

sling in 18 minutes

jcr meetup amsterdam
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what?

what?



JCR repository for content storage

Scriptable applications, “all” java scripting languages

Demo-proof - simple things are simple

Integrated OSGi framework (Apache Felix) and console - complex things are possible

RESTful http interface, simple name conventions for POST parameters

JCR-based

Web applications development framework



```
<html>
<body>
  <form method="POST" action="/content/demo/*">
    <input type="text" name="title" size="60"
      value="JCR meetup in Amsterdam"/>
    <input type="submit"/>
  </form>
</body>
</html>
```

Content created /content/demo/jcr_meetup_in_amster_0

Status 201
Message Created
Location /content/demo/jcr_meetup_in_amster_0
Parent Location </content/demo>
Path /content/demo/jcr_meetup_in_amster_0
Referer <http://localhost:8888/testform.html>

ChangeLog created("/content/demo/jcr_meetup_in_amster_0");
modified("/content/demo/jcr_meetup_in_amster_0/title");

[Go Back](#)
[Modified Resource](#)
[Parent of Modified Resource](#)

simple
RESTful
content
creation

```
** Node dumped by StreamRendererServlet**
Node path:/content/demo/jcr_meetup_in_amster_0
Resource metadata: {sling.resolutionPath=/content/demo/jcr_meetup_in_amster_0}

** Node properties **
jcr:primaryType: nt:unstructured
title: JCR meetup in Amsterdam, yes
```

the webloader sample
naked

Sling Webloader

This example application retrieves documents from the Web using a Google query, and loads them into the repository. This is an example of the *populate.jsp* example, ported to Sling.

Create a new webloader job

Web query to use to select documents:	drums
Storage path for retrieved documents:	/webloader
Maximum number of documents to retrieve:	25
Maximum size of a single document in kilobytes:	512
Comma-separated list of file types to consider (empty=default):	pdf, rtf, ppt, doc, xls

Submit Query

```
g4:/Users/bert> find /Volumes/localhost/webloader -type f
/Volumes/localhost/webloader/edu/okstate/pp/www/ehs/kopykit/1200-7.pdf
/Volumes/localhost/webloader/org/pbskids/buster/parentsteachers/pdf/Buster_Lessons_17-18.pdf
/Volumes/localhost/webloader/ca/mb/gov/www/labour/safety/pdf/staticsituations.pdf
/Volumes/localhost/webloader/fi/tut/cs/www/sgn/arg/music/ismir2002_heittola.pdf
/Volumes/localhost/webloader/gov/srs/www/general/news/releases/SRNLdevice.pdf
```

