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AN ACCURACY ASSESSMENT OF AUTOMATED PHOTOGRAMMETRIC TECHNIQUES FOR 3D MODELING OF COMPLEX INTERIORS

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Abstract. This paper presents a comparison of automatic photogrammetric techniques to terrestrial laser scanning for 3D modelling of complex interior spaces. We try to evaluate the automated photogrammetric techniques not only in terms of their geometric quality compared to laser scanning but also in terms of cost in money, acquisition and computational time. To this purpose we chose as test site a modern building ' s stairway. APERO/MICMAC (©IGN)which is an Open Source photogrammetric software was used for the production of the 3D photogrammetric point cloud which was compared to the one acquired by a Leica Scanstation 2 laser scanner. After performing various qualitative and quantitative controls we present the advantages and disadvantages of each 3D modelling method applied in a complex interior of a modern building.

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