uri="http://jmaki/v1.0/jsp" %>  
<a:widget name="yahoo.button" />
```

Ruby: index.rhtml

```
<%= javascript_include_tag "jmaki" -%> <%= jmaki_setup -%>  
<%= jmaki_widget 'yahoo_button' %>
```

PHP: index.php

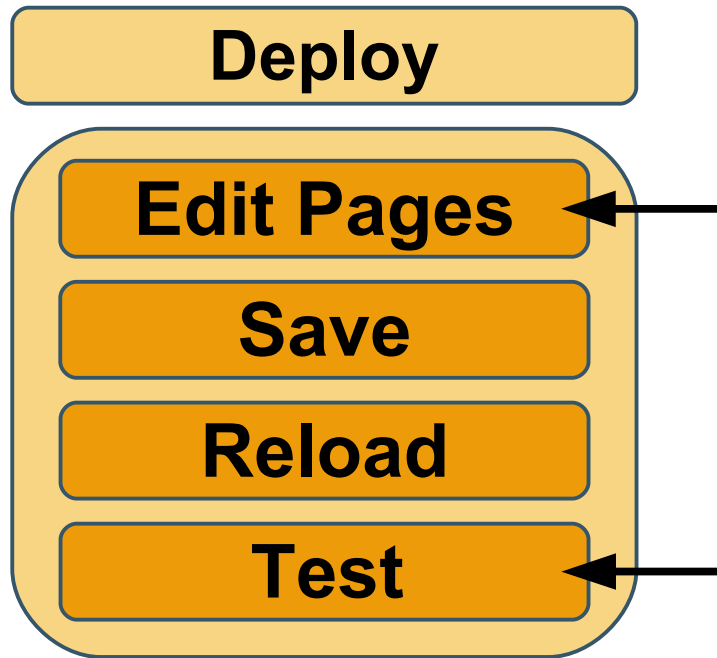
```
<?php require_once 'Jmaki.php'; ?>  
<?php addWidget( name=>"yahoo_button"); ?>
```

Phobos index.ejs

```
<% library.jmaki.insert(component: "yahoo_button"); %>
```

Development Cycle

Immediate Feedback



jMaki Logger