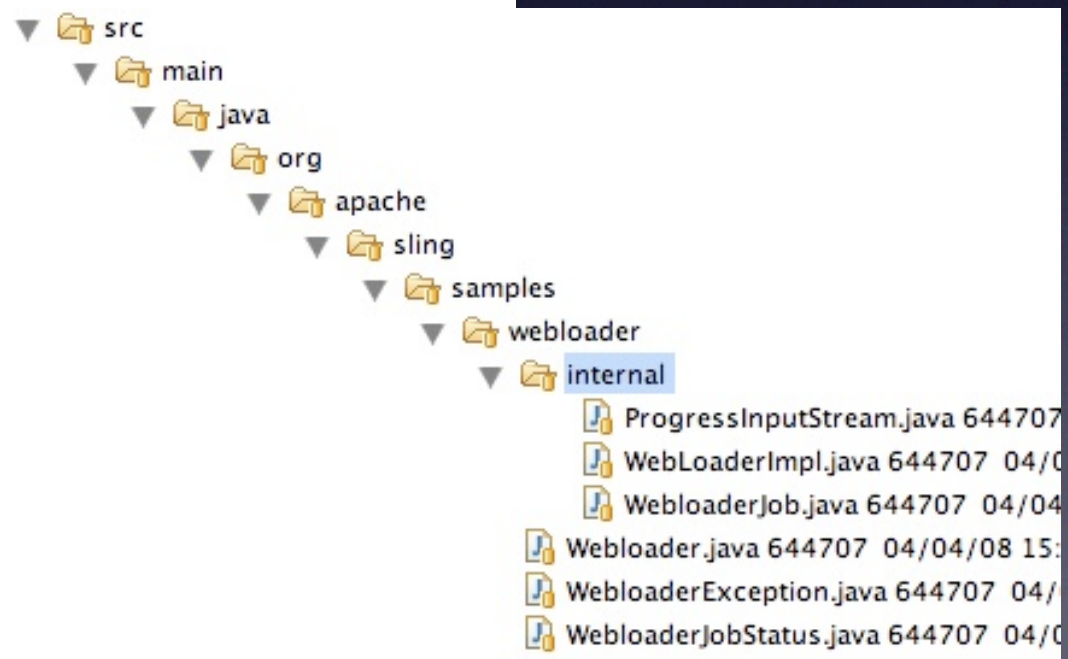
Webloader:
load documents from a
Google query into the
JCR repository



```
Webloader.java X
+ * Licensed to the Apache Software Foundation (ASF) under one or more
package org.apache.sling.samples.webloader;

/** Gets documents from the Web via a Google query, and stores them into the
 * repository. The service interface is designed to be easy to use from Sling
 * scripts.
 */
public interface Webloader {
    /** Create a new job that loads documents in the repository, and start
     * it immediately
     * @return the job ID
     * @param webQuery used to Google for documents to retrieve
     * @param storagePath documents are stored under this path in the repository
     * @param fileExtensions comma-separated list of extensions , each one
     * is passed in turn to Google as a "filetype:" search option
     * @param maxDocsToRetrieve up to this many documents are stored
     * @param maxDocSizeInKb documents over this size are ignored, to speed up the process
     */
    String createJob(String webQuery, String storagePath,
        String fileExtensions, int maxDocsToRetrieve, int maxDocSizeInKb);

    /** Get the status of a job given its ID
     * @return null if the job doesn't exist
     */
    WebloaderJobStatus getJobStatus(String jobId);
}
```

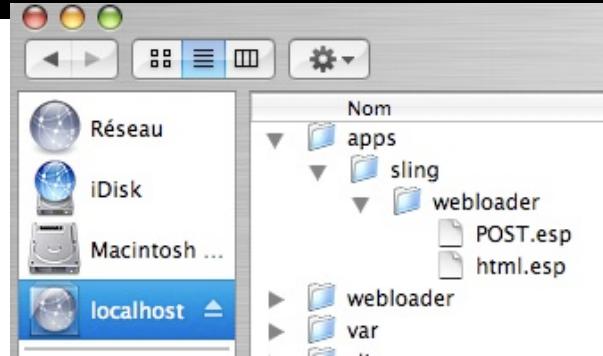
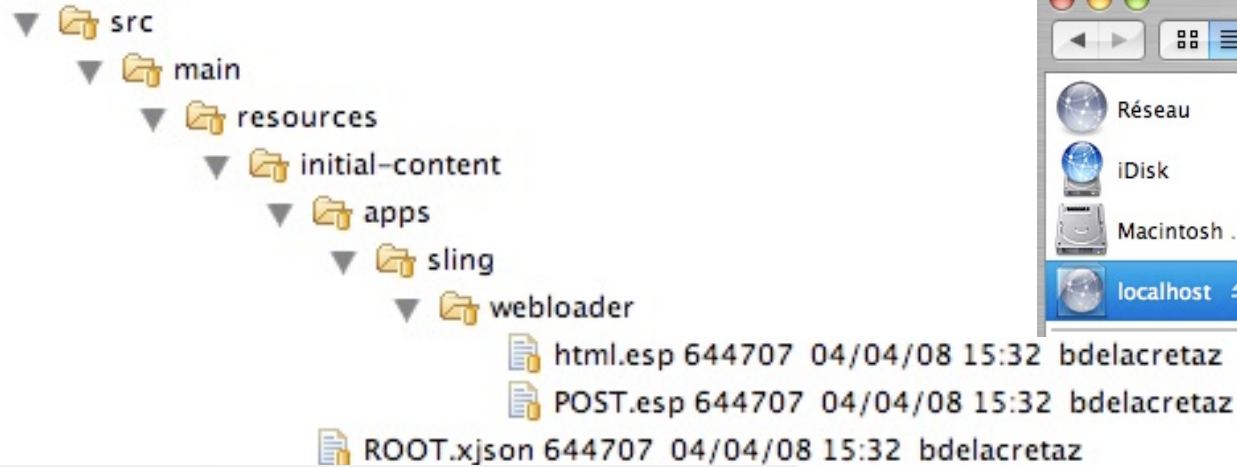


