RELIABLE IMAGE MATCHING WITH RECURSIVE TILING

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ABSTRACT:

This paper presents a method to improve the robustness of automated correspondences while also increasing the total amount of measured points and improving the point distribution. This is achieved by incorporating a tiling technique into existing automated interest point extraction and matching algorithms. The technique allows memory intensive interest point extractors like SIFT to use large images beyond 10 megapixels while also making it possible to approximately compensate for perspective differences and thus get matches in places where normal techniques usually do not get any, few, or false ones. The experiments in this paper show an increased amount as well as a more homogeneous distribution of matches compared to standard procedures.

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