

Repository Customisation: Configuring EPrints

EPrints Training Course



Task 1: Branding

- ▶ The first thing most institutions do is brand their repository and fit it in with their existing look and feel

The screenshot displays the Southampton Repository website. At the top, the text "Southampton Repository" is in a large blue font, and the "eprints" logo is to its right. Below this is a navigation bar with links: "Home", "About", "Browse by Year", and "Browse by Subject". Underneath the navigation bar are links for "Login" and "Create Account", followed by a search box and a "Search" button. The main heading reads "Welcome to Southampton Repository". A prominent orange warning box contains a triangle icon with an exclamation mark and the text: "This repository has not yet been fully configured. This paragraph would describe the repository, who runs it and what it contains. To modify this text edit `/opt/eprints3/archives/soton/cfg/lang/en/static/index.xpage` then run `generate_static.`". Below the warning box, a paragraph states: "If you need a bit more help getting started, the EPrints team has a [commercial services](#) arm which provides training, support, hosting and consultancy services." At the bottom right, there are RSS feed icons for "Atom", "RSS 1.0", and "RSS 2.0". On the bottom left, there is a small "e" logo and a section titled "Latest Additions".


Southampton Repository

eprints


[Home](#) [About](#) [Browse by Year](#) [Browse by Subject](#)

[Login](#) | [Create Account](#) [Search](#)

Welcome to Southampton Repository

 This repository has not yet been fully configured. This paragraph would describe the repository, who runs it and what it contains. To modify this text edit `/opt/eprints3/archives/soton/cfg/lang/en/static/index.xpage` then run `generate_static.`

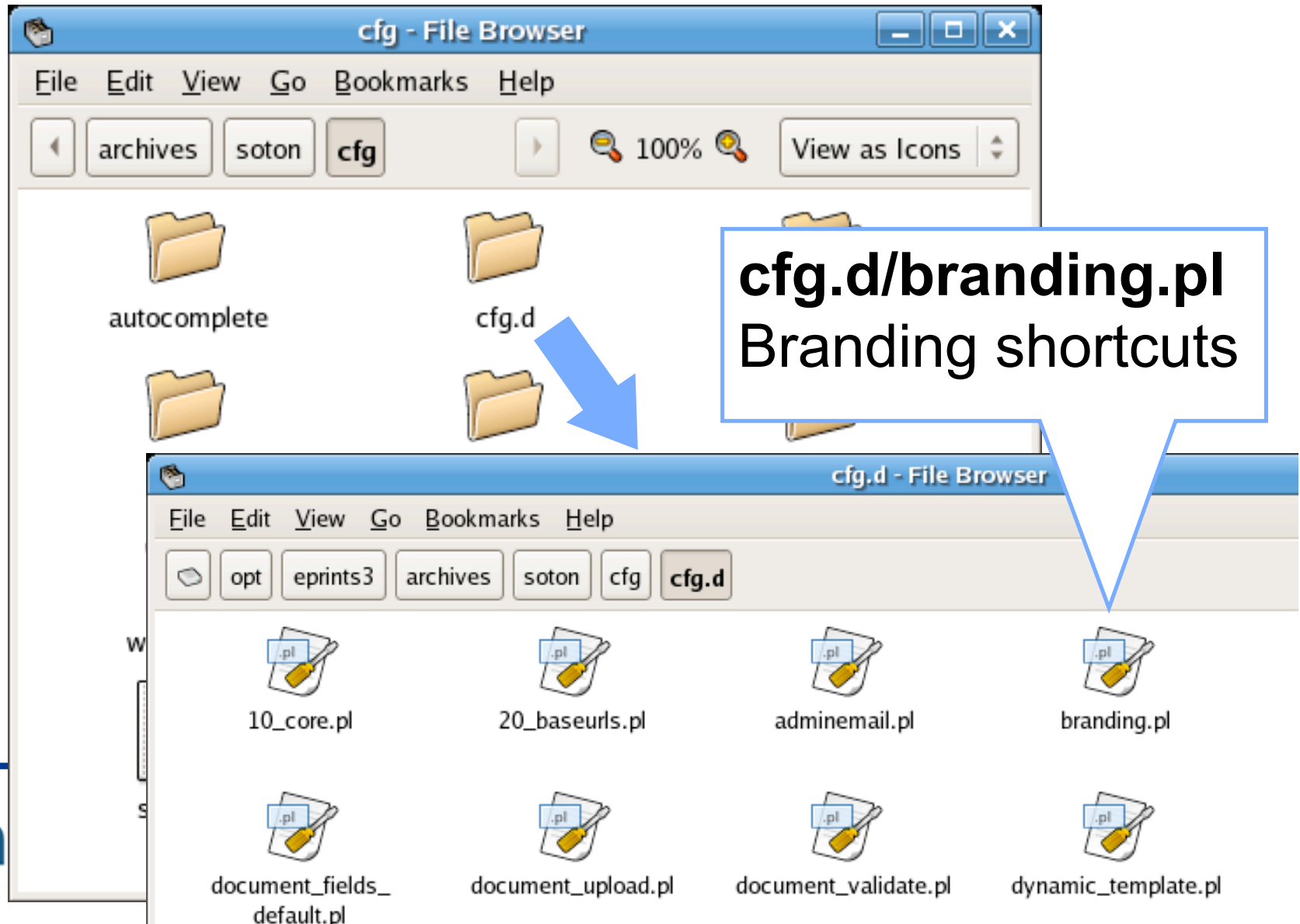
If you need a bit more help getting started, the EPrints team has a [commercial services](#) arm which provides training, support, hosting and consultancy services.

