Cadna A®

**State-of-the-art
noise prediction software**

The easy-to-use software solution for the calculation and assessment, prediction and presentation of noise exposure and impact of air pollutant.

DataKustik

CadnaA at a glance

Whether your objective is to study the noise Immission level of an industrial plant, a mall including a parking lot, a road and railway scheme or even of an entire town with airport:

CadnaA is designed to handle all these tasks!

Combine CadnaA and CadnaR

CadnaA shares many of its concepts with CadnaR (interior sound calculation), enabling an efficient workflow in both fields of expertise.
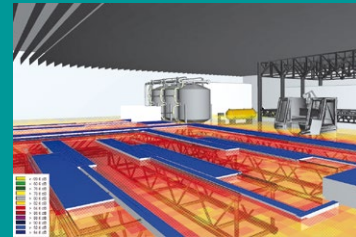
Intuitive Handling

Work within the plain, clearly arranged surface for simple calculations, but benefit at the same time from the sophisticated input possibilities as your analysis becomes more complex.

Focus your time on the project and not on the software. All input and analysis features are easy and intuitive to handle.

Enhanced Productivity

Change your view from 2D to 3D within a second. Multiply the modeling speed by using various shortcuts and automation techniques. Various time-saving acceleration techniques enable fast calculations for your projects. Access all object data instantly.

Advanced Analysis

Base your analysis on quality-assured national and international standards, calculation methods and guidelines. Execute predefined or customized analysis of all data contained in the model: building evaluation, hot spot detection, conflict map, etc.

Industry

- Plan noise reduction measures
- Maintain emission data in convenient libraries
- Organize complex projects efficiently with the ObjectTree function and compare different scenarios
- Review your model with various sophisticated 3D features
- Calculate outdoor sound propagation based on sound sources inside
- Take advantage of the similar software interface CadnaR (interior sound calculation)
- Calculate the uncertainty with standard deviations for emission and propagation

Road & Railway

- Compare different planning scenarios
- Automatically optimize the barrier next to a street or railway
- Visualize and auralize noise reduction scenarios
- Efficient project management with object tree and variants
- Automatically intersect object data with DTM
- Check your model via visualization of all propagation tracks

Noise Mapping

- Accelerate your calculation time with distributed calculation and multithreading
- Employ all RAM available with 64-bit technology
- Efficiently merge various data types using more than 30 different import formats
- Apply 3D Objects (trees, cars, trains, etc.) to present mitigation measures and its visual effects to third parties.
- Analyze your model using various noise assessment techniques
- Verify your model via quality assurance while using acceleration techniques
- Publish CadnaA Projects online and present results by using any device connected to the Internet (PC, Tablet, Smartphone)

Industrial Expert System

(Option SET)

- Automatically generate sound power spectra based on technical system parameters of a sound source (e.g. electric power in kW, volume flow in m^3/h, rotation speed in rpm)
- Facilitate your work utilizing 150 predefined modules for technical sound sources such as electric and combustion engines, pumps, ventilators, cooling towers, gear boxes etc.
- Model complex systems including transmissions by combining sources (e.g. ventilator with two ducts connected)

Aircraft

(Option FLG)

Calculate noise emitted from airports based on the calculation methods INM 7.0 (Integrated Noise Model) and ECAC Doc.29 3rd Edition, among other relevant procedures at European and International level.

- Perform an overall assessment of the total noise exposure including, road, railway and aircraft noise.
- Use radar data and group classification according to ICAO-Code to calculate the aircraft noise.
- Powerful analysis tools including flight statistics, noise ranking at buildings and calculation of the effect of multiple sources.

Air Pollution

(Option APL)

