TrendMiner Success Series - Admin Track

September 9th, 2026

Connector Modernization
TrendMiner Providers & ODBC Improvements

Welcome to the webinar. We will start momentarily.

TrendMiner

Listen only mode

Use the question area in the side panel

Q&A at the end

A recording and slides will be made available after the webinar

In today’s session

Plant Integrations	The foundation
WebHost → AppHost	Migration path
Legacy ODBC vs Generic ODBC	New patterns & parameters
Custom connectivity	Connector API
Future improvements	What’s coming
Useful Resources	Documentation & links
Q&A	Wrap up

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Why connectivity requires Windows

- Historian vendors ship Windows based SDKs (COM / .NET)
- ODBC drivers are only released and supported for Windows
    - JDBC drivers are not always available cross-platform
- Firewall security requirements
    - AWS security
    - Appliance is on different access level

Historians that require the Windows

- AspenTech IP21 — Windows ODBC interface
- Exaquantum — Windows .NET SDK
- Honeywell PHD — Windows .NET SDK
- Yokogawa Wonderware — Windows SDK/ODBC
- Aveva Wonderware — Windows .NET SDK/ODBC
- Aveva PI — Windows .NET SDK
- GE Proficy — Windows .NET SDK

Note: Refer documentation for full up-to-date list

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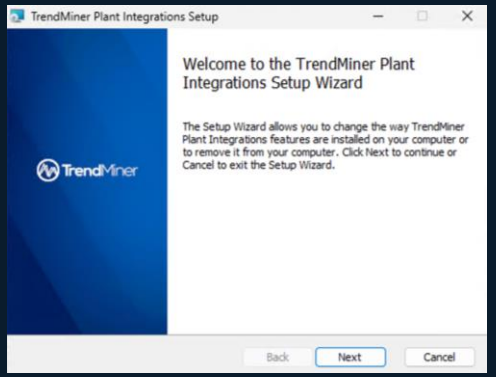
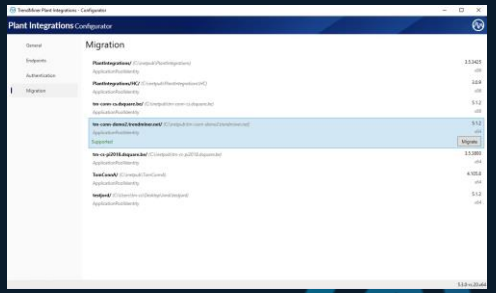
Installation and upgrades – easier and friendlier than IIS

Port 8001 should be available during installation

Local firewall rules are automatically updated

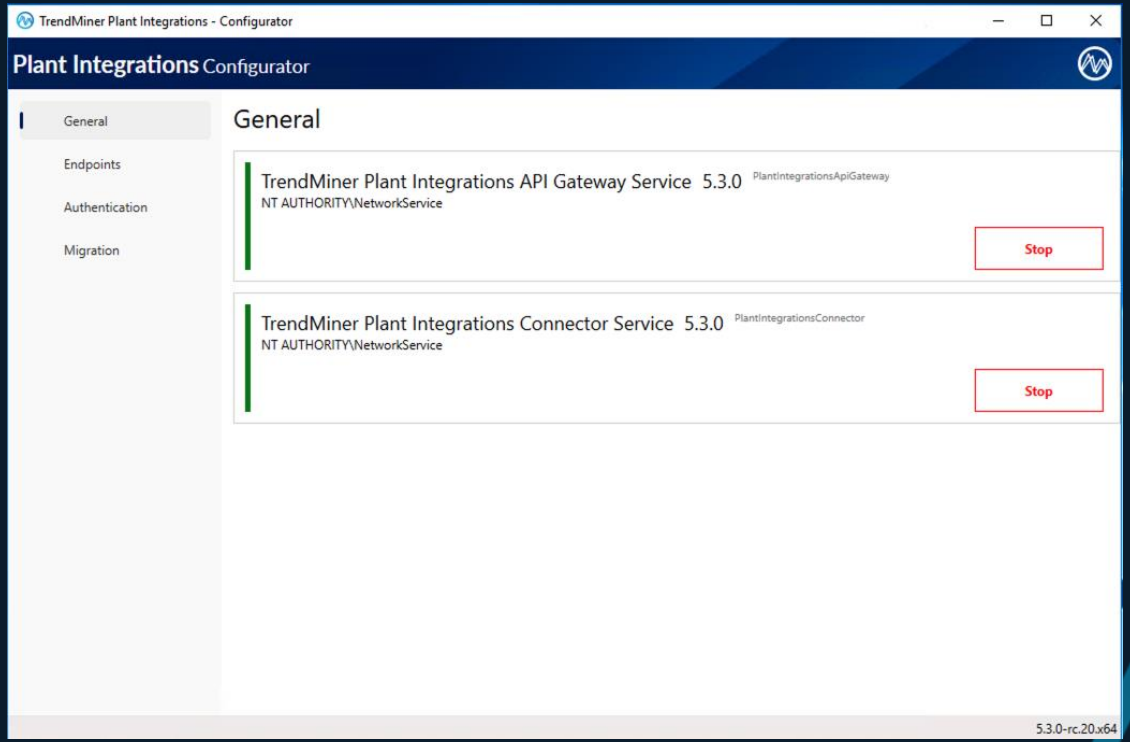
Configuration: Authentication, endpoints, certificates, services management





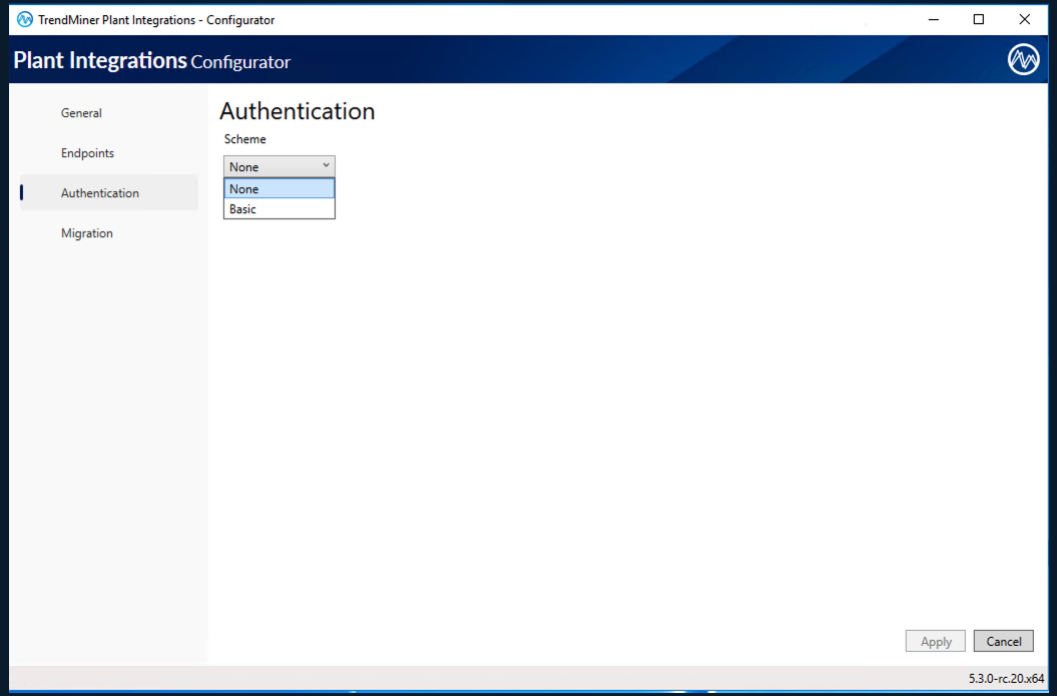
Management - easier and friendlier than IIS

