Localization Datasets

These are some of the dataset that I came across and seem to be related to our use cases.They are still part of vision based autonomy datasets which heavily rely on vision based localization, therefore I am not sure if the provided sensor data could lead to good evaluation of the library.
I suggest we build our own dataset to test and evaluate the library if the complexity of doing that is reasonable.

1.   MIT Dataset

Messages provided:
+   sensor_msgs/LaserScan   [40Hz] <- base_scan Hokuyo UTM-30LX
+   sensor_msgs/LaserScan   [40 Hz] <- tilt_scan Hokuyo UTM-30LX
+   geometry_msgs/Odometry   [44 Hz] <- Wheel Odom(raw)
+   geometry_msgs/PoseWithCovarianceStamped   [25 Hz] <- Wheel Odom(integrated)
+   sensor_msgs/Imu   [100 Hz] <- Microstrain 3DM-GX2 IMU
+   sensor_msgs/Image   [30 Hz]
       sensor_msgs/CameraInfo

https://marvhub.com/#/collection/bags

They provide
- ROS .bag files containing everything - except the images(easier to work with)
- .csv file containing the above messages(except the images)
- Ground Truth for 17 bags.

2. Udacity Legacy Dataset

Messages provided:
+   geometry_msgs/TwistStamped   <- Gps
     geometry_msgs/NavSatFix
     geometry_msgs/TimeReference
+   sensor_msgs/Imu   <- IMU
+   Lots of car info(steering, throttle..)
https://marvhub.com/#/detail/q4mwxc3epkcqpqhiyoru7xclii
https://marvhub.com/#/detail/6z7actaati432jn7yd6kzn5xhe

3. Rosario Dataset

Messages provided:

+ IMU measurements **MEMS IMU** (LSM6DS0 6-DoF Inertial Measurement Unit 140 Hz)
+ Wheel Odometry (3xHall effect sensors coupled to each rear wheel and 1 encoder attached to the robot direction)
+ GPS-RTK(position ground-truth) (GPS-RTK modules working at 5 Hz)
+ Stereo images

https://www.cifasis-conicet.gov.ar/robot/doku.php#the_rosario_dataset

4. 2D-Laser Dataset

If we decide to try out laser datasets:

https://www.ipb.uni-bonn.de/datasets/