Geoscientific

Model Development

Discussions

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Interactive

comment

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

Anonymous Referee #2

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General comments

This paper presents how to describe the local environment for the PALM model system 6.0. The different modules, standards and possible data-sources are in this sense clearly and exhaustively presented. Three German cities are used to illustrate the different steps in the data collection and that allows to appreciate a certain spatial and intra-parameter variability. An important set of good quality figures and tables describing the input parameters accompany the text.

Although I am sure of the interest of such an article for PALM users, I think it would gain interest for the whole community of modelers if the work is discussed more in depth

regarding the state of the art. Even if authors recognizes previous work in this area no analysis or discussion is made regarding it. In its current state the article is closer to a technical report than to a scientific paper. My main comment would be regarding this point.

Specific comments

The content of the paper is well written but there are numerous section crossings and this should be avoided to minimize repetition. I agree with reviewer 1, even if this paper is published in a special issue accompanied by an article on the PALM model it must be self-sufficient. Some contextual information about the model and the eventual numerical simulations where these data were used, are missed in the current version. Some subsections are very concise (for example 2.6.3 for water bodies), please complete them or combine them with others sections. The paragraph in Pg3. L30, is diffcult to understand. An extra figure or workflow could be useful to guide the reader. As a general rule, please integrate the figures after their citation.

Technical corrections Pg2. L1-2, "as well" is used twice Pg7. L7, there is a "-" after the word vegetation. Pg9. L8, please update the sentence "Nevertheless, a German-wide coverage is planned for the end of 2019" Pg10. Sec4. Here you can perhaps cite and discuss your work regarding the paper Bocher, E.; Petit, G.; Bernard, J. & Palominos, S. A geoprocessing framework to compute urban indicators: The MApUCE tools chain Urban Climate, 2018, 24, 153 - 174 Pg10. Sec 4.1, it is not clear the horizontal resolution of the airborne lidar. Is it 1m? Pg 12. L20, a dot is missed after "pavement)". Pg14. L3, "As an area wide approach satellite..." This sentence it's not clear to me, perhaps a grammar revision is needed. Pg14. L9, I think a coma is needed after "For the vegetation type layer municipal". Pg15. L28, a ")" is missed.

Fig1. It's difficult to compare the three terrains as the legend is not homogeneus. Fig3. Please include buildings types directly in the legend. Fig5. It seems that the method identifies vegetation over the building path. Please explain and discuss the limits.

Interactive comment on Geosci. Model Dev. Discuss., https://doi.org/10.5194/gmd-2019-355, 2020.