

**TOC**

**Why?** ..... **2**

**How?** ..... **2**

**Other pages:**

- [Access](#)
- [Codes](#)
- [Download](#)
- [Javadocs](#)
- [License](#)

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**Why?**

Each EURATOM association stores data using proprietary schemes, usually developed by the research unit or using third party software. Data access by users outside the association always require the installation of software developed by the association or to learn specific data access techniques.

The temporary exchange of researchers between laboratories is a common practice nowadays. When the scientist returns to the home laboratory, usually there is the need to continue to follow the work started in the foreign country.

Plurality always means more options and quality, it is important that associations continue to try different data storage systems and share their results. The down side of this question is that the end-users, normally researchers, have to adapt themselves to the associations data storage realities and, if it exists, the remote data access system.

To solve these problems a common software layer between end-users and laboratories must exist, in order to allow an easy and unified data access to any of the participating associations data.

**How?**

Through well known and easy to implement technologies like XML-RPC.

The three main components of the system are:

- the association's XML-RPC data access server;
- the libraries that allow the interaction with the server;
- the security system.

Each association has to develop their own integration software between the server and the storage system. The libraries allow data retrieving using the same methods for all associations.

Users are authenticated through the PAPI system (<http://papi.rediris.es>), allowing each organization to use its own authentication schema. When a user tries to access a resource in an association he doesn't belong to, PAPI will query the user's home association about the provided credentials.