Tools and Techniques for the Data Pipeline Updates from XBRL US

XBRL Filed Data

XBRL API

Public Filings Database

Data Community

What's next?

Q&A





Unified codebase – Excel and Google Sheets have the same format and functionality

Dynamic dropdowns – filtered options cascade from higher selections (ie. Report Source)

Accessible dropdown queries – 🔝 return the filtered dropdown query to the spreadsheet

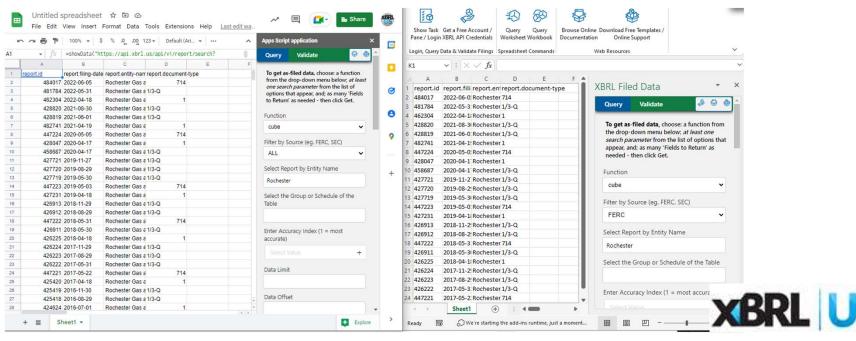
SQL output option – print the equivalent SQL statement for the Public Filings Database

Unique filter – remove 'duplicate' results from the query

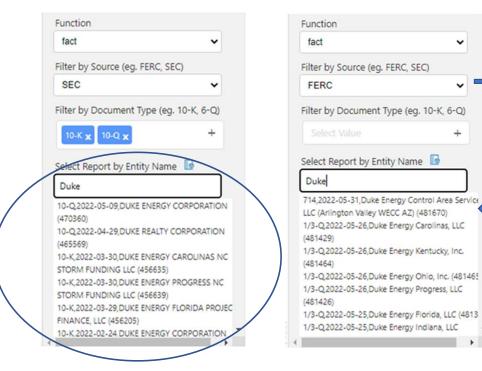
*Increased rows returned for Power User and all Organizational Memberships to **5,000 records***

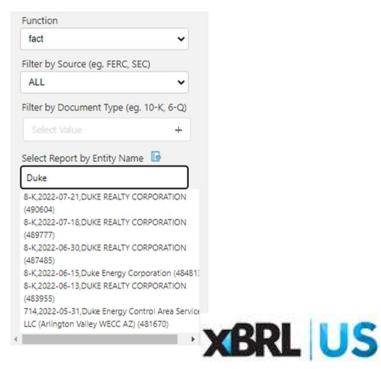


Unified codebase – Excel and Google Sheets have the same format and functionality =showData() in Google OR =XBRL.showData() in Excel

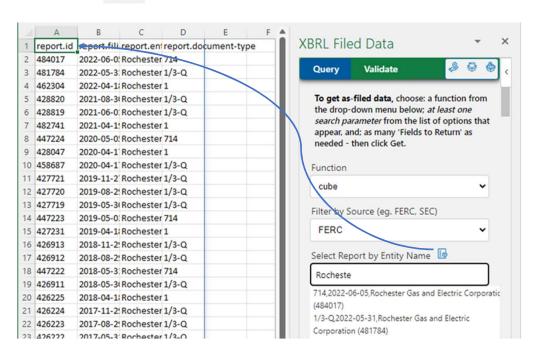


Dynamic dropdowns – filtered options cascade from higher selections (ie. Report Source)



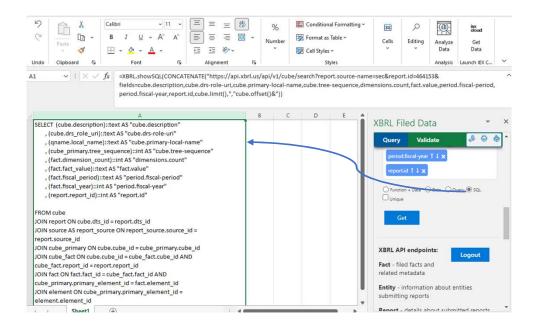


Accessible dropdown queries – 🔯 return the filtered dropdown query to the spreadsheet



