The most advanced, powerful and successful noise calculation and noise mapping software available!
CadnaA at a glance

CadnaA (Computer Aided Noise Abatement) is the software for the calculation and presentation, assessment and prediction of noise exposure and air pollutant impact. Whether your objective is to study the noise immission of an industrial plant, of a mall including a parking lot, of a new road or railway scheme, or even of entire towns and urbanized areas: CadnaA is designed to handle all these tasks.

Calculation

CadnaA is a transparent and easy to use platform for everything from simple checks up to extremely complex and scientific investigations. The clear separation of the 3D-model in its natural environment and the applied calculation method offers flexibility unique in this area. It is even possible to use the same model when noise levels are calculated based on different national standards without any need to modify the model.

- Calculation with about 30 standards and guidelines
- For any number of fixed receiver points, calculation and storage of all source related partial levels – therefore detailed analysis is possible without recalculation
- Levels at grid points (noise maps) can be added, subtracted and processed with any user defined function
- Parallel processing with any number of computers to reduce calculation time within large scale noise maps (hundreds or even thousands of km²) with PCSP (Program Controlled Segmented Processing)
- Multi-threading support – parallel use of all processors on a multicore PC with a single license
- Levels on grid enveloping building facades to show buildings coloured according to the sound pressure levels
- Up to 4 parallel evaluation parameters – e.g. L(day), L(night), L(dn), L(evening), L(den)

Products

To serve the customer’s needs in an individual and convenient way there are three different product versions available. All three are fully featured and vary mainly in the number of noise types and number of implemented standards:

- **CadnaA Standard**
  CadnaA Standard includes all noise types (industry, road and railway) and all available standards and guidelines for each noise type as well as a multi-lingual user interface.

- **CadnaA Basic**
  CadnaA Basic comes also with all noise types but with one standard or guideline for each noise type and the user interface is limited to one of the available languages.

- **CadnaA Modular**
  With CadnaA Modular all noise types can be selected separately and are combined with one of the available standards or guidelines for each noise type.
Handling & Design

While continuously improving the calculation power and the versatility of CadnaA features, we do not compromise the concise and easy to use design of CadnaA. Most of all, actions need only one or a few mouse clicks to be performed at the highest speed.

- Realizing all geometric possibilities using just three objects (point, open line, closed line)
- Calculate the noise and analyse complex situations by using the powerful support of graphic ray presentations
- Automatically take into account all physically important influences like reflection and diffraction over barriers
- Enjoy the user friendliness of CadnaA, even after long pauses, and the powerful support of self-explanatory symbols and clearly expressed commands
- Use orthophotos or other textures to visualize your project in its natural environment
- Use all available data and don’t lose information — CadnaA offers a tremendous amount of formats and interfaces to minimize your workload
- Present the calculated noise levels at fixed receiver points, on grids as coloured noise maps covering the surface or as vertical grids showing the distribution on facades
- Import and export all available geographical data formats (e.g. export your project to GoogleEarth)
- Walk through or even fly over the virtual model and see the optical consequences of a proposed improvement by editing data in realtime with our outstanding dynamic-3D feature
- Analyse the priority of mitigation measures by sorting the level contribution of all sources at a receiver and applying measures to the most influential ones
- Update your noise maps automatically and in predetermined time intervals using measured data and create dynamic noise maps with the great DYNMAP feature

Extensions

In addition there are several extensions available for CadnaA to fulfil your requirements. For example:

Option APL: Air Pollution
Calculation of air pollutants distribution e.g. for PM₃₀ (fine particles), NO₂, NOₓ, SO₂, and benzene. Exposure maps for industrial and road sources. Import of annual or multi-annual statistics of meteorological parameters.

Option FLG: Aircraft Noise
Calculation of the aircraft noise around airports from the emission data of the relevant classes of aircraft at predefined receiver points and on a grid. Aircraft noise results can be combined with all other noise types (industry, road, railway).

Option XL: Noise Mapping
Calculation with unlimited number of screening objects for large scale noise mapping (e.g. cities). Many additional powerful features like object scan, conflict maps, monetary evaluation or population density.
About DataKustik:
DataKustik is based in Greifenberg near Munich, Germany. We are one of the leading manufacturers of software for immission protection. Our state-of-the-art products for calculation and presentation of environmental noise, interior noise and building acoustics are powerful and rich in features but also user friendly. Experience in the field of noise dispersion, gained during more than 25 years of noise measurement and analysis, combined with the use of the latest software engineering methods are the basis of our outstanding products. DataKustik software is well-known and successfully applied in more than 50 countries all over the world.

We look forward to being in touch with you. For further information or any questions please do not hesitate to contact us or one of our distribution partners.