# Cadna R®

**Prediction of Noise Levels inside Rooms**

# CadnaR is the powerful software for the calculation and assessment of sound levels in rooms and at workplaces

## ⋮ Intuitive Handling

The clearly arranged software enables the user to easily build models and make precise predictions. At the same time you benefit from the sophisticated input possibilities as your analysis becomes more complex.

## ⋮ Efficient Workflow

Change your view from 2D to 3D within a second. Multiply the modeling speed by using various shortcuts and automation techniques. Many time-saving acceleration procedures enable a fast calculation process.

## ⋮ Modern Analysis

CadnaR uses scientific and highly efficient calculation methods. Techniques like scenario analysis, grid arithmetic or the display of results within a 3D-grid enhance your analysis and support you during the whole planning and assessment process.
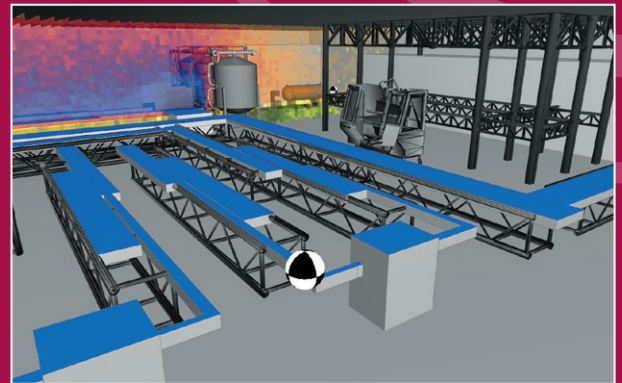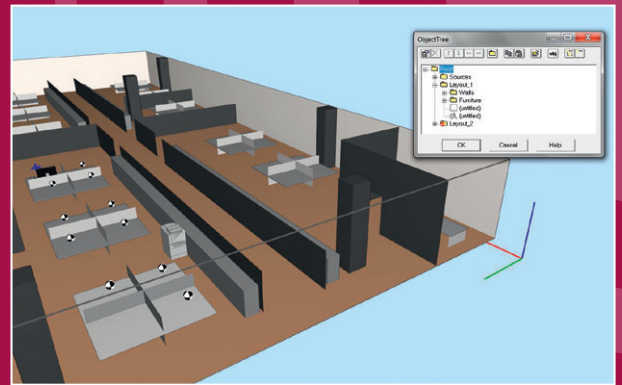
## Applications

- Specific planning and assessment of noise level reduction measures such as change in layout, screening by barriers, sound absorbing claddings of walls and/or ceiling, change of emission level and directivity in a production plant
- Assessment of alternative scenarios in conjunction with the planning of offices, call centers, public rooms and areas etc.
- Optimizing the acoustic quality of lounges and waiting areas
- Acoustic planning and optimization of complex production plants

## Handling and Modeling

- Fast and intuitive modeling with plates and box-type obstacles
- Complex ceiling and room geometries can be modeled
- Assignment of absorption coefficients using the absorption data library
- Sound sources can be modeled as point, line, area or box-type sources
- Directivity of point sources available (in a simplified way or in steps of 5 degrees)
- Absorption, reflection and scattering on any obstacle is taken into account

## DataKustik

For more information please visit our website www.datakustik.com
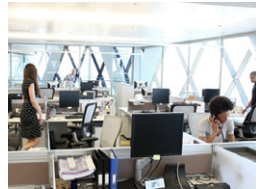
# Cadna R®

**Prediction of
Noise Levels inside Rooms**



## Office Environments

- Acoustic calculation and assessment according to DIN 18041, VDI 2569 und ISO 3382-3
- Receiver chains serve as digital "measurement path" according to ISO 3382-3
- Import of DWG-/DXF-/SKP-files (e.g. pCon.planner, AutoCAD, SketchUp)
- Visualization of noise propagation, noise levels and parameters for quality criteria like the Speech Transmission Index STI
- Graphics displaying level, STI, reverberation times and quality criteria for individual or open-plan offices
- Optimization of Public-Address-Systems and general alarm systems
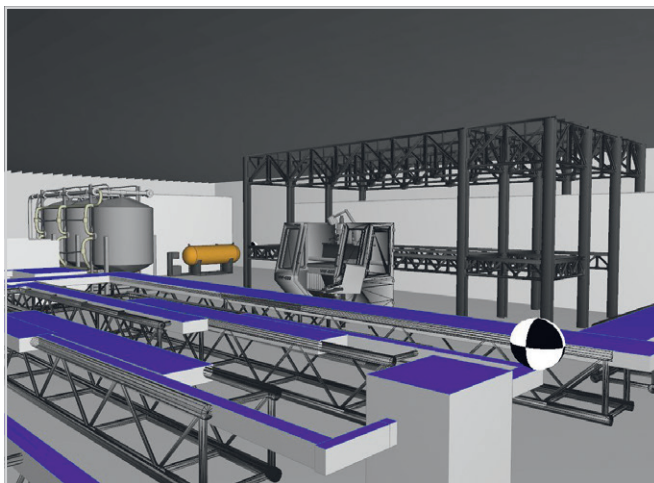


## Production Plants

- Calculation of the sound load at workplaces based on the emission parameters specified by the machine manufacturer according to the EC guideline 2006/42/EC while also taking the room geometry and the room design into account
- Assignment of source groups to a receiver to specify the emission sound pressure level at a work station
- Organisation and handling of huge industrial models with the 64-bit-version and the ObjectTree functionality
- Tools for enveloping surfaces and free field simulations to verify the sound power of the sources inside of the enveloping surface to simplify modeling complex machines and their sources following the ISO 3744
- Calculation of the sound power level based on technical parameters such as rotational speed or power

**Apply also our software Cadna A® for the prediction and presentation of environmental noise and impact of air pollution. The functionalities and the handling of Cadna R® and Cadna A® are nearly identical and enable an efficient workflow in both fields of expertise.**

## DataKustik

**For more information please visit our website www.datakustik.com**