

Our Procedure:

- ✓ Free-field simulation of sound pressure levels according to your project requirements
- ✓ Optimization of speaker counts and locations for an economic and feasible PA coverage
- ✓ Identification of areas with hazardous sound pressure levels to protect your workforce based on recognized European safety standards
- ✓ Integration of existing noise studies to display the anticipated sound pressure above noise
- ✓ 3D visualization of sound dispersion characteristics for every speaker
- ✓ Simulation of different operating conditions and emergency states

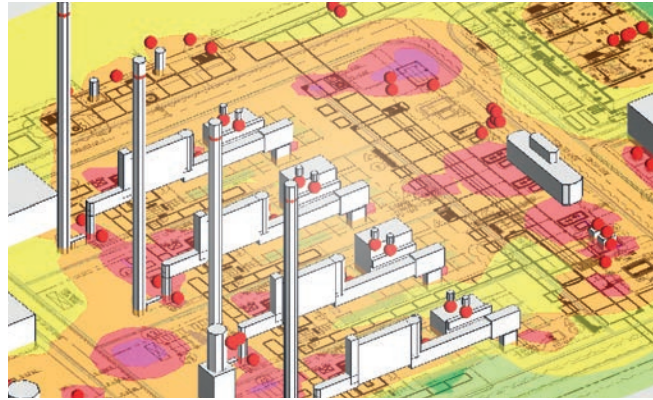


Fig. 4: 3D visualization of a plant

OPTIMIZE PUBLIC ADDRESS

Benefits at a Glance:

- ▶ We provide a PA/GA system perfectly tailored to your requirements with highest speech intelligibility under any circumstances.
- ▶ Profit from synergy effects through our many years of experience and precise calculation models.
- ▶ We keep the health of your workforce in mind and identify noise protection measures.
- ▶ We consult you over different planning stages from FEED to construction.
- ▶ Get it all from one source: sound simulation and system design to achieve the best result.

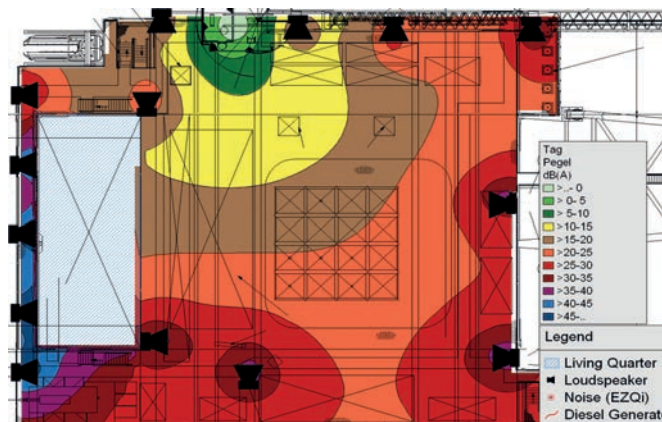


Fig. 5: Visualization of the signal-to-noise ratio



Acoustic Study

Optimize Your
Public Address on Your
Industrial Site

What we offer:

INDUSTRONIC consults you on planning and selection of your public address and general alarm system (PA/GA).

A professional acoustic study and the correct implementation of obtained study results ensure highest intelligibility and audibility of PA announcements and alarm tones throughout your plant.

The acoustic study aims towards the perfect balance between proper sound coverage and economic speaker counts.

Combined with our decades-long experience and knowledge base we provide you with a reliable and cost-effective PA system conforming to common industry standards.

