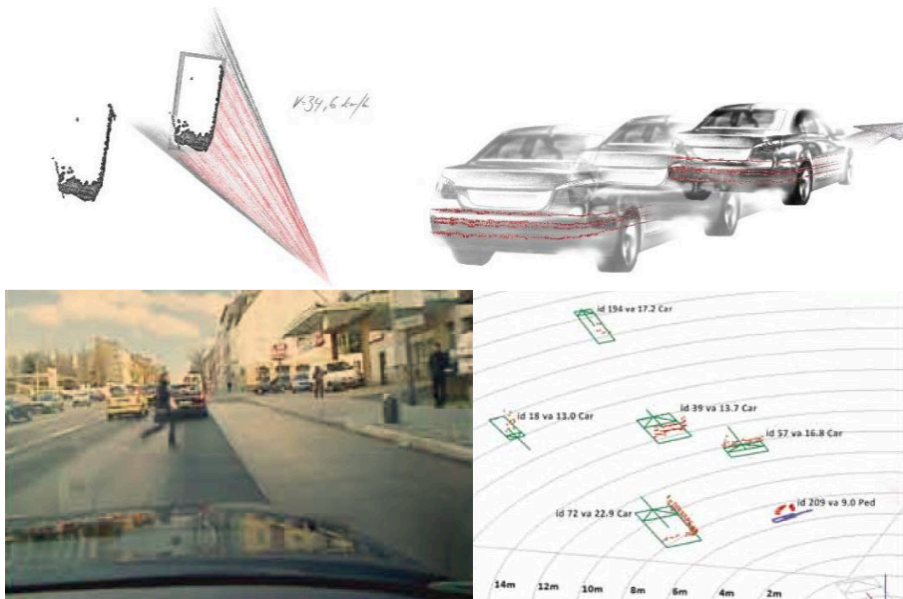


ibeo Object Tracking



All iBeo laser scanners are equipped with a **very robust and reliable** embedded object tracking.

The iBeo object tracking provides thanks to the **high resolution** of iBeo scan data a **high level** description of the surroundings.

Up to 65 objects will be **simultaneously** tracked and provide high level information like speed, moving vector and

ibeo Object Tracking details

Scan data pre-processing

• All scan points are marked with one of the following flags:

- Valid
- Ground
- Dirt
- Transparent
- Clutter

General Tracking Information

- Technology: Kalman filter
- Motion compensation: Single Track Model based ego motion compensation (requires ego motion data)
- Max number of simultaneously tracked objects: 65
- Prediction of covered/ hidden objects: Up to 1 s

Object Output

- ID: For a live time unique reference number
- Position: x/y tracking reference point
- Outline:
 - Up to 34 contour points
 - Bounding box (center, size, orientation)
- Velocity:
 - Relative velocity vector
 - Absolute velocity vector (requires ego motion data)
- Class (requires ego motion data):
 - Car
 - Truck
 - 2-Wheeler/ Bike
 - Pedestrian
 - Unknown small
 - Unknown big
 - Not classified
- Certainty/ Object status:
 - Object age
 - Object prediction age
 - Classification age
 - Position sigma

Key features:

- Simultaneously tracking of up to 65 objects
- Bounding box and speed information
- Single Track Model based ego motion compensation