



## Software development of a position determination component

### Customer requirement

As part of an eCall system, (an automatic emergency call system for vehicles), a component should be developed for exact position determination. In addition to GPS, it should be possible to access other sensor data in the vehicle. This is necessary in case there is no or poor GPS reception, e.g. in street canyons or tunnels.

### comlet solution

The developed component calculates the current position based on sensor data from the ABS system.



Wheel rotations are counted between two measuring times (odometry).

Various factors (wheel geometry, chassis geometry, vehicle weight...) can have a negative effect on the accuracy of the position determination under certain conditions. Different calculation variants were used to counteract this.

The differences between the actual position and calculated position were exported in Keyhole Markup Language (KML) and visualised in Google Earth™.



#### Technologies used:

MATLAB/Simulink, KML