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The perspectives of creating the Upper Silesian Group of PROLIB research libraries.

Introduction

The PROLIB system has been on the market since 1994. Today it is used in more than 30 research libraries, special libraries and public libraries. Implementations include installations of different sizes, from five user versions containing just basic modules up to the whole system versions for 300 users. The system is entirely professional and unified within the proposed modules. In the Upper Silesian region (in the wide conception of the region) there are now 14 installations including university libraries (the Silesian Technical University in Gliwice, in Katowice: the Silesian University, the Academy of Economics, the Physical Training Academy, the Karol Szymanowski Academy of Music, the Silesian School of Management and the School of Management and Social Sciences in Tychy), research libraries (the Silesian Library, library of the Institute of Welding Technology in Gliwice) and public libraries (Katowice, Sosnowiec, Tarnowskie Góry, Tychy, Jastrzębie Zdrój). The biggest implementations outside the region are the Main Medical Library in Warsaw together with the group of the Medical Academies' Libraries in Wrocław, Lublin, and Łódź, the main libraries of the Pedagogical Universities (Rzeszów, Zielona Góra, Słupsk, Siedlce), the Zielona Góra University of Technology, and the Voivodship and Municipal Library in Zielona Góra. Since most of these libraries have access to the Internet, cooperation by that means is possible. The system itself offers necessary mechanisms which enable the exchange of records in the BN/MARC standard, which provides the opportunity to create a regional cooperative to generate a single common distributed database including the catalogs of all cooperating libraries.

The PROLIB system

The Complex System of Library Management - PROLIB is a program written entirely by Polish computer scientists in close cooperation with librarians. The program created by the MAX Elektronik S.A. company from Zielona Góra is an integrated package offering methods of fully automating library processes connected with acquisitions, cataloging, retrieval and circulation of library materials. It not only provides control of the patrons but also enables communication (e.g. the Internet) with other libraries' collections.

It consists of modules, which perform various separate functions but, nevertheless, are fully integrated. Every module can operate either separately or

within the integrated system. The data, once entered, is used in the whole system. The system includes the following modules:

BASIC MODULES

- cataloging of monographs
- cataloging of serials
- circulation
- OPAC
- Administrator

ADDITIONAL MODULES

- Acquisitions
- OPAC WWW
- Bibliography
- OPAC WWW for bibliography
- Patents
- Standards
- Technical-commercial documents
- Data import from the *Przewodnik Bibliograficzny* (Bibliographical Guide)
- Data import from the National Library Subject Headings System
- Data import from the 'Czasopisma nowe, zawieszone, zmieniające tytuł' (the New, Suspended, and Changing the Title Serials) database
- Data import from the POL-ARKA database
- Union Catalog of the Foreign Serials in the Polish medical libraries
- MeSH

MODULES BEING DEVELOPED

- Data import in the USMARC format
- Audiovisual documents
- Z39.50 client
- Interlibrary loans
- Library finance and accounting
- Cataloging of old printed books
- Cataloging of printed music

The system was created using the modern CASE technology and has been prepared in the fourth generation programming language - PROGRESS 4 GL. This language is an integrated environment that offers the possibility of creating applications able to work on a great amount of data. It means that the system is adapted to operating on distributed databases, such as multi-user installations

and big network installations, where the data is stored on various servers, often with different operating systems. The advantages mentioned are gained through:

1. Mechanisms of the synchronous work, such as:
   - Client/server architecture,
   - Multiple processing on the servers level,
   - Variable length of the records.
2. Data protection mechanisms:
   - the firewall
   - the guarantee of logical cohesion during entering the data,
   - the protection from data damage or lose of the data due to damage to the equipment or the operating system, loss of the power supply, or user's withdrawal from the operation,
   - creating security backup of the database's state (either full or additions) on various carriers without disrupting the work of the operating system.

It must be added that at present there is an almost complete Polish version of the PROGRESS system, which contributes greatly to simplification of the operations. Therefore, it could be said that the PROLIB system is professional library software with great usage value, that is capable of processing a significant amount of information, and that has properly organized protection of the databases.

As far as the improvement of the service (service policy) is concerned, the MAX Elektronik company opened the Comments Registration System in a form on the WWW service. The system administrator (or an entitled librarian) from each library can enter his or her comments. Depending on where the comments are directed, they are either accessible only to the notifying library or to all libraries.

