

## §8. Development of Internet Search System for Cooperative Scientific Archives Databases

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**Goals of the Project.** If the archival documents of NIFS-FSA can be accessed and studied together with the materials of various other scientific archives, the values of them must be greatly appreciated by researchers of not only fusion and physical science but also broader range of fields such as history and sociology. It has passed several years since the predecessor of this project was started as a collaborative research group, which aims at developing a combined cross-search system of archival documents from several archives of scientific establishments such as KEK and IMS, which are supporting research institutes of Sokendai, as well as cooperating and helping with each other to establish the installation of such archives to the institutes more firmly. Some activities of the project have been already reported in previous issues of NIFS Annual Reports.

Similar activities have been going on in parallel by a different group and context, supported by Grants-in-Aid for Scientific Research of JSPS, “*Study of Memorial Archives of Yukawa, Tomonaga, an Sakata and development of their archival description databases*”. Both are based on the internationally recognized archival description standards, EAD (Encoded Archival Description), and some members of them are common to both projects. However, in both cases the work to be done remained; practically working servers, platforms to provide services of searching for archival documents, must be prepared and offered to public.

**Test Server Preparation.** For the goals described above, two groups have been set up in the NIFS collaborative research and they can be viewed as a single

task in different approaches; one is to use a commercially available internet service platform for archival description and the other is based on a free and open source software. The latter is the activity reported by this article and the former will be described in a separate report. The adopted open source software is called *Archon*, which is recognized and recommended by SAA (Society of American Archivists) as a general purpose archival data handling software.

The system is based on standard free softwares running on Linux (or MS Windows) such as Apache, MySQL, PHP, and this allows the users to import the archival description data in several forms and methods like CSV plain text files, EAD with XML formatted text files as previously worked out by this project, and by typing in via user interface forms provided by the archon. Once data have been imported it provides browsing interface, some administrative tools and instructions to manipulate the data. Also customization of look-and-feel of the user interface is possible. It may accept data from multiple archives and many collections of them, allowing simultaneous search from all the archives by a single stroke. A sample browser screen of a collection from the Sakata Memorial Archival Library is demonstrated below and this is available at the URL: <http://yhal.yukawa.kyoto-u.ac.jp/archon/>.



**Status and Plan to Proceed.** To summarize current status of the projects and to discuss future tasks, a mini-workshop “*Standardization of Archival Description Databases and Practical Issues for Building Public Servers — from ISAD(G) and EAD to Archon and Infolib*” was held at NIFS in February 17, 2012. The projects will proceed to set up and polish publicly available servers with more data and better access environments.