Objective:
When reconstructing a scene using image-based reconstruction techniques, one usually gets a dense point cloud or a surface mesh as result, which represents the geometry of the scene well but lacks in high-quality color information (see Figure left). To generate a more photo-realistic reconstruction an additional step, named texturing, is necessary to map the color information of the input images onto the 3D reconstruction (see Figure right). The goal of this project is to integrate this texturing step into the 3D reconstruction pipeline used at our institute. For this, texturing algorithms available as open-source software should be used. As a result, the 3D reconstruction pipeline should have an additional module, with which it is possible in a user friendly way to create textured reconstructions from various input data like Digital Surface Models (DSMs), surface meshes or point clouds.

Qualifications:
- Experience in C++
- Linux
- Interest in 3D vision/graphics

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