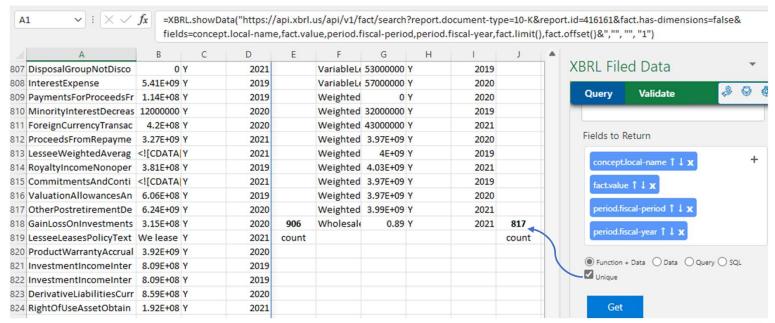


SQL output option – print the equivalent SQL statement for the Public Filings Database Output will need quotes reduced to single and removed from beginning and end of statement





Unique filter – remove 'duplicate' results from the query



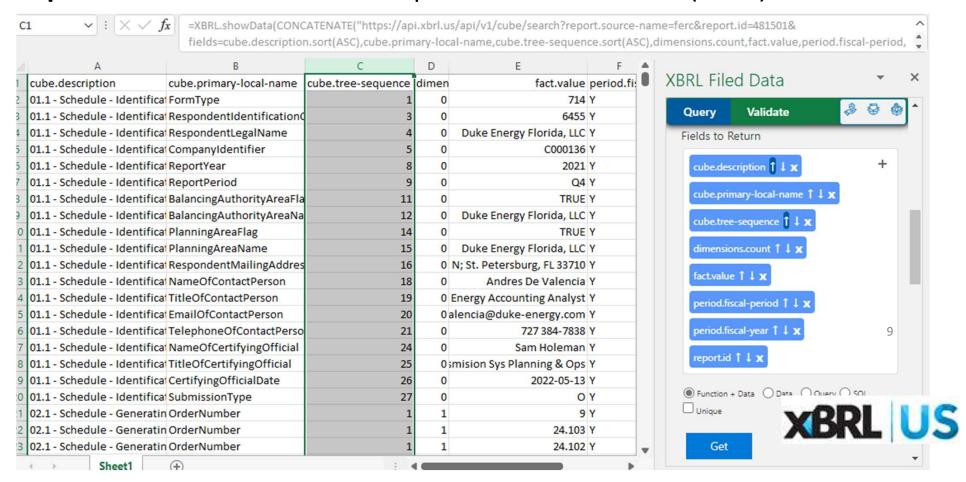


Endpoint options:

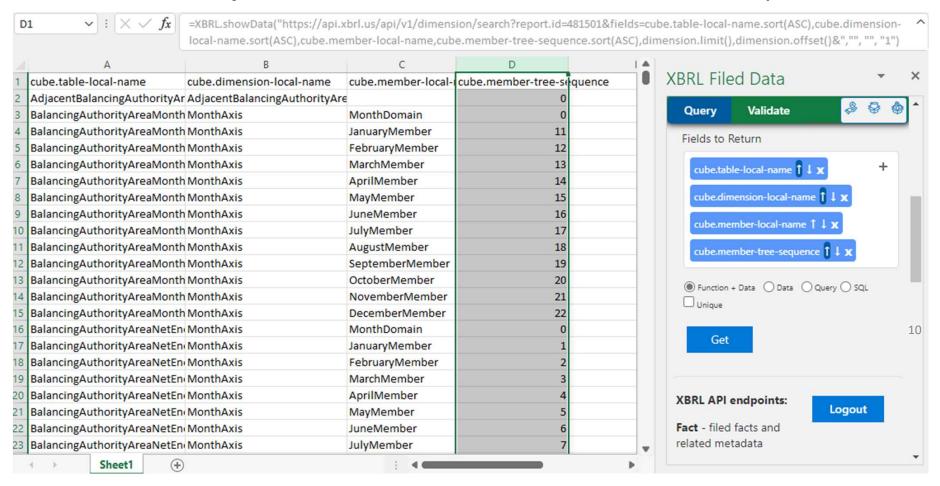
- **Cube** returns content of a specific table or tables (cube)
- **Cube-dimensions** returns details of dimensions of a specific table



