# DataWalk

# Graph and AI Analytics and Investigation Platform

Unlock Insights with Graph and AI–Driven Data Fusion, Analysis Prototyping, Investigation and Decision Automation

## Challenge

Many organizations struggle with connecting and analyzing vast amounts of data, and then finding desired patterns and connections across that data.

Complicating the challenge is that things change fast, so an agile system is highly desirable... but it must enable agility while also meeting the stringent requirements of enterprise IT. Until now, there have been few solutions that fit the bill.
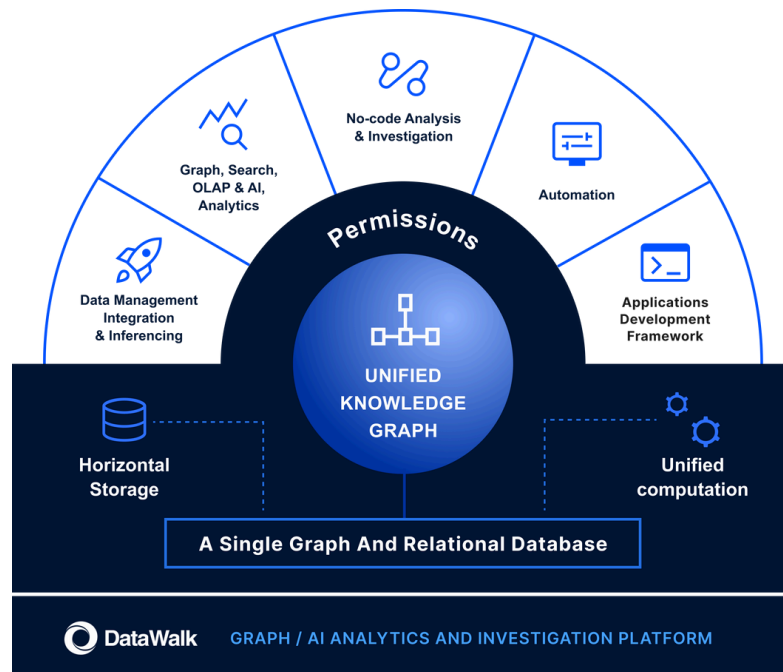
## The Solution

DataWalk is the only software platform that delivers unparalleled enterprise agility by seamlessly integrating key graph, AI–based, OLAP, and advanced search functions into a single, unified solution. This empowers organizations to efficiently integrate, organize, understand, search, and analyze data.

With DataWalk, you can accelerate analysis, streamline investigations, and enhance decision–making, all while meeting the rigorous demands of enterprise IT environments.

## Key Benefits

- Easily Combine, Transform And Organize Your Data

- Quickly Discover Patterns, Anomalies and Connections

- Accelerate Your Analysis And Investigations By 10X

- Streamline Your Decision–Making

- Achieve Faster Time-To-Value

## One Unified Graph & AI Enterprise Platform

## Easily Combine, Transform And Organize Your Data

With the DataWalk Knowledge Graph you can efficiently fuse vast amounts of disparate data – from internal/external databases,subscription services, OSINT, and Excel/CSV/PDF files—into a simple structure (ontology) and a single repository.

With your data in the knowledge graph, you will have an intuitive visualization of your data and its interconnections, giving you a complete and accurate contextual view of entities, organizations, places, transactions, events, and anything else.
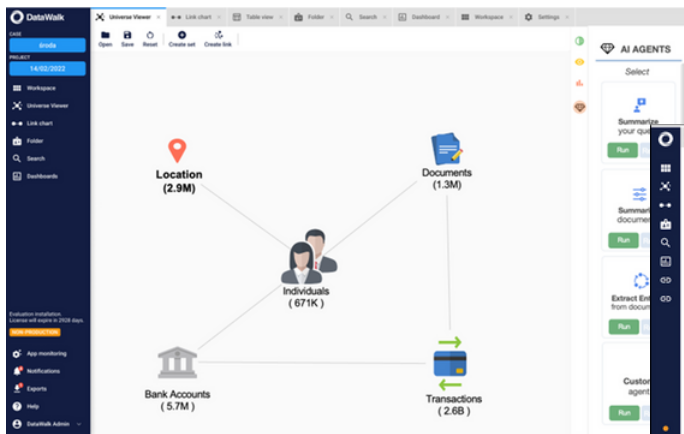
## Quickly Discover Patterns, Anomalies, and Connections

Unlike other tools with limited scope and separate modules, DataWalk is a full-stack solution that combines graph analytics, AI/ML, text analysis, OLAP pivots, and vector analytics in one comprehensive system with a single database. This gives users more possibilities in a single, seamless, cost-effective, and optimized workflow.

DataWalk identifies and stores connections between data sets to enable fast interactive analysis, even with billions of records.
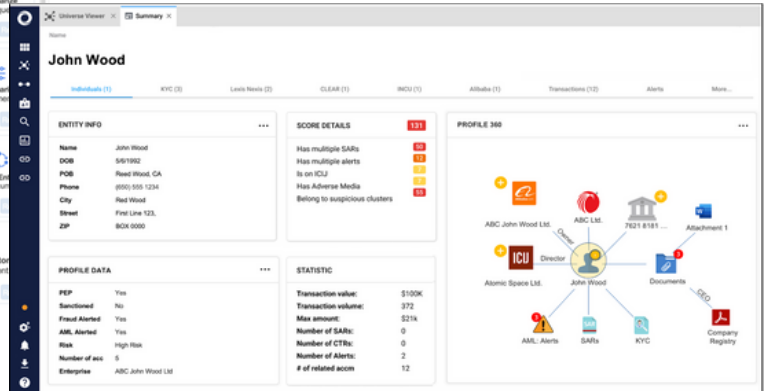
of locating data in different systems and then attempting to manually correlate that data.