Possible options:

Browsing through the database - This enables a user to browse through the comments he or she entered in the program in the chronological order. The comments contain the data of entry, name of the library, the status of the comment (evaluated or not), and the evaluation (explained, put into practice, executed, postponed). The system also offers the possibility of finding additional in-depth information, such as: the name and surname of the comment's author and the detailed description of the proposed improvement. A user can also check the opinion about his or her proposal held by the authors of the system and the data of its introduction.

The register of the changes in the products - This shows the differences between succeeding versions of the MaxElectronik Company's product. Choosing one of the modules is followed by displaying the list of all improvements, made by the authors of the system, on the screen. Usually those changes are caused by enforcing the comments from the Comments Register System.

Feasibility of the cooperation with other systems

Presently, PROLIB can cooperate with such systems that allow mutual data exchange in the internal format of the system. It is possible to import the data from the systems that enter the data in the MARC/BN format (e.g. the Bibliographical Guide), as well.

By the end of 1998 the work permitting data exchange with the systems employing the USMARC format (exchanging files with data) should be finished. In order to achieve the goal the following work is being done:

- implementing the export and import mechanisms in the USMARC format which will allow the creation of a chain of the data flow;
- implementing into the PROBLIB internal format the mechanisms of operating the names and subject authority files in the USMARC format. The work is being carried out with the assistance of the Centre for Formats and Authority Files. It will not only allow starting the process of unifying cataloging of documents but will also permit searching for the information in the distributed database of the PROLIB libraries.

After completing this work the implementation of the Z39.50 protocol is planned in order to allow the online cooperation with systems using the USMARC format. It will make PROLIB ready for cooperation regarding both searching and exchanging information.

Implementations in the Upper Silesian region

As mentioned in the beginning, in the Upper Silesian region the PROLIB system is used by 14 libraries. Those implementations could be briefly characterized in the following way:

1. The Silesian Library in Katowice

   Implementation includes all basic modules in the version for 300 users and the following complementary modules:

   - Documents acquisitions
   - Bibliography
   - OPAC WWW for bibliography
   - Data import from the Bibliographical Guide
   - Data import from the National Library Subject Headings System
   - Data import from the Czasopisma Nowe, Zawieszone, Zmieniające Tytuł (the New, Suspended, and Changing the Title Serials) database
   - Data import from the POL-ARKA database
   - Cataloging of old printed books
   - the POMOST application which organizes the cooperation between the PROLIB and the LIBROMAG software, which operates the automated stacks of the library collection, so called compact storage (a solution unique in all of Europe)

- Informatorium Biblioteki Śląskiej application, which is a multimedia guide to the Silesian Library.

About 250 000 records have been entered into the database. The heart of the computer system is the SUN SparcServer 3000 with the disk matrix working under the SOLARIS 2.5 operating system; the SUN Netra functions as an Internet server. The SUN SparcSerwer 1000E is a stand-by computer in case of a break-down. At the present time the library is moving to a very modern new building.

2. The Library of the Silesian Technical University in Gliwice

   Before the PROLIB system was bought, the library employed the LECH BMS software, in which a database of 13 000 records was created. In July 1996, the database was converted to PROLIB (50-user license) and the whole library, including circulation, started to operate in September 1996. Therefore, now all processes, as far as acquisition, bibliography, cataloging, circulation and data searching are concerned, are fully automated. In the present state the catalog contains over 100 000 records of items and in the circulation database there are over 21 000 patrons registered. The base for the computer system is the HP 9000 D 200 computer functioning under the HP-UNIX 11.00, the HP LanSerwer E40 is used as an Internet server.

3. The Library of the Silesian University in Katowice

   The implementation includes the basic modules in the version for 50 users. The process of cataloging has been in use for a year (since 1997) and now there are about 5 000 records. The circulation module will start operating this September. The system operates in a wide area network with the most important department libraries in the cities of Sosnowiec and Cieszyn included. Of all complementary modules the bibliography module was bought. The system is installed on the CTO SUN Sparc 1000E computer.

4. The Library of the Academy of Economics in Katowice

   The implementation includes basic modules in the version for 20 users. The cataloging process has been in use since 1994 and there are now in the database about 180 000 records. The circulation module was introduced in 1995. Of all complementary modules the bibliography module was bought. The system is installed on the SUN Ultra Model 1 working under the Solaris operating system.

5. The Library of the Physical Training Academy in Katowice

   The implementation includes basic modules in the version for 5 users. The cataloging process has been in use since 1996 and there are about 2000 records in the database. It is planned to introduce the circulation module in September 1998. Of all additional modules the bibliography module was bought. The system is installed on the OPTIMUS LAN Server computer.

