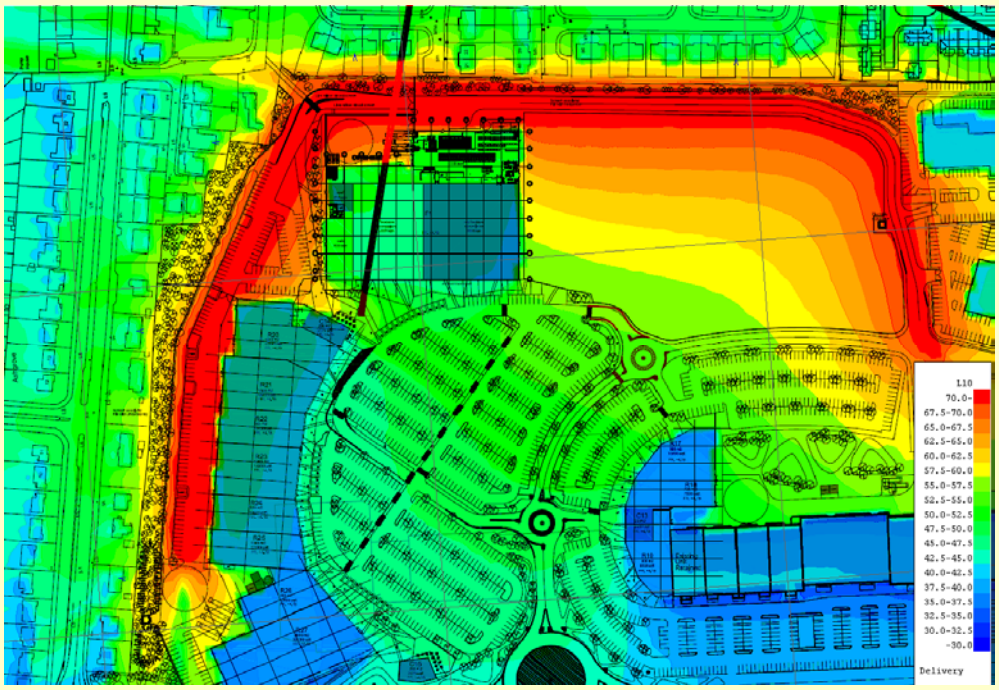
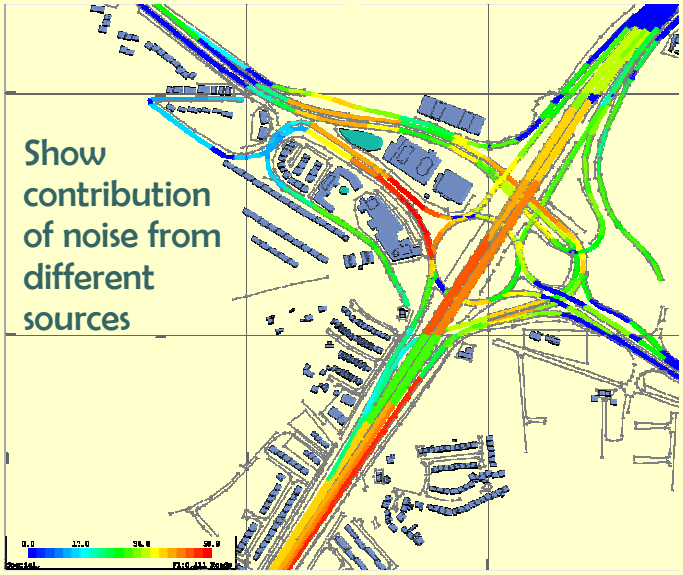
NoiseMap Enterprise

