



Customizing the JBoss Portal

(A Tutorial)

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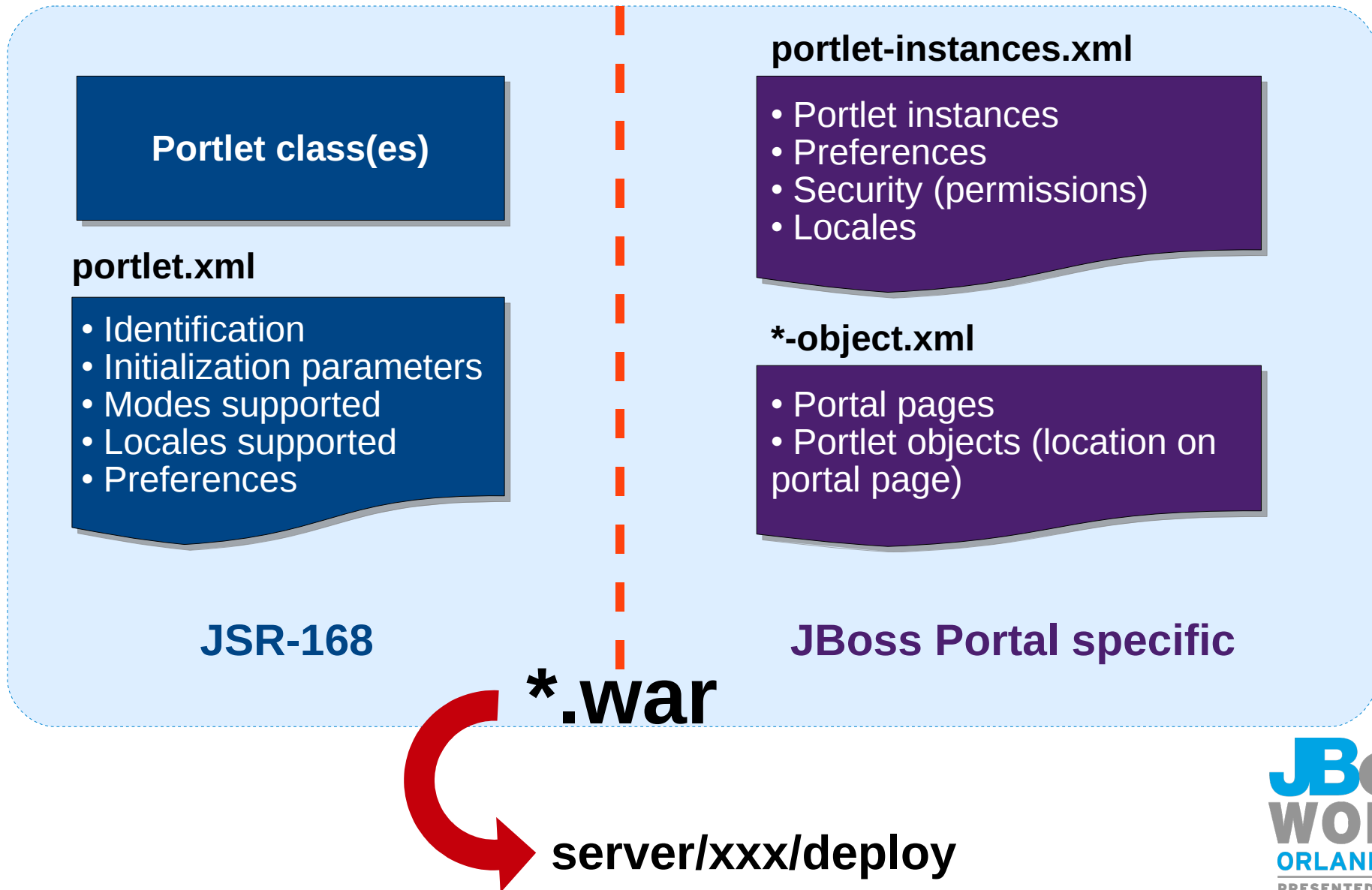
Abstract

- So you want to deploy a portal for your customers. You have written a few custom portlets, you have downloaded various portlets that others have written, you have some custom content you wish to present, and you have the JBoss Portal. How do you go about converting what you have into your desired portal? This session presents a process for doing this. It covers building a custom theme, defining custom content using the Content Management System (CMS), configuring a custom layout, and packaging it all up into a single, deployable, bundle.

