

Group Meeting Week 0, Fall 2019

Brandon Gusto

Dept. of Scientific Computing
Florida State University

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Task List (DONE)

Tasks

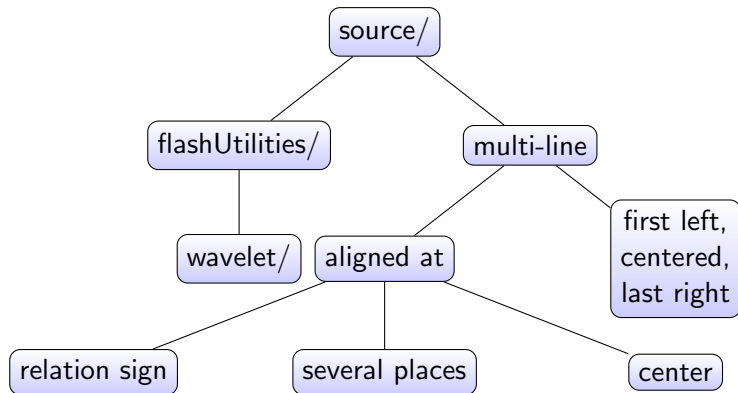
- ▶ Overloaded functions for multi-dimensions: `cmap` (total block mapping), `imap` (interior block mapping)
- ▶ Accessing neighboring leaf blocks: `gr_findAllNeghID`
- ▶ Almost done building mask in 2D (8 cases: 4 face neighb's + 4 corner neighb's)
- ▶ For periodic conditions, does function automatically give me block on other side of domain if at an edge?

gr_findAllNeghID

Function usage

```
neighBlkID = surrBlksSummary %  
regionInfo(LEFT_EDGE,LEFT_EDGE,1) & % details(BLKNO,1)
```

Implementation of Multiresolution Scheme in Proteus



Task List (TO-BE-COMPLETED)

Tasks

- ▶ Parallel communication of mask information to blocks across processors (in 1D and 2D)
- ▶ Last thing in 2D is to implement interpolation in `prolong_gen_unk1_fun`
- ▶ Prolongation gets called both for whole block refinement and for coarse-to-fine ghost cell operations
- ▶ Restriction is left as-is in all dimensions