```

jMaki Logger
Publish: Topic: jMaki runtime serialized message {}
Publish: Topic: jMaki runtime widget loaded message {}
Publish: Topic: jMaki runtime widget loaded message {id: 'yahooui_map1'}
Publish: Topic: jMaki runtime widget loaded message {id: 'yahooui_map2'}
Publish: Topic: jMaki runtime widget loaded message {id: 'yahooui_recorder3'}
Publish: Topic: jMaki runtime widget loaded message {}
Publish: Topic: jMaki runtime loadComplete message {}
Publish: Topic: Yahoo! recorder onGcode message {id: 'yahooui_recorder?', value: ... [X]}
Publish: Topic: Yahoo! recorder onGcode message {id: 'yahooui_recorder?', value: [runtime
  000]}
Publish: Topic: Yahoo! recorder onGcode message {id: 'yahooui_recorder?', value: ... [ace]}
  
```

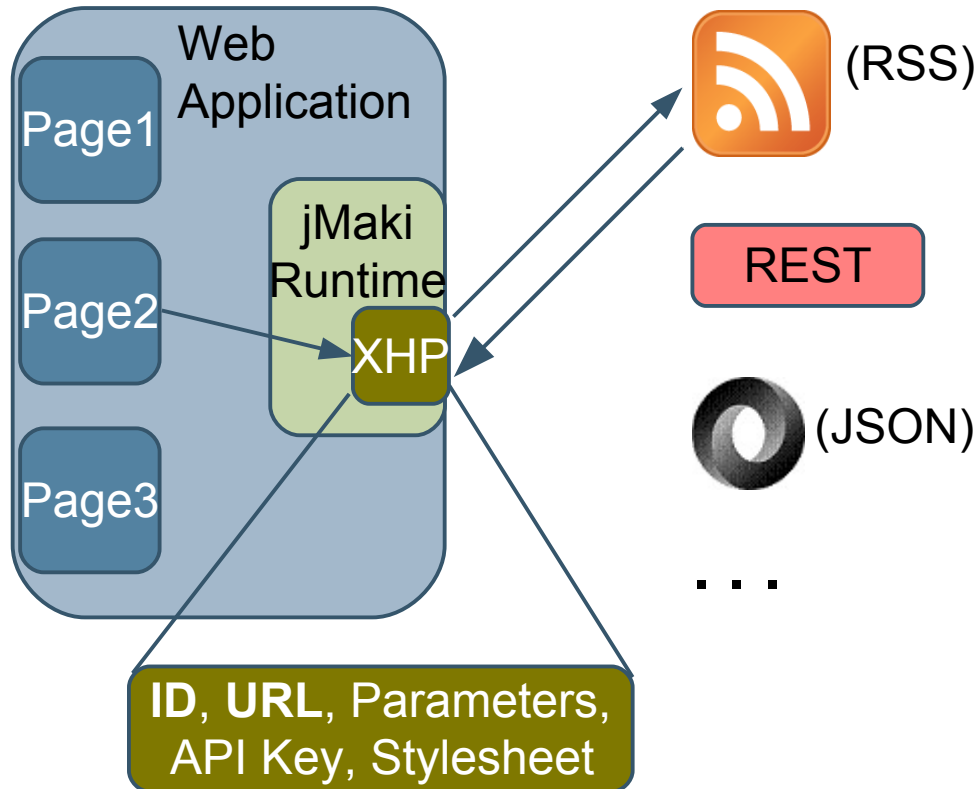


Firebug

Demo

Ease-of-use with NetBeans IDE

Accessing External Services



Demo

Accessing External Services

http://blogs.sun.com/arungupta/entry/screencast_web5_creating_mashups_with

http://blogs.sun.com/arungupta/entry/screencast_web4_creating_mashups_with

Publish/Subscribe

- A means for one or more jMaki widgets to communicate with each other in a page using topics
- Publish/Subscribe is much like a server-side messaging system but it runs in the scope of an HTML page

<https://ajax.dev.java.net/publishsubscribe.html>

Declarative Actions – Publish

```

{menu : [
  {label: 'Actions', menu: [
    { label : 'Select',
      action :{topic: '/foo/select', message: { targetId : 'tab3'}}
    },
    { label : 'Set Content',
      action :{topic: '/foo/setContent',
        message: { targetId : 'tab3', value : 'Hello There!'}}
    },
    { label : 'Set Include',
      action :{topic: '/foo/setInclude',
        message: { targetId : 'tab3', value : 'main.jsp'}}
    }
  ]
}
] }

```

Declarative Actions – Subscribe

