ASAM OpenDRIVE 1.8.0
Request for Release

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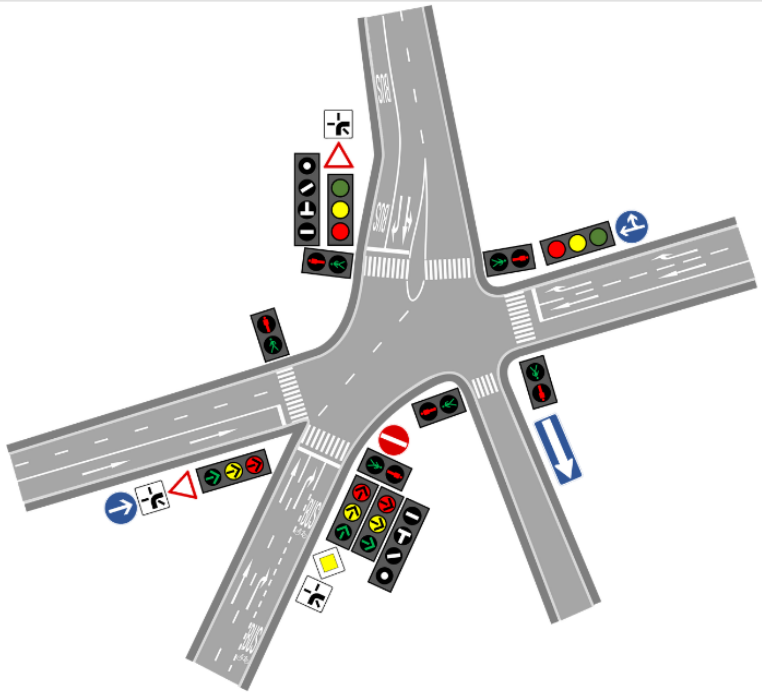
ASAM Association for Standardization of Automation and Measuring Systems

New content of ASAM OpenDRIVE 1.8

Junction Guidelines

Advantages:

