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# THE PHONE DATASET #

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The Phone dataset contains more than 10,000 images for 6 sequences (00-05) with synchronized gravity direction and ground truth motion parameters. The images were captured using an iphone 6s at the resolution of 1280x720@30Hz. The corresponding IMUs data were captured @100Hz with a very (less than one dollar) built-in sensor InvenSense MPU-6500. Then the frames and IMUs data were synchronized based on their timestamps. The motion parameters obtained from RealityCapture [1] were used as the ground truth.

There are three files in each sequence folder.

* ‘\*\_gravity.txt’ provides the synchronized gravity direction. Each row represents a transform matrix spread in row which aligns the y-axis of the camera with the gravity direction.
* ‘\*\_pose.txt’ provides the absolute pose as the ground truth. Each row refers to the absolute pose of the camera spread in row as:

[r11,r12,r13,t1,r21,r22,r23,t2,r31,r32,r33,t3].

* ‘\*.m4v’ provides the real images recorded on video for compressed size.

Welcome to use the dataset for evaluating relative pose estimation and extend it in any way you find useful.

[1] “Realitycapture,” http://www.capturingreality.com.

Please cite these papers when the ORD dataset is used:

* Yingna Su, Yaqing Ding, et al. A two-step approach to Lidar-Camera calibration. ICPR, 2020.

For any questions, please contact Yingna Su (suyingna@njust.edu.cn).