General services overview



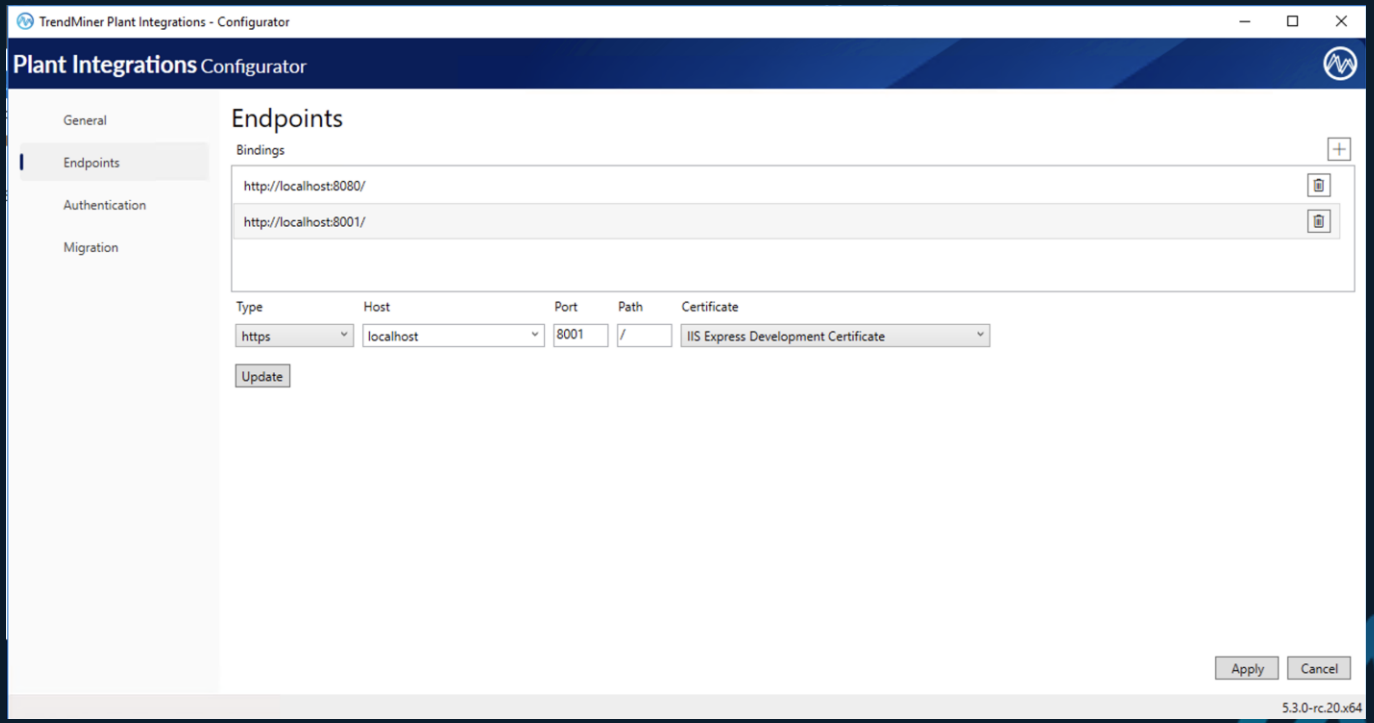
Management - easier and friendlier than IIS

Authentication Configuration



Management - easier and friendlier than IIS

Endpoints



Important Notes

Unsupported

- Currently one Plant Integration service
- Legacy ODBC, SQLite and OleDB providers do not migrate to AppHost
- Migration is supported from connector v5 only (R2025.R2 release)

Keep in mind

- After migration: update the port in ConfigHub to point to the new connector
- Fallback is possible back to IIS
- The modern replacement is Generic ODBC / JDBC

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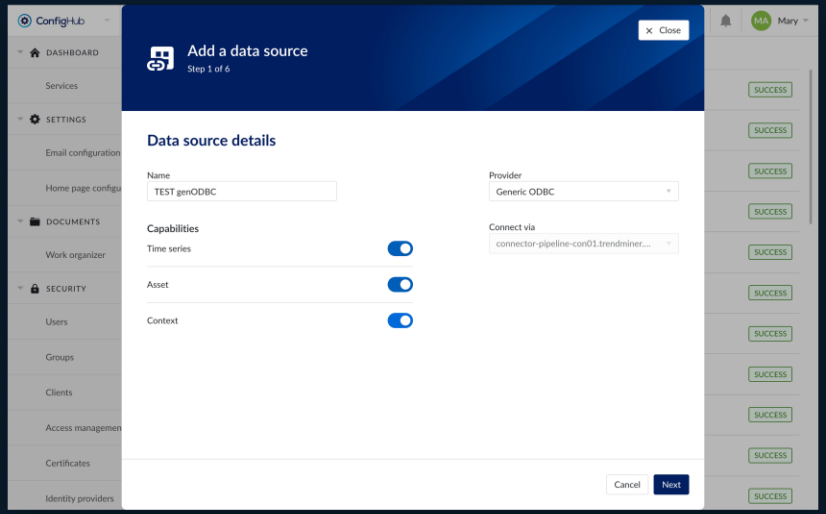
Why Legacy File Based configuration is being retired

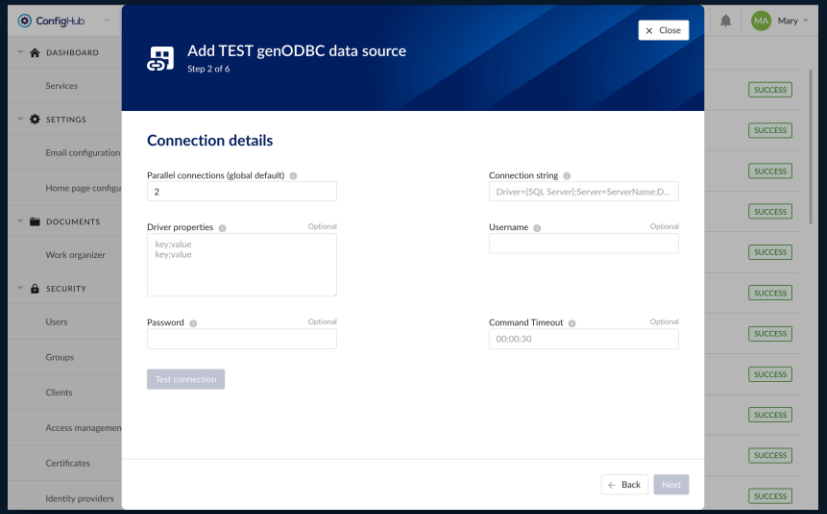
- Built long ago, its design predates today's connectivity standards
- Config and maintenance model has not kept pace with the platform
- No parity with Generic ODBC/JDBC tooling
- Legacy ODBC has become difficult to configure and maintain