- Better interchange ability of files
- Easier for people to make junctions



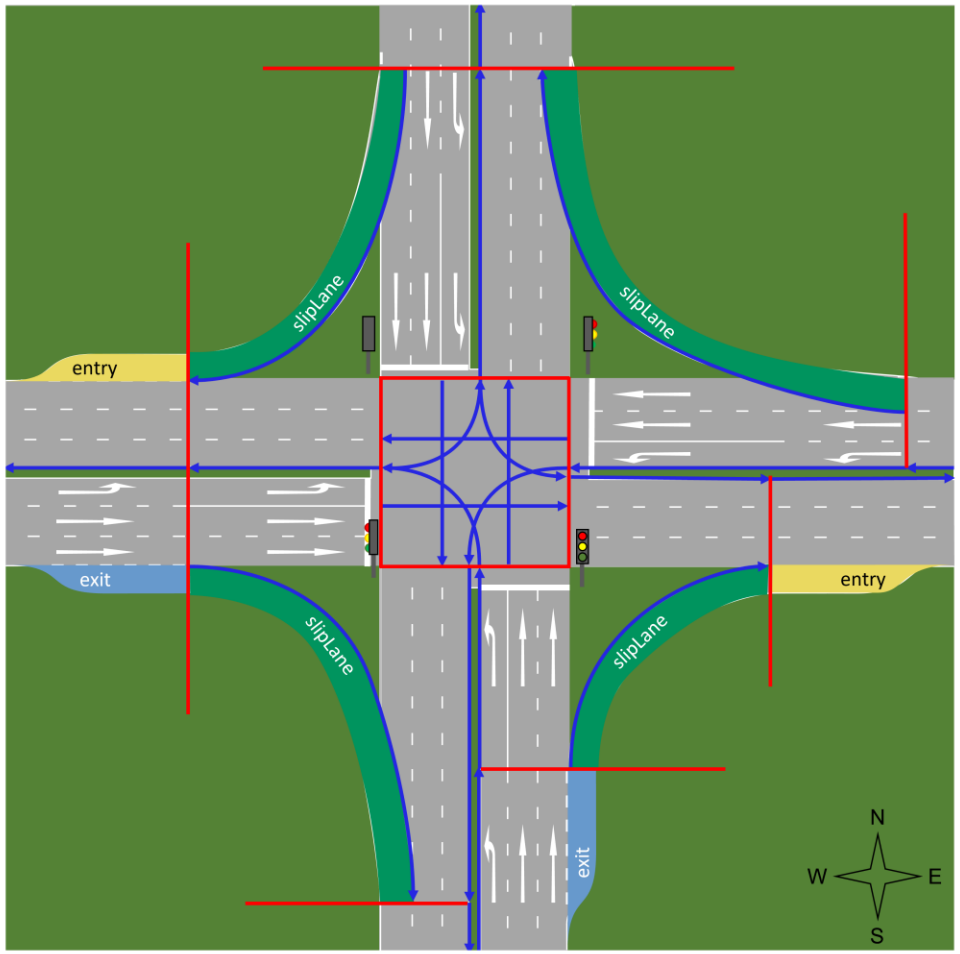
New content of ASAM OpenDRIVE 1.8

Slip Lanes:

- new lane type slipLane
- In guideline described where to place junctions
- In guideline described when to use entry and exit

Advantages:

- **Better interchange ability of files**
- **Easier to make junctions with slip lanes**

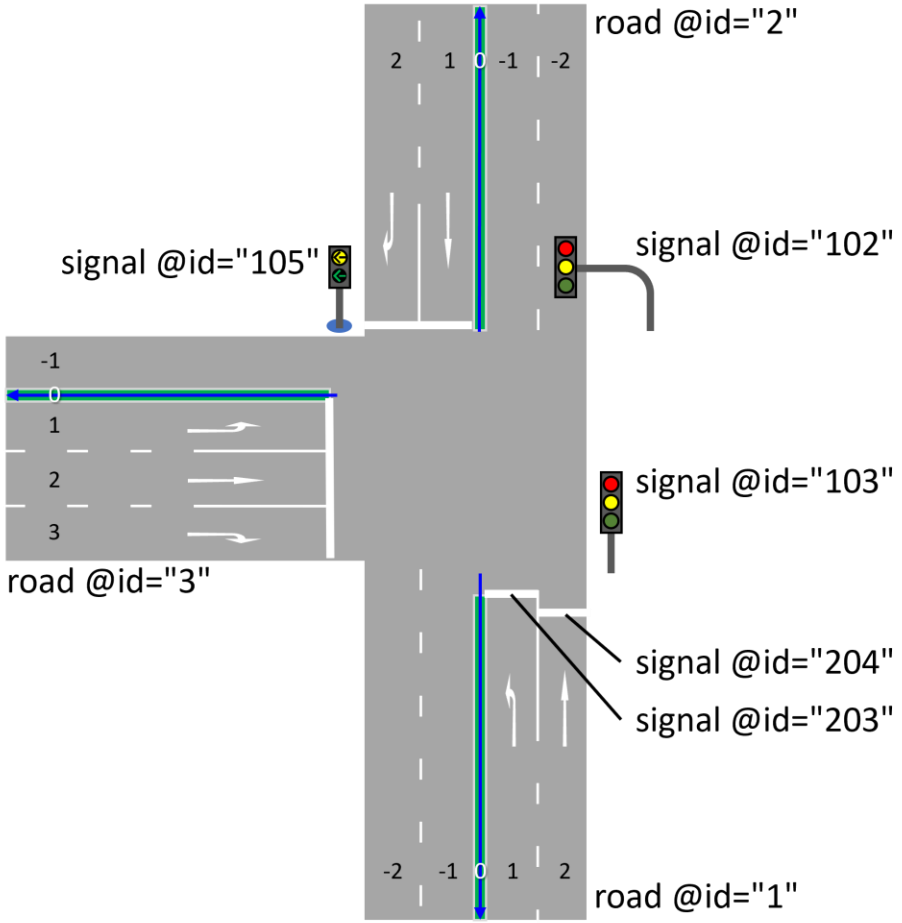


New content of ASAM OpenDRIVE 1.8

TrafficLights and Stop Lines:

- Deprecated physicalPosition from 1.5
- Use current dependency and reference

- **Advantages:**
- **Easier and identical implementation of traffic**
- **Easier sensor detection as traffic light is placed at its actual position**

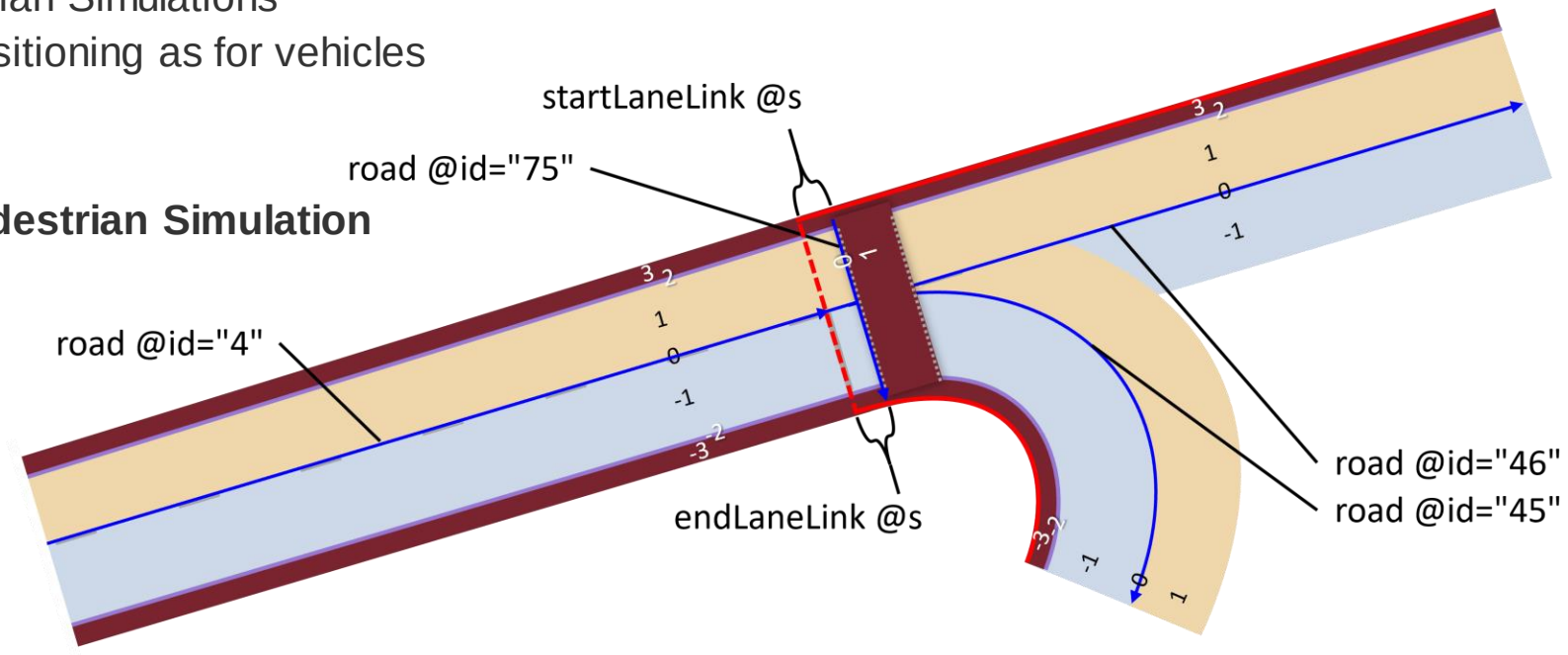


New content of ASAM OpenDRIVE 1.8

Cross Paths

- new kind of (overlapping) road within a junction
- Lane linkages for Pedestrian Simulations
- Use similar traffic light positioning as for vehicles

