

# The Technology of Creation of Digital Publications within the Framework of the Project ”JINR Library Internet-Center”

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## Abstract

JINR Library Internet-center is called to troubleshoot integrations and supports of transparent access to various information resources JINR and to global digital library- information resources for potential users. It, first of all, employees of physical and other scientific centres, universities of Russia, the countries-participants JINR, scientific and technical libraries, and also all world community by means of the WWW - servers. Prospective number of users - some thousands persons. Within the framework of the given project development and implementation of the Web-oriented accessor to various structured (traditional databases) and unstructured (digital collections) to the data of information space JINR and outside of it, and also the analysis and processing of the obtained information is provided.

”JINR Library Internet-center” is called to solve the following tasks:

- to provide access to the scientific literature (including Russian-language) in nuclear physics and adjacent areas for the scientists from countries - participants JINR;
- to provide access of employees JINR to global digital library-information resources both through the network the INTERNET and through the network of local mirror servers;
- to provide local access of users to the multimedia information on directions of activity JINR and education programs;
- to create possibility for realization a direct teleconferences and videoconferences and remote training;
- to provide information support at realization of scientific forums in JINR (conferences, workshops, academic councils etc.).

One of effective paths of solution of the designated problems is creation of a uniform access mechanism to internal and external resources as an information portal. The concept of information portal JINR provides implementation of the following functions.

1. Integration of applications and the data.
2. Data categorization.
3. Data ordering for realization of convenient navigating on information resources. Automized categorization procedures of results of individual search.
4. Entirety and relevance of search. Implementation of effective search mechanisms on the every possible data sources (structured, unstructured, metadata), review of all resources which can include the required data, a rating of reliability of the obtained answer.

The data sources - bibliographic and factographic databases (ORACLE, ACCESS, DBASE), electronic collections (HTML, TEX, PDF, TIFF). Size of the data - about 50 GB, annual increase - 2,5-3 GB.

Structured given (bibliographic records, topical plan for JINR research and international cooperation, the data on experimental facilities, research centres etc.) are stored in databases under the control of DBMS ORACLE and D3.

The unstructured data are stored as digital collections on the server of JINR scientific- technical library, the server of publications of JINR publishing department and on other JINR Web-servers.

Within the framework of the given project the server of digital publications of JINR employees ([atlas2.jinr.ru](http://atlas2.jinr.ru)) on which preprint JINR E6-2001-35 by size of 22 pages and the atlas of hardware spectra of radionuclides radiations which contains 1200 figures in JPG format represented in electronic sort is created. The atlas with such set of spectra is published for the first time and published only in digital form. The given electronic publication is prepared in HTML format and supplied with convenient user interface. Now the given server is in a beta test. At the same time we carry out researches of efficiency of various forms of representation of digital publications. Besides the problem of protection of publications on the server from violations of copyrights is solved.