

New Features of CadnaB Version 2023

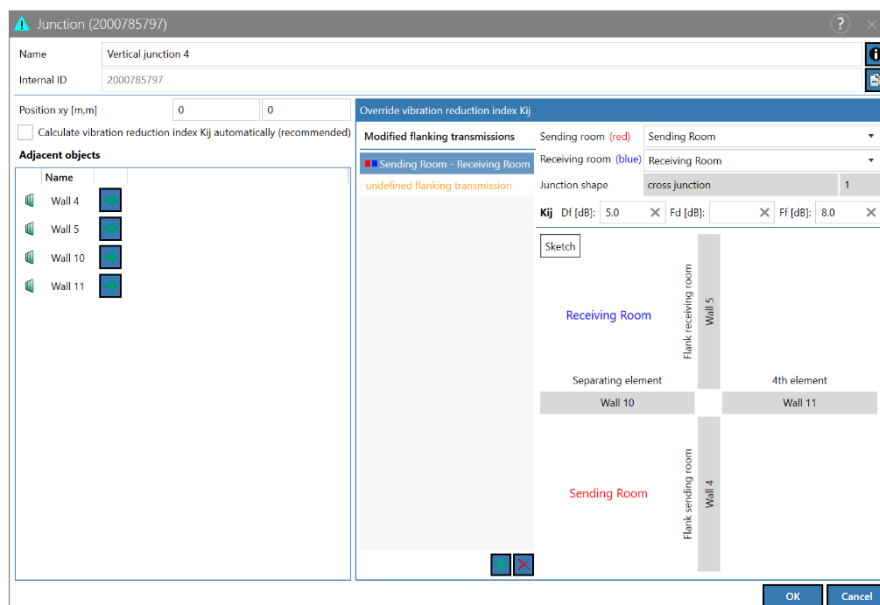
The new features of **CadnaB** Version 2022 can be found [here](#) and of Version 2022 MR1 [here](#).

Note

Besides many new functions, version 2023 also contains bugfixes which may have an influence on calculation results, see below in the section "Bugfixes". Due to these changes, we strongly recommend an update, which is available on our website (after login).

New Features Version 2023

- Input option of user defined vibration reduction indexes K_{ij} for flexible handling of flanking transmissions. Open the junction dialog and deactivate the option "Calculate vibration reduction K_{ij} automatically (recommended)".



For more information, refer to the chapter 4.8.2 "User defined vibration reduction index" in the Documentation.

- Different vertical and horizontal $D_{n,f}/D_{n,f,w}$ inputs for walls are possible.
- ISO 12354 - Display of spectra in the results dialog for spectral evaluation parameters.
- DIN 4109 - Optimized automatic requirements detection for DIN 4109-1 and DIN 4109-5.
 - Requirements only for rooms requiring protection.
 - Room/habitation assignment is considered for the detection of foreign areas for the building types, multi-family, office, and mixed-use buildings as well as row houses.
- Adjusted and extended selection of room usages as well as an improved selection option via the context menu in the "Usage" mode.

- ⇒ When loading existing projects saved with an older CadnaB version, it is recommended to check the automatically transferred room usages and adjust them if necessary.
- DIN 4109 - Option for horizontal impact sound insulation calculation with lightweight separation walls. This option can be activated in the calculation configuration. The calculation method according to DIN 4109-2:2018-01 for heavy separation walls $>150 \text{ kg/m}^2$ is also used for light weight separation walls on solid ceilings/floors if this option is activated.
 - Optimized delete logic in the "Constructions" mode. With "Delete" a complete construction including sub-constructions can be deleted. Sub-constructions can be deleted separately via the context menu.
 - Improved output in the calculation protocol e.g. information on the use of user defined vibration reduction indexes, DIN4109: indication of $K_{ij,min}$ when applied, ...
 - Extended display of issues displayed in the results dialog if the calculation of the respective transmission situation shows deviations from the calculation standard.

Bugfixes Version 2023

- ISO 12354: Bugfix of horizontal impact sound transmission via multi-part separation components (this may influence calculation results).
- ISO 12354: Bugfix of the flanking transmission of airborne sound transmission from the outside to the inside of facade walls with multiple junctions (this may influence calculation results).
- DIN 4109: Bugfix of flanking transmission across ceilings, when using lightweight partition walls with multiple junctions (this may influence calculation results).
- DIN 4109: The consistency check for separation areas $< 10\text{m}^2$ with evaluation parameter D_{nTw} is no longer displayed.
- DIN 4109: In the results table, the requirements are updated even after a consistency check is displayed.
- Adjustments to the "Undo/Redo" function in Constructions mode.

