DataBearings: A Semantic Approach to Enterprise Information Integration

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Business Needs

Combine own data (IoT, enterprise systems) and external data (business partners, Open Data), for better analytics and better services and applications.

Solution

DataBearings is an extensible engine for accessing and bridging data from heterogeneous sources, such as Web services, databases, files, sensor feeds, proprietary interfaces, and other.

DataBearings supports both the live-data access (so called, virtualization and federation) and the data extraction (so called ETL) approaches.

DataBearings makes it easier to connect to external data sources and cheaper to continuously adapt to their changing interfaces, as well as to grow the system to incorporate new sources.

DataBearings is based on the principles of semantics and ontologies, but is many times faster and lighter than other semantic systems.

DataBearings supports read and write (e.g. adding records into a database), rule-based data interpretations and actions, Java action plugins – a richer feature set than any competing system.

DataBearings can be deployed stand-alone or used within a Java application.

DataBearings is a relatively mature platform, yet in continuous evolution.

Use case example: Finnpark uses a number of sensing systems from different vendors. (1) Dynamic data from those have to be combined. (2) These data are only analysable when fused with static data from enterprise systems (parking areas, assets). (3) Data from business partners (e.g. Easypark) has to be taken in. (4) Weather / city events data is of interest for analytics purposes.