

Encodings

Channels	X, Y, X2, Y2
Mark Property	Color, Fill, Size, Opacity
Text	Text and tooltips
Facet	Column and Row
Others	Detail and Order

Encoding Types

Q - Quantitative	Numerical quantity
O - Ordinal	Ordered categorical
N - Nominal	Name / Unordered categorical
T - Temporal	Date / Time
G - Geojson	Geographic shape

Different marks

mark_point	Creates a scatter plot with configurable point shapes
mark_bar	Generates a bar plot for categorical or numerical data
mark_line	Draws a continuous line connecting data points, often used for time series
mark_area	Creates a filled area plot , typically used for showing quantities over time
mark_circle	Produces a scatter plot specifically with filled circular markers
mark_text	Displays data points as text labels on the plot
mark_rect	Creates filled rectangles , commonly used for heatmaps
mark_tick	Draws vertical or horizontal tick marks for data points

mark_boxplot

Generates a statistical **box plot** showing data distribution

Common transformations

transform_calculate	Define new fields in the dataset
transform_filter	Removes data points that don't meet a specified condition
transform_density	Performs one-dimensional kernel density estimation and generates a new column
transform_fold	Convert wide-form data to long-form data directly without any preprocessing
transform_extent	Computes the minimum and maximum values in a field
transform_impute	Fill-in missing entries in a dataset
transform_regression	Fits a trend line to data using various regression methods

Concatenations

chart1 chart2	Horizontal concatenation
chart1 & chart2	Vertical concatenation

Selections

selection_interval	Best for zone selection and zooming
selection_single	Best for highlighting individual points
selection_multi	Best for highlighting multiple points

Bindings

binding_checkbox	Simple toggles
binding_radio	Exclusive options (radio boxes)
binding_range	Slider of numeric values
binding_select	Dropdown of multiple choices