

DarkSide UK Twiki and Grid Usage

Elizabeth 15.04.2024

Twiki: <https://foswiki.web.cern.ch/DarkSideUK/>

The screenshot shows the public website interface. At the top, there is a navigation bar with 'Main', 'My Profile', 'DarkSideUK', and 'Webs'. Below this, a breadcrumb trail reads 'You are here: Foswiki > DarkSideUK Web > WebHome'. The main heading is 'Welcome to the DarkSide-UK public website'. The content area contains two paragraphs of introductory text and a row of five images: a 3D model of the detector, a silicon sensor, a circuit board, a person working in a lab, and a graph. Below the images are two columns of links. The left column includes 'Information on the DarkSide-UK project', 'Silicon Photosensor production', 'Sensor Characterisation', 'Physics Sensitivity Studies', and 'Graduate Theses'. The right column includes 'Dark matter and direct dark matter detection: information for the public', 'Data Acquisition', 'Software', 'Institutions', and 'Project'. A red box highlights a link in the left column: '>> DarkSide-UK Collaboration website /'. Below the main content, there is a secondary navigation bar with 'DarkSideUK/Private' and 'Webs'. This leads to a 'protected area' page with the heading 'Welcome to the DarkSide-UK Collaboration-protected area!'. This page has two sections: 'Available Information' with links to 'GettingStarted', 'DarkSideSoftware', 'PhysicsSensitivityStudies', 'DarkSide Grid Computing', and 'vPDU Testing Information'; and 'DarkSideUK/Private Web Utilities' with links to 'WebTopicList', 'WebChanges', 'WebNotify', 'WebRss', 'WebAtom', 'WebStatistics', and 'WebPreferences'.

User access

1. Twiki account registration: <https://foswiki.org/System/UserRegistration> (use the cern or cern guest account email you use for the DSUK agenda indico page)
2. Join DarkSideUK group - message me your username from cern account login: <https://account.cern.ch/account/>

Adding Content

Need help populating the different sections. *Any suggestions for other sections?*

Section	Details	People
Getting Started	Accounts, mailing lists, key meetings, who's whos (people in UK and who to contact)	
DarkSide Software	Git, pyreco, sensitivity, any other common tools	
Physics Sensitivity Studies	List of topics and people, page for each topic/model	
Grid Computing	Setup, using file catalog and job submission	Elizabeth, Angus
vPDU Testing Info.	Acquisition settings, links to data logs, procedure documents (e.g. dust monitoring)	Daria, Angus

Grid

Recap:

- GridPP - centralised data storage on storage elements distributed across sites, accessed as a single resource
- We currently have **5TB**
- **Dirac**: middleware to access GridPP resources - pilot based job submission system and **data management services**.
- **Access**: requires grid certificate and membership of a virtual organisation

Documentation: <https://foswiki.web.cern.ch/DarkSideUK/Private/DarkSideGrid>

Dirac File Catalog

Dirac has a file catalog which can be browsed using CLI or web interface, or submit queries using python API. Documentation:

<https://dirac.readthedocs.io/en/latest/AdministratorGuide/Systems/DataManagement/dfc.html>

Metadata stored as key:value pairs can be assigned to data and is useful for searching the file catalog. Documentation:

<https://dirac.readthedocs.io/en/latest/UserGuide/HowTo/DataManagement/metadata.html>

File catalogue structure:

/vo.northgrid.ac.uk/darkside/veto/

- vtile_cold_test/raw/vPDUx/...
- vtile_cold_test/reconstructed/vPDUx/...
- vpdu_cold_test/raw/vPDUx/site/...
- vpdu_cold_test/reconstructed/vPDUx/site/...

Dirac File Catalogue Tools

Git: https://gitlab.in2p3.fr/darkside/veto_passport/-/tree/main/GridTools

Contains example scripts to:

- setup the dirac user interface and proxy - so you can use the grid
- upload data and move/rename (if a mistake is made)
- assign metadata and query the DFC based on metadata field

Happy to help develop specific scripts for given test site.