List of SLAM Datasets

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1 SLAM Datasets

This file contains information about publicly available datasets suited for monocular, stereo, RGB-D and lidar SLAM.

Last update: 2021/02/04

1.1 New College Dataset

- Year: 2009
- Publication: The New College Vision and Laser Data Set
- Available sensors: GPS, odometry, stereo cameras, omnidirectional camera, lidar
- Ground truth: No
- Link (not sure if it is still available)

1.2 Rawseeds Datasets

- Year: 2009
- Publication: RAWSEEDS ground truth collection systems for indoor self-localization and mapping
- Available sensors:
- Ground truth: Yes
- Link

1.3 Ford Campus Dataset

- Year: 2011
- Publication: Ford campus vision and lidar data set
- Available sensors: GPS/IMU, lidar, omnidirectional camera
- Ground truth: no
- Link

1.4 TUM RGB-D Dataset and Benchmark

- Year: 2012

- Publication: A Benchmark for the Evaluation of RGB-D SLAM Systems
- Available sensors: Kinect/Xtion pro RGB-D cameras
- Ground truth: Yes
- Link

1.5 KITTI SLAM Datasets

- Year: 2012
- Publication: Are we ready for Autonomous Driving? The KITTI Vision Benchmark Suite
- Available sensors: GPS/IMU, lidar, 2x stereo pairs
- Ground truth: Yes Link

1.6 Málaga Stereo and Laser Datasets

- Year: 2013
- Publication: The Málaga urban dataset: High-rate stereo and LiDAR in a realistic urban scenario
- Available sensors: GPS/IMU, lidar, stereo camera
- Ground truth: Yes Link

1.7 NCLT Dataset

- Year: 2015
- Publication: University of Michigan North Campus Long-Term Vision and Lidar Dataset
- Available sensors: IMU/GPS, odometry, lidar, omnidirectional camera
- Ground truth: Yes
- Link

1.8 KITTI 360

- Year: 2016
- Publication: Semantic Instance Annotation of Street Scenes by 3D to 2D Label Transfer
- Available sensors: IMU/GPS, stereo, side looking cameras, lidar
- Ground truth: Yes
- Link

1.9 EuRoc MAV Dataset

- Year: 2016
- Publication: The EuRoC micro aerial vehicle datasets
- Available sensors: IMU, stereo
- Ground truth: Yes, also for point clouds
- Link

1.10 Omnidirectional Stereo Dataset

- Year: 2019
- Publication: SweepNet: Wide-baseline Omnidirectional Depth Estimation
- Available sensors: Synthetic omnidirectional camera
- Ground truth: Yes
- Link

1.11 ETH 3D

- Year: 2019
- Publication: BAD SLAM: Bundle Adjusted Direct RGB-D SLAM
- Available sensors: IMU, custom RGB-D and stereo cameras
- Ground truth: Yes
- Link

1.12 KAIST Urban Dataset

- Year: 2019
- Publication: Complex urban dataset with multi-level sensors from highly diverse urban environments
- Available sensors: GPS/IMU, odometry, stereo cameras, lidar
- Ground truth: No (only results from some SLAM algorithms)
- Link

1.13 Newer College Dataset

- Year: 2020
- Publication: The Newer College Dataset: Handheld LiDAR, Inertial and Vision with Ground Truth
- Available sensors: IMU, stereo cameras, lidar
- Ground truth: Yes
- Link

1.14 TartanAIR

- Year: 2020
- Publication: TartanAir: A Dataset to Push the Limits of Visual SLAM
- Available sensors: Synthetic stereo and lidar
- Ground truth: Yes
- Link

1.15 Ford AV Dataset

- Year: 2020
- Publication: Ford Multi-AV Seasonal Dataset
- Available sensors: GPS/IMU, lidar, 2x stereo pairs (forward and backward), one dashboard camera, 2 side cameras
- Ground truth: Yes
- Link

1.16 UASol

- Year: 2021
- Publication: UASOL: A Large-scale High-resolution Stereo Dataset
- Available sensors: GPS, Zed stereo camera
- Ground truth: Poses given by Zed API
- Link

2 About

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