6. The Library of the Academy of Music in Katowice

   The implementation includes the basic modules in the version for 5 users. The process has been in use since 1998. The common work on the printed music module is now completed.

7. The Library of the Silesian School of Management

   The implementation includes the basic modules in the version for 5 users. The cataloging process has been in use since 1996. All the modules operate and the whole collection of the library, which is about 3000 items, is entered in the database.

8. The Library Institute of Welding Technology in Gliwice

   The implementation includes the basic modules in the version for 5 users. The cataloging process has been in use since 1996. Of the complementary modules the following ones were purchased: Bibliography, patents, and standards. The conversion of the standards catalog was carried out and the procedure of importing new standards without delay was introduced. The system is installed on the Alpha Server 1000 Digital computer.

9. The Municipal Public Library in Jastrzębie Zdrój

   At the moment, basic modules for 10 users are being implemented and the conversion of the database from the LECH system is being carried out.

10. The Municipal Public Library in Katowice

    Only two modules are implemented: Cataloging of monographs and administrator. The database is now being created and at the moment it includes 4700 records.

11. The Municipal Public Library in Sosnowiec

    The implementation includes the basic modules in the version for 15 users. The cataloging process has been in use since 1997.

12. The Municipal Public Library in Tarnowskie Góry

    The implementation includes the basic modules in the version for 5 users. The cataloging process has been in use since the end of 1997. In the process the National Library subject headings system implemented in PROLIB is used.

13. The Municipal Public Library in Tychy

    The implementation includes the basic modules in the version for 5 users. The cataloging process has been in use since the end of 1997. In the process the National Library subject headings system implemented in PROLIB is used.

To sum up, it can be said that the university and other research libraries have bought the PROLIB system in its most complete version. Also, public libraries that are starting the computerization from the beginning buy the entire set of the basic modules. However, as the implementations were started in the end of 1997 those libraries are mainly just creating catalog databases. In the case of the other libraries, filling in the databases is the essential process; incoming items are

added to those databases without delay, while the retroconversion is carried out on a scale allowed by the size of the personnel of the libraries. In most cases the automatic circulation already functions.

The proposal of creating the Group

The Upper Silesian region has one of the largest concentrations of industry in the country and at the same time it is one of the largest academic and science centers. One of the distinctive features of the region is that the universities and scientific institutes are scattered in the various cities of the region, which discourages cooperation. Until now, no form of cooperation known in other academic centers (such as the Krakow Library Group) existed. The only attempt to create a consortium which could obtain a subvention from the Andrew W. Mellon Foundation to buy the VTLS system was undertaken a few years ago but failed due to the lack of the foundation's interest in the region. Thus, each library, unlike the ones in other academic centers, embarked on the computerization process on its own. As a result, it turned out that after a few years many of the libraries in the region were using the Polish system - PROLIB. Because of the great interest in the software and the company's aim to make the service more efficient, the MAX Elektronik opened its local branch in Katowice.

The computerization of the libraries is carried out, first of all, for the sake of the patrons, in order to extend the range of services and to improve their quality. The process leads also to some additional effects that, at the beginning, not everyone are aware of. These are the most important:

- the increase in staffing (a system administrator, computer specialists, electronics specialists),
- the need for keeping the equipment and the software efficient (the service),
- the need for modernizing the equipment and the software,
- the need for recataloging the collections (retroconversion),
- the increase in demands regarding librarians' professional skills - training workshops, etc.,
- the increase in the amount of work, i.e. more burden for a librarian to bear (new services),
- creating new posts (system librarians).

All the effects are followed by the growth in costs, which in some cases is significant. Moreover, it has to be emphasized that since computerization is a permanent process most of the costs are also ongoing and the final result is the increase in costs of maintaining the library. An additional, but not less important, problem is the delay of the expected effects connected with the time necessary to fill the base with the bibliographic records. Thus, there is a need to economize in every possible way and, on the other hand, there is a problem of minimizing the time needed to create the database. The need to solve the problems makes the cooperation among different libraries of the region and between the group of libraries as whole indispensable.

