

ApacheCon

Apache Lenya

XML Based
CMS



Leading the Wave
of Open Source

Myself

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Topics

- History
- Core features
- XML Content
- Demo
- Future direction



Lenya Background

- Created in 1999 by Michael Wechner
- Donated to ASF in 2003
- Version 1.2 - November 2004
- Version 2.0 – January 2008
- Version 2.0.3 – December 2009



Overview

- Based on Apache Cocoon
- Framework
- Publications
- Modular architecture
 - System modules
 - Publication modules



Framework

- Take what you want
- Default Publication
 - Good starting point
-



Publications

- Where the documents are
- Cocoon sitemap glues pieces together
- Contains
 - Authorization / Authentication
 - Workflow
 - Templates
- Supports inheritance



Publication Areas

- Four basic areas
 - Authoring
 - Trash
 - Archive
 - Live



Authentication

- Internal authentication
- LDAP authentication
- Custom authentication



Authorization

- Roles
 - Admin
 - Review
 - Edit
- Assigned
 - Publication Wide
 - Subtree
- Used in workflow



Workflow Engine

- Basic rules of workflow

```
<transition source="authoring"  
destination="review">
```

```
<event id="submit" />
```

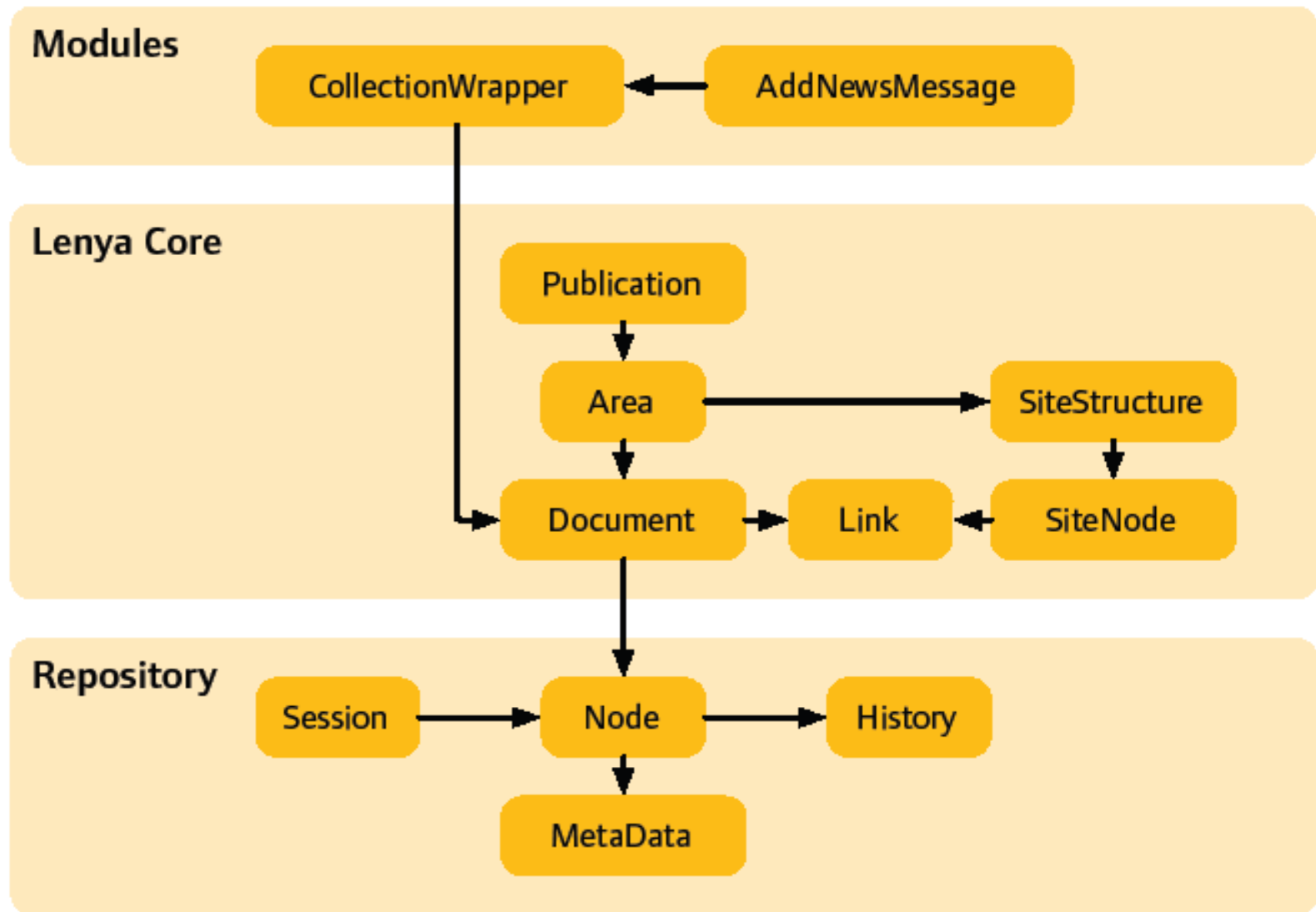
```
<condition
```

```
class="org.apache.lenya.cms.workflow.RoleCondi  
tion">edit</condition>
```

```
</transition>
```