```
subscribe="/foo"
```

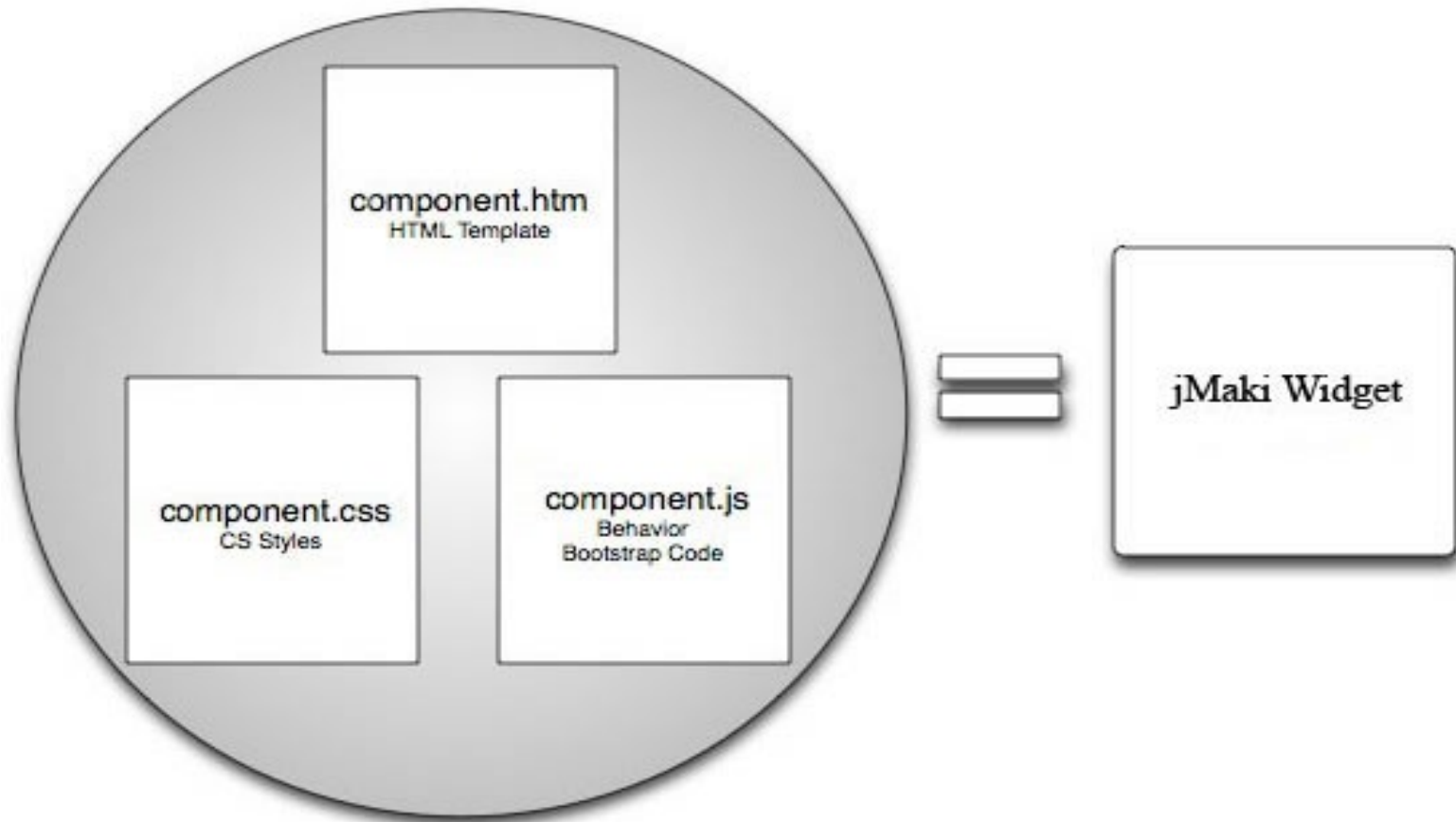
```
{  
  items:[  
    { label : 'My Tab', content : 'Some Content'},  
    { id : 'tab2',  
      label : 'My Tab 2', include : 'tab1.jsp ', lazyLoad : true  
    },  
    { id : 'tab3',  
      label : 'My Tab 3', content : 'More Content', selected : true  
    }  
  ]  
}
```

Demo

Rails and Publish/Subscribe Demo

http://blogs.sun.com/arungupta/entry/screencast_web8_jmaki_on_rails

Widgets



Hello World Widget

component.htm

