

New features of CadnaA 2024 MR1

New features of **CadnaA 2024** can be found [here](#).

Features

- New option “Check MULTISEL” for the function “Connect lines” to execute the action only for objects which are part of the current multi-selection.
- When finishing the input of an object while pressing the ALT key, a default object can now be created (instead of a copy of the last object in the object table)
- 3D reflectors are now displayed in the 3D view as a coplanar surface (instead of a triangulation as before). This representation corresponds to the geometry taken into account in the calculation.

Bug Fixes

- ISO 9613-2 (2024): Critical Bugfix for the calculation of Abar occurring in case of negative path differences in combination with larger distances.
- Fixed a crash when using "Generate Report" (more specifically when exporting geometry tables or number of trains).
- Fixed a bug where the facade points were invalidated when deactivating / activating already calculated building evaluations.
- Bugfix for the calculation of L_{max} using the Nordic Prediction Method in combination with the use of “Attributes per variant”
- When inserting screenshots in CadnaA (as a symbol), the left / right border was displayed incorrectly by a few pixels. This is now corrected.

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Features

- Object Attributes now available per Variant. Instead of duplicating objects, objects can now be assigned different attribute values in different project variants (e.g. maximum speed in variant 1: 100 km/h and in variant 2: 80 km/h). For a detailed description and further details, see reference manual chapter 13.5
- „Copy Attributes“ to conveniently transfer the attributes between variants.
- @V# as new syntax for accessing variant-dependent attribute values (e.g. LP1@V2 or DTV@V2 for value of target variable 1 or DTV in variant 2)
- @SOF# resp. @STF# as a new syntax for accessing the spectral values of octave spectra (e.g. LP1@SOF500) or third-octave spectra (LP1@STF400).
- Expandable menu ">>" for easier selection of attributes including the new syntax in several places, e.g. "Modify attributes", Object Scan, Object tables, Generate Label.
- Adaptation of many attribute lists to new syntax (e.g. LP1_500 no longer available when creating a label at the receiver)
- Results table: Weighting of third octave and octave band values now takes over the settings in Options | Miscellaneous (previously: always linear weighting)

- ISO 9613-2 (2024) available as additional calculation standard for industry noise.
- CadnaA Object Foliage now with input option for forestal parameters for calculations according to ISO 9613-2 (2024) Annex A.2.3.
- Directivity of chimney stacks according to ISO 9613-2 (2024) Annex B now available.

- Updates to Spanish railway data when calculating with CNOSSOS-EU Directive 2021/1226 according to the updated documents containing application information from ADIV as well as CTB
 - New type of track “ES-ADIF FT Mono-block Sleeper/super soft pad” (Railway object)
 - New train class S-109 available in the default library
 - Updates to train class S-108 in the default library
 - New Brake Type “ES-Disco+4dB”
- Values were added for B and D-weighting.
- Closed auxiliary polygon in the 3D special view: FollowDGM=1 as a string variable in the memo field creates a terrain-following area.
- Fonts and font sizes for tables (e.g. object tables and library tables) are now user-definable in the Options | Miscellaneous menu.
- Lua: Access to the row and column number of a grid point with r.row and r.col
- Lua: Access to coordinate system via cna.get_epsg() and cna.set_epsg()
- New Keyword #(License) for querying information on the license used.
- Increase of the maximum number of characters per value for XLSX-Import from 256 to 4095.
- The RTF-Export template file now also contains vertical Area Sources.

- Update Road Type library for sonROAD18 (sonROAD18 - Weiterentwicklungen und Ergänzungen; Version 2.0; 2023-02-07). **Recommendation:** Use the Library-Manager (Tables | Library-Manager...) to copy the updated Library from the Default library to the Global library.
- Modification in the Railway dialogue: The Number of Trains can only be edited in the Railway dialogue if "(local)" is selected for the List of Trains.
- Evaluation parameters for calculating user-defined time ranges are also available for the tennis source. Usage: =f(x) with spomhxx (xx defines the time range)
- Opening of files which were created (or saved) with a newer CadnaA program version is no longer possible. (Previously: Opening was possible with a warning displayed which parts of the file were impossible to read. Saving such a file under the same filename after ignoring the warning message could lead to corrupt files or data loss.)
- Improvements for long calculations and the use of server license dongles have been implemented.

Bug Fixes

- Improvements regarding Modify Objects and the Appearance: Range of Scale.
- Optimizations related to the operating time of the Tennis - Point-of-Serve source.
- For ISO 9613-2 industrial sources, type "Single band" | Activated option "Calculation in 1/3-Octave Bands" partially incorrect use of the reflection loss has been fixed.
- Road object: For the calculation of road noise emissions with direct input of the emission level, a correction was made to take the road gradient into account if an option for automatic determination of the road gradient was selected.
- When using spectra with "Li from interior sources", an improved update method is used.
- Optimized use of the absorption coefficient alpha for the 3D reflector object.
- 3D-special view: incorrect display of crownings of screens (cylinder and curved cantilever) corrected.
- Calculation configuration Industry tab, option "Obstacles within Area Src not reflect": Reflectors inside the source are not taken into account even if they are located within the search radius of the receiver (previously only within the search radius around the source).
- Fixed license lag for CL when entering objects to the 2D view.
- Template "SonRoad18 (2021)": Check whether buildings have a reflection loss of 1 dB could lead to false warnings.
- Some columns of the default object tables have been changed to Column Width "auto" for an optimized shape export.
- Improvement in the allocation of folders imported via the ObjectTree.
- Adjustments to user-defined labels which are saved via Defaults >>.
- The function "Optimize Area Sources" (Calculation | Optimize Area Sources) did not provide a value for "After:" in the output dialogue, depending on the language set.
- A reset of the height Z is avoided when opening/closing a height point dialogue in the 3D-View (Options | 3D-View...).

- Attributes ACFTxxT/E/N corrected

Road, HJ 2.4: Distribution of vehicles corrected when using MDTD as input