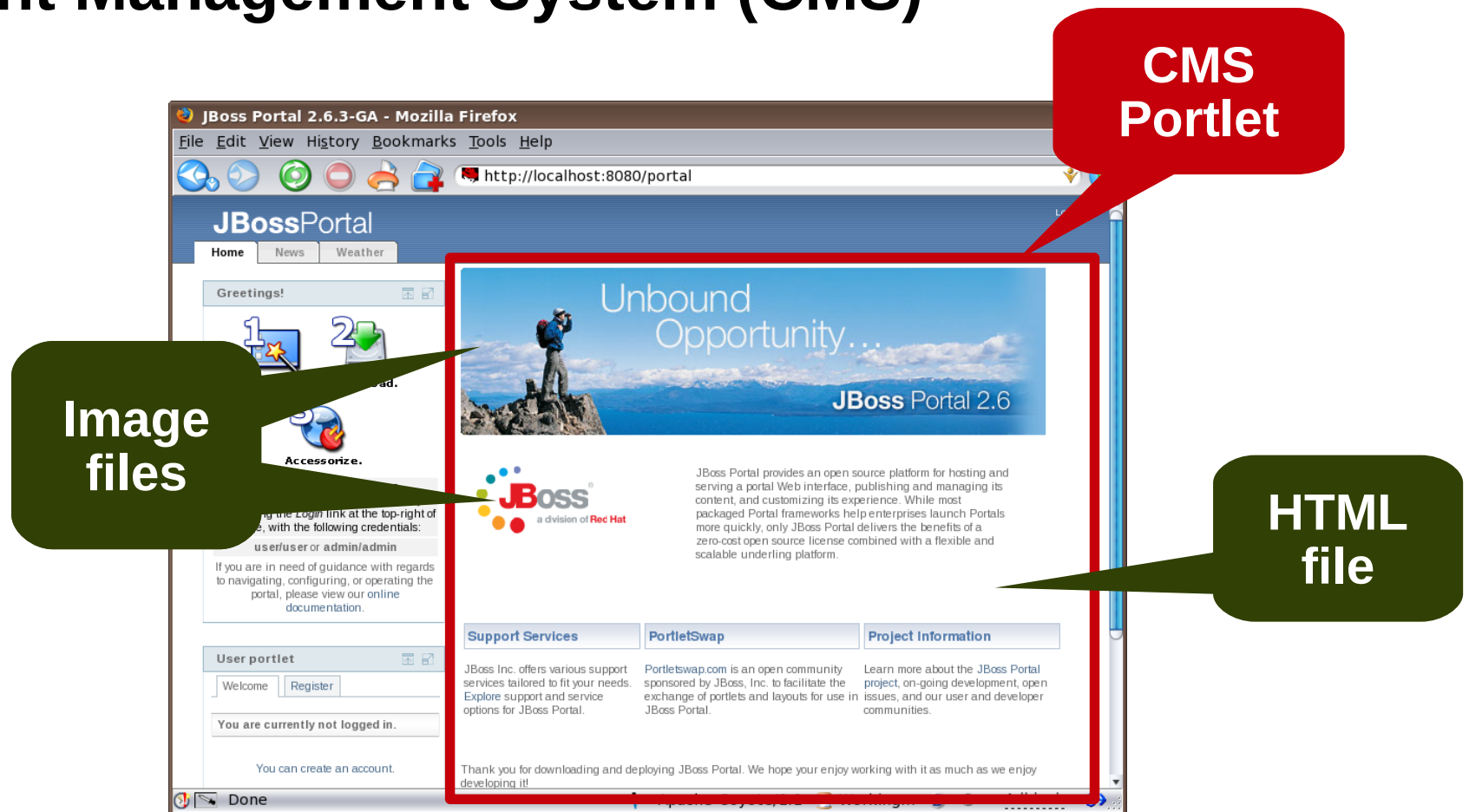
Agenda

- Portal basics
 - Packaging and deploying portlets
 - Content Management System (CMS)
 - Portal database
 - Examining the JBoss Portal
- Custom portal project
 - Requirements
 - Defining the portal layout
 - Defining custom initial CMS content
 - Defining initial roles and users
 - Rebranding and changing the theme

Packaging and Deploying Portlets



Content Management System (CMS)