New Features of CadnaB Version 2022 MR1

New Features Version 2022 MR1

- DIN 4109: Implementation of a combined evaluation parameter $R'_w|D_{n,w}$ with automatic assignment depending on the partition area (*Calculation | Configuration | Transmission airborne noise | $R'_w|D_{n,w}$*).
- DIN 4109: Adaptation of the requirements according to DIN 4109-1:2018-01 and DIN 4109-5:2020-08 to the evaluation parameter $R'_w|D_{n,w}$.
- New dialog "Room/habitation assignment" in the "Project" mode for optimized assignment of rooms to habitations (*Tables | Room/habitation assignment*).
- The selection of the habitations for editing the habitation assignment can be done directly via Multiselect and the context menu in the 2D view.
- New 2D habitation display when selecting habitations in "Project" mode.
- Implementation of a result table in the "Results" mode for the clear representation of transmission situations with an export as well as different filter functions (*Tables | Result table*).
- Implementation of calculation presets that can be performed using the "Calculation presets" icon in the result table as well as in the lower part of the list box in the "Results" mode.
- Start a specific calculation for habitations or rooms using the context menu in the "Project" mode.
- DIN 4109: Direct output of values for the DEGA 103 sound insulation certificate from the result table.

Bugfixes Version 2022 MR1

- DIN 4109: The partition area S_s was corrected to the gross area when calculating the flanking transmission in buildings.
- DIN 4109: The vibration reduction index for junction typ 48 and 51 is now calculated using the method for $K_{ij,min}$.
- DIN 4109: When verifying the exterior components, the correction K_{AL} is already taken into account in the requirement (Requirement DIN 4109-1:2018-01).
- Adjustment of copy and paste logic for elements in “Constructions” mode.
- Bugfix in partition area determination of not rectangular ceilings.
- The net area of the partition is now also influenced by small components and elements (shutter box and air intake).

New Features of CadnaB Version 2022

New Features Version 2022

- Extensive Undo and Redo function implemented, for example at modification of object attributes or geometry
- Export of construction data
 - via a button in the construction browser for all selected entries as .docx file. (Multiselect available)
 - via the menu "File → Export": Export of all constructions used in the project
- Extensive revision of the report, especially when using the calculation standard DIN 4109. Report now includes an output of a summary of all requirements.
- Constructions from DIN 4109-35/A1 now included.
- When using ISO 12354, a new calculation option for impact noise from bottom to top is available. The calculation must be activated in the configuration of calculations. (Method not part of the standard ISO 12354)
- ISO 12354-3: Facade correction ΔL_{fs} added according to Annex C
- Results dialog, tab Junctions: The detected junctions are displayed with an icon. With "mouse over", the icon is shown enlarged.
- Import of construction data from software INSUL (Marshall Day Acoustics) *
- Search function in the construction browser: Search for country abbreviations, e.g. with the syntax "c=D" for Germany
- For user-defined, concrete double wall constructions, the reference to single wall constructions can now be modified (for calculation of flanking).
- Support for Windows 11
- New language: French

* Export/Import available with INSUL version 9.0.24

Bugfixes Version 2022

- DIN 4109: A bug in the calculation of K_{ij} for junction types 7,8 and 17,18 has been fixed. (this may influence calculation results)
- DIN 4109: A bug has been fixed which incorrectly determined the junction types 3/4 for horizontal room pairs with a wall offset < 0.5 m (type 2 is now correctly recognized). (this may influence calculation results)
- In the database of constructions for DIN 4109, concrete ceilings and ventilators have been corrected. (this may influence calculation results)
- ISO 12354: Automatic calculation of spectrum correction values for spectral data corrected (only when spectra are entered manually).
- DIN 4109, transmission from outside: The requirement is no longer checked if the receiving room is classified as "not worth protecting" (i.e. if $K_{Raumart}$ is invalid)
- Bugfix when using very long room names: Protocol could no longer be opened in this case.
- Bugfix regarding the visibility of objects in the "Project" mode
- Bugfix in the report output which caused a crash (only with the simplified model according to ISO 12354)
- Vertical room pairs with very small (possibly unwanted) overlap are now ignored during room pair search