

Self Service is Not Self Service

Data analytics typically start with a data scientist or engineer asking “What data do I have?” Weeks or months are spent going back and forth between the business teams and the data teams searching through file names, table names and data set names across multiple vendors to determine where the data is located, who has access to that data, what data needs to be moved, how the data needs to be cleaned and joined, and what are you going to query. The end result is that too often the right business questions are not even being addressed or decisions are being made with only a fraction of the required data.

The complexity of multiple teams using multiple tools across multiple data sources is, sadly, accepted as the norm. There are catalog(s) used for discovery. There is a virtualization tool used for access. There is a prep tool used for cleansing and a query tool used to execute the query. There may even be a separate visualization tool for BI. There is nothing “self service” about data analytics today.

Promethium not only streamlines this entire process with just one tool but significantly improves the outcome by allowing the user to search by asking a simple question in English and using AI to automatically map the relevant data required to answer that question. For example, instead of spending weeks and months searching through granular layers of files and tables with no contextual relevance, a user can simply ask:

“What types of drugs were sold in the last 30 days?”

Promethium then automates and simplifies every step of the process. Equally important, with Promethium, non-technical knowledge workers can have everything from data models, lineage, data quality, and even SQL queries automatically generated for him/her just by typing a question in English.

Fully Automated Process

- Across data discovery, modeling, assembly & query

Dramatically Reduce Resources

- True end-to-end self service

Accelerate Time to Value

- Reduce time and effort across teams to retrieve results in minutes, not days.



DATA DISCOVERY

Promethium automatically discovers where the *relevant* data is located across your infrastructure, including different vendors, eliminating the time-consuming step of manually searching for your data's location.



ACCESS

With the increasing number of data sources and vendors making up an enterprise's infrastructure, just knowing what data you have, where it is located, and who has access to it is increasingly difficult. Months are spent finding the answers to these questions-time that has nothing to do with actually gathering business intelligence. Promethium's ML based software quickly identifies what data is needed for the specific question being asked and integrates with the in-house Role Based Access to ensure that only the right person can view, search or access that data.



Figure 1. Type any question to ask.



Figure 2. Promethium maps question to intent of data.

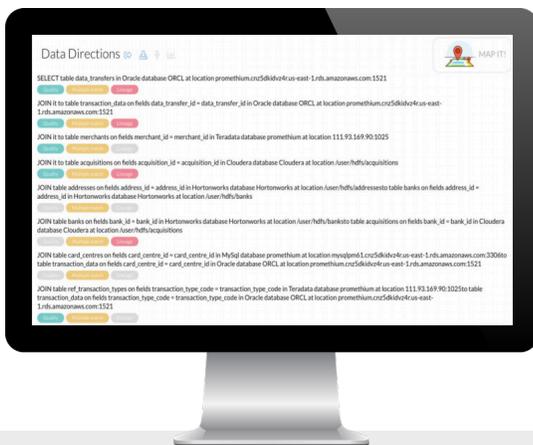


Figure 3. Promethium automatically generates the SQL statement required to answer the question.

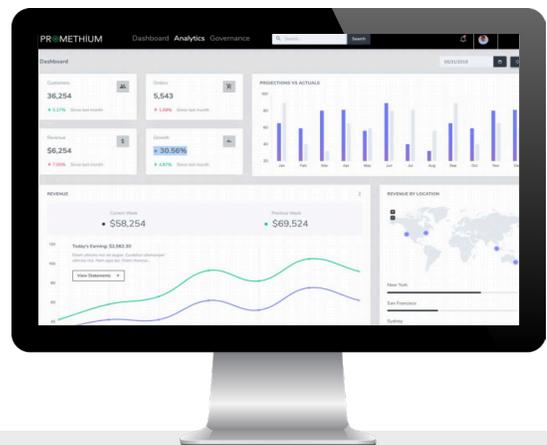
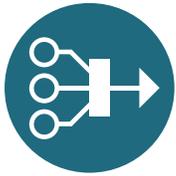


Figure 4. Promethium integrates with 3rd party BI / Visualization tools to present results of the query.



INGESTION

Typically, when building a query, the data scientist might not know exactly what they are looking for, so they move more data than they need, then remove what isn't pertinent. This manual process takes days, is error-prone and highly inefficient. Because Promethium begins by asking a specific question, only the specific tables and files needed to answer your query are moved. No more. No less, resulting in a highly efficient, fully automated process.



METADATA CONNECT

Promethium doesn't need access to your data to perform a search. Through a number of different approaches, Promethium pulls metadata directly to its metadata index. Once executed, it is abstracted so you can search for data as if Promethium has the entire file, even though it doesn't. You can search by name, by type, by vendor, by IP address, by context or even by a simple question.



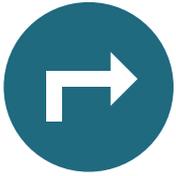
MATCHING

Once Promethium has your metadata, it automatically matches it to the question you want to ask or the library of data models so that you immediately know whether or not you have the data needed to answer your question or data models. Promethium also provides a match score for each possible question that tells you how thoroughly the question can be answered. The higher the score, the more matches there are between your data and the data model and the higher the accuracy of your query. Now, users quickly know if they have the data related to a certain topic as defined by their data models, or if their data model is even relevant.



ASK A QUESTION / CREATE A MODEL

While you don't need data models to use Promethium, we do find them helpful. But users can dynamically create models through natural language. The models can be as simple as a question or highly detailed using Promethium's own data modeling tool that dynamically connects to the user's data and automatically detects and displays existing relationships across the customer's data estate.



DIRECTIONS

Once your data has been matched, Promethium automatically provides step-by-step instructions on how to assemble the query, and with Promethium, no SQL coding is required. What's more, the directions can quickly be attached to an email and sent to the relevant person in your enterprise to run the query.



RUN QUERY

Once the query has been run, you can either visualize the data in Promethium, or integrate with third party visualization tools for a more complex analysis of your data.

Promethium is breaking the conventional process and doctrine around analytics and big data by providing a fully automated solution that helps enterprises govern their data at enterprise scale. Now, organizations can not only find all of their data across disparate data sources, but understand the context of that data upfront, helping them become faster, more effective and more accurate with analytics and governance.

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