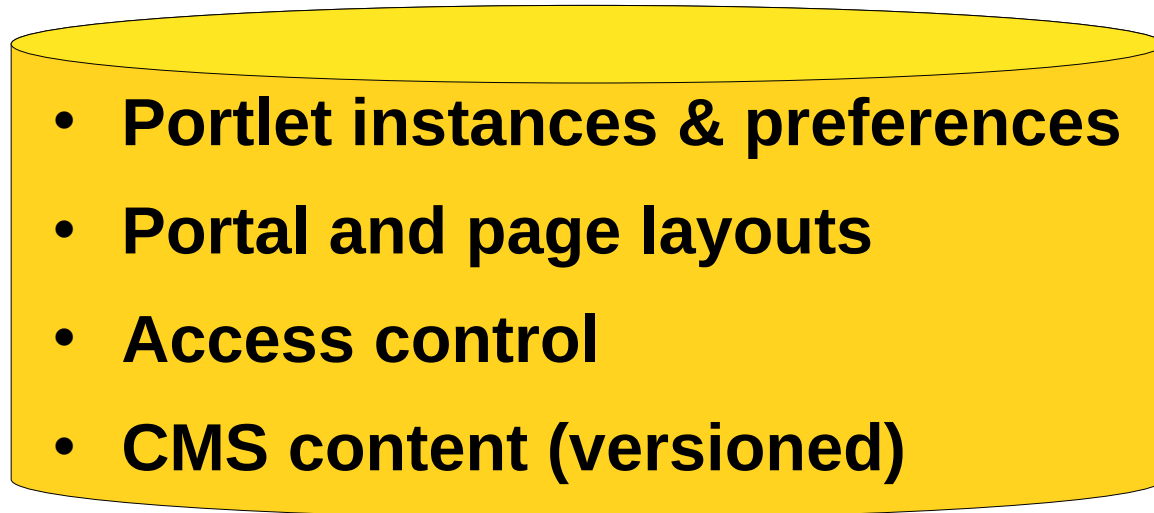
CMS content

How it is handled

HTML file → Displayed in CMS portlet

Everything else → Returned as-is

The Portal Database



portlet-instances.xml
*-object.xml

<if-exists>
[overwrite|keep]
</if-exists>



- All portal functionality is based on database contents
- JBoss Portal binary does not ship with a database



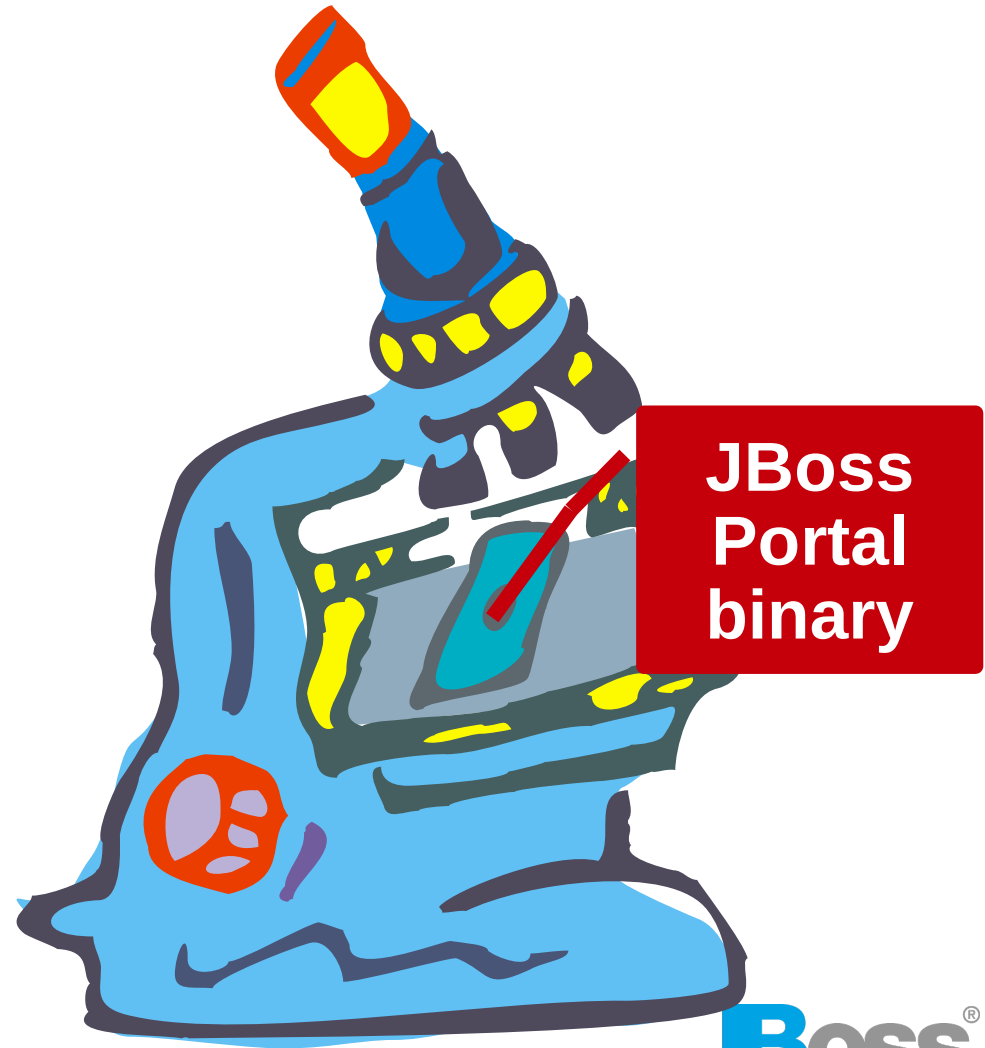
Where did all the data come from



Examining the “Black Box”

- JSR-168 portlet container
- CMS (with default content)
- Several themes
- Administration portlets
- Example portlets
- Default users and roles
- And a whole lot more...