 [Latest Additions](#)

Atom RSS 1.0 RSS 2.0

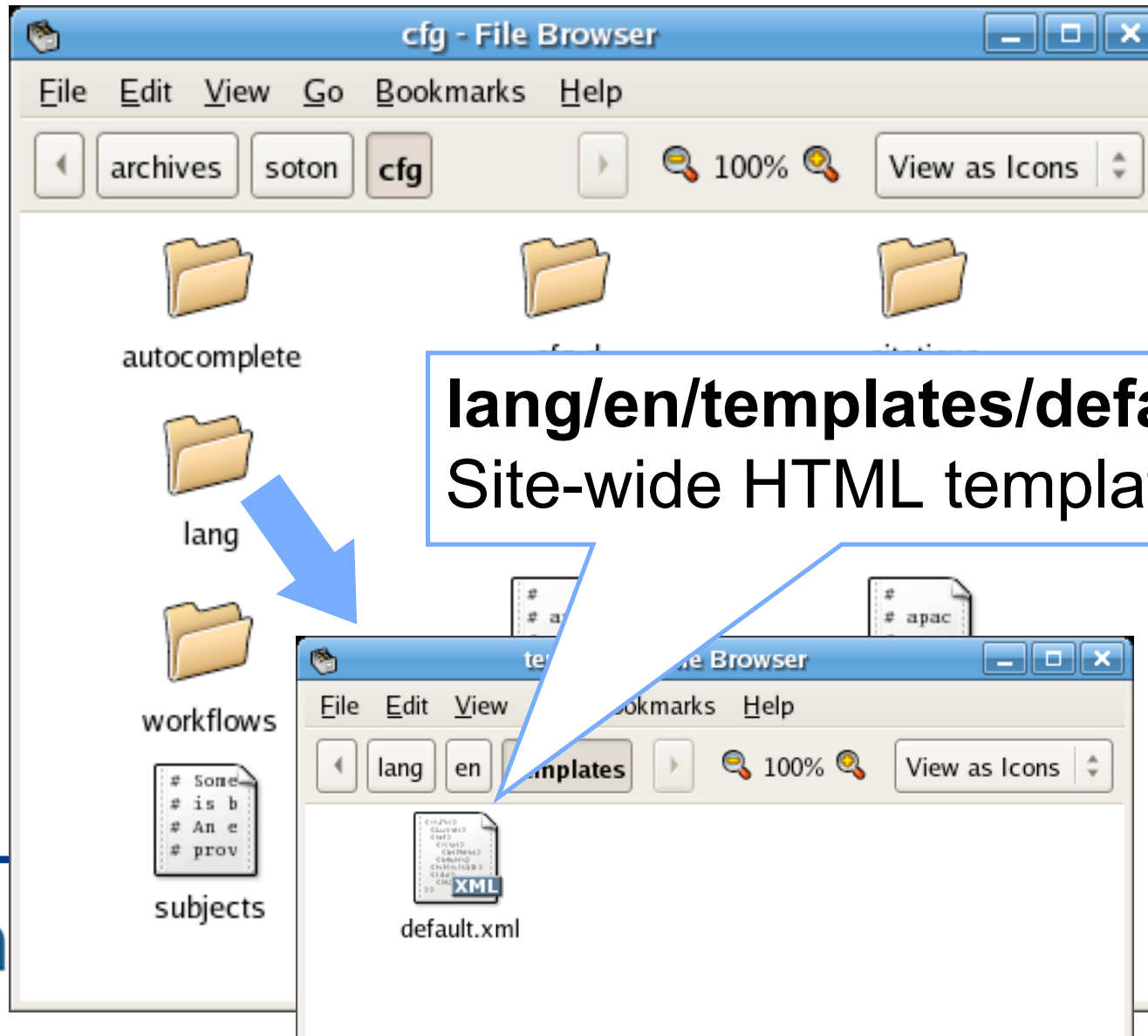


Branding: Which Configuration Files?





Branding: Which Configuration Files?



lang/en/templates/default.xml
Site-wide HTML template



Branding: Which Configuration Files?

