

Promethium Automode Text-to-SQL for Self Service Analytics

Accelerate insights with Promethium's Text-to-SQL engine

Promethium's Automode revolutionizes the way organizations access and analyze data, empowering users with a self-service experience that removes technical barriers. By translating natural language questions into precise SQL queries in real-time, Automode enables anyone – regardless of technical expertise – to access, analyze, and derive insights from data quickly and intuitively. Powered by generative AI, this next-generation capability drives agility, democratizes data access, and upholds enterprise-grade governance.

Key Benefits



Empowered Self Service Analytics

Automode allows less technical users to query data using everyday language, instantly transforming natural language requests into SQL. This democratizes data analytics for everybody, speeds up the adoption of Gen AI, and drastically reduces time-to-insight.



Accelerated Decision-Making

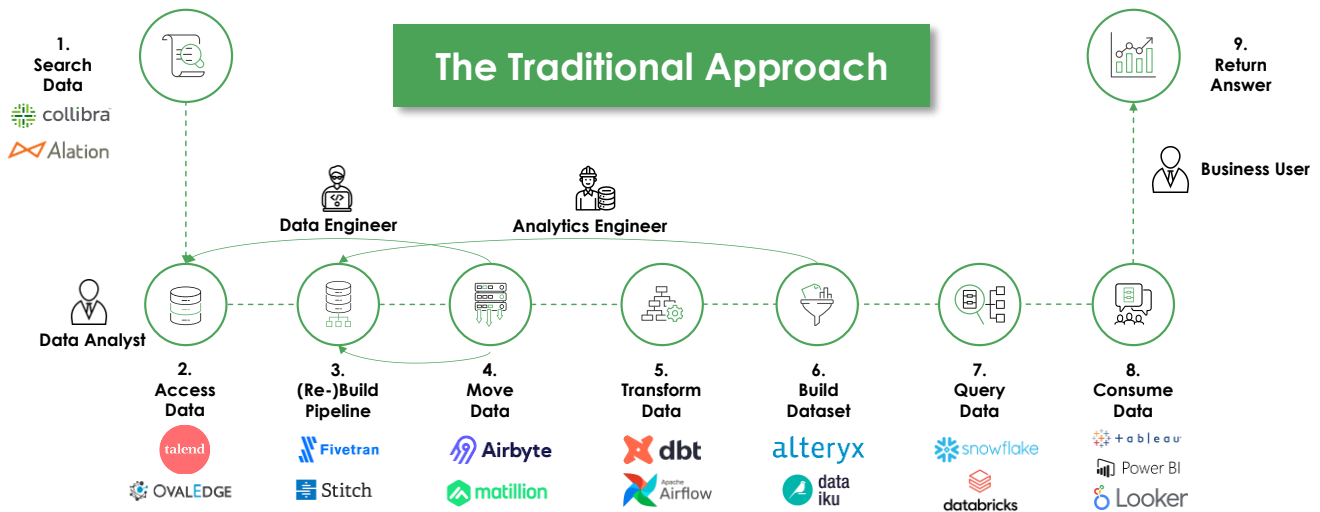
Automode accelerates data exploration and decision-making by eliminating the need to manually code or wait for data team intervention. Real-time query generation and results empower teams to respond instantly to business needs.



End-to-End Security and Governance

Automode is built on Promethium's Instant Data Fabric, providing enterprise-level security, compliance, and governance. Every query adheres to enterprise standards, with access controls, data lineage tracking, and privacy rules applied.

Enabling a Question-Led Approach to Data & Analytics



Traditional data and analytics workflows are often disjointed and require multiple, time-consuming steps – from querying data to preparing it for analysis, transforming results, and finally generating insights. Promethium shifts this paradigm by enabling a seamless, question-led approach. Users simply ask a question, and AI-powered automation handles the heavy lifting – from searching across diverse data sources, generating the necessary SQL queries, executing them, and delivering a final, actionable answer.

The Promethium Approach

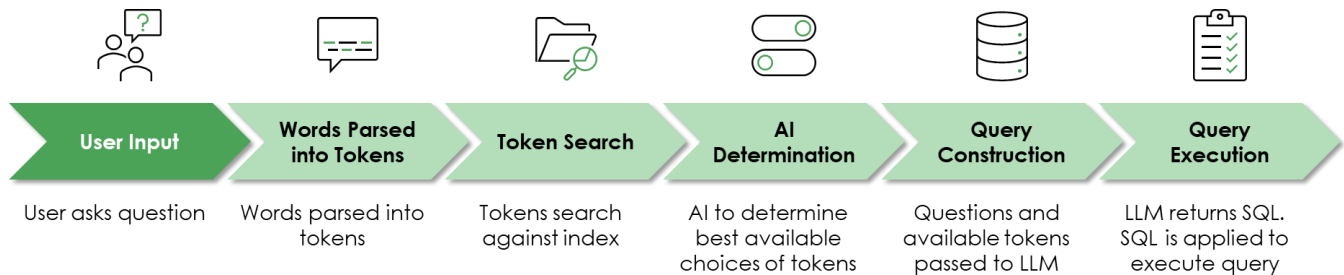


From Disjointed Steps to a Unified Process: No more moving between tools or manual query writing. Streamline everything into a single, intuitive workflow.

