New Features of CadnaA Version 2019 MR2 (incl. 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

*The new features of 2019 MR1 are in Italics.*

Calculation|Configuration

- CNOSSOS-EU Road: new road surface types accord. to CNOSSOS-DE
- CNOSSOS-EU Railway: vertical directivity corrected (now corresponds with the specification in CNOSSOS-DE)
- CNOSSOS-EU Railway: new track types, railhead roughnesses, noise reduction at rail and bridge types accord. to CNOSSOS-DE
- SonROAD18 (Swiss): new road surface types (KB-10 bis KB6, see library Road Surfaces (global))
- SonROAD18 (Swiss): LwA' direct input applies road type „VS_80 Verbindungssstrassen, 80 km/h“ by default
- SonROAD18 (Swiss): new converter for traffic figures
- SonROAD18 (Swiss) now using propagation accord. to ISO 9613-2
- CNOSSOS-EU: ground absorption in the source-region Gs may be specified by a string variable at each source (e.g. CNOSSOS_GS=0.7)
- NMPB08 (Road, France): new updated road types
- Nordic 96-Road: calculation of LAmx for n-th vehicle
- Nordic 96-Road: new option “hb interpreted as source height” on/off
- Nordic 96-Rail: new train types (BM 71, BM 74/75)

CadnaA-Objects

- receiver: new attributes EXCEEDVAL, EXCEEDVAL1, 2, 3, 4 reading the exceedances in dB (for the current eval. parameter or eval. parameters 1..4)
• point/line/area source, parking lot, tennis: new attributes TEINWRES_C, _D, _E, _N (C=current eval. parameter) reading the resulting operation time in minutes (also for mixed eval. parameters, e.g. Lde), for operation time options „steady-state“, „minutes“ and „diurnal pattern“

• barrier: now with cylindrical cantilever (just for 3D view, calculation as with screening edge of a plane cantilever)

• building noise map & facade points (Options|Building Noise Map dialog): new options “Height is following terrain” and “Lower Receiver max. 20 cm below eave”

• optimisable source: now enabling selection of a 2D directivity for a reference point

Further New Features

• new local and global library Directivity (Tables menu)

• new types of directivity: rotationally symmetrical (as before), 3D directivity and 2D directivity (in angular steps 5/10/15°, in octaves or third-octaves)

Miscellaneous

• action „Break into Pieces“ (Modify Objects dialog & context menu): new option “Split at closest polygon point” (showing the active reference point in blinking mode)

• dialog Edit Toolbar (Options menu): new option „Select Floor“ display a list box on the toolbar enabling to select the storey displayed with building evaluations

• Plan cell in Plot-Designer: new list box „Show Floor“ enabling to select the storey being displayed

• dialog Modify Objects|Modify Attribute: When several object types are selected now the list box box “Attributes” shows the common attributes.

• dialog Options 3D-Special: new option „Take invalid grid points from palette“ (instead of default-green), OFF by default

• dialog Options|Appearance: new option „Overlay Display if Iso-Lines“ for object type „Grid: Area“, enables the labeling of iso-lines while displayin iso-areas

• dialog Options|Appearance: For lines and fillings a transparency (%) can be specified (with type “Cartographic”, not for type “Simple”).

• Building Evaluation + Facade Points (dialog Options|Appearance): 2D appearance settings for angle (°) and reference (Y-Axis, North, Paper)

• object tables: When selecting the „Delete“ command from the table’s context menu while holding down the CTRL-key all table lines are deleted – after safety prompt.

• local text block CNABATCH (for batch calculations): The coding CALC_RASTER=2 to calculate all variants now also applies with PCSP calculations.
• New dialog **Proxy Server Settings** (**Options** menu): offering various settings for web access via a proxy server

**Import/Export**

• Library **Directivity**, button „Import”: now import of directivities from EASE Ascii (*.xhn)

• Import filter “Sketchup 2015”: Layer and group designation are saved as string variables in the memo-window.

• CLF import (common loudspeaker format) via **Directivity** dialog into the local or global library **Directivity** (*.clf1, *.clf2)

• Bitmap import via WMS: access to WMS server now offering authentication (per user name and password)

• Bitmap import from Google Maps, Bing Maps or OSM: URL of a map section can be copied via the clipboard transforming the bitmap according to the selected coordinate system

• Options for Google Maps import: default now „Use Bitmap Dimensions“

**CadnaA-Options**

• Options X & XL: New Lua function cna.get_ini_path() (reading file path + filename of CADNAA.INI file) and X:break_lines(Y) (object X gets broken by object Y)

• Options X & XL: New command **Lua-Skripts Presets** on **Extras** menu to run Lua scripts automatically

• Options X & XL: New supplied Lua script "Transfer attributes" for transferring attributes between objects