Examples of Visualizations and Maps:

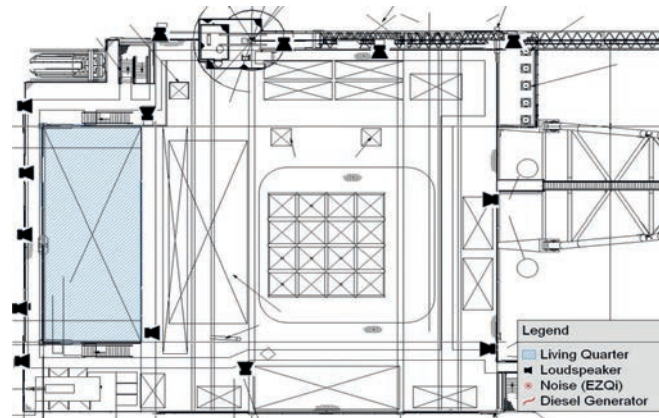


Fig. 2: Speaker location drawing

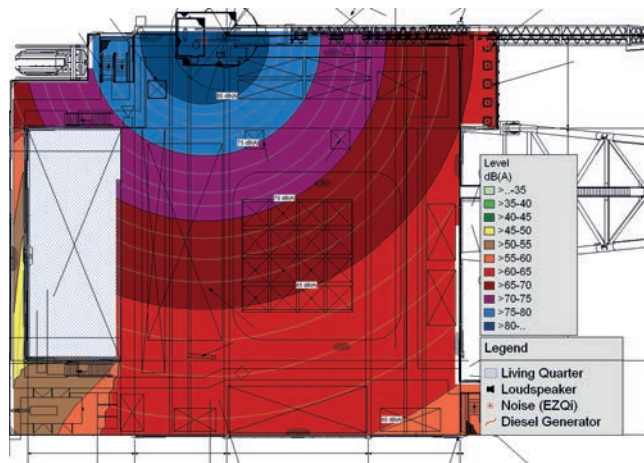


Fig. 1: Ambient noise map

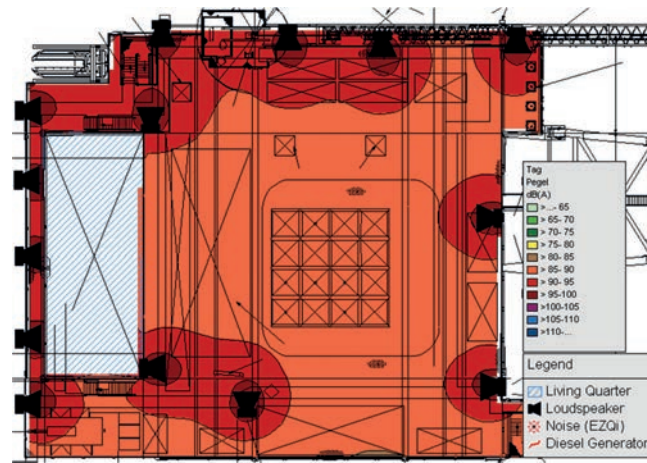


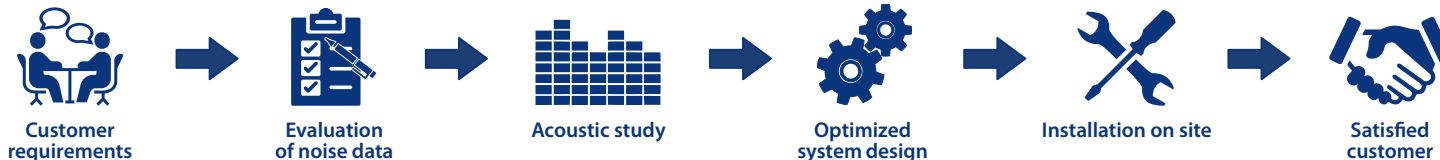
Fig. 3: Dispersion characteristics of the speakers

What we provide:

- ▶ Detailed evaluation of the initial situation and interpretation of the acoustic study results keeping feasibility and your budget in mind
- ▶ Detailed description of the used speaker types, installation locations, speaker alignments and their output power tapings
- ▶ Overview of the required number of speakers per zone

What else we can do for you:

- ▶ Planning / feasibility studies / expert advice
- ▶ Support in creating an ambient noise map of your site
- ▶ Site surveys
- ▶ Sound level measurements on site



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