Ocean Modelling Collaboration

https://github.com/oceanmodeling

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Office of Coast Survey

European Commission

Scope

- Paradigm shift
    - Open Source
    - Organizations support outside development (sponsored by an MoU between EC-JRC & NOAA OCS)
    - Co-development
    - Identify gaps and address them collectively
    - Managed by the devs/users
- Agile development
    - Reproducible (from laptop to the cloud)
    - Portable (pypi, conda, docker)
    - DEVOPS (from research to operations)
    - Modular
- Another Paradigm shift
    - Solver as module (test bed of all possible solutions)

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Goal

STANDARDIZATION

- In processes (physics, calibration, best practices, etc)

- In data structures (pandas, xarray, geopandas, etc.)

- In taxonomy (concepts)

- In terminology (variable names, etc.)

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Status

- 13 Repositories (Main/forks/placeholders)

- 45 members

- Several projects and Teams

- Bi-monthly management meetings

- Bi-weakly project dev meetings

Challenges

- Bathymetry/DEM : coastal area, under ice, HR.

- Observations/Measurements : Clean up, de-tide, datum, etc.

- Unstructured mesh data subsetting.

- Coupling with waves

- 3D global

- Support for multiple solvers

- More physics

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