Diamond House and some new users

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Submit Proposal

Diamond Online Proposal System - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://duo.diamond.ac.uk/proposal/

Getting Started Latest Headlines Blogging Roller

Disable Cookies CSS Forms Images Information Miscellaneous Outline Resize Tools View Source

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Home | Proposals | My Details | Information | Contact Us

Please click here to sign in

Manage My Account

- Create New Account
- Login

email address bill.pulford@diamond.ac.uk

password *********

Login

- Forgot Password?
- Changed e-mail address?

Proposals

The Diamond proposal call for Allocation Period 5 (April 2009 - September 2009) is now open. Please submit all proposals before midnight on 1st October.

Proposals not submitted by this deadline will be included in the AP6 call which is for the period October 2009 - March 2010.

Please note that an alternative way to input samples has been implemented and this is particularly relevant to users submitting more than 3 samples. Please refer to the Instructions for more details.

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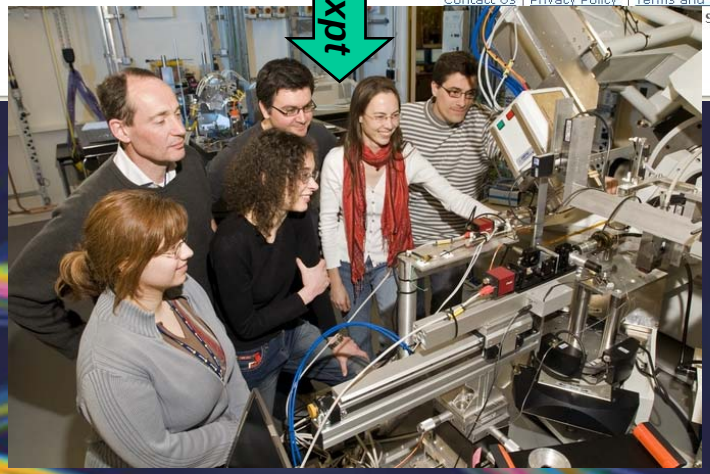
Do Expt



Results

Getting Started Latest Headlines Blogging Roller

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Search Results Data Links Log out

Main
Basic Search
My Data Search
Data Links
User
Documentation

My Data

User: Bill Pulford
Expire time: 23:22 PM 26.10.2007

DIAMOND (15)

Basic Search | Preferences

Search: DIAMOND

Keyword(s): sp 9

Type: AND OR

Exact Like

Search

Investigations

Name	Visit Id	Beamline	Abstract	Facility
Q	MX19-1	i04		DIAMOND
Q	MX19-3	i04 1		DIAMOND
Q	MX19-2	i04 1		DIAMOND
Q	MX19-4	i03		DIAMOND
Q	MX19-6	i02		DIAMOND
Q	MX19-5	i02		DIAMOND
Structural studies of antibodies, receptors, enzymes and DNA-binding proteins	MX76-1	i04		DIAMOND
User Office	SI177-3	i06		DIAMOND
cornflakes	SP9-6	i18		DIAMOND
cornflakes	SP9-1	i18		DIAMOND
cornflakes	SP9-4	i07		DIAMOND
cornflakes	SP9-5	i07		DIAMOND
cornflakes	SP9-3	i04 1		DIAMOND
dd				DIAMOND
test5				DIAMOND

