Tableau *Unleashed*

Real-time Visualization of Spatial Data on a Massive Scale

The integration of Kinetica and Tableau enables users to visualize massive amounts of spatial data in real-time. **With the Kinetica Tableau Connector, users can connect Tableau directly to Kinetica to render unprecedented volumes of data and uncover previously hidden patterns.**

Kinetica was purpose-built to process and analyze large and complex spatial and time-series datasets with lightning-fast speed, while Tableau's advanced visualization capabilities enable users to create stunning and interactive dashboards and reports that provide valuable insights from the data.

This integration eliminates the need for pre-processing or pre-aggregating data, allowing users to gain real-time insights from raw spatial data without any delay. Additionally, Kinetica's real-time analytics engine can handle and analyze data streams from multiple sources, making it an ideal solution for use cases that require fast and fresh insights.

One of the ways that Kinetica accomplishes this is through the use of Web Mapping Services (WMS) via server-side rendering. WMS is a protocol that allows geospatial data to be served via the web, enabling users to access and display maps and other geographic data. Kinetica leverages WMS technology to render geospatial data directly on the server-side, eliminating the need to transfer large amounts of data to the client-side for rendering. This approach allows Kinetica to process and render large and complex spatial datasets with lightning-fast speed, enabling users to visualize and analyze massive amounts of spatial data in real-time.

Kinetica's integration with Tableau provides users with support for a wide range of features including cross-filtering, class break rendering, multiple layers of geospatial data, and calculated fields.

Cross-filtering is a powerful feature that allows users to filter data in a map that then simultaneously updates charts and tables. Users can cross-filter data from Kinetica directly in Tableau, enabling them to create dynamic and interactive visualizations that provide valuable insights from their data.

Class break rendering is another important feature that allows users to visualize data using color-coded maps based on predefined classes. Users can quickly and easily create maps that highlight patterns and trends in their data, enabling them to make data-driven decisions based on the insights gained from the data.

Kinetica also provides support for **multiple layers of geospatial data**, enabling users to visualize and analyze different types of spatial data simultaneously. This feature is particularly useful for applications that require the integration of different types of spatial data.

Finally, Kinetica provides support for **calculated fields**, enabling users to perform complex calculations on their spatial data directly in Tableau. This feature is particularly useful for applications that require the creation of custom metrics and measures based on spatial data, such as performance analytics, risk assessment, and AI predictive modeling.

Kinetica's integration with Tableau is well-suited for a wide range of applications. *Some of the key use cases for this solution include:*

Logistics and Transportation

Track and monitor their fleets in real-time, optimize routes and delivery schedules, and improve overall efficiency and performance.

Telecommunications

Visualize and analyze data related to network performance, customer usage patterns, and other key factors that impact the quality of their services.

Environmental Monitoring and Assessment

Visualize and analyze data related to air quality, water quality, and other environmental factors, enabling them to make informed decisions that protect the environment and public health.

Public Safety and Security

Track and monitor criminal activity in real-time, identify patterns and trends in criminal behavior, and take proactive measures to prevent crime and improve public safety.

Retail

Visualize and analyze data related to sales, customer demographics, and other factors, enabling them to make data-driven decisions about product placement, inventory management, and marketing strategies.

Energy

Visualize and analyze data related to exploration activities, production rates, and other key factors that impact the efficiency of their operations.

Defense

Visualize and analyze data related to military operations, intelligence activities, and other key factors that improve situational awareness and enhance a common operating picture.

Media & Entertainment

Gain valuable insights into audience engagement, content performance, and other key factors that impact the success of their operations in real-time.

In sum, the integration of Kinetica and Tableau provides a powerful solution for visualizing massive amounts of spatial data in real-time, enabling users to gain valuable insights and make data-driven decisions quickly and efficiently.

Learn more and try it yourself at kinetica.com/tableau

kinetica +tableau