GMD-2023-45 Intercomparisons of Tracker v1.1 and four other ocean particle tracking software packages in the Regional Ocean Modeling System

We appreciate the time and efforts the topic editor made to improve our manuscript. Please see below, in blue, for a point-by-point response. The line numbers refer to the tracked version of our manuscript.

Topical editor's comments:

Public justification (visible to the public if the article is accepted and published):
Since the manuscript is in the category "Model description papers", please make sure the appropriate rules are follwoed (https://www.geoscientific-model-development.net/about/manuscript_types.html#item1)
In particular:
- The main paper must give the model name and version number (or other unique identifier) in the title.
- The publication should consist of three parts: the main paper, a user manual, and the source code, ideally supported by some summary outputs from test case simulations.

So please include the name and version of Track in the title and abstract.

Response: Thanks for the suggestion. We included the name and version of Tracker in the title and abstract. The title was changed to "Intercomparisons of Tracker v1.1 and four other ocean particle tracking software packages in the Regional Ocean Modeling System". Please see revisions in lines 1 and 7 in the clear manuscript.

I have revised the updated Zenodo package and I didn't get to run the first example.

LPT_intercomparison_tracking_packages/Tracker$python3 make_KDTrees.py -gtx
cas6_v3_lo8b -d 2019.07.04 -ro 2
Traceback (most recent call last):
File "/LPT_intercomparison_tracking_packages/Tracker/make_KDTrees.py", line 19, in
from lo_tools import Lfun, zrfun
ModuleNotFoundError: No module named 'lo_tools'

I cloned LO
git clone https://github.com/parkermac/LO.git
and made the required module available to python and run in a subsequent error:
Error from Lfun: missing LO/get_lo_info.py and LO_user/get_lo_info.py

Please make sure the examples run straightforwardly for a new user.

Ideally you should provide working examples of all the models used, but it would be best that at

least the Tracker examples work out of the box. Otherwise provide working instructions for the dependencies.

Response: Thank you very much for checking the codes. In the revised Zenodo repository, we generated a new simpler standalone example for Tracker v1.1 so that the readers can run it without the necessity to install the customized python environments or link to any directories specific to our own LiveOcean system. The updated Zenodo repository can be found in https://doi.org/10.5281/zenodo.10810102 and in line 354 of the clear manuscript.

In the README.md file: what do you mean with "This code uses nearest neighbor for most everything and so might work with more complex ROMS grids (the LO grids are plaid), but that is untested."?

Response: We removed the README.md file, which contains this statement, in the folder containing codes and hydrodynamic files of Tracker. Instead, we generated a concise README.md file in the new archived Zenodo/LPT_intercomparison_tracking_packages/Tracker_v1.1/.

To answer the editor's question: in the original README.md, we intended to inform other users who may have, for example, a curved ROMS model grid that the nearest neighbor algorithm used in Tracker should work for their grids. Since this is untested, we removed the sentence from the revised README.md.

Besides the above response, we also made some minor Language edits in the revised manuscript.