> Help

High Performance Computing

Data Storage

Local Cluster

Data Visualization Portals and Facility Interfaces

© 2007 Powered by Sci-Tech Data Portal

Feedback

Data Analysis

Authenticated and Authorized User

Data Analysis

Excited

Automation Software

Beamline Control with GDA

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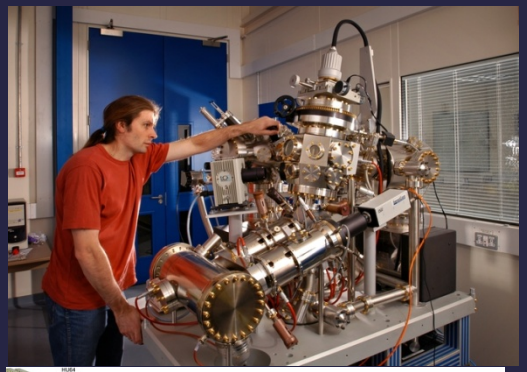
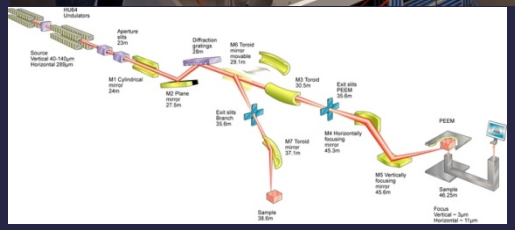
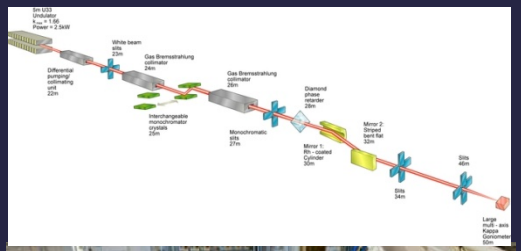
Diversity of Beamlines (some examples)

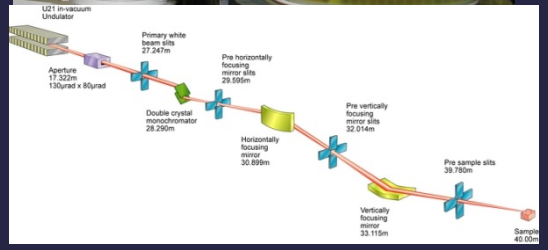




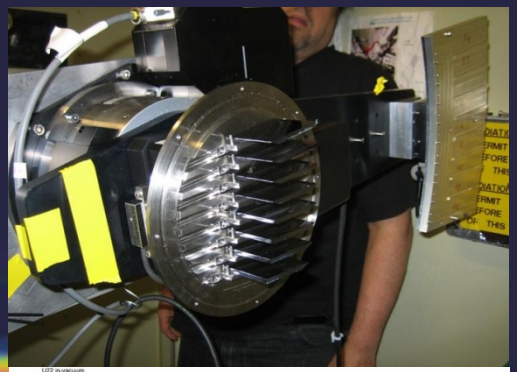
I06 Nano-structures

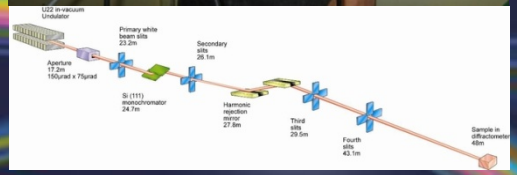


I16 Materials and Magnetism

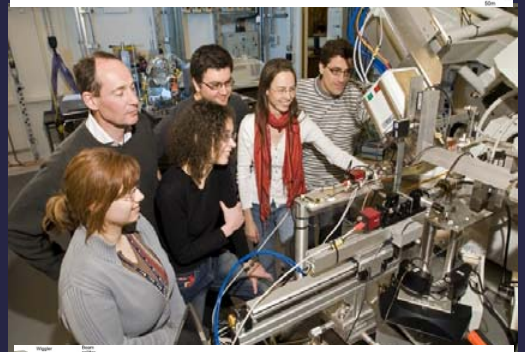


I03 Macro Molecular Crystallography





I11 Powder Diffraction



I15 Extreme Conditions

All have common underlying JAVA software using Corba

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Diamond Overall Requirements

1) Users are uniquely identified and should need to log in once only for all aspects of the experiment.
2) Users can move from beamline to beamline as easily as possible so a common scripting environment is necessary
3) Remote access including role based access control.
4) Data migration is automatic from beamlines to externally accessible repository.
5) Data evaluation and reduction as close to online as possible.
6) Integration of data reduction and analysis workflows.
7) Metadata in files sufficient for data analysis
8) Ability to perform science specific analysis/acquisition
9) Seamless access to remote large computing resources.
10) Continuous Integration and User Acceptance Testing

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Single Sign On

1. The aim of this project was to provide a mechanism for uniquely identifying users of UK large scientific facilities irrespective of their method of access.
2. All users of the major facilities will need only one username/password combination to access any of the facilities.
3. These credentials or an automatically generated certificate or token will allow access to any computing technology given the correct authorization.
4. The authorization will be performed locally by the facility involved based on the single unique identifier derived from 1-3.
5. Normally we use either CAS (Originally Yale – now JASIG) or myProxy to perform user authenication - ***http://www.ja-sig.org/products/cas/index.html***
6. A Java Web service filter uses authenticated user name with Actve Directory and/or local ldap to determine the user's roles.
7. Partners: STFC, e-Science, SRS, ISIS, Diamond

