

Data Preparation Checklist

The following checklist can help you think through all the steps needed for data preparation. Then consult this table again as you validate your data preparation and consider if your data is ready for output.

Input Data

| Topic | Item | Yes | No | N/A |
|-----------------------|---|-----|----|-----|
| Gather Data | Are all tables that contain relevant fields included to support the data analysis? | | | |
| Input Filters | Can input step filters be applied to data that is unnecessary or restricted for the end user? | | | |
| Clear Field Selection | Consider the users and the purpose of the data analysis: Are the non-relevant fields cleared from the input selection? | | | |
| Sampling | For large data sets, has the sampling size and method been set to best prepare the majority of the data? Is the full data set used in the flow only when needed? | | | |
| Gather Data | Are all tables that contain relevant fields included to support the data analysis? | | | |



Data Structure and Cleaning Operations

| Topic | Item | Yes | No | N/A |
|-------------------|--|-----|----|-----|
| Field Names | Are naming conventions followed? Are names short, accurate, understandable, and descriptive of the underlying data? | | | |
| Data Types | Are field data types set correctly based on the underlying data? | | | |
| Data Roles | Can available data roles or published custom data roles be used to validate data? | | | |
| Remove Fields | Consider the users and the purpose of the data analysis: Are the non-relevant fields removed? | | | |
| Split Fields | Are fields that contain multiple pieces of information split into separate fields for easier analysis? | | | |
| Calculated Fields | Do calculated fields need to be added to perform analysis? Do calculated fields add additional value in support of the data analysis? Have common string cleaning operations, e.g., trim spaces, remove punctuation, been performed? Are date/time fields in a usable format? | | | |

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| Topic | Item | Yes | No | N/A |
|--------------------------------|--|-----|----|-----|
| Filters | Can filters be applied to exclude data that is unnecessary or restricted for the end user? | | | |
| Nulls | When needed, are nulls handled by calculated fields, filters, or default values? | | | |
| Incorrect or Duplicate Data | Are incorrect or near-duplicate data values edited, grouped and replaced, filtered, or otherwise excluded? | | | |
| Outliers | When needed, are outliers edited, filtered, or excluded? | | | |

Combine Data

| Topic | Item | Yes | No | N/A |
|-------|--|-----|----|-----|
| Joins | Are joins set up when fields from other data sources are needed? | | | |
| | Are tables at the same granularity (level of detail) or is an aggregate step needed? | | | |
| | Do join keys need cleaning to join correctly? | | | |
| | Are join keys the same data type? | | | |
| | Are join types (e.g., inner, left, etc.) set up correctly? | | | |

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| Topic | Item | Yes | No | N/A |
|--------|---|-----|----|-----|
| Unions | Are tables that have the same structure unioned to provide all the information needed? Are unions in the flow used when data sources have different data types or cleaning is needed to create a common structure? | | | |
| | Are wildcard unions used when files with the same source type and structure are in the same directory? Have mismatched fields been merged, when possible? | | | |

Shape Data

| Topic | Item | Yes | No | N/A |
|--------------|--|-----|----|-----|
| Pivots | Is normalized data pivoted to the Tableau Desktop preferred denormalized data structure? Is a pivot needed to turn columns into rows? Is a pivot needed to turn rows into columns? | | | |
| Aggregations | Are aggregates set up when data is needed at a different level of granularity? | | | |