



Max-Planck-Institut  
für Meteorologie



# Yet Another Coupler

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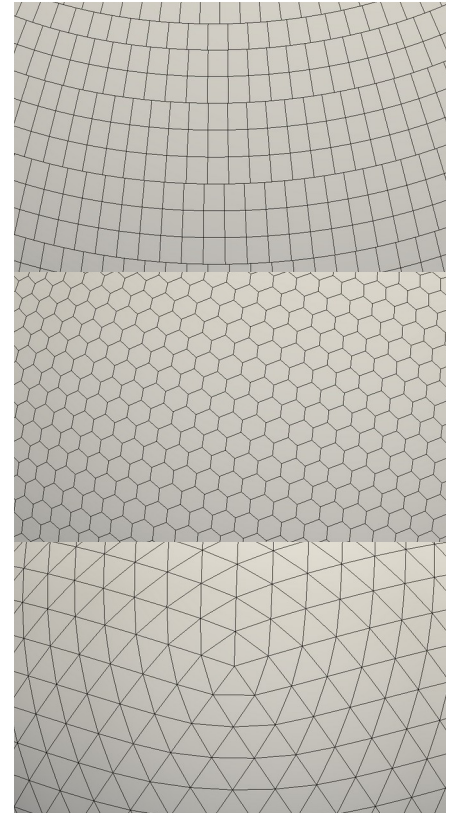


# YAC overview

- Coupling library (in contrast to a coupling framework)
- Weight computation
  - Online
  - Parallel
  - High quality
  - High performance
  - 2D
  - diverse

# YAC features

- User interface in C, Fortran, and Python
- Supports all common grid types
- Masks
  - Core masks
  - Field masks
  - Dynamic fractional masks
- Metadata
  - Components, grids, and fields



# YAC features

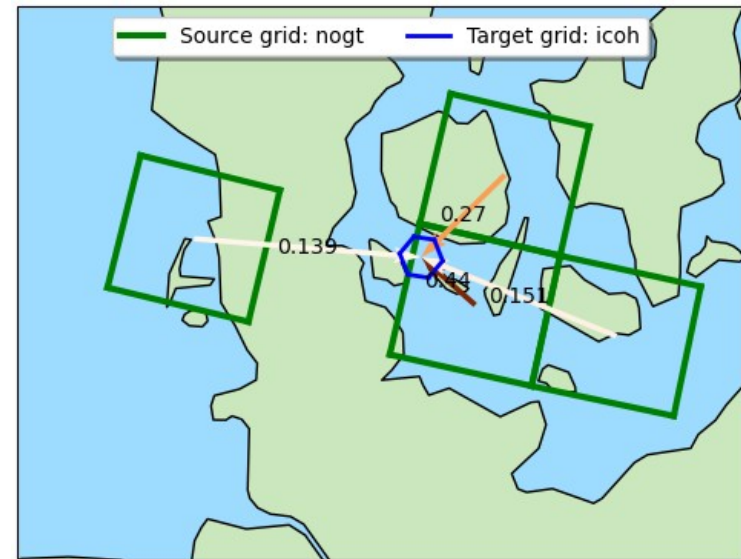
- Couples
  - Defined via file (YAML or JSON) or user interface
  - Time operations (min, max, sum, average)
  - Interpolation stack
    - Arbitrary combination of interpolation methods
    - Various interpolation methods (Average, NCC, conservative, weight file, fixed, HCSBB, NNN, RBF, source to target, creep fill, and user-callback)
  - Scaling
  - WIP: raw exchange