```
<div id="{uuid}"></div>
```

component.js

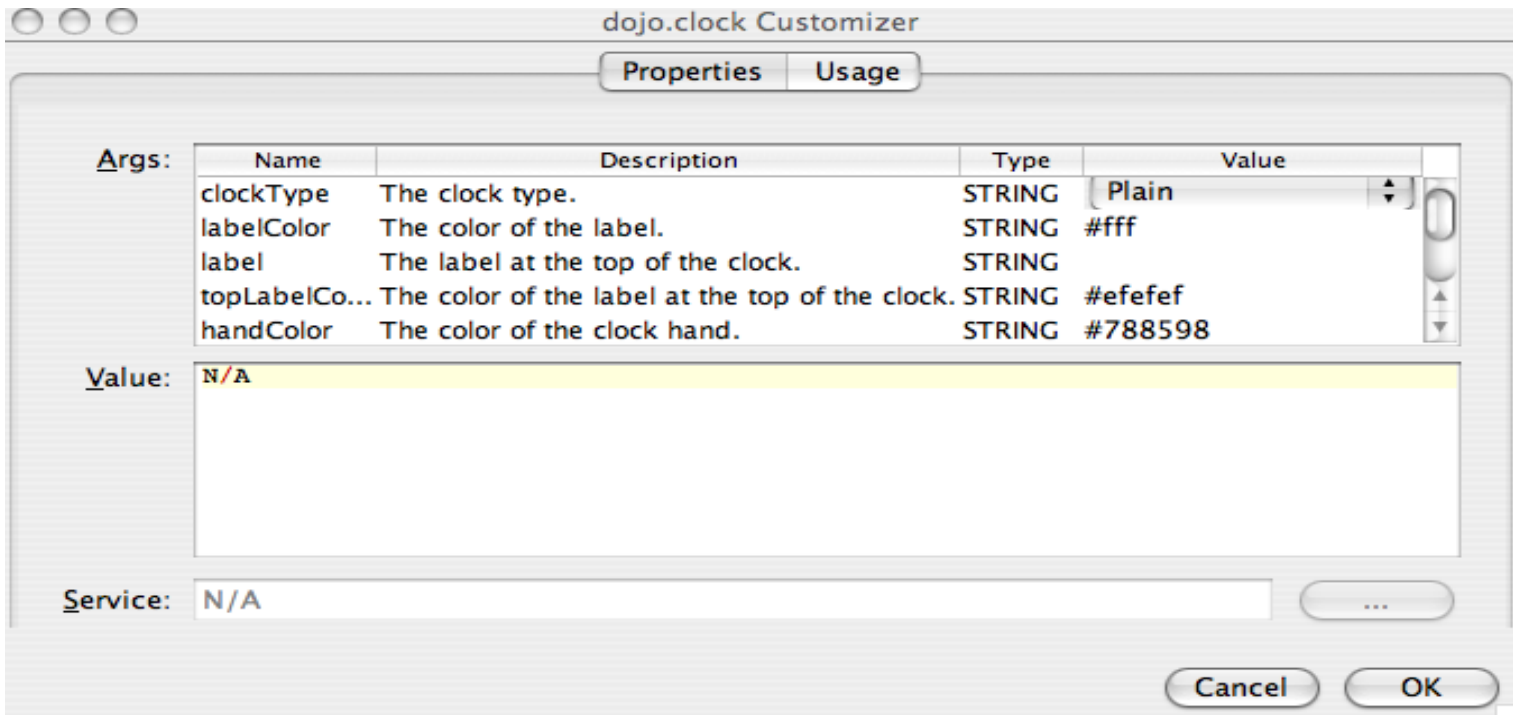
```
jmaki.namespace("jmaki.widgets.hello");  
jmaki.widgets.hello.Widget = function(wargs) {  
    var mydiv = document.getElementById(wargs.uuid);  
    mydiv.innerHTML = "Hello " + wargs.args.name;  
}
```

index.jsp