**Example
portal!**



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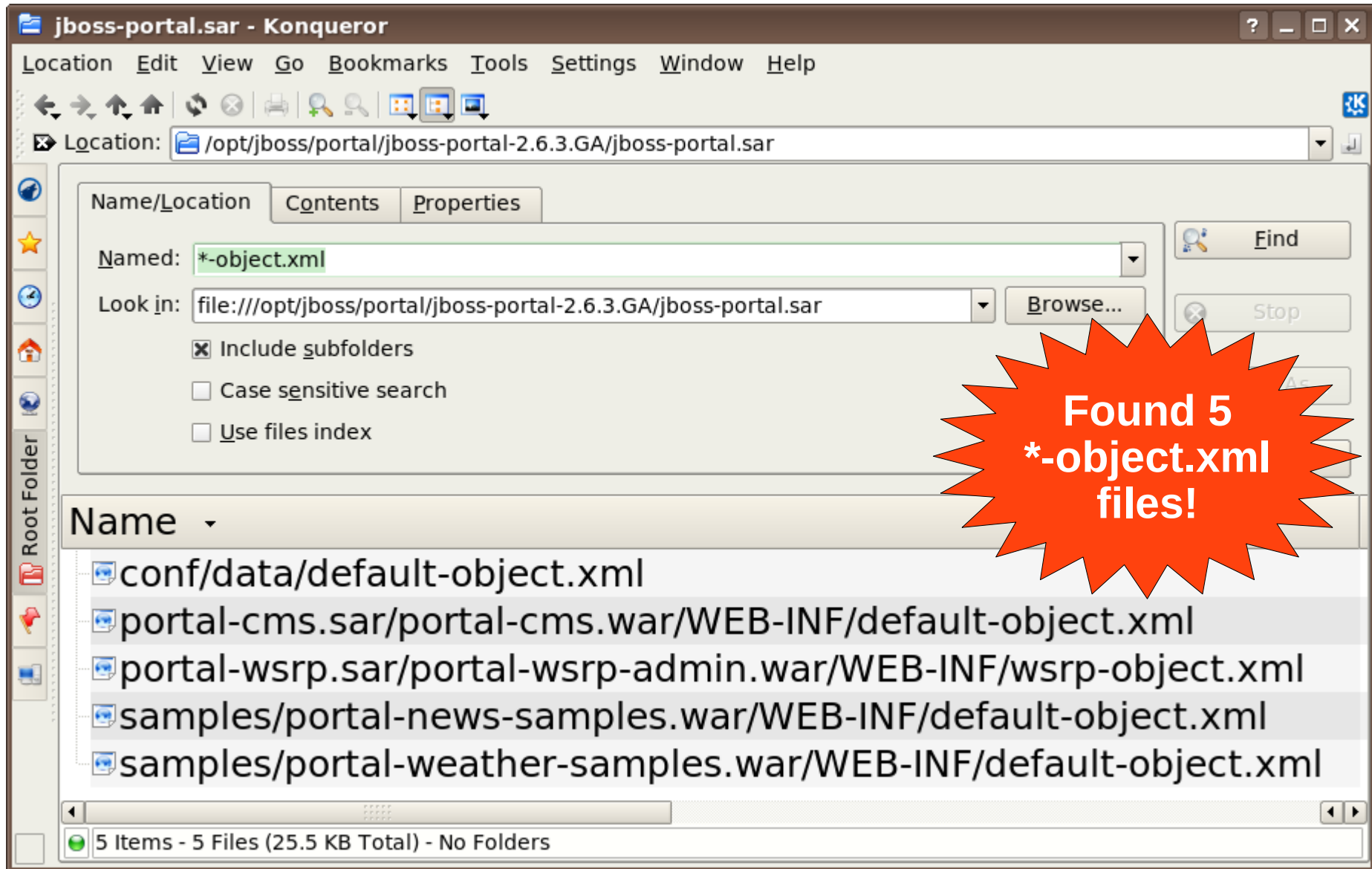
Custom Portal Requirements



- 1) It must have multiple pages.
- 2) It must have some portlets that come with JBoss Portal
- 3) It must have some portlets that do not come with JBoss Portal
- 4) The portal home page must show up as the default portal page (<http://hostname:8080/portal> shows custom portal)
- 5) It must include only custom content in the CMS Portlet
- 6) It must include predefined users and roles
- 7) The portal theme must reflect your identity (not “JBoss Portal”)

Where is JBoss Portal Layout Defined?

