

alteryx
COOKBOOK SERIES

Self-Service Data Preparation for Qlik®



What is Data Preparation for Qlik®?

The key to deriving the full potential of solutions like QlikView® and Qlik® Sense lies in data preparation. Data Preparation is the process of combining and transforming data from multiple disparate sources to create an actionable dataset for activities such as:

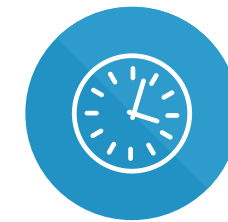
- Decision-making for retail site selection or multichannel profiling
- Driving specific business processes such as packaging data for sale by data aggregators
- Creating predictive sales analytics using customer info, clickstream, and segmentation

This is a critical and often time-consuming process for QlikView and Qlik Sense users. These solutions offer an intuitive experience for data exploration, visualization, discovery, and analysis to solve business problems. But if the datasets feeding them are incomplete, slow to process, have errors, or lack context, users may not be getting the full picture.

As decision makers recognize the value of Qlik's visual analytics, analysts must find ways of dealing with increasing volumes of data, and complexity of the data required.



Business analysts need insights fast to keep up with the pace of business



Decision makers are turning to tools like Qlik to understand data quickly



Analysts need faster data preparation so they can spend their time visualizing their data

Alteryx Addresses The Speed Challenge: Faster Data Preparation for Qlik

Alteryx makes it easy to gather and prepare multiple data sources in a single intuitive workflow, with no programming required. Users can work with data within existing systems, and blend it with data from cloud apps, Excel, social media apps, Big Data platforms like Hadoop, and more.

It means that users can create the ideal dataset for their needs without relying on others. Alteryx's data preparation can also be automated, freeing up time so users can focus on creating compelling visualizations in Qlik Sense and powerful guided analytics applications in QlikView.

Alteryx gives data analysts:

- A drag-and-drop visual workflow – no programming required
- Seamless preparation of internal, third-party, and cloud-based data
- 60+ built-in tools for spatial and R-based predictive analytics
- Simple creation of reports, analytics apps, or data for visualization
- User productivity in hours, not days or weeks

Data Preparation Capabilities for Qlik

- Access to structured, unstructured, and semi structured data
- Data cleansing
- Data integration
- Data transformation
- Data enrichment

Alteryx for Qlik:

Accelerated Data Preparation and Advanced Analytics



Business analysts are increasingly called upon to perform advanced analytics. Their position enables them to get deeper into the business issues and follow up questions that need to be answered to make the right decisions. But to bring the scale companies need, the technology used to get these answers has to be accessible and intuitive for these users. Together Alteryx and Qlik provide:

- **Speed to Insight** — Accelerating data preparation and the delivery of advanced analytics to business users in a self-service, searchable BI & discovery environment
- **Power to Analysts** — Putting the power of advanced predictive and spatial analytics in the hands of business users – and making those analytics easier to explore
- **Reducing IT Burden** — Addressing the common customer requirements for lines of business to perform their own analytics and reduce the burden on IT

The result is that organizations are finding that more business analysts are able to provide deep analytical insights, providing answers from data that drives innovative decision making.

Recipe for Faster Data Preparation

- 1 Access your desired data
- 2 Cleanse and prepare your data
- 3 Transform your data
- 4 Join multiple data sources
- 5 Analyze your data
- 6 Output for Qlik

Ingredients you need

- Download Alteryx Visual Analytics Kit for Qlik at alteryx.com/qlikkit
- A copy of Alteryx alteryx.com/download
- A list of the data sources you want to blend
- Access to each database or source you are going to use
- A rough specification of the dataset you need
- A clear understanding of the analysis you want to deliver