Webloader service bundle (java code)

```
<build>
  <plugins>
    <plugin>
      <groupId>org.apache.felix</groupId>
      <artifactId>maven-scr-plugin</artifactId>
    </plugin>
    <plugin>
      <groupId>org.apache.felix</groupId>
      <artifactId>maven-bundle-plugin</artifactId>
      <extensions>true</extensions>
      <configuration>
        <instructions>
          <Export-Package>
            !org.apache.sling.samples.webloader.internal,
            org.apache.sling.samples.webloader.*
          </Export-Package>
          <Private-Package>
            org.apache.sling.samples.webloader.*
          </Private-Package>
        </instructions>
      </configuration>
    </plugin>
  </plugins>
```

bundle jar file

maven-bundle-plugin
(webloader service pom.xml)



```
Webloader.java pom.xml pom.xml ROOT.xjson
{
  "bin" : {
    "jcr:primaryType" : "nt:unstructured",
    "sling" : {
      "jcr:primaryType" : "nt:unstructured",
      "webloader" : {
        "jcr:primaryType" : "nt:unstructured",
        "sling:resourceType" : "sling/webloader"
      }
    }
  }
}
```

```
<build>
  <plugins>
    <plugin>
      <groupId>org.apache.felix</groupId>
      <artifactId>maven-scr-plugin</artifactId>
    </plugin>
    <plugin>
      <groupId>org.apache.felix</groupId>
      <artifactId>maven-bundle-plugin</artifactId>
      <extensions>true</extensions>
      <configuration>
        <instructions>
          <Sling-Initial-Content>
            initial-content
          </Sling-Initial-Content>
        </instructions>
      </configuration>
    </plugin>
  </plugins>
</build>
```

Webloader
user interface bundle
(initial content)

bundle jar file

html.esp

Webloader UI

```
<%  
  // get job ID from selectors, for example webloader.5.html displays status of job 5  
  var jobId = null;  
  var selectors = request.getRequestPathInfo().getSelectors();  
  if(selectors.length > 0) {  
    jobId = selectors[0];  
  }  
  
  var loader = sling.getService(Packages.org.apache.sling.samples.webloader.Webloader);  
  var status = loader.getJobStatus(jobId);  
  var running = status!=null && status.isRunning();  
%>
```

POST.esp

```
var loader = sling.getService(Packages.org.apache.sling.samples.webloader.Webloader);  
  
var webQuery = request.getParameter("webQuery");  
var storagePath = request.getParameter("storagePath");  
var maxDocsToRet = request.getParameter("maxDocsToRetrieve");  
var maxDocSize = request.getParameter("maxDocSize");  
var fileTypes = request.getParameter("fileTypes");  
  
var jobId = loader.createJob(webQuery, storagePath, fileTypes, maxDocsToRetrieve, maxDocSize);  
  
var statusPath =  
  request.getContextPath()  
  + request.getRequestPathInfo().getResourcePath()  
  + "." + jobId + ".html";  
;  
  
var status = loader.getJobStatus(jobId);  
  
if(status==null) {  
  response.sendError(500, "Webloader status not available (or not anymore) for job " + jobId);  
}  
  
response.sendRedirect(statusPath);  
%>
```

get them'bundles in

Sling Management Console Bundles



Assemblies **Bundles** Components Configuration Configuration Status OSGi Repository System Information