Reqs 1 – 4



Examining the *-object.xml Files

Reqs 1 – 4

- **conf/data/default-object.xml**
 - Basic layouts for “default”, “admin”, “dashboard” portals
- **portal-cms.sar/portal-cms.war/WEB-INF/default-object.xml**
 - CMS page on “admin” portal
- **portal-wsrp.sar/portal-wsrp-admin.war/WEB-INF/wsrp-object.xml**
 - WSRP page on “admin” portal
- **samples/portal-news-samples.war/WEB-INF/default-object.xml**
 - News page on “default” portal
- **samples/portal-weather-samples.war/WEB-INF/default-object.xml**
 - Weather page on “default” portal

Examining conf/data/default-object.xml

Reqs 1 – 4

“default” portal

“default” page (Home)

The screenshot shows the JBoss Portal Home page. Several portlets are highlighted with red boxes and labels:

- *JSP portlet**: A portlet titled "Greetings!" with "Demo" and "Download" links. Below it, text reads: "This is a basic installation of JBoss Portal 2.6.3-GA. It is a very early release and may contain bugs. Please report any problems to the JBoss Portal team." It also includes a link to "online documentation" and a note: "If you are in need of guidance with regards to navigating, configuring, or operating the portal, please view our online documentation."
- identity user portlet**: A portlet titled "User portlet" with a link to "You can create an account".
- *current users portlet**: A portlet titled "Current users" with a link to "View current users".
- CMS portlet**: A large portlet titled "Unbound CMS portlet" featuring the JBoss Portal 2.6 logo and a description: "JBoss Portal provides an open source platform for hosting and serving a portal Web interface, publishing and managing its content, and customizing its experience. While most packaged Portal frameworks help enterprises launch Portals more quickly, only JBoss Portal delivers the benefits of a zero-cost open source license combined with a flexible and scalable underlying platform."

Other visible sections include "Support Services", "PortletSwap", and "Project Information".

“admin” portal

“default” page (Admin)

The screenshot shows the JBoss Portal Admin page. The **admin portlet** is highlighted with a red box. It contains a table of portals:

Portal	Actions
admin	Security Properties Theme Make Default
default	Security Properties Theme Rename Default
template	Security Properties Theme Make Default

“Members” page

The screenshot shows the JBoss Portal Members page. The **identity admin portlet** is highlighted with a red box. It contains a table of subscription modes:

Subscription mode	Admin subscription mode
Automatic - no e-mail validation, no admin approval.	Automatic - no e-mail validation, no admin approval.

* portlets defined in jboss-portal.sar/samples

Defining Custom Portal Layout

Reqs 1 – 4

- Recommendations:
 - Do not add new things to existing *-object files
 - OK to remove, or add new windows of same, portlets
 - Do NOT follow the JSP and current users portlet examples!
 - Do not delete conf/data/default-object.xml
 - OK to delete other *-object.xml file
 - Define your own pages and portlet windows in your own *-object.xml file (also applies to 3rd party portlets)
 - Keep the name “default”
- What about the portlet-instances.xml files?
 - Handle same as *-object.xml
 - Details left as exercise for the attendee

Locating the CMS Content

Req 5

`jboss-portal.sar/portal-cms.sar/portal/cms/conf/default-content`

enjoy working with it
Baci e abbracci,
The JBoss Portal Team

grep

Name	Size	File Type
default	4.0 KB	Folder
images	4.0 KB	Folder
back.gif	995 B	GIF Image
check.gif	561 B	GIF Image
homeimg_cornerelement.gif	44 B	GIF Image
homeimg_cornerelement.png	153 B	PNG Image
homeimg_jbosslogo.png	4.4 KB	PNG Image
homeimg_main.png	123.0 KB	PNG Image
logo.gif	1.0 KB	GIF Image
private	4.0 KB	Folder
confidential	4.0 KB	Folder
license.html	2.6 KB	HTML Document
code.html	2.6 KB	HTML Document
license.html	2.6 KB	HTML Document
index.html	2.0 KB	HTML Document
project.html	4.2 KB	HTML Document
support.html	2.7 KB	HTML Document

17 Items - 13 Files (147.0 KB Total) - 4 Folders

Defining Custom CMS Content

Req 5

- Replace existing files in `default-content/default` with your content
- Do not rename the `default` directory, or add a new directory under `default-content`
 - Too many config settings depend on a directory named `default` under the `default-content` directory

jboss-portal.sar/portal-cms.sar/META-INF/jboss-service.xml

```
. . .  
<attribute name="DefaultContentLocation">  
portal/cms/conf/default-content/default/  
</attribute>  
. . .
```

