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PERFORMANCE EVALUATION OF A STRUCTURE AND MOTION STRATEGY IN ARCHITECTURE AND CULTURAL HERITAGE

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Abstract. A large number of strategies and implementations of Structure from Motion (SFM) have been developed; some are being included in photogrammetric software packages. However, finding specific parameters highlighting the efficiency, the accuracy and the reliability of a SFM strategy it is difficult. While most strategies will almost always succeed in any given task (i.e. the orientation of a certain image sequence), judging how good is actually the result, is somehow still an open issue. In the first part of this paper some alternatives and parameters are presented and their pro and cons discussed, with the objective to find out whether there are alternatives to the well-established method of the check points. In the second part, the results of most of the image sequences made available by the workshop organizers, processed with the SFM approach developed by the authors, are presented; results for the sequences where external information (such as ground control points or a DTM) were available are presented in more detail.

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