

Disclaimer: Below you find some example questions, which should help you prepare for the exam. However, note that the actual questions at the exam can be very different and can cover all material presented in the lecture!

Visualization Mapping

- What is the pop-out effect / pre-attentive processing? How can it be used?
- Sort the following visual channels according to how accurately humans can compare them starting with the highest accuracy: *2D area – length – curvature – angle/slope*
- What is the difference between separable and integral visual channels?
- Name an example for fully separable / integral visual channels.
- Which visual channel(s) can be used in a bar chart? For what types of data?
- From a perceptual point of view, what works better: Bar charts or pie charts? Why?
- How do Parallel sets work? What kind of data can be shown?
- How does the ThemeRiver work? Which visual channels are used for which type(s) of data?
- How do Horizon Graphs work? How can you read out values at a position?

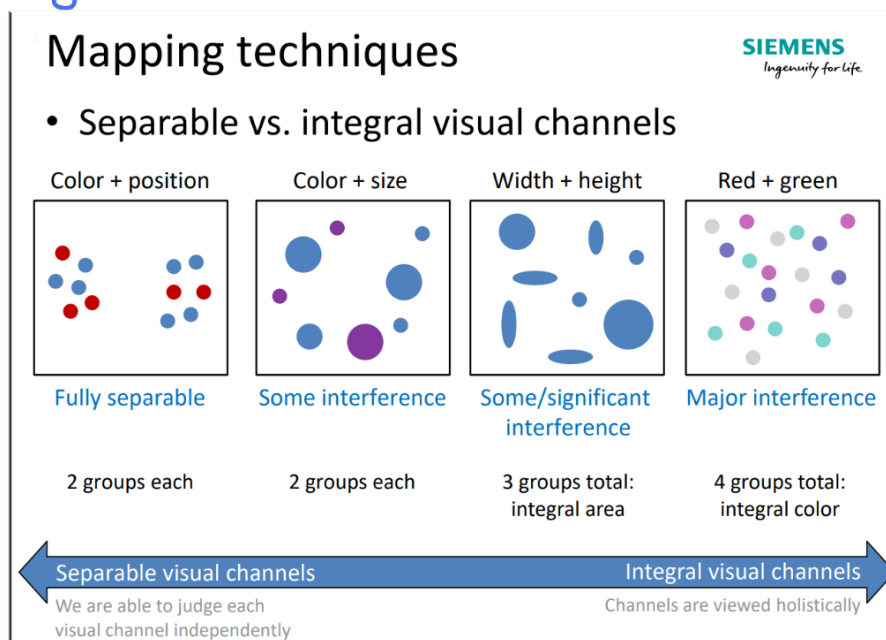
a-) It is a effect resulting from parallel and automatic detection of basic features. It work on individual channels.

b-) Length \succ angle $\succ 2\Delta \succ$ curvature

e-) Seperable \rightarrow Combine 2 visual channel & representation

Integral \rightarrow Combine many " 1 " "
 \hookrightarrow it is hard to read.

d-) Color and Position are fully seperable.
Height and width integral



e-) Color, length. Quantitative, Categorical

f-) Bar charts since color and length are more easily perceptible than angle.

g-) shows quantitative data w.r.t multiple categorical attributes.

h-) It shows time-dependent data

Area, shape, color are used