# YAC features

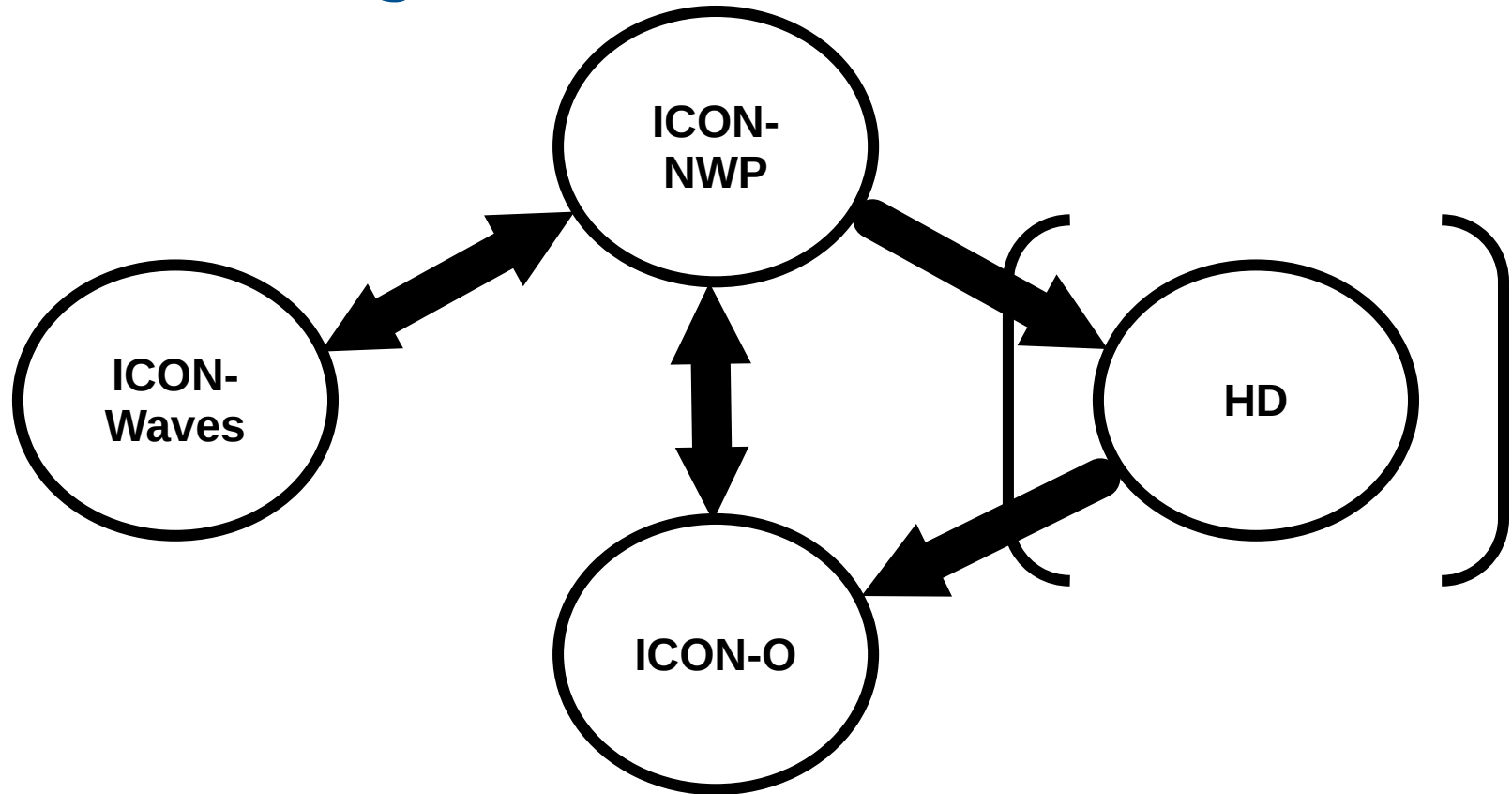
- Exchange
  - Asynchronous put
  - Synchronous and Asynchronous get
  - Synchronous exchange