Investigating Legacy Technologies Alternatives

- OleDB
- Sqlite

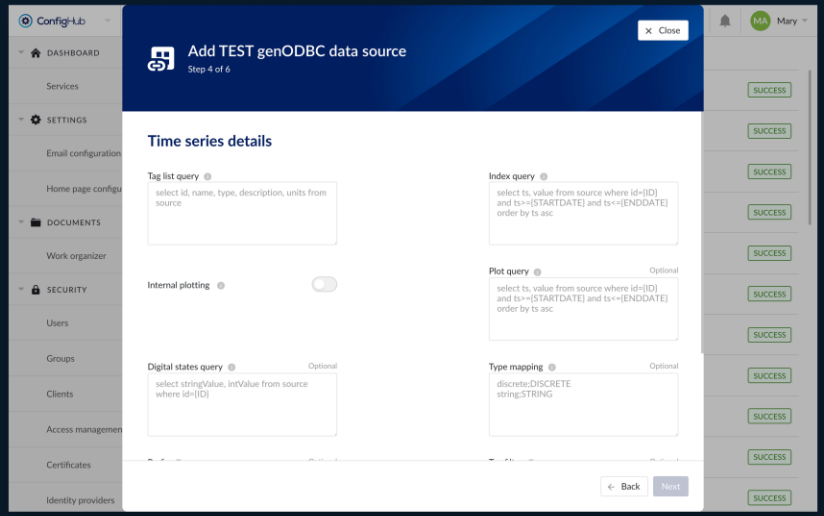
Control over Configuration

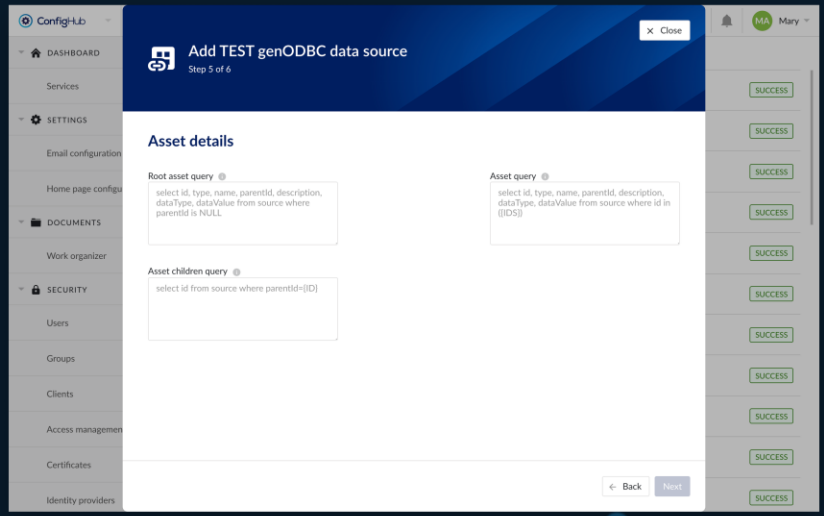




Generic ODBC/JDBC

Access to Configuration





Generic ODBC/JDBC

Generic ODBC/JDBC parameter syntax

Parameters now use meaningful names instead of positional ?/{0} markers

Note: there're small differences between ODBC and JDBC, refer documentation

Legacy ODBC

```
Legacy ODBC

• Using placeholders {0}, {1}, {2}, {3}
• Using unnamed parameters ?, ?, ?, ?
```

Positional binding — SQL injection risk when substituted as raw text

Generic ODBC / JDBC

```
Generic ODBC / JDBC

• Using named parameters
  {ID} — tag name in ODBC, id in JDBC
  {NAME} — tag name
  {INTERPOLATION} — interpolation type name
  {STARTDATE} — formatted datetime string
  {ENDDATE} — formatted datetime string
  {NUMBEROFINTERVALS} — number of
  {INDEXRESOLUTION} — index resolution
```

Named binding — no SQL injection; query must be written to rely on parameters

Generic ODBC/JDBC as an Alternative

- Ignition stores tag history in underlying database
  - MySql
  - MSSQL
  - Postgres TimescaleDB
- Wonderware
- Siemens PCS7
- AspenTech

Not just time series

- Legacy ODBC: time series data only
- Generic ODBC/JDBC and custom connectivity support all three data types:
    - Time Series — the classic case, tag values over time
    - Context — events, batches, process anomalies
    - Asset — structural and hierarchical asset data

Generic JDBC removes the middle tier

Advantages

- Middle Tier
  - Plant Integration: Historian → Plant Integrations → TrendMiner
  - JDBC: Historian → TrendMiner via JDBC driver
- No Windows machine in the middle — where a JDBC driver is available

Except

- Indirect connection still applies when no native driver exists — Windows connector is required
- AWS SaaS uses a reverse-proxy agent for private VPN tunneling and requires Plant Integration.
- Security reasons

Generic JDBC Drivers

Supplied

- MSSQL
- Postgres
- Snowflake
- Databricks
- MariaDB
- Sqlite

Third-Party

- Copy Jar to appliance

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Connector API: build your own integration

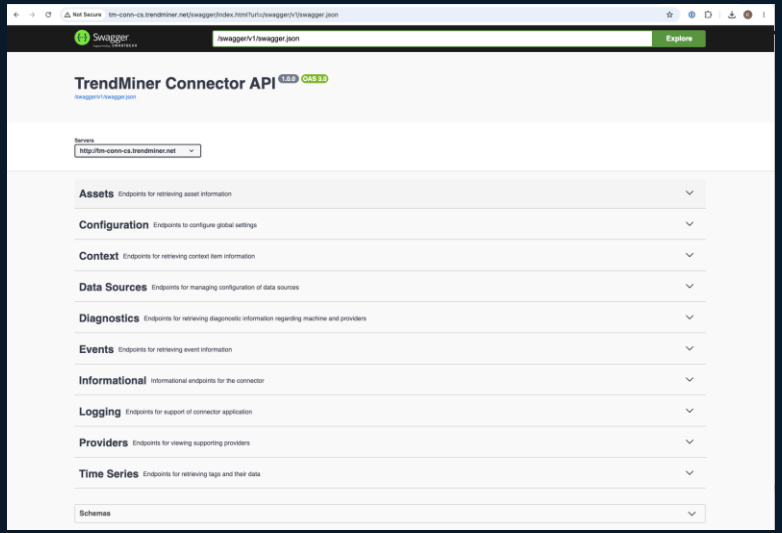
Starting Point:

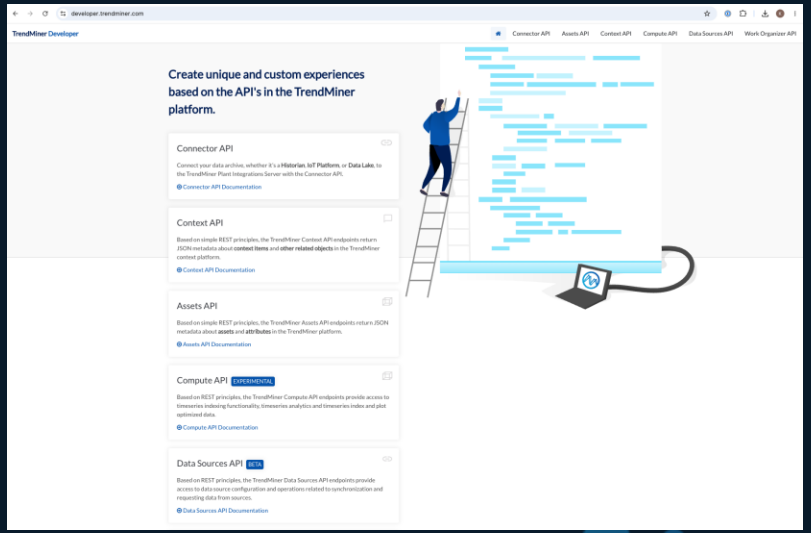
- Swagger
- Developer Portal
- Example Documentation
- Community Posts