lang/en/static/*.xpage
fixed content pages e.g.
homepage, about page, help page

static - File Browser

File Edit View Go Bookmarks Help

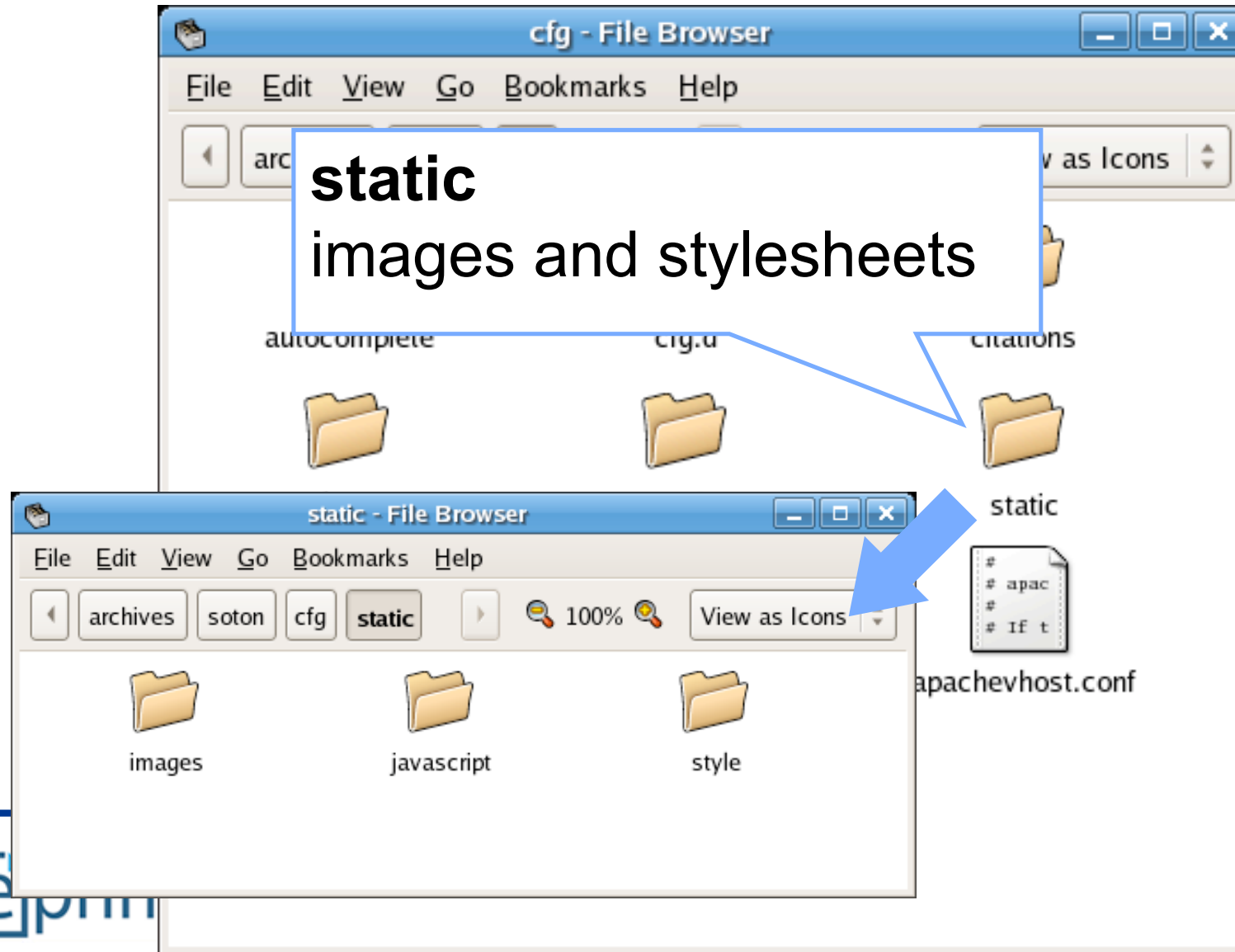
soton cfg lang en static

help contact.xpage error401.xpage

index.xpage information.xpage vlit.xpage



Branding: Which Configuration Files?





Branding: `cfg.d/branding.pl`

- ▶ Perl syntax, but very easy to change
- ▶ Provides a couple of handy branding shortcuts
 - ▶ change the site logo
 - ▶ apply a theme to the site
- ▶ Very quickly change the appearance of your repository
 - ▶ useful for building a demo



Branding: Change the Logo

- ▶ Add the University of Southampton logo



- ▶ first copy **dolphin_logo.gif** into the **static/images** directory
- ▶ then change **branding.pl** to point to the file

```
$c->{site_logo} = "/images/dolphin_logo.gif";
```




Branding: Check the Homepage

- Check the homepage... logo hasn't changed!

The screenshot shows the homepage of the Southampton Repository. At the top, the text "Southampton Repository" is displayed in a large blue font, with the "eprints" logo to its right. Below this is a navigation bar with links: "Home", "About", "Browse by Year", and "Browse by Subject". Underneath the navigation bar, there are links for "Login" and "Create Account" on the left, and a search box with a "Search" button on the right. The main heading reads "Welcome to Southampton Repository". A prominent orange warning box contains a warning icon and the text: "This repository has not yet been fully configured. This paragraph would describe the repository, who runs it and what it contains. To modify this text edit `/opt/eprints3/archives/soton/cfg/lang/en/static/index.xpage` then run `generate_static.`". Below the warning box, a paragraph states: "If you need a bit more help getting started, the EPrints team has a [commercial services](#) arm which provides training, support, hosting and consultancy services." At the bottom right, there are RSS feed icons for "Atom", "RSS 1.0", and "RSS 2.0". On the bottom left, there is a small "e" logo and a section titled "Latest Additions".

Southampton Repository


eprints

Home About Browse by Year Browse by Subject

Login | Create Account


Search

Welcome to Southampton Repository

 This repository has not yet been fully configured. This paragraph would describe the repository, who runs it and what it contains. To modify this text edit `/opt/eprints3/archives/soton/cfg/lang/en/static/index.xpage` then run `generate_static.`

If you need a bit more help getting started, the EPrints team has a [commercial services](#) arm which provides training, support, hosting and consultancy services.

Atom RSS 1.0 RSS 2.0

 Latest Additions



Branding: **epadmin reload** Command

- ▲ For best performance, EPrints loads all configuration files at startup
- ▲ Whenever we change a configuration file we need to tell EPrints to reload its configuration
 - ▲ run **epadmin reload** or restart the Web server



Branding: Check the Homepage


- ▶ After running **epadmin reload**
 - ▶ logo image not being found

Southampton Repository Logo

[Home](#) [About](#) [Browse by Year](#) [Browse by Subject](#)

[Login](#) | [Create Account](#) [Search](#)

Welcome to Southampton Repository

 This repository has not yet been fully configured. This paragraph would describe the repository, who runs it and what it contains. To modify this text edit `/opt/eprints3/archives/soton/cfg/lang/en/static/index.xpage` then run `generate_static.`

If you need a bit more help getting started, the EPrints team has a [commercial services](#) arm which provides training, support, hosting and consultancy services.

[Atom](#) [RSS 1.0](#) [RSS 2.0](#)

 [Latest Additions](#)

View items added to the repository in the past week.