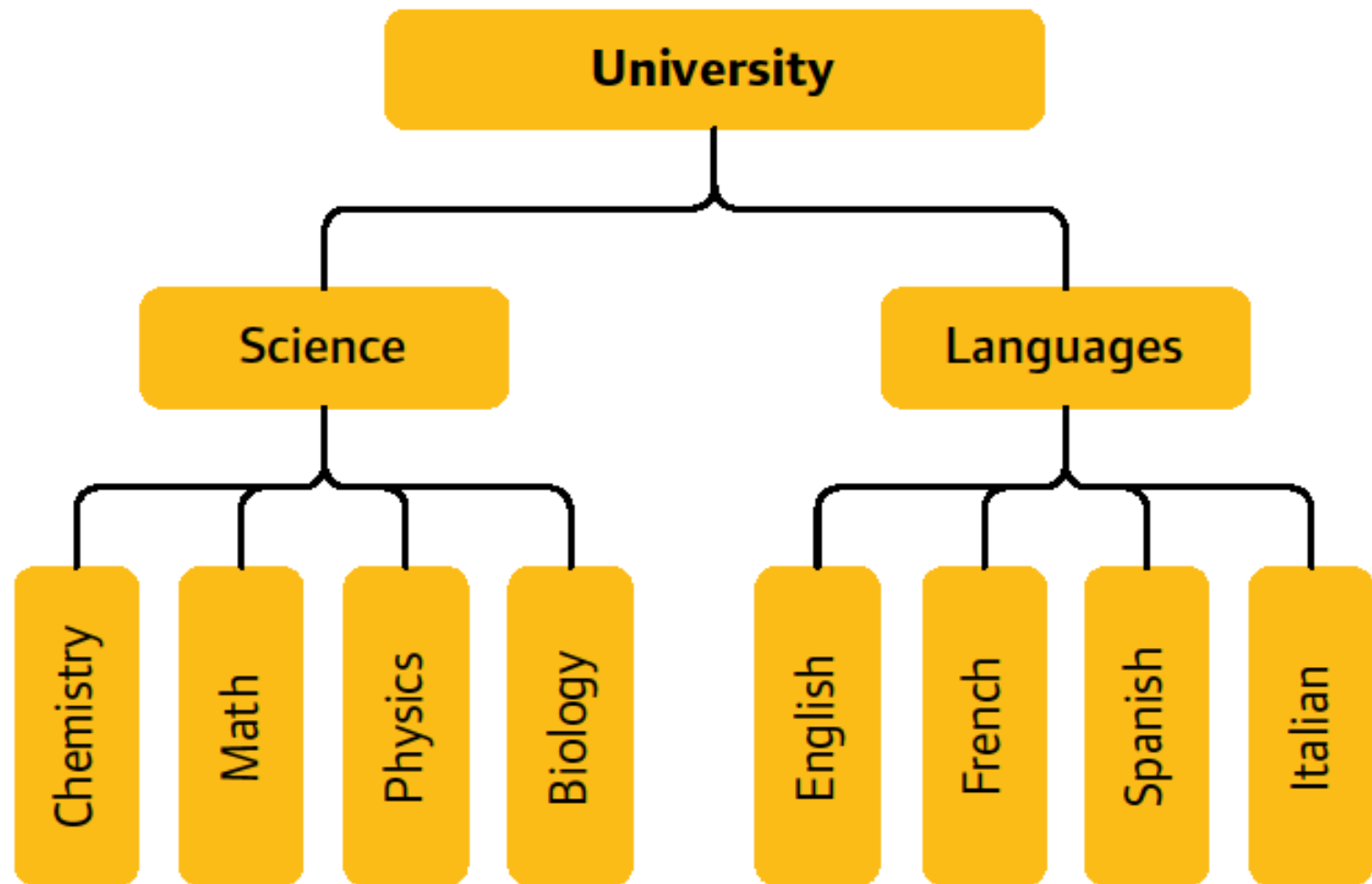
Content Handling Layers



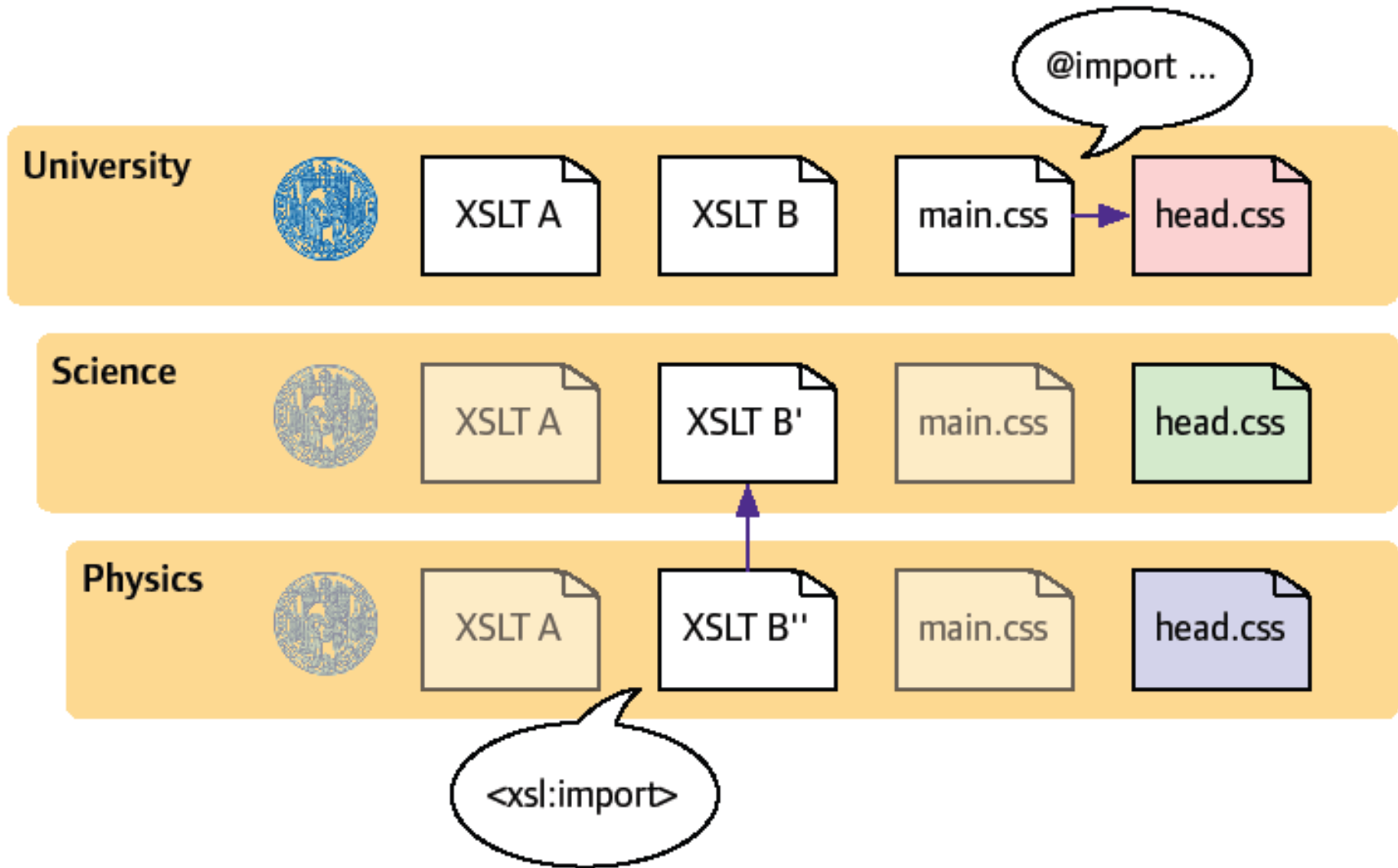
Publication Templating

- Portions of publication can be inherited
 - Single inheritance
- Supports most publication features
 - Workflow
 - XSLT
 - Resources (CSS & images)
 - Users





Overriding Resources



Documents

- Can be any resource
 - Arbitrary XML
 - XHTML source
 - RDF
 - RSS
 - Media
 - Other modules



Resource Types

- Defines rendering process
- Used to select XSLT
 - `page2xhtml-homepage.xsl`
 - `page2xhtml-xhtml.xsl`
 - `page2xhtml-search.xsl`



Document Paths

- Represented with UUIDs
- Location stored in a site tree
- Link Transformer handles proxies



Internationalization

- Publications can support multiple languages
 - Must be declared in publication
- Localization detected
- Sends available language
 - Falls back to default



Revisioning

- Each document revisioned
 - Each area separate
- Developing diff modules
 - Alexander Sizemin



XHTML

- Whole pages
- Editor choices
 - Bitflux (XML, Firefox only)
 - Firedocs (XML, Firefox only)
 - Source editor
 - TinyMCE
- Supports validation



Templating

- Uses XSLT
 - XSLT 1.x - default
 - XSLT 2.x – Saxon
- Constructs using fragments
- Supports inheritance
- Resulting page is cached