Classic Road, Rail and Site Noise Mapping



Night-time noise from a shopping centre delivery road

Visualise Road, Rail and Site Noise the way you want



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NoiseMap

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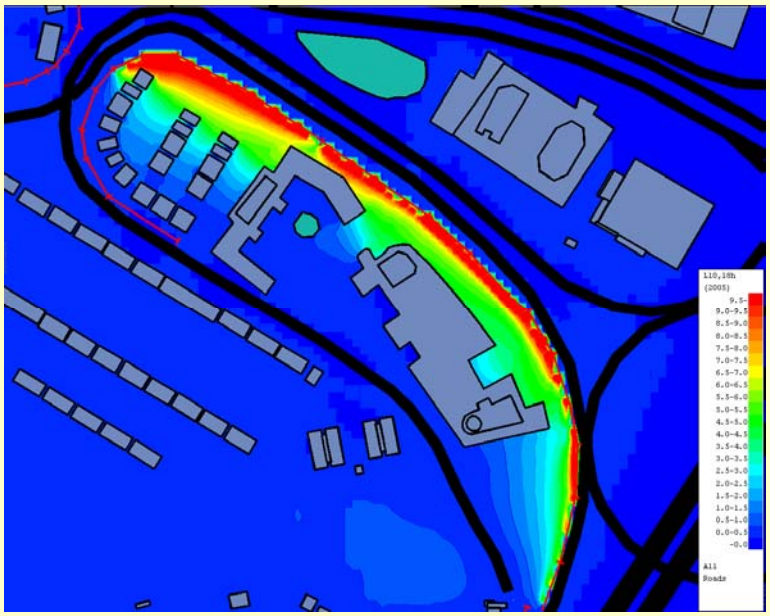
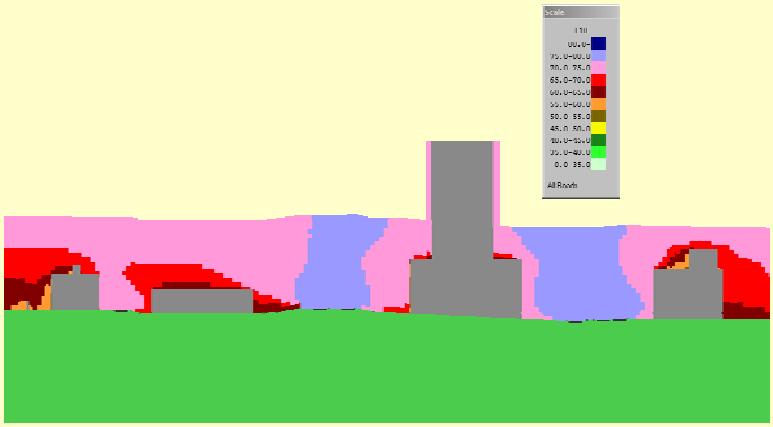
NoiseMap Enterprise is the classic professional system for the assessment of environmental noise from roads, railways and all types of open-site and industrial projects.

It is specially suited to the detailed mapping and evaluation of infrastructure schemes, for the design of building developments, for the design of mitigation such as noise barriers, and for assessing noise from engineering works.





Road Traffic flow management

Traffic flows can be entered manually into the traffic flow table, or can be imported from an external editor, which can be useful when obtained from traffic modelling software.

When you select a road segment, the corresponding line of traffic flow data is highlighted for convenience. You can also highlight the roads using any particular traffic flow.

You can use 18-hour or 1-hour flows.

You can easily assign different sets of traffic flow data to the same model, simply by importing a new set of traffic data using the same reference numbers, and saving them to a new masterfile.

Noise maps

The noise level of an area is calculated from the noise model and can be stored as an 'archive' for future use, saved as a picture for use in reports, printed out to scale, or exported for use in other software, such as Excel. The contour spacing and colouring system is chosen when the contour is displayed. The map can cover any size of area, limited by system capacity.

You can choose which of the model objects you display on the map. For example, you can show roads, railways or other working locations, receiver points, noise barriers, and ground contours.

Difference contours

You can display the difference between any contours—in this example showing the effect of increasing the height of a noise barrier.

You could also show the difference caused by introducing a transport scheme, or changing traffic flows or the sound power levels of plant. You can even show the difference between day and night noise levels or different noise indices.

The contour comparison feature also lets you add together different noise contours, perhaps from different sources, to see the combined effect.

