Geoscientific

Model Development

Discussions

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Interactive comment on "Geospatial input data for the PALM model system 6.0: model requirements, data sources, and processing" *by* Wieke Heldens et al.

Wieke Heldens et al.

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First of all, we want to thank the two anonymous reviewers for their valuable comments.

Summarizing, the reviewers hat the following main recommendations:

1) Include a more complete description of the PALM model including the use of the model to make the paper easier to read independent of the PALM overview paper by Maronga et al. (2020).

2) Increase the scientific value of the manuscript by discussing the content of the manuscript towards other approaches in literature, e.g. regarding input data and model

evaluation/validation.

3) The paragraph on the different Levels of Detail (LOD) of PALM is difficult to understand.

In order to address these we changed the following to the manuscript:

1) We added a section in the introduction giving more background information on the PALM model.

2) To increase the scientific value of the paper, we included a section (Sect. 6) showing a PALM simulation using the static driver created for this paper. The simulation result is followed by a discussion of the experiences on the input data by related studies which focus on evaluating PALM (partly with the data presented in this paper). We included also a discussion towards other data frameworks for urban climate analysis (LZC, WUDAPT, MApUCE) in section 4.

3) To illustrate the concept of LOD in PALM, we added an illustration using LAI as an example for a city quarter in Berlin, Germany and show the difference between LOD0, LOD1 and LOD2 for this vegetation_par.

In addition to these general recommendations, which resulted in the largest changes of the manuscript, the reviewers also provided numerous specific and technical comments. They resulted in smaller changes in the manuscript, but helped to improve the article a lot, for which we want to cordially thank the reviewers. Detailed answers to these comments are provided in the attached pdf.

Please also note the supplement to this comment:
https://gmd.copernicus.org/preprints/gmd-2019-355/gmd-2019-355-AC1-supplement.pdf

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