- **Required for Swarm Pedestrian Simulation**

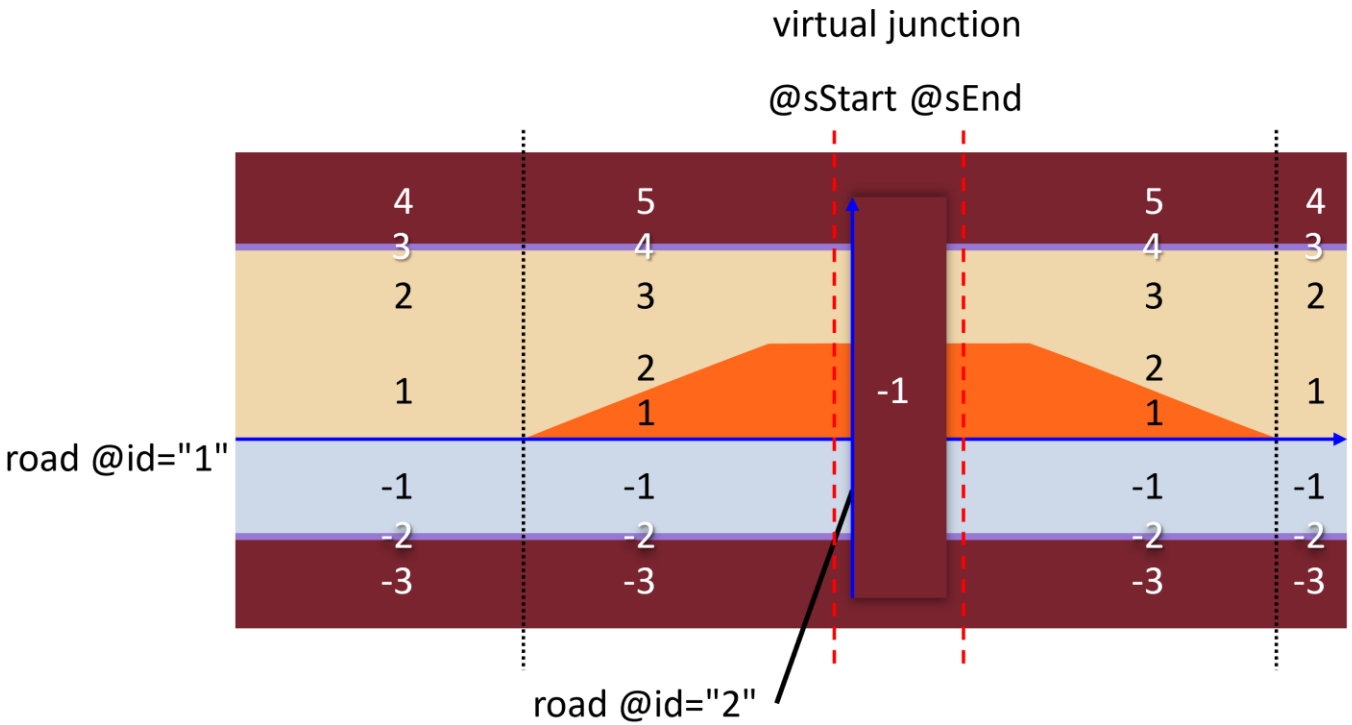


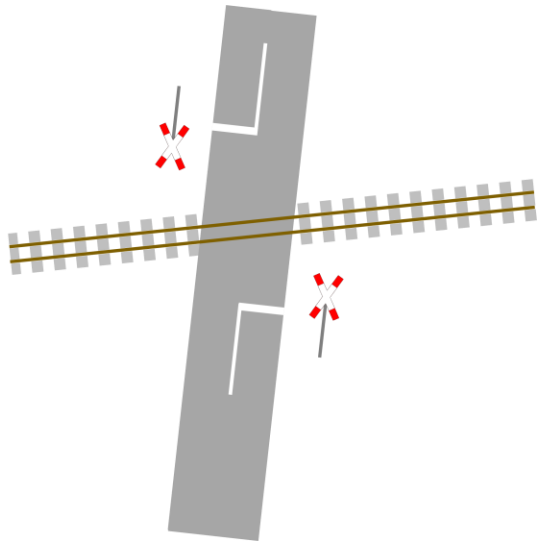
New content of ASAM OpenDRIVE 1.8

Crossings outside a common junction

Required for swarm Pedestrian / Railway Simulation

- Railway crossings
