

## Inter-Library Loan System for Greek Libraries

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**Keywords:** Union Journal Catalog proxy Z39.50 document delivery

Today, with the existing technology and the globally available information, the art of information retrieval and dissemination is more complex than ever. The libraries, the traditional carrier of valid information, cannot restrict themselves to the material they physically contain in their own premises, but should be able to locate and provide more material, like the one residing in other libraries. The Union Journal Catalogue application of NDC serves this goal for the scientific journals that are available in all Greek libraries.

Using the Union Catalogue application, any user can search for the available journals in 232 libraries throughout the country, in a uniform way in a single search. But this is only the beginning of what one can do. The librarians can, additionally, order articles from the journals owned by other libraries and get the content of the articles back without walking out of their offices. After searching for the desired journals and locating the possible provider libraries, the librarians can select some of the providers, and prioritise them for each article, to handle cases where a provider cannot in fact serve the article. Afterwards they can monitor the status of the order, until it is completed. The librarians that serve articles see their pending orders in their screen, serve them by locating the printed journal and sending the article in the designated way and update the order status.

If the librarians are not able to serve an order, they reject it and update its status, so that it is forwarded to the next selected provider. The application records all transactions, and charges or credits the libraries for their actions, so that the users of new services will cover their own expenses. The libraries that serve many articles will have a significant income coming from the users that order articles and are been served, to cover the expenses of the transaction.

Despite of the capabilities of the current Union Catalogue application, we will describe the additional capabilities of the successor Union Catalogue application: easier - and independent of other libraries - update of journal data, capability of using external sources of journal collections and also information about articles details, for detecting articles in journals, and exploration of electronic sources of full text archives, for serving articles without human intervention.

In the new Union Catalogue, currently in development from NDC, the journal data are not in principle inside the ordering system. Theoretically, every information repository can maintain its own list of journal holdings, and every retrieval operation will query all such distributed sources. We still store all user and order data inside the Union Catalogue of NDC, along with the location of the journal data sources and information about their format and retrieval procedures. The order data contains (by copying) all needed information from the journal data.

This is a very significant change and gives us the ability to use new journal data sources that may not correspond to the participating libraries and give access to

online data repositories or to other services that can provide access to the journals by different means (e.g. a surface mail ordering service). This does not force (although enables) every library to maintain its own catalogue in an accessible state that would make the maintenance of complete and uniform records for the common journals harder. But the big libraries, that are able to maintain the necessary the required quality and uniformity in their cataloguing, can take advantage of the new functionality and save time from the frequent updates of their holdings.

Any data source can contain holding data for many libraries. Currently, the data sources can provide their data in Z39.50 and http. The recommended form is Z39.50. There are many Z39.50 servers and clients, and the Union Catalog can work with any of them – normally the one provided by the source will be used, that can explore the full functionality of the source. The user interacts with the client, until he locates the journal he is looking for. The Union Catalog is aware of the user choice by using proxy technology, and intercepting, decoding and recording the relevant answers to the user requests (Z39.50 answers in our case).

The Z39.50 communication is well defined, and can be decoded easily, which makes it the recommended way of communication, but it is not the only one. Some sources have only a WWW interface, and the Union Catalog can handle these sources when the exact communication syntax is known in advance. We still use the proxy technology, this time in WWW, not in Z39.50. Again, the user will interact with the system until he finds the journal he is looking for.

This change expands the functionality of the Union Catalogue a lot, but is not the only one. The new Union Catalogue supports multiple levels of retrieval: searching for articles from article information (e.g. author, title) using appropriate databases with article information describing the journal and the pages that contain it, and offers searching for the journal on the data sources to find the libraries that can provide it.

The roles of people in a library have also been augmented and finer grained. We may have demo users that do virtual orders and transactions, and are used for new user training. In addition to the ordinary clients (libraries) we can have occasional (credit card) users, while special kinds of servers can serve articles from digitized data or online databases without human intervention. We also have a third role per user, the administrator that can create users under their supervision, to define quota for their usage and to monitor the usage and progress of the system. Since every user can have one or more roles, the users can be related in a hierarchy that reflects the organization structure of the library. Every library can have many data sources, many servers, clients and administrations.

Our current version of the Union Catalogue application, with a WWW interface, has made the library cooperation closer, has increased the orders and is also used by closed groups of libraries, that try to use the new, cooperative, way of working. The new version will make available a much larger variety of data sources.

#### **References:**

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