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

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This article describes a potentially very useful tool: WebMARVL. This virtual device was designed to facilitate the preparation of data to run several ocean circulation and wave models. The Web-based Virtual Laboratory (WebMARVL) is used to extract efficiently and easily, and to put in the corresponding format and resolution, the input data (i.e., model grid, topography, boundary and surface forcing, initial data, etc.) needed to configure a model. WebMARVL then produces a "take-away bundle" that can be retrieve and use directly by the researcher. It is certainly an improvement, in term of time invested, with respect to doing it manually; "significantly reduces the start-up time of any project involving simulation studies of the ocean", no doubt. I am not sure if it also helps new users to understand the implication of using one set of data versus another or comprehending the implication of the "physics" implicit in a specific set of

data, but at least for experienced users, it is a very useful tool. It is comparable to ROMSTOOLS (Peven, et.al., 2007) except that WebMARVL works for several models while ROMSTOOLS works only for ROMS. On the other hand, and this is, 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 wich obviously a major problem.

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. 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."

Penven P., P. Marchesiello, L. Debreu, and J. Lefevre, 2007: Software tools for pre- and post-processing of oceanic regional simulations. Environ. Model. Softw., 23, 660-662.

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