

NS1 Workers Protection Module

Workers exposure to noise and vibration

The workers protection module of Noise Studio is a powerful tool for noise and vibration risk assessment inside a company. With the implementation of the latest international regulations, automated and guided procedures, to the great versatility of use, Noise Studio highly speeds up the work of the consultant and allows to get reliable results without wasting time in the processes sometime complex. The processing functions of measures and profiles are intuitive and powerful allowing a full analysis of the sound phenomenon.

- ◆ In compliance with **Dir. 2003/10/CE, Dir.2002/44/CE, EN ISO 9612/11, EN 458, UNI 9432/11**
- ◆ Integrated noise and vibration data and measurements management
- ◆ Managing global data and time history (Profile)
- ◆ Masking functions for removal of abnormal events
- ◆ Management "task based" and "Job based" according to ISO 9612/11
- ◆ Management of homogeneous groups of workers
- ◆ Management of the sources *constant, cyclical, fluctuating and impulsive* with automatic recognition of the type of noise and automatic verification of the conformity to UNI9432/11
- ◆ Customizable PPE database
- ◆ Companies and workers database
- ◆ Machine database - database link with Ispesl
- ◆ Import external database into excel or txt
- ◆ SNR, HML, OBM methods of calculation, PPE-u protection factor
- ◆ Double PPE Management - Direct verification of the adequacy of the PPE
- ◆ Coloured display of exceedances for an immediate evaluation. Summary table with immediate representation of workers most at risk
- ◆ Both daily and weekly exposure
- ◆ Management of the extended uncertainties
- ◆ Automatic print of report and charts
- ◆ SLM direct parameters setup

Select analysis type: TASK BASED JOB BASED

Select noise type of current task:

- Constant Noise
- Fluctuating Noise
 - Measure over the exposure period
 - Measure over the exposure period
 - Measure of worst condition
 - Part-time measure
- Cyclic Noise (Number of cycles present in meas.: 21)
- Impulse Noise (Number of impulses present in: 0)
 - Select type of impulse noise:
 - TYPE1 (Low Freq.)
 - Punch Press
 - Jolt Squeeze
 - Explosive 1Kg
 - Explosive 8Kg
 - TYPE2 (Mid-High Freq.)
 - Nail Gun
 - Hammer
 - Rifle
 - Proof Firing
 - TYPE3 (High Freq.)
 - Gun

Measurement is representative of the real situation (enables impulsivity index calc.)

Uncertainty:

Instrument on LAeq - u LAeq [dB]	0.5	Position - u1 [dB]	1
Instrument on LAeq - u2 LAeq [dB]	0	Position - u3 [dB]	0
Instr. addit. on LAeq - u LAeq [dB]	1		
Instr. addit. on peak - usp [dB]	1.2		

OK Cancel

- ◆ Type of analysis selection
- ◆ Task based
- ◆ Job based
- ◆ Type of noise
- ◆ Managing of the uncertainties

Worker	LEx8h MAX [dB]	w/o PPE LEw [dB]	Lpk MAX [dB]	LEx8h MAX [dB]	With PPE LEw [dB]	Lpk MAX [dB]	Effic.PPE
CARPENTERIA							
FALEGNAMERIA							
Giuseppe Rampazzo	88.5 (2.0)	87.8 (2.0)	118.3 (2.6)	67.8 (5.7)		79.0 (5.7)	Accettabile
Luigi De Angelis	0.8 (1.8)	0.8 (1.8)	98.1 (2.6)				
Marco Ballarini	109.5 (1.8)	111.0 (1.8)	142.9 (2.6)		115.7 (6.7)		
Matteo Bianchi	102.0 (4.8)	101.4 (4.8)	142.9 (2.6)	104.4 (7.4)	115.7 (6.7)	103.9 (7.4)	Insufficiente
OFFICINA							
Paolo Ceccherini	103.2 (2.6)	103.2 (2.6)	128.3 (2.6)				

- ◆ List of the machines
- ◆ Worker sheet
- ◆ Weekly and daily exposure
- ◆ Company summary sheet
- ◆ Report printout