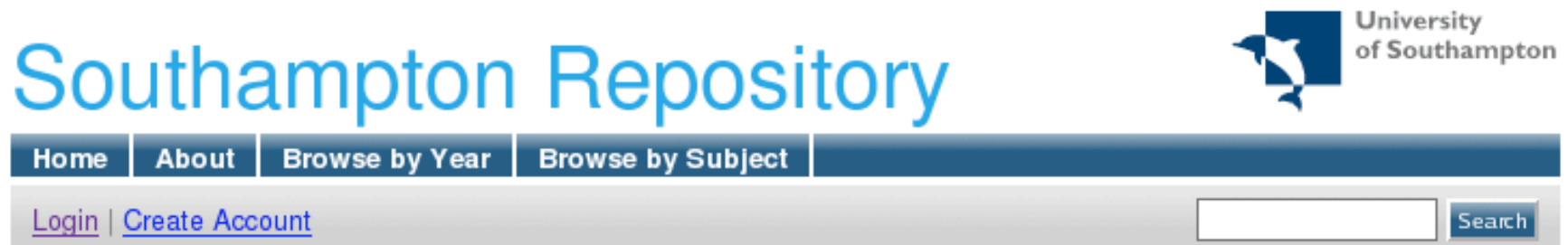
Branding: **generate_static** command

- ▶ We need to run the **generate_static** command
- ▶ This takes the fixed content files in the **static** configuration directory and moves them into the live content area
 - ▶ the repository's **html** directory
 - ▶ **soton/cfg/static/images/dolphin_logo.gif**
 - ▶ gets copied to
 - ▶ **soton/html/en/images/dolphin_logo.gif**



Branding: Check the Homepage

After running **generate_static**



Welcome to Southampton Repository



This repository has not yet been fully configured. This paragraph would describe the repository, who runs it and what it contains. To modify this text edit `/opt/eprints3/archives/soton/cfg/lang/en/static/index.xpage` then run `generate_static.`

If you need a bit more help getting started, the EPrints team has a [commercial services](#) arm which provides training, support, hosting and consultancy services.

Atom RSS 1.0 RSS 2.0

[Latest Additions](#)

View items added to the repository in the past week.





Branding Fast Track: Summary

- ↔ ↘ Copy new logo to static content directory
- ↕ ↘ Change **branding.pl** to point to new logo
- ↔ ↘ Run **epadmin reload** to load the updated branding configuration
- ↘ Run **generate_static** to copy the logo to the live content area



Branding: `lang/en/templates/default.xml`

- ▶ The branding configuration file provides some shortcuts
 - ▶ handy for demos
 - ▶ not so handy for seamlessly integrating your repository into your institutional Web presence!
 - ▶ need complete control of page layout
- ▶ EPrints lets you define an HTML template (outline) which is used to build every Web page
- ▶ Customise the look and feel of the whole site
 - ▶ page layout
 - ▶ header
 - ▶ title, logo, navigation menu
 - ▶ footer



Template: Things to Look Out For

▲ phrases

- ▲ e.g. `<epc:phrase ref="archive_name">`
- ▲ include some text in the page that is defined elsewhere
 - ▲ `archive_name` is defined in `lang/en/phrases/archive_name.xml`
 - ▲ if the archive name changes, you don't have to update every page!
 - ▲ the archive name can be defined in multiple languages.

▲ pins

- ▲ e.g. `<epc:pin ref="page">`
 - ▲ `page`, `title`, `login_status`
- ▲ tell EPrints how to combine the template with content to build each page on the repository
- ▲ incorporate the pins into your new layout

▲ configuration strings

- ▲ e.g. `...`
 - ▲ `frontpage`, `base_url`, `perl_url`
- ▲ include configuration values
 - ▲ e.g. if the repository URL changes, you don't have to update every link!



Aside: What is XML?

- ▶ Quick answer: it's a bit like HTML
 - ▶ HTML is for making pages for people to read
 - ▶ XML is for making data for computers to use
 - ▶ The syntax is very similar, just stricter
 - ▶ All tags must have a matching closing tag
 - ▶ All attributes must be quoted
 - ▶ It doesn't know anything about Web pages
 - ▶ or anything else, come to that!



Branding: Change Page Layout

- Add some links to key pages on the University of Southampton website
- We've changed a configuration file so have to reload

```
<div class="ep_tm_header ep_noprint">
  <div>
    <b>University Links:</b>
    <a href="http://www.soton.ac.uk/">Home Page</a> |
    <a href="http://www.soton.ac.uk/library/">Library Home Page</a> |
    <a href="http://www.soton.ac.uk/sitemap.html">Site Map</a>
  </div>
```



Check the Homepage

▶ After running **epadmin reload**

University Links: [Home Page](#) | [Library Home Page](#) | [Site Map](#)

Southampton Repository

[Home](#)[About](#)[Browse by Year](#)[Browse by Subject](#)[Login](#)[Create Account](#)

Welcome to Southampton Repository



This repository has not yet been fully configured. This paragraph would describe it contains. To modify this text edit `/opt/eprints3/archives/soton/cfg/lang/en/st`
`generate_static.`



If you need a bit more help getting started, the EPrints team has a [commercial services](#) hosting and consultancy services.



Changing the Layout: Summary

- ↔ Define new layout in **lang/en/templates/default.xml**
 - ▶ copy any required images or stylesheets to static content directory
 - ▶ use **pins** to tell EPrints where to insert content in the layout
- ↕ Run **epadmin reload**
 - ▶ if you have used any additional images/stylesheets, move them to the live area of the site by running `generate_static`



Aside: Dynamic Pages in EPrints 3

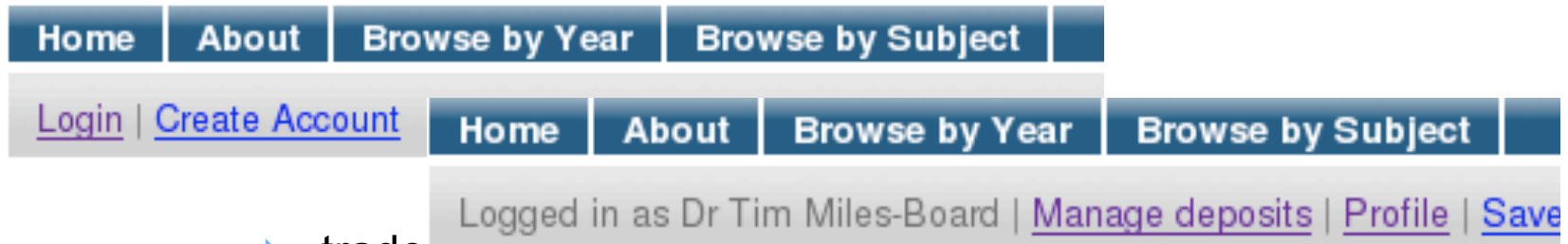
- ▶ EPrints 2 administrators will be used to re-generating static pages, browse view pages and abstract pages when the template is changed
- ▶ EPrints 3 builds pages on demand
 - ▶ generate_static puts static content into html directory
 - ▶ html/en/index.body, html/en/index.title
 - ▶ same for generate_views, generate_abstracts
 - ▶ when page is requested, EPrints combines template with these pieces of static content to build the page



Aside: Dynamic Pages in EPrints 3 (2)

▲ Why?

