

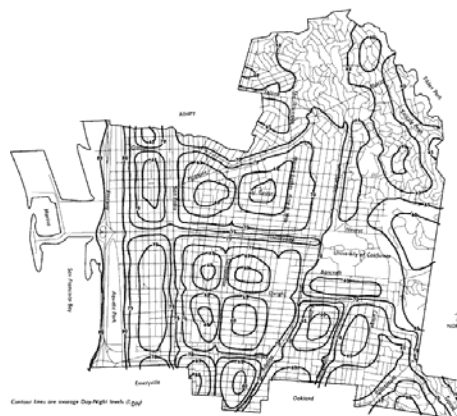
Experience with the use of a sound demo system in public inquiries

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Noise contours, what are they?

- Abstract lines
- Turning and twisting
- On an unreadable map
- Disturbing colours red, yellow and green
- Why do they look like this?

Figure 21. Noise Contours



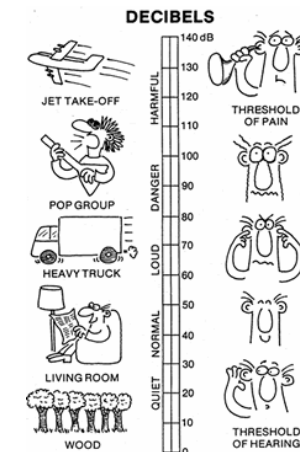
You say its 66, but how bad is that?

Current answer:

Compare with other sources,
like a sound barometer?

Why is this no good?

- all sounds are different
- people do not have a noise memory
- it misses frequency and time information



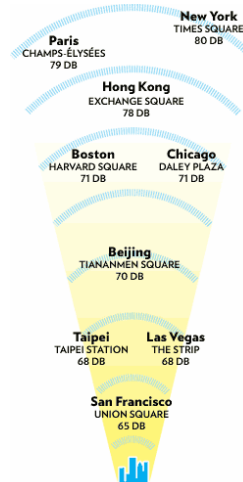
www.nottinghamcity.gov.uk/sitemap/cdpc_loudness

You say its 66, but how bad is that?

Answer: Compare with
other locations

Why is this no good?

- who has been there and when?
- people do not have a noise memory
- not objective



<http://newyorkmetro.com/nymetro/Urban/features/noise/9456/index1.html>

You say its 66, but how bad is that?

Answer: demonstrate the noise level, but be sure to:

- calibrate the level
- take the distance into account
- take the time of day into account
- include presence of barrier or other measures
- make it sound as realistic as possible

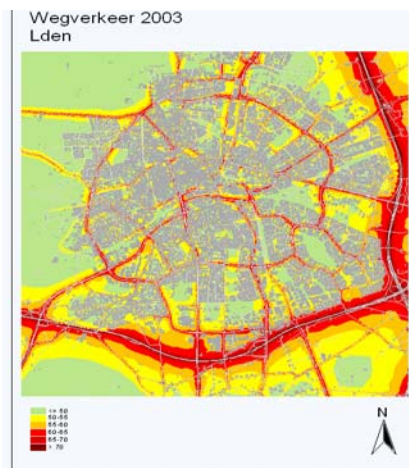


Difficult questions easy answers?

I live in the yellow part
is it bad?

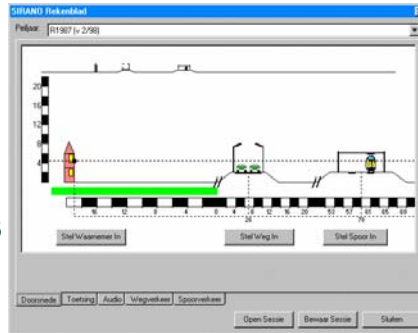
- No it is not THAT bad,
listen....

Ah, now I understand!