```
<%@ taglib prefix="a"  
    uri="http://java.sun.com/jmaki" %>  
<a:ajax name="hello" args="{name: 'world'}" />
```

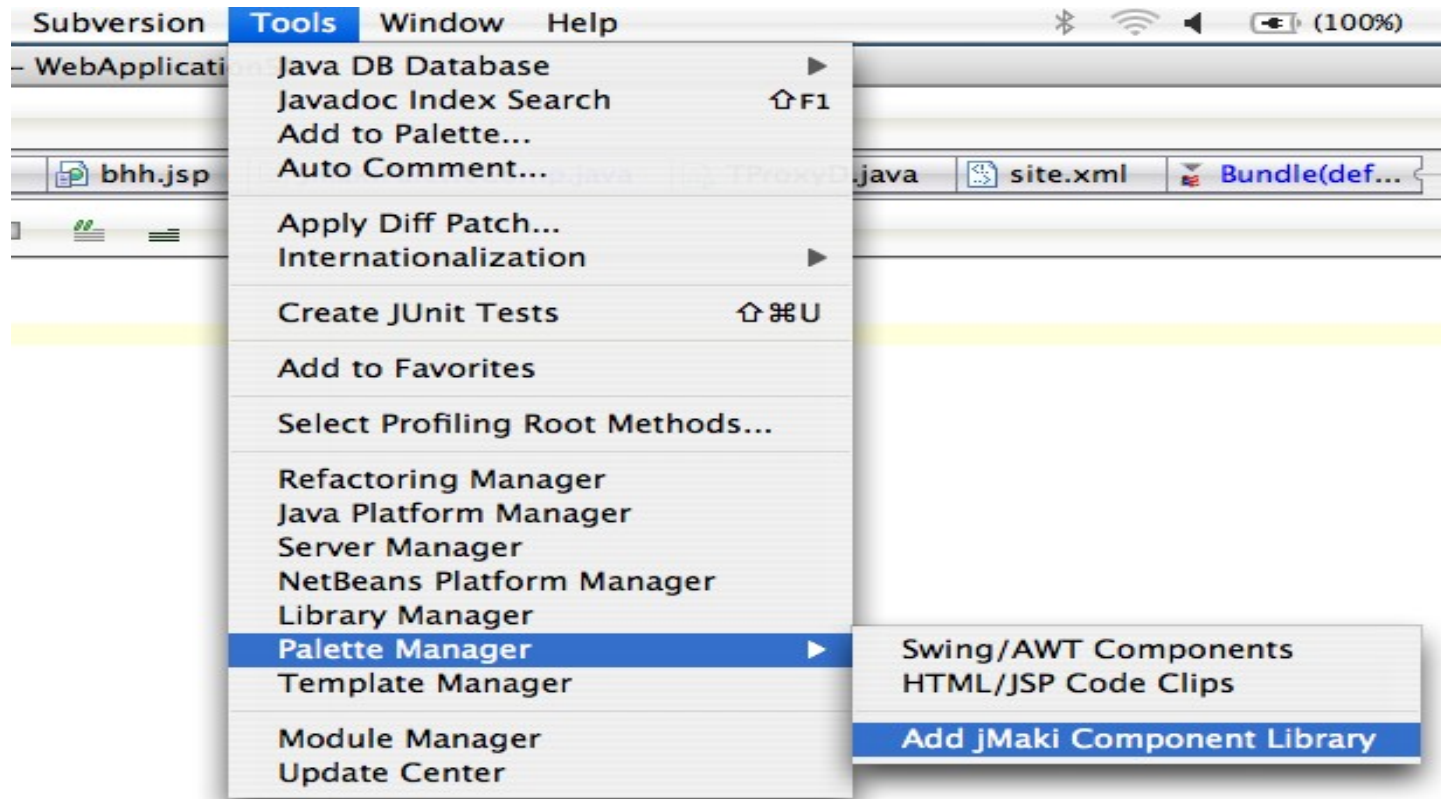
jMaki Customizer

```
<a:widget name="dojo.clock" />
```



```
<a:widget name="dojo.clock" args="{clockType:'plain',
labelColor:'#fff', topLabelColor:'#efefef'}"/>
```

Extensible Palette – Create your own



Demo

Extensible Widgets (Charting)

<http://jmaki.com/blogs/?p=18>

Extensible

- jMaki Charting
 - > <https://jmaki-charting.dev.java.net>
- jMaki Widgets
 - > <https://widgets.dev.java.net>
- jMaki Extensions
 - > <https://jmaki-ext.dev.java.net>
- Your own library

Demo

Real-life RIA using jMaki

http://blogs.sun.com/arungupta/entry/sun_tech_days_event_map

Roadmap

- 1.0.4 Released recently
 - > Bug fixes, Updated templates & Ant task
- 1.1 Release Discussions have started and branch created
 - > Optimizations
 - > Less calls to server
 - > More code sharing
 - > Security improvement for JSON parsing
 - > Bug fixes
 - > Better support for publish/subscribe

Summary

- Framework for building Ajax enabled Web 2.0 applications
- Java, PHP, JavaScript, and Ruby Support
- Consistent Data Models
- Event handling with Actions and Glue
- Tool support with NetBeans, Eclipse, and Ant
- Extensible via Extensions and your own Widget libraries

For More Information

See Project jMaki website

> <http://jmaki.com>



<http://jmaki.com>