MNcwixsec

A Python tool for drawing well cross sections using Minnesota CWI data

Demo data files and legend files.

Four files are provided:

- `cwischema_c4.3.0.sql` : DDL statments (Table definitions) for data tables in a data source.
- `MNcwi_demo_data.sql` : Demo data to be inserted into the data tables.
- `xsec_Legend_DDL.sql` : DDL statements for a legend database
- `xsec_Legend_data.sql` : Demo data for the legend database (designed for the xsec_demo script).

The wells included in the demo data set are selected to illustrate:

- A sampling of all of well components recorded in the CWI database that the program currently knows how to draw,
- How missing data is handled,
- Well groups suitable for demonstrating the fenceline and projected line options.

As of November, 2021, the demo data set is identical to the data set provided for the MNcwi project on github.

The legend definitions are not complete, but are sufficient to run the demos, and to illustrate a possible method of providing legend definitions from scratch for use with matplotlib as the drawing tool.

To create the tables and read in the data using SQLite Studio

- Obtain SQLite Studio from here.
- Open *SQLite Studio*.
- Create new database(s). For the xsec_demo script, these should be named:

```
<mypath>/MNxsec/db/MNcwi_demo.sqlite
<mypath>/MNxsec/db/xsec_legend.sqlite
```

- Open an SQL editor window (`Alt + E`).
- Copy and paste the DDL statments into the editor window and execute them all.
- Copy and paste the demo data queries into the editor window and execute them all.
- You can choose to execute queries individually by placing the cursor in the query and pressing the execute button, or (`F9`). Or you can execute them all by changing the `Tools/Configuration` (`F2`) settings: uncheck `Execute only the query under the cursor`.