# ADASIS v2 Horizon Reconstructor Blockset

## Developing and testing map-based driver assistance systems using the ADASIS v2 protocol

### Highlights

- Simulink® blockset for accessing electronic horizon data via the ADASIS v2 protocol
- Graphical selection of predictive road data for easier development of map-based driver assistance functions
- Ready-to-use model blocks for road profiles, intersections, stubs, and protocol metadata
- Same reconstructor code as for production ECUs from Elektrobit
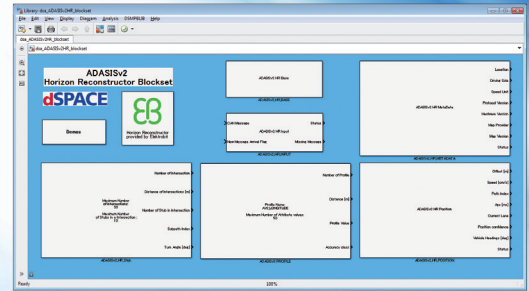


### Application Areas

Advanced driver assistance systems (ADAS) such as predictive powertrain control, curve lights and curve warnings use predictive road data, called the "electronic horizon", which is calculated from digital road maps and from the vehicle's current position and driving direction.

To facilitate the development and implementation of such driver assistance systems, the ADASIS Forum (www.ertico.com/adasisforum) specified the ADASIS v2 standard for the transmission of electronic horizon data. The ADASIS v2 Horizon Reconstructor Blockset lets you access the electronic horizon data from within a Simulink model, so you can use it during function development without having to implement the protocol yourself.

### Key Benefits

By combining the ADASIS v2 Horizon Reconstructor Blockset with a dSPACE prototyping system or the PC-based simulation platform VEOS, you can develop driver assistance systems in short iteration cycles and directly experience their effects in the real vehicle or on a PC.

Only a few mouse clicks are required to select the predictive road data, connect it to the driver assistance function in the model, generate the code and load it to the development system. Therefore, function developers can focus their full attention on implementing the actual ADAS application without the time-consuming task of implementing the ADASIS v2 protocol themselves.

The ADASIS v2 Horizon Reconstructor Blockset is based on the ADASIS v2 reconstructor code for production ECUs from Elektrobit. This facilitates the transition from prototyping to target ECU implementation.

## Functionality Overview

| Functionality | Description |
|---|---|
| General | ■ Access to the electronic horizon data from within a Simulink® model (e.g., to road curvature, slope and speed limit information)<br>■ Graphical selection of predictive road data for connection to the actual driver assistance functions in the Simulink model<br>■ Independent of the transmission medium; can be combined with CAN or Ethernet blocksets<br>■ Dedicated blocks for road profiles, intersections, stubs, vehicle position, and protocol metadata<br>■ ADASIS v2 reconstructor code for target ECUs from Elektrobit |

### Order Information

| Product | Order Number |
|---|---|
| ADASIS v2 Horizon Reconstructor Blockset | ■ ADASISV2HR_BS |

### Relevant Software and Hardware

| Software | | | Order Number |
|---|---|---|---|
| Optional | For prototyping systems | ■ Real-Time Interface[1] | ■ RTI |
| | For PC-based simulation | ■ VEOS | See relevant product information |

| Hardware | | | Order Number |
|---|---|---|---|
| Optional | For prototyping systems | ■ MicroAutoBox II[2] and MicroAutoBox III[2] | See relevant product information |
| | For SCALEXIO hardware | ■ SCALEXIO | See relevant product information |

[1] For information on standard hardware and software requirements for Real-Time Interface, please see relevant product information.
[2] Various MicroAutoBox variants are available.