

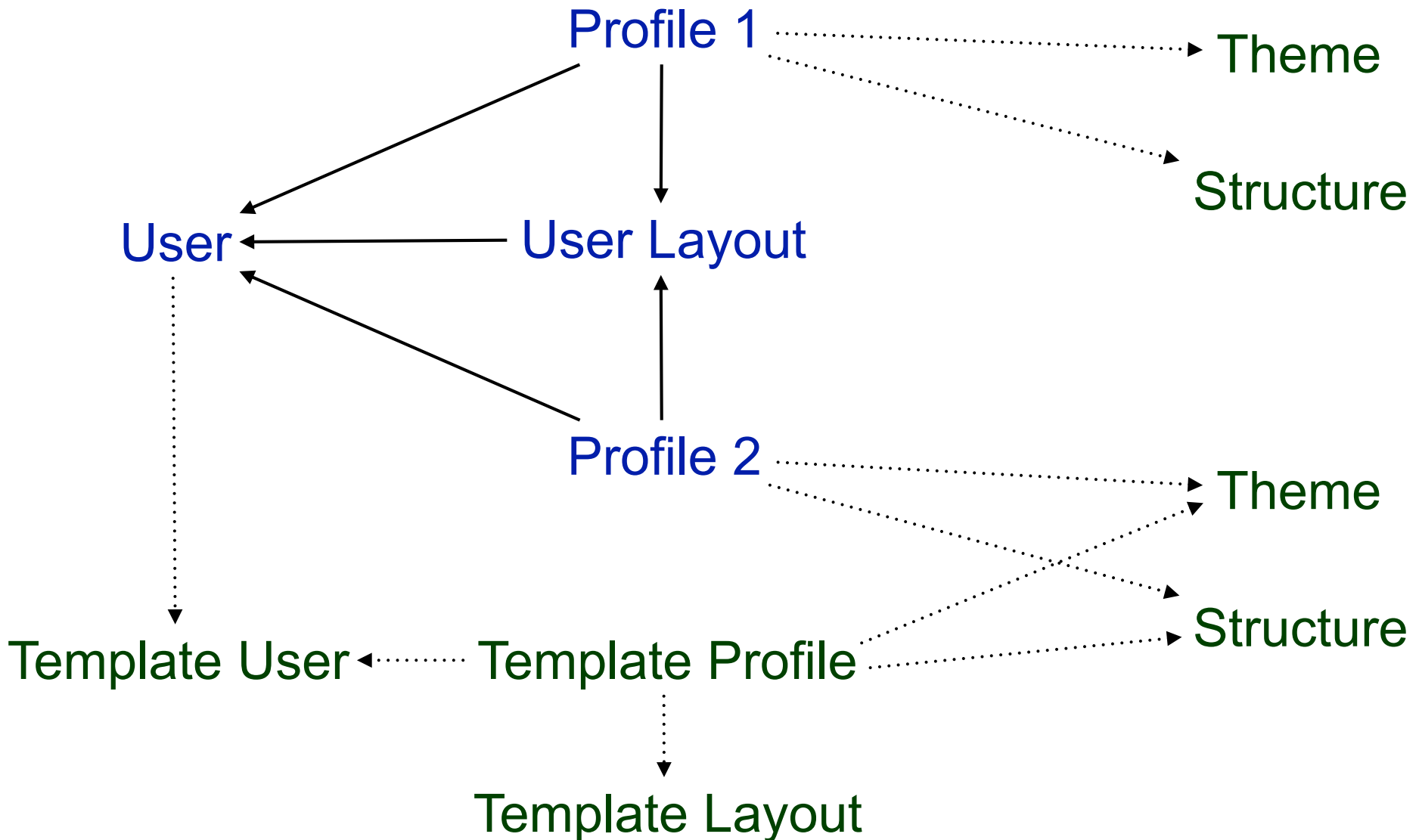
uPortal Mobile Development

User Profiles

User Data Organization

User Data

System Data



Sample User Profile Data

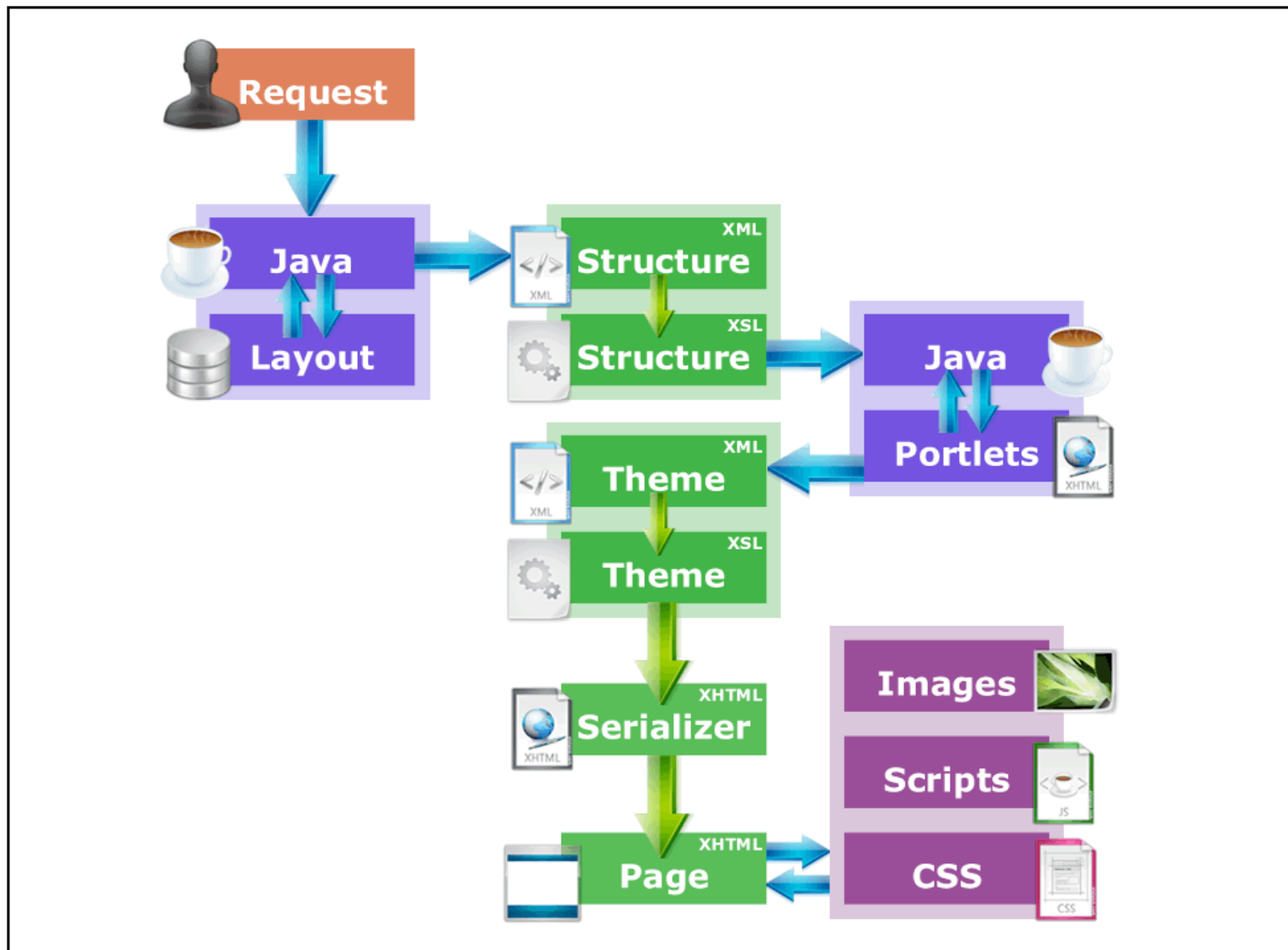
| ID | User | FName | Structure | Theme | Layout |
|----|---------------------|---------------|-----------|-------|--------|
| 1 | defaultTemplateUser | default | 1 | 1 | 1 |
| 2 | jbourey | default | 1 | 1 | 1 |
| 3 | jbourey | mobileDefault | 2 | 2 | 1 |
| 4 | cclark | default | 1 | 1 | 1 |
| 5 | cclark | mobileDefault | 2 | 2 | 0 |

Choosing a Profile

- Get user profile for user agent
- Get system profile for user agent
- Get user profile for browser mapping
- Get system profile for browser mapping

Themes and Structures

uPortal Rendering Pipeline



User Layout Document

- XML document constructed from database
- Nested structure of folders
- Folders may contain also channels
- Nodes may contain additional attributes
 - edit/remove permissions
 - channel parameters

Structure Transform

User Layout

- Folder
 - Folder
 - Channel
 - Channel
 - Folder
 - Channel
- Folder
 - Folder
 - Channel
 - Channel



After Transform

- Tab
 - Column
 - Channel
 - Channel
 - Column
 - Channel
- Tab
 - Column
 - Channel
 - Channel

Theme Transform

- Consists of several XSLT files
- Has access to a number of parameters
- Transforms structure XML into XHTML

