Systems for Compilation and User Services in JCPRG

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Compilation and user services are important activities of Nuclear Reaction Data Centres. For compilation, there are several software and systems developed in some Data Centres. Hokkaido University Nuclear Reaction Data Centre (JCPRG) has also developed some software, e.g. editor “HENDEL” and digitizer “GSYS”. In addition, JCPRG made a mail archive system, called as the “Stock” system, in order to share information of compilation and a website to open EXFOR entries, documents, software and systems. One of the systems for users is a data retrieval system. In this paper, we introduce the two systems, mail archive system and data retrieval system, respectively.

The mail archive system, naming “Stock”, has launched in 2004. The Stock consists of several applications, like a mail server (sendmail), a mailing list application (fml), a web server (httpd) and the “Stock” script, respectively. The system works as follows: 1) The mail server receives a mail. 2) The mailing list application distributes it to the defined mailing list and the “Stock” script. 3) The mail received by the “Stock” script is analyzed and delivered to the directory whose name is the entry number represented in the subject. 4) The web server makes it accessible on the web. Now over 30,000 mails are available in the “Stock” system through a browser, though the access is restricted by ID and password. Archived mails can be searched and retrieved with the help of keyword. The system is also available to ensure the provision of readily accessible answers to users' questions in future, as proposed in the Technical Meeting on “Long-term Needs for Nuclear Data Development”.[1]

Our data retrieval system of EXFOR consists of Perl scripts and the relational database management system MySQL. The EXFOR data in the MySQL database is updated monthly as follows: 1) Trans files are downloaded from the NDS open area. 2) The data in Trans files are converted into the CSV format. 3) The CSV data is registered into the MySQL database. Users can access the retrieval system using the internet and search EXFOR data.

In this paper, we introduce our two systems, mail archive system and data retrieval system. These two systems are useful for compilation and user services in JCPRG. We will develop these two systems to make more user-friendly in the future.

Reference

[1] A. Plompen, Summary Report of the Technical Meeting on Long-term Needs for Nuclear Data Development, INDC(NDS)-0601, (2012)