Creating focus areas

Focus maps continuously combine an enlarged region with a small scale map. The method by Haunert and Sering (Proc. InfoVis 2011) requires a connected graph and does not take area into account. Using a constrained Delaunay triangulation as input solves both problems, but overly constrains the input, causing large deformations (right).

Adding insufficient bottleneck edges allows areas to be severely deformed (above). A different rigidity for sea- and land faces allows distortions to be transferred to sea faces giving improved results (right).

Thematic information may require corridors to be enlarged. Scaling these areas causes undesired deformations in neighboring countries (left). Excluding these edges from affecting the distortion at their endpoints while adding a constraint on their scale prevents this (right).

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Schematizing context

We schematize the distorted focus map to emphasize the focus region. Depending on the use case we assign different weights to each vertex. By allowing a weighted error margin across the map, we can locally increase or decrease the schematization. Circular arcs help to create a strong visual cue on schematization.

Results

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