Dutch audio demonstration software SIRANO

- First select the dwelling on a map
- Then go to the “audio” screen
- Explain some details
- Press “audio” as often as you like and listen
- Show that you are giving reliable information

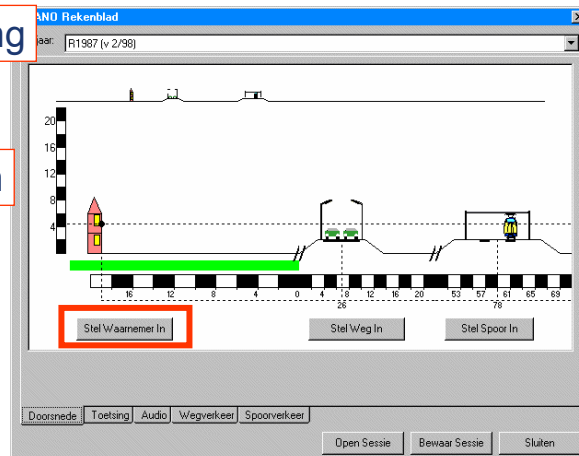


distance of dwelling

height of dwelling

ground absorption

inside/outside



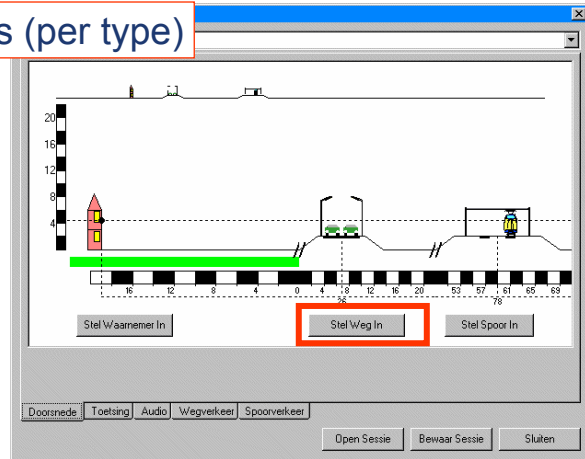
number of vehicles (per type)

speed

time of day

type of asphalt

barriers



number of trains (per type)

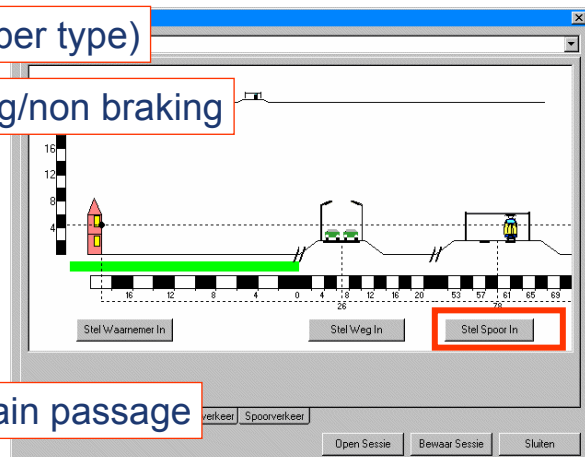
speed, and braking/non braking

time of day

type of track

barriers

Note: audio per train passage



Examples of projects

- The system has been demonstrated very often along existing and new railway lines
 - Hanzelijn (a new passenger line)
 - Betuwe Route (a new goods line)
 - Doubling of track Amsterdam – Utrecht
 - Sloelijn (more goods traffic)
- All projects included new noise measures

Reactions of public

- Thanks, now I know how much noisier these goods trains will be.
- It sure sounds similar to what we hear now.
- We are convinced the noise barrier will improve the situation.
- Oh, is that all, 45 dB(A) in the night. That is not too disturbing

The future – Sound demonstration through the internet

How to calibrate the sound level?

Some ideas for simple methods to compare noise levels

- drop a common object on common floor types
- fill a glass of water from a certain height
- vacuum cleaner data?

This will be difficult for not highly educated members of the public.

Demonstration through the internet

Difficult questions easy answers?

My niece measured 96, you say it is 66 !

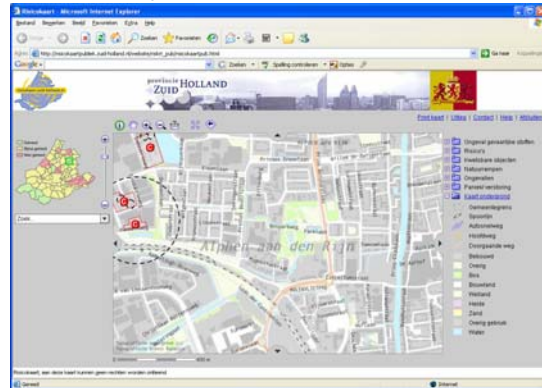
- online FAQ
- help through telephone
- and e-mail
- and

Demonstration through the internet

Where is my house?

- Enable searching with name of street and number of house
- Enable searching with postcode
- Simple zoom functions

Very recent example – a risk map



http://risicokaartpubliek.zuid-holland.nl/website/riskrt_pub/risicokaartpub.html