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S O F T W A R E

Add Maps to Supply Chain Analysis

4 "must-haves" for easy, effective maps

Location, location, location. It's a refrain no longer reserved for where to buy a house. The proliferation of devices that provide your whereabouts with precision (and that of any coffee shop, restaurant or cinemas in your vicinity) has transformed our expectation of answering the question "where" in our personal lives.

But can you answer the question "where" when it comes to insight about your supply chain decisions too?

Why maps matter

Mapping lets you see the implications of your data in ways not detectable on a standard spreadsheet, linear graph or pie chart. Since we are all familiar with maps, using maps in your analysis immediately orients your audience to the data. Maps provide context that leads to better ways to prioritize, plan and execute your objectives.

Does one region outshine another in on-time deliveries? What about inventory level differences in the North versus the South? Is demand spiking in one district and are you re-routing products accordingly? Can you answer questions about your forecast objectives – by state, city, zipcode – in an instant?

Answering questions like these becomes easier, faster and more accurate when you see your data on a map. When you incorporate these maps into dashboards their value skyrockets.

Go one step further. Combine maps with relevant analysis. When you combine your maps with time trends and other charts on a dashboard, the result is a much richer understanding of your information.

Incorporating maps into your day-to-day analysis, reports and dashboards requires the following four capabilities:

- **Create maps fast.** Insist on making maps as quickly as you create a bar chart.

- **Add relevant data for depth.** Overlay related data and demographic details for robust analysis.

- **Drill into maps for answers.** Real-time exploration reveals answers to detailed questions.

- **Customize with ease.** Add specialized maps when that meets your needs.

Create maps fast

Putting your data on a map should be as straightforward as creating any other chart.

You rely on lines to show you trends over time, right? It's reasonable to expect your analysis application to use geographical information just as easily.

Country names, state abbreviations and zip codes are examples of geographical data that should be leveraged to the hilt. So whether your supply chain data commands a world map, provinces in France or all the zip codes in New York, ensure you are using this information in maps rendered with the same ease as making a bar or pie chart.

Add relevant data for depth

Don't settle for single dimension maps. Layer other data with your maps to help you quickly answer "where" and "what" so you can move on to "who," "when" and "how." Combine maps with pie charts, for example, to reflect

Figure 1: Quantity on hand insight

Analyzing quantity on hand (QOH) versus forecasted sales is a crucial aspect of an accurate supply chain. By combining multi-dimensional views of your product chain, this dashboard lets you can more accurately report and forecast your inventory needs.

percentage analysis across regions. Reflect relative volume of sales with larger and smaller circles. Use color spectrums to reflect strong and weak profitability.

Augmenting your supply chain data with demographic data – things like population and income levels – adds dimensions to your data that reveal trends that could otherwise go undetected. You might find, for example, that your forecast models don't reflect a match between the product's target market and that region's income level. Or that quantity sold for a given product bundle is dropping more rapidly in one province than
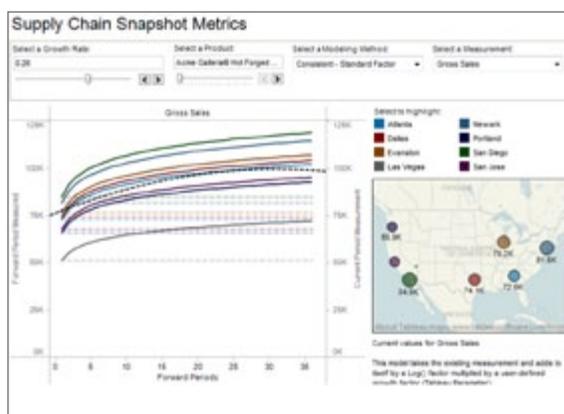

Figure 2: Mix forecast models and maps

Complex forecasting models used alongside regional maps brings to light challenges and opportunities instantly. By linking the two with filters, planning teams can effectively see how different scenarios will impact downstream needs.

another. Layering on relevant data sheds light on where that product bundle could be targeted nearby to ramp up sales.

Drill into maps for answers

Once created, investigating areas of interest on your maps lets you move from macro to micro views to explore your data with just a click. Zoom to look at the nuances of a neighborhood of a city. Select a few states to understand trends in a region. Add United

States Census data to add a richer dimension to factors that could impact your success.

Because maps reveal trends and outliers that cannot be easily detected from other forms of visual analysis, combining them with other standard dashboard charts and graphs, incorporate them into your dashboards. There, they create a powerful driver for faster, better insight than ever before. Maps can even be used to filter other charts in the dashboard, quickly suggesting paths not previously considered that accelerate your ability to make informed decisions.

Customize with ease

Distribution center networks and sales territories are examples of situations that command custom maps. Ensure you can add custom geocoding with your own latitude and longitude data with the same ease as creating a standard map. Creating maps that matter the most to your business or department will equip you to reflect on your opportunities in ways a pivot table or spreadsheet can never achieve.
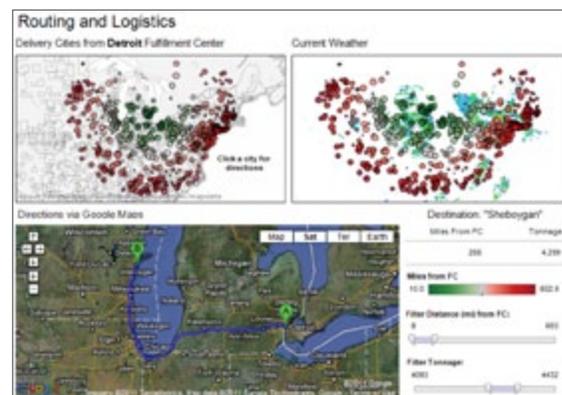
Figure 3. Optimize logistics routes

Optimal routing from a distribution center for a logistics company in Detroit, Michigan reflects factors that impact daily decisions. Since weather is a critical input to any routing decision, this dashboard includes a live update from a weather WMS server that lets dispatchers evaluate both distance and potential weather issues when determining a route.

" We use the mapping feature in Tableau a lot because, as a cable company, our regional differences are very important. Using traditional tools like Excel, it's difficult to get a sense of what the geographic data means without actually seeing it. When you see the data on the map, you can actually see what it means and what the different regions are. "

– Giedre Aleknonyte, Kabel Deutschland

Custom weather maps or other specialized maps on a web map service (WMS) server are sometimes exactly what you need to make your data pop. Integrating these with other analysis should not be a painful process managed in multiple applications requiring varied expertise to implement. Adding these maps should be as easy as adding any other type of map.

Tableau puts your data on the map

Mapping data is one of the many ways Tableau Software helps people see their information in relevant, insightful ways to make better decisions. Tableau's next-generation business intelligence solution provides fast, easy analysis that let individuals put their data to work. In addition to dozens of built-in mapping features, Tableau supports custom geocoding and your own WMS server when these offer a better solution for you. Explore more Tableau mapping capabilities *here*.

With Tableau's extensive library of free training videos, you can be making incredible maps with your data in a couple of hours. Start unlocking the potential of mapping your data. *Download the full-featured trial of Tableau Desktop*, connect to one of your favorite data sets (or use a sample that is provided), and start experiencing the impact of Tableau.

About Tableau

Tableau Software helps people see and understand data. Ranked by Gartner in 2011 as the world's fastest growing business intelligence company, Tableau helps anyone quickly and easily analyze, visualize and share information. More than 6,500 customers across most industries get rapid results with Tableau in the office and on-the-go. Tens of thousands of people use Tableau to share data in their blogs and websites. See how Tableau can help you by *downloading the free trial today*.