

The DataWalk Graph Analytics Software Platform

Identify, Understand and Investigate Suspicious Activities

Key Benefits

Get Answers 10X Faster

- All your data, connected in a knowledge graph for instant access
- Fast response, even with billions of records
- Complex no-code queries quickly complete
- Utilize and enable AI/ML

Better Results

- Make better decisions by analyzing ALL available data
- Quickly discover new connections and patterns across all your data
- Automatically identify organized crime groups and their connections
- Instant 360-degree view of anything

A Practical Solution

- Perform sophisticated analytics without programming
- Built for the enterprise
- Easily adapt to change
- Software that works!

The Problem

Both enterprises and Government agencies need to more effectively identify and investigate suspicious activities, and to better understand the true nature of potential risks and threats. They are often concerned that "they don't know what they don't know."

The answers often reside somewhere in their data, but the complexity and/or scale of available data makes it impractical to efficiently analyze.

The Solution

DataWalk® is graph analytics software that enables you to quickly discover hidden patterns, connections, and risks across your vast amounts of complex silo'd data. DataWalk enables you to efficiently fuse all your data in a single repository for instant access and no-code analysis using a variety of tools and techniques.

With this you can be far more effective in better understanding risks and threats.

Get Answers 10X Faster

DataWalk enables you to get answers up to 10X faster than traditional approaches, via the capabilities below.

All Your Data Fused In One Place

DataWalk's graph technology enables you to quickly fuse all of your data - from internal databases, external databases, subscription services, OSINT, and Excel/CSV/PDF files – into a simple knowledge graph and a single repository.

Having all your data fused in one place dramatically reduces the time it takes to access the data you need.

Fast Response With Big Data

Patented DataWalk technology is architected specifically for environments with many data sources and large volumes of data. DataWalk identifies and stores connections between the data sets to deliver fast interactive analysis, even with billions of records.

Complex No-Code Queries Quickly Complete

The DataWalk Universe Viewer is a knowledge graph that provides a visual representation of all your data. Data can be organized around understandable business objects such as people, vehicles, transactions, and anything else.

On the Universe Viewer you can easily create understandable no-code complex queries simply by

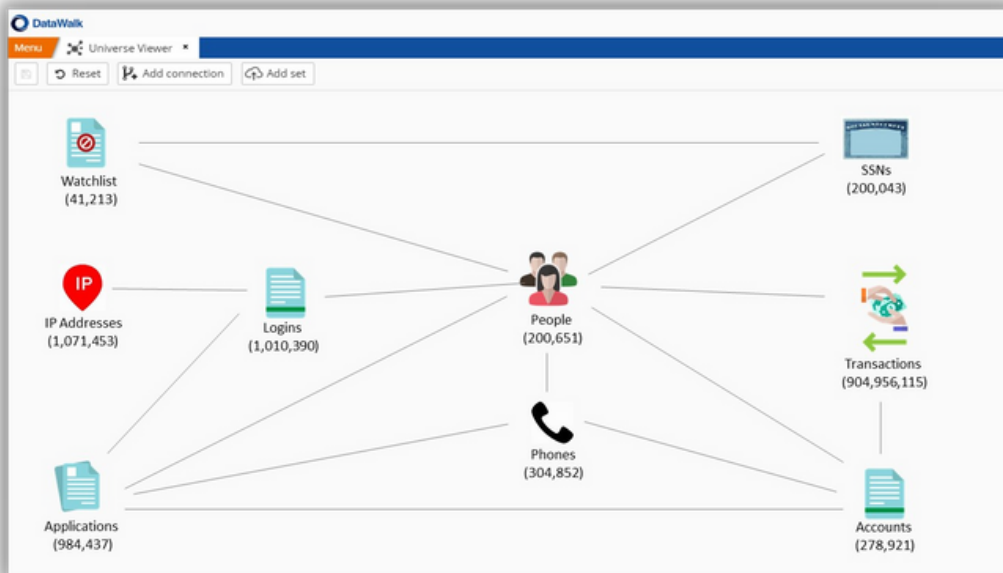


Fig. 1: Data in the knowledge graph can be re-organized around intuitive business objects

traversing and filtering data sets and their connections. Unique DataWalk technology then ensures complex queries rapidly complete.

