

New Features of CadnaA 2018

The list of new features offered by **CadnaA**, release 2018, is subdivided into the following sections:

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

Calculation | Configuration

- ISO 9613: new type "Ground Absorption": "WEA interim (Agr=-3 dB)" used by German Interim method for Wind Turbine Predictions (2015)
- Railway ONR 305011, Semibel, FTA/FRA: new option "Calc maximum Pass-By-Level" (based on Leq-based emission per unit length)
- Road Nordic Pred. Method (1996): new option "Threshold" with calculation of maximum Pass-By-Level to calculate NATs (Number above Threshold)
- "Evaluation Parameters" tab: selecting "f(x)" offers new parameters Lden/Ln for evaluations acc. to VDI 3722
- dialog "Multiple Source Effect" (**Calculation** menu): new option "Save total in (Variant)" for sum-grid acc. to VDI 3722
- grid calculation per batch for all variants (using CALC_RASTER=2, not for PCSP)

CadnaA-Objects

- Point, Line, Area Sources: new attribute TEINW_GANG (selects a diurnal pattern)
- object "Symbol": new scale bars available
- Building Evaluation: dialog **Exclude Facades** now accepts up to 256 facades
- Bitmap: new option "Bitmap in internal memory" saves the bitmap as part of the **CadnaA** file
- Bitmap: extended transparency features (e.g. by specifying transparency and "white is transparent globally")
- Road CNOSSOS-EU: attribute STRO_ID selects road surface (e.g. CNS_01 .. CNS_15)
- Facade Points: new attribute FAC_EINW_xy (weighted per facade length or not, all or just active ones)

Further New Features

- new graphical user-interface:
 - scalable object icons (on toolbox and on toolbar)
 - scalable font in dialogs (**Options | Miscellaneous** menu)
- dialog **ObjectTree | Definition**: button "Sync. Graphics" on ObjectTree toolbar
- new context menu command "Import here...": The origin (0,0) of the imported data is placed at the coordinates of a point object or where the mouse click occurred.
- Grid Arithmetics: now with access to grids in variants (coding: RxVvEvalParaNo, x=0..6, vv=01..16, EvalParaNo=1..4)
- Multithreading (**Calculation** menu): offers now up to 64 threads (requiring 64-Bit option)
- command/action "Parallel Object": new option "Distance from curb/border" for road and railway considers a specified additional width (dialog **Appearance/Road** or on road's geometry)
- dialog **Modify Objects**, new action "Break Lines": just breaks line/area objects of the selected object type
- dialog **Modify Objects**: conditions for string possible
- geodetic transformation: offers now NTV2 reference systems (requires that the respective gsb-files are copied to directory <cadnadir>/NTv2)
- dialog **Building Noise Map (Options** menu): new options "Facade points acc. to VBEb" and "... acc. to CNOSSOS"

Miscellaneous

- **Grid | Delete** menu: Holding CTRL key depressed deletes all grids in variants.
- dialog **Modify Objects**: With action "Delete" now default condition match(ID\$, "RAY*") deleting all rays
- extended keyword #(File, ...): #(File, dpne).cna_autosave generates an autosave-file
- screen scaling uses "DPI aware" for all monitors: makes fonts and icons bigger and easier to read

Import/Export

- import formats "SOSI" and "CityGML": new option "Unknown Attributes to Memo-Variables"
- new export format DOCX: exports reports based on MS-Word template DOCX (new, table specific keywords #(CUSTOM_TABLE, ...) and #(COL, ...))
- PlotDesigner (**File | Print Graphics** menu): new "Preview" button
- printing the graphics per template file (**File** menu) still available for existing graphics template files
- Result Table: new string variable FAC_LEN, facade length per facade point

CadnaA-Options

- option X/XL: new and extended LUA commands (e.g. import, grid spacing, Exclude Facades, 3D-Special)
- option FLG: new calculation procedure ECAC4
- option FLG: selectable no. of corridor paths with ECAC3 and ECAC4
- option 64-Bit: multithreading now for up to 64 threads

Bug Fixing

- NMPB08-Fer: vertical directivity corrected (no absolute value), toggle back per local text block OPT_OLD_CALC with text: nmpb08_vdir_abs_x157
- Concawe: ground absorption K3 now just consider ray path length across absorbing round