Interactive comment on “The 1-way on-line coupled atmospheric chemistry model system MECO(n) – Part 2: On-line coupling” by A. Kerkweg and P. Jöckel

Anonymous Referee #1

Received and published: 9 September 2011

This manuscript (MS) describes a new developed component of MESSy infrastructure: the Multi-Model-Driver (MMD) which allows concurrent runs of different models (ECHAM5 and COSMO) or of the same model (COSMO) with different horizontal resolutions. As it is, the paper is a technical description of the developed software and its implementation: more a manual than a scientific paper. Therefore, I recommend a major revision of MS in which the authors discuss the nesting procedures and the one applied here, the problems related to the different model spin-up periods and their coupling, and show data/comparison with literature with the aim of proving the advantage of new coupler objectively.

The MS should also contain discussions about the generality of MMD software and the possibility to be used for coupling other models. The title of the MS does not reflect the actual content: Part 2 should be renamed from “On-line coupling” in “Description of Multi-Model-Driver coupling software”.

Many sections can be completed eliminated or re-written in few phrases to summarize their main content (such as 7.3.1, 7.3.2, etc). These part of the MS should be in the Manual. pg. 1387: the content of the phrase “More exactly...” is not clear.

Interactive comment on Geosci. Model Dev. Discuss., 4, 1359, 2011.