

4.1.8 Signaling Network

4.1.8.1 Identification

Name : Signaling Network
Identifier : ViaNova.Dbdd.ConceptualSchema.SignalingNetwork

4.1.8.2 Description

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4.1.8.3 Conceptual schema

```
SCHEMA SIGNALINGNETWORK;  
  
    REFERENCE FROM ROADNETWORKGEOMETRY  
        (Edge,  
         Node);  
  
    REFERENCE FROM LANENETWORK  
        (LnIntermediateNode);  
  
    REFERENCE FROM CARRIAGEWAYNETWORK  
        (CwIntermediateNode);  
  
    TYPE SignalingSigns = ENUMERATION OF  
        (REDCROSS,  
         LEFTARROW,  
         RIGHTARROW,  
         SEVENTY,  
         ETC);  
    END_TYPE;  
  
    ENTITY SgLaneSegment  
        SUBTYPE OF(Edge);  
    END_ENTITY;  
  
    ENTITY SgSign  
        SUBTYPE OF(Node);  
        LnLocation : LnIntermediateNode;  
        trafficSign : SignalingSigns;  
        residesOn   : DisplayUnit;  
    END_ENTITY;  
  
    ENTITY DisplayUnit;  
    END_ENTITY;  
  
    ENTITY SgCrossSection;  
        SgSigns      : LIST [1:?] OF SgSign;  
        CwLocation   : CwIntermediateNode;  
        controlledFrom : RoadSideStation;  
        mountedOn    : Gantry;  
    END_ENTITY;  
  
    ENTITY RoadSideStation;  
    END_ENTITY;  
  
    ENTITY Gantry;  
    END_ENTITY;  
  
END_SCHEMA;
```

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4.1.8.4 Entity descriptions

The various entities together with some auxiliary definitions are described below.

Gantry

A construction used to mount display units or other equipment above a carriageway.

Display unit

A piece of equipment used to display a (traffic) sign or message.

Signalling cross section

A set of signalling signs at a cross section of (intermediate node on) a carriageway element.

Signalling lane segment (SgLaneSegment)

A segment of the lane network between two successive signalling signs.

Signalling Sign (SgSign)

A traffic sign used for signalling purposes.

Road side station

A piece of equipment along the road side used to control a set of signalling signs at carriageway cross section and possible other equipment in its neighbourhood.

4.1.8.5 Type descriptions

The various types together with some auxiliary definitions are described below.

Signalling signs

The sign repertoire of a signalling display unit.

4.1.8.6 Integrity constraints

There should be a rule formulated to specify that the order of the Signalling Signs is the same as the order of the lane elements in a carriageway element and all intermediate lane nodes within one Signalling Cross Section are coincident with lane elements which are part of the carriageway element to which the intermediate carriageway node of the signalling cross section is coincident with.

4.1.8.7 Other security aspects

There are no additional security requirements

4.1.8.8 Performance aspects

There are no additional performance requirements

4.1.8.9 Implementation aspects

There are no additional implementation requirements.

4.1.8.10 Abbreviations

Sg	Signalling
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4.1.8.11 References

See section 2 for a complete reference description.

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