Navcon
Engineering
Network
Noise & Vibration Consultants

701 W. Las Palmas Dr., Fullerton, CA 92835
Phone 714.441.3488 ; Fax 714.441.3487
webinfo@navcon.com ; www.navcon.com

SoundPLAN USER 2020 Training Seminar

(May 7 – 8, 2020 & October 15 – 16, 2020)

Background Discussion & Abstract: Navcon is an engineering consultancy which specializes in noise and vibration measurement, analysis and control. We have been the exclusive North American SoundPLAN distributer since 1991 and have presented SoundPLAN User trainings worldwide since 1992. The course will be presented at our office in Fullerton, CA and focuses upon the use and application of SoundPLAN software and the practical aspects of environmental noise modeling, noise planning, and noise assessment.

Attendees are encouraged to bring a notebook computer to the training. We will load a fully functional copy of the **SoundPLAN** software *on the computers* with a 30 day license.

Intended Audience & Course Objective: This *two* day SoundPLAN training seminar is intended for both SoundPLAN users and those engineers, technicians and hygienists tasked with environmental, community, and/or industrial noise measurement, planning, analysis and control. Lecture topics include sound propagation theory, national and international noise modeling standards and guidelines (for road, rail, industry and entertainment facilities), noise regulations and noise assessment methods. Attendees will use the SoundPLAN software to develop noise models, generate noise contours, make noise level predictions at sensitive receiver locations, assess noise mitigation scenarios such as optimizing noise barriers (length, height, absorption, etc.), relocating equipment, applying lagging treatments, installing silencers, etc. The principal objectives of the training are to introduce attendees to the SoundPLAN user interface and to show how noise modeling software can be used for noise planning, noise mitigation and noise assessment studies.

Presenter:

Hans Forschner, Senior Acoustical Engineer received his bachelors and masters degrees from the University of Stuttgart where he concentrated on indoor & outdoor noise modeling and acoustical modal analysis. He worked with Braunstein + Berndt, the SoundPLAN developer for 10 years before joining Navcon full time in 1995. He has consulted with numerous companies in Europe, South East Asia and the United States in the field of environmental noise and structurally radiated noise problems for more than 25 years. Hans also provides SoundPLAN technical support.

Course Fee: ***$1,850*** per attendee. The course fee includes participation, seminar manual, lunches and refreshments. A full refund will be made for all cancellations received 30 days before the start of the course. No refunds will be granted after the 30 day deadline. Substitute attendees will be accepted at any time. In the event that we have to cancel the course, the course fee will be refunded in full, but we disclaim any further liability.

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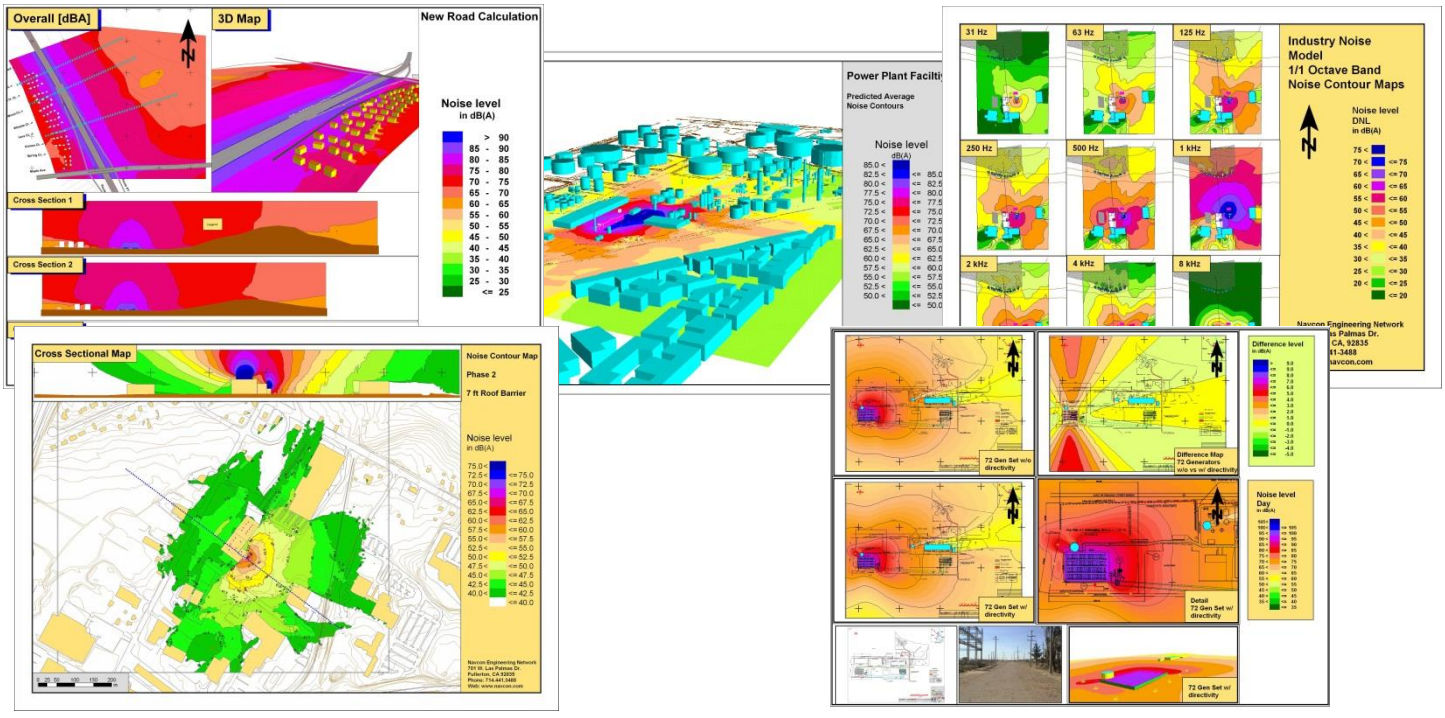
Converting your Environmental Noise Project into