- ▲ can introduce dynamic elements into the page
 - ▲ user login status is good example of this



- ▲ trade off between server performance and functionality
 - ▲ Google will crawl repository at least once a day
 - ▲ static parts of static, views and abstract pages pre-generated



Branding: **lang/en/static** directory

- ▶ You can also define fixed content for:
 - ▶ homepage, “about” page, help pages, “error” page...
 - ▶ the static content that appears on the front page of the repository is in
 - ▶ `lang/en/static/index.xpage`
- ▶ These configuration files are stored in the **lang/en/static** directory
 - ▶ one subdirectory per language
 - ▶ e.g. english files go in **lang/en/static**



Branding: Remove Warning from Homepage

```
<xpage:title>Welcome to <epc:phrase ref="archive_name" /></xpage:title>
<xpage:body>

<div class="ep_msg_warning"><div class="ep_msg_warning_content"><table><tbody><tr><td>
</td><td>
This repository has not yet been fully configured. This paragraph would describe
the repository, who runs it and what it contains. To modify this text edit
<tt><epc:print expr="$config{config_path}" />/lang/en/static/index.xpage</tt> th
en run <tt>generate_static</tt>.
</td></tr></tbody></table></div></div>

<p>If you need a bit more help getting started, the EPrints team has a <a href="
http://eprints.org/services/">commercial services</a> arm which provides trainin
g, support, hosting and consultancy services.</p>
```

Welcome to Southampton Repository



This repository has not yet been fully configured. This paragraph would describe the repository, who runs it and what it contains. To modify this text edit `/opt/eprints3/archives/soton/cfg/lang/en/static/index.xpage` then run `generate_static`.

If you need a bit more help getting started, the EPrints team has a [commercial services](http://eprints.org/services/) arm which provides training, support, hosting and consultancy services.



Branding: Remove Warning from Homepage

```
<xpage:title>Welcome to <epc:phrase ref="archive_name" /></xpage:title>
<xpage:body>

<div class="ep_msg_warning"><div class="ep_msg_warning_content"><table><tbody><tr><td>
</td><td>
This repository has not yet been fully configured. This paragraph would describe
the repository, who runs it and what it contains. To modify this text edit
<tt><epc:print expr="$config{config_path}" />/lang/en/static/index.xpage</tt> th
en run <tt>generate_static</tt>.
</td></tr></tbody></table></div></div>

<p>If you need a bit more help getting started, the EPrints team has a <a href="
http://eprints.org/services">commercial services</a> arm which provides trainin
g, support, hosting and consultancy services.</p>
```

Welcome to Southampton Repository



This repository has not yet been fully configured. This paragraph would describe the repository, who runs it and what it contains. To modify this text edit `/opt/eprints3/archives/soton/cfg/lang/en/static/index.xpage` then run `generate_static`.

If you need a bit more help getting started, the EPrints team has a [commercial services](http://eprints.org/services) arm which provides training, support, hosting and consultancy services.



Branding: Remove Warning from Homepage

- Remove the warning and replace with a paragraph describing the repository
- We've changed some static content, so need to run **generate_static** to move it into the live content area

```
<xpage:title>Welcome to <epc:phrase ref="archive_name" /></xpage:title>  
<xpage:body>  
  
<p><epc:phrase ref="archive_name" /> contains the research output of the Univers  
ity of Southampton</p>
```



Branding: Remove Warning from Homepage

After running **generate_static**

University Links: [Home Page](#) | [Library Home Page](#) | [Site Map](#)

Southampton Repository



[Home](#) | [About](#) | [Browse by Year](#) | [Browse by Subject](#)

[Login](#) | [Create Account](#)

Welcome to Southampton Repository

Southampton Repository contains the research output of the University of Southampton

Atom RSS 1.0 RSS 2.0

[Latest Additions](#)

View items added to the repository in the past week.



Aside: Creating New Static Pages

- ▶ You may want to add additional static pages
 - ▶ frequently asked questions
 - ▶ repository policies
- ▶ Just create a new .xpage file in lang/en/static directory
 - ▶ copy an existing one and use it as a template
 - ▶ run `generate_static`
 - ▶ link to the new page from your site template
 - ▶ e.g. if you created `faq.xpage`, create a link to `faq.html`

