

MEMORANDUM

TO: DALNET

FROM: R Ferrante

SUBJECT: HORIZON SHARED PATRON FILE – UNIQUE BORROWER ID
(UBID)

DATE: 10/20/99

CC: H Masek

Here is a quick recap of the stages of this discussion and a summary of the latest point in our dialog.

Starting Point

Horizon includes Shared Patron File feature in Release 5.1. Has several unique keys available - borrower#, borrower barcode, second_id (commonly SSN). DALNET reported that these unique keys were not adequate for the consortia's needs. The objections raised were:

- Borrower# - Circ staff can not collect this information from the patron, therefore it is not helpful in identifying a patron at the circ desk.
- Borrower barcode – Consortia members will not accept a single borrower barcode throughout the DALNET system.
- Second_id – Public libraries, specifically DPL, are not allowed to ask for SSN's from patrons. There fore they cannot collect the necessary data to populate the field.

A satisfactory UBID is the critical objection to the Shared Patron functionality; other points were raised during a conference between A Evans and R Ferrante at ALA Midwinter in January 1999.

First Proposal

In subsequent discussions, ALS suggested using a combination of borrower data elements, concatenated to create a unique string which could be used for searching. The data elements would be entered as a single string in the UBID field or when searching against the UBID. The appropriate screens would display sufficient helps automatically to indicate proper string construction. The elements suggested were:

Birth date + last 4 digits of Soc. Sec. Number =
mmddy6789

When tested for likelihood of duplicates, this combination proved unique in a large population pool such as DALNET's.

Some DALNET members are legally prohibited from collecting year of birth data from their employees and therefore cannot provide all the necessary data elements.

In addition, DPL raised their concern that front-line circ staff would be immediately aware on the nature of the UBID construction. Such awareness was deemed to compromise data security required of DPL.

Second Proposal

Following from DALNET's concerns about the first proposal, DALNET suggested shortening the string to just birthday and last 4 digits of the SSN , *mmdd6789*. In addition, DALNET suggested

- 1) a split field data entry, search entry, and display of the two data elements used to create the UBID,
- 2) digestion or encryption of the constructed string prior to transmission to the database, and
- 3) the reverse when retrieving the UBID from the database. Lastly, in addition to the Horizon program,

DALNET requested that the UBID functionality be available in all ALS products using a GUI interface and requiring patron authentication. This includes HTML WebPAC and Remote Patron Authentication.

ALS found that removal of the birthyear digits from the constructed string significantly increased the likelihood of duplicates. DALNET expressed their willingness to develop their own plan to handle duplicate and organizational users.

ALS also indicated, that such a design requires the UBID data entry and searching to function unlike any other similar element in the borrower record, as it required additional processing both before the appropriate search term could be submitted to the database and upon return, additional processing to parse/undigest the UBID for display. It would therefore require multiple, significant development projects for Horizon Circulation, HTML WebPAC, and Remote Patron Authentication. The time required to complete this approach

placed it outside of DALNET's desired timeframe for implementation of Shared Patron File functionality.

Third Proposal

Due to the difficulties inherent in the design of the second proposal, ALS suggested an alternative. Creation of an auto-key column in Sybase on the borrower table on each DALNET Horizon database, in effect creating another system key on the borrower record. The key could be pulled from the shared patron database, or coordinated across all production databases, so that each value across all DALNET Horizon databases is unique.

Searching for a patron under this plan would use the standard borrower indexes. The borrower list display would be enhanced to show borrower name and address (or other borrower field) in order to facilitate verification of correct borrower selection. This can be accomplished immediately.

This approach removes the need for encryption and consequently the multiple development projects required by the second proposal. It can be implemented immediately.

DALNET has identified several questions regarding the implementation of the Shared Patron File.

- 1) What field(s) could be used to match for batch loads and updates? (WSU)
Response: WSU has SSNs on file for all students and staff. Matching could be accomplished on this field. This would also be true for all corporate customers. Libraries not able to retain SSNs could use their borrower barcode or UBID fields.

- 2) Will this allow a first match into a local file then uploading to the shared patron database?
Response: Using the approach to the first question, yes. However, it is important to keep in mind that Shared Patron functionality splits out the common patron information and stores that in the Shared Patron file. A match on the local fields, such as second_id or borrower barcode, would require a full match on the common elements as well.

- 3) How will this work across two servers?
The Shared Patron file will be replicated on the second server. Changes to either shared patron file will be synchronized automatically each time an update is made to the file.

4) What will patrons be prompted to enter for authentication?

Response: Patrons will be asked to enter a combination of the library's choice of borrower fields when using RPA or WebPAC. A match will be required on all fields included by the library.