ECCO Version 4 Release 2 [https://dataverse.harvard.edu/dataverse/ECCOv4r2inputs] [doi:10.7910/DVN/7XYXSF]

- This dataset (http://dx.doi.org/10.7910/DVN/7XYXSF) provides the ECCO Version 4 Release 2 model initialization files:

tile*.mitgrid	grid variables (MITgcm input format)
bathy.bin	bathymetry
pickup*.data	initial condition
geothermalFlux.bin	geothermal heating (annual climatology)
runoff.bin	river runoff (monthly climatology)
xx_*.data	diffusivity anomaly fields
visc*.bin	viscosity anomaly fields
wt_ones*	settings for MITgcm/pkg/ctrl
smooth*	settings for MITgcm/pkg/smooth

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- Comments:

- These binary files can be read in Matlab using read_bin.m (http://mitgcm.org/viewvc/MITgcm/MITgcm_contrib/gael/matlab_class/gcmfaces_IO/) as part of the gcmfaces toolbox (see gcmfaces.pdf link provided below). They are also directly readable by the MITgcm when using the LLC90 setup to re-run the ECCO v4 ocean state estimate (see eccov4.pdf link provided below).
- 'ECCO Version 4 Release 2' is a global ocean state estimate that covers the period from 1992 to 2011 (Forget et al. 2015, 2016). It was produced on behalf of the ECCO consortium (http://ecco-group.org/) with major support provided NASA's Physical Oceanography Program. General documentation of the 'ECCO Version 4 Release 2' dataverse and all included datasets can be found at https://dx.doi.org/10.7910/DVN/ODM2IQ (see README.pdf in that dataset).
- The formatting, online publishing, and archiving of the ECCO V4 R2 dataverse and datasets have benefited from guidance that was graciously provided by the MIT Libraries Data Management Services (http://libraries.mit.edu/data-management/). At time of writing the contents listed above can alternatively be downloaded from ftp://mit.ecco-group.org/ecco_for_las/version_4/release2/.

- References:

- Forget, G., J.-M. Campin, P. Heimbach, C. N. Hill, R. M. Ponte, and C. Wunsch, 2015: ECCO version 4: an integrated framework for non-linear inverse modeling and global ocean state estimation. Geoscientific Model Development, 8, 3071-3104, http://dx.doi.org/10.5194/gmd-8-3071-2015
- Forget, G., J.-M. Campin, P. Heimbach, C. N. Hill, R. M. Ponte, and C. Wunsch, 2016: ECCO Version 4: Second Release, http://hdl.handle.net/1721.1/102062

- Software:

- The ECCO V4 R2 files were produced using the `checkpoint64u' versions of the general circulation model (MITgcm and ECCO v4 settings) and Matlab analysis toolboxes (gcmfaces and MITprof). These software versions are available at http://mitgcm.org/download/other_checkpoints/ and http://mit.ecco-group.org/opendap/ecco_for_las/version_4/checkpoints/contents.html
- The up to date software documentations are available at http://mitgcm.org/public/r2_manual/latest/online_documents/manual.pdf, http://mitgcm.org/viewvc/*checkout*/MITgcm/MITgcm_contrib/gael/verification/eccov4.pdf, and http://mitgcm.org/viewvc/*checkout*/MITgcm/MITgcm_contrib/gael/matlab_class/gcmfaces.pdf

- Contact Us:

- questions regarding the ECCO model set-up, grid, software, or files should be addressed to
  either ecco-support@mit.edu (please subscribe via http://mailman.mit.edu/mailman/listinfo/ecco-support)
  or mitgcm-support@mitgcm.org more generally (please subscribe via http://mitgcm.org/mailman/listinfo/mitgcm-support).

- README file revision history:

- README file overhaul for use within dataverse [Gael Forget] [2016/08/03]