

Matrikon Data Broker



Data Technology for enterprise wide data interoperability



www.MatrikonOPC.com/databroker

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Matrikon Data Broker

Redefines how you access and work with your 3rd party shop-floor data by making it easy via:

- Secure access
- Context enrichment
- IT/OT gap elimination
- and more...

Matrikon Data Broker Overview

Secure Enterprise OT Data Access

Welcome to the new world of enterprise-wide shop-floor data visibility powered by Matrikon Data Broker (MDB), the first true data technology platform.

MDB defines a new class of software called Data Technology (DT) that solves IT/OT gap challenges, poor data context, and cloud connectivity issues in a single, comprehensive package.

MDB makes easy work of providing OT data access to everyone in your organization:

- System Integrators (SIs) and engineers,
- Operations managers,
- Maintenance,
- IT personnel, and
- C-suite and external partners



One app for everything

The MDB platform serves as an OT data foundation for standalone and multi-site, multi-level data architectures spanning OT and IT networks.

Future ready

Seamlessly combine and extend MDB nodes for a simple, sustainable architecture that grows with your organization's data needs.

Data with more meaning

Add context to existing shop floor data sources and enhance new component contet to best reflect your context.



OT Data Access and Management



Easy, it just works.

Full featured

- Connectivity
- Flexible deplyment
- IT/OT Security best practices
- Open standards based
- Edge and cloud support

Matrikon Data Broker Uses

Matrikon Data Broker:

Data Technology Used Everywhere

IT DT OT

The first digital enterprise OT data platform

From open and secure data connectivity to shop-floor components like sensors, devices, and legacy systems, and context enrichment to large-scale data aggregation, enterprise-wide management, and context enrichment: MDB does it all. Remove barriers to data sharing between the shop floor systems on OT networks, pplications running on business networks, and cloud systems with Matrikon Data Broker Data Technology.





Matrikon - Powering Interoperability 6



MDB Data Technology Enables companies to maximize the value of their OT data.



MDB Vision: To enable companies to realize the full value of their OT data by making it simple to access, enhance, and manage that data enterprise-wide using a single, open and secure platform.

MDB implements this vision by:

- Eliminating technical challenges like IT/OT gaps and 3rd party connectivity barriers
- Enhancing the value of the OT data sources to make it meaningful for those using it.
- Scalability and extendibility to meet future growth and needs

The MDB platform empowers you and your company to focus on using OT data to drive results instead of wasting time trying to access and massage it.

Build your future OT data foundation today with MDB.



Matrikon Data Broker Benefits everyone across the enterprise





Engineering & System Integrators

Shop-Floor and Field

- Integrate new and legacy 3rd party components
- Simplify infrastructure
- Improve reliability
- Enhance data context closest to data sources
- Work with remote systems
- Share OT data while keeping data sources safe
- and more...

Operations & System Maintenance

Plants and Factories

- Run at higher capacity with deeper shop-floor situational awareness
- Troubleshoot faster & more effectively to minimize unscheduled downtime
- Improve IT/OT collaboration and data security
- Minimize training
 - and more...





Business & **Information Technology**

Plant, HQ, and Cloud

- Minimize CAP-EX by extending infrastructure ROI
- Access context rich OT data for better data analytics
- · Gain multi-site visibility for benchmarking
- Improve business agility using data based decisions
- Minimize training, maximize buy-in
- Easily send OT data to cloud providers of your choice (Azure, AWS, GCP)
- and more...

Matrikon Data Broker At-a-Glance

Scalability

From individual applications involving a single data source to plant wide data aggregation, MDB scales to meet todays high-volume data needs.

MDB's modular DNA embraces the reality

of ever changing business needs, OT and IT

Extensible (Evergreen)

Cloud Connectivity (IoT)

Easily move data to your cloud of choice. MDB integrates with cloud providers like Microsoft, AWS, and Google making it the easiest way to get your OT data securely into the cloud.

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Consolidated Access via Gateway

Federate OT datasources to protect them from direct external connections and simplify your architecture via a single access point.

Enabling application

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Enterprise -wide

technologies, and best-practices. Simply Azure IoT Hub 3rd Party Cloud Providers update, add, or remove MDB functionality (57 as needed to keep your infrastructure Business Azure IoT Edge Device modern. l evel 4 Level 3.5 DMZ **Nested Firewall Traversal** OT applications Level 3 Enable secure, 3rd Party OPC UA **H** communications across firewalls and System DCS S-PLC Data Broker DMZs using OPC UA Reverse Connect. Level 2 Use MDB to do this between components • that do not support this IT security best Sensors & Devices practice. o° \vec{x}° Level 1

Multi-OS & Container Support

MDB supports multiple operating environments such as Microsoft Windows, Linux, and Docker Containers for maximum compatibility with your environments.

3rd Party Connectivity (Adapters)

MDB Adapters provide connectivity to new and legacy datasources so you can access their native data and enhance it to meet evolving data needs.

Source-to-Source Mapping

Easily map data between 3rd party data sources by individual items or complex structures representing multiple nodes.

Matikas Data Broker

Secure Remote Configuration

Securely manage and monitor MDB nodes on or off premises using the MDB configuration tool for maximum flexibility.

Secure Data Access

MDB security controls who can access what data from each datasource it federates. MDB uses the latest OPC UA encryption standards to protect data as it is transfered.

Meaningful OT Data

Map new and legacy OT component data to OPC UA information models of your choice so everyone else gets that data in the proper context right from the start. This reduces expensive data cleaning later on so you get better analytics faster.

Extended Asset Life

Make OT data more meaningful and consistent. Import multiple data models at will and associate them with your federated data sources - even legacy systems that have no context like Modbus provide no context.

Matrikon Data Broker Data Modeling & Mapping



Do More With Your Data

Overcome obstacles to effective data sharing and utilization with seamless mapping of data flows between components that cannot share that data on their own. Enrich the meaning of your data by adding semantic infomation to the source data so the rest of your organization can best use it.

DATA MODELING & COMPANION

SPECIFICATIONS

MDB enables you to easily create and use OPC UA Information Model instances based on UA Companion Specifications in a No-Code fashion. CSs can be standardized ones created jointly with industry and standards bodies groups and the OPC Foundation or custom models geared specifically for your project needs. Map items from one or more of your MDB federated data sources to an Infromation Model that best represents your system. This enables others to work with the data represented in a way they can best use and understand - regardless of the data structre provided by the underlyting data sources.

SOURCE TO MODEL DATA MAPPING

SOURCE TO SOURCE DATA MAPPING

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MDB enables you to map data directly between the 3rd party data sources it federates. MDB does this without the need for additional data mapping middleware. This simplifies your data infrastructure and provides you with full control of the end-to-end joruney your data takes. What if you could work with all your OT data instead of fighting to securely access and format it?

Now you can, with MDB.

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Your Turn

What does your future OT data infrastructure look like?

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