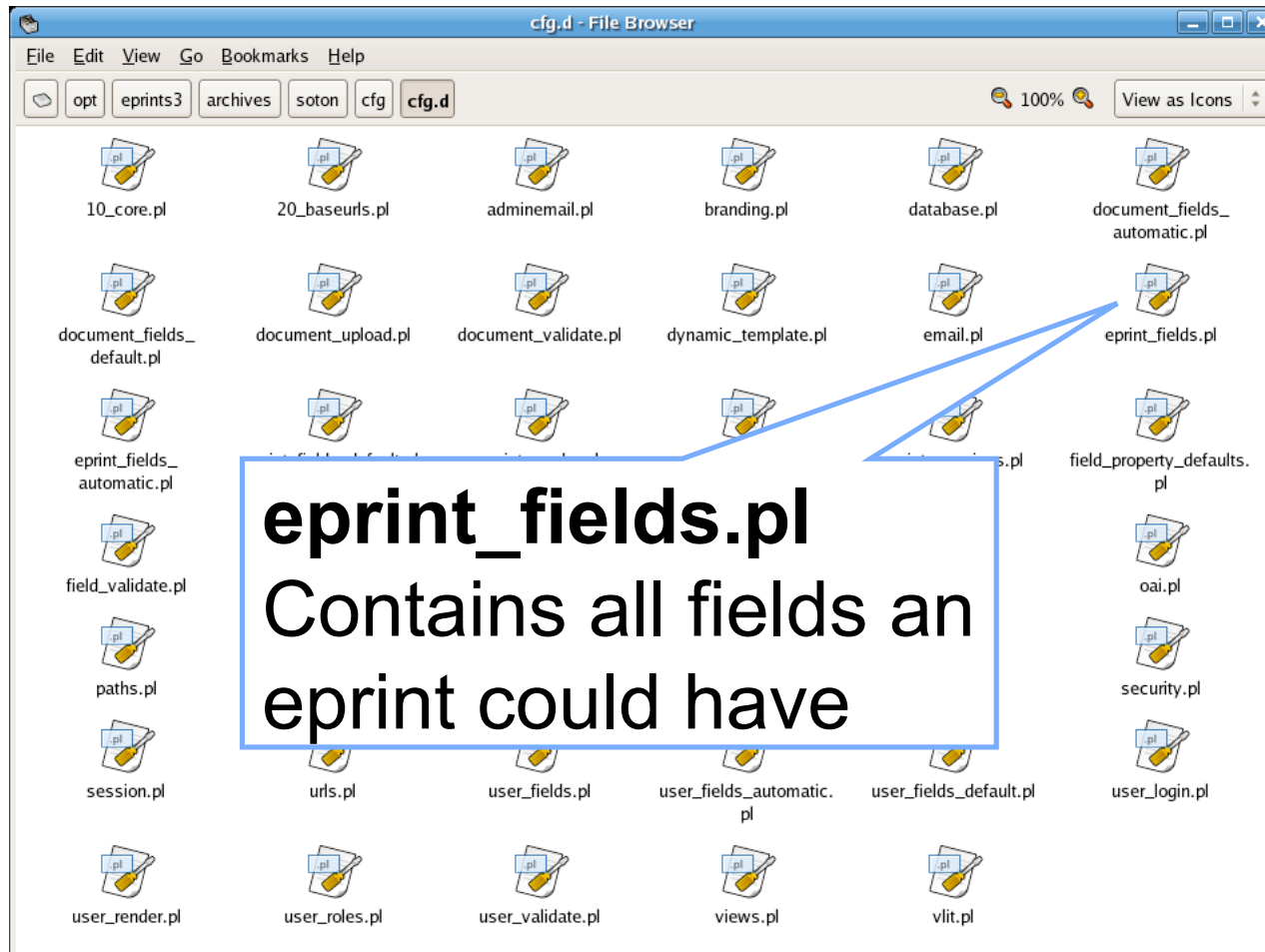


Task 2: Add a New Metadata Field

- Imagine an archive of photographs where the location at which the image was taken is important.

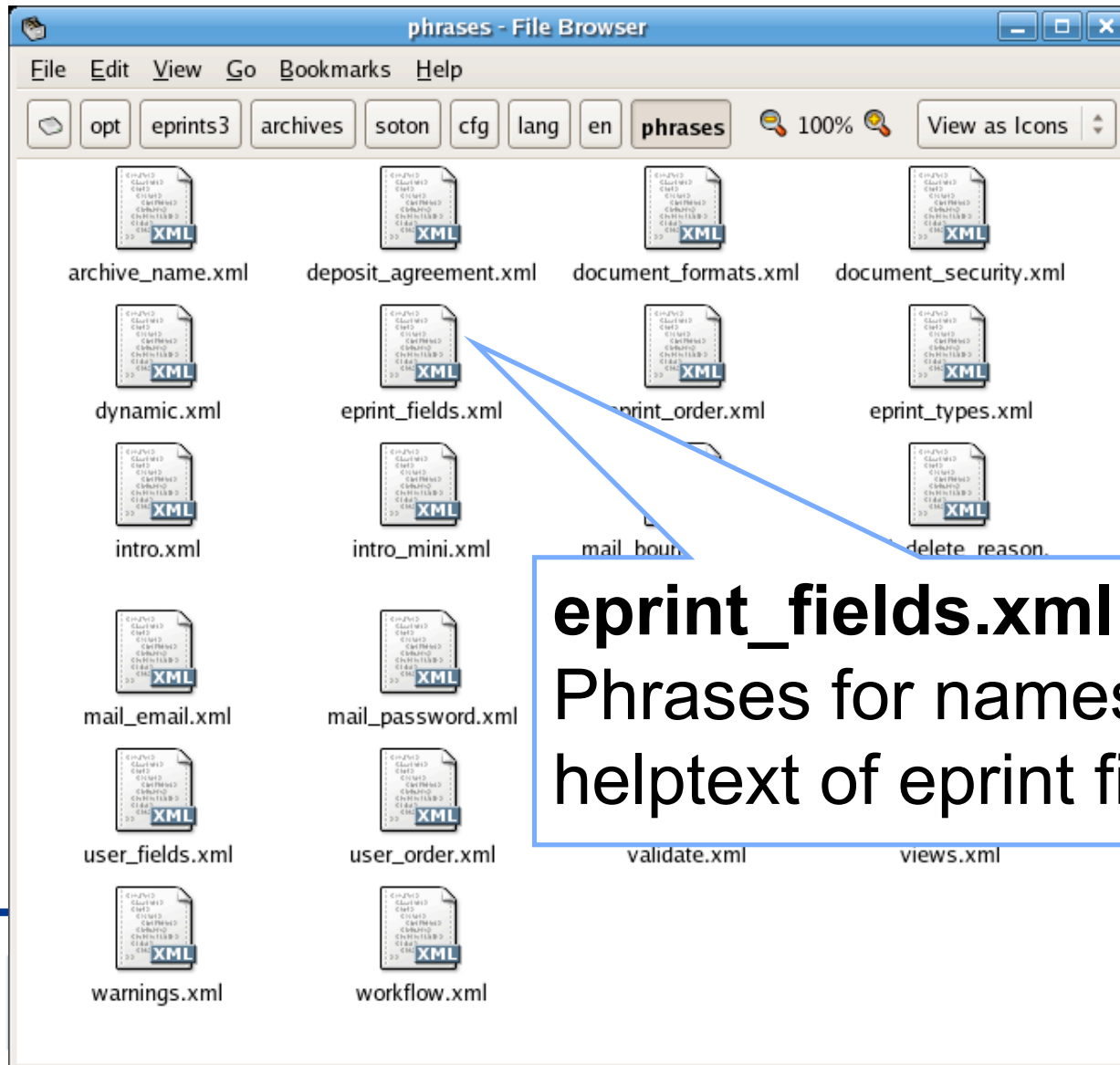


New Metadata Field: Which Config Files?





