Ogen: An Overlapping Grid Generator for Overture

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Abstract:
We describe how to generate overlapping grids for use with Overture using the `ogen` program. The user must first generate `Mappings` to describe the geometry (a set of overlapping grids whose union covers the domain). The overlapping grid then is constructed using the `Ogen` grid generator. This latter step consists of determining how the different component grids interpolate from each other, and in removing grid points from holes in the domain, and removing unnecessary grid points in regions of excess overlap. This document includes a description of commands, presents a series of command files for generating various overlapping grids and describes the overlapping grid algorithm. The `ogen` program can also be used to build unstructured hybrid grids where the overlap is replaced by an unstructured grid.

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[2] Management prefers the spelling 'Center'

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