Browse... - Start - Start Level

ID	Name	Status	Actions
0	System Bundle	Active	
16	Apache Commons IO Bundle	Active	<input type="button" value="Start"/> <input type="button" value="Stop"/> <input type="button" value="Update"/> <input type="button" value="Uninstall"/>
30	Apache Felix Bundle Repository	Active	<input type="button" value="Start"/> <input type="button" value="Stop"/> <input type="button" value="Update"/> <input type="button" value="Uninstall"/>
21	Apache Felix Configuration Admin Service	Active	<input type="button" value="Start"/> <input type="button" value="Stop"/> <input type="button" value="Update"/> <input type="button" value="Uninstall"/>
12	Sling Servlet Resolver	Active	<input type="button" value="Start"/> <input type="button" value="Stop"/> <input type="button" value="Update"/> <input type="button" value="Uninstall"/>
41	Sling Webloader Service	Active	<input type="button" value="Start"/> <input type="button" value="Stop"/> <input type="button" value="Update"/> <input type="button" value="Uninstall"/>
42	Sling Webloader User Interface	Active	<input type="button" value="Start"/> <input type="button" value="Stop"/> <input type="button" value="Update"/> <input type="button" value="Uninstall"/>

Browse... - Start - Start Level

sling OSGi console
install / configure / start / stop /uninstall bundle
at runtime

<http://localhost:8888/sling>

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- 42 [Sling Webloader User Interface](#)

Active	<input type="button" value="Start"/>	<input type="button" value="Stop"/>	<input type="button" value="Update"/>	<input type="button" value="Uninst"/>
Active	<input type="button" value="Start"/>	<input type="button" value="Stop"/>	<input type="button" value="Update"/>	<input type="button" value="Uninst"/>

41 **Sling Webloader Service** Active

Symbolic Name org.apache.sling.samples.webloader.service
Version 2.0.0.incubator-SNAPSHOT
Location inputstream:org.apache.sling.samples.webloader.service-2.0.0-incubator-SNAPSHOT.jar
Last Modification Tue Apr 08 10:36:42 CEST 2008
Vendor The Apache Software Foundation
Description Sample OSGi service that retrieves documents from the Web using a Google search, and stores them into the repository.
Start Level 20
Exported Packages org.apache.sling.samples.webloader,version=0.0.0
Imported Packages javax.jcr,version=1.0.0 from org.apache.sling.jcr.api (5)
javax.swing.text,version=0.0.0 from System Bundle (0)
javax.swing.text.html,version=0.0.0 from System Bundle (0)
org.apache.sling.api,version=2.0.0.incubator-SNAPSHOT from org.apache.sling.api (35)
org.apache.sling.commons.mime,version=2.0.0.incubator-SNAPSHOT from org.apache.sling.commons.mime (10)
org.apache.sling.jcr.api,version=2.0.0.incubator-SNAPSHOT from org.apache.sling.jcr.api (5)
org.slf4j,version=1.4.3 from org.apache.sling.osgi.log (1)

Service ID 101 Types: org.osgi.service.cm.ManagedService
PID: org.apache.sling.samples.webloader.internal.WebLoaderImpl
Description: ManagedService for Component org.apache.sling.samples.webloader.internal.WebLoaderImpl
Vendor: Apache Software Foundation

Service ID 102 Types: org.apache.sling.samples.webloader.Webloader
PID: org.apache.sling.samples.webloader.internal.WebLoaderImpl
Component Name: org.apache.sling.samples.webloader.internal.Webloader
Component ID: 33
Description: Sling Webloader service
Vendor: The Apache Software Foundation

bundles installed
via Sling OSGi console

boring
demo

next?

<http://incubator.apache.org/sling>

sling in 15 minutes

example apps and more docs
coming soon

Day JCR cup 2008



thanks Arjé!