Immediate Answers: The focus moves from labor-intensive data preparation to rapidly accessing meaningful insights, allowing users to make timely decisions.

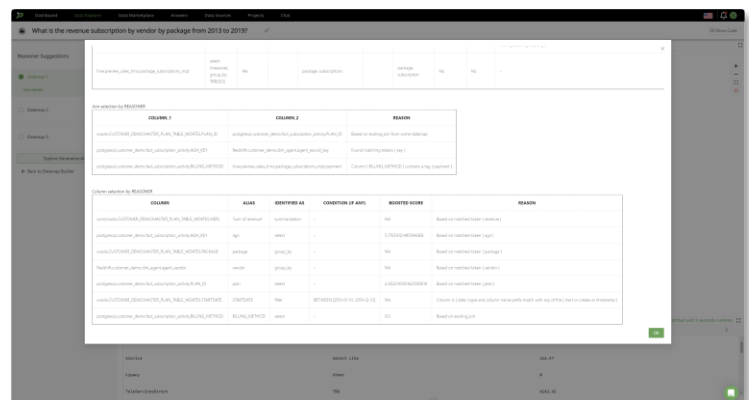
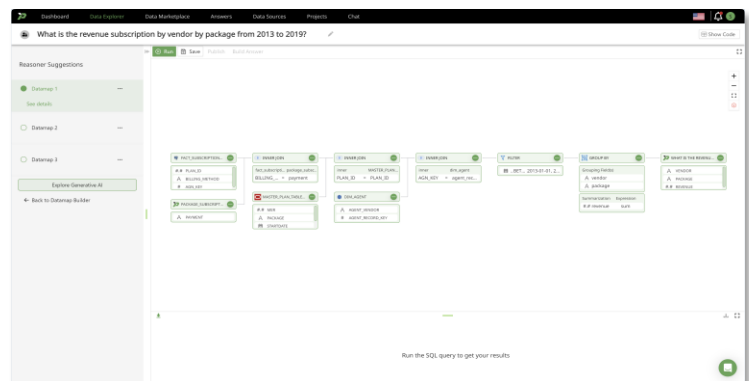
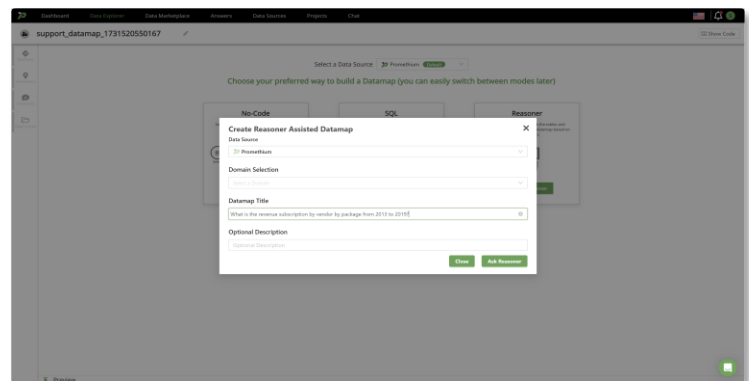
AI-Powered Precision: Ensure accurate and contextually relevant responses, reducing data handling errors by using AI and the power of the data fabric to identify relevant data. This question-led approach makes data truly accessible, transforming every user into a data-driven decision maker.