Instant Access For Non-Technical Users

With all data connected in one place, DataWalk can very effectively serve as "the database" for an organization. Non-technical users can retrieve data from the database via DataWalk's Quick Search facility which is streamlined for simplicity for users both in an office, or in the field on a mobile device.

Far Better Results

With a range of capabilities discussed below, DataWalk enables you to deliver far better results.

Use All Your Data To Get Better Results

Traditional approaches often limit which data is available for you to analyze. In contrast, with DataWalk you can easily do analyses utilizing ALL your data, enabling you to make better, more informed decisions.

Identify And Analyze Connections

Both the Universe Viewer and DataWalk link charts operate across all your data, enabling you to identify hidden connections and view large networks of interconnected objects to quickly spot patterns, exceptions or anomalies.

DataWalk link charts also integrate with maps, support time-series analysis, visualization of flows, and include Social Network Analysis heuristics.

Automatically Find Distant Connections

Unique DataWalk graph technology enables you to quickly, automatically find paths between any objects – individual objects, groups of objects, or filtered objects - across all of your data.

Automatically Find Organized Crime Groups

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 organized crime groups and their connections.

With this you can utilize exclusion lists to eliminate unwanted "super clusters". You can also be alerted anytime a new connection touches such a cluster.

Instant 360-Degree View On A Single Pane of Glass

With all your data fused and available, you can instantly generate a 360-degree view - of any person, organization, event, or anything else – on a single pane of glass, using all of your data.

Multiple options for 360-degree views are available, including Summaries which show the specific data you always want to see for a particular entity type; Folders which contain all information about an entity from across all your sources; and link charts.

Utilize And Enable AI

DataWalk embeds AI technology to automatically complete, clean, overwrite, and enrich data so that it can quickly be used for further analysis. DataWalk also utilizes AI to analyze text, and enables AI/ML applications via an end-to-end machine learning facility.

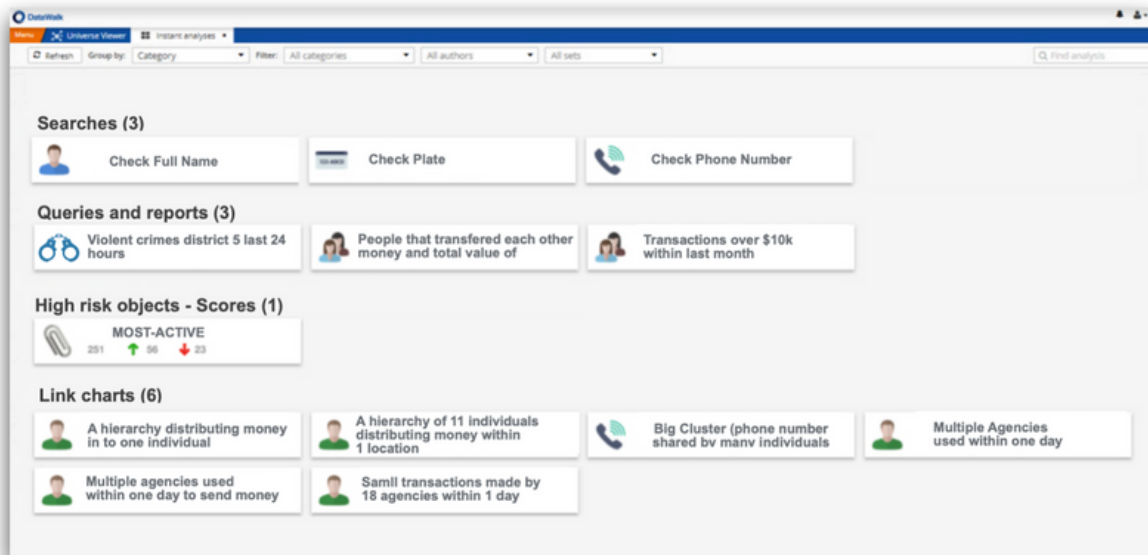


Fig 2. Anyone can run push-button analyses and reports via the DataWalk Workspace

In addition, DataWalk's scoring facility enables you to match known graph patterns against the rest of your data.