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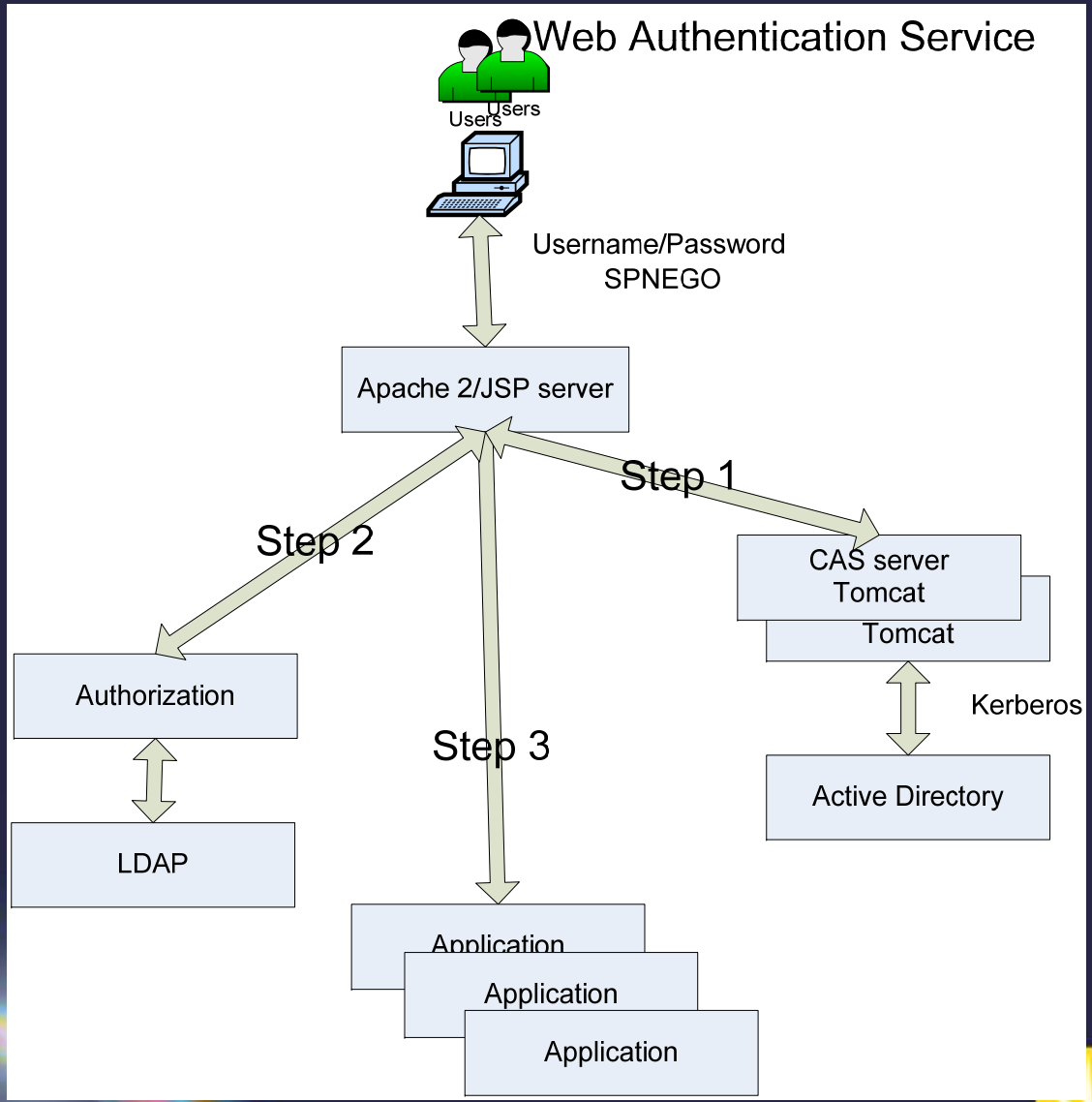
Web Site Implementation CAS



Data Analysis Framework

The central concept is allow data processing to proceed in a series of discrete steps with decision process being possible between each. Typically the overview of this data processing pipeline would be a UML modelling diagram or ,more commonly, a flow diagram. The advantages of separating the data analysis into discrete sequences of steps:

1. The processing programs themselves may be step based
2. The programs may be available in binary only for a particular computer architecture
3. The programs may be distributed over different machines particularly should their processing requirements be large.
4. Assuming that Single Sign On (SSO) is functioning it should be practical to perform this processing distribution to GRID resources such as SCARF or HPCX and avoid the necessity to enter authentication at every step.
5. It is possible to use the decision process to proscribe different processing branches depending on the results of a particular sequence step.
6. Automate potentially large numbers of processing steps to be performed without user intervention.