See demo videos for Qlik Data Preparation at alteryx.com/datapreparation

Get to know your Alteryx tools

Input & Browse



Input Data



Browse

Cleanse, Merge, Select, Transform, Join, Formula, Filter



Summarize



Transpose



Cross Tab



Formula



Alteryx Select



Filter



Join



Join Multiple

Output



Output

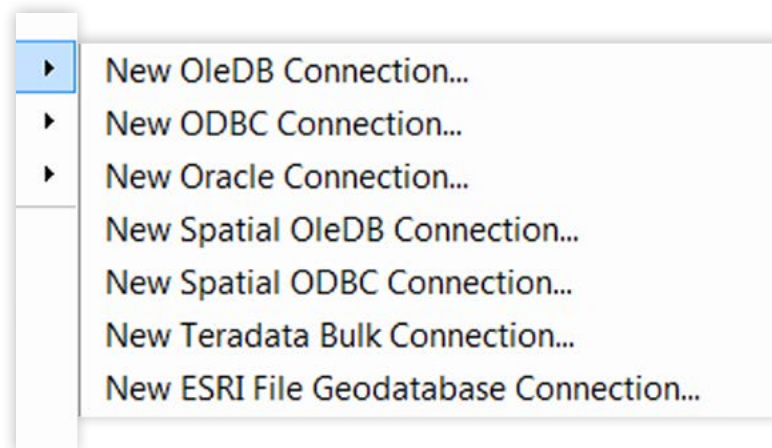
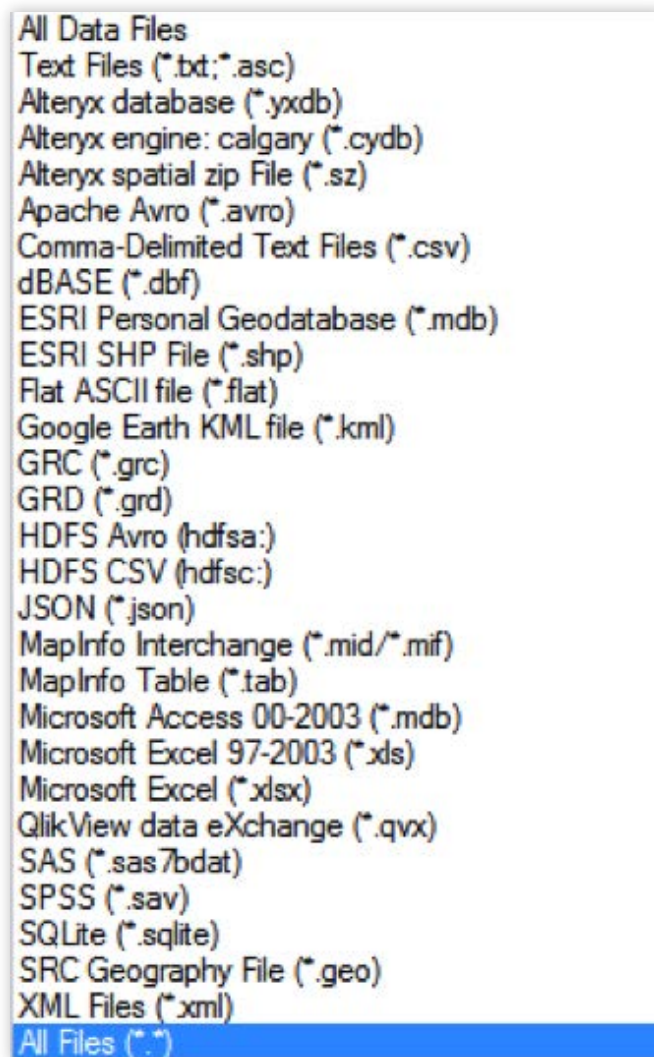


Qlik Output

1

Access your desired data

- Alteryx can access a wide variety of data files and database connections simultaneously
- Use a separate *Input* tool to access each data source



TIP: Preparation is key

- Ensure you have the right credentials to access all your data sources before starting
- In order to leverage and understand many types of data, it needs to be in the right format, i.e., is it textual or numeric?

