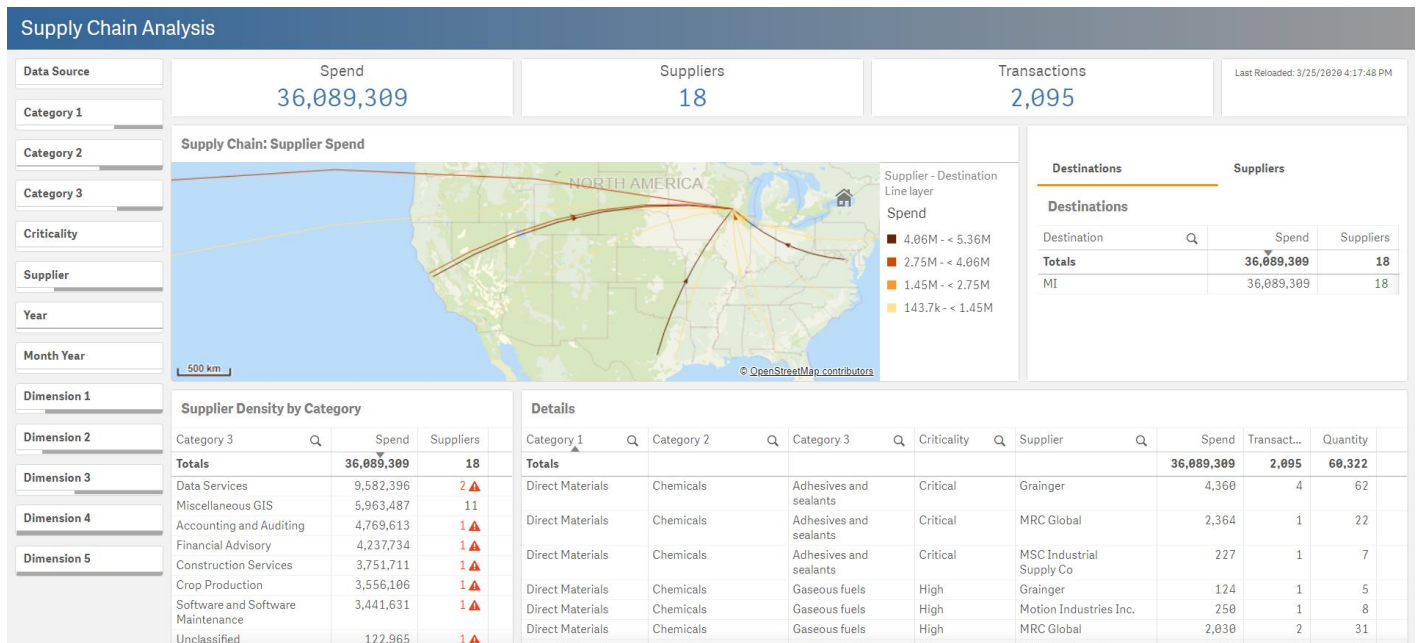# Supply Chain Analytics with Qlik Sense

Along with the governmental restrictions that have been put in place, one of the risks many manufacturing and distribution companies face during this time is ensuring that they have the necessary supplies to maintain operations. While many companies will be doing everything they can to maintain operations and employment for their workers, the reality is that many layoffs are likely to happen due to the fact that companies will have to shut down production due to a lack of necessary supplies. Unfortunately, many companies today do not have the visibility into their supply chain to make informed decisions and contingency plans to avoid such layoffs. We'd like to do our part to help companies avoid any unnecessary layoffs by providing them the visibility into their supply chain through a simplified version of our SpendView application that focuses on Supply Chain.

By gaining visibility into the spend across your organization, you can identify critical items necessary for operations, source additional suppliers from across your organization, and work to make sure your operations are able to continue.

