**Workflow PCR-GLOBWB 30-arcsec steady-state GGM**

**Partitioning**

Goal: generate load balanced partitions.

1. Tool: modflow6\trunk\utils\_deltares\metis\partclusshp\partclusshp.f90
2. Input: global\_catchment\_hydrosheds\_ldd\_no\_gl\_aa.idf, created by
   1. global\_catchment\_hydrosheds\_ldd.map from Cartesius  
      /projects/0/dfguu/users/edwinhs/data/global\_hydrosheds\_ldd\_including\_above\_n60/process/version\_20190226   
      🡪 global\_catchment\_hydrosheds\_ldd.idf  
      using tool: PCR-GLOBWB-MODFLOW-30arcsec\fortran\pcrlib\vs\pcrlib\x64\Release\pcrlib.exe
   2. Clip for Greenland (GL) and AntArttica using tool  
      PCR-GLOBWB-MODFLOW-30arcsec\fortran\idfclip\vs\x64\Release\idfclip.exe
3. Result:   
   (d:\pcr-globwb-1km-model\pcr-globwb-1km\_ldd\)

**Pre-processing PCR-GLOBWB**

**Model generation**

Goal: Generate dependent and independent MODFLOW 6 models

1. Tool: PCR-GLOBWB-MODFLOW-30arcsec\fortran\mf6ggm\vs\x64\Release\mf6ggm.exe
2. Input:
   1. part\_1024\_2.log
   2. TOP .\input\_data\top\_uppermost\_layer.idf
   3. BOT\_L1 .\input\_data\bottom\_uppermost\_layer.idf
   4. BOT\_L2 .\input\_data\bottom\_lowermost\_layer.idf
   5. K\_L1 .\input\_data\horizontal\_conductivity\_uppermost\_layer.idf
   6. K\_L2 .\input\_data\horizontal\_conductivity\_lowermost\_layer.idf
   7. K33\_L1 .\input\_data\vertical\_conductivity\_uppermost\_layer.idf
   8. K33\_L2 .\input\_data\vertical\_conductivity\_lowermost\_layer.idf
   9. STRT\_L1 .\input\_data\initial\_head\_uppermost\_layer.idf
   10. STRT\_L2 .\input\_data\initial\_head\_lowermost\_layer.idf
   11. DRN\_ELEV\_L1 .\input\_data\drain\_elevation\_uppermost\_layer.idf
   12. DRN\_ELEV\_L2 .\input\_data\drain\_elevation\_lowermost\_layer.idf
   13. DRN\_COND .\input\_data\drain\_conductance.idf
   14. RIV\_STAGE\_L1 .\input\_data\surface\_water\_elevation.idf
   15. RIV\_RBOT\_L1 .\input\_data\surface\_water\_bed\_elevation\_used.idf
   16. RIV\_COND .\input\_data\bed\_conductance\_used.idf
   17. RECHARGE .\input\_data\net\_RCH.idf
   18. PARTITIONS part\_1024\_2.idf
   19. SOLUTIONS sol\_1024\_2.idf
3. Result: MODFLOW 6 models

**Computing initial starting head**

**Post-processing results**