2

Cleanse and prepare your data

- Use the **Input** tool to bring in a variety of data formats.
Transaction data input as XML format with all fields, including numbers, read as text, can be changed later
- Use the **Select** tool to rename fields, change field types, reorder, or select/unselect each field
The data type of a Sales column can be changed to a numeric double.
- Take advantage of a number of other tools to clean and prepare data



Input



Alteryx Select

TIP: Be selective

- Data sources often have many fields that may not apply to your perfect dataset quest. To streamline your workflow, remove those fields early using the **Select** tool

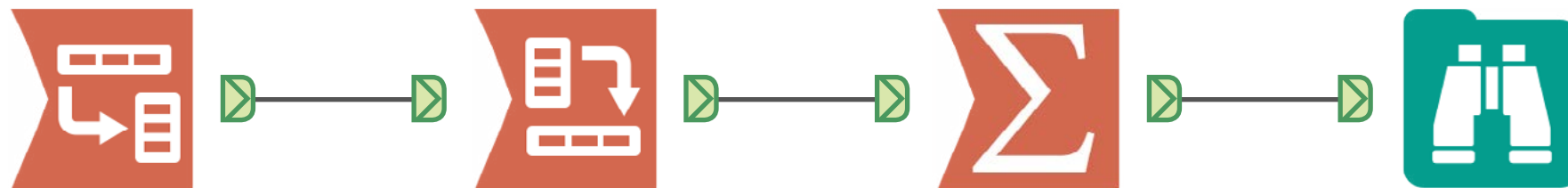
3

Transform your data

- Use the **Transpose** tool to pivot orientation of the data table. It transforms the data so you may view horizontal data fields on a vertical axis
- Use the **CrossTab** tool to pivot orientation so vertical data fields can be viewed on a horizontal axis to summarize data where specified
- Use the **Summarize** tool for Summary Processes including grouping, summing, count, spatial object processing, and string concatenation

Ex: For each Customer ID, you can count the number of transactions and summarize the total value of purchases

Note: The Key Field you select will replicate vertically and there will be a record for each data field selected to transpose. For instance, if you are starting with a table that contains 477 records and has 100 fields, when you transpose that table using a Key field, you will wind up with 477,000 records, and 3 fields (Key, Name of Field, and Value of Field).



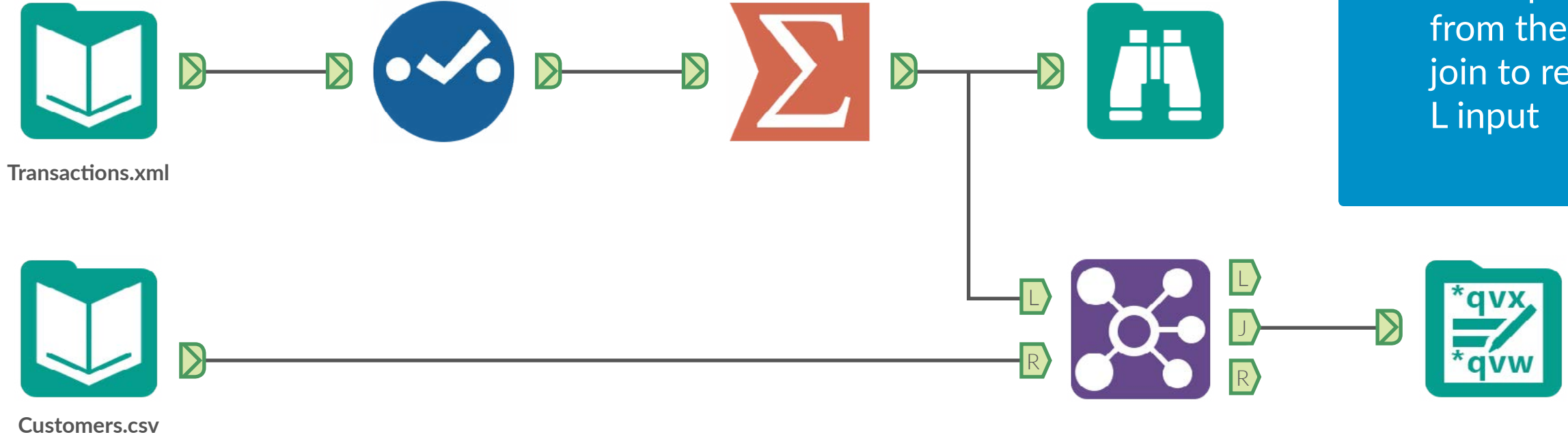
TIP: View your data early and often

- Preview the changes you're making inside your data along the way by viewing the sample data output after each tool.
- To view the entire dataset after a completed workflow add a *Browse* tool to the end.
- Use *Transform* tools to ensure each data field meets analytic requirements, e.g., text string to numerical