Examples:

- Ignition Connectivity
  - Connector API: WebDev module usage by means of Ignition Designer (Jython)
  - Connector API: Custom Java Module option
- Litmus
- Any REST API Service, e.g. Node.js

Demo: Node.js simulated Plant Integrations API





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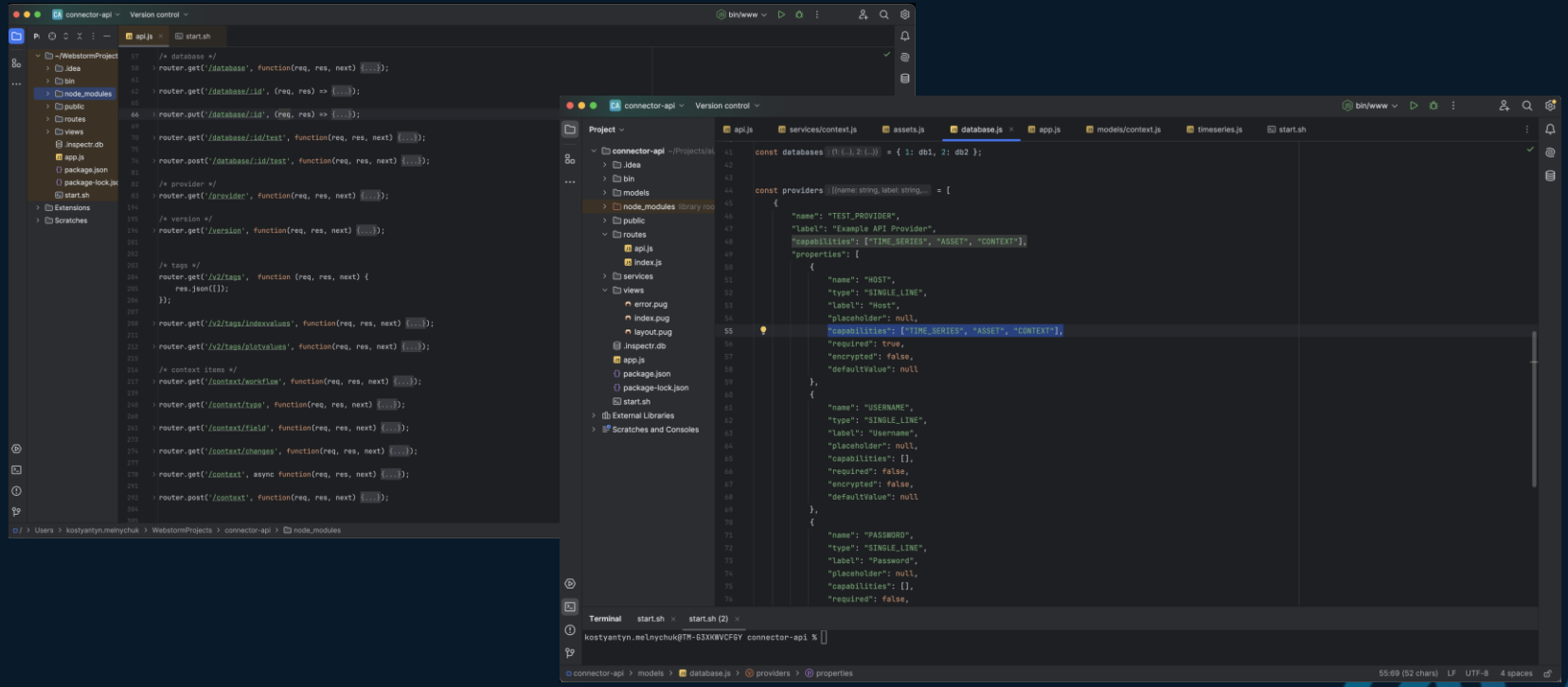

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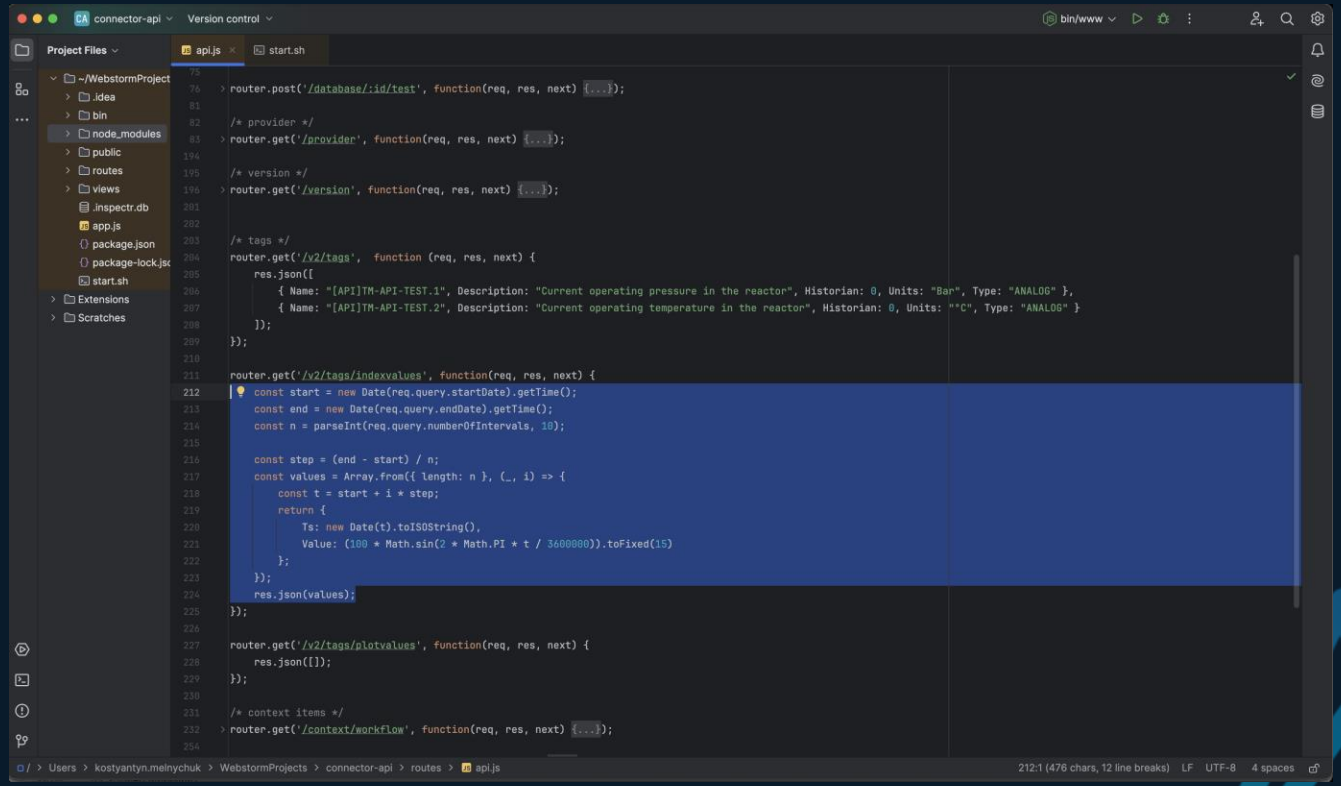

