



# RapidSeis: Rapid Portlet Building

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# Portals and Portlets

The image shows a screenshot of a web browser displaying a Liferay portal. The browser window title is "Welcome - Liferay". The address bar shows the URL: `http://127.0.0.1:8080/web/guest/home?p_p_id=58&p_p_lifecycle=0&p_p_state=maximized&p_p_mode=view&saveLastPath=0&_58_strut`. The browser's "Most Visited" list includes "Getting Started", "Latest Headlines", "Apple", "Yahoo!", "Google Maps", "YouTube", "Wikipedia", "News", and "Popular".

The main content area features a dark header with the LIFERAY logo and the tagline "Enterprise. Open Source. For Life." on the left, and a "Welcome!" button on the right. Below the header, a "Welcome" link is visible.

The central focus is a "Sign In" portlet. It has a title bar with a key icon and the text "Sign In", and a "Return to Full Page" link on the right. The form contains the following elements:

- Email Address:** A text input field containing the value "bruno@7cogs.com".
- Password:** A password input field.
- Remember Me:** A checkbox that is currently unchecked.
- Sign In:** A button to submit the form.

Below the form, there are three links: "OpenID", "Create Account", and "Forgot Password".

The browser's status bar at the bottom left shows the word "Done".

# Portals and Portlets

The screenshot displays a Liferay portal interface. At the top, there is a navigation bar with the Liferay logo and the user name "Bruno Admin". Below this, the main content area is divided into several portlets:

- Recent Bloggers:** A list of three bloggers: Michelle Writer (1 post, 0 stars, dated 10/28/09), John Regular (1 post, 0 stars, dated 10/28/09), and Bruno Admin (2 posts, 0 stars, dated 10/28/09).
- Loan Calculator:** A form with input fields for Loan Amount (200,000), Interest Rate (7.00), and Years (30). It displays calculated values: Monthly Payment (1,331), Interest Paid (279,018), and Total Paid (479,018). A "Calculate" button is present.
- Currency Converter:** A table for converting currencies. The current conversion is 1.0 USD to EUR. The table lists currencies: British Pound (GBP), Chinese Yuan (CNY), Euro (EUR), Japanese Yen (JPY), and U.S. Dollar (USD).
- Bookmarks:** A section with tabs for "Folders", "My Entries", and "Recent Entries". It includes buttons for "Add Folder" and "Permissions". Below is a table header with columns for "Folder", "# of Folders", and "# of Entries", and a message "Showing 0 results."
- Words:** A simple word game interface with a text input field, a "Scramble" button, and a "Search" button.

At the bottom of the page, there are links for "Settings" and "Online Friends (0)".

# Computational Portlets

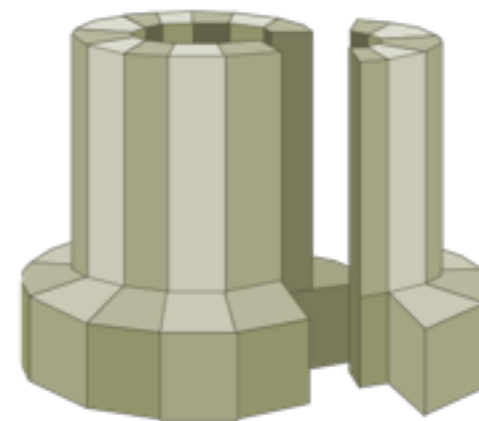
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Portal

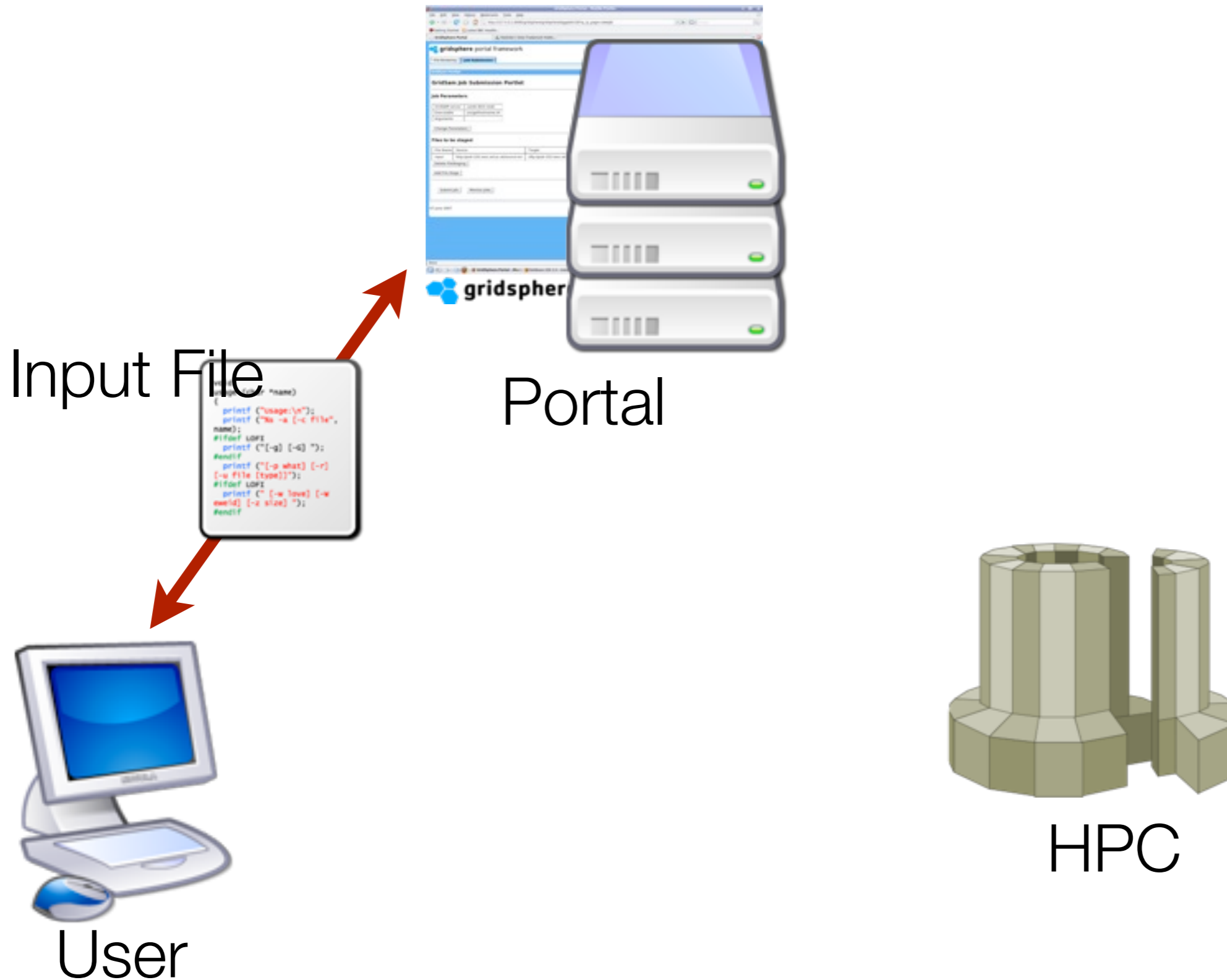


User



HPC

# Computational Portlets



# Computational Portlets

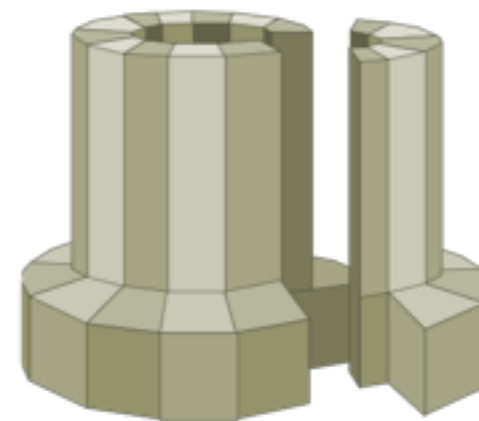
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Portal

