

Software for Holding Scientific Conferences, Schools and Workshops

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Present day reality of scientific research particularly in nuclear and high energy physics, is impossible to conceive without modern technologies and tools of information support and project planning which is mostly based on portal technologies. Portal technology is a key performance technology for all modern investigation projects because of the large scale and world wide nature of the most scientific and especially experimental collaborations in nuclear and particle physics. Joint Institute for Nuclear Research realizes a great amount of international experiments participating in many international collaborations, so it is very important to design and develop comprehensive distributed facilities based on web-portal technologies for information support, investigation planning etc. both for internal JINR needs and for using external JINR collaborations [1,2,3].

Design, development and support of special and general-purpose web-servers based on modern portal service-oriented technologies for JINR needs is one of the most important task of LIT sector of distributed information system and databases. In more detail, the task is to design and develop specific software based on client-server technology that would provide information support for and management of scientific conferences, schools, workshops, etc. Using of this software does not require special Internet technology knowledge or skills.

This software includes the following parts:

- A specific database;
- A set of adjustable web-interfaces that enable:
 - online participant registration;
 - initial abstract submission and upload of presentation files of various formats;
 - web-site structure (dynamic creation of sections and subsections) and its files management, keeping the news bulletins;
 - forming mailing lists and setting up e-mail distribution service;
 - extracting and sorting information on participants and their papers;
 - providing access of different level for work with database (for the web-site administrator and members of organizing committee).

Online participant registration

Application form is formed dynamically by the web-site administrator on the base of application form sample that is provided in the administrator interface (fig.1). Unnecessary positions can be removed; necessary ones can be added. The positions can get a status of obligatory filling-in. Filling-in of these positions is automatically checked by software.

When the application form is signed up, the web-site administrator as well as the participant receives an e-mail notification about a new participant. The e-mail contains an outline of the information provided by the participant. All the information including an abstract is automatically uploaded to the database.

Title

First Name

Last Name

Citizenship

City

Postal Code

State/Province

Country

Organization (CERN, JINR, ICTP)

Telephone

E-Mail

please, give only one e-mail

Report: Yes: No:

Poster:

Oral: 15 min: 30 min:

Abstract:

Fig. 1: Screenshot of Application form

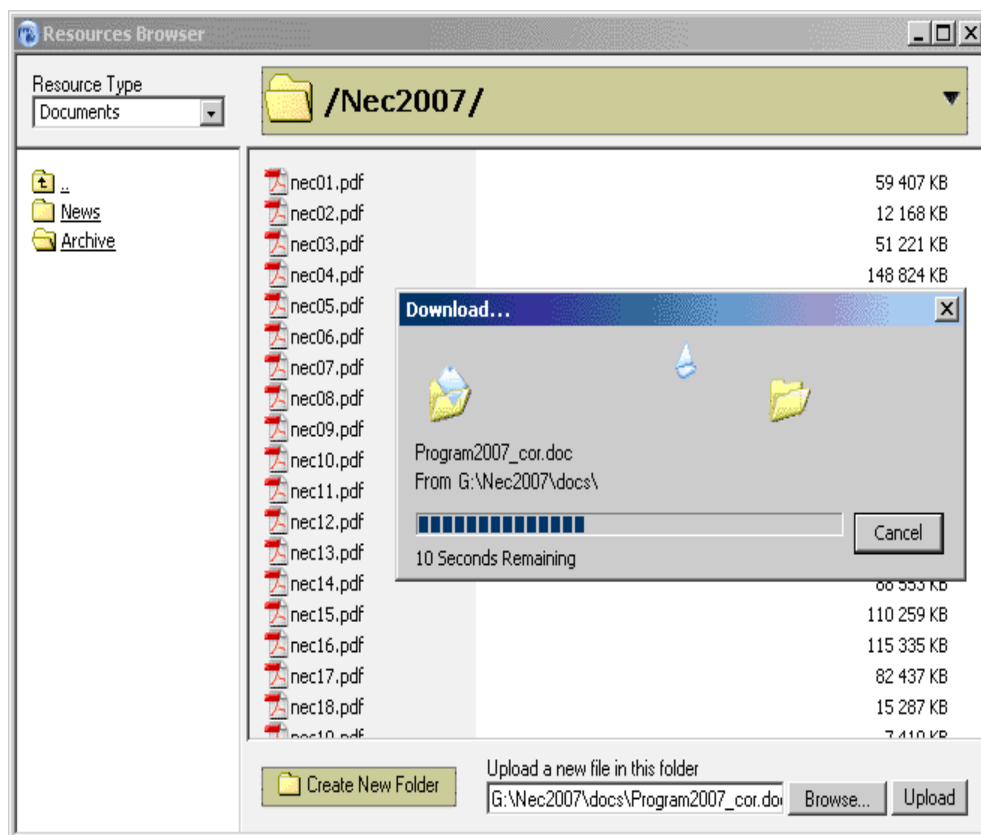


Fig. 2: Screenshot of File upload window

File upload to the site

For site publication of participants' papers and presentations as well as other documents of various formats the software supports a possibility to unload files to the site (fig.2). On default only the site administrator and members of the organizing committee have access to the file upload interface. Still if necessary, access can be opened to all signed-up participants. The interface allows review/editing of uploaded file catalogue as well as deleting some of them. Each of the uploaded files is associated either with the participant who uploaded it or with the site section where it was placed.