Expand Functionality With DataWalk Apps

The DataWalk App Center enables insertion of programs into the system for additional processing of data in DataWalk. Apps include integrations with external systems, various parsers for processing files, open-source code for image analysis, and many others. Qualified customers can also write and insert their own Apps.

Easy Risk Scoring

You 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.

Easily Create, Save, And Modify Queries/Rules

You can easily create and save queries and rules, and then re-run them in the DataWalk Workspace

with the click of a mouse. You can build a library of domain knowledge, securely share queries with other users, and deliver more consistent and more reliable results.

A Practical Solution

DataWalk is a collaborative, enterprise-class system that enables you to adapt to changing requirements.

Sophisticated Analytics Without Programming

DataWalk is a platform for visual analysis, and does not require you to have expertise in SQL, programming, or a scripting language.

You can code machine learning models if desired, via integrated Jupyter Notebook and Kedro. In addition, you also can automatically generate machine learning models with AutoML.

Built For The Enterprise

DataWalk is built to operate as a component of an Enterprise

workflow, and to comply with requirements of Enterprise IT organizations. DataWalk processes support integrated test, development, and production environments to simplify deployments and upgrades. Lineage and provenance of each data element is automatically tracked.

Easily Adapt To Change

DataWalk is remarkably flexible. You can easily modify the knowledge graph - adding and fusing new data sources, or adding or modifying connections between data sets - without impacting system operation. You can easily create new rules and scores yourself with just a few clicks.

Software That Works

Not all software works as advertised, and many customers come to DataWalk after failing with other software projects and products.

Enterprises and government agencies around the world rely on DataWalk to solve their most difficult problems.