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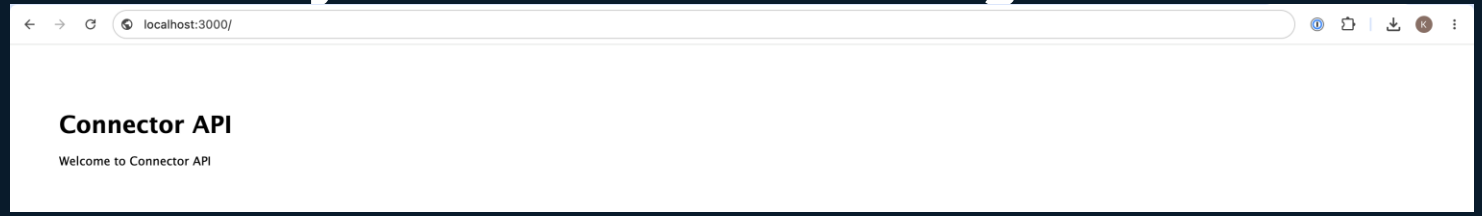

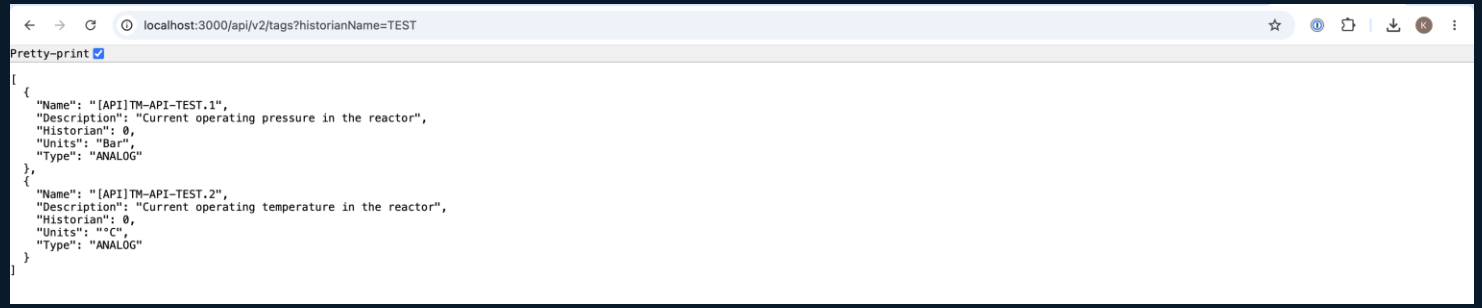

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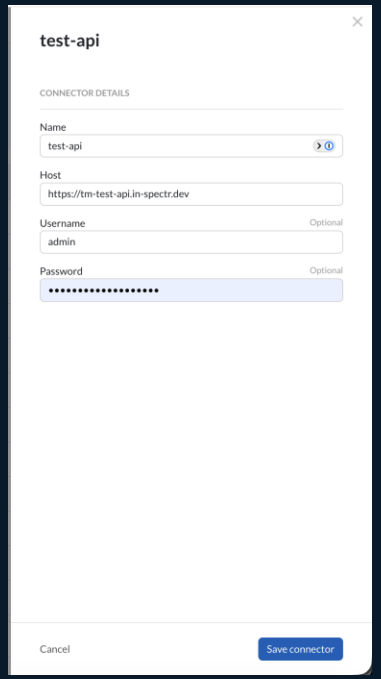