How Automode Text-to-SQL Works



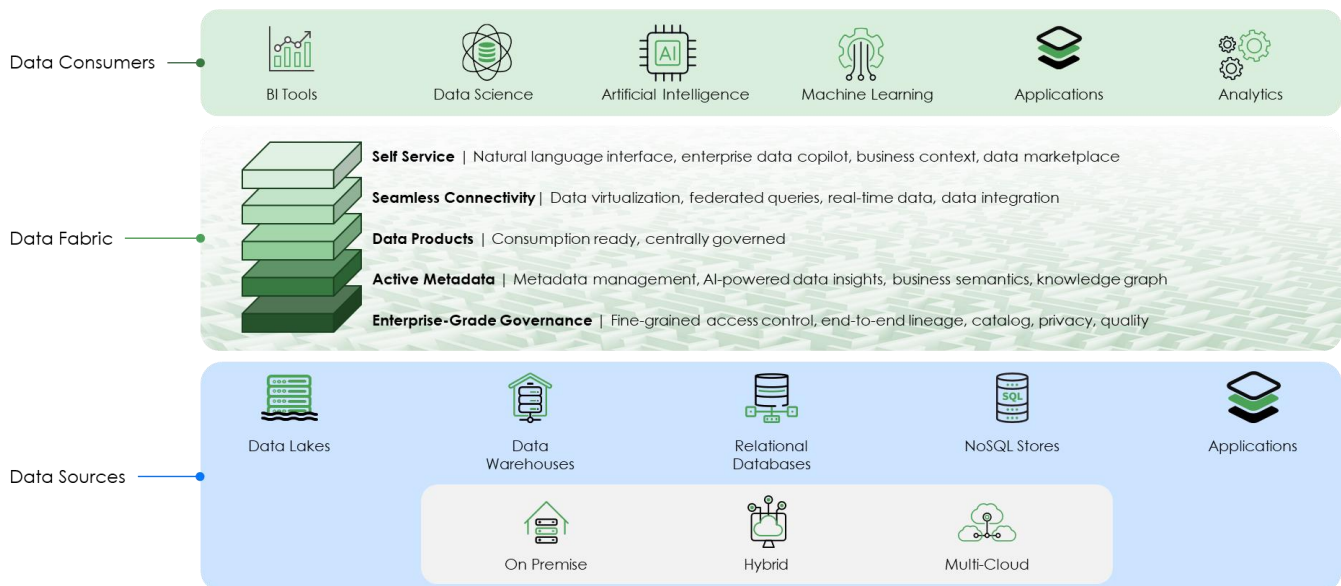
Automode turns natural language inputs into precise data queries through a structured, AI-powered process:

- 1. User Input:** The user asks a question or provides a query in natural language.
- 2. Words Parsed into Tokens:** The NLP engine breaks the input into meaningful tokens.
- 3. Token Search:** These tokens are matched against an index to identify relevant data elements.
- 4. AI Determination:** AI algorithms select the best available tokens matching the user's intent.
- 5. Query Construction:** The tokens and query context are passed to an LLM to construct an accurate SQL query.
- 6. Query Execution:** The SQL query is executed against relevant data sources, delivering the requested results.



Powered by an Instant Data Fabric

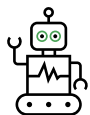
A [data fabric](#) provides a unified and consistent view of enterprise data, enabling seamless data integration, management, and access. By creating a unified, abstracted data layer, Promethium's Instant Data Fabric simplifies data operations, making it easier to access and work with data from multiple sources in a cohesive manner – crucial to enable accurate Text-to-SQL functionality and Gen AI.



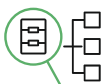
Single API to Offload Prompt Engineering: Provides a single API for accessing diverse data sources, simplifying data integration and enhancing prompt engineering with enterprise context.



Contextual Relevance: Leverages metadata (e.g., semantics, data usage, quality) to generate accurate, context-driven SQL queries.



AI-Powered Workflow: Automates the entire query process, including data parsing, transformation, and validation for speed, accuracy, and transparency.



Real-Time Data Access: Ensures timely retrieval and enrichment of data for precise and high-quality insights.



End-to-End Governance: Enforces centralized governance, privacy, and security controls to maintain compliance and data integrity.

Use Cases for Automode Text-to-SQL



Reduce Wait Time for Data: Eliminate bottlenecks by allowing users to quickly access and analyze data without relying on data provisioning via ETL pipelines, reducing delays and accelerating insights.



Democratize Data & (Gen) AI: Make data analysis accessible to everybody, regardless of technical expertise, promoting data-driven decision-making across the entire organization.



Rapid Insights for Ad Hoc Queries: Facilitate faster creation and refinement of ad hoc queries, enabling teams to respond quickly to changing business needs and unlock innovation.

What Others Have to Say

nationalgrid

"Promethium gives us the ability to answer the questions of our business users with real time responses."

DOLBY

"In short, the tool is really useful, easy to use. The ability to just ask a question and get the answer is like MAGIC."

Quest
Diagnostics®

"Anyone that has access to the data fabric can instantly query and consume. That's really our vision."



//CODiE//
2022 SIIA CODiE WINNER



cdo
CHIEF DATA OFFICER
MAGAZINE
Best New
Product