Vertical noise contours

Conventional noise contours are useful for showing the distribution of noise over an area, but when planning the layout of a development, it can be useful to see the vertical spread of noise. This helps to show how one building can shield another one from noise. NoiseMap allows a grid of receivers to be entered into the noise model, from which a vertical noise contour can be generated.

Receiver noise levels

Although noise contours are invaluable for obtaining a view of noise levels covering a wide area, it is often necessary to know the noise levels at specific receiver points. You can easily generate any number of receiver points at any location, for example at at building facades or in the 'free field'. Receivers can be repeated for each floor level of a building. Once you have calculated the noise levels, these can be shown in colour for any chosen floor level.

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SiteNoise Plant database

You can build up a comprehensive database of plant to be used in civil engineering projects which you can then import into different noise models.

Plant data can be entered as a sound power level, an L_{Aeq} at 10 m or an L_{Amax} at 10 m, using just the A-weighted value.

It is then simple to assign the required plant to a particular work activity.

Each item of plant need only be entered once and can be used in any number of activities.

SiteNoise Activity Manager

You can have any number of civil engineering activities in a model and each activity can use any number of items of plant.

Moreover, each activity can be placed at any number of working locations, which is often required when modelling different phases in the progress of the work.

Evaluation of noise sources

Most projects involve the evaluation of noise from various sources. These could be completely different types of source, such as roads, railways and industrial sources, or it could be different 'categories' of the same type of source, such as unaltered, altered and new roads, or daytime and night-time engineering work.

NoiseMap lets you assign each noise source to a 'category' and then it sub-totals the noise within each category and for any combination of categories. This lets you see quickly which types of noise source are creating the most noise, and lets you assess the contribution of noise from each type, as required by the Noise Insulation Regulations.

Design of mitigation

Having identified the main sources of noise, it is often necessary to find an efficient method of reducing levels to the design target. NoiseMap makes it easy to test the effect of road surfaces, quieter plant and changes to vertical and horizontal alignments. There is also a special feature that lets you make temporary adjustments to barrier heights until you find the optimum levels.

Railway noise

Railway networks can be simply modelled in NoiseMap. You can import a database of rail vehicles from a spreadsheet or other data source and import the rail network from digital mapping. You can then enter detailed train services on the network. The speed and power setting can vary on each section of track. You can calculate the noise level averaged over any operational period.

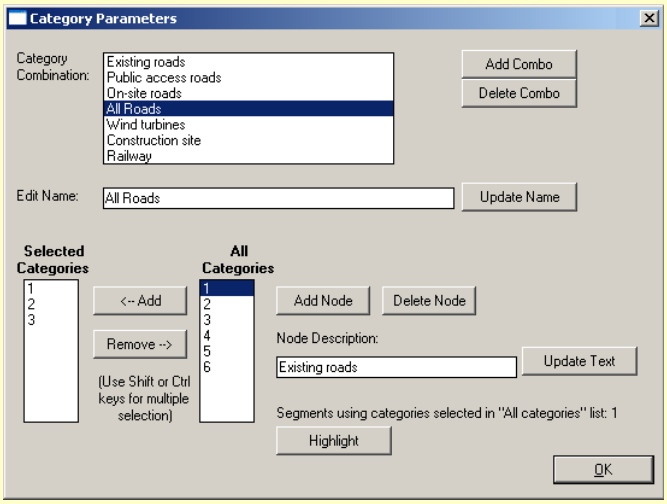
SiteNoise Working locations

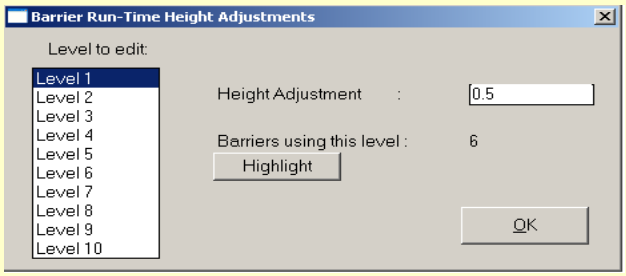
A working location can have any number of activities located at it. To add activities to a working location, you firstly select the location and then go to the Activity Manager to select from the list of activities those that you want to add to this location.