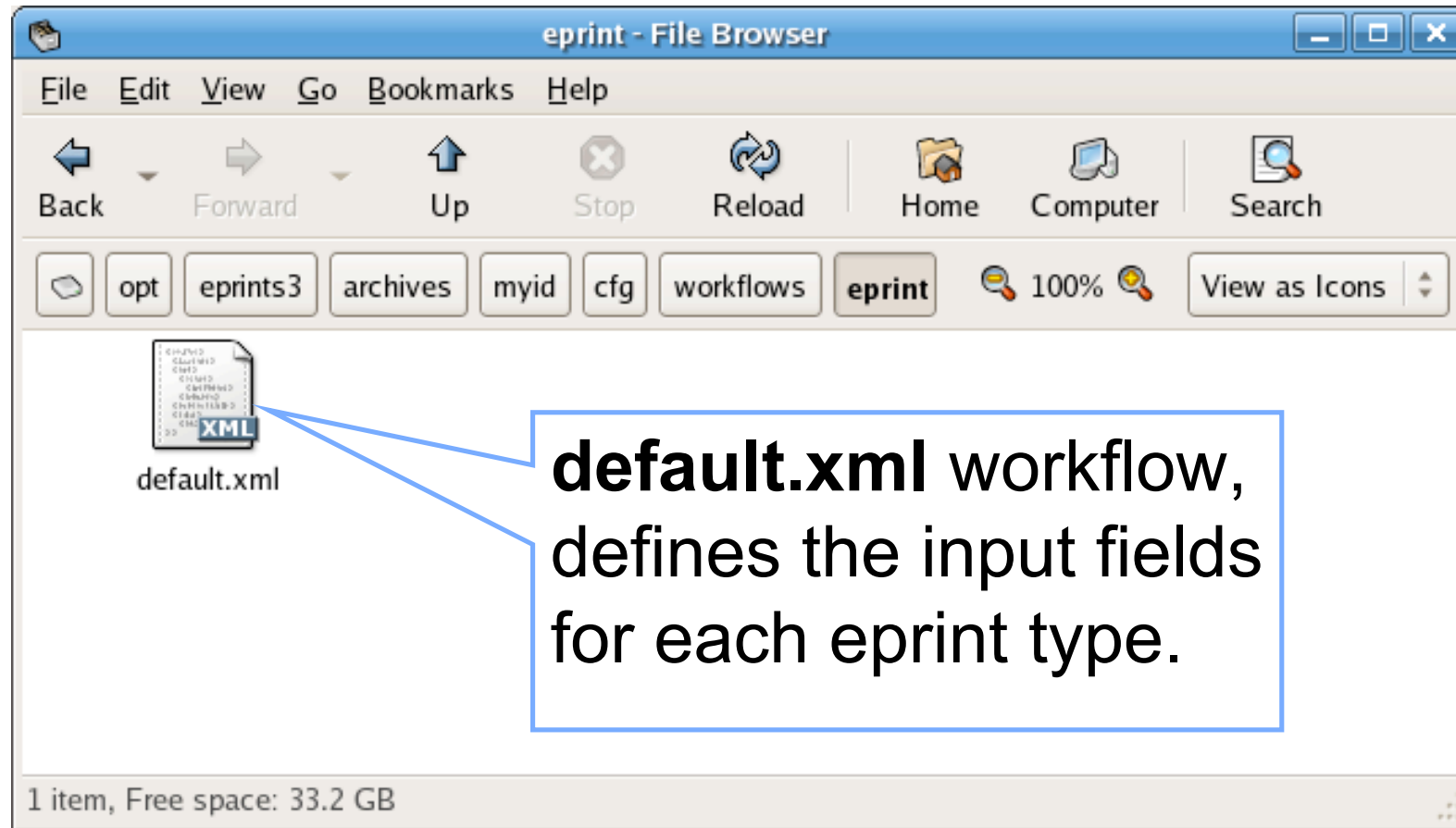
New Metadata Field: Which Config Files?



eprint_fields.xml
Phrases for names and
helptext of eprint fields.



New Metadata Field: Which Config Files?





Task 3: Add a New Metadata Field

- ▶ Add the new field to the workflow **default.xml** file.

```
<epc:if test="type = 'image'">  
  <field ref="coordinates"/>  
  <field ref="output_media"/>  
  <field ref="publisher" />
```

- ▶ Workflows are a little different in EPrints 3



New Metadata Field

- Restart the web server.
- Everything looks fine.
- But try to create a new image and:

EPrints System Error

```
xml_to_metafield config error: Invalid field ref attribute(coordinates)
```

OK

The server encountered an internal error or misconfiguration and was unable to complete your request.

Please contact the server administrator, af05v@ecs.soton.ac.uk and inform them of the time the error occurred, and anything you might have done that may have caused the error.

More information about this error may be available in the server error log.



Apache/2.2.2 (Fedora) Server at custardpie.ecs.soton.ac.uk Port 80



New Metadata Field

- ▶ EPrints knows that a picture needs coordinates but....
- ▶ EPrints doesn't know what coordinates are yet.