# YAC features

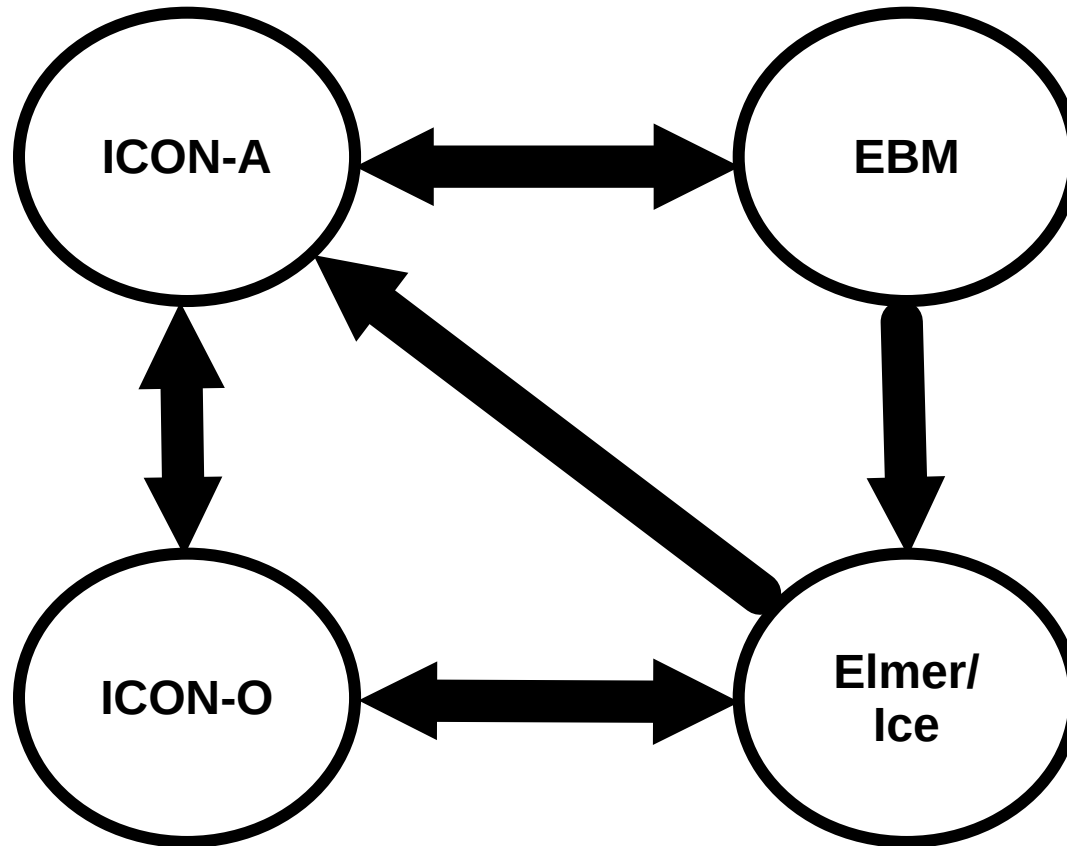
- Tools
  - Grid to VTK
  - Weights to VTK
  - Plot weights



