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Geoscientific Model Development Discussions

Interactive comment on "The Marine Virtual Laboratory: enabling efficient ocean model configuration" *by* P. R. Oke et al.

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Reviewer Comment: The major drawback of WebMARVL, it works only for the Australian seas and can be used only for Australian-based researchers associated to the Australian Access Federation which obviously a major problem.

Author Response: The developers plan too implement an alternative method of user authentication to allow international users to exploit WebMARVL. This will soon address this drawback, which we acknowledge.

Reviewer Comment: The problem I see with this article is that to demonstrate the relevance or "credibility" of WebMARVL the authors present runs, with different models, and compare the result of the models-runs using WebMARVL produced data with runs

of the same models initiated or forced with "manually" obtained data. A large part of the article is used to demonstrate that the runs with both sets of data are similar or produced realistic results. I think this just shows the strength of the models not of WebMARVL. For example, in section 3.2 (all sections are similar) the authors conclude that "a WebMARVL-configured high-resolution ROMS run can realistically reproduce both the mesoscale and sub-mesoscale variability in a complex region of strong currents." This fact is not a feature of WebMARVL or even a sign that the input data is "good"; any reasonable data will produce gyres if the physics of the model allows them.

Author Response: These demonstrations demonstrate that a WebMARVl-configured model run compares with a manually-configured model run. The WebMARVL-configured run takes minutes to setup – while the manually-configured run takes days to weeks, depending on the modellers level of proficiency. Establishing and demonstrating this efficiency was the primary objective of this paper.

Reviewer Comment: I think that the paper would be much more useful if the authors show how the software works and demonstrate that the data, just extracted from some database, corresponds correctly to what it was supposed to be obtained regarding domain, time interval, resolution, etc. If the models run good or not is another question completely. I can certainly see the usefulness of WebMARVL and recommend a paper describing it but suggest modifying this paper taking out most of the model comparisons and include a contrast of the data extracted using WebMARVL and "by hand."

Author Response: The model comparisons are presented in Figures 5-10. We note that 4 out of 6 of these figures (e.g., Figures 6, 7, 9 and 10) include comparisons with observations, as the reviewer requests.

Interactive comment on Geosci. Model Dev. Discuss., 8, 9741, 2015.