The Supply Chain Analytics application is being offer completely without charge or obligation. Additionally, we are offering to assist you in setting up and configuring your application based on the data that is available to your organization. We understand that this may not be a complete solution for some organizations, and we can certainly work with you on a larger solution. Once this crisis has stabilized and we return to a form of normality, we'd love to discuss with you any ways that you'd want to expand on the offering or ways for you to implement or expand the use of Qlik Sense in your organization. However, this initial application is an easy way to get started today at no cost and should be able to provide you the initial insights that can make a difference.

HOW DO I GET A COPY OF THE SUPPLY CHAIN ANALYTICS APPLICATION?

Use this link to download the files.

WHAT SOFTWARE IS REQUIRED TO UTILIZE THE SUPPLY CHAIN ANALYTICS APPLICATION?

The application is created utilizing the Qlik Sense platform. If you have Qlik Sense at your organization, then you can simply upload the application to your environment and follow the instructions for the data files. If your organization does not have Qlik Sense, then you have trial options available here. Additionally, we can assist your organization in obtaining licenses if you'd like to go beyond the trial options.

WHAT SUPPORT IS BEING OFFERED?

In addition to the step-by-step notes below, we are offering to provide assistance with the following:

- Assistance in any issues you have in identifying and sourcing the data elements from your system.
- Best practices and strategies for assigning categories and geographical information.
- Any errors you run into when loading the data.
- Any issues you have obtaining or loading the Qlik Sense platform.
- We can provide guidance in how the application can be adjusted to pull information directly from your source system.

We have implemented the full version of SpendView with our clients and we can bring that expertise to help in your overall use of the application. If you would like assistance please use this link to contact us.

HOW DO I GET MY DATA INTO THE APPLICATION?

Follow these steps to get started with the application:

1. Load the application into your Qlik Sense environment.
    a. If you have Qlik Sense Enterprise, you can import the application (Supply Chain Analysis.qvf) through your Qlik Management Console.
    b. If you are utilizing Qlik Sense Business, you can import the application (Supply Chain Analysis.qvf) into your instance.
    c. If you are utilizing Qlik Sense Desktop, you can copy the file Supply Chain Analysis.qvf into the folder location: C:\Users\<USER NAME>\Documents\Qlik\Sense\Apps.
2. Create a folder named 'Supply Chain Analysis' and copy the excel and csv files into the folder. *(C:\Supply Chain Analysis)*
    a. Qlik Sense Enterprise: You will create the folder on the C: Drive of the Qlik Sense server.
    b. Qlik Sense Business: You will create the folder on the C: Drive of your computer.
    c. Qlik Sense Desktop: You will create the folder on the C: Drive of your computer.
3. Populate the excel or csv or text files with the data you wish to bring into the application. You will need to choose one file format for your data files, but you can bring in multiple files of the same file type.

a. Open the file "System Setup". Within this file you will be able to indicate the file type you will be using, as well as the supplier thresholds that you'd like to use in the application.

File Type
Excel

The supplier thresholds allow you to control the warning you will receive if the number of suppliers for a category or location are too low; thus creating a risk to your supply chain.

| Lower Threshold	Upper Threshold
5	11

b. The application is programed to pull in any file that has a name beginning with 'Spend <FILE TYPE> File'. You can have as many files as you need, simply add a sequential number to the end of the files. For example, you can have the files 'Spend Excel File 1', 'Spend Excel File 2', etc… The initial files provided are populated with demo data, so you can replace the data in the file type you are using with your own data.