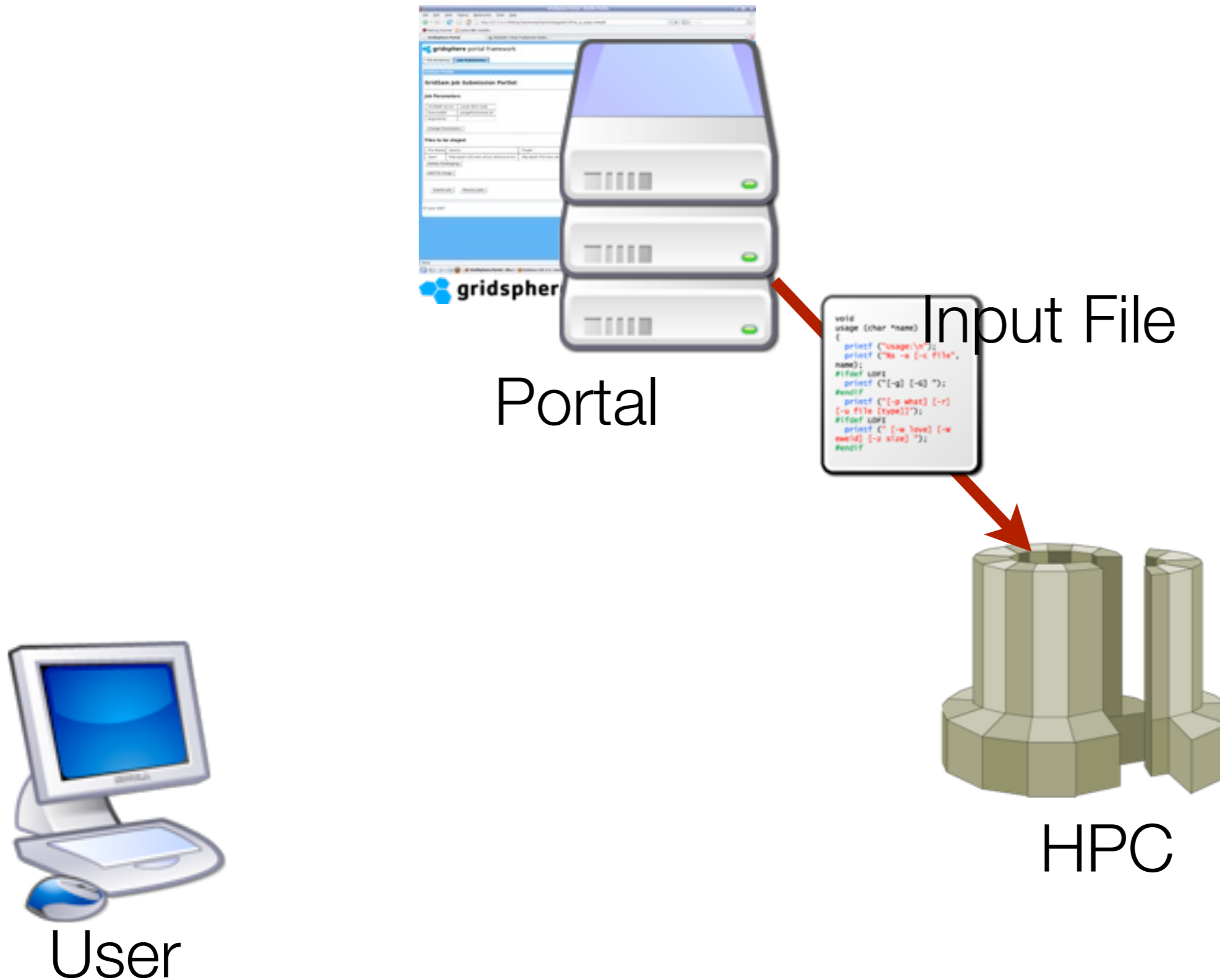


User



HPC

# Computational Portlets



# Computational Portlets

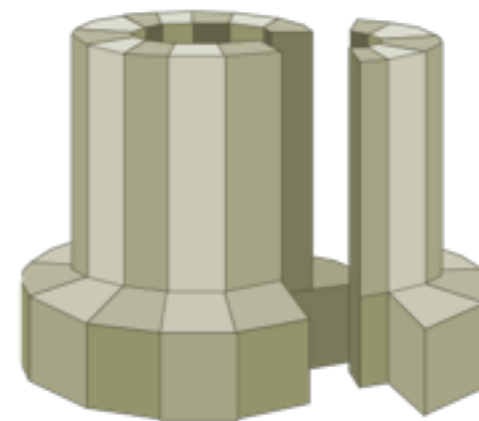
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Portal



User



HPC



# Computational Portlets

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Portal



User



HPC

# Computational Portlets

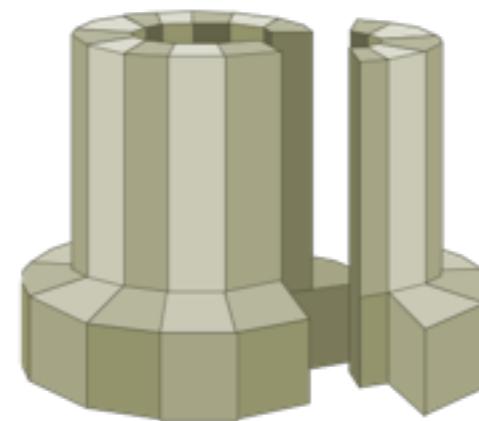
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Portal