The properties windows show all the parameters that affect the object.

Press F1 or click the Help button to open the detailed User Manual at the correct page to give you comprehensive guidance.

Road, rail and other objects have similar property windows relevant to their specific parameters.





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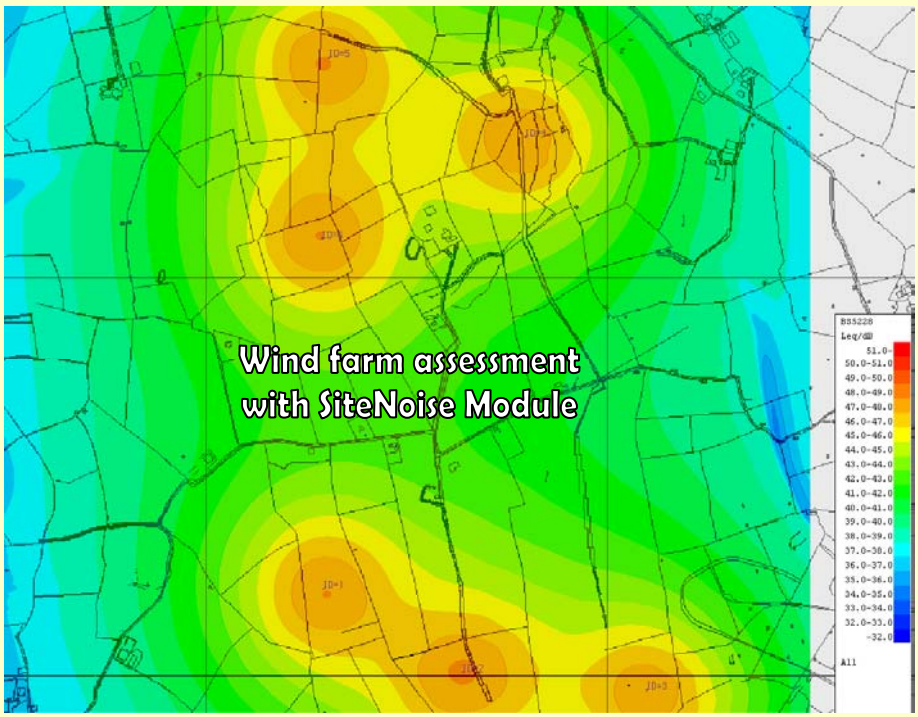

Separate and combined road, rail and industrial noise maps

- from digital mapping
- from DXF files
- from bitmaps
- by hand
- from measurements on irregular grid

Display noise maps in many ways:

- noise contour maps
- sum and difference contours
- individual receiver points
- façade noise levels
- 3-d perspective views
- contribution of noise from each source
- vertical noise contours
- ISO and custom colours
- Full control over display process
- Use any Windows-enabled printer
- Drawings to exact scale

Choice of calculation method:

- Calculation of Road Traffic Noise (UK)
- Calculation of Railway Noise (UK)
- BS5228 (with enhancements)
- L_{Aeq} (UK Noise Advisory Council)
- L_{A10} & L_{Aeq} 1-hr and 18-hr traffic calcs
- Any assessment period for Site and Rail

Easy to check accuracy:

- View-as-colour
- Cross-sections & long-sections
- 3-d perspective views
- One line per source output
- Full calculation logs
- Clear error reporting

Flexible licence terms:

- Permanent licences
- Pay-as-you-go
- Hire
- Hire-purchase

Excellent user support:

- Printed user manuals
- 'How to' user guides
- on-screen context sensitive help
- on-line User Forum
- telephone and email support
- on-site training courses
- sample models
- compatibility with earlier versions
- specialist knowledge not required
- 25 yrs development by practitioners

Powerful productivity tools

- Large model sizes (>16,000 of each type of object)
- Scale, shift and rotate model objects
- Find function
- Easy to swap entire traffic flows
- Undo and re-do
- Model archiving
- Timed backup

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