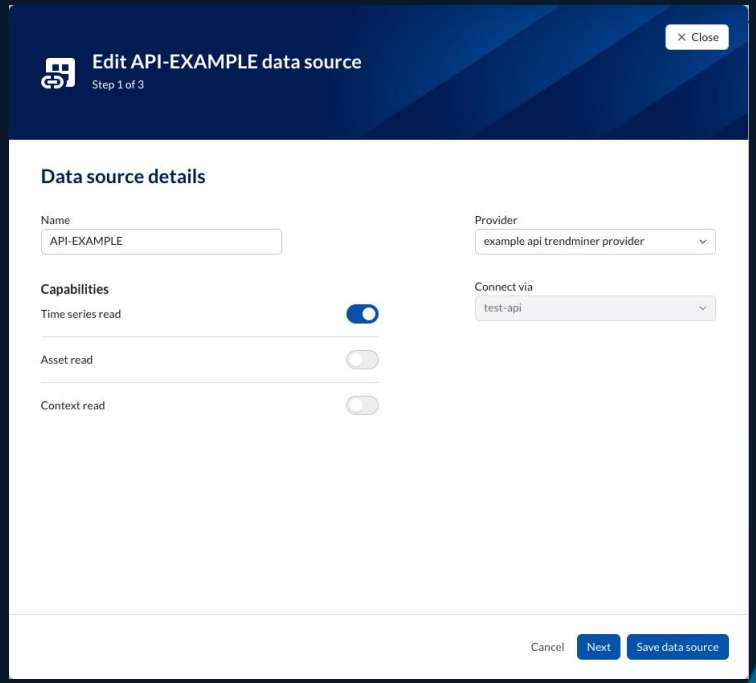

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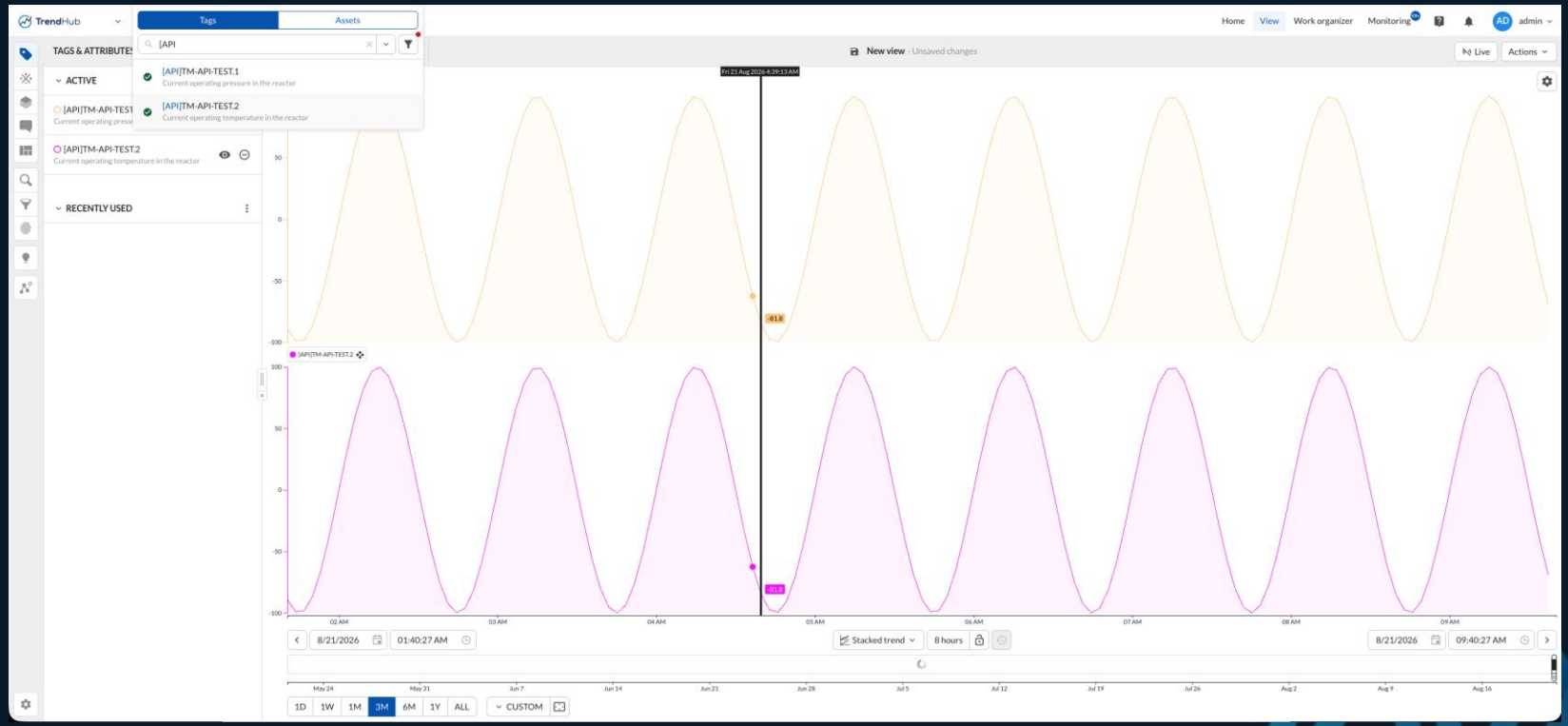
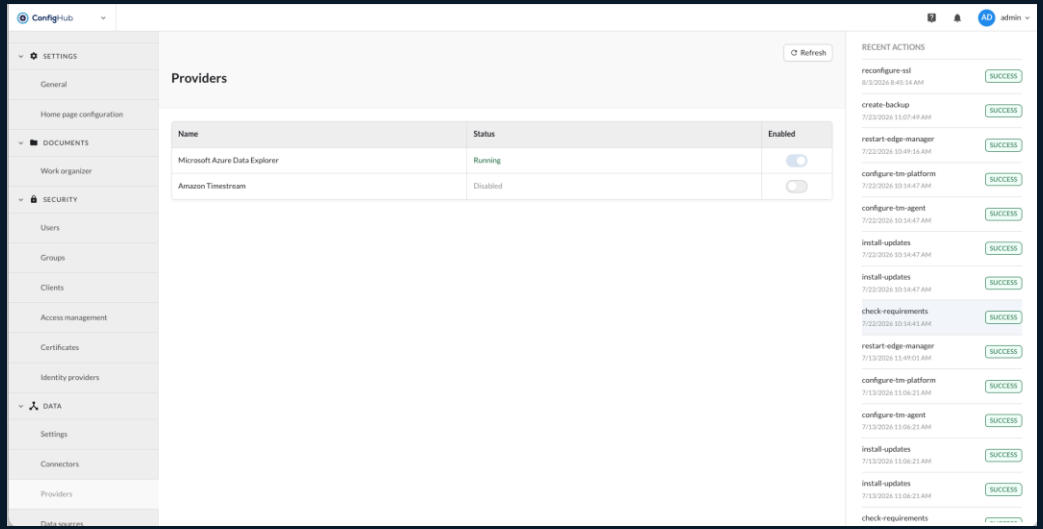


Additional built-in providers

- Canary (Built-In)
- Amazon Timestream (Runtime)
- Azure Data Explorer (Runtime)



Generic ODBC/JDBC

Need help?

TrendMiner can make an offer to investigate your connectivity options.

- 2 phases:
  - Investigation and performance report
  - Actual implementation and productization
- One-year updates included
- No cure no pay*
- Contact your CSM

*In case the connection cannot be set up or performance of the data source is insufficient, only part of the investigation effort is charged, not the full price.

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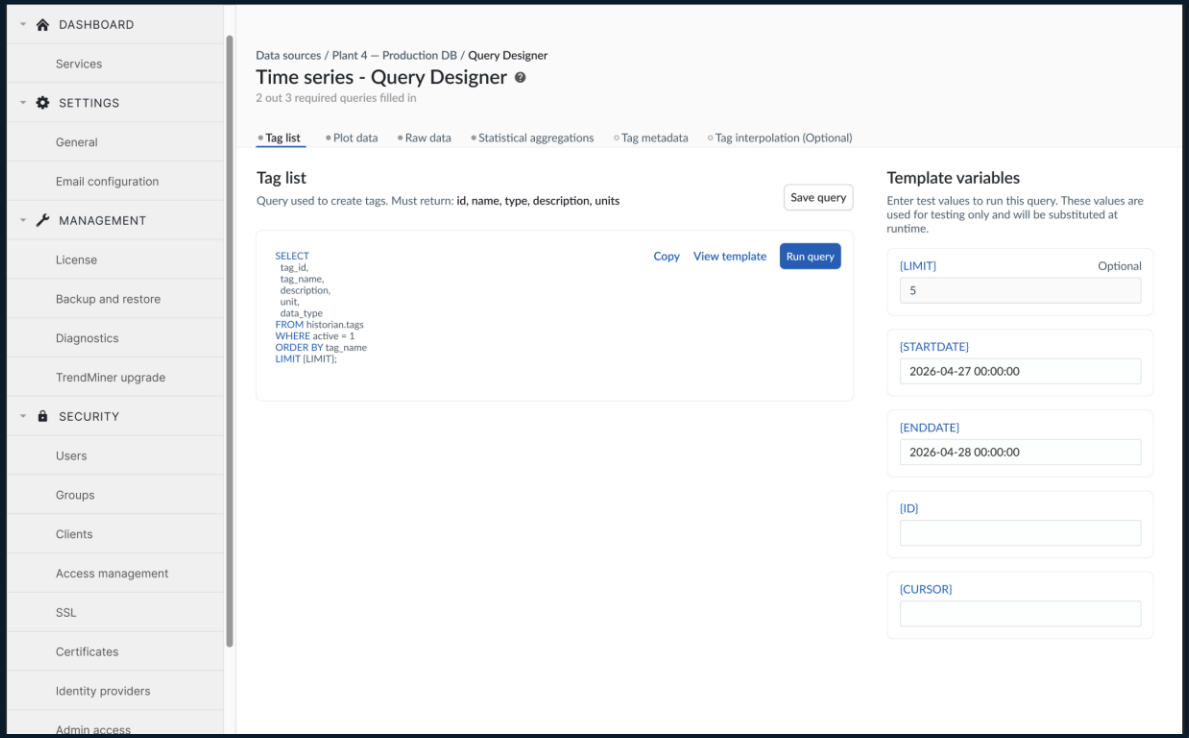
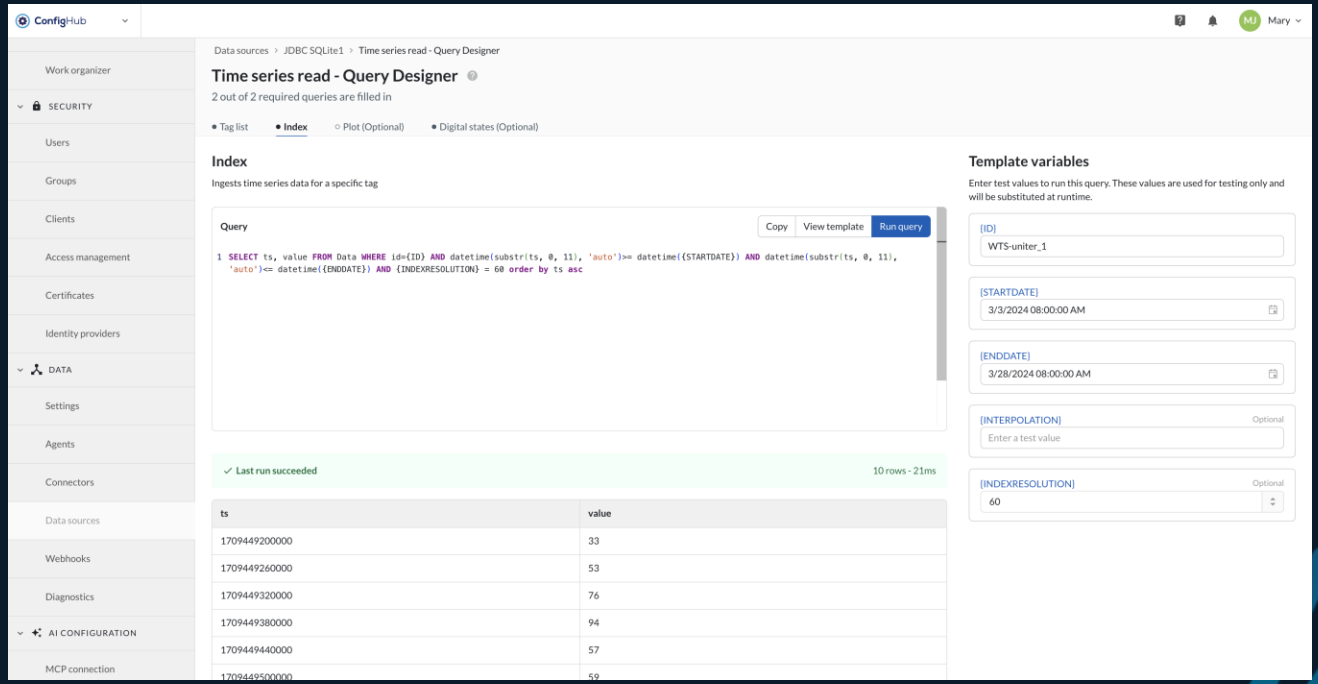
Future improvements:

