

New Features of CadnaA 2019

NOTE to former users of the GoogleEarth import in **CadnaA**:

With **CadnaA** release 2019, the import of bitmaps from GoogleEarth 5 and 6 is no longer possible, since these GoogleEarth releases have been retired by Google Inc. on October 31, 2018. The current release 7.x of GoogleEarth cannot be used by **CadnaA** because the communication interface (API) is no longer provided by Google Inc.

As an alternative **CadnaA** offers the bitmap import from Google Maps and WMS (see chapter 10.1.2 in the **CadnaA** Reference Manual 2019).

The list of new features offered by **CadnaA**, release 2019, is subdivided into the following sections:

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

NOTE: The chapter numbers at the end of each indent refer to the corresponding chapter in the Reference Manual. References to the manual "Introduction to CadnaA" are marked by "Intro", whereas references to the manual "Attributes, Variables and Keywords" are marked by "Attr". The note "German only" means that the corresponding chapter is only available in the German version of the Reference Manual. References to manuals of CadnaA options are marked accordingly.

Calculation | Configuration

- ISO 9613-2: additional calculation in third-octaves possible (requires emission data specified by third-octave spectra) - chap. 6.2.9.1
- CONCAWE: new option "Worst case wind direction" uses the wind direction causing the highest level. – chap. 6.2.9.7
- new Swiss road model SonROAD18 implemented – German only
- CNOSSOS-EU: French road surfaces added - chap. 12.1.4
- CRTN (UK): now with three sub-sources (Application: Australia) – chap. 6.2.10.6
- CRN (UK): new train classes according to DEFRA report 'Calculation of Railway Noise 1995', January 2007 – chap. 2.6.5
- "Evaluation Parameters" tab: new performance parameters for maximum level calculation for industrial sources L_{maxD/E/N} - chap. 6.2.5
- "Evaluation Parameters" tab: new attributes for evaluation parameters referring to free-definable reference time intervals - chap. 6.2.5

- new "Radar" tab (requires option Radar): Time zone translation with options "no translation, use local time, use specific time zone" enables the distribution of radar tracks to the periods D/E/N - see manual FLG
- new radar filter (requires option Radar, menu **Tables | Variant**): offers selection of radar tracks for calculation based on several criteria - see manual FLG

CadnaA-Objects

- all objects: now, maximum length of object-ID 47 characters (instead of 23 so far) – Intro chap. 4.4.2
- all objects: status bar displays the object type, ID and name of the object "below" the mouse pointer. – Intro chap. 3.1
- point, line and area sources: input of a maximum emission level possible (Delta_LmaxD/E/N as a difference to Res. PWL/PWL'/PWL"), for performance parameters LmaxD/E/N – chap. 2.1.1
- **Building Noise Map** dialog (**Options** menu): added new options "maximum or minimum level per floor" (in addition to "maximum/minimum level per facade point position") - chap. 5.4.1
- **Land Use** dialog (**Options** menu): now 32 (instead of 12) types can be entered, new "Load" and "Save" buttons - chap. 5.2.1
- Bitmap: WMS bitmap import now possible from various WMS servers - chap. 10.1.2
- Bitmap: new option "Bitmap embedded in can-file" saves bitmaps within the **CadnaA** file also for imported files - chap. 10.1

Further New Features

- Libraries **Sound Levels/Sound Reduction Indices/Absorptions**: extended input scheme for third-octave spectra (with spectrum conversion octave to third octaves and vice versa) - chap. 12.1.1 to 3
- dialog **Variant** (**Tables** menu): In the "Variant" list box, deactivated variants are marked with a preceding minus sign. - chap. 14.2
- dialog **Variant** (**Tables** menu): File selector symbol offers to load a configuration file (*.cnf, see "Country" tab). After loading, the configuration changes to the current configuration are displayed in the "Modify Calculation Configuration" box. - chap. 14.2
- Now, the "Undo" function works also for actions via **Modify Objects** dialog (requires option 64-bit due to RAM space required) – Intro chap. 4.3.8
- PlotDesigner: The North arrow symbol is taken automatically from the first plan cell of the current page provided the option "Get from Plan Cell" is activated with no plan ID selected. - chap. 13.1.2
- dialog **Result Table | Edit**: new option "Sort alphabetically by ID" - chap. 11.2.1

- **Coordinate System** dialog (**Options** menu) and for geodetic transformation: A global coordinate system can now be selected by specifying the EPSG code. - chap. 9.4

Miscellaneous

- **Display Units** dialog (**Options** menu): In **CadnaA**, geometrical and other data can be displayed in the main window and in dialogs with different units. Non-metric units can be converted during import. - chap. 9.8
- context menu of main window: new command "Show on GoogleMaps" opens GoogleMaps and moves to the selected coordinate (prerequisite: geo-referenced coordinate system selected) – Intro chap. 12.4
- new keywords for table output: #(Table, SET_S) and #(Table, SET_T) - Attr chap. 3.29
- new keyword: #(TableCount, table_name, a) returns the number of activated or of all objects in an object table (a: only activated, otherwise all) - Attr chap. 3.31
- new keyword: #(Cores) returns number of CPU cores - Attr chap. 3.2
- new keyword #(Bitmap, <page>, <dpi>): for use with DOCX export - (Example: #(Bitmap, pd2,96) prints the 2nd PlotDesigner page with a resolution of 96 dpi). - Attr chap. 3.1
- new attributes for third octave values (LP#Vxx_T25 to 10000 and _T00 to 26, _freq also for octaves), also for result table and performance parameter formulas f(x), e.g. totd_t3150 - chap. 2.1 + Attr chap. 1.1
- **Traffic-Count Calculator** (**Extras** menu): extended by APU-operations, new option "Normalize Aircraft Classes" - chap. 2.6.10

Import/Export

- dialog **Database | Definition**: now XLSX import possible (besides import from ODBC sources) - chap. 7.3
- import "Google Maps | Options": A user-defined "API key" can be created which bypasses the GoogleMaps download restriction. - chap. 10.1.2
- new export format XLSX: export of reports based on an MS-Excel template XLSX - chap. 13.3.7

CadnaA-Options

- option Radar: new **Radar Filter** dialog (**Tables | Variant** menu) to select radar tracks for calculation based on multiple criteria - see manual FLG
- option Radar: new "Radar" tab for time zone conversion with options "none, use local time zone, use selected time zone" offers the distribution of radar tracks to periods D/E/N - see manual FLG

- option X/XL: new LUA functions [Building Evaluation: exclude up to 256 facades, access to grid display settings, access to radar filter (option FLG), set grid point spacing, export grid (ASCII, SHP), transform coordinate system (utm2wgs, wgs2utm, cna2wgs)]

Bug Fixing

- TNM: bug with patches smaller than buffer map size for ground absorption fixed