- Pedestrian / bike crossings





<elevationGrid
<boundary>

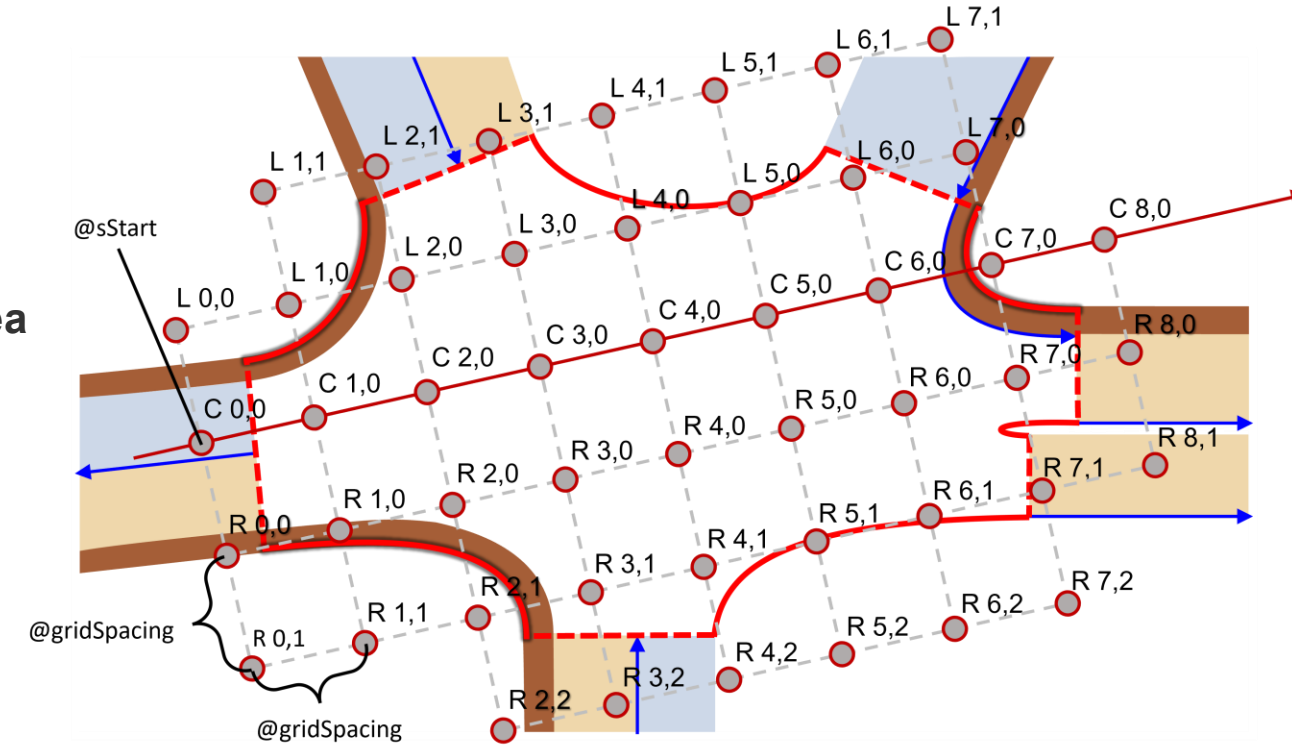
New content of ASAM OpenDRIVE 1.8

Extended existing junction definition:

Junction Boundary
Junction Reference line on which common objects can be placed
Junction Elevation Grid

Advantages:

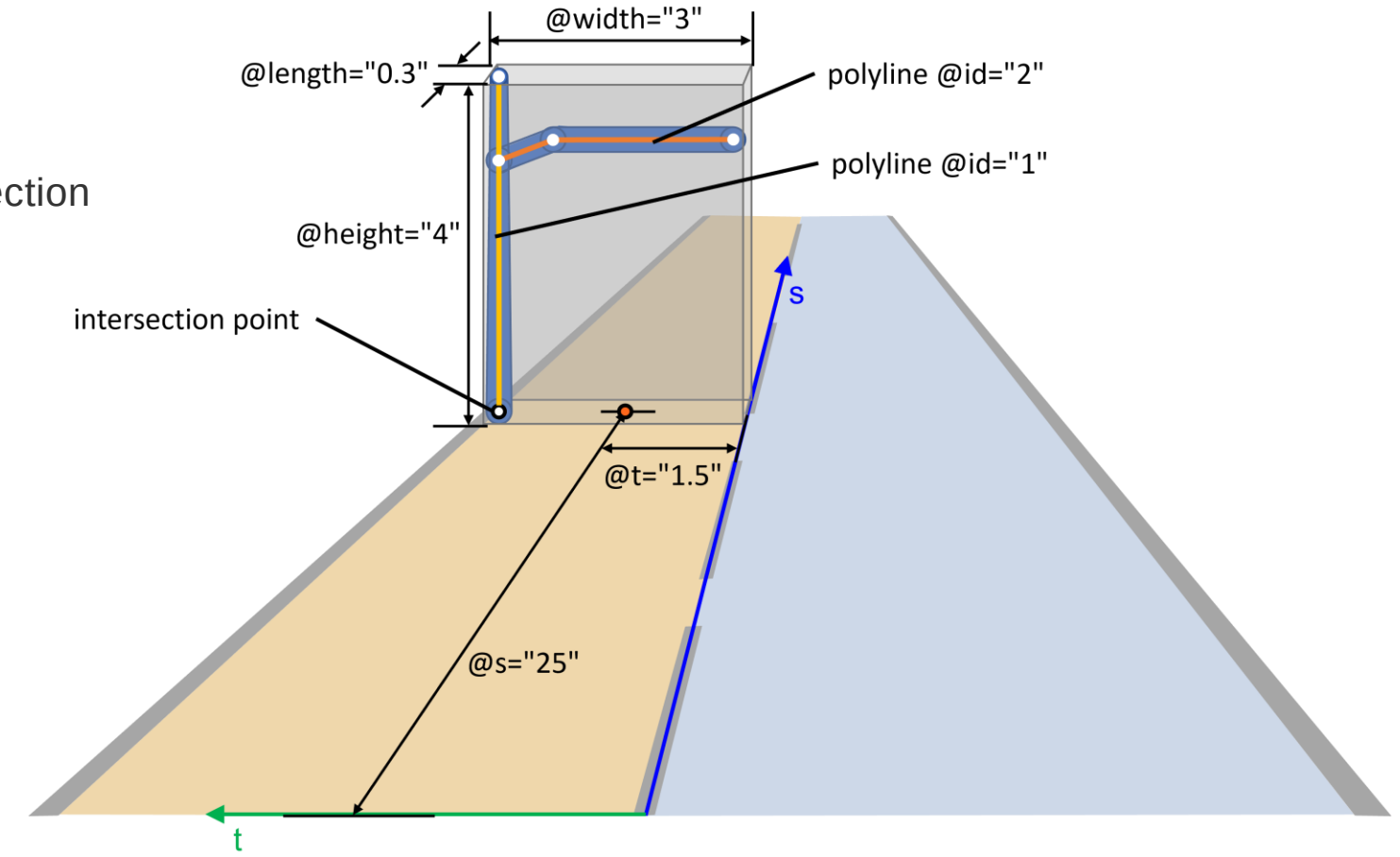
- **Common Junctions in slopes can now have unique z value at any x, y position.**
- **No gaps inside junctions anymore**
- **For simple junctions just need to define 4 points**
- **Sidewalks fit directly to the "asphalted" Junction area**
- **Easier sensor detection**



