



PaN-data ODI

Deliverable D2.1 Project website

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Abstract

The PaN-data ODI website has been developed as part of the overall PaN-data website, but focussed specifically on the activities of the present EC-funded project. It includes material such as documents under development and records of meetings. There is also a private area for material internal to the project consortium.

Keyword list

PaN-data ODI, Knowledge exchange, Dissemination, Publicity, Website.

Document approval

Approved for submission to EC by all partners on 21.08.2013

Revision history

Issue	Author(s)	Date	Description
1.0	Frank Schlünzen	31 Dec 2011	Complete version for approval
2.0	Frank Schlünzen	21 Aug 2013	Revised version

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1 Introduction and principles

The construction of a website for PaN-data ODI is part of Work Package 2, "Engagement (Knowledge Exchange and Dissemination)". It was the first task of this WP, running from the start of the project to month 1. This deliverable is a formal report on the existence of the website.

The PaN-data initiative, as a collaboration of European research infrastructures, already had a public website and it was logical to incorporate the PaN-data ODI, specific to the present project, into this website. The site was originally based on a MediaWiki with private and public areas. The web-site has been moved to a Drupal based system. The Drupal system offers an easy integration of social networks and publishing of news.

The address of the website is http://www.pan-data.eu. It is hosted by STFC. The remainder of this report gives some screenshots to illustrate different areas of the website.

2 Screenshots of the website

2.1 The general PaN-data website

This is the front page for the PaN-data collaboration. The web site contains for references also some general contents, but is actually a PaNdata ODI only page. Newest PaNdata tweets are published on the page as well. Content is being continuously added and are hence always work in progress.





Next PaNdata ICAT workshop 10.09.2013 in Barcelona.

The next PaNdata ICAT workshop will take place at ALBA In conjunction with the PaNdata ODI meeting, as well as an Umbrella implementation workshop. More details to be announced soon.

Photon and Neutron Data Infrastructure

Latest News

- edugain umbrella bridging: GN3+ has recently decided to work with PaNdata and CRISP on bridging between Umbrella and edugain services, more
- Web refurbished: we are currently reorganizing the PaNdata web site.
- Tweet: latest news and events are also available on twitter as PaN_data
- Technical forum: colleagues from the US namely SLAC initiated an Open Technical Forum on Computing for Light and Neutron sources. PaNdata is actively supporting and participating in the efforts to establish a vivid forum covering a broad range of computing issues.
- Harmonization meeting: The series of so called Harmonization meetings provide a strategic platform to promote and coordinate the development and implementation of the PaNdata identity management system. The next meeting will take place at the Helmholtz-Zentrum Berlin (HZB) on the 26-27th of June.

Welcom to PaNdata

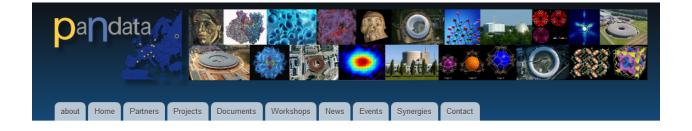
PANdata brings together thirteen major world class European research infrastructures to create a fully integrated, pan-European, information infrastructure supporting the scientific process. PaNdata has recently concluded the FP7 supported project named PaNdata Europe strategic working group. PaNdata Europe, a pure support action, has developed a policy framework and laid the basic foundation for a sustainable data infrastructure. PaNdata Open Data Infrastructure (PaNdata ODI), the current FP7 supported projected that started November 2011, will take up these developments to create a federated open data infrastructure, seamlessly integrating the existing user and data management systems of the European photon and neutron facilities.



Read more

2.2 The PaN-data ODI workpackages

The PaN-data ODI workpackages page contains a brief description of the tasks and references contacts as well as well deliverables. All documents become immediately publicly accessible.

