A Design Space for Linked 2D and 3D Visual Representations

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Summary:

We discuss a design space for combining, linking, and jointly presenting 3D spatial data together with related abstract data, the latter typically mapped to 2D space. Even though guidelines exist for creating linked 2D views that help designers and inspire researchers, they typically do not encompass 3D spatial data representations. We thus first reviewed the existing visualization literature and explored linking patterns in existing systems. We then extracted the dimensions of how these tools combine 2D and 3D data by their semantic relationships, display environment, placement, and the linking methods between them.

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