

Interactive comment on “A fast input/output library for high resolution climate models” by X. Huang et al.

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Dear Thomas:

In addition to our previous response, we are planning to make the following modifications in the revised manuscript according to your question.

(1) We will add an experiment to compare CFIO with PIO in the designed scenarios of our MPI test programs. Therefore, in the revised manuscript, the title of section 5.4 will be changed from “CFIO Versus PnetCDF” to “Comparing CFIO with PIO and PnetCDF”.

(2) We will add the following paragraph in the beginning of section 5 to discuss why we did not compare CFIO with other parallel I/O libraries in POP, CICE and LICOM cases.

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“The major reason that we did not compare with other parallel I/O libraries in POP, CICE and LICOM cases is because we are targeting at high resolution climate models. For the standalone POP, CICE and LICOM with NetCDF library that we downloaded from their official website, a resolution of 0.1 degree is directly supported. As far as we know, the POP and CICE models using PIO only exist in the coupled CESM, which provides no direct support for standalone tests with a high resolution of 0.1 degree. We think that porting the entire CESM coupled model from PIO to CFIO involves too much engineering work, and is beyond the scope of this work. In section 5.4, we will compare CFIO with PIO and PnetCDF through two MPI test programs.”

(3) We will also add the following paragraph into the Introduction section:

“The ideas about overlapping I/O with computing proposed in CFIO shall be complements rather than replacements of existing parallel I/O libraries, such as PnetCDF and PIO. Indeed, CFIO call the PnetCDF functions directly to implements the parallel write and read in the server side. “

Best,

Xiaomeng Huang

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