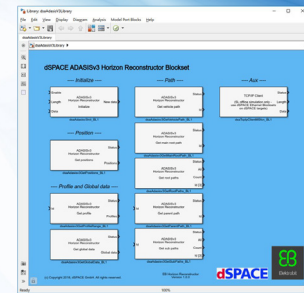


# ADASIS v3 Horizon Reconstructor Blockset

Developing and testing map-based driver assistance systems using the ADASIS v3 protocol

## Highlights

- Simulink® blockset for access to electronic horizon data via ADASIS v3 protocol
- Easy selection of detailed route and position data based on HD maps for predictive applications and autonomous driving
- Based on the EB robinos ADASISv3 Reconstructor for a smooth transition from prototyping to production ECUs



## Application Areas

The electronic horizon specified by the Advanced Driver Assistance Systems Interface Specification (ADASIS) consortium is a concept that serves to provide vehicles with only the relevant data from the large amount of map material. This includes the most likely route (Most Preferred Path), the vehicle position, alternative routes, and the route profiles (e.g., road geometry, maximum speed, intersection information), etc. The Horizon Provider extracts the relevant data from the maps and transmits them on the vehicle bus. The Horizon Reconstructor then receives the data and makes it available to the applications. With version 3 (ADASISv3), which is tailored to the special requirements of autonomous driving, alternative vehicle positions with their probabilities of occurrence can now be transmitted with centimeter accuracy via broadband Ethernet. Detailed route geometries can be transmitted with an accuracy down to individual lanes. The map management of the Horizon Provider lets you provide map sections and use automatic data management, including the automatic deletion of obsolete data, which can be done independently for route and profile information.

## Key Benefits

The ADASIS v3 Horizon Reconstructor (HR) Blockset gives you easy access to electronic horizon data via Simulink® and the standardized ADASISv3 protocol. The blockset supports the development of map-based ADAS applications and functions for autonomous driving on dSPACE prototyping systems and the PC-based simulation platform VEOS. It is based on the robinos ADASISv3 Reconstructor code from Elektrobit. This eliminates the effort of implementing your own HR and familiarizing yourself with the details of the ADASIS protocol. The clear block structure lets you access the desired data quickly and easily. For example, a profile of the vehicle path can be accessed by simply adding a path block and a profile block to the model after initializing the HR. The corresponding profile data is provided via a Simulink bus and can be easily selected and connected to the application. The blockset provides multiple block categories for access to different paths and path profiles, lane and intersection models, or vehicle positions. By using the ADASIS v3 Horizon Reconstructor Blockset, you can fully focus on your application development task and quickly see the results in the vehicle. Since the blockset is based on Horizon Reconstructor code, which is suitable for mass production, it enables a simplified transition from prototyping to the target system.

## Functionality Overview

Functionality	Description
General	<ul style="list-style-type: none"> <li>■ Access to electronic horizon data from the Simulink® model using the ADASIS v3 protocol</li> <li>■ Easy selection of predictive route data for connection to driver assistance functions and functions for autonomous driving</li> <li>■ Dedicated blocks for vehicle positions, paths, path profiles, and global data</li> <li>■ Smooth transition from prototyping to the target system using the EB robinos ADASISv3 Reconstructor</li> <li>■ Data exchange/communication via Ethernet</li> </ul>

## Order Information

Product	Order Number
ADASIS v3 Horizon Reconstructor Blockset	■ ADASISV3HR_SOL_SW

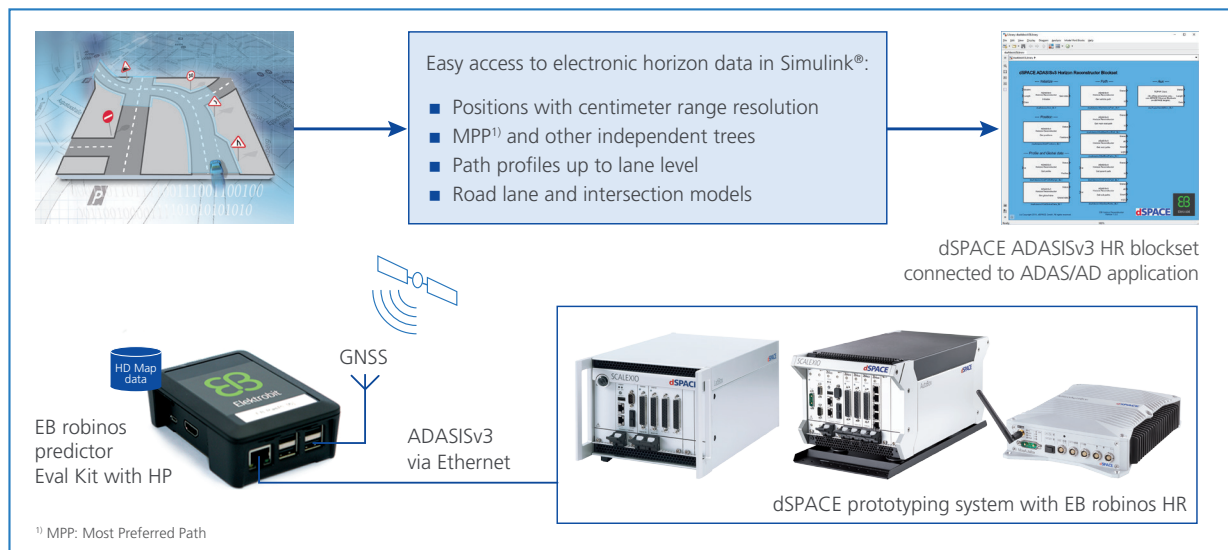
## Relevant Software and Hardware

Software	Order Number
Optional For prototyping systems	■ Real-Time Interface <sup>1)</sup>
For PC-based simulation	■ VEOS
	See relevant product information

Hardware	Order Number
Optional For prototyping systems	■ MicroAutoBox III <sup>2)</sup>
	■ MicroLabBox
For SCALEXIO hardware	■ SCALEXIO
	See relevant product information

<sup>1)</sup> For information on standard hardware and software requirements for Real-Time Interface, please see relevant product information.

<sup>2)</sup> Various MicroAutoBox variants are available.



The ADASIS v3 Horizon Reconstructor enables easy access to electronic horizon data (e.g., profiles of the vehicle path) via the standardized ADASISv3 protocol.