

Announcement

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TRIADB - Associative Semiotic Hypergraph Database Framework in Intersystems Cache with Python Pandas

Connected Data London Conference

TRIADB is an emerging unique and valuable technology in NoSQL database modelling and BI analytics. The following video is from a presentation and demonstration of TRIADB prototype implemented on top of Intersystems Cache database and driven with a CLI in Python (Jupyter-Pandas). In fact this is the second time in the past year that a prototype based on this technology is implemented and demonstrated. The [first one](#) was built on top of OrientDB multi-model database and driven by a Mathematica notebook.

Unfortunately the light conditions were not ideal for the demonstration of our system. We recommend you visit the links at the right side of the following table to view Pandas notebooks in addition to the video above. You may also start the video at the corresponding time.

Time (min:sec)	Pandas Notebooks in HTML format
05:00	Traversal and Hypergraph
09:00	Hypernodes, Hyperedges and Tuples
11:45	Hypercollections
13:00	Data Model
15:30	Mapping

And these are the [slides from the presentation](#)

Technical Objectives

Integration of multiple data resources, automatic correlation, aggregation and exploration based on Associative Semiotic Hypergraph technology (see [S3DM/R3DM](#)).

Key Differentiating Factors

1. Multi-Perspective Database Framework : tuples, domain sets, objects and hypergraph
2. Act both as an operational and data warehouse database with a 360 degree view
3. Automatic fixed indexing schema instead of user-defined secondary indexing
4. Manage the references instead of data. Fully referenced and relational based on fixed composite indexing.
5. No duplicates but single value instance instead based on system defined primitive data types
6. Mapping and consolidation of multiple data resources on user-defined data models
7. Developer friendly and easily programmable thanks to powerful functional commands in Python
8. Functional operations (e.g. Get, Add) with standard parameters instead of a query language with variable parts

Challenge

Prove that a system built with this technology can be beneficial for either a single-user and/or competitive for a big enterprise with suitable use-cases

Next milestone

A better PoC prototype preferably sponsored by Intersystems Cache or perhaps another database vendor. We are actively looking for teammates and partners for the next phase of the project.

[#Data Model](#) [#Python](#) [#Cache](#)

Source

URL: <https://community.intersystems.com/post/triadb-associative-semiotic-hypergraph-database-framework-intersystems-cache-python-pandas>