

## IP-S2 Compact



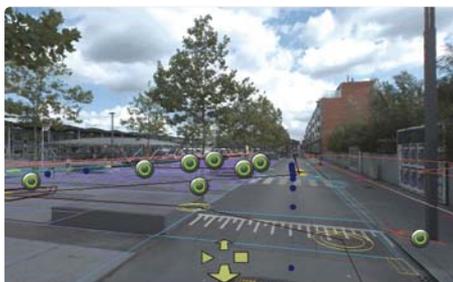
Topcon's IP-S2 Mobile Mapping System overcomes the challenges of mapping 3D features at a high level of accuracy. Accurate vehicle positions are obtained using three technologies:

- A dual frequency GNSS receiver
- An Inertial Measurement Unit (IMU)
- External wheel encoders

These technologies work together to sustain a highly accurate 3D position for the vehicle. IP-S2 Compact includes three LiDAR scanners oriented to cover the road surface and adjacent buildings up to 30 meters away. A high resolution digital camera provides 360 degree spherical images at fixed distance intervals. All sensor inputs are recorded and time stamped to a common clock driven by the IP-S2.



### GIS / MAPPING



Georeferenced panoramas can be produced for visual inspection and detailed analysis such as time-dependent changes in profile, geometry and location. An integrated dual frequency GNSS receiver tracks both GPS and GLONASS signals expanding the operation area.

An inertial measurement unit (IMU) constantly monitors vehicle motion and attitude, allowing the IP-S2 system to track the vehicle position even when driving near obstructions or through tunnels where satellite signals can be blocked.

Vehicle wheel encoders further enhance positioning accuracy and reliability. Retrofitted to rear wheel axles, the encoder detects rotation of each wheel. Vehicle attitude can

be computed even more accurately by comparing difference in rotation speeds between two wheels.

Orbit Asset Inventory management allows integration of IPS2 data with other sources like aerial imagery, maps, drawing or other data layers. The software offers full GIS software functionality and allows users, or teams of users, to collect to GIS data sets and create asset inventories with unparalleled ease of use and efficiency.

Orbit software loads both the IP-S2 point cloud and images and allows flexible and efficient inventory creation. The Client-Server architecture allows team working within a single data set.