

# IODA V2 Migration

April 1, 2021

# New features

- ObsSpace based on ioda-engines
- Introduction of multi-dimensioned variables
  - 2D radiance variables
  - In-memory (ObsSpace)
  - Ioda files
- These changes are backward compatible with UFO
  - get\_db, put\_db interface remains for now
  - After release, UFO will migrate to ioda-engines
- Note that geovals files remain as they are for now
  - Separate geovals reader in ufo (which will migrate to ioda-engines after release)
  - These will get updated after the release as UFO migrates to ioda-engines
- Test data stored in independent git-lfs repos
  - ufo-data
  - ioda-data

# Ioda file migration steps

- Preparation for the release
- New code is in feature/ioda-v2 branches of ioda and ufo
- New code includes a file upgrader
  - `ioda-upgrade.x [-n] old_file new_file`
- Steps
  - Build your bundle using the feature/ioda-v2 branches for ufo and ioda
    - Need to include cmake updates for ufo-data and ioda-data inclusion
      - Use feature/ioda-v2 branches in ioda-bundle and ufo-bundle as guide
      - As well as top-level CMakeLists.txt changes in feature/ioda-v2 branches of ufo and ioda
  - Run the upgrader on all of your ioda obs files (test and experiment areas)
  - Run tests