Query Designer



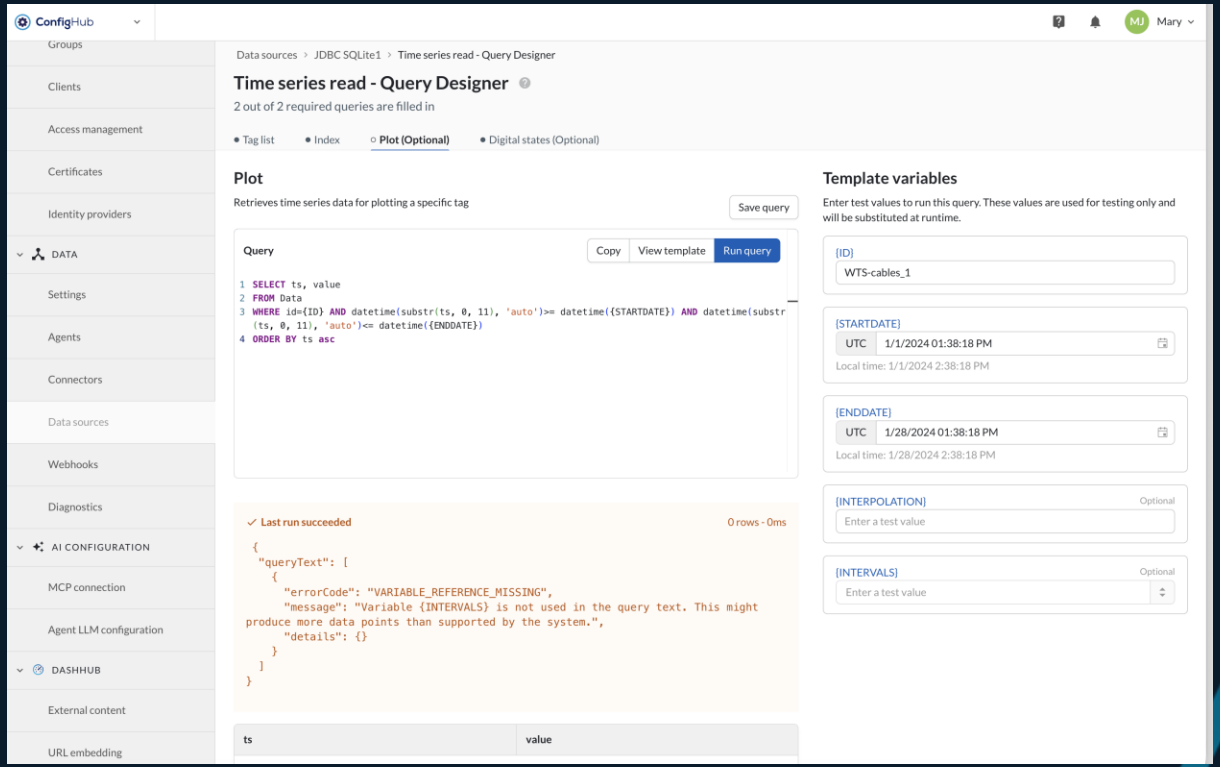
Future improvement:

Test queries



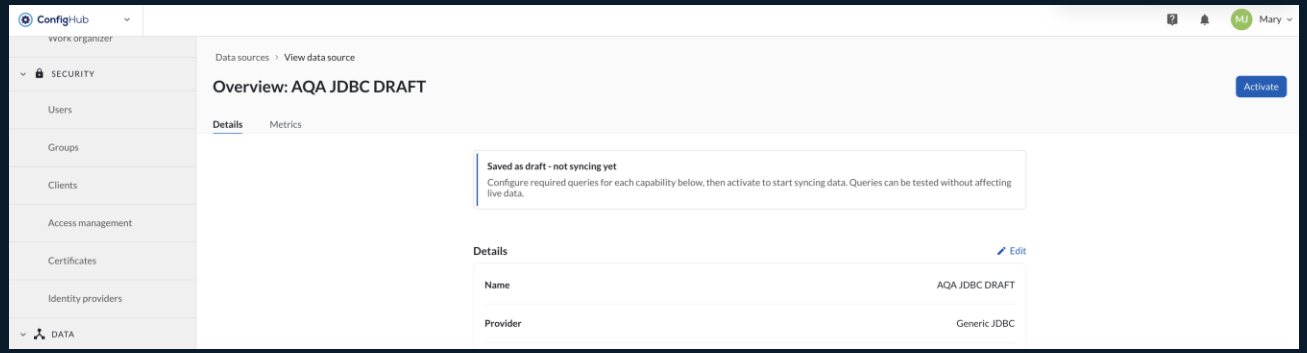
Future improvement:

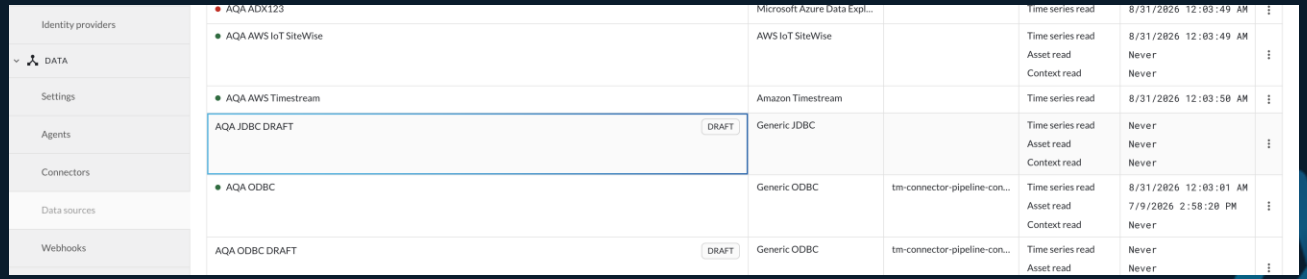
Diagnose problems



Future improvement:

Draft concept: Active/Inactive





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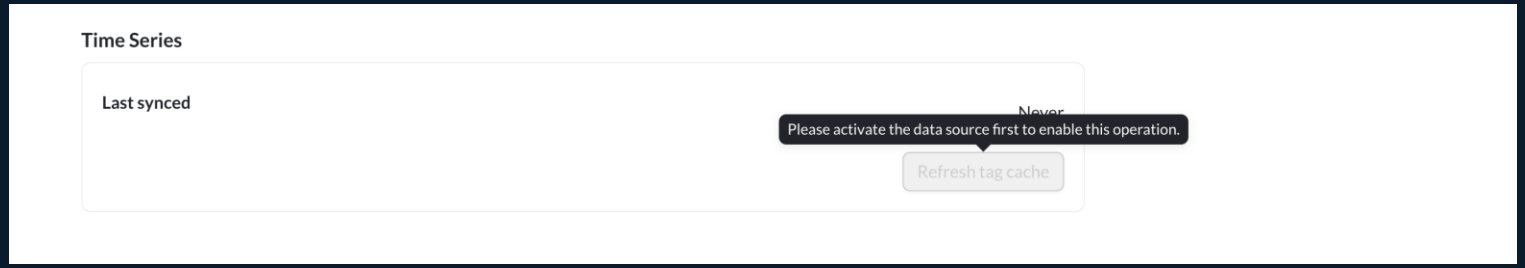
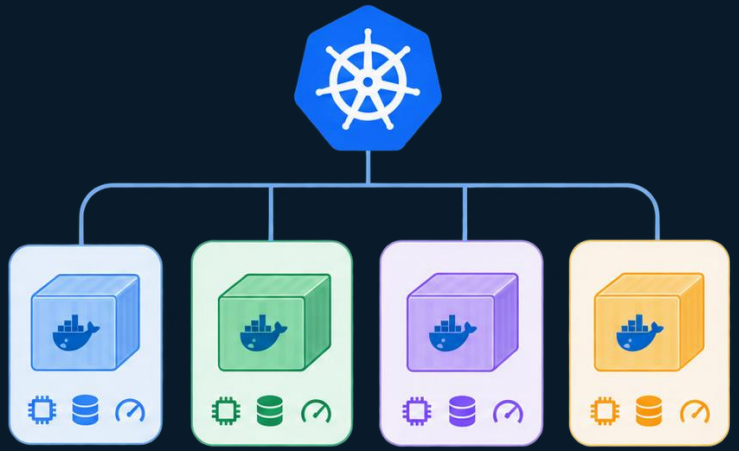


Future improvement:

Standalone runtimes for all providers: Stability and performance

- Any failure does not impact other services
- Manages its own system resources
- Better management



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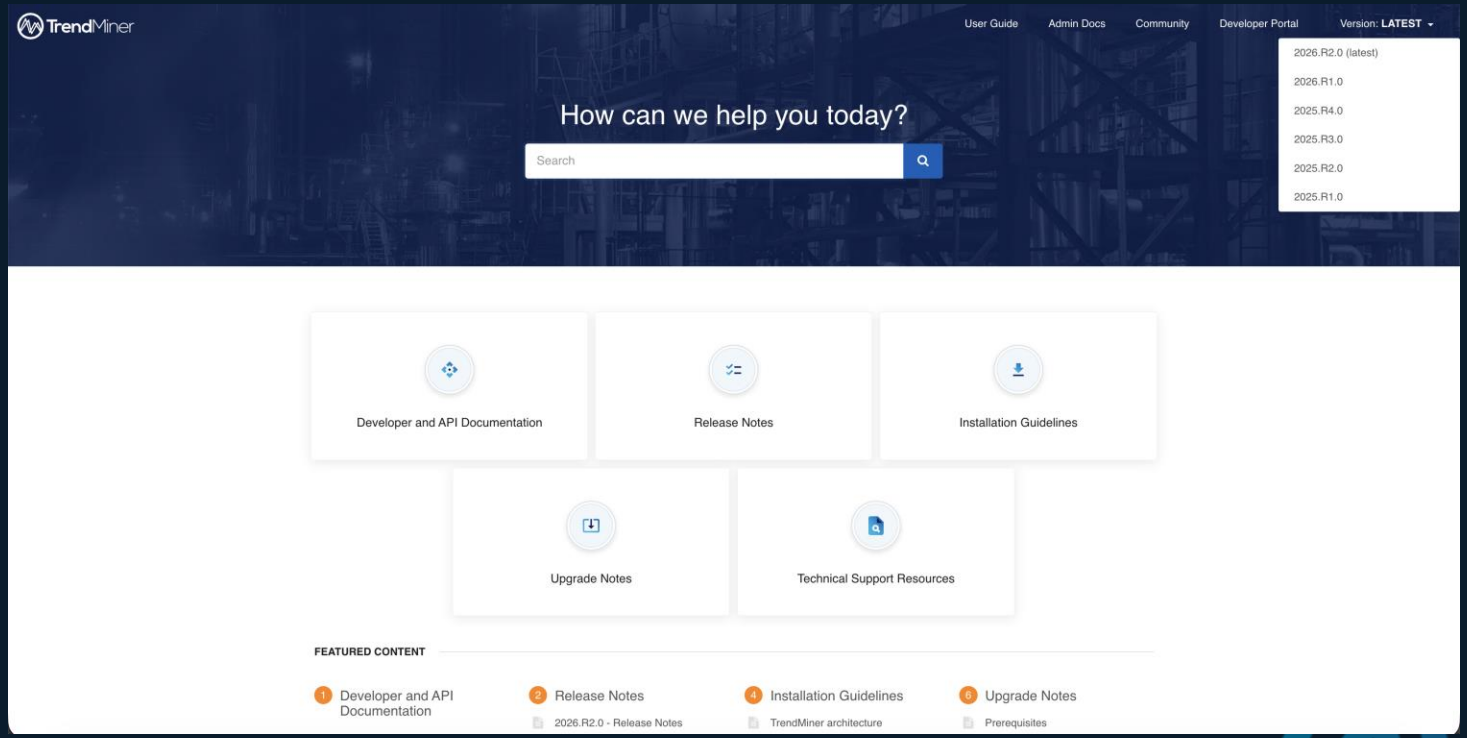
documentation.trendminer.com



Pages referenced in this webinar

- Generic ODBC/JDBC documentation
- TrendMiner connectivity overview
- Migration WebHost → AppHost
- Supported time series connectivity which requires query definition
- How to install third party JDBC driver
- Connector API documentation

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Questions?