TIBCO Spotfire for Supply Chain Analytics

This datasheet shows how customers use TIBCO Spotfire® to gain insight into improving their supply chain operations to:

- Improve accuracy of demand forecasts
- Reduce total cost of execution
- Achieve shorter, more predictable cycle times
- Reduce inventory levels
- Rapidly detect, understand, and respond to causes of supplier quality, delivery, and cost
- Improve flexibility to adapt to disruptions
- Increase visibility across the whole supply chain

The need for robust analytics for our supply chains, and the decisions we make about them, is greater than ever. Globalization and outsourcing, increased demand volatility, shorter product lifecycles, and exogenous shocks caused by weather, health, social, and political events—All these may lead us to thinking, not just about faster cycle times and squeezing costs out of supply chains, but also to a more strategic view that incorporates factors of risk and manageability.

Many of the world's largest manufacturers use TIBCO Spotfire to not only measure the effectiveness of their suppliers, but predict likely issues and optimize against both short term costs and longer term risks.

CHALLENGES TO MANUFACTURERS

As manufacturing has globalized, supply chains have become stretched, and this has had a profound effect on business decision-makers. "Where?" is often the most important question being asked. But the configuration of the network of manufacturing facilities, suppliers, and distributors is vital not just from a cost perspective. Manufacturers now need to ask what is the constituency of suppliers that can feed our manufacturing if primary suppliers fail? What is the constituency of retail establishments being fed by our distribution hubs? What is the availability of an alternative transportation infrastructure in the case of physical disruption?

Most large manufacturers are forced to "make-to-inventory" rather than "to order" by sheer economies of scale. However, when we make to inventory there is the financial imperative to reduce cycle times. Predicting demand for products and using that prediction as the driver for production and procurement has become the norm for most companies, but the talk today in many industries is about greater demand volatility that makes forecasting less and less accurate. One of the key drawbacks of traditional demand forecasting tools is that they have just one data source—past sales.

These trends add up to a picture of expanded risk, and a need to know more, at a forensic level, about what will disrupt all the things we need to measure in the supply chain: lead times from suppliers and to customers, optimal inventory levels, capacity planning, logistics and transportation costs. But to know more, to see the trends earlier, and make better decisions, the manufacturer of today needs a more holistic view—one where all the data is available.

WHY SPOTFIRE?

Spotfire helps businesses optimize supply chain operations by mashing together and visualizing all the data. This allows you to identify key trends earlier, leading to better strategic decisions and daily management of inventory, logistics, procurement, and distribution.

For example, we can use an analytics approach to not just predict demand accurately, but first find the root cause of the volatility. This process may involve mashing together historical orders with demographic data, economic data, even weather data for certain products. In Spotfire we can mash together all relevant contributors to demand and start to see true causal relationships.
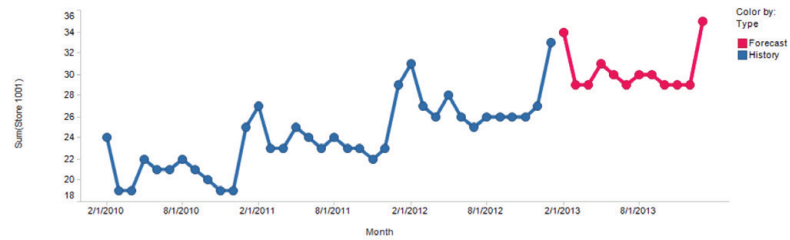
History & Forecast For S526206 @ Brico Depot Store 1001

Month	Store 1001	Type
2/1/2010	24	History
3/1/2010	19	History
4/1/2010	19	History
5/1/2010	22	History
6/1/2010	21	History

Ready.   48 of 48 rows | 0 marked | 3 columns | History & Forecast

See demand trends more clearly

In the area of network planning, Spotfire allows you to instantly visualize your locations along with those of your suppliers and customers, and to overlay KPIs. But you can also optimize routing for transportation purposes—over land, sea, and air—and predict the best new locations for plant and distribution hubs.
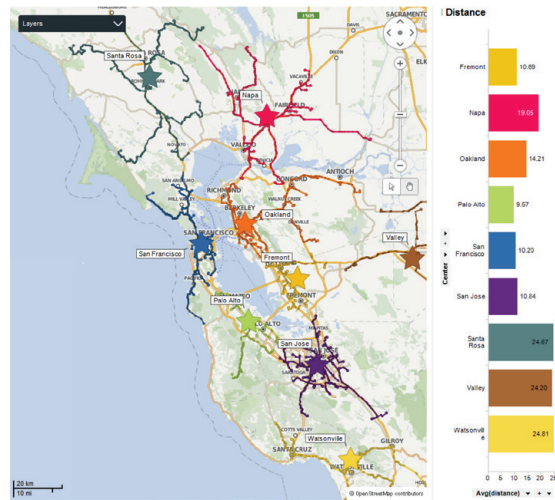
Optimize routing and model the effects of disruption to the physical network.

All manufacturers want to measure supplier performance, but that often means just a dashboard of promises made, filled, or unfulfilled. With Spotfire you can augment this analysis by mashing together data on orders, returns, inventory, and shipping to see the true effect of the service levels your suppliers are providing. What are the knock-on effects of non-delivery? Further, we can use Spotfire built-in predictive capabilities to see the potential impact of supplier actions before they happen. What if I have to switch suppliers? What if the shipment gets delayed by adverse weather?