AllegroGraph 6.5 Marks First Multi-model Semantic Graph and Document Database via JSON and JSON-LD

Run Graph Queries Across JSON Documents, CSV Files, Semantic Metadata and Unstructured Text

OAKLAND, Calif., March 4, 2019 — Franz Inc., an early innovator in Artificial Intelligence (AI) and leading supplier of Semantic Graph Database technology for Knowledge Graphs, today announced AllegroGraph v6.5 , the first multi-model semantic graph database to support the ingestion of JSON and JSON-LD documents, comma separated value (CSV) files and RDF data. AllegroGraph 6.5 makes it possible to automatically link structured RDF data to information within JSON documents based on semantic concepts, allowing users to perform graph analytics across linked data within databases, document stores and CSV files.

Traditional document databases have excelled at storing documents at scale, but are not designed for linking data to other documents in the same database or in different databases. AllegroGraph 6.5 delivers the unique power to define many different types of documents that can all point to each other using standards-based semantic linking and allow users to run SPARQL queries, conduct graph searches, execute complex joins and even apply Prolog AI rules directly on a diverse sea of objects.

"Organizations have an enormous amount of information stored within documents and CSV files," said Dr. Jans Aasman, CEO of Franz Inc. "But running a single query across documents, CSV files and structured data has been a challenge. We solve this

challenge with AllegroGraph 6.5 by automatically linking objects in documents to other data objects in CSV files and RDF stores – instantly providing a much richer dataset that can be easily queried using SPARQL and produce real-time knowledge."

AllegroGraph 6.5 provides free text indexes of JSON documents for retrieval of information about entities, similar to document databases. But unlike document databases, which only link data objects within documents in a single database, AllegroGraph 6.5 moves the needle forward in data analytics by semantically linking data objects across multiple JSON document stores, RDF databases and CSV files. Users can run a single SPARQL query that results in a combination of structured data and unstructured information inside documents and CSV files. AllegroGraph 6.5 also enables retrieval of entire documents.

"The world is quickly moving toward JSON," said Aasman. "With AllegroGraph 6.5, developers can work with JSON, their favorite data structure in their programming language and store and retrieve these structures within AllegroGraph, which is now also a document store. JSON objects are represented as RDF triples in AllegroGraph. Developers can use JSON to model complex schemas and then perform complicated joins over data without writing procedural join code or map-reduce queries."

Gartner recognized AllegroGraph in a recent report in which Analyst Guido De Simoni stated, "Unprecedented levels of data scale and distribution are making it almost impossible for organizations to effectively exploit their data assets. Data and analytics leaders must adopt a semantic approach to their enterprise data assets or face losing the battle for competitive advantage." *(Source: Gartner, How to Use Semantics to Drive the Business Value of Your Data, Guido De Simoni, November 27, 2018.)* For more information about the Gartner report, visit the Gartner Report Order Page.

JSON-LD Support

In addition to ingesting regular JSON objects, AllegroGraph significantly enhances the document database model with support for JSON-LD. JSON-LD is a lightweight Linked Data format that is easy for humans to read and write. It is based on the already successful JSON format and provides a way to help JSON data interoperate at Web-scale. JSON-LD is an ideal data format for programming environments and REST Web services. JSON-LD provides a way to create a network of standards-based, machine-readable data across Web sites. It allows an application to start at one piece of Linked Data, and follow embedded links to other pieces of Linked Data that are hosted on different sites across the Web.

Triple Attribute Security

AllegroGraph 6.5 includes superior database security, which is designed to protect the most sensitive data within the flexible environment of a graph database. This innovative feature within AllegroGraph provides the necessary power and flexibility to address high-security data environments such as HIPAA access controls, privacy rules for banks, and security models for policing, intelligence and government. In addition, AllegroGraph Triple Attribute Security is easier to use and provides more expressiveness than security methods in relational databases or property graph databases, while avoiding performance degradations.

 "Triple attributes in AllegroGraph add a significant and complementary dimension to the RDF data model," said Dr. Parsa Mirhaji, Director of Center for Health Data Innovations at the Albert Einstein College of Medicine and Montefiore Medical Center. "It extends property graphs to support an entirely new array of use-cases and functionalities that were not possible before, but most importantly enables implementation of fine grained security built directly into the storage layer. "

Multi-master Replication and Two Phase Commit

AllegroGraph 6.5 is also the first Semantic Graph database to support multi-master replication and Two Phase Commit (2PC) to keep data in distributed databases in sync — regardless which database is used to add or delete data. Developers no longer need to keep track of transactions between different types of databases, but can use standardized APIs to make it straightforward to perform multi-database transactions. The system automatically ensures that data is synchronized into multiple databases.

Availability

AllegroGraph 6.5 is immediately available directly from Franz Inc. For more information, go to https://allegrograph.com/blog/.

About AllegroGraph

AllegroGraph is a database technology that enables businesses to extract sophisticated decision insights and predictive analytics from highly complex, distributed data that cannot be uncovered with conventional databases. Unlike traditional relational databases or other NoSQL databases, AllegroGraph employs semantic graph technologies that process data with contextual and conceptual intelligence. AllegroGraph is able run queries of unprecedented complexity to support predictive analytics that help organizations make more informed, real-time decisions. AllegroGraph is utilized by dozens of the top F500 companies worldwide.

About Franz Inc.

Franz Inc. is an early innovator in Artificial Intelligence (AI) and leading supplier of Semantic Graph Database technology with expert knowledge in developing and deploying Knowledge Graph solutions. The foundation for Knowledge Graphs and AI lies in the facets of semantic technology provided by

AllegroGraph and Allegro CL. The ability to rapidly integrate new knowledge is the crux of the Knowledge Graph and Franz Inc. provides the key technologies and services to address your complex challenges. Franz Inc. is your Knowledge Graph technology partner.