YottaDB

SQL Reporting of VistA Data

YottaDB® – https://yottadb.com

- A mature, high performance, hierarchical key-value NoSQL database whose code base scales up to mission-critical applications like large real-time core-banking and electronic health records, and also scales down to run on platforms like the Raspberry Pi Zero, as well as everything in-between.

- *Rock Solid. Lightning Fast. Secure. Pick any three.*

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What is Octo? – High Level

- Octo is a YottaDB plugin that provides access to your YottaDB Key-Value pairs in a relational data format to use with traditional SQL based tools.

- It is designed as a plug-in replacement for PostgreSQL
  - Uses the PostgreSQL wire protocol
  - Uses the PostgreSQL ODBC/JDBC/OLE DB driver

- The way the data shows up is up to you

What is Octo? – With VistA

- Uses the SQLI FileMan interface to drive the mapping of VistA data to Octo

- Most FileMan structures are mapped to SQL
  - Exceptions: Computed Multiples and Non-FileMan compatible data.

- Open Source software – everyone can contribute and submit issues
  - Commercial support available as add-on to YottaDB support

Demo

Octo System Requirements

- YottaDB r1.26

- Octo Beta

- Plenty of disk space for logs, DDL, temporary tables, cross references and other storage needs

- Open TCP port for Rocto access

Octo Mapping Process - General

- Octo uses its own data structures to hold mapping data, temporary tables, cross references among other internal data needs

  - All stored in YottaDB globals

- Can be a separate global directory or mapped to a separate database file

- Any mapping tool should be designed to create SQL DDL and import into Octo

Octo Mapping Process – VistA

- FileMan provides a tool called "SQLI" or SQL Interface

- SQL provides an interface that is much easier to work with than reading FileMan's Data Dictionary directly (though there is still some need to read the Data Dictionary directly)
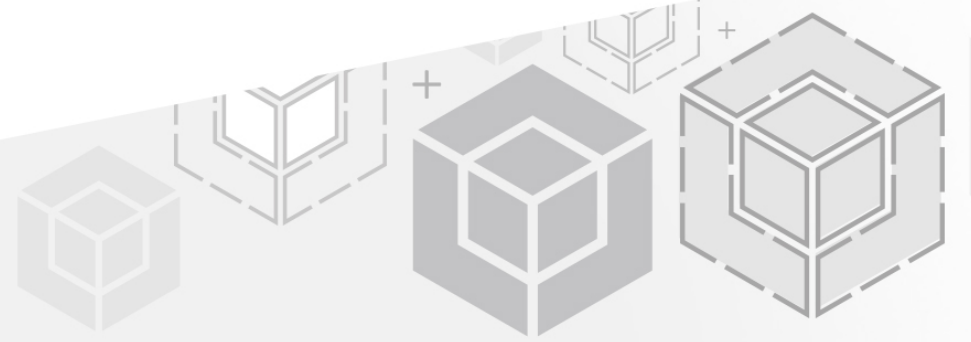
- Mapping tool is written completely in M

Current Limitations

- Octo currently provides read-only access
  - Insert/Update capability is planned for Octo – NOT for VistA

- Certain SQL features are not implemented – You should get a Not Implemented error message (either in the logs or in your SQL client
  - Most important ones are implemented

Future Directions

- Octo Insert/Update capability

- Optimize, Optimize, Optimize!

- More SQL commands

- More SQL compatibility testing – goal is to have plug and play functionality with PostgreSQL – AKA if it works on PostgreSQL it will work on Octo

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Thank You!

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