Cube endpoint - returns content of a specific table or tables (cube)



Cube-dimensions endpoint – returns details of dimensions of a specific table



Validation options:

- FERC Members and public utilities can check filings created with 2022 taxonomies against the rules published and required by the Federal Energy Regulatory Commission
- ESEF Anyone registered with a company email (ie. not Gmail, Hotmail, etc.) can use Data Quality Committee checks to scan annual reports required by the European Securities and Markets Authority (https://esef-dqr.xbrl.org and https://filings.xbrl.org)



Additional XBRL API updates

- Added documentation for cube and cube-dimensions endpoints
- Updated existing documentation so available fields on the document endpoint are displayed:

document.content entity.name

document.documentset entity.scheme

document.id report.filing-date

entity.cik report.hash

entity.code report.id



Public Filings Database updates

Updated the Entity-Relationship Diagram and posted it for XBRL US Members – https://xbrl.us/home/use/filings-database/documentation

XBRL US Database Documentation

The XBRL US Database contains data from SEC and FERC financial reports in a relational model. The data is sourced from RSS feeds provided by the agencies. The database contains data from the beginning of the mandatory SEC filing period, which started April 15th, 2009 and 10+ years of FERC filings (starting with 2011). Filings from the previous voluntary filing period are not included.

The database contains two schemas: "public" and "xbrl_public". The "public" schema contains all the data from the SEC filings. Access to this schema is read only. The data in the "public" schema is updated as filings are processed. Generally, the RSS feed is checked every 15 minutes for new filings.

The "xbrl_public" schema is provided as a convenience to users to store views and database functions. Any information stored in the "xbrl_public" schema is viewable and editable by all users.

Although the database is geared towards containing SEC filings, the data model is mostly based on generic XBRL (including XBRL dimensions).

Resources:

- Documentation (updated April, 2017)
- Database Changes (implemented June,

201/)

 Entity-Relationship Diagram (updated June, 2022)

Using Data

Database of Public Filings

SQL Queries - XBRL US Database

Protected: XBRL US Database Documentation

Database Snapshots (AWS) and Hosted Instances

The XBRL API

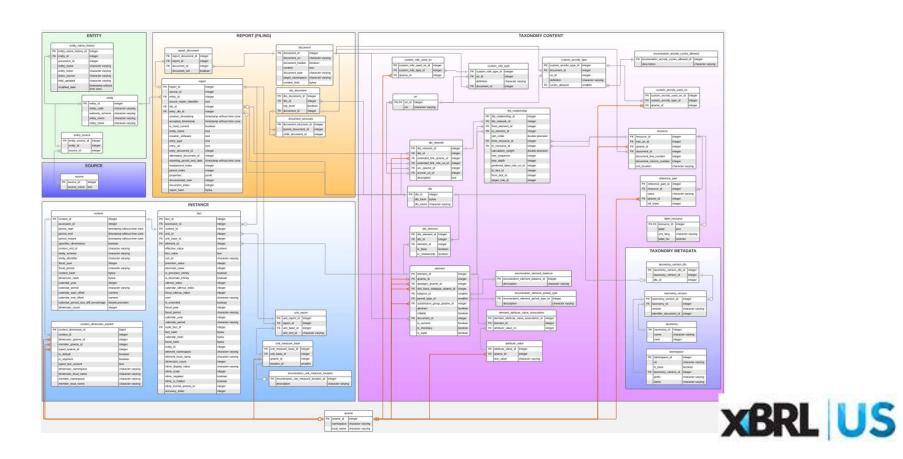
XULE, an open-source processor

XBRL Data Community

Updates



Public Filings Database updates



Data Community updates

- Refreshed all staff-developed spreadsheet templates and removed outdated resources
- Added a loop to all Python Jupyter Notebooks so the script returns all available data
- Posted a new Jupyter Notebook in Python to support a Case Study on effective tax rates



What's next?

- Normalized views of Balance Sheet and Income Statement (available as an add-on for Members at the Power User level and above, including all organizational Members)
- ESEF data added to the Public Filings Database
- Dimensional data re-imagined for spreadsheets
- Taxonomy viewer add-on for Excel and/or Google Sheets



Questions?

