

## New Features of CadnaA Version 2020 MR1

The list of new features offered by **CadnaA** is subdivided into the following sections:

- Calculation/Configuration
- **CadnaA**-Objects
- Further New Features
- Miscellaneous
- Import/Export
- **CadnaA**-Options
- Bug Fixes

### Calculation | Configuration

- CNOSSOS-EU (Rail): default allocation of hours now D/E/N=12/4/8 hours
- NMPB-Fer-08: source location for screen body interaction now shifted by half track width (source at near railhead, not on center axis)

### CadnaA-Objects

- all objects: new object attribute ID\_NO\_TREE reads or writes the ID while ignoring the ObjectTree prefix
- barrier with cantilever (Schall03-2014): improved calculation of lateral diffraction
- Text Box: upon transformation, the point coordinate at "Draw Line to Point" gets now transformed as well

### Further New Features

- PlotDesigner: acro cell now accepts also "normal" keywords (such as # (Time) etc.)

### Miscellaneous

- new attributes for keyword # (SetObjAtt, CALCCONF, ...):
  - CNS\_TSTUD, CNS\_QSTUD (CNOSSOS-EU Road): period Ts with studded tyres (months), percentage months Q with studded tyres
  - MET\_CNS\_PD/E/N (NMPB and CNOSSOS-EU Meteorology): percentage favorable for D/E/N (write: sets value for all directions, read: readable only with all directions having the same value, otherwise empty result)
  - MET\_CNS\_PDV/EV/NV (NMPB and CNOSSOS-EU Meteorology): results in 1, if MET\_CNS\_PD/E/N are valid, otherwise 0 - read only
  - MET\_CNS\_NAM (NMPB and CNOSSOS-EU): designation/name of meteorology set

### **Import/Export**

- import Text Box: point coordinate at "Draw Line to Point" gets now transformed as well

### **CadnaA-Options**

- option FLG: new radar import filter Enaire (Spain)
- options X & XL: new LUA command `cna.set_scale(d)` sets the scale to 1: d

### **Bugfix**

- CNOSSOS-EU (Rail): squeal noise corrected for EU, DE and AT
- CNOSSOS-EU (Rail): interpolation of the third-octave band values of the roughness using in the wavelength domain for EU + AT (before as with DE: interpolation in the frequency domain)
- NMPB-Fer-08: screen body interaction reestablished
- crash with option BPL fixed
- Nordic Pred. Method (Rail): Lmax calculation corrected (formerly, v<sub>max</sub> of the object "Railway" not considered in all cases)
- CRTN Australia: now, the source heights from the calculation configuration are used