

## A Standard Data Access Layer for Fusion Devices

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Each EURATOM association stores data using proprietary schemes, usually developed by the research unit or using third party software. The temporary exchange of researchers between laboratories is a common practice nowadays. When the researchers returns to the home laboratory, usually there is the need to continue to follow the work started in the foreign country. The quantity of available data has also become enormous and the principal data index is changing from the shot number to time and events, where the shot number is just one of the most relevant.

To solve these problems a common software layer between end-users and laboratories must exist. The components needed to create this software abstraction layer, between users and laboratories data, have already been developed using an universal and well known remote procedure call standard based on XML: XML-RPC.

The library allows 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.

Presently there are libraries and server implementations in Java and C++. These libraries have been included and tested in some of the most common data analysis programs like MatLab and IDL. The system is already being used in ISTTOK/PT and CASTOR/CZ.