Debugging Themes and Structures

portal.properties

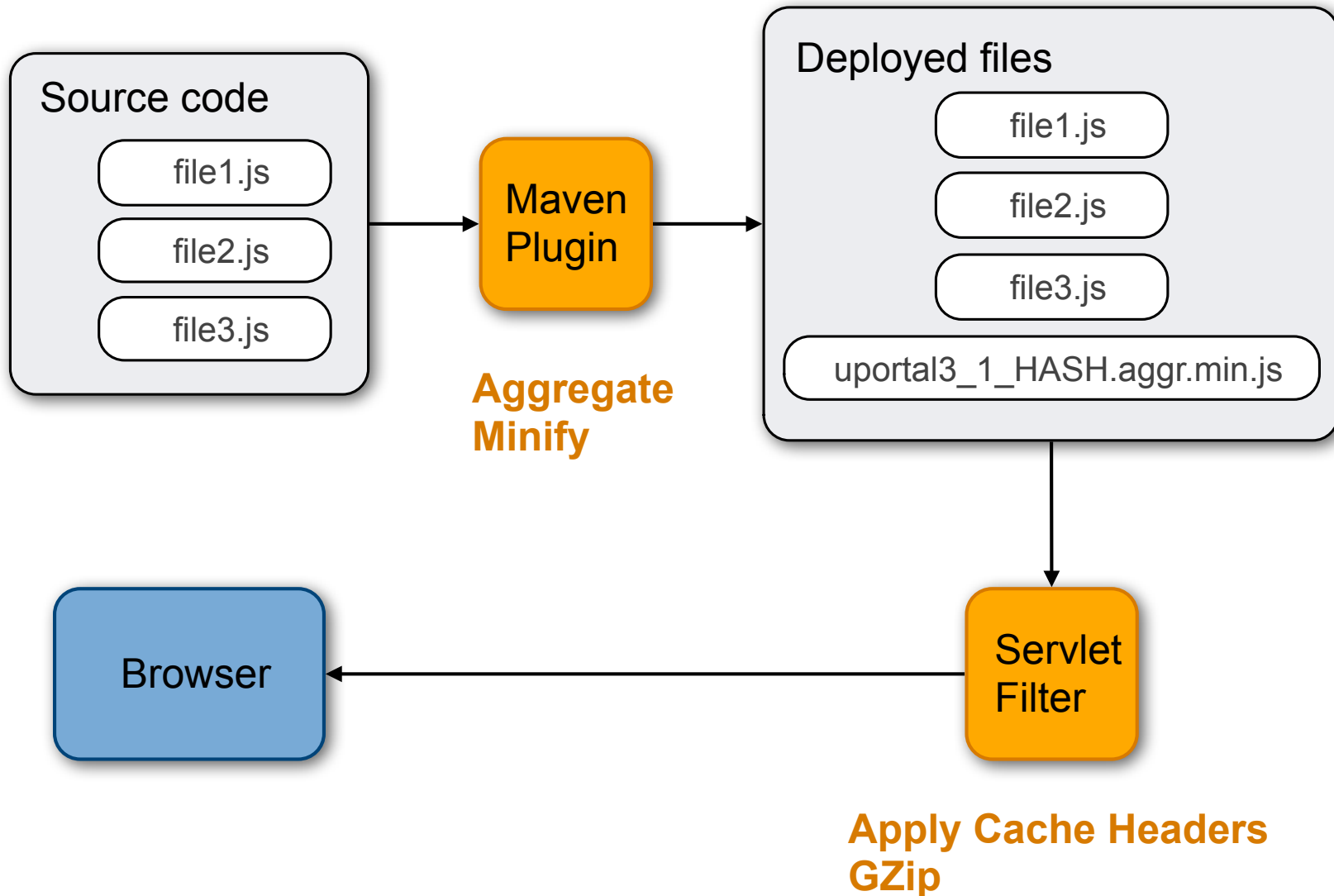
```
# If set to true, the XML resulting from the structure and/or theme
# transformations will be printed to the portal log file provided
# that the log level is set to DEBUG for the
# org.jasig.portal.rendering.StaticRenderingPipeline class (see log4j.properties).
# You can then grab the XML and use it within an XSLT editor to
# work on theme and structure stylesheets. Note that the XML before the
# theme transformation doesn't include channel markup which is inserted
# by the portal after the theme transformation.
#
org.jasig.portal.UserInstance.log_xml_before_structure_transformation=true
org.jasig.portal.UserInstance.log_xml_before_theme_transformation=true
```

log4j.properties

```
log4j.logger.org.jasig.portal.rendering.StaticRenderingPipeline=DEBUG, R
```

