

Data Vis Assignment 5.1

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1 Node-Link Matrix-Graph Comparison

1.1 Node-Link

Nodes are usually represented as point marks, with links encoded as connection marks between nodes to represent relationships. This approach sacrifices space for relational clarity.

Node-Link diagrams are suited to tasks where the physical structure of the network is particularly relevant. It might represent roads or a computer network, and the links between the nodes can be used to calculate paths, query for adjacent nodes, calculate weighted distances etc.

2 Matrix-Graph

A matrix graph encodes nodes and links into a tabular structure. The rows and columns represent nodes and cells in the table represent a link between nodes. This approach weights spacial efficiency over clarity in cases where the graph may be particularly dense.

Matrix-Graph representations are more suited to tasks that require scaling, as there is less visual clutter taken up by connection marks between nodes as in the Node-Link view.