ELUNA 2006 – June 5, 2006
Notes from presentation

Beginner's SQL Reporting Workshop [Aleph Breakout Session]
301-A *Mike Rogers (University of Tennessee); Nikki Crowster (CALICO, South Africa), Moderator*
Are you interested in ALEPH reports? This "non-technical" introduction will demonstrate the
usefulness of SQL reporting. We'll cover many basics, review steps for turning an SQL script into
a GUI "custom service," and examine reports our site has found helpful. Documentation and a
take home exercise are available to participants –Note: Mandy has received documents and will
post to LSD internal site; available upon request to non-LSD members.

Mike Rogers – Library technology services, University of Tennessee, Knoxville

ACTION: Send Mike an email to request the detailed information

The style of creating data reports
- Data dictionary documents (Aleph Z-tables)
- Overview table / document (the one with the arrows showing relationships)

Keep in mind that tables may not exist in all libraries, but may also exist in other
libraries; keep your data straight—the elements will be the same but it isn't the same data

The z103 table is used to link queries from one library to another. Z103 is the linker
table.

Change to $data_scratch (reports will then go to this directory)

Reports uses the SELECT command – does not change the database

Helpful tips

1. If the backspace key doesn't work, use the delete key
2. all must end in either a semi-colon or a backslash
   a. select count (*) from z30;
   b. the above does a simple count of the number of item records in the system
   c. you can exit from a query display using the CTRL+C+Enter
3. The SQL Buffer
   a. L displays the previous query in the buffer
   b. R runs the previous query in the buffer
4. queries run faster on fields that are indexed than on non-indexed fields
   a. determine if a field is indexed
   b. UTIL A 17/14
   c. Far right column will tell you if the field is indexed
5. multiple report items must be separated by commas
6. DESC – describe command in SQL to learn what table contains what data
   a. i.e., DESC z68 – tells you what is in the order table, but not what each
      field entity means.
   b. Can tell you the mandatory or not, data type and max char length

ELUNA 2006 – June 5, 2006
Notes from presentation

Formulate simple SQL reporting queries
1. Which aleph library should the query be run
2. what data fields will display in the report output
3. what data fields will be used as conditional qualifiers in the report
4. based on answers to Q2andQ3 what aleph z-tables are affected
5. are there any special formatting needs in the report output (i.e., totaling price sums, converting diacritics, etc.)

Use the conditional qualifiers to narrow the reporting focus

- Use the conditional statement format Where on first line and And to continue more lines with other qualifiers
- Present qualifiers in single quotes
- 'order by' FIELDNAME desc – will order the sort by descending. Ascending is default

Other commands
- SUBSTR
    o let's you extract a data string from a report item
    o substr (z13_1,45)
- User prompts

How to join tables

Getting tables to talk to one another and to link together in the report; can be a challenge depending on the data needed
- Find a common data element that exists in both tables
- Test your join by doing individual counts of the talbes you want to join and then the tables joined together

Create and run SQL scripts

- Create a directory called /u16_1/ndunn/scripts/ to house these scripts
- Use a prefix to designate who wrote the script, and the rest of the file naming convention to describe what it does; i.e., havert_countofitems.sql
- Comment the sql script with two dashes –

Create a custom service in an Aleph GUI module
- Helps to manage running reports that staff frequently request
- Four components to create:
    o Sql script – in a16_1/alephm/sql_stat—use the naming convention: custom_<scriptname>.sql

ELUNA 2006 – June 5, 2006
Notes from presentation

- o Xml service file – defines the service window in the client
    - ▪ /u17_1/alephe/pc_b_eng/
    - ▪ Can use a numbering convention: p-custom-40
- o HTML help file – can be launched from the service window
    - ▪ /u16_1/alephe/pc_b_eng/
    - ▪ Can modify a copy of an existing EL file
- o Csh script that supplies program commands
    - ▪ /a16_1/alephproc/
- o Additionally, you must define user authorizations in user_function.eng and add the script to the Services menu file

Final steps
- • Add to GUI menu file
    - o ./a16_1/aleph/pc_b_eng/
- • Add a line for the service in user_function.eng and the item will appear in the custom services link