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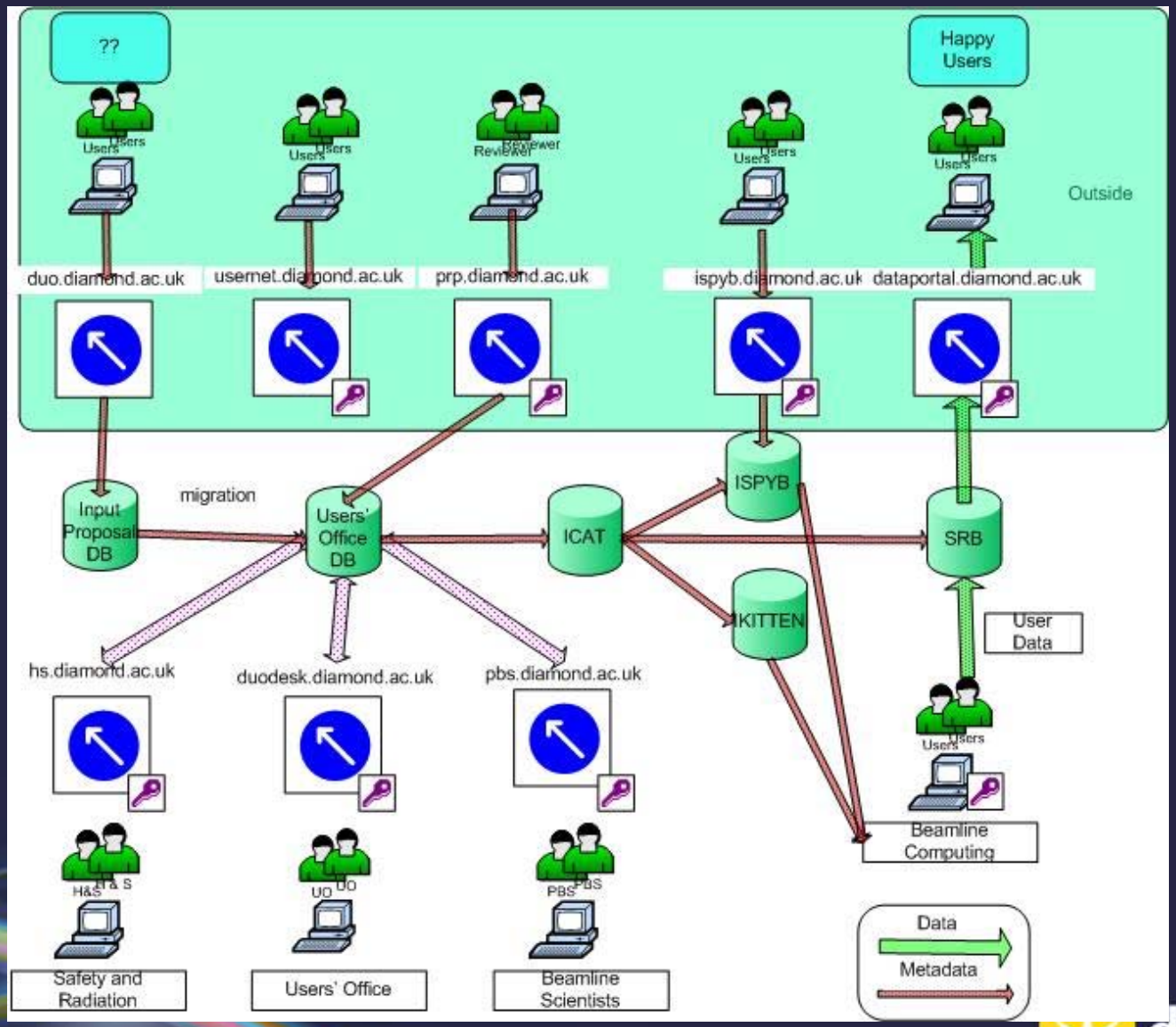
Current Position



Experimental Data Flow