You can then easily access, visualize, analyze, and securely share your data as desired, all without coding. Case-specific data can easily be connected to your other data, and if desired this can be done in a private sandbox.

You can easily explore and analyze your data via no-code visual queries, and unique DataWalk technology enables even highly complex queries to quickly complete.

With DataWalk you can perform comprehensive contextual (semantic) searches and instantly obtain detailed 360-degree view summaries for quick insights, both from a desktop as well as a mobile device.



Fig. 1: Data in the knowledge graph can be re-organized around intuitive business objects



Fig 2. Generate instant 360-degree views of any object.

You can clean, link, and resolve entities without coding and without requiring any action from data owners, enabling you to significantly reduce data prep time.

With all data connected in one place, DataWalk can very effectively serve as "the database" for an organization, as well as serve as a platform for analytics, ML and other AI projects.

Importantly, you can also easily modify or expand the knowledge graph, and adopt a variety of new use cases without coding.

## Reasoning & Inferencing for Smarter Insights

You can define logical rules, apply advanced inferencing techniques, and dynamically enrich knowledge graphs to uncover hidden connections and drive accurate, interactive analysis.

DataWalk is remarkably flexible, enabling you to quickly prototype and iterate on new data, scenarios, and analyses.

With DataWalk you can create no-code visual queries, rules, and scores that run across all your data, enabling you to make better, more informed decisions.

## Agile Prototyping

With DataWalk you can easily integrate new data sources, create new connections, analyses, or scores with our no-code, unified sandbox technology that seamlessly fits into your enterprise processes.

## Dramatically Accelerate Your Investigations

With DataWalk your data is connected and in one place, enabling you to eliminate the time-consuming, error-prone process

DataWalk includes a powerful link analysis facility, which enables you to identify and visualize hidden connections. DataWalk takes this one step further with a find paths capability, that automatically identifies how objects may be distantly connected across all of your data.

DataWalk's unique enhancements with graph technology also enable you to automatically identify clusters that match the criteria you specify. This is particularly helpful for finding and monitoring organized crime groups and their connections.

You also can quickly generate or modify scores, across any number of analyses or rules. You can score any objects (e.g., people, transactions, claims, etc.) to effectively measure risk or spot patterns across all your data.

## Streamline Your Decision-Making

DataWalk enables you to deploy, schedule, and monitor ready-to-go analytical products with a single click.

With analyses in DataWalk you get full lineage, with explainability, reproducibility, and monitoring.

You also can automate decisions and share output (including alerts) within the platform or to other systems via API.

DataWalk is built for collaboration. You can easily, securely share data, analyses, and investigation files with authorized colleagues and partner organizations.

## Makes Your LLMs Better

DataWalk supports various LLMs (offline and via API) and can augment your LLM with your organization's structured and unstructured data, enabling the LLM to more reliably answer even internal organization-specific questions.

DataWalk incorporates your organization's knowledge with valuable context and relationship information so that the LLM summary is grounded in facts and hallucinations are reduced.

With DataWalk you also can simplify LLM integration with a pre-built LLM connector to coordinate between your company's information and your chosen LLM.

## Easy To Use

DataWalk utilizes intuitive visual interfaces that enable you to get the data you need and answer the questions you have, without coding, without technical expertise and without help from IT.

DataWalk's visual interfaces use the semantic meaning of real-world objects, which allows the subject matter experts to explore data, analyze intuitively, and record their business rules in such a way that they are understandable and reusable by others.

If desired, you also can perform many functions yourself, that with other vendors would require professional services. For example, you can modify the data structure yourself, import Excel files yourself, and create your own rules and scores.

Non-technical users can retrieve data from DataWalk via the Quick Search facility which is streamlined for simplicity for users both in an office, or in the field on a mobile device.

If desired, your expert analysts can save key queries, so that anyone can run the same analysis with the click of a mouse. This enables you to effectively build a library of domain knowledge, and deliver more consistent and more reliable results.

## Unified Architecture for Integrated Analytics

DataWalk combines graph, OLAP, search, and AI/ML within a unified database with a single computation layer, enabling analytics directly where the data resides—eliminating the need for data movement.

## Built For The Enterprise

DataWalk is designed to serve as a key component of an enterprise workflow, and to adhere to the requirements of enterprise IT organizations.

DataWalk integrates seamlessly with IT data pipelines and adheres to best practices in data governance. DataWalk supports the comprehensive facilities for data lineage, audit, security, software upgrades, and high availability options that are often required by IT, especially in highly regulated industries.

## Real Extensibility

With the DataWalk App Center you can develop or incorporate your own plug-in applications (or open-source software) into DataWalk, dramatically simplifying and accelerating the development process.

### Sample Applications

- Anti-money laundering
- Blockchain investigation
- Digital investigations
- Entity resolution
- Internal/external fraud
- Intelligence analysis
- Know Your Customer
- Threat Intelligence
- LLM solution enhancement
- Data management
- Knowledge Graph
- Supply Assurance

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