

Open Data Interface
ESTEC/RFQ 3-12487/08/NL/AT

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Peter Wintoft and Lars Eliasson
Swedish Institute of Space Physics

and

Daniel Heynderickx

DH Consultancy



DCI

The goal of the project is to

- create an SQL database and interfaces to form a common data platform to the three systems
 - SAAPS,
 - SEDAT, and
 - SPENVIS.
- and populate the database with data that are used by the three systems.

ODI web site

A web site has been set up where general information about the project can be found:

<http://www.lund.irf.se/odi/>

The web page also contain a link to internal information.

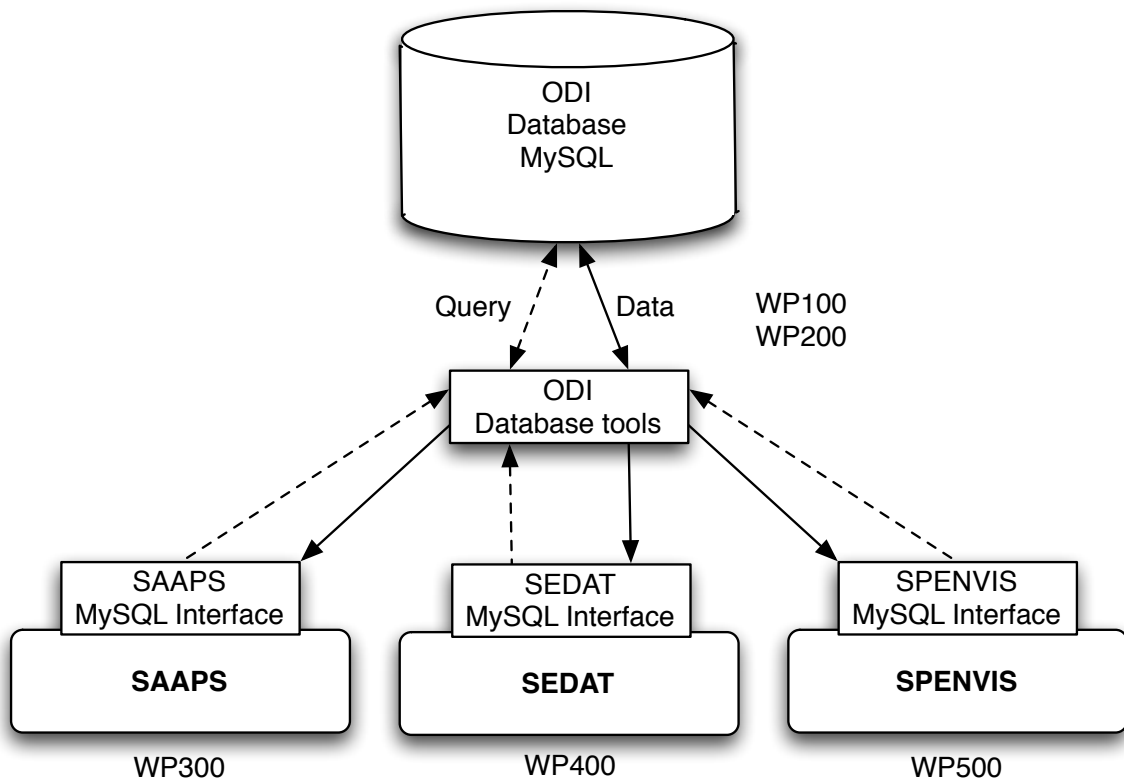
User: odi

Password: rakki

Scope

- The project involves
 - The Swedish Institute of Space Physics (IRF) as Contractor and
 - D H Consultancy (DHC) as Subcontractor.
- The project will run for one year:
 - Major development during first 6 months;
 - Maintenance during final 6 months.

System overview



Work to be carried out

WP 100: Database

- Identify and agree on data sets that shall enter the ODI database.
- Define structure of data and meta-data.
- Set up a MySQL server with appropriate accounts.
- Implement an interface to access and manipulate the database.
- Create tables to hold identified data and meta-data.

Work to be carried out (cont.)

WP 200: Data

- Identify data sources of the data that shall enter the database.
- Identify the meta-data.
- Write code to automatically collect and store data into the database.
- Store data and meta-data into the database.

Work to be carried out (cont.)

WP 300: SAAPS interface

- Identify routines in SAAPS that access the SAAPS database.
- Define changes of SAAPS to access the ODI database.
- Write code with SAAPS/ODI routines.
- Implement code.

Work to be carried out (cont.)

WP 400: SEDAT interface

- Identify routines in SEDAT that access the SEDAT database.
- Define changes of SEDAT to access the ODI database.
- Write code with SEDAT/ODI routines.
- Implement code.

Work to be carried out (cont.)

WP 500: SPENVIS interface

- Identify routines in SPENVIS that access the SPENVIS database.
- Define changes of SPENVIS to access the ODI database.
- Write code with SPENVIS/ODI routines.
- Implement code.

Work to be carried out (cont.)

WP 600: Maintenance and support

- Verify that the ODI database is functioning by logging on to the system once per week.
- Verify that the ODI data are up to date once per week.
- Verify that SAAPS/ODI is functioning once per week.
- Verify that SEDAT/ODI is functioning once per week.
- Verify that SPENVIS/ODI is functioning once per week.
- Solve issues encountered above.

Clarification #1

In WP100, page 16, of the technical proposal a number of software requirements are listed that should be met by ESTEC.

These are not required to be fulfilled at kick-off.

However, they are required the first time the system shall be installed at ESTEC.

Clarification #2: Standardised interface definition

- To manipulate a SQL database a set of standard queries are sent to the server.
- IDL/Java/PHP/Perl access a SQL database via standard extensions. To manipulate the database a SQL query is composed as a string and sent to the server.
- SAAPS(Java)/ SEDAT(IDL)/ SPENVIS(PHP) will only have read access to the database. The Java/IDL/PHP interfaces for reading data and metadata shall therefore support the functionality of SAAPS/SEDAT/SPENVIS.
- The interface to store and update the data and metadata need only to be implemented in one language, preferably PHP.

Clarification #3: Relation to the SEPTEM project

- The Solar Energetic Particle Environment Modelling (SEPTEM) project relies also on a MySQL database. This makes any future database collaboration between SEPTEM and ODI straightforward.
- A meeting between the ODI and SEPTEM teams could be arranged to discuss database models and database contents. The meeting must be agreed by all parties (ESA/IRF/ BIRA).

Clarification #4: Section 5.7.2 “Addition of new data sets”

- There will be no general purpose utility implemented for the inclusion of new data sets. Different sources of data have their specific formatting which means that specific parsing routines need to be developed. However, a utility like phpMyAdmin may be used following any parsing.
- Software shall be developed that adds the data and metadata, described in the proposal, to the database. This software may be used as a template to develop code for the addition of new data sets.
- A CDF2ODI (not CDF2SQL) utility shall be developed so that CDF data can be imported to the ODI database.

Clarification #5: Management

WP700 shall also contain the Management tasks.