Web-site structure management

CMS (Content Manage System) is integrated into the site (fig.3). It enables management of the web-site structure and context. There is a possibility not only to build up the site structure as a whole (add pages/sections) but also work with the content of each page separately.

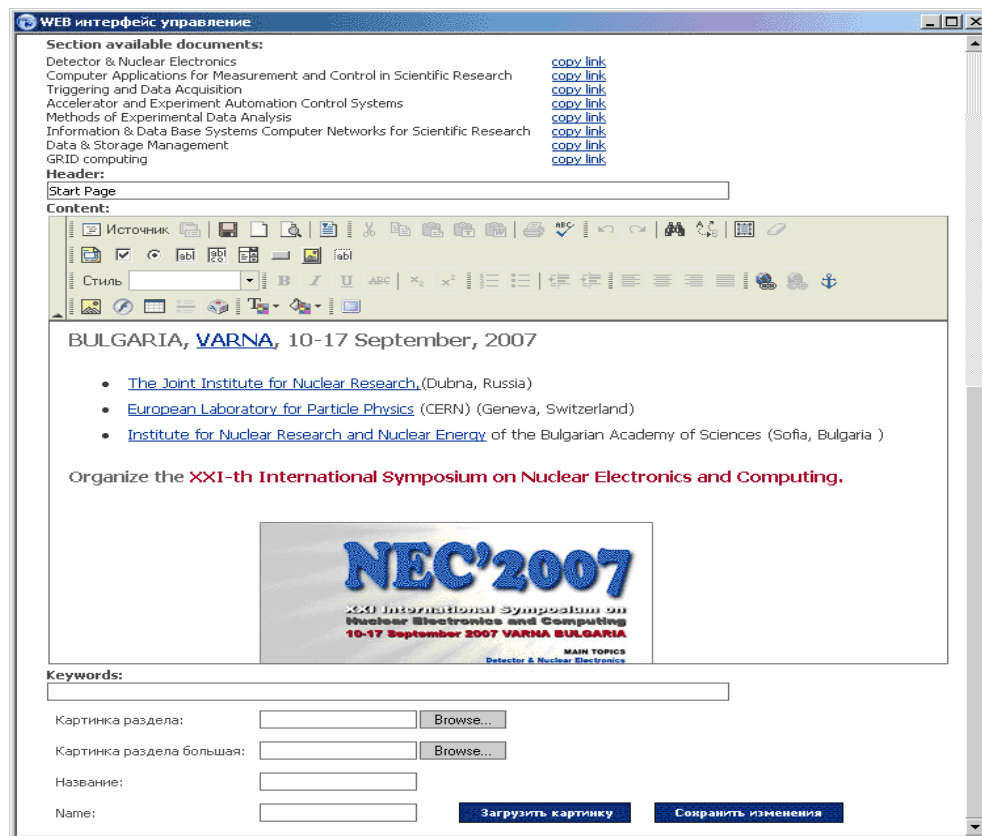


Fig. 3: Screenshot of Content Manage System

User-friendly interface is analogous to the ones of MS Office. It enables easy content handling of already existed pages as well as filling in new site pages. The offered CMS can partially interpret MS Office text formatting, bullets and numbering, tables, etc. This facilitates work for such administrators who don't have basic HTML skills. Still there is a possibility to edit HTML code for each page separately.

Also the provided CMS gives a possibility to review and operate hyperlinks to earlier uploaded to the site files.

In addition, there is a possibility to keep the news bulletins where the news of current and coming events can be published, e.g. first circular, opening date, registration deadline, etc. All the news announcements can be presented on specially provided place on the site (fig.4).

