

# A Comprehensive Guide

This guide shows how TIBCO Spotfire empowers data analysts and BI professionals to use real-time and on-demand analytics. It covers Spotfire's core features, implementation strategies, and industry use cases—like anomaly detection, forecasting, and dashboard design. Learn how to use Enterprise Data Streams for live processing and Data on Demand for efficient big data analysis, so you can make informed decisions exactly when and where they matter most.

## Core Capabilities and Implementation Strategies

### Enterprise Data Streams

Spotfire's real-time engine lets you visualize data as it's generated. Powered by LiveView™ (for streaming tables) and StreamBase® (for deploying stream apps), it supports Kafka, MQTT, and major cloud platforms—delivering sub-second updates for instant insights.

### Data on Demand

Fetch only the data you need, when you need it. This feature boosts performance for large datasets by combining in-memory and on-demand data, enabling faster analysis and flexible, user-defined loading strategies.

## Integration with Diverse Data Sources

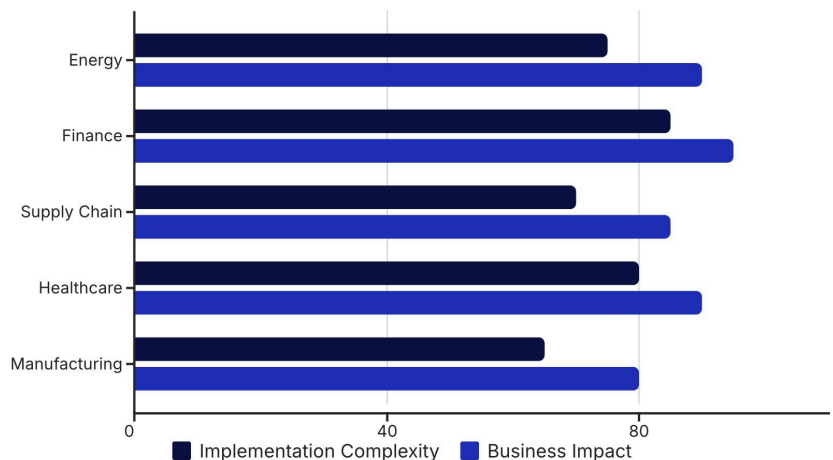
Spotfire seamlessly connects to a wide range of data sources—ideal for complex environments. With built-in connectors and integration methods, it ensures smooth data flow from source to insight:

**Streaming Data:** Supports Kafka and 80+ streaming/IoT protocols for real-time ingestion

**Cloud Platforms:** Secure access using OAuth and modern authentication

**Operational Databases:** On-demand queries avoid overloading transactional systems

**Data Virtualization:** Access multiple sources without moving data, reducing latency and storage use



Custom marker shapes are now available, allowing organizations to use company or industry-specific symbols in map visualizations and scatter plots. The web client receives significant enhancements with additional visualization types now available for authoring, including box plots, heat maps, and summary tables.

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## Dashboard Design Principles

Building real-time dashboards in Spotfire requires optimizing performance and user experience to keep insights fast, clear, and actionable.

### Visualization Efficiency

Use fewer visuals per page and tabs or drill-downs to boost speed.

### Source Optimization

Schedule updates and pre-aggregate heavy data to avoid slowdowns.

### Strategic Refresh Rates

Set update intervals based on how critical and fast-moving the data is.

### Custom Extensions

Use Spotfire Mods to build tailored visuals and interactions for specific needs.

## Real-time analytics with Spotfire delivers value across key industries:

1

### Energy Sector

Forecast grid loads, monitor turbine and well performance, and support peer-to-peer energy trading in real time.

2

### Financial Services

Detect fraud instantly and monitor market risk with live dashboards for fast compliance actions.

3

### Supply Chain Management

Track inventory in real time, spot bottlenecks early, and combine live and historical data for better forecasting.

## Implementation Roadmap



### 1. Identify Use Cases

Pinpoint high-impact areas where real-time insights improve decisions and outcomes.



### 3. Secure Licensing

Get the right Spotfire licenses to match your use case and data needs.



### 5. Iterate and Optimize

Refine prototypes using user feedback and performance data.



### 2. Assess Data Sources

Review all relevant data sources for quality, access, and integration readiness.



### 4. Build Prototypes

Create initial dashboards to test technical and business value.



### 6. Scale and Govern

Roll out organization-wide with access controls and governance protocols.

By following these implementation guidelines and leveraging Spotfire's robust capabilities for real-time and on-demand analytics, organizations can transform their approach to data-driven decision making. The combination of immediate insights from streaming data and flexible access to historical context creates a powerful platform for identifying opportunities, responding to changing conditions, and maintaining competitive advantage in fast-moving markets.