




















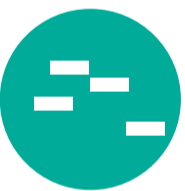





























Visual Analytics

The official ZAP Chart Type Cheat Sheet

CHART TYPE	CATEGORICAL COMPARISON ordered/unordered, share of total, distribution	VALUES OVER TIME Showing values against a time series	CORRELATION Comparing two or more values to show a relation	MEASURES ONLY/KPI Displaying single values that may/may not be comparable	GEOGRAPHICAL Showing values that have specific locations or areas
horizontal bars 	Use for ordered/ranked and share of total data Example: top 10 customers by sales Note: better than vertical when longer label names			Only use if it's valid to compare between the different measures Example: % delivered in full vs % delivered on time	Use for data that's geographical, but when analysis isn't geographically important Example: sales by region when location of the regions is not important to the analysis
vertical bars 	Use for unordered and distribution Examples: •sales by product category •purchases by age range (distribution)	Use when comparing discrete time data (e.g. years, months), and when gaps in data exist (e.g. missing weekend data)		Only use if it's valid to compare between the different measures	Use for data that's geographical, but when the analysis isn't geographically important Example: sales by state
table 	Use for ordered or unordered when: •there is a hierarchy of categorical data on rows •subtotals are used •there are extra values/properties per item to show Example: regions and customers	Use when the values over time are significant, as opposed to the trend over time (see Line). Same rules as for categorical comparison Example: sales by year on columns, customers by region on rows	Use when finding correlation between different categories (on rows) Example: correlation between different items purchased at the same time; heat map of product categories A & B	Only use if wanting a tabular format. Otherwise consider using text (below) for more readable formats	Use for data that's geographical, but when the analysis isn't geographically important Example: regions and customers •regions and customers •showing contact details and market category
text 				Use for measures without categories Note: use text formatting and size proportionately to show significance; the number should be the largest text	
line 	Use when comparing multiple categorical series that have a clear order Example: Outstanding invoices by age	Use when plotting data over time ² Good for: •detailed levels of time (e.g. date) •trends over time Example: amount of cases by date for different priorities	Use for showing correlation of measures: •instead of points/bubbles when more than three measures •good for showing a trend that is correlated Example: temp, precipitation and ice cream sales by day		
area 	Use for showing a distribution when there's only a single series or a trend/shape Example: case load by time of day	Use as an alternative to line when ³ : •there's only one series, or the series are part of a whole and are shown as a stacked area •the values can be accumulated Example: total sales by week			
points & bubbles 	Only use when axes don't start at zero and bar markers are in use Example: quantity sold by store (axis starts at 5M because variation between stores is small compared to total)		Use when showing the correlation of 2-3 different measures Example: opportunity closed amount (y), opportunity estimated amount (x), estimated closed probability (bubble size) by opportunity		See Map Points
bar marker 	Use in conjunction with horizontal or vertical bars for a comparison or target value Example: sales by quarter, with bars to compare vs quarter in prior year	Use in conjunction with vertical bars for a comparison with a target value OR instead of a line when data for time periods is missing Example: budget vs actual, or hours worked per week (missing weekends)			
pie, donut, gauge 	Only use pie/donut when accurate comparison isn't required and it is important to signal that segments make up a whole value Example: budget by department, project and team			Only use a circular gauge when the value shown is a percentage or has a clear target value which represents the complete circle Example: Project percent complete	
treemap 	Use when the categorical data contains multiple levels of categories simultaneously Example: budget by department, project and team				
map shapes 					Use when data represents geographical areas and when it's common to look at this by shapes (e.g. US states), OR location is important for the analysis (e.g. where to place distribution centers by looking at delivery times by postal code)
map points 					Use when data has a specific location (latitude and longitude) and location is important for the analysis
word cloud 	Only use when the categorical data does not require accurate comparison, and when the categorical information is written language Example: show sentiment and amount of use of terms in relation to a brand				

¹ The most important measures can have inline bars (history) or other conditional formatting such as heat maps. ² Better than vertical bars when there are multiple series of data. ³ Can be used in combination with line to make it easy to distinguish measures that shouldn't be compared directly. ⁴ Due to their complexity may take some time to interpret. Ensure bubbles are sized by area and not radius.