A Model for Storage of Different Volumes of a Journal in Electronic Data Processing: The Dortmund Online Library System DOBIS

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ELECTRONIC DATA PROCESSING

THE DORTMUND ONLINE LIBRARY SYSTEM DOBIS

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First of all I want to give a short survey of the history and
today's situation of DOBIS, the Dortmund Online Library System
at Dortmund University Library. Since 1972, DOBIS has been
developed in coordination between university librarians and EDP-
specialists of the University Computer Center. It has been de-
signed as an integrated system for the support of all library
tasks. In 1976 the online function "Circulation" including Inter-
library Loan became operational.

Two years later we achieved main parts of the Cataloguing func-
tion and the offline part of Circulation - that means print of
letters to users.

Cataloguing of periodicals including circulation of periodicals
was added in 1980.

In 1982, the Cataloguing function was enlarged concerning multi-
volume sets, serials and added entries.

The total book collection comes to 1,2 millions vols. with more
than 7,000 current periodicals and about 50,000 acquisitions
yearly.

It requires more expenditure to catalogue periodicals in an
integrated system than in separate systems for cataloguing and
circulation. On the one hand, bibliographically correct des-
criptions with information about the collection must be available
for a catalogue output according to the cataloguing rules. On the
other hand each single physical volume has to be marked and des-
cribed definitely for circulation.

We solved this problem in the following way:

Each volume, monograph or volume of a periodical, is labeled with bar codes containing the individual document number. The document number is at the same time the ID number for circulation.

![Barcoded label](image)

fig 1. Barcoded label

For each document marked in this way, there is a record in the bibliographic main data file, sorted by the document number. A record of this kind contains first of all the non-bibliographic data belonging to the document: Location, circulation conditions, current status, and the shelf-number.

Usually author and title of the document are stored there as so-called "pointers" to the Access Point Files "persons" and "titles". For volumes of periodicals this bibliographic information is dispensable, so there we use a special kind of "shortened" record which contains as bibliographic information just fields for volume number, year, part number, part name and another field for the year of publication if it is different from the year under review. Additional statements (e.g. multiple volume numbering) are written into a provided field with space for 255 characters. The shelf number of a periodical is not stored in the volume record because the shelf number system of our library provides no individual shelf numbers for periodical volumes but only for the entire periodical.
Having regarded the storage of periodical volumes on the level of the volumes, we realize that a connection between the volumes among one another and a connection between volumes and description of the periodical itself are still missing.

We put in the title description of the periodical, which of course applies to all volumes, with the same cataloguing dialogs as used for monographs.
According to this title description, called main description, a record is produced also in the bibliographic main file although there is no physical volume belonging to it.

Part of this description is the text of an abbreviated condensed volume description which has to be kept up-to-date independently of cataloguing. These condensed description entries constitute the bibliographic correct information on the collection of periodicals.

The connection between main description and single volumes of a periodical is established by the sorted storage of the document numbers of the volumes as references in the record of the main description.

This solution allows to see all volumes belonging to one periodical in a sorted order on the screen after having called the main description.

This list is sorted according to the following order:

1. year
2. volume
3. part number
4. part name
The volumes are sorted in inverse chronological order. By this means the recent volumes which are mainly of interest are shown on the screen first.

Sometimes the statements of the four sorting elements are not sufficient to achieve the right order of the volumes. In this special case the field for additional statements is used. The most differentiated statements can therefore be made here without sorting functions. The sorting fields then have the sole task of receiving the information by which the volume is inserted correctly into the list of volumes. The output screen however displays the field with the complete bibliographic information.

Five to eleven volumes can be presented on each screen depending upon whether oneline or twoline entries were made. This kind of search can be tedious since 300 or more volumes of a periodical are no rarity. Browsing a card catalogue yields a much faster and more convenient overview in such cases. Therefore a solution had to be found equivalent to this conventional method or at least comparable in its service.

The periodical volumes whose records had been linked with the bibliographically complete main record were distributed to several main records. Consequently there is one main record that contains the bibliographic data of a periodical, and possibly additional main records without bibliographic data.

Each of these main records contains maximally 41 volumes, generally four screens with line repetitions. The number 41 is purely organizational, a limitation for quick browsing, and may be changed for superior bibliographical reasons. The main records are retrieved via shelf number which received an addition--usually an added year of publication--for each main record.
fig 5. Screen with a section of the shelf number file

This added year of publication indicates the first volume in the volume set. By this way certain volumes are ordered to 'individual' main record shelf numbers which enable a quicker and more convenient access without the document number.

When the DOBIS function 'Cataloguing of Periodicals' was installed in the library-production, about 400,000 volumes had to be introduced to the system. All periodical volumes in the library were listed by the librarians according to the format of impending online processing in formatted data sheets, then the data were punched and merged by an offline program into the database. Current acquisitions of course are catalogued by online dialogue.