Taking into consideration the presented problems, I propose creating the Upper Silesian Group of Research Libraries using the PROLIB system. The fundamental goals of the group should be as follows:

- creating a unified distributed database, which would include the catalogs of the libraries' collections; such a unified distributed database could be prepared with help from the MAX Elektronik company based on the already existing and planned infrastructure of the Silesian Academic Computer Network;
- introducing cooperative cataloging;
- organizing cooperation regarding the workshops on the rules of the descriptive cataloging, the rules of creating authority heading, and formats for various types of documents;
- organizing common workshops for the system administrators and the computer specialists who operate the software and the operating system.

It has to be remembered that effective retrieval in a distributed database is possible only when the quality of the data in the databases is high. The quality of the distributed database is determined by the most inferior database in the system. It has to be emphasized, as well, that the proposed Group should not be a new institution but a formal agreement employing the structures of individual libraries. Creation of the Group should be done in several stages.

Stage 1: Conclude an agreement by the rectors of the universities, directors of the institutes, and the Director of the Silesian Library in the form, for example, of a letter of intent. The agreement should:

- list the goals of the Group;
- define the structure, means, and ways of working of the Group;
- appoint the Council of the Research Libraries' Directors, which would be the highest authority of the Group;
- define the Council's structure, authority, ways of working, duties, and the range of responsibility;
- define the methods of financing its work (optional).

The Council, as the highest authority of the Group, should guarantee the coherence of the Group's work through making strategic decisions concerning common politics, coordination of the individual library's and working groups' work, dividing the tasks among the libraries and the working groups. The MAX Elektronik Company's representative should be a member of the Council as an adviser.

Stage 2: Appoint the Council of the Research Libraries' Directors, which should work out the work regulations and then, the plan of working together with the time-table regarding the creation of the distributed database. In order to achieve that goal, appropriate working groups should be set up and they should be guaranteed the conditions for the effective work. The most important groups are, without any doubt, the following ones:

- the team preparing the unified rules on the bibliographic description and authority headings. It is not simple as each library has its own habits and despite the standardization libraries change them reluctantly. The group should consider in its work the future necessity of cooperation on the level of authority files and document descriptions from the VTLS consortium, and adjusting to its rules. It leads to preparations for cataloging in the USMARC format as soon as the MAX Elektronik company implements the necessary module in the PROLIB system;
- the team for library training;
- the team for creation of the uniform cataloging rules;
- the team for implementing these rules and controlling their employment;
- the team for the training of the administrators and computer scientists;
- the team on 'technical affairs'.

Most of the groups should work permanently since the problems that are being solved would never be fully overcome. This stage will end when cooperative cataloging begins, setting in order each library's own databases according to the prepared rules and connecting all databases in one distributed database. The cooperation with the producer of the PROLIB system will be necessary at this stage.

Stage 3: Everyday operation of the distributed database. At this stage the Group should be established firmly enough to invite the PROLIB public libraries to join the group. Moreover, it will be necessary to develop some cooperation with the VTLS libraries, as it is the only way of simplifying and of lowering the costs of cataloging the library collections. The cooperation should include full exchange of the records in the USMARC format and using, passively at first, the Union Authority Files located in the Centre of Formats and Authority Files of the Warsaw University Library.

Another approach to the problem of cooperation among PROLIB libraries is also possible. Namely, there are other large libraries employing the system in the various regions of Poland which could greatly contribute to solving the mentioned problems; e.g. creating a Group of PROLIB Users that would include all Polish PROLIB libraries could be proposed. Nevertheless, due to the specific character of the work, the Group of Research Libraries should be separated to play the leading role in the Group of PROLIB Users. The Group of Research Libraries would pursue the basic aims of the Upper Silesian Group of PROLIB research libraries and the process of its creation and operation would include the same stages as those for the Group. The abilities of such a group would be by all means greater than the regional group's; however, the problems that would have to be solved would increase proportionally to the increase of the number of members. Developing the project of cooperation on data exchange and creating the central catalog based on the distributed databases is a separate problem. In this case the process could be actually started in the Silesian region, as here, in fact, there is the greatest number of PROLIB libraries and if the project was a success the experience could be gradually passed on the other libraries.

To summarize, I would say that the first major work concerning the creation of such a group has already started. Namely, in March of this year there was a conference in Zielona Góra in which the PROLIB libraries and a representative of the Centre for Formats and Authority Files took part. The perspectives of cooperation with the VTLS consortium are also held out, which is proven by the resolution of the Council of Directors of the Libraries that employ and introduce VTLS. The resolution, passed in June this year, states the willingness to cooperate with the PROLIB users. However, to have this cooperation there must be a partner - the Users Group, created and operating in the way described above.