

New Features of CadnaR version 2019 MR1

The list of new features offered by **CadnaR** release 2019 MR1 is subdivided into the following sections:

- Calculation/Configuration
- **CadnaR-Objects**
- Further New Features
- Miscellaneous
- Import/Export
- **CadnaR-Options**

Please note that some of the new features may require the appropriate **CadnaR** option.

Calculation/Configuration

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CadnaR-Objects

- new object - vertical poly mesh: screening object with arbitrary lower and upper edge, which also may contain openings.
- barrier: may now consist of several segments (with lower/upper height at each polygon point, enabling to define inclined lower and upper edges (for particle model, for image source calculations: inclined edges are ignored, rectangular segments are treated as individual barriers)
- polygon objects: dialog/action **Modify Attribute** offering new height attributes (HA, HE)
- **Polygon Point** dialog (via **Polygon: Geometry** dialog): Z coordinate gets grayed out with interpolated heights (i.e. heights not entered)

Further New Features

- dialog/action **Modify Attribute**: now with describing text for attributes
- **Generate Label** dialog: offering save/load of presets and descriptive texts in brackets for common attributes
- **Tables** menu, context menu: command **Delete** while holding down the CTRL key removes all datasets after confirmation prompt
- **Tables** menu, **Scattering** (local/global): command "Modify Spectrum" (via context menu) offers to generate a scattering spectrum from an entered roughness K (resulting scattering coeff. at 1 kHz = entered roughness value)

- dialog **Library: Color Palette** (local/global): new button "Individual" enables to define classes individually (specification of lower/upper limits, class width, taking into account the actual number of colors of the color palette, adjusting the value range of the existing classes)
- **Grid Appearance** dialog: direct access to currently selected local color palette (enabling direct editing)

Miscellaneous

- Consistency Check: With syntax errors occurring in references to spectra of objects the attribute is specified in the message (ALFAL, ALFAR, STREUL, STREUR, TRANSL, TEMI)
- Consistency Check: validity check for ID when selecting library spectra (sound power, absorption, scattering, sound reduction, product)
- Consistency Check: extended validity check for ID for selected library spectra (e.g. ID starting with a figure)
- Consistency Check: error message remains 2 min. by default, timeout can be set in seconds via CADNAR.INI file (section [CadnaR], Warning Timeout = 5, default 120 s, min 2 s, max 3600 s)

Import/Export

- Import Sketchup (import options): optional transfer of object color and opacity from the Sketchup model
- Import Sketchup (import options): optional generation of scattering spectra with material names (analogous to absorption spectra)
- Import Sketchup (Import options): Sketchup layer name is written to a string variable of the imported object
- Import Sketchup (import options): invisible objects and layers in SketchUp can be skipped during import
- DXF export: for vertical area sources, box-type obstacles and box-type sources now exports the entire 3D object (as triangles, not just the top edge)
- DXF export: new object types for export: barrier, PolyMesh, receiver chain, receiver, height point, contour line and calculation area

CadnaR-Options

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