uPortal Skin Aggregation

CSS/JS Aggregation



Skin File Format

```
<s:resources xmlns:s="http://www.jasig.org/uportal/web/skin">  
  
  <css>/ResourceServingWebapp/rs/fluid/1.1.2/css/fss-  
framework-1.1.2.min.css</css>  
  
  <css>/ResourceServingWebapp/rs/jqueryui/1.6rc6/theme/smoothness/  
ui.all.min.css</css>  
  
  <css>../common/fss-mobile-iphone-layout.css</css>  
  
  <css>portal.css</css>  
  
  <css>legacy.css</css>  
  
  <css>../..//universality/uportal3/portlet.css</css>  
  
  <js>/ResourceServingWebapp/rs/jquery/1.3.2/jquery-1.3.2.min.js</js>  
  <js>/ResourceServingWebapp/rs/jqueryui/1.7.2/jquery-ui-1.7.2-v2.min.js</  
js>  
  <js>/ResourceServingWebapp/rs/fluid/1.1.2/js/fluid-all-1.1.2.min.js</js>  
  
</s:resources>
```

uPortal Mobile

uPortal Mobile

- New mobile-columns structure
 - transforms top-level folders to a “group”
 - merges all subfolders together
- New mUniversality theme
 - renders groups of portlet titles for navigation
 - in focus mode, hides navigation and displays a single portlet

Mobile Structure Transform

User Layout

- Folder
 - Folder
 - Channel
 - Channel
 - Folder
 - Channel
- Folder
 - Folder
 - Channel
 - Channel



After Transform

- Group
 - Navblock
 - Channel
 - Channel
 - Channel
- Group
 - Navblock
 - Channel
 - Channel

Disabling Content in Mobile Theme

Global CPD Parameter



Display Settings

These options influence how your Portlet is displayed within the portal

| Parameters | Value | User Editable |
|---|----------------------|---------------|
| Show Portlet Window Chrome: | true | |
| Use 'Alternate' Appearance (Theme Dependent): | false | |
| Use Highlighted Appearance: | false | |
| Hide in mobile theme: | true | |
| Quicklinks index: | <input type="text"/> | |

Disabling Content in Mobile Theme

```
<!--=====START: CHANNEL TEMPLATE RULE=====-->
<xsl:template match="channel">
  <xsl:if test="not(parameter[@name='hideFromMobile']/@value = 'true')">
    <xsl:copy-of select="."/>
  </xsl:if>
</xsl:template>
<!--=====END: CHANNEL TEMPLATE RULE=====-->
```

Future Mobile Direction

- Structure/Theme Updates
 - Clean up structure and theme
 - Reorganize HTML for next Fluid release
- uPortal Layout Support
 - Fix uPortal code to support multiple layouts
 - Add mobile theme layout editing
 - Improve caching and performance

Mobile Portlet Development

Portlet Window States

- Spec-defined window states
 - NORMAL
 - MAXIMIZED
 - MINIMIZED
- uPortal
 - EXCLUSIVE

Window State: NORMAL

“The NORMAL window state indicates that a portlet may be sharing the page with other portlets.”

Window State: MINIMIZED

“When a portlet is in MINIMIZED window state, the portlet should only render minimal output or no output at all.”

Window State: MAXIMIZED

“The MAXIMIZED window state is an indication that a portlet may be the only portlet being rendered in the portal page, or that the portlet has more space compared to other portlets in the portal page.”

Working with Window States

```
// get the window state from the portlet request
WindowState state = request.getWindowState();

// test if the window state is MAXIMIZED
if (WindowState.MAXIMIZED.equals(state)) {
    log.debug("Oooh, more screen real estate!");
}
```

Browser User Agent

- HTTP header containing client information
 - Browser Name and Version
 - Operating System
- Sample user agents
 - Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10.6; en-US; rv:1.9.1.8) Gecko/20100202 Firefox/3.5.8
 - Mozilla/5.0 (Macintosh; U; Intel Mac OS X 10_6_2; en-us) AppleWebKit/531.21.8 (KHTML, like Gecko) Version/4.0.4 Safari/531.21.10
 - Mozilla/5.0 (iPhone; U; CPU iPhone OS 3_1_2 like Mac OS X; en-us) AppleWebKit/528.18 (KHTML, like Gecko) Version/4.0 Mobile/7D11 Safari/528.16

Working with User Agents

```
// create a regex matching iPhone user agents
final static Pattern IPHONE_REGEX = Pattern.compile(".*iPhone.*");

// get the browser's user agent string from the portlet request
String userAgent = portletRequest.getProperty("user-agent");

// check if a user agent represents an iPhone
if (IPHONE_REGEX.matcher().matches(userAgent)) {
    log.debug("We found an iPhone!");
}
```

WebKit Mobile Regexes

| Browser | Regex |
|-----------|-----------------------------------|
| iPhone | <code>.*iPhone.*</code> |
| Android | <code>.*Android.*</code> |
| Palm Pre | <code>.*Safari.*Pre.*</code> |
| Nokia S60 | <code>.*Nokia.*AppleWebKit</code> |

Getting the Theme Name

- Add new UserInfoService that accesses current user profile
- Pass theme name to portlet via the UserInfo map
- Less portable than user agent approach