New Metadata Field: `eprint_fields.pl`

- Contains all possible metadata fields for an eprint.
- A Perl file (but don't worry too much)



New Metadata Field: Add Definition

- Add a definition for the **coordinates** field to **eprint_fields.pm**

```
{  
    'name' => 'coordinates',  
    'type' => 'text',  
},
```



New Metadata Field

- ▶ Restart the web server.
- ▶ Everything looks fine.
- ▶ But try to create a new image and:

Internal Server Error

The server encountered an internal error or misconfiguration and was unable to complete your request.

Please contact the server administrator, af05v@ecs.soton.ac.uk and inform them of the time the error occurred, and anything you might have done that may have caused the error.

More information about this error may be available in the server error log.

Apache/2.2.2 (Fedora) Server at custardpie.ecs.soton.ac.uk Port 80



New Metadata Field: Why it Failed

- ▶ EPrints uses the metadata configuration in **eprint_fields.pm** to:
 - ▶ construct its database tables
 - ▶ generate queries for selecting data from the database
- ▶ EPrints expects to find a **coordinates** column in the database



New Metadata Field: Update Database

- ▶ We need to either
 - ▶ rebuild the EPrints database tables for the new metadata configuration
 - ▶ will lose all data and uploaded files
 - ▶ use **epadmin erase_eprints**
 - ▶ don't do this on a live repository!
 - ▶ **useful development technique**
 - ▶ add the field to the database by hand
 - ▶ won't lose any data
 - ▶ instructions for doing this on the EPrints wiki
 - ▶ http://wiki.eprints.org/w/Adding_a_Field_to_a_Live_Repository



New Metadata Field: Check Workflow

- ▶ Field now appears in deposit workflow
- ▶ Now just need to add some phrases!
 - ▶ field title and help text

Publication Details

Status:	<input type="radio"/> Published <input type="radio"/> In Press <input type="radio"/> Submitted <input type="radio"/> Unpublished	?
["eprint_fieldname_coordinates" not defined]:	<input type="text"/>	
Media of Output:	<input type="text"/>	?
Publisher:	<input type="text"/>	?
Date:	Year: <input type="text"/> Month: <input type="text" value="Unspecified"/> Day: <input <="" td="" type="text" value="?"/> <td>?</td>	?
Date Type:	<input type="radio"/> UNSPECIFIED <input type="radio"/> Publication <input type="radio"/> Submission <input type="radio"/> Completion	?
Official URL:	<input type="text"/>	?



New Metadata: Phrases

- ▶ Phrases contain text that is displayed on pages generated by EPrints
- ▶ In a multi-language repository, there would be a set of phrases for each language
- ▶ Defined in XML
- ▶ Eprints loads all phrases in all files in the `cfg/lang/en/phrases` directory.



New Metadata: Add a Phrase

▀ Add phrases to **eprint_field.xml**

```
<epp:phrase id="eprint_fieldname_coordinates">Coordinates</epp:phrase>  
<epp:phrase id="eprint_fieldhelp_coordinates">The coordinates at which
```

▀ Reload the archive

Coordinates:	<div>The coordinates at which the picture was taken</div> <input type="text"/>	-
--------------	--	---



New Metadata Field: Summary

- ↔ Define type and properties of new field in **eprint_fields.pl**
- ↕ Add field to deposit workflow in **workflows/eprint/default.xml**
- ↔ Add display name and help text to **eprint_field.xml**
- **epadmin erase_eprints**
 - ▶ or manually add new field
- ↑↕ **epadmin reload**



Briefly: Autocompletion

- ▶ Drop a simple text file or a more complex xml file into the autocomplete directory.
- ▶ Edit the workflow:

```
<field ref="publication" required="yes"  
input_lookup_url="{ $config{perl_url} }/users/lookup/file"  
input_lookup_params="file=journal_list" />
```



Briefly: Plugins

- ▶ Add functionality to your repository
- ▶ Most Common – Import, Export, Screen
- ▶ Just drop the plugin into the right plugin directory
- ▶ Perl intensive (plugins are little programs), but very powerful.
- ▶ Download plugins from files.eprints.org



Other Config Files: **subjects**

- ▶ Plain text file that defines the subject tree for the classification system
- ▶ By default contains the top 2 levels of the US Library of Congress classification
- ▶ Also include a 'place-holder' organisational structure that you should remove/replace
- ▶ 'subjects' is a misnomer. It can contain any number of trees/hierarchies.



Other Config Files: **oai.pl**

- Tells EPrints which export plugins to use to map your metadata to any format a plugin exists for.
- Edit to make your data, metadata and submission policies available.



Other Config Files: `eprint_render.pl`

- ▲ Methods for generating the abstract pages for each eprint
- ▲ Perl intensive, but we can do almost anything!
 - ▲ e.g. embed an music player applet on each Composition page



Other Config Files: *_validate.pm

- ▶ Methods for checking the metadata fields that a depositor is submitting
 - ▶ individual fields
 - ▶ a whole page (i.e. combination of fields)
 - ▶ a document (e.g. has the user submitted a format safe for preservation purposes?)
 - ▶ a complete eprint record
 - ▶ a user
- ▶ Perl intensive



Other Config Files: **indexing.pm**

- ▶ Methods for supporting free text indexing
 - ▶ definitions of lexical token separators
 - ▶ list of stop words
 - ▶ filter that translates a text into a bag of words
- ▶ Unlikely to be changed



Web Server Config Files

- ▶ **auto-apache.conf** is the main workhorse
- ▶ defines where the archive files are, how to handle script requests and errors etc.
- ▶ Not User editable
 - ▶ Add directives to apache.conf
 - ▶ some tweaks may be necessary if you are hosting other Web-based services on the same server



Reflection: What do you need to do?

- ▶ Look back at the issues you raised for configuring EPrints
 - ▶ can you see where you would need to start working in the EPrints setup?
 - ▶ can you find some repositories which do things in the same way?
 - ▶ i.e. can you find someone to give you advice?