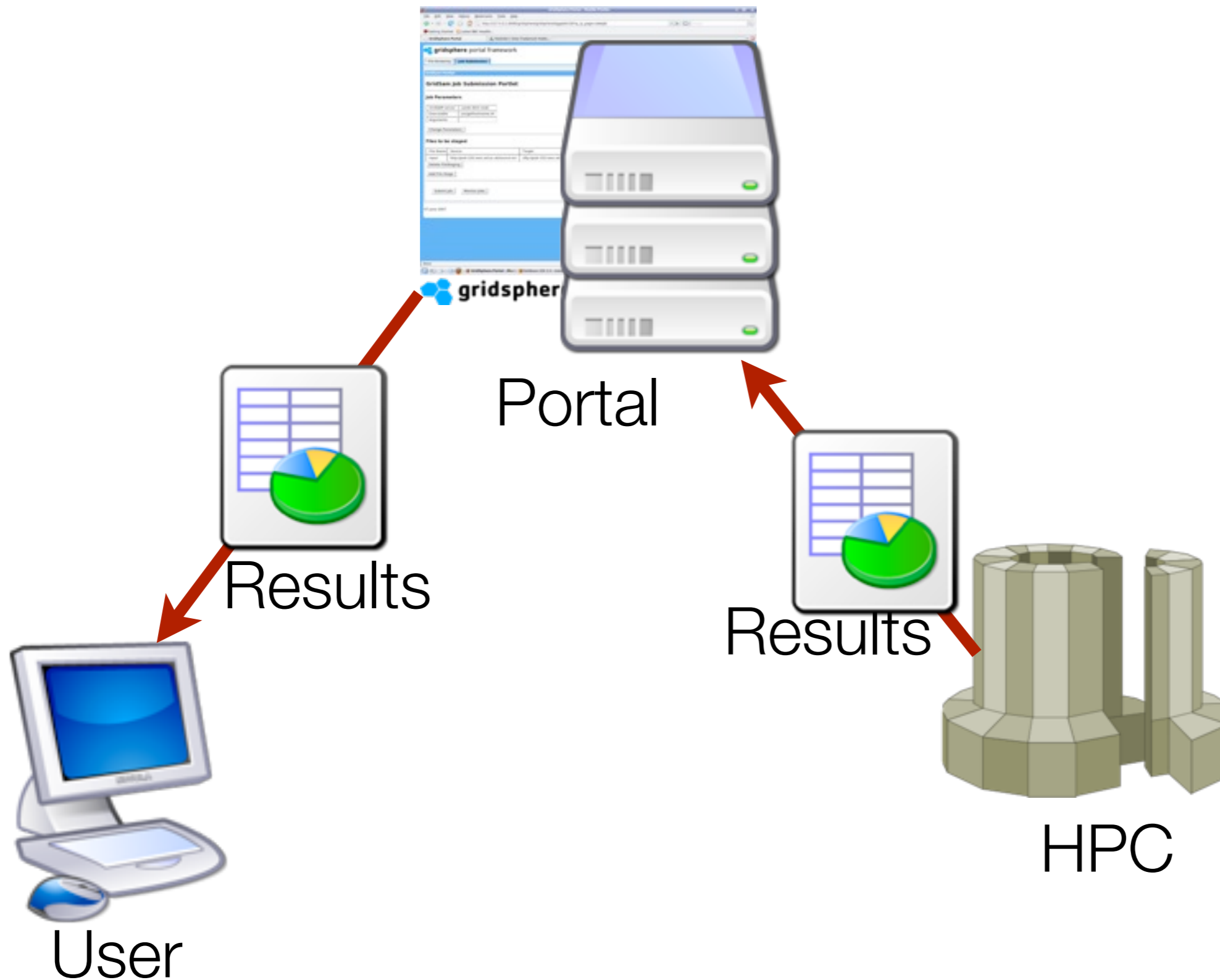


User



HPC

# Computational Portlets

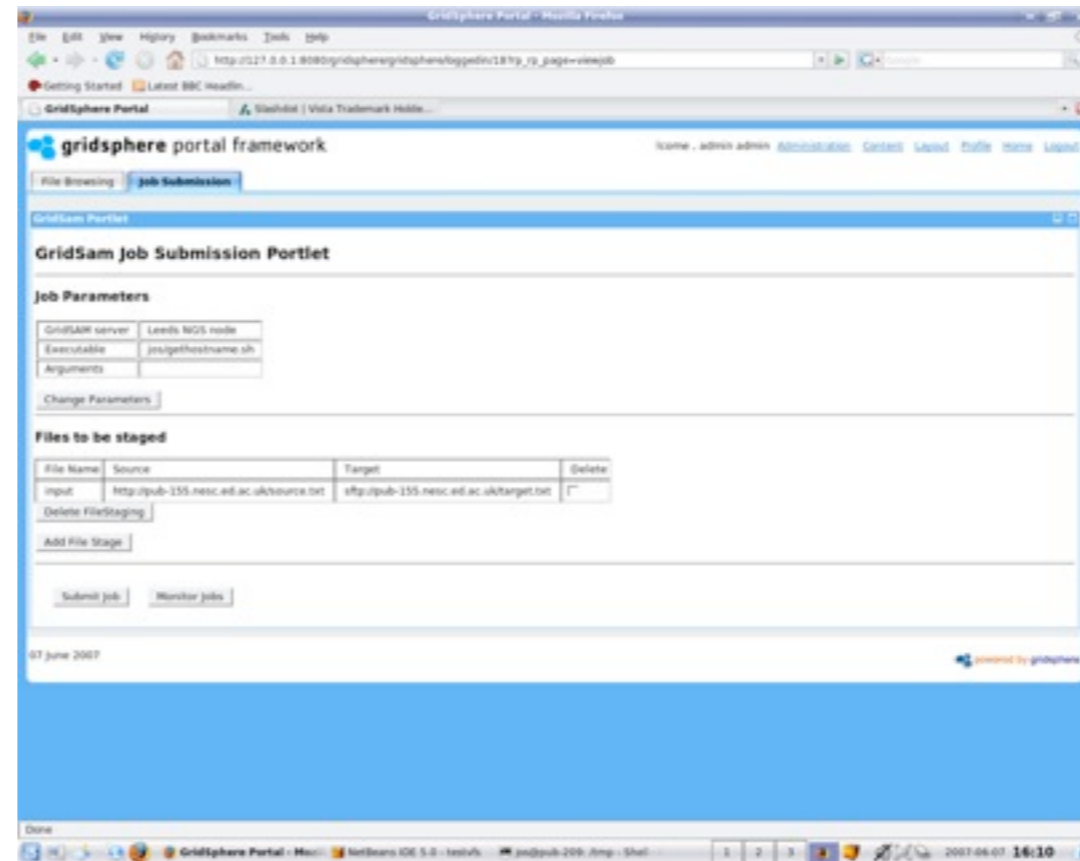


# The problems with hiring a developer

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Developer

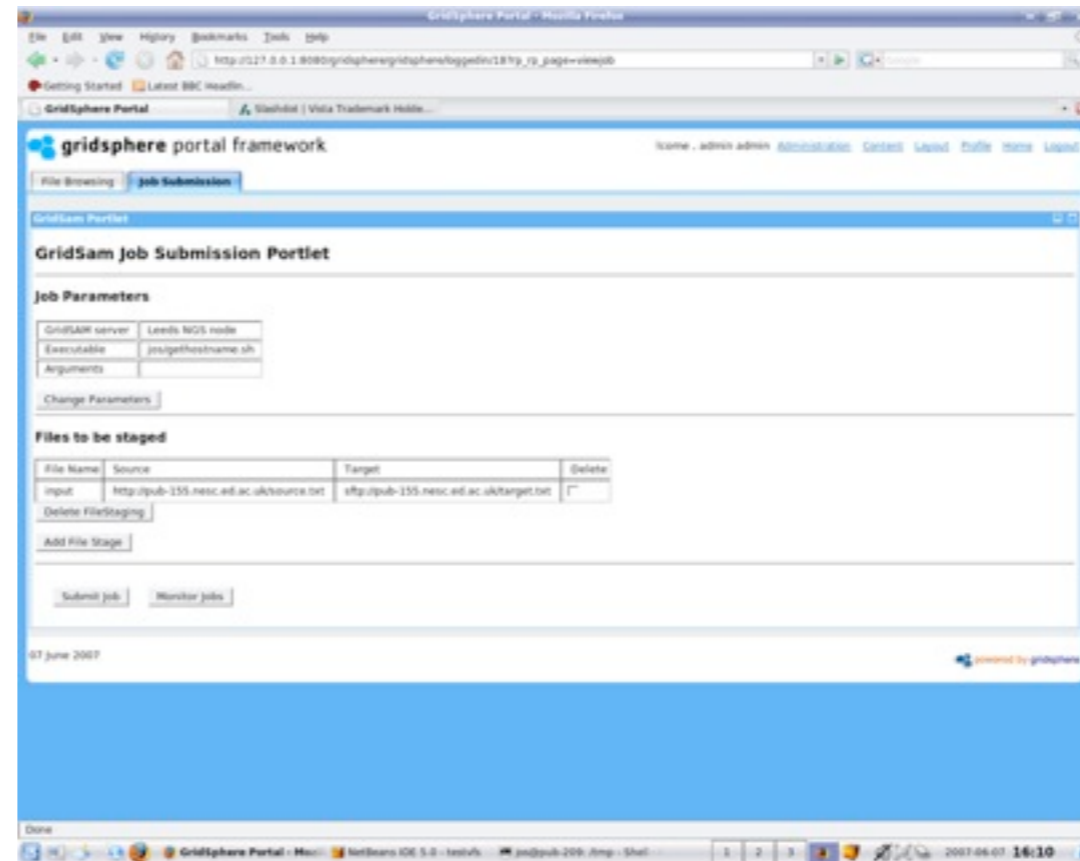



 **gridsphere portal framework**

# The problems with hiring a developer



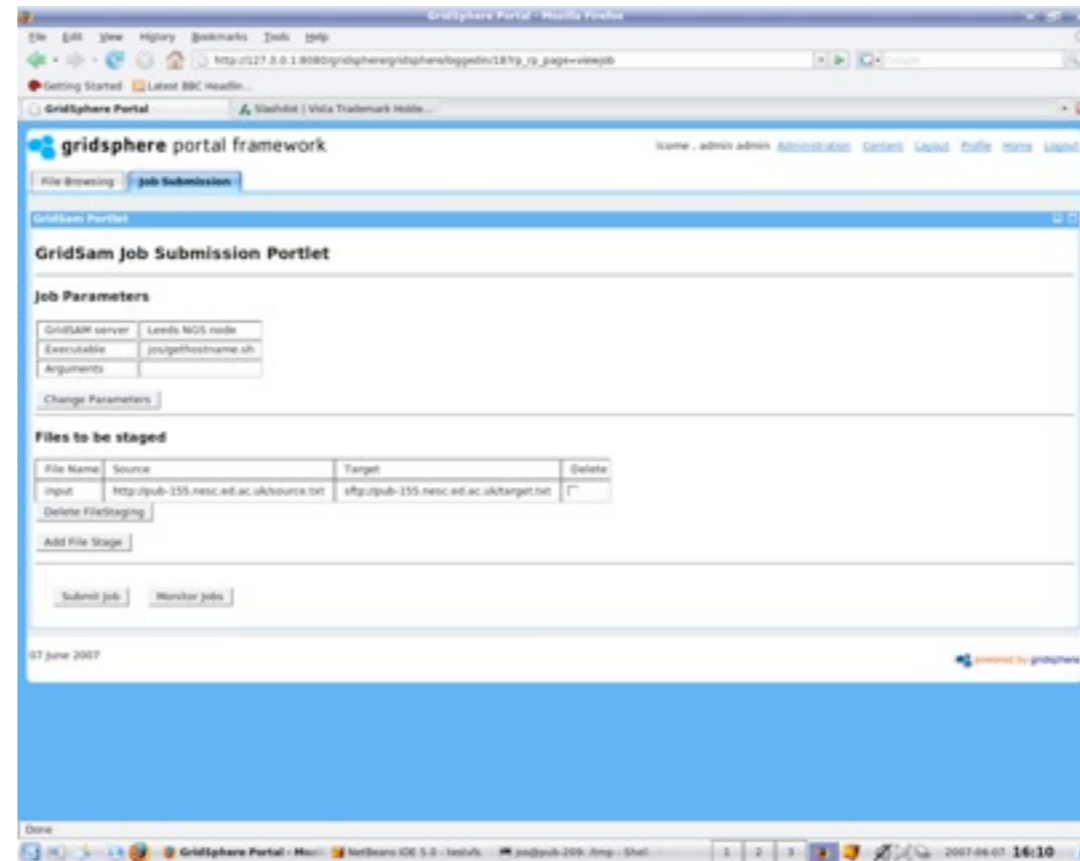
Developer



 **gridsphere portal framework**

# The problems with hiring a developer

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 **gridsphere portal framework**

# The problems with hiring a developer

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# The Rapid Solution - Portlet Development