New content of ASAM OpenDRIVE 1.8

Objects:

- Description of each object type and subtype
- Defined in which way each object type shall and may be defined
- Added insertion points for better sensor detection

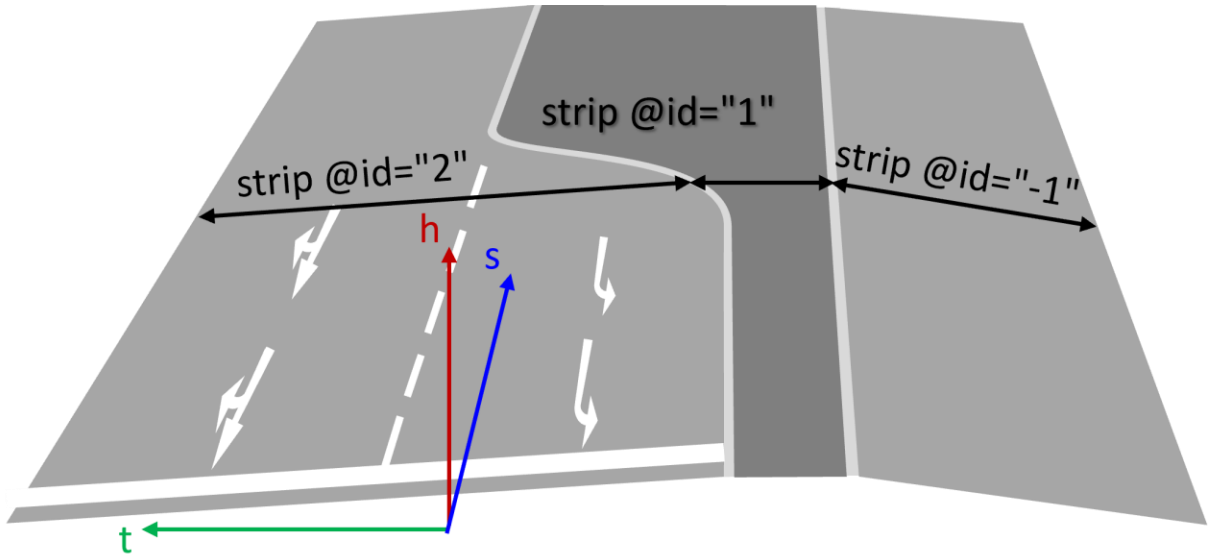


Advantages:
Better interchange ability of files
Better sensor detection

New content of ASAM OpenDRIVE 1.8

Cross Section surface:

- Possible to define lateral profile in roads with changing lane width and offset along s