4 Join Multiple Data Sources

- After Selection and Summarizing of data, use the **Join** tool to merge data streams by matching two fields between the two tables and creating a merged output stream of data into the workflow

Ex: to build a more complete dataset you could use:
Customer_ID from a "Transactions" XML data source
Customer ID from a "Customers" CSV data export



TIP: 3 options are better than 1

- L Output – contains records from the L input that did not join to records from the R input
- J Output – contains records joined from the L input to records from the R input
- R Output – contains records from the R input that did not join to records from the L input

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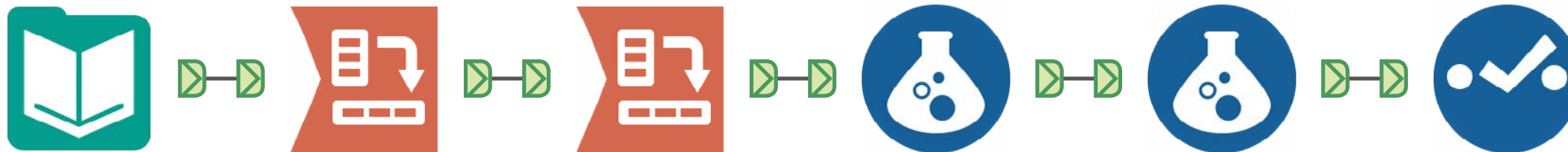
Analyze your data

- Use Transformation, Formula and Selection tools, adding calculations or analytic tools to deliver required insight
- Break up data into multiple columns with the **Transpose** tool, then create new fields using the **Formula** tool
- Use a second **Transpose** tool if you want to create a separate row for every non-numerical survey answer
- Use the **Formula** tool—a powerful processor of data and functions—to add a new field to an input table, create new data fields based on an expression or data relationship, or modify an existing field based on these same premises

*Note: In this example, new fields are created and the data is cleaned and/or prepped for parsing in the next **Formula** tool. Using the **Formula** tool on the newly updated fields, we can parse the data from a “Question” field to populate 3 new columns of information. Using the **Select** tool, we can remove and/or rename fields within the data stream before outputting the data into a QVX file.*

TIP: Add a Filter

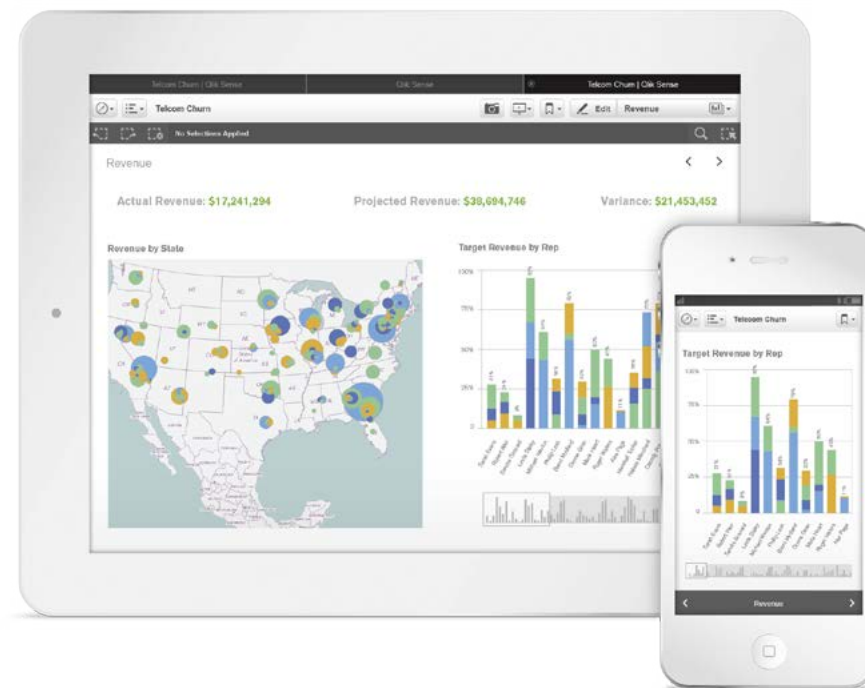
- The **Filter** tool queries records in your file to meet specified criteria
- The tool creates two outputs: **True**, where the data meets the specified criteria; and **False**, where it does not