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Developer



# The Rapid Solution - Portlet Development

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Developer

Writes



XML Description

# The Rapid Solution - Portlet Development



Developer

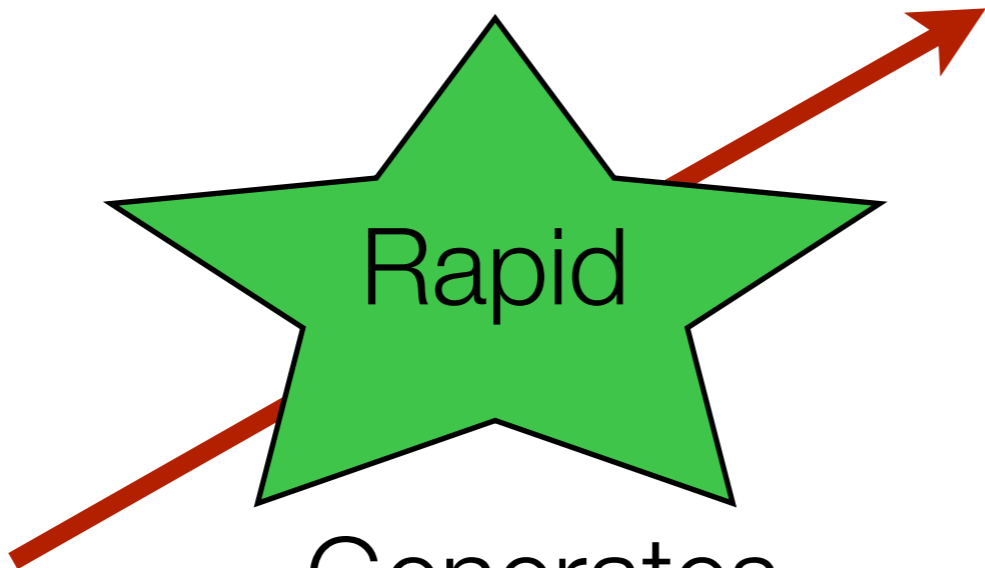
Writes



XML Description



Generates



# The Rapid Solution - Portlet Development



Developer

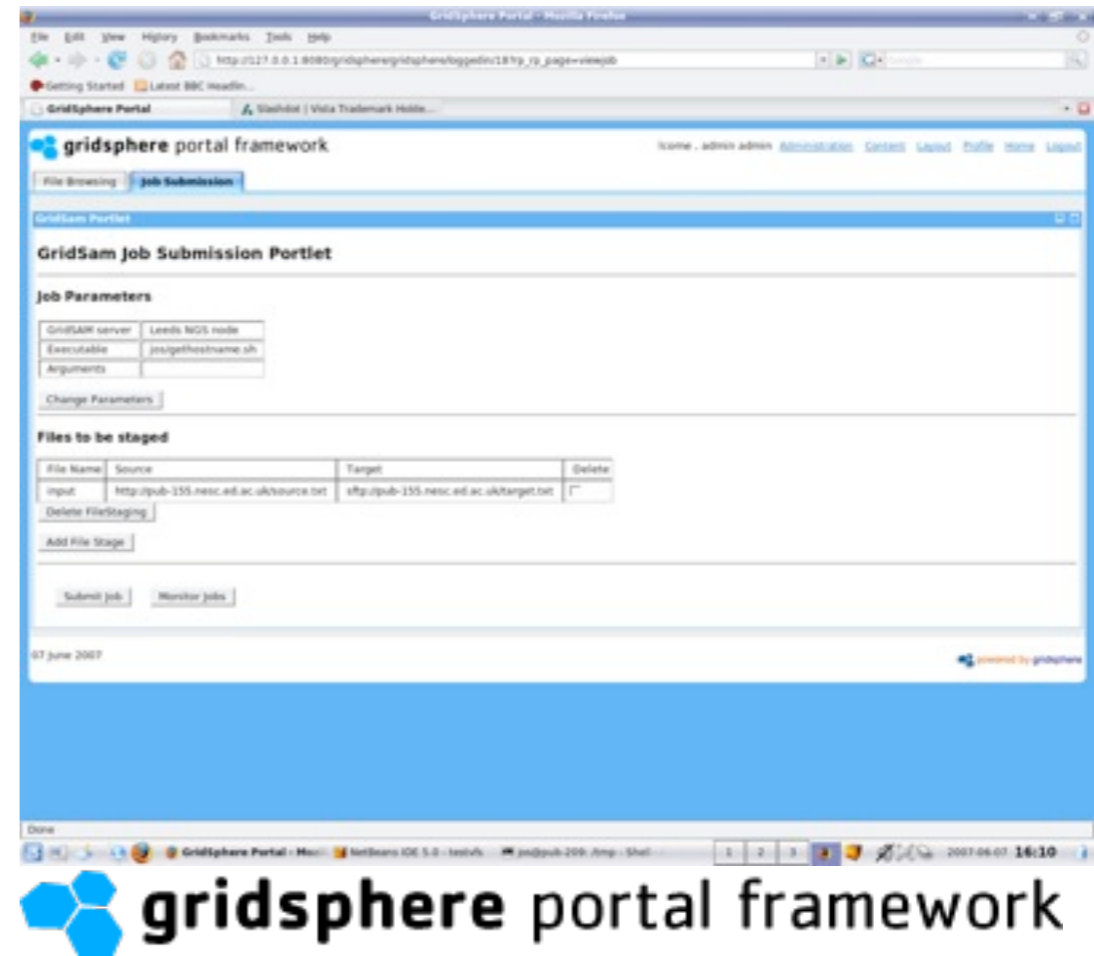
Writes



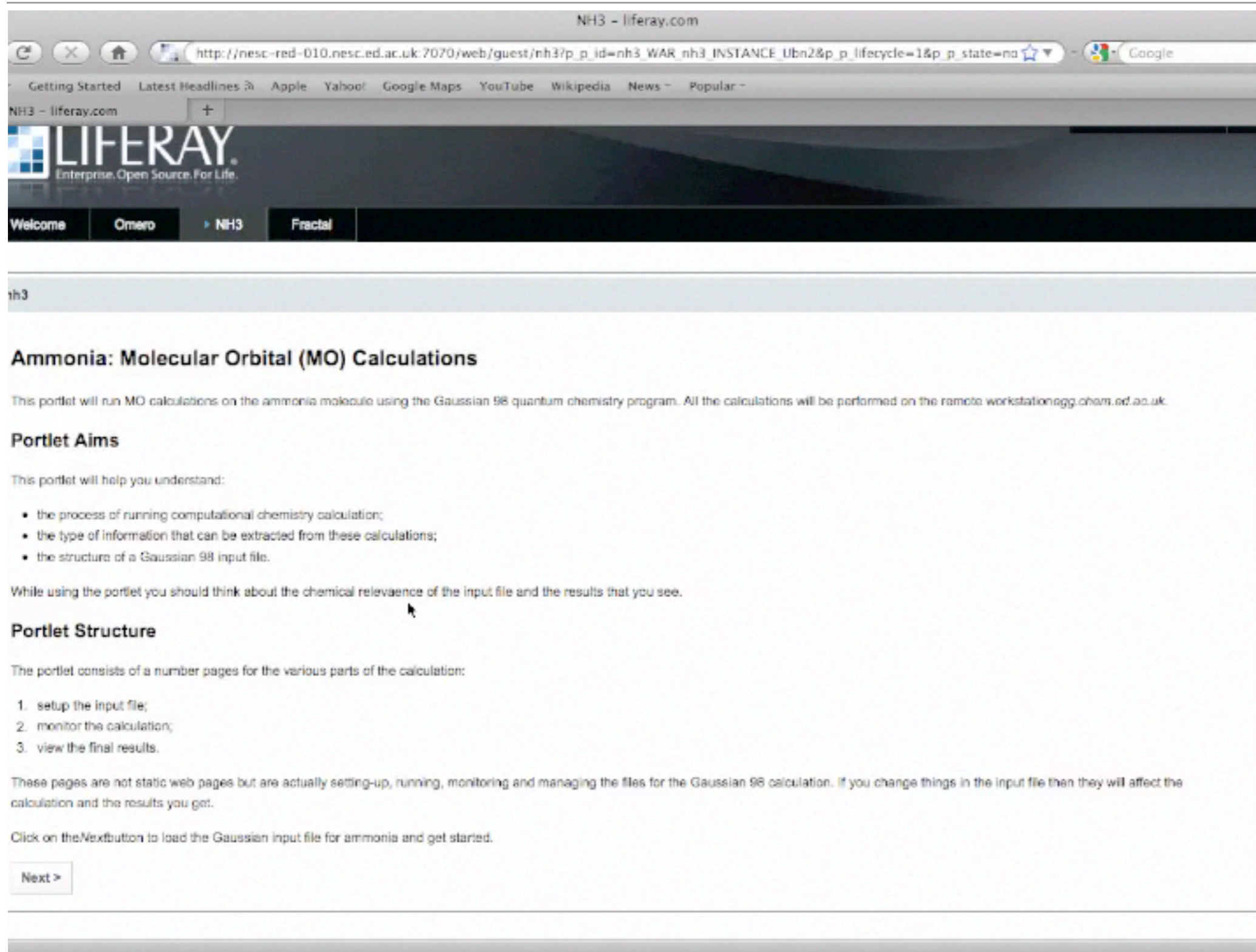
XML Description



Generates



# Previous project using Rapid - ScotChem



NH3 - liferay.com

http://nesc-red-010.nesc.ed.ac.uk:7070/web/guest/nh3?p\_p\_id=nh3\_WAR\_nh3\_INSTANCE\_Ubn2&p\_p\_lifecycle=1&p\_p\_state=na

Getting Started Latest Headlines Apple Yahoo! Google Maps YouTube Wikipedia News Popular

NH3 - liferay.com

**LIFERAY**  
Enterprise. Open Source. For Life.

Welcome Omero **NH3** Fractal

nh3

## Ammonia: Molecular Orbital (MO) Calculations

This portlet will run MO calculations on the ammonia molecule using the Gaussian 98 quantum chemistry program. All the calculations will be performed on the remote workstation `egg.chem.ed.ac.uk`.

### Portlet Aims

This portlet will help you understand:

- the process of running computational chemistry calculation;
- the type of information that can be extracted from these calculations;
- the structure of a Gaussian 98 input file.

While using the portlet you should think about the chemical relevance of the input file and the results that you see.

### Portlet Structure

The portlet consists of a number pages for the various parts of the calculation:

1. setup the input file;
2. monitor the calculation;
3. view the final results.

These pages are not static web pages but are actually setting-up, running, monitoring and managing the files for the Gaussian 98 calculation. If you change things in the input file then they will affect the calculation and the results you get.

Click on the **Next** button to load the Gaussian input file for ammonia and get started.

Next >

# Enhancing Rapid - Andy's requirements

- Dynamic User Interface and RDF database access

