Photogrammetric Tools

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A recent set of tools have become freely available online for the creation of three dimensional models of objects and scenes derived from a set of photographs. A group of scripts have been made available at: [<http://www.visual-experiments.com/demos/photosynthtoolkit/>] for use in conjunction with the Photosynth website: [<http://photosynth.net/>] to generate models automatically. These tools produce a point cloud model (incorporating colour and position information); to make a solid mesh a further tool is required, MeshLab: [<http://meshlab.sourceforge.net/>]. Two of the resulting models are available to view in videos, a calcified bat at: [<http://www.youtube.com/watch?v=fegyR6Y292o>] and a bear skeleton: [<http://www.youtube.com/watch?v=svvFcafvjME>] both found in caves.

To produce good sources for making models a large number of photographs is desired. The photographs should ‘overlap’ with other photographs and be from a number of different angles and positions. The photographs should also be as well lit as possible (reasonably uniformly), as all black, white and generally featureless areas are quite hard to compare.