Interactive comment on “Geodynamic diagnostics, scientific visualisation and StagLab 3.0” by Fabio Crameri

F. Crameri

fabio.crameri@geo.uio.no

Received and published: 26 April 2018

It is true that StagLab is originally designed for StagYY and therefore currently works best with only that particular code. However, I put a lot of effort in it to open it up for potential use with other (especially open-source) codes. As mentioned by the reviewer, there is a specific file to try and guide through the adjustments needed for making StagLab compatible with other codes. Specific built-in error messages throughout StagLab then indicate necessary additional adjustments elsewhere. However, this is still not straightforward and needs my involvement, which is why I can currently not provide a more general guide to allow other developers to write their own conversion script. I will work on that and try to provide something along these lines in future versions of StagLab.
Most codes do unfortunately also not offer example output data, that would facilitate making StagLab compatible. I am, however, in contact with other developers to provide extended compatibility to other codes like ASPECT and CITCOM soon.

Regarding StagLab’s native language MatLab, I generally agree that scientific codes should be accessible to anyone. However, for the sake of the discussion, I think one has to also consider the following aspects that seem to speak for MatLab and seem to favour effective user accessibility of MatLab over e.g., Python: The usage of MatLab is simpler than usage of e.g., Python; MatLab is probably learned by more people than Python; Most people that run Geodynamic models (often on a supercomputer) also have access to a MatLab license via their employers. On top of that, MatLab codes can, under some code simplifications, also be distributed as stand-alone applications that do not necessitate a licence for their execution. A light version of a stand-alone StagLab seems to be possible in the future.