Geoscientific Open Access
Model Development
Discussions

Interactive comment on "PRACTISE – Photo Rectification And ClassificaTIon SoftwarE (V.2.0)" *by* S. Härer et al.

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General comments

The manuscript presents a Matlab-based software (PRECISE) for mapping snow cover from digital photographs and satellite products. This is a second version of the code, which contains some important improvements related mainly to automatisation of the process, calibration of NDSI threshold value and classification of snow cover in shadowed areas. The software is demonstrated by using digital photographs and Landsat 7 and 8 images for Zugspitze massif (Germany). The results show that the software allows an objective, reproducible mapping of snow cover at the small catchment scale. Overall, the manuscript represents a model description paper. It has a good structure and is clearly written. I enjoyed to read it. I have only a few suggestions to be

considered for a revision. These include:

1) The calibration of the NSDI threshold is a nice feature, however the extrapolation of this threshold to larger areas is not clearly discussed. There is a gap between the spatial scale of digital photographs and continental or global satellite snow cover products. The results clearly show some temporal differences in the estimated threshold, but one would expect also similar differences in space. Please consider to discuss more the limits of the extrapolation procedure and give some recommendations to what spatial scale it is still possible to extrapolate the results with a good accuracy.

2) According to the GMD guidelines, the model description paper has to clearly indicate the model web page URL, the hardware and software requirements. Please consider to make this information more complete in the manuscript. Are there some restriction regarding the Matlab version?

3) The comments in Matlab source code (e.g. Practice.m file) do not always clearly refer that this source code represents version 2 of the software. Please consider to update the comments to make it clear, particularly for users that use also the older version.

4) This is not a suggestion for revision, just a comment. It is a pity that the software is Matlab-based, so it is dependent on licensed commercial software. An fully open source code (e.g. in R, or GRASS environment) would be potentially more attractive alternative.

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