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Historic Pittsburgh:
Updating the Chronology Database

OUTLINE:

- Export the “event” table from the access database using the SQL module
- In the exported file, delete all the records except for the new ones
- Export the “event” table again from the file menu, as a tab-delimited file
- In this exported file, also delete all but the new records
- Run the “dbupdate.pl” script over the tab-delimited export.
- Add the results of the Perl script to the SQL export (from steps 1-2)
- SSH this file over to the web server
- Load it into MySQL
- Change the CGI scripts, the graphic, and the static web pages.

1. Export the entire database from Access

Open the chronology database. In the "Modules" window, select the "exportSQL" module. Double-click on it. Run the module by clicking the "play" icon button on the toolbar.

The module will create this file: "C:\TEMP\esql_add.txt" This file contains instructions for MySQL to recreate the database structure, and to populate the database with all of the table data. Rename the file in the following format, substituting the current date:

```
chronology_db-2001-12-06.txt
```

FTP the file over to nessie, putting it into /data/chronology/.

Then open the file in emacs. In the CREATE TABLE statement for "event", change the data type for "Text" to "LONGTEXT" instead of "LONGBLOB". This is important and neccessary for case-insensitive searching.

2. Some data munging is necessary for just the event table…

This step is sort of confusing, but the problem is that the ‘event’ table needs to eventually have slightly different / additional data in it when it’s in MySQL on the server. It would be annoying to create this data in Access, like setting the display_month field to “January” wherever the month value is “1”, or concatenating the year month and day fields into a combined field, e.g. 2002-12-01. So there’s a script that does this stuff, and creates a file

that will instruct MySQL to make the appropriate changes. After the whole database is loaded, the file that is created here will clean up some things (see step 3 below).

Open the chronology database. In the "Tables" window, select the "event" table, but do not open it. Choose "File > Export". Export as type "text". Name the file "event.csv". The export wizard appears. In step 1, choose "delimited". In step 2, choose "Tab" as the delimiter, and change the "Text Qualifier" to "none". The last step is to choose where the file goes. Type in the box: "R:\Database\event.csv". Hopefully the table will export successfully.

Open a command line (Start Menu > Run > "cmd"). Change directories to R:

```
C:\>R:
```

Change directories to "Database":

```
R:\>cd database
```

Run the "dbupdate.pl" script:

```
R:\Database>perl dbupdate.pl
```

A new file is created called "output.sql". The script should say how many records were processed. Check this against the number of records in the "event" table of the Access database. I've been finding that the script generates a few bad lines by mistaking some rows for two rows. Open the "output.sql" file in emacs. Scroll through and delete the spurious records (they should be obvious and quite different than all the rest). FTP the corrected file to nessie: /data/chronology

3. Loading the data (and then adjusting it) in MySQL

Now the data gets loaded into mysql. If the entire database is being loaded, you will need to drop the event table before it is re-created. Run mysql. At the command prompt, type "DROP table event;". exit mysql. Run mysql again, but with the MS Access export file as standard input. The command might be like this:

```
mysql -u root -p chronology < /data/chronology/chronology_db-2001-12-06.txt
```

This will create the table "event" and fill it with data. Any problems at this stage will mean editing the text file, then dropping the incomplete "event" table as above, and re-running the process.

After the intial load, re-run the mysql command with the "update.sql", file as standard input. This file contains a series of SQL commands to manipulate the table data, in order to get it into the shape,needed for CGI querying. The command might be like this:

```
mysql -u root -p chronology < /data/chronology/update.sql
```

The chronology data should now be updated and good to go.