Spend CSV File 1
Spend Excel File 1
Spend Text File 1
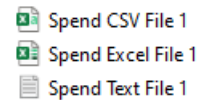
c. The excel/csv/text files have a specific number of fields that can be loaded into the application, with field headers that need to be maintained. **DO NOT CHANGE THE NAME OF ANY FIELD AND DO NOT REMOVE ANY FIELDS.** If you do not want to populate a field, simply leave the values blank. The end of each file contains 10 'Dimension' fields that you can utilize to add any custom fields that will help you in your analysis. Do not change the name of any of the 'Dimension' fields. When you download your spend data from the source, you will need to load it into the appropriate fields in one of the provided file formats. For the csv files, make sure to keep them comma delimited. For the text file, make sure to keep them tab delimited.

d. The fields should be populated with the following information:

   i. Source: You can use this field to identify the source of the spend data; examples include Invoice or PO.

   ii. Transaction Date: This is the date that will be used within the application to filter the data. Typically, this will be your Invoice or PO processed Date.

   iii. Supplier: The name of the supplier.

   iv. Transaction ID: This is a unique ID from your system that references the transaction; examples include Invoice Number, PO Number.

   v. Origin: This field should be populated by the origin of the item that is being purchased. This can be the location of the supplier, their warehouse, or any other information that you have regarding where the product or service is originating.

   vi. Origin Longitude: This the longitude value of the Origin. This can be based on the exact address, a city, state, or country. This value is required in order to populate the map visualization.

   vii. Origin Latitude: This the latitude value of the Origin. This can be based on the exact address, a city, state, or country. This value is required in order to populate the map visualization.

   viii. Destination: This field should be populated by the plant or location that is receiving the product or service.

ix. Destination Longitude: This the longitude value of the Destination. This can be based on the exact address, a city, state, or country. This value is required in order to populate the map visualization.

x. Destination Latitude: This the latitude value of the Destination. This can be based on the exact address, a city, state, or country. This value is required in order to populate the map visualization.

xi. Category 1 -3: These fields allow you to categorize the spend into discrete buckets for analysis. These categories can be based on the supplier, items, material codes, GL Accounts, or any other fields within your system. Assistance can be provided in categorization strategies.

xii. Criticality: This field allows you to identify the criticality of a product or service to your operations. You can utilize any values that you wish. The demo uses the sample values of Critical, High, Medium, and Low.

xiii. Item Description: This field should be populated with a description of the item begin purchased. The application can function without this field being populated if you wish to perform the analysis at a supplier level.

xiv. Item Code: This field can be populated with any code or ID value of the Item. The application can function without this field being populated if you wish to perform the analysis at a supplier level.

xv. Spend: This field should be populated with Spend Value of the transaction.

xvi. Quantity: This field can be populated with quantity being order for the transaction. This field should only be populated if you are including the item level details.

xvii. Dimension 1 -10: These field can be used to add additional information to the analysis; such as Department, Cost Center, Region, etc…

4. Once you have populated the data files, you will need to reload the data in your application. In order to reload the data in your application you will need to access the 'Data load editor' through the navigation. In the data load editor, you will click on the option 'Load data'.
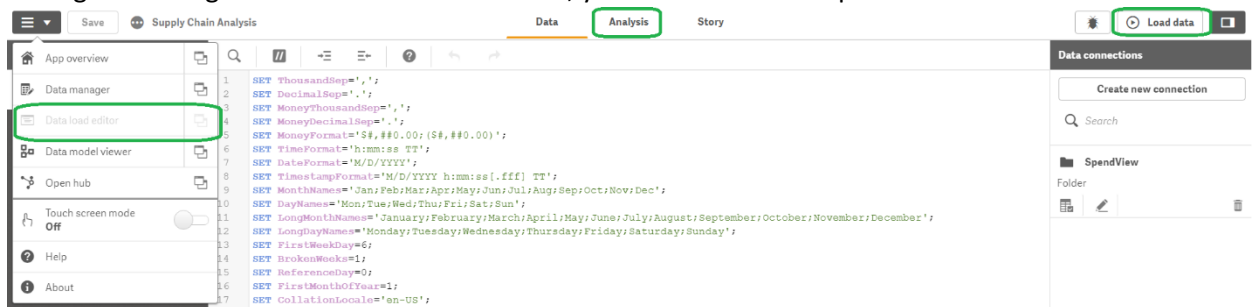
5. Once your data has loaded, you are ready to analyze your supply chain. Select 'Analysis' from the top tool bar to begin.