Defining initial users/roles

Req 6

jboss-portal.sar/conf/hibernate/user/setup.txt

```
. . .
HibernateRoleImpl adminRole = new
    HibernateRoleImpl("Admin", "Administrators");
HibernateRoleImpl userRole = new
    HibernateRoleImpl("User", "Users");

HibernateUserImpl admin = new HibernateUserImpl("admin");
admin.setPassword(Tools.md5AsHexString("admin"));
admin.getRoles().add(adminRole);
adminRole.getUsers().add(admin);

HibernateUserImpl user = new HibernateUserImpl("user");
user.setPassword(Tools.md5AsHexString("user"));
user.getRoles().add(userRole);
userRole.getUsers().add(user);
. . .
```

Recommendation: keep role "Admin" and user "admin".

Rebranding

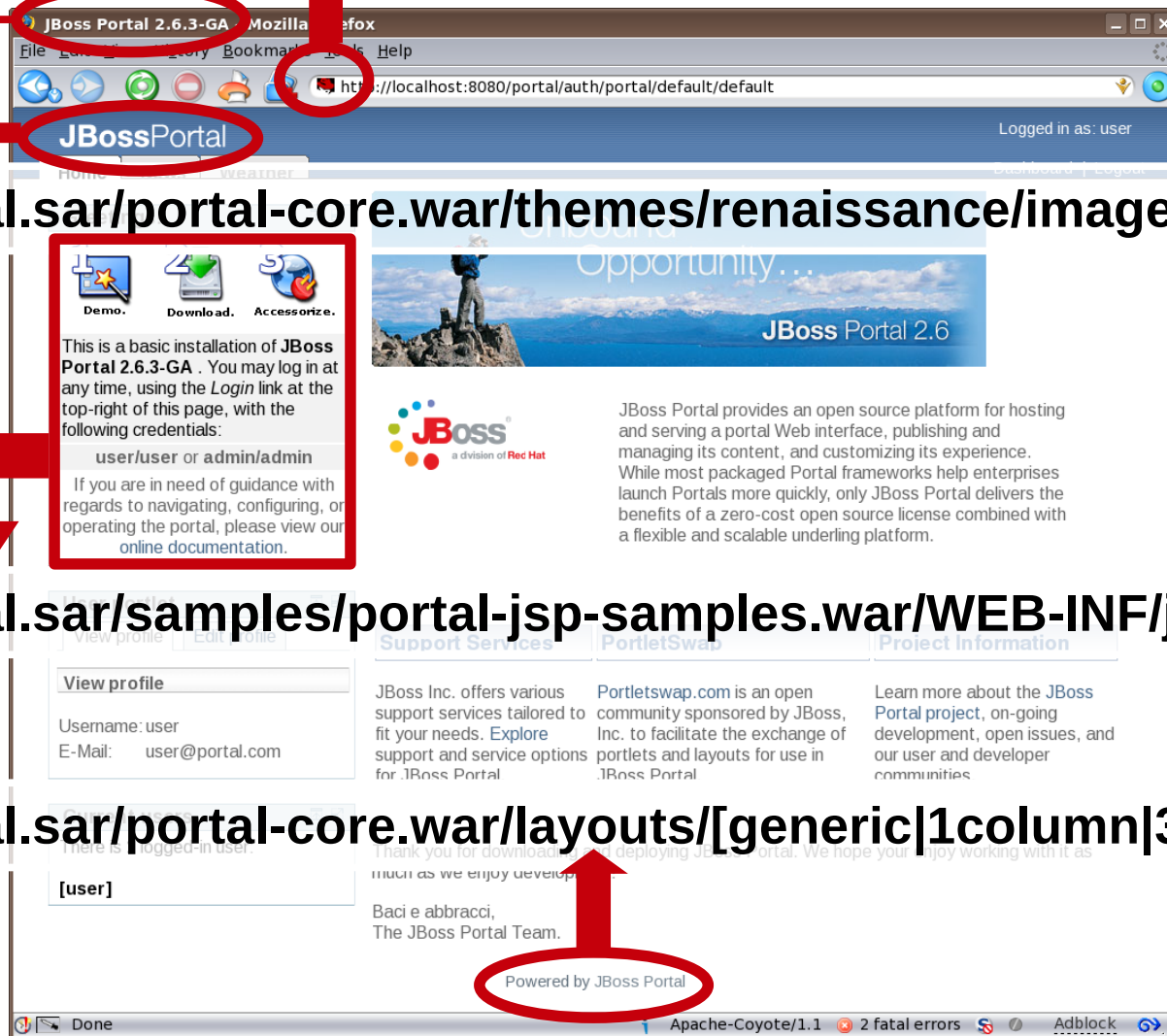
Req 7

`jboss-portal.sar/portal-core.war/themes/renaissance/images/favicon.ico`

`jboss-portal.sar/portal-core.war/themes/renaissance/images/logo.gif`

`jboss-portal.sar/samples/portal-jsp-samples.war/WEB-INF/jsp/jsp/view.jsp`

`jboss-portal.sar/portal-core.war/layouts/[generic|1column|3column]/index.jsp`



Exploring Themes

Req 7

- Themes are located at:
jboss-portal.sar/portal-core.war/themes
 - Add your theme(s) to this directory
- Themes are listed in:
**jboss-portal.sar/portal-core.war/
WEB-INF/portal-themes.war**
 - Add your theme(s) to the list
- The theme for all portals is selected in:
jboss-portal.sar/conf/data/default-object.xml

Creating a Custom Theme

Req 7

- Options:
 - Create theme from scratch
 - 90% creativity
 - 10% technical know-how
 - Reference Guide, ch 24, Layouts and Themes
 - Tweak existing theme
 - Replace widgets (edit *.gif files)
 - Replace banner, portlet headers (edit *.gif)
 - Change color scheme (edit *.gif and *.css)

