

The State of AJAX

Geert Bevin
CTO
Uwyn bvba

gbevin@uwyn.com
<http://uwyn.com>
<http://rifers.org>



Quick overview of today's leading AJAX solutions for Java

Google Web Toolkit (GWT)

<http://code.google.com/webtoolkit>

Google Web Toolkit (GWT)

- **Compiles Java code into JavaScript code instead of byte-code**
- **JavaScript implementation of a subset of the core Java class libraries**
 - 27 classes, 11 interfaces, and 18 exception types found in the `java.util` and `java.lang` (as of GWT 1.0.21)
- **“Hosted mode” for running your GWT application as byte-code into the Eclipse IDE and preview pane**
- **While it feels like you’re writing server-side Java code, it really is a client-side only solution**

Google Web Toolkit (GWT)

- **Very young and unproven**
- **No support for MacOSX**
- **No support for other IDEs besides Eclipse, nor other browsers besides SWT browser widget in “Hosted Mode”**
- **Important parts (compiler) aren’t open-source**
- **Only free as in beer**
- **Comes from Google**
- **Leverages your knowledge of Java to develop AJAX**

Direct Web Remoting (DWR)

<http://getahead.ltd.uk/dwr>

Direct Web Remoting (DWR)

- **Remotes your Java classes from JavaScript**
- **Generates JavaScript classes and stubs that call your Java code through AJAX**
- **Integration with Spring, Struts, JSF, WebWork, RIFE**
- **All parameters are automagically marshalled**
- **DWR 2.0 (close to stable release) supports reverse Ajax: call JavaScript from Java (push instead of pull)**
- **Any Java tool or library can be used for the implementation of your logic**

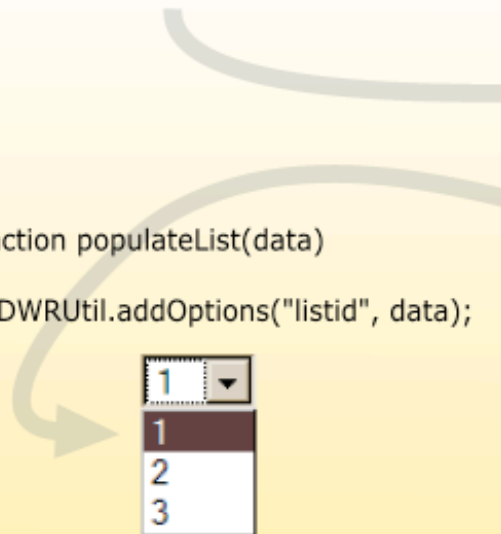
Direct Web Remoting (DWR)

Web Browser

HTML / Javascript

```
function eventHandler()
{
  AjaxService.getOptions(populateList);
}

function populateList(data)
{
  DWRUtil.addOptions("listid", data);
}
```



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Web Server

Java

```
public class AjaxService
{
  public String[] getOptions()
  {
    return new String[] { "1", "2", "3" };
  }
}
```



DWR

Direct Web Remoting (DWR)

- **While you're leveraging AJAX, you really are mostly remoting your server-side logic to the client-side**
- **Free and open-source**
- **Proven and considered the 'leading Java framework for server-side AJAX development'**
- **Any existing Java class can easily be remoted**
- **Strong focus on security**
- **Only basic DHTML layout library, but integrates easily with Dojo, Scriptaculous, ...**



OpenLaszlo

<http://openlaszlo.org>

OpenLaszlo

- **Focuses on the development of entire Rich Internet Applications (or mini applications)**
- **Powerful declarative object-oriented component-based language**
- **Run-time independent development platform: compiles to Flash and has experimental support for AJAX**
- **Integration of multi-media (audio, video, animation)**
- **Gateway servlet that extends the client-side features with capabilities that are not supported in the client runtime (SOAP for instance)**

OpenLaszlo

- **Stable, production-proven, very well documented and supported by Laszlo Systems**
- **Requires specific training since it leverages none of a developer's knowledge of Java** (official training is available, as well as published books)
- **Free and open-source**
- **Large community and many external contributions**
- **Client-side only solution**
- **Manual integration with the server-side, typically through REST web services**



JMaki
<https://ajax.dev.java.net>

JMaki

- **Very young and work in progress**
- **Tries to consolidate the different client-side libraries**
- **Provides AJAX support to web application developers through a JSP tag library or JSF components**
- **Relies on other libraries like Dojo, Scriptaculus, Yahoo UI Widgets and DHTML Goodies for the client-side functionalities**
- **Targets JSP 2.0 / JSF 1.1**
- **Free and open-source**



Questions?