The screenshot shows a web browser window titled "Plugin Executor" with the URL [http://193.52.21.80/jetspeed/portal/\\_ns:YVAiMTi0Yzk4YjA1MjgtMTAwMDJ8Yz88ZD88ZXByb3h5cG9ydGxldC11cGRhdGV5ZXNwb:neries portal](http://193.52.21.80/jetspeed/portal/_ns:YVAiMTi0Yzk4YjA1MjgtMTAwMDJ8Yz88ZD88ZXByb3h5cG9ydGxldC11cGRhdGV5ZXNwb:neries portal). The browser's address bar shows "neries portal". The page features the "neries" logo on the left and the "prototype Seismic Data Portal" header on the right. Below the header, there are navigation links: "Home >> RapidSeis >> Plugin Executor" and "MY NERIES Plugin Executor PLUGIN EDITOR". A sidebar on the left contains "Additional Links" with entries for "EMSC website", "NERIES Project Portal", and "ORFEUS website". The main content area is titled "Select a plugin to execute" and contains a list of plugins: "test\_tracearray\_ax3", "bw\_bandpass", "test\_tracearray", "test\_tracearray\_ax2", and "test\_tracearray\_ax4". The "bw\_bandpass" plugin is selected. Below the list, the following information is displayed: "Selected plugin bw\_bandpass", "Creator aeh", "Public plugin", and "description: Butterworth band-pass filter and plot results...". A button labeled ">>Select Plugin<<" is present. Below this, there are four input fields with labels: "zph" (value 1.0), "ns" (value 1.0), "fhi" (value 10.0), and "flo" (value 1.0). At the bottom of the form, there are three buttons: "Refresh", "View Results", and "Calculate plugin and View Results".

# Enhancing Rapid - Andy's requirements

- Dynamic User Interface and RDF database access

The screenshot shows a web browser window titled "Plugin Executor" with the URL [http://193.52.21.80/jetspeed/portal/\\_ns:YVAtMT10Yzk4YjA1MjgtMTAwMDJ8YzB8ZDB8ZXByb3h5cG9ydGxldC11cGRhdGV5ZXNwb; neries portal](http://193.52.21.80/jetspeed/portal/_ns:YVAtMT10Yzk4YjA1MjgtMTAwMDJ8YzB8ZDB8ZXByb3h5cG9ydGxldC11cGRhdGV5ZXNwb; neries portal). The browser's address bar shows "neries portal". The page header includes the "neries" logo and the text "prototype Seismic Data Portal". Navigation links include "Home >> RapidSeis >> Plugin Executor" and "MY NERIES Plugin Executor PLUGIN EDITOR".

On the left, there is a sidebar titled "Additional Links" with links to "EMSC website", "NERIES Project Portal", and "ORFEUS website". A "Logout" link is also present.