New content of ASAM OpenDRIVE 1.8

Advisory lane

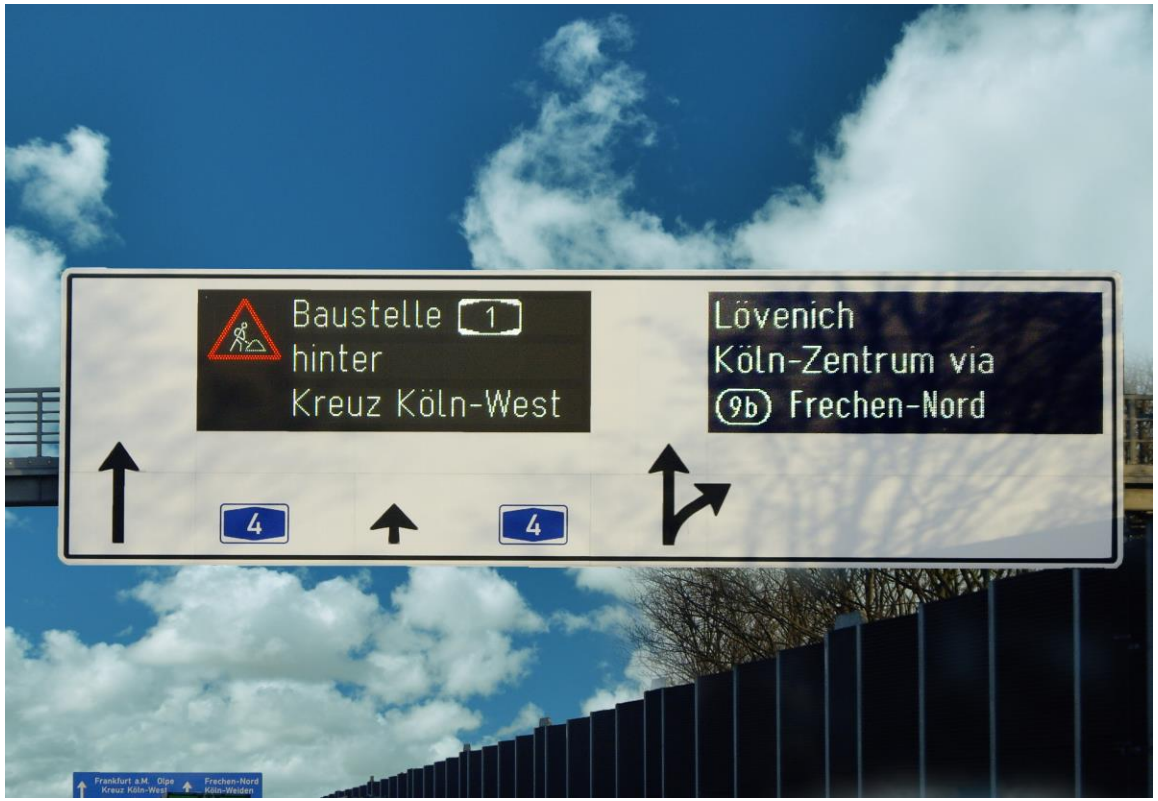
Variable lane directions and types

New content of ASAM OpenDRIVE 1.8

Signal boards

- static board
- variable message board
- multi board with static and dynamic

Dynamic content of those boards are set via OpenSCENARIO



New content of ASAM OpenDRIVE 1.8

Sign semantics and traffic rules

First simple possibilities to describe a semantic of a sign.
Not based on visualisation but on implication to traffic behaviour instead.

DE 2013 206 -1

JP 2019 330 B

US 2012 R1 -1

+

```
<semantics>
    <priority type="stop"/>
</semantics>
```

Advantages:

- **Easier and identical implementation of traffic**
- **Better exchangeability**

Changed XSD version in ASAM OpenDRIVE 1.8

Moved from xsd 1.0 to xsd 1.1

Advantages:

- **Can include many more tests via schema**
- **we have a much better overview of which attributes belongs to which xml element under which condition**

Old object class for <connection>

Table 43. Attributes of the junction element

Name	Type	Unit	Description
id	string		Unique ID within database
mainRoad	string		The main road from which the connecting roads of the virtual junction branch off. This attribute is mandatory for virtual junctions and shall not be specified for other junction types.
name	string		Name of the junction. May be chosen freely.
orientation	e_orientation		Defines the relevance of the virtual junction according to the driving direction. This attribute is mandatory for virtual junctions and shall not be specified for other junction types. The enumerator "none" specifies that the virtual junction is valid in both directions.
sEnd	t_grEqZero	m	End position of the virtual junction in the reference line coordinate system. This attribute is mandatory for virtual junctions and shall not be specified for other junction types.
sStart	t_grEqZero	m	Start position of the virtual junction in the reference line coordinate system. This attribute is mandatory for virtual junctions and shall not be specified for other junction types.
type	e_junction_type		Type of the junction. Common junctions are of type "default". This attribute is mandatory for virtual junctions and direct junctions. If the attribute is not specified, the junction type is "default".

New object class for <connection> in a common junction

Table 55. Attributes of the <connection> element

Name	Type	Use	Description
connectingRoad	string	required	ID of the connecting road. Only to be used for junctions of @type="default".
contactPoint	e_contactPoint	optional	Contact point on the @connectingRoad or @linkedRoad
id	string	required	Unique ID within the junction
incomingRoad	string	optional	ID of the incoming road