Geoscientific

Model Development

Discussions

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Interactive

comment

Interactive comment on "DATeS: A Highly-Extensible Data Assimilation Testing Suite" *by* Ahmed Attia and Adrian Sandu

Anonymous Referee #4

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Thanks to the first reviewer who has provided a great summary of the paper contributions. I also agree that the current draft is more like a user manual than a technical paper. A simplified language use and less jargon may improve the readability in the introduction part.

1. The author could mention the educational purpose of DATeS in the very beginning.

2. Pg2 Line 5, please add reference for DART applications.

3. Starting Pg4 Line 5, the authors introduced DA in general, then at Pg 5, line 22, the authors mentioned they have implemented several flavors of the above mentioned DA schemes. It would be nice to mention which versions are implemented and which are not. Alternatively, the authors could start with the summary of DATeS's implementation,

then provide details of each implementation.

4. The authors have mentioned in several places that Fortran and C are low-level languages. They are not. Low-level languages are generally referred to machine language and assembly language.

5. The authors are encouraged to develop a Graphic User Interface (GUI) for flexibility and ease of use.

6. The DA software and programing language comparison on pg 2 can be formatted better in terns of the software cost, learning curve, ease of access, extensibility etc. to bring out the "unified" nature of the Python implementation.

7. The authors mentioned to compare different DA schemes, it would be nice to include an example of DA results comparison with DATeS.

8. I also agree with another referee that limitations of DATeS should be pointed out.

Interactive comment on Geosci. Model Dev. Discuss., https://doi.org/10.5194/gmd-2018-30, 2018.