

GIS-based Traffic Noise Prediction

MapNoise is an advanced GIS application for performing calculations of road traffic noise using digital maps as data input for performing the noise propagation calculations.

Noise propagation is being calculated in accordance with the common Nordic Prediction Method for Road Traffic Noise. MapNoise calculates the equivalent sound pressure levels (LAeq) as well as maximum sound pressure levels (LMax).

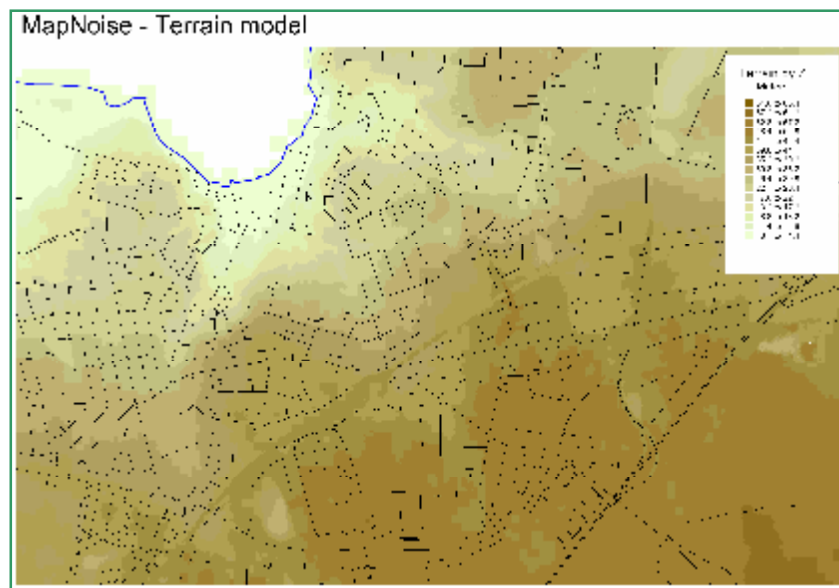
MapNoise may be utilised for calculating the sound pressure levels at ground levels and at the front of buildings at any level.

MapNoise Capabilities

MapNoise is a powerful tool with the following capabilities:

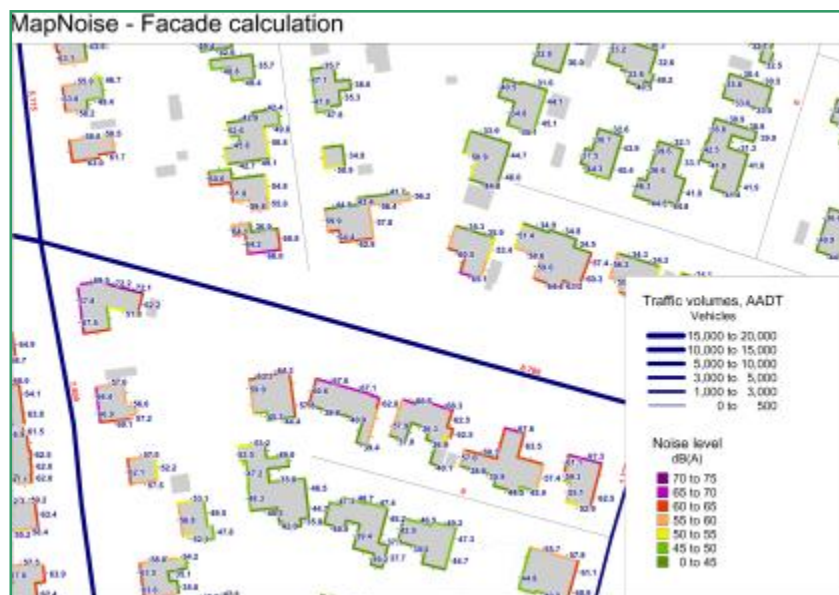
- It can extract all information required for the Prediction model from a digital map containing contours, road centrelines, buildings and noise screens. This ensures that all calculations are carried out using the same data source.
- The calculations are carried out quickly and efficiently and with a high level of detail, including screening and reflection effects of terrain, buildings in one or several storeys and noise screens.

The model results are instantly visualised on maps.



Noise Propagation - Terrain and Reflections

MapNoise can even deal with noise propagation in complicated terrains. A model of any terrain can be created automatically based on digital contour lines, level points etc. This makes it possible to include screening and reflections from the terrain in the calculations.



MapNoise- fields of application

MapNoise is beneficial for

- EIA and SEA studies
- General planning, mapping and policy making
- Infrastructure planning
- Assessments of environmental effect of different planning and mitigation measures
- Local physical planning e.g. to secure that noise limits will be respected in residential areas
- Environmental indicators concerning sustainability
- Design of noise screens.

MapNoise Features

MapNoise has the following main features:

- full integration with ArcGIS
- calculation of façade noise at buildings
- calculation of sound propagation in a specified area
- screening and reflection from terrain, buildings and noise screens
- functionality for creating of terrain models
- automatically set up of calculation points
- detailed configuration of noise calculations
- presentation of results on maps
- functionality for project administration backup/restore of data in a specified folder (e.g. on a server)
- extensive validation of input data before calculations are being performed
- extensive help. On-line help on all program dialogs

System requirements

ArcGIS 8.3 with any license type (ArcView, ArcEditor or ArcInfo)
Platform - Windows NT 4.0 with service pack 6a or later, Windows 2000,
Windows XP

Contact information

For further information and purchase of MapNoise contact:

Rapidis ApS
Jaegersborg Alle 4
DK-2920 Charlottenlund
Denmark

Phone + 45 39 96 59 60
E-mail : rdf@rapidis.com

MapNoise



TetraSoft A/S

Rapidis