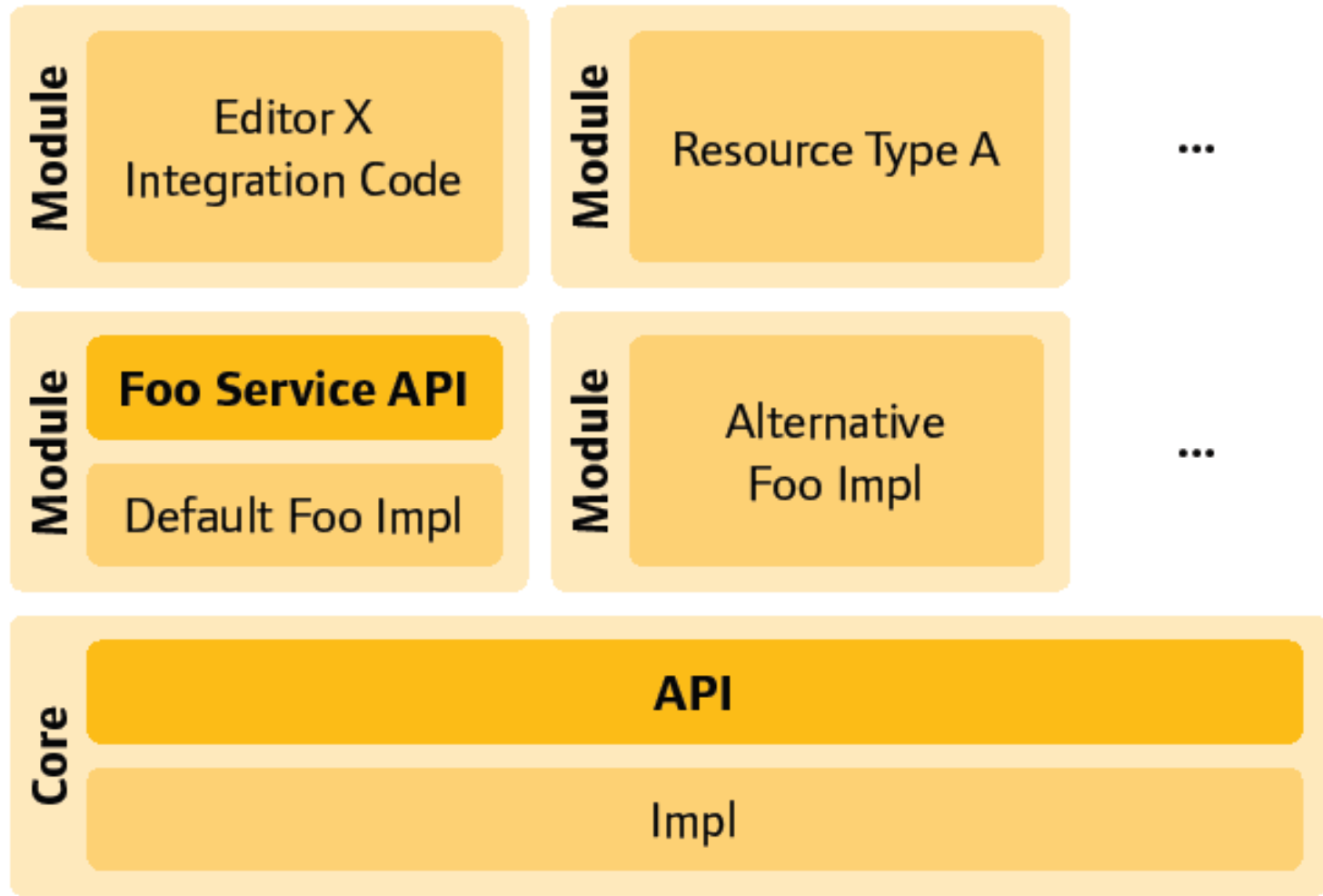


Search

- Apache Lucene integration
- Indexes after change
- Different index for each area



Modularization



Arbitrary XML

- Links example:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<links xmlns="http://apache.org/lenya/pubs/default/1.0">
```

```
  <title>The Links Resource Type</title>
```

```
  <link href="http://lenya.apache.org">Apache Lenya  
Website</link>
```

```
  <link href="http://wiki.apache.org/lenya/">Apache Lenya  
Wiki</link>
```

```
</links>
```



Rendering Links

```
<xsl:param name="rendertype" select="" />
<xsl:template match="default:links">
  <html>
    <body>
      <h1>
        <xsl:value-of select="default:title" />
      </h1>
      <ul>
        <xsl:apply-templates select="default:link" />
      </ul>
    </body>
  </html>
</template>
```



Rendering Page 2

```
<xsl:template match="default:link">  
  <li>  
    <a href="{@href}">  
      <xsl:value-of select="." />  
    </a>  
  </li>  
</xsl:template>
```



Rendering Page 3

```
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL
/Transform">
<xsl:import
href="fallback://xslt/page2xhtml.xsl" /
>
</xsl:stylesheet>
```



Uses

- Links
- Quiz
- RSS / Atom
- Tagcloud
- Google Maps
- XML Streams



Demo

ApacheCon



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of Open Source

Future direction

- Editor cleanup
- Version 3
 - Use content repository



Get involved

- <http://lenya.apache.org>
- dev@apache.lenya.org
- user@apache.lenya.org

Questions?

