LAMS 2.0 for Tech-heads
Dissecting Dolly

- LAMS 2.0 is not longer just an application, but instead a framework for sequencing activities

Your all one-stop-dev-shop for LAMS 2.0: 
http://lamsfoundation.org/wiki

- Architecture Comparison
- Tools Contract
- LAMS Tools
- Built-in content repository and note services
- Developing a LAMS Tool
- Sequence External Tools within LAMS
LAMS 1.0.x vs LAMS 2.0
Architecture Comparison
Tools & Tools Contract

- Tool as “almost” independent web applications.
- Set of expected behaviours, registered URLs and API calls that a LAMS Tool has to implement to "talk" to LAMS Core.
- Clear separation between Design and Tool Content.

LAMS Core

Stores and manages Designs

Author
Admin
Learner
Monitor
Services

My LAMS Tool

Manage its own content
My LAMS Tool

- Authoring URL
  i.e.: `<lams base path>/<tool's authoringurl>&toolContentID=123`

- Default Tool content

- Author environment must have three mandatory tabs: Basic, Advanced and Instructions

- Preview URL

- Export content format

- LAMS Xpress interface

- Data exchange (input and outputs data types)
My LAMS Tool

- Monitor URL
  - Implement Summary, Instructions, Edit Activity and Statistics tabs.
  - Allow edit and hide entries (when required).
- Export Portfolio URL
My LAMS Tool

- Learners URL
  - Track progress within tool
  - Define later, Lock on Finish, Run offline
  - Notify Sequencing Engine of users' completion

- Export Portfolio URL
My LAMS Tool

Administration URL

- Edit “Default Tool Content”
- Provide statistics about Tool usage
- General view of Tools metadata (tool version, etc)
My LAMS Tool

- Chat/IM server (based on Jabber)
- Journal and notes
- Content repository
  - Add/Remove content
  - Add new versions of content
  - Stream content to users
# Tool Compliance and Certification

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Test</strong></td>
<td>API+ Authoring (except define later, run offline), Learning (except portfolio export). Used for testing only.</td>
</tr>
<tr>
<td><strong>Minimal</strong></td>
<td>TEST + Monitoring (except define later, run offline).</td>
</tr>
<tr>
<td><strong>Full</strong></td>
<td>MINIMAL + define later, run offline, portfolio export.</td>
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</table>
LAMS Technologies

LAMS 2.0

Core Functions and Services

- Tool A
- Tool B
- Tool C

JBoss Appserver

Hibernate

Oracle

Webserver (Apache, IIS)

Users Web Browser

HTML (JSPs) and XML over HTTP
External tool can be used as normal LAMS Tools using the tool wrapper. Effectively, Moodle, .LRN or Sakai tools can be used as native LAMS tools (including advanced features as groupings, branching, define in monitor, etc)
The LAMS/Moodle wrapper provides another level of abstraction to bundle Moodle activities as LAMS native tools that you can drag and drop create learning sequences just like any other tool.
Where/How do I start developing a LAMS Tool?

- The LAMS Wiki
  - http://lamsfoundation.org/wiki

- The LAMS Tech Community
  - http://lamscommunity.org