# ICON-XPP configuration

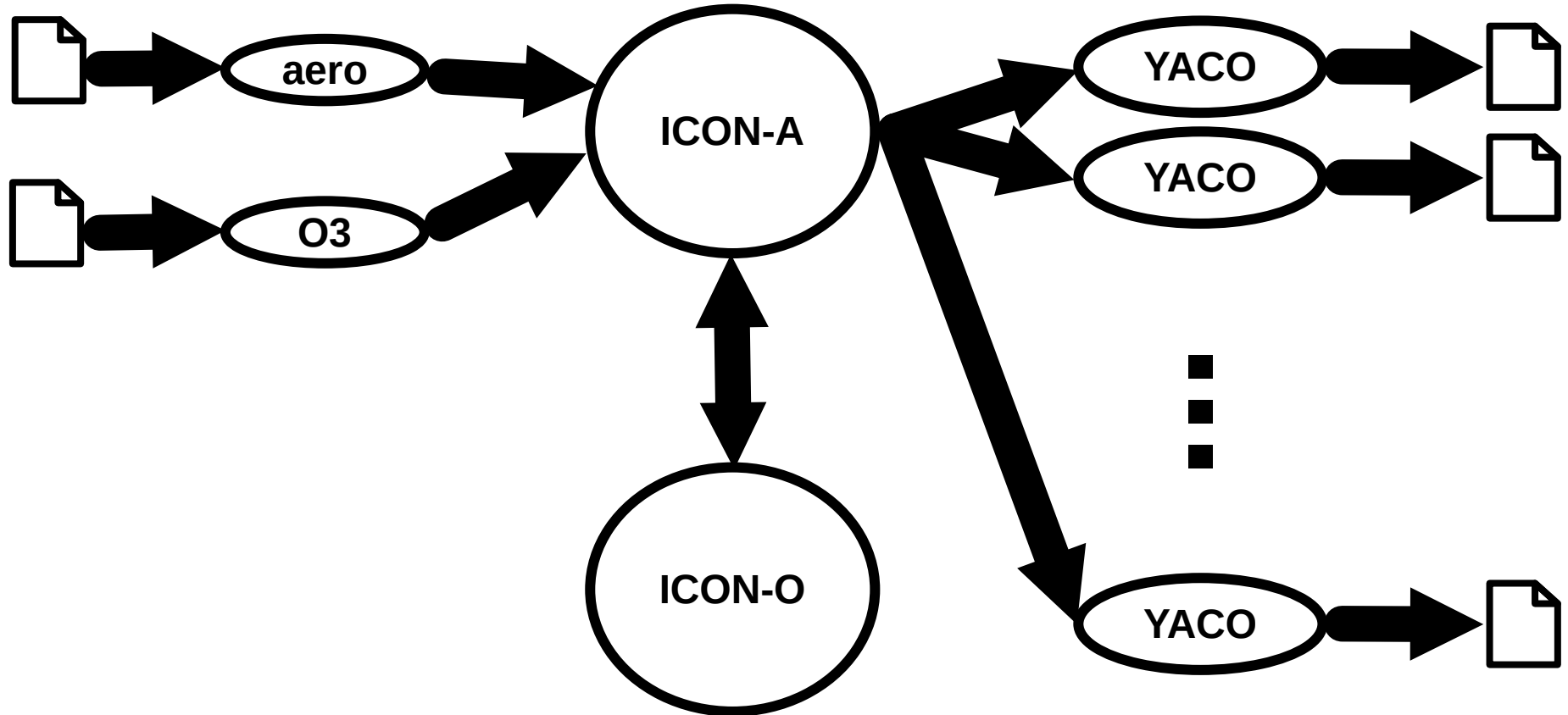


# Planned ICON configuration for TerraDT

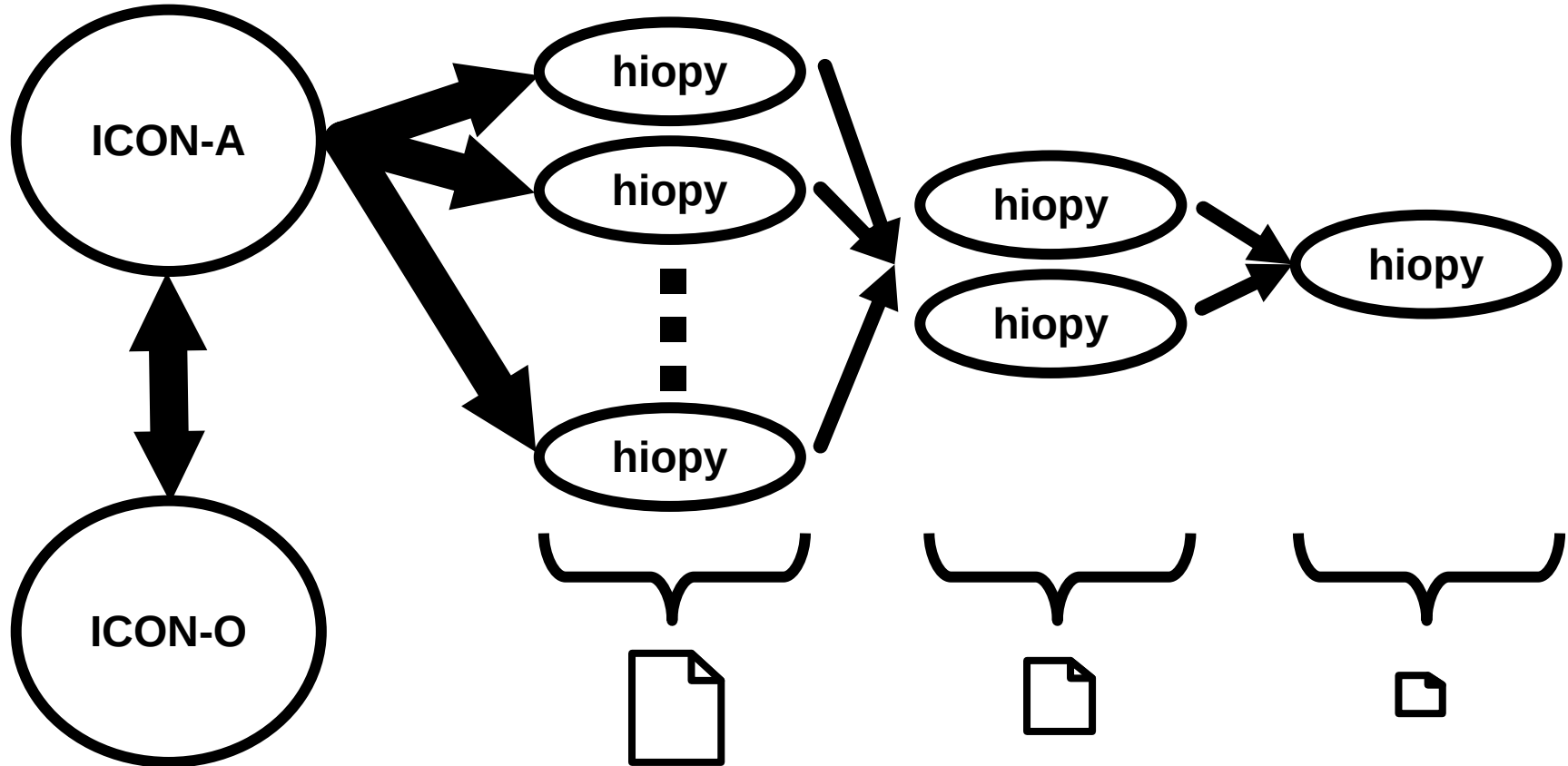




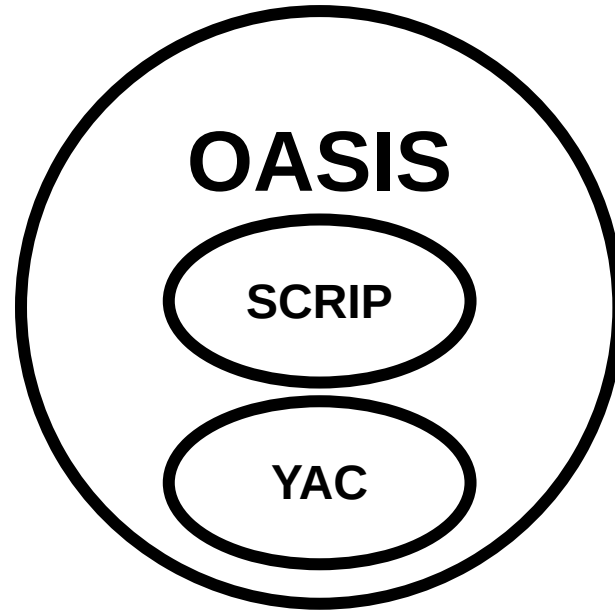
# Coupled I/O options in ICON



# Coupled I/O options in ICON



# OASIS3-MCT 6.0



# End

- Documentation
  - <https://dkrz-sw.gitlab-pages.dkrz.de/yac>
- Download
  - <https://gitlab.dkrz.de/dkrz-sw/yac>