The main content area is titled "Select a plugin to execute" and contains a list of plugins: "test\_tracearray", "test\_tracearray\_ax2", "test\_tracearray\_ax4", "bw\_bandpass", and "param\_display\_ex". The "param\_display\_ex" plugin is selected. Below the list, the following information is displayed:

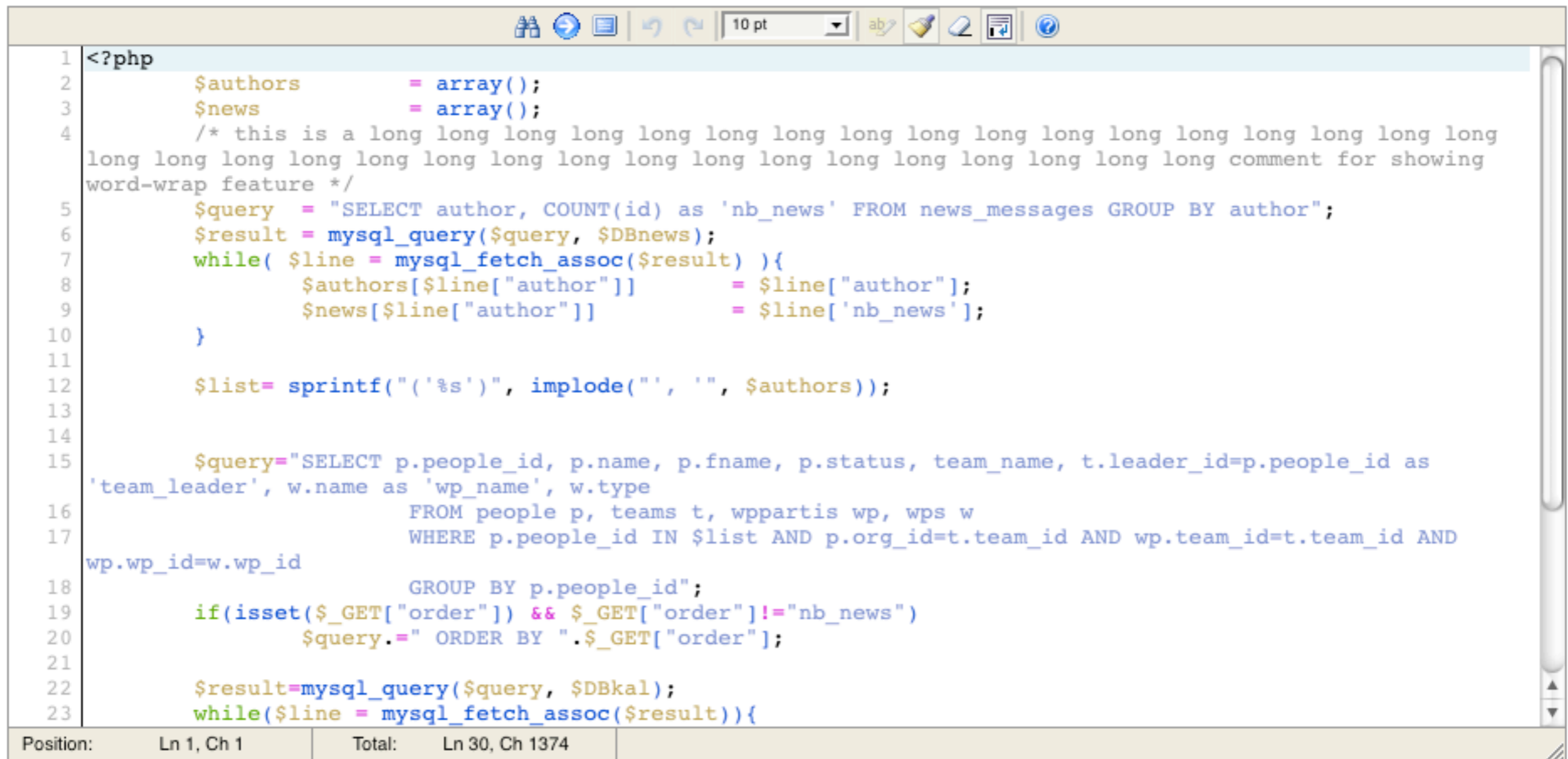
- Selected plugin: param\_display\_ex
- Creator: aeh
- Public plugin
- description: Parameter examples

A button labeled ">>Select Plugin<<" is visible. Below it, there are two input fields: "B" with the value "10.0" and "A" with the value "1.0". At the bottom of the main area, there are three buttons: "Refresh", "View Results", and "Calculate plugin and View Results".

The footer contains the following text: "Copyright ©NERIES-eu.org. All Rights Reserved. For further information about NERIES news and updates, please e-mail [neries-co@knmi.nl](mailto:neries-co@knmi.nl). For comments/questions about the neries-eu.org website, please e-mail [PortalAdministrator@knmi.nl](mailto:PortalAdministrator@knmi.nl)."

# Enhancing Rapid - Andy's requirements

- New Code Editor!

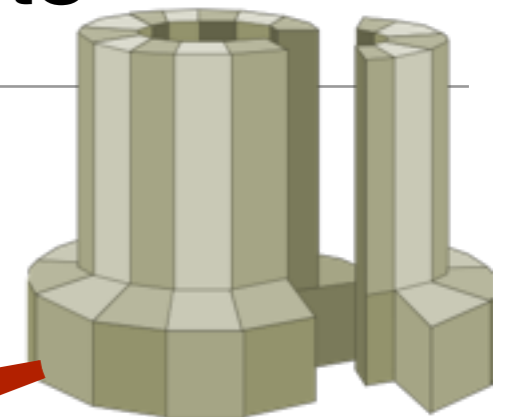
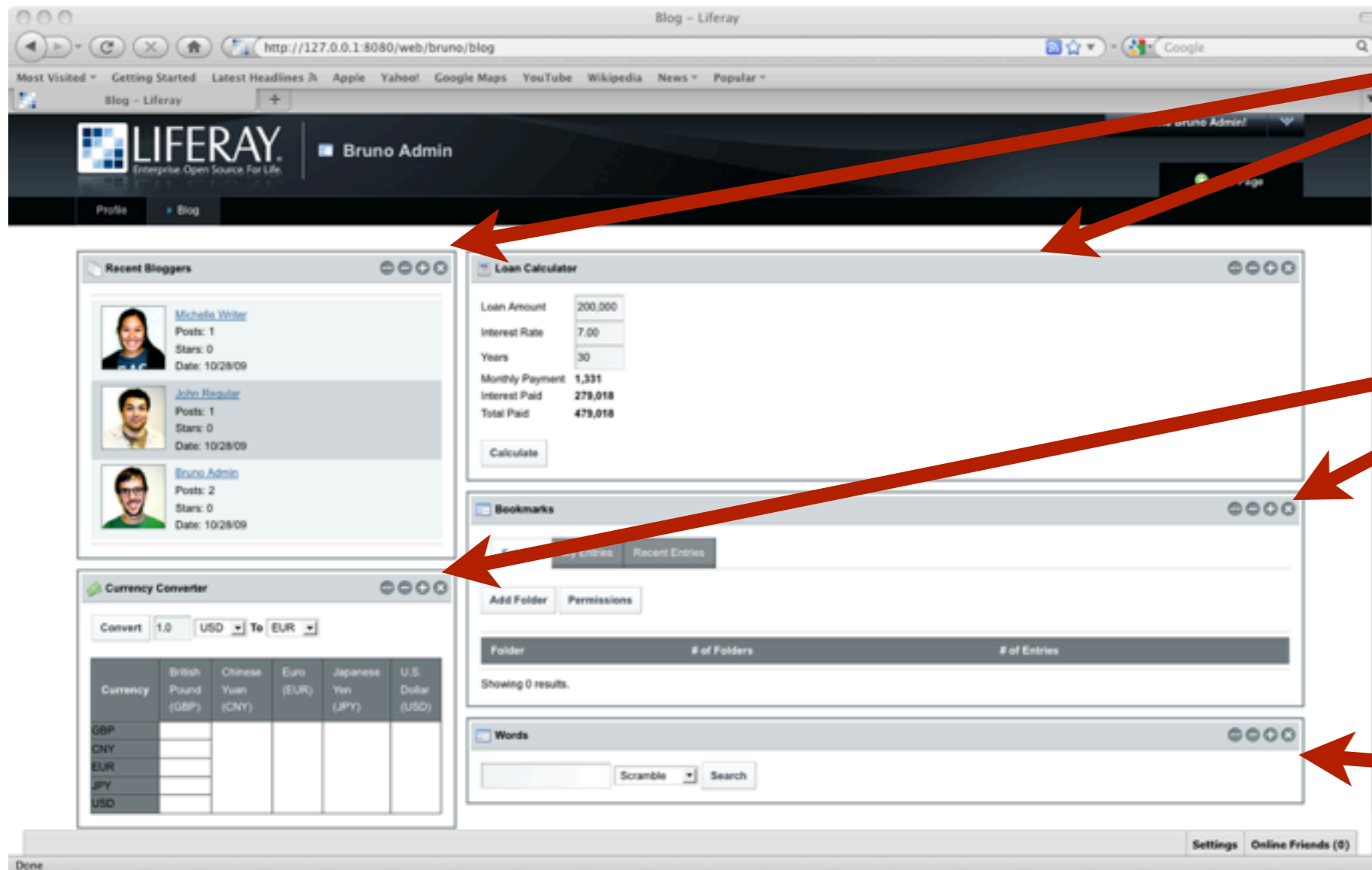


```
1 <?php
2     $authors      = array();
3     $news         = array();
4     /* this is a long long long long long long long long long long long long long long long long long long long
long long long long long long long long long long long long long long long long long long long long long comment for showing
word-wrap feature */
5     $query = "SELECT author, COUNT(id) as 'nb_news' FROM news_messages GROUP BY author";
6     $result = mysql_query($query, $DBnews);
7     while( $line = mysql_fetch_assoc($result) ){
8         $authors[$line["author"]] = $line["author"];
9         $news[$line["author"]] = $line['nb_news'];
10    }
11
12    $list= sprintf("( '%s' )", implode(", ", $authors));
13
14
15    $query="SELECT p.people_id, p.name, p.fname, p.status, team_name, t.leader_id=p.people_id as
'team_leader', w.name as 'wp_name', w.type
16                FROM people p, teams t, wppartis wp, wps w
17                WHERE p.people_id IN $list AND p.org_id=t.team_id AND wp.team_id=t.team_id AND
wp.wp_id=w.wp_id
18                GROUP BY p.people_id";
19    if(isset($_GET["order"]) && $_GET["order"]!="nb_news")
20        $query.=" ORDER BY ".$_GET["order"];
21
22    $result=mysql_query($query, $DBkal);
23    while($line = mysql_fetch_assoc($result)){
```