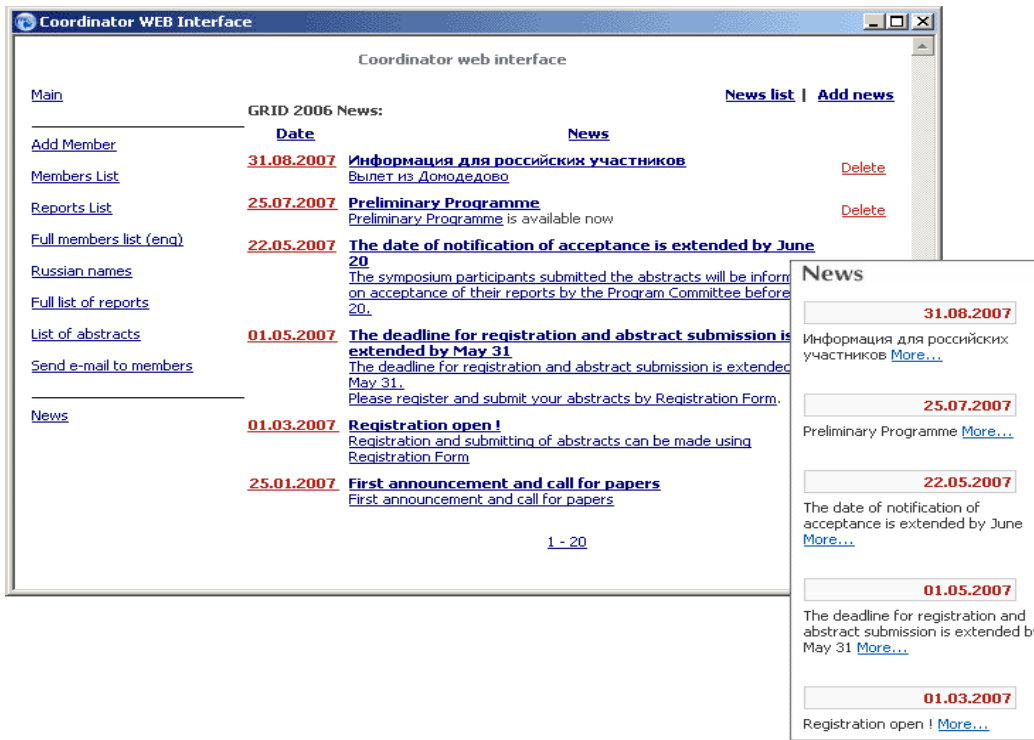


Fig. 4: Screenshot of news announcements page

Font style, size and color, text formatting can be set compulsorily based on the site design. This allows to follow the site stylistics developed by the designer.

E-Mail distribution service

As soon as first participants sign up, the web-site administrator and members of organizing committee get a possibility to distribute different information messages through e-mail or announcements of all the news published on the site will be automatically distributed to all the signed-up participants. Individual mailing lists can be formed, too.

Sorting information on participants and their papers

To facilitate the work of the organizing committee, there is a possibility to sort database information for various purposes (fig.5):

- Forming the list of the participants based on alphabet/e-mail/country/organization sorting;
- Forming the list of papers/posters based on titles/authors sorting.

Different level access to the database

The software enables giving different level access through the web-interface to the data and work with it. On default only the site administrator has the full access (reading/editing/deleting) to the site. All other site users have read-only access. Still there is a possibility to give administrator rights to separate users.

Used software

Realization of all listed above web-severs is based on and use the following commercial software:

- MS Windows Server 2003;
- MS SQL Server 2005 EE.



Fig. 5: Screenshot of Coordinator web interface

Conclusion

The following web sites were developed with using the technologies described in this paper [4]:

- <http://newuc.jinr.ru/> - site of the JINR University Centre;
- <http://nec2007.jinr.ru/> - site of the XXI International Symposium on Nuclear Electronics and Computing (NEC'2007);
- <http://grid2006.jinr.ru/> - site of the Second International Conference "Distributed Computing and Grid-technologies in Science and Education" (GRID'2006);
- <http://ichep06.jinr.ru/> - site of the XXXIII International Conference on High Energy Physics (ICHEP'06).

References

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- [2] Korenkov V.V., Nikonov E.G. Web-portal development for Grid system, Dubna, 2005, [http://lit.jinr.ru/ Inf_Bul3/ bullet.htm#_Toc98590861](http://lit.jinr.ru/Inf_Bul3/bullet.htm#_Toc98590861) (in Russian).
- [3] Belov S.D., Galaktionov V.V., Zhiltsov V.E., Zaikin N.S., Korenkov V.V., Kutovskij N.A., Mitsyn V.V., Nikonov E.G., Oleynik D.A., Pose V.D., Strizh T.A., Tikhonenko E.A., Tkachev I.M., Shabratova G.S., Participation in LCG/EGEE projects, Dubna, 2005, [http:// lit.jinr.ru /Reports/annual-report05/ lcg-40.pdf](http://lit.jinr.ru/Reports/annual-report05/lcg-40.pdf), p. 42.
- [4] <http://newuc.jinr.ru/> , <http://nec2007.jinr.ru/> , <http://grid2006.jinr.ru/> , <http://ichep06.jinr.ru/>