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Output for Qlik

- Create Output to Qlik data eXchange (.QVX)
- Achieve further enhancement and exploration of data via 60+ built-in tools for Advanced, R-based Predictive and Geo-Spatial Analytics



Alteryx and Qlik:

- Single Workflow for data preparation, analytics, and reporting
- A drag and drop visual workflow - no programming required
- User productivity in hours, not days or weeks



Alteryx Visual Analytics Kit for Qlik

To make it easy to get started with Alteryx and Qlik, we created the Visual Analytics Kit. Download the Alteryx Visual Analytics Kit for Qlik and get started with prebuilt analytics workflows and visualizations.

With the two working together, data analysts can:

Empower business insight. Combine data from any data source and enrich it with third-party sources such as: Experian, D&B, TomTom, and the US Census Bureau, all without programming.

Take analysis further. Alteryx's R-based predictive and spatial tools allow you to easily drop drive-time, market basket analysis, trend extrapolation and more into a single workflow.

Iterate datasets quickly and easily. Alteryx both reads and writes .QVX format for both QlikView and Qlik Sense, making it fast and easy to iterate on analytic insights.

Increase speed to insight. Rapidly unlock the power of advanced analytics in a self-service, searchable BI and discovery environment.

Alteryx Visual Analytics Kit for Qlik

- Advanced Data Preparation
- Data Transposing
- Parsing XML
- Polygon Creation
- Multi-channel Analysis
- Predictive A/B Testing
- Retail Location Selection
- Market Basket Analysis
- Survey Cleanup