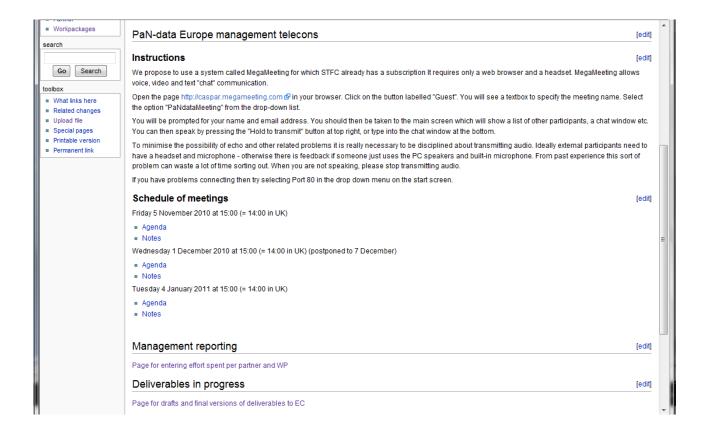


PaNdata ODI work packages

Workpackage 1	Management		
Lead	STFC		
Contact	Denise Small, STFC/RAL, denise.small_at_\footnote{\text{tfc.ac.uk}}		
Objectives	 To establish an effective and efficient collaboration between the partners delivering added value to each participant through shared networking, service, and research activities. To ensure that the project achieves its objectives with the agreed budget and time scales and to the required quality. To report to the Commission as required 		
Workpackage 2	Engagement and Dissemination		
Lead	DESY		
Contact	Frank Schluenzen, DESY, frank.schluenzen_at_desy.de		
Objectives	• Engagement with other initiatives and dissemination of project results, in particular to other research infrastructures.		
Deliverables	 D2.1 - Project Website D2.2 - Dissemination & Engagement Report on dissemination and engagement activities for the 1st year 		
Workpackage 3	User Catalogue and AAA Service		
Lead	PSI		
Contact	Heinz J. Weyer, PSI, heinz-josef.weyer_at_psi.ch		
Objectives	To deploy, operate and evaluate a system for pan-European user identification across the participating facilities and implement common processes for the joint maintenance of that system.		
Deliverables	 D3.1 - Specification of AAA Infrastructure D3.2 - Pilot Deployment of initial AAI service infrastructure 		

2.3 The private area

The private area is used for exchange of internal material. It's still hosted on the media wiki, but not used anymore since all documents are open.



2.4 Individual section

Services

Developments

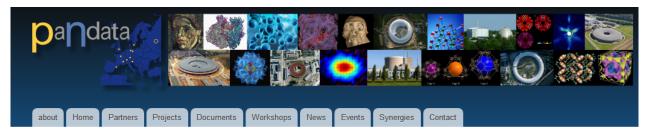
HDF5 and NeXus
Contact

Data management
ICAT and TopCat
Software catalogue
Virtual lab VL3: tomography
Event calendar

Developments
For users
Contact
News
News
News
Mantid
Resources
UmbrellaID
Resources

The original layout made an insufficient separation between user related contents and purely project related topics. To make these more transparent, sections describing services and development and sections for users have been a bit more split up, though some users are actually much more interested in developments than in services or infrastructure descriptions.

Each important service or software package is linked on each of the sites and briefly described on a separate page. Some closely related developments for example in case of NeXus/HDF5 developments are combined. The pages provide references and links to documentation as well to entries in the PaNdata software catalogue in case of developments. All PaNdata developments are open source.



Home

NeXus/HDF5 developments

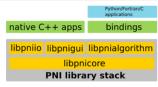
NeXus is a common data format for neutron, x-ray and muon science. NeXus is developed as an international standard by scientists and programmers representing major scientific facilities in Europe, Asia, Australia, and North America in order to facilitate greater cooperation in the analysis and visualization of neutron, x-ray, and muon data. NeXus itself builds on top of HDF5, which is by itself a widely adopted, standardized data format and has been proposed by the European Commission as an ISO standard for all binary data. Hence, any NeXus file is a fully valid HDF5 file, which can be read by a large number of applications without any further modification.

PaNdata ODI developments

In addition, two open source software packages have been developed in collaboration with the PNI-HDRI project and with support by the FP7/EU funding of PaNdata ODI, namely a complete re-rewrite of NeXus API in C++ and a NeXus data collector, which interfaces between instrument controls and the NeXus libraries, to automatically aggregate all relevant information into NeXus files.

The NeXus PNI libraries

The PNI libraries are a stack of related C++ libraries developed with the intention to simplify the development of scientific software in the field of Photon-, Neutron, and Ion-scattering. The development started within the High Data Rate Initiative (HDRI) at DESY and is a joint project of PNI-HDRI and PaNdata. Originally only a strictly object oriented API for the Nexus file format should have been developed. Due to high performance requirements the API should have been implemented in C++. However, shortly after the development begun it turned out that the major



problem with C++ was not the Nexus API but rather the fact that C++ provides no data structures required for writing scientific software. In particular the missing array types for numerical calculations turned out the become a serious problem. Additionally working with raw pointers would make the resulting code error prone and susceptible to all kinds of memory issues (in particular memory leaks). Thus a utility library was developed providing all kinds of missing data types and structures. This library recently became the core of the PNI library stack.