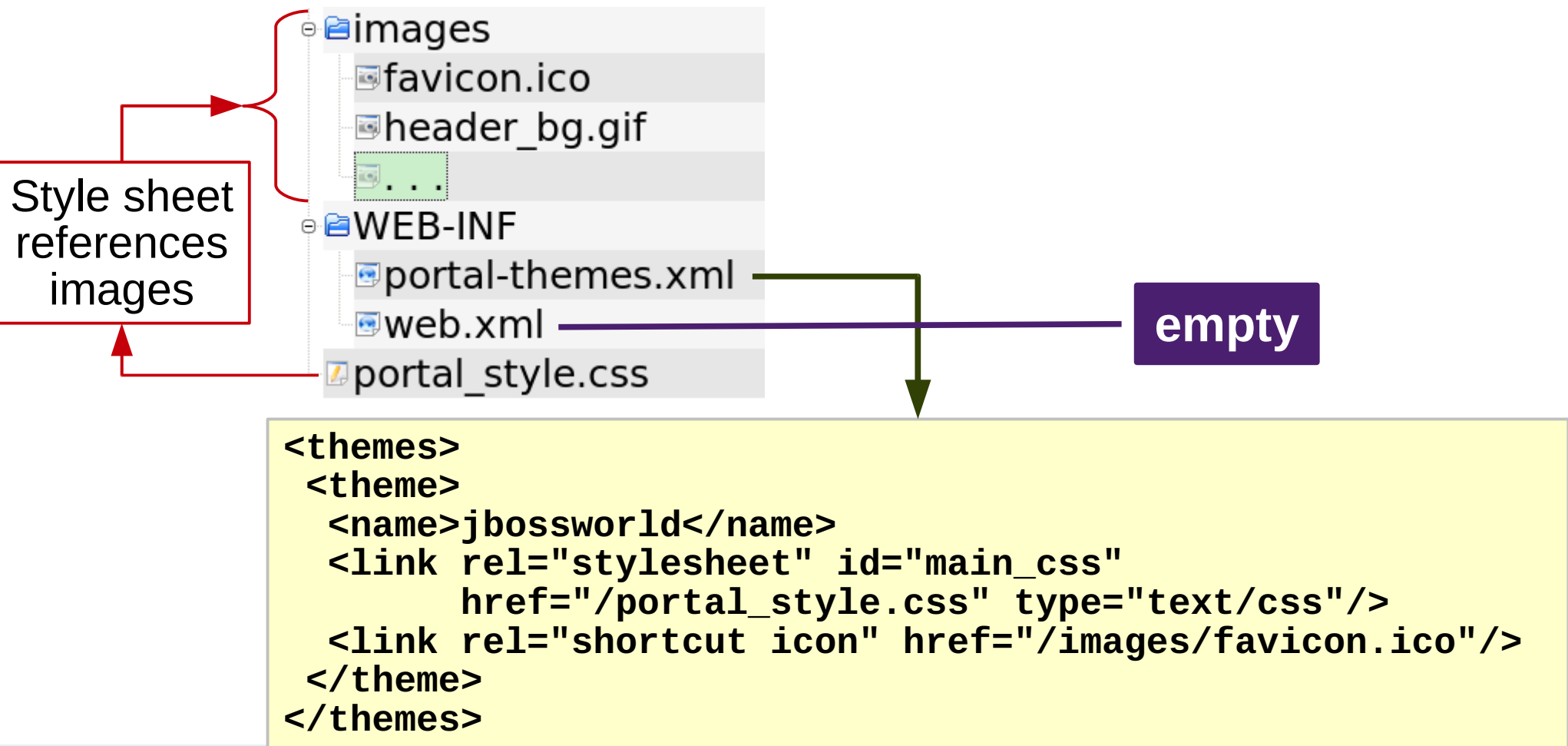
**Ideal for that
custom look**

**If existing
layout is
acceptable**

Packaging the Theme

Req 7

- Place under `portal-core.war/themes`
- OR create WAR file with these contents:



Packaging the Custom Portal

- Place everything in jboss-portal.sar
 - Remove stuff you do not want
 - Add your custom and 3rd party portlet WARs
 - Place in jboss-portal.sar or jboss-portal.sar/samples
 - Exploded deployment recommended
- Feel free to rename jboss-portal.sar
 - For example: employee-portal.sar
- Create Ant script to
 - Rebuild JBossAS configuration, with portal deployed
 - Delete and recreate an empty database

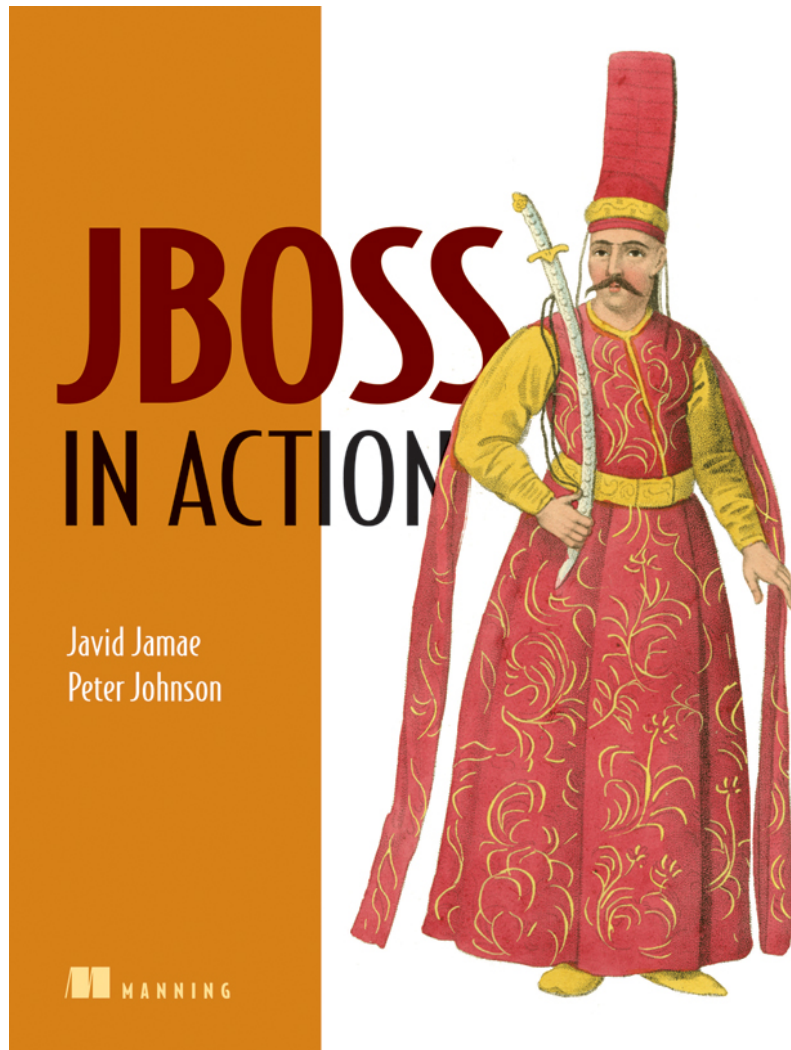


**You will use
this
constantly!**

What Did You Learn?

- JBoss Portal binary is an example portal, learn from it!
- Portal layouts (pages and portlets) are defined in a variety of *-object.xml files; primary one is conf/data/default-object.xml
- Initial CMS content located at portal-cms.sar/portal/cms/conf/default-content
- Initial users and roles are defined in conf/hypersonic/user/setup.txt
- Themes are defined at portal-core.war/themes

Shameless Plug



<http://www.manning.com/jamae>

- Chapters 10 and 11 cover JBoss Portal
 - Configure and deploy portlets
 - Access control
 - CMS
 - General administration
- Chapter 11 walks you through creating a custom portal.

Questions?

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PeterJ (JBoss forums)