a 3D SoundPLAN noise model



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SoundPLAN User Training Seminar – *Course Outline*

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Outdoor Noise Propagation

- Principal formulas and methodologies
- Transmission path attenuation (divergence, air absorption, screening and scattering reflections, ground effects, wind effects, meteorological stability)
- Review of National & International guidelines/standards (ISO, VDI, Nordic, CONCAWE, FHWA, ...)
- Development of propagation models for rail, traffic, industry and leisure noise)
- *"Rules of Thumb"* for outdoor noise analysis

Course Topics

1) Project Organization, Data Flow & Data Management
2) Calculation Methodology (i.e., Discussion of Standards)
3) Data Interfaces (i.e., ACAD, ArcView Shapefiles)
4) Road Noise Modeling (FHWA RD 77-108), TNM
5) Railroad Noise Modeling
6) Industrial Noise Modeling (i.e., Industrial Buildings, 2D & 3D directivity)
7) Indoor Noise Modeling (Interior Modeling & Indoor to Outdoor Calculation)
8) Noise Control with Expert System
9) Noise Barrier Design
10) Result Documentation & Customizing Result Tables
11) Graphic Output Presentation
    - Noise Contour Map
    - Meshed Noise Contour Map & Spectral Noise Contour Map
    - Difference Map
    - Cross Section Map
    - Measurement Maps
    - 3D graphics or AVI files

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SoundPLAN User 2020 Training Seminar – *Registration Form*

Name	.....
Company	.....
Address	.....
City, State, Zip	.....
E-Mail	.....
Phone	..... **Fax** .....
Date	..... **Signature** .....
Class Date	**May 7-8, 2020** ☐ **October 15-16, 2020** ☐
Payment	**P.O. No.** ..... **Company Check** ☐ **Payment: US $** _1,850.00_ **Bank Transfer** ☐ **Credit Card: Visa** ☐ **MasterCard** ☐ Credit Card #: _____ Expiration Date: _____ / _____ Name on Credit Card: _____ Billing Address: _____ Billing Zip Code: _____ Card Verification Value CVV #: _____ (3 digits on the back)

*The course fee is **$1,850** per attendee. We accept company purchase orders with terms of Net 30 days, company checks, money orders, bank transfers and credit card (Visa, MasterCard). A full refund will be made for all cancellations received 60 days before the start of the course. If we must cancel the course, the registration fee will be refunded in full, but we disclaim any further liability. The course fee includes participation, course notes, lunches and refreshments. We offer vegetarian options and we will try to accommodate other dietary requests; please let us know in advance. The training room has stairway access only (no elevator or escalator access). For administrative & technical questions please call 714-441-3488. To register, please fax this page to +1-714-441-3487 or email to **webinfo@navcon.com**.*