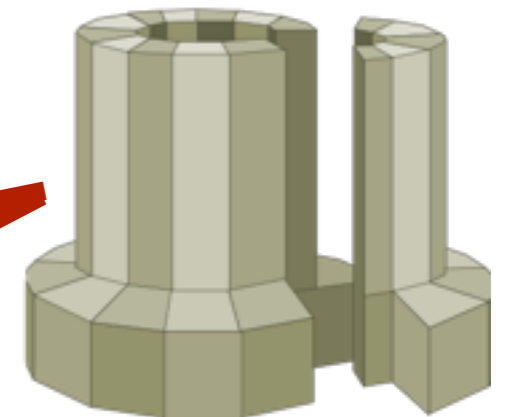
Position: Ln 1, Ch 1      Total: Ln 30, Ch 1374

# Enhancing Rapid - Alessandro's requirements

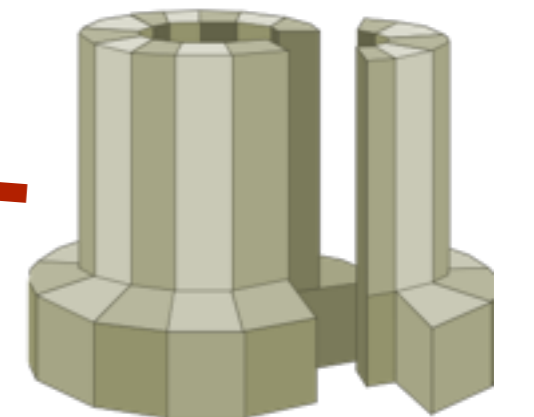
- WSRP interoperability



Paris



Liverpool



Edinburgh

Utrecht

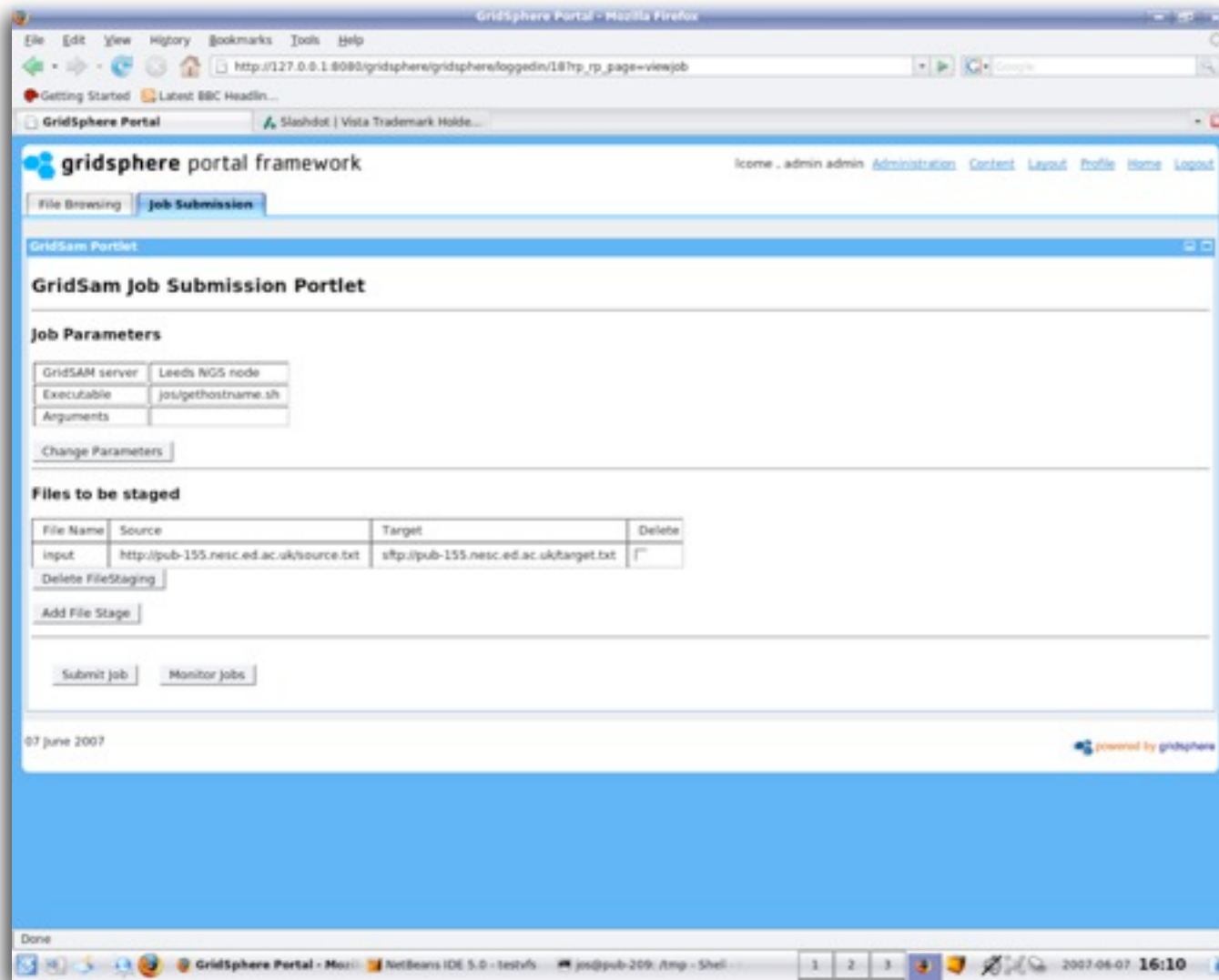


# Enhancing Rapid - Alessandro's requirements

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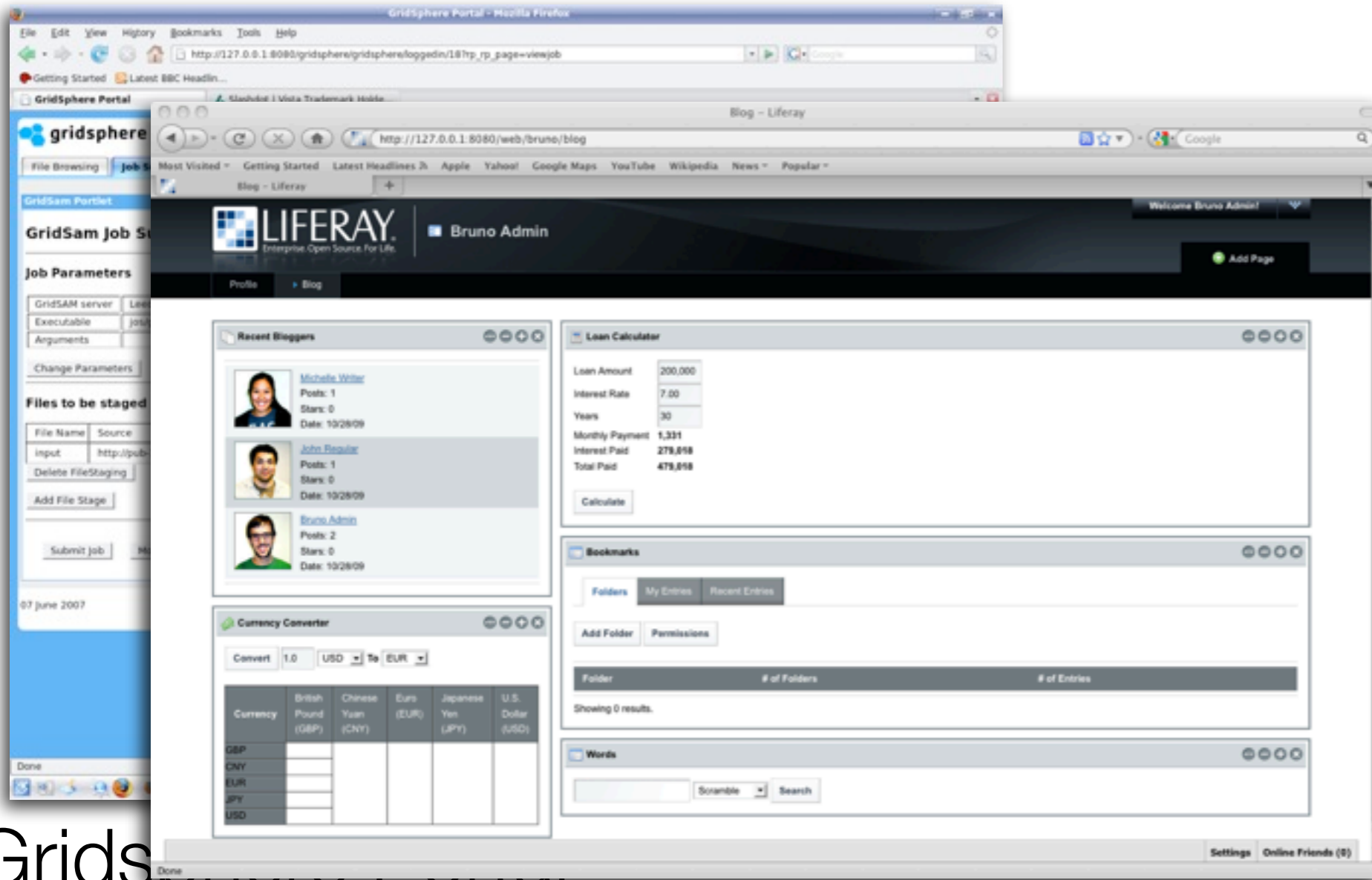