- Calculate, assess and present air pollutant distribution according to the Lagrangian particle model AUSTAL2000 (other models are being integrated)
- Combine the assessment of measures in the context of noise and air quality mitigation plans
- Enjoy the usability and calculation power of CadnaA also while modeling air pollutant distribution
- Apply all import formats without any additional costs
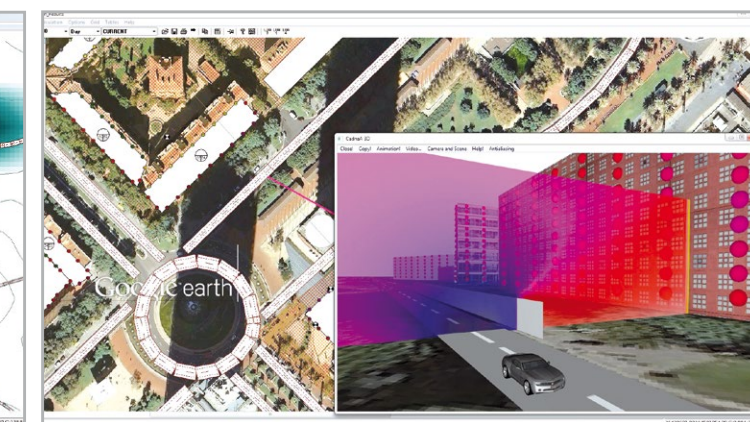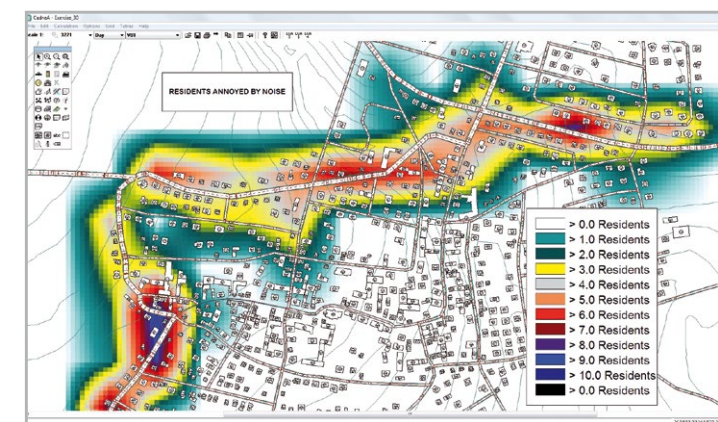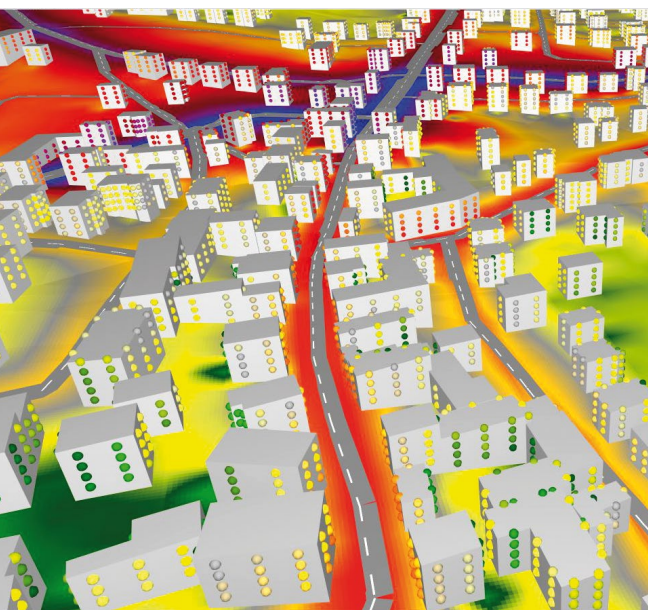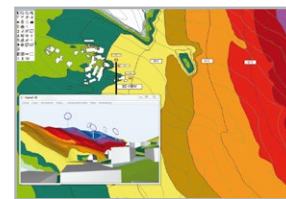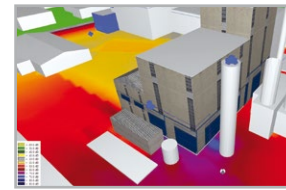
Apply also our software Cadna ꭅ R® for the prediction and presentation of sound inside rooms and workplaces. The functionalities and the handling of Cadna ꭅ A® and Cadna ꭅ R® are nearly identical and enable an efficient workflow in both fields of expertise.

Services

Helpdesk
Our experts are at your service. Simply call us or send us your file if you encounter any problems with your projects.

Seminars
We frequently provide basic and expert workshops in order to keep you updated with the latest developments.

Web Seminars
Learn about the latest developments and specific applications without even leaving your office. These online-based live workshops are an efficient way to keep informed about state-of-the-art modeling techniques.

Further information about seminars at:

www.datakustik.com

CadnaA Standard

| all noise types (industry, road and railway) | all available standards and guidelines |

CadnaA Basic

| all noise types (industry, road and railway) | One standard or guide-line for each noise type |

CadnaA Modular

| One noise type | One standard or guide-line for each noise type |

10-14