Download Alteryx Visual Analytics Kit for Qlik at alteryx.com/qlikkit

Four-Star Reviews

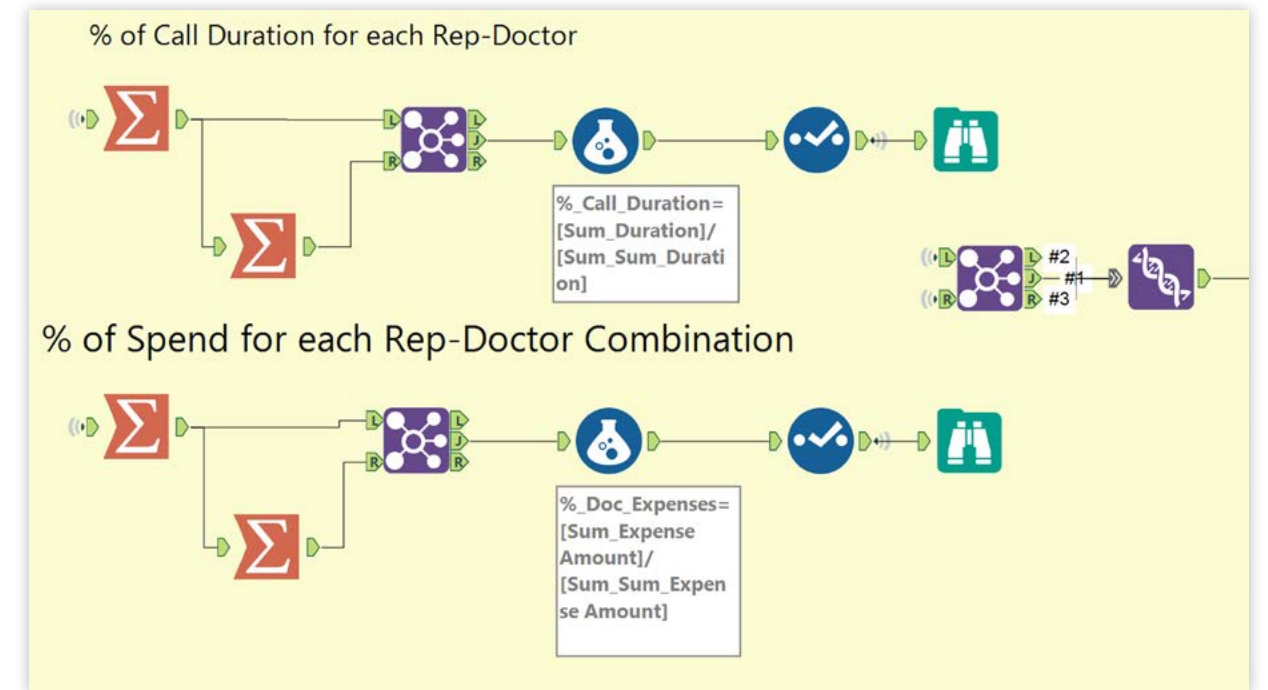
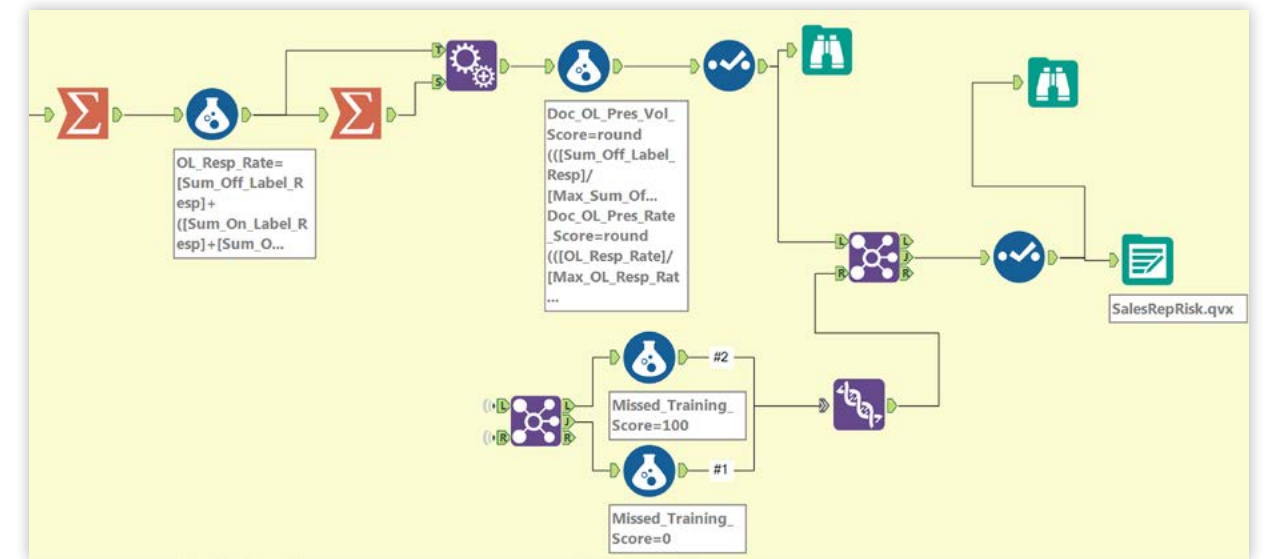
Fortune 500 firm gets more from data using Alteryx and Qlik

A global professional services firm relies on Alteryx to effectively collect, structure, and analyze data, and Qlik to visualize it.

The Result: This client used Alteryx and Qlik to help healthcare companies improve sales rep performance, by combining complex data sources—from doctors' offices, sales rep call data, and more—in Alteryx, then visualizing comparative performance in QlikView.

The client's top 5 reasons for choosing Alteryx:

- Outstanding support
- End-to-end data manipulation and analysis tool
- Smooth integration with QlikView
- Easy to use
- Predictive analytics toolset



Resources



Practice data preparation in Alteryx
alteryx.com/download



Download the Visual Analytics Kit for Qlik
alteryx.com/qlikkit



View Demonstration videos
alteryx.com/partners/qlik



Why Should Analysts Use Alteryx and Qlik Together?



Faster Insights

Accelerating the delivery of advanced analytics



Power to Analysts

Putting the power of advanced predictive and spatial analytics in the hands of business users



Freedom for IT

Make IT happy by freeing them of the burden of iterative data requests

“Combining the predictive capabilities of Alteryx with Qlik Sense empowers users to dive even deeper into their data and generate recommendations to drive innovation.”

– Les Bonney
Chief Operating Officer, Qlik

alteryx

Data Preparation and Advanced Analytics

Thousands of data analysts worldwide rely on Alteryx daily.

alteryx.com/Qlik