- Support for more Portal Containers

# Enhancing Rapid - Alessandro's requirements



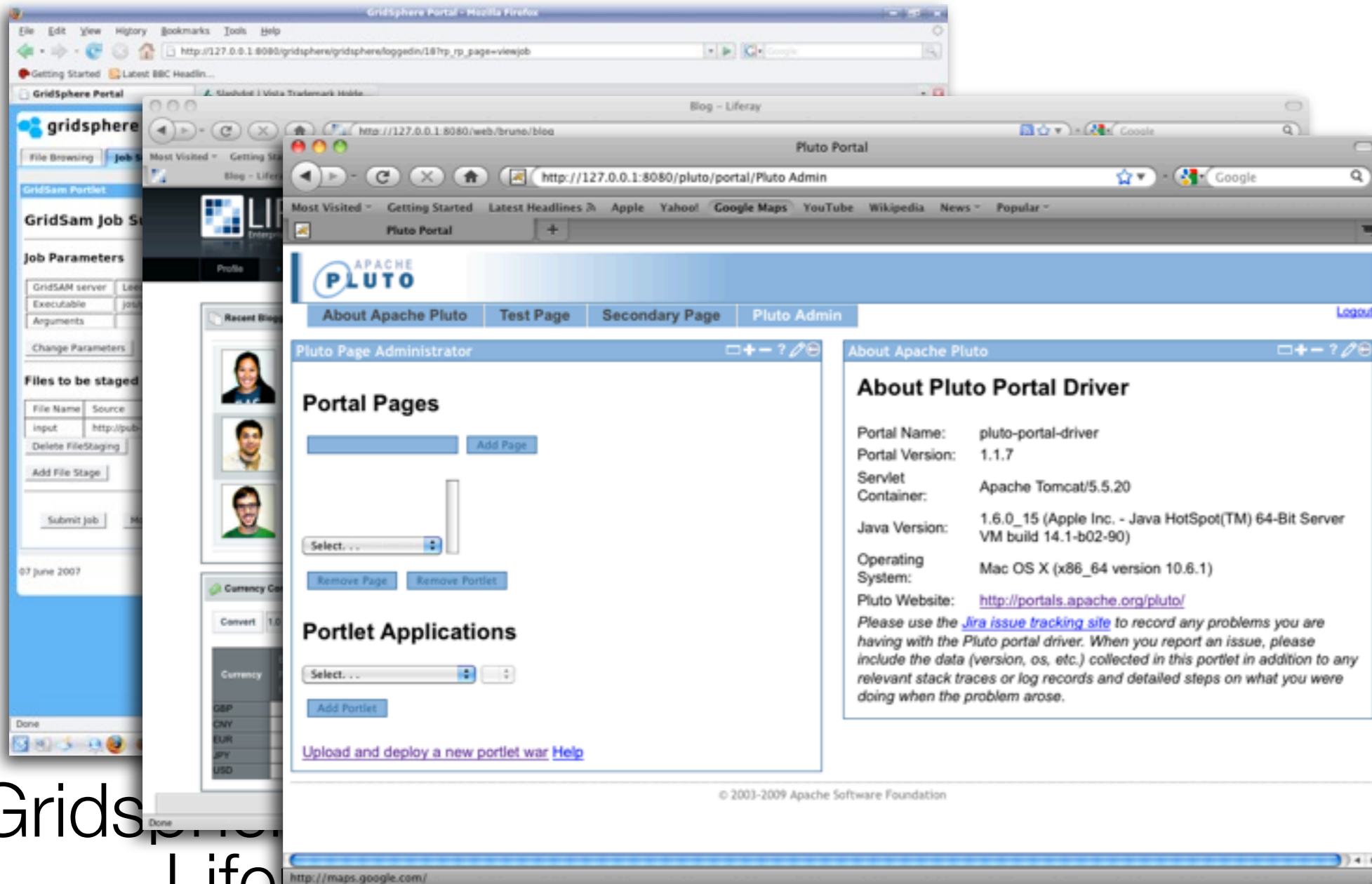
Gridsphere Portal

# Enhancing Rapid - Alessandro's requirements



Gridsphere Portal  
Liferay Portal

# Enhancing Rapid - Alessandro's requirements



Gridsphere  
Liferay Portal  
Apache Pluto