

# DYNMAP

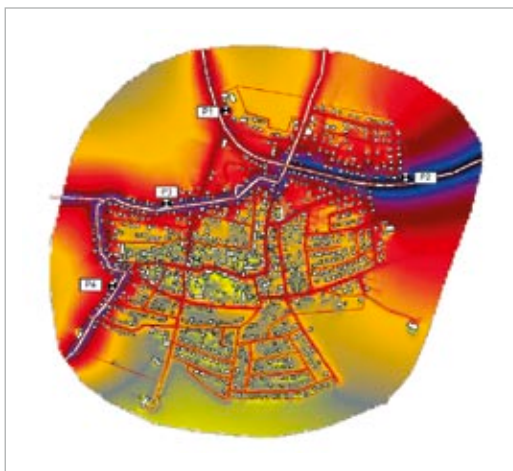
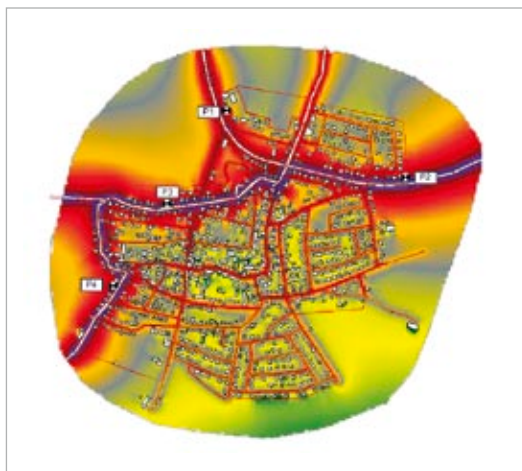
## Dynamic Noise Map

CadnaA, the leading noise prediction software, includes the great DYNMAP feature. With DYNMAP a noise map generated with CadnaA can be updated at predefined time intervals using measured data.

The most important application of the DYNMAP feature is the direct coupling to automatic monitoring systems installed along main roads or in the vicinity of industrial plants. The measured data are transferred to CadnaA to

update the noise map. This operation is extremely fast as no further recalculation of sound propagation is required to adapt the noise map to the measured data. The monitoring stations are installed at relevant receiver locations on main roads where the sound pressure levels are dominated by these roads. For each of the monitored roads and for the remaining roads, a complete noise map is calculated and saved for the entire town area.

**In the following example with 4 installed monitoring stations, 5 noise maps are precalculated.**



**left:** Town model with 4 noise monitoring stations on main roads (default noise grid)

**right:** Noise grid updated with measured SPL data from station No. 2 (10 dB-level increase)

CadnaA samples the measured data, incorporates the resulting changes, with respect to the original grid data, into the total noise map and calculates the new total noise map by energetic summation of all updated noise maps.

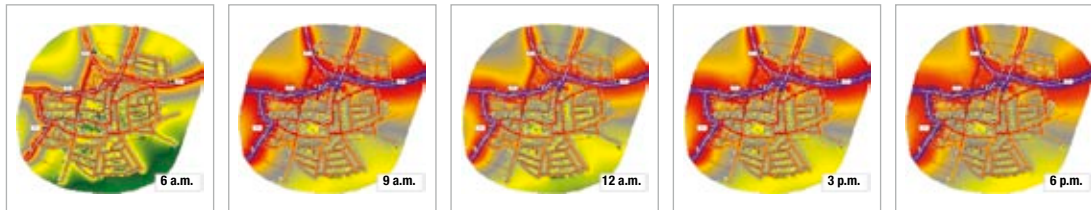
The updating process can be based on measured sound level data, automatically registered traffic count data or other source parameters.

## Features

- Updating of any noise map calculated with CadnaA based on measured results
- Automatic and fast updating of the relevant noise map
- Freely definable time intervals
- Representation of the present noise impact via dynamic noise maps
- Link to noise monitoring systems (e.g. at roads) - measured data is directly transferred to CadnaA
- Updating based on sound level data, traffic count data or other source parameters
- Presentation of dynamic noise maps as public information via the Internet
- Possible integration into a GIS system

With hourly sound level data provided by the monitoring system, CadnaA enables up-to-date information to be displayed by a noise map referenced to the preceding hour, for example. Depending on the configuration, dynamic noise maps can even be generated for previous

time periods. Whether the  $L_{den}$  of the preceding year or the mean sound level on all Sundays of the last month should be displayed – by applying the dynamic noise map DYNMAP this is performed automatically with the well-known precision of Cadna A.



Noise maps updated by monitoring data

## About Cadna A

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.

CadnaA offers many powerful but easy to use features for a convenient handling of all of your projects. Besides DYNMAP, the dynamic noise map, CadnaA also includes:

- Dynamic 3D: Walk through or even fly over your project model and see the visual consequences of proposed improvements by editing data in realtime directly in the 3D view.

- RUNTIME: Configure CadnaA as a runtime calculation program, perfectly integrated in your GIS system, with automatic import of shape and database files, automatic calculation and automatic export of the resultant data.
- PCSP (Program Controlled Segmented Processing): Parallel processing and distributed calculation in order to reduce calculation time. PCSP with user-defined partitioning allows automatic loading of segments, one by one, for calculation.
- Plot-Designer: Design highly flexible and user-friendly print-outs by arranging 3D views, grid maps or any other details of your project as desired.

**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.**



For more information about the leading noise prediction software Cadna A please visit [www.datakustik.com](http://www.datakustik.com)



Demo version available free of charge! Visit [www.datakustik.com](http://www.datakustik.com)



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