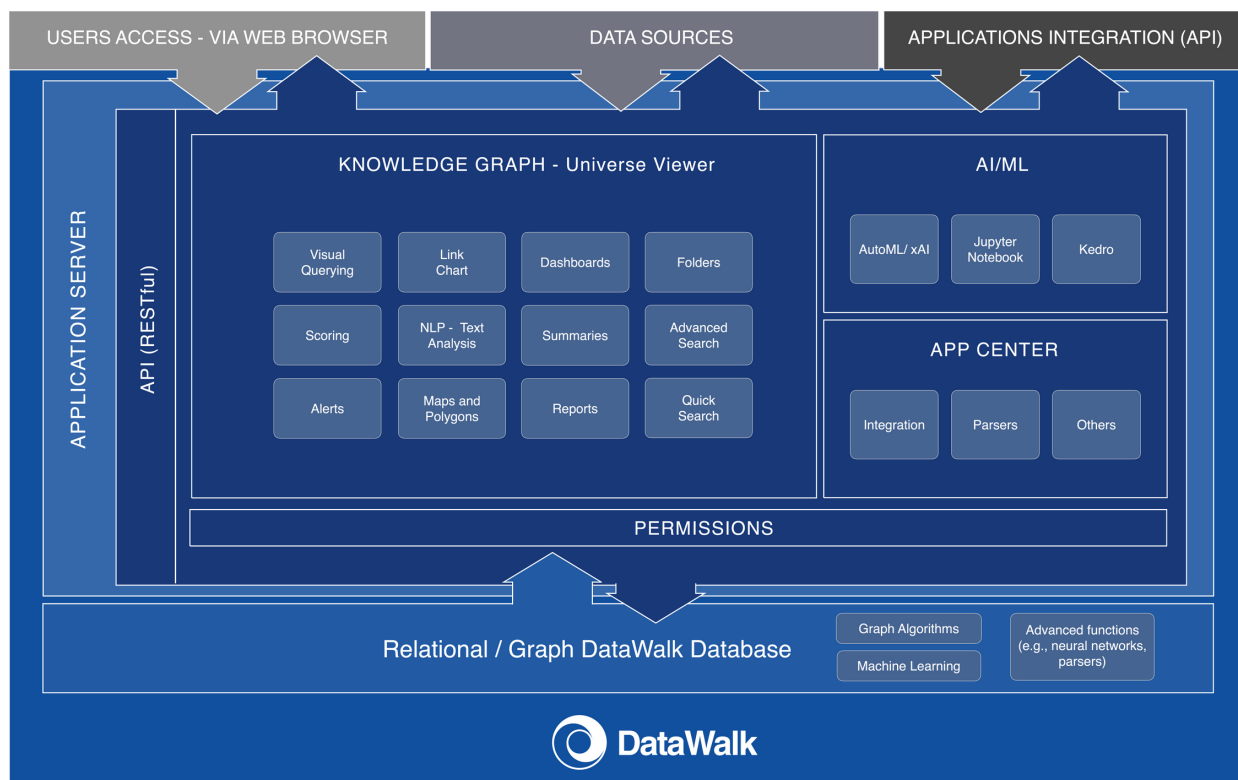


Figure 3: DataWalk System Diagram

Efficiently Clean And Normalize Your Data

Many organizations have significant issues with data quality. With DataWalk you can use your data the way it is. You can quickly profile your data, deduplicate content, resolve entities, normalize data, and automatically perform on-the-fly transformations, all without requiring any action from data owners.

An "Off-The-Shelf" Scale-Out Platform

DataWalk is a Commercial Off-The-Shelf (COTS) software platform that runs on standard commodity servers, helping to ensure affordable economics.

If you need to expand your environment as your data grows, then you can increase capacity simply by adding more servers to the DataWalk cluster.

Minimal IT Support

Once deployed, DataWalk typically requires minimal IT support.

Unlike alternative systems, administrative power-users can modify the analytic data structure on their own using simple graphical interfaces, without requiring professional services. You can easily import Excel files yourself, create your own rules and scores, and take advantage of various other self-service capabilities.

Analyze Both Text And Database Content

Organizations typically have structured data in databases, as well as unstructured data such as text documents. DataWalk is exceptionally good for structured content, and also provides a variety of capabilities to enable analysis of unstructured and semi-structured content. You can utilize entity extraction to automatically identify and categorize key terms and objects, and you also can easily find specific phrases or patterns in text content.

For Users Across The Organization

DataWalk is an exceptional system for fraud and intelligence analysts. In addition, leaders can easily utilize DataWalk to view dashboards or reports, non-technical users can easily access information in the DataWalk database, and data entry staff can efficiently enter data.

Full-Stack Analytics Platform

DataWalk is a full-stack analytics platform. So, unlike some alternative solutions, there's no need to cobble together multiple product components to have a complete system for data analysis. DataWalk includes facilities for no-code querying, text analysis, machine learning, graph algorithms, and much more.

No client-side software

DataWalk is operated via a web browser. There are no client-side installs or plugins required, making DataWalk easier and more secure to deploy.

Easily, Securely Collaborate

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

Repeatable Results

Unlike many other systems, where operations must be re-created each time, DataWalk keeps track of all user operations and re-applies appropriate computations in the most optimal way when new data arrives or is modified. This helps to maximize consistency of information.

With DataWalk you can instantly re-run a saved query, enabling easily repeatable results.

Robust Granular Security

DataWalk provides highly granular permissions where users only see the data for which they are authorized. If desired, permissions can be implemented down to the level of an individual cell.

Deploy On-Premise Or In The Cloud

DataWalk is cloud-ready (AWS and Azure), and can also be deployed on-premise behind your firewall.

Sample Applications

- Anti-money laundering
- Blockchain investigation
- Defense
- Digital investigations
- Infectious disease tracking
- Internal/external fraud
- Intelligence analysis
- Machine learning Infrastructure
- Sandbox for data and analytics