Workers - C:\Users\DeltaOhm\Documents\MISURE test - ESEMPI per presentazioni\copia di Ditta Delta Ohm\Giuseppe Rampazzo.wrk

ANALYSIS: NOISE VIBRATION Standard Nessuna PPE Rating by EN458 Action Lev. (dBA) 85 Confid. Lev. 95%

DATE	SITE	OPERATOR
2011/07/22	Padova	

COMPANY	ADDRESS	PLANT
Delta Ohm	via Marconi 5 Caselle di Selvazzano 35030	via Marconi 5 Caselle di Selvazzano 35030

WORKER DATA	Nome	Cognome	Mansione operaio	Analysis
Maticola:012	Giuseppe	Rampazzo		Task based

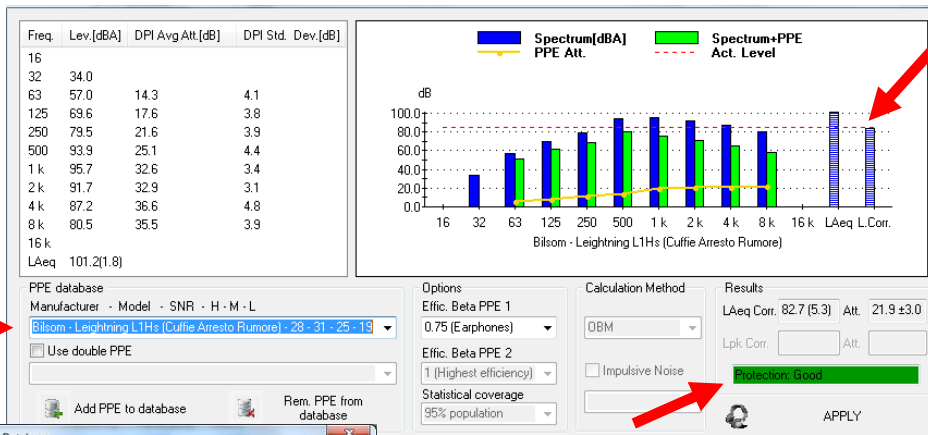
DAY	EXPOS.T	LEx8h LEVEL Without DPI	Cpk MAX	LEx8h WITH PPE With DPI	LCpk MAX	Effic.PPE	Notes
Monday	08h:00m+00m	81.8 dBA (1.8dB)	112.6 dBC (2.6dB)				
Tuesday	01h:00m+00m	88.5 dBA (2.0dB)	18.3 dBC (2.6dB)	67.8 dBA (5.7dB)		Good	
Wednesday	01h:00m+00m	88.5 dBA (2.0dB)	18.3 dBC (2.6dB)	67.8 dBA (5.7dB)		Good	
Thursday	01h:00m+00m	88.5 dBA (2.0dB)	18.3 dBC (2.6dB)	67.8 dBA (5.7dB)		Good	
Friday	01h:00m+00m	88.5 dBA (2.0dB)	18.3 dBC (2.6dB)	67.8 dBA (5.7dB)		Good	
Saturday	01h:00m+00m						
Sunday							
Week		87.8 dBA (2.0dB)	18.3 dBC (2.6dB)	73.0 dBA (5.7dB)			

80dB < LEx8h < 85dB - 135dB < LCpkmax < 137dB 85dB < LEx8h < 87dB - 137dB < LCpkmax < 140dB LEx8h > 87dB - LCpkmax > 140dB

ANALYSIS: NOISE VIBRATION PPE class: in compliance with EN458 Limit Lev. (dBA) 85 Protection Good Excess Acceptable Poor

NOISE SOURCE	Sala Genera...	Linea pick a...	Galleria di tiro	Motosega	Motosega 2	Misure prote...	Sorgente 7	S...
Mach.Model	Lowera		Polygono Via...	Sandigarden	Makita			
Machine sn	123456			123456	123456			
Mach.Descr.	1KW							
LAeq[dB]	82.1 (1.8)	101.2 (1.8)	116.5 (1.8)	97.3 (1.8)	105.8 (1.8)	98.8 (1.8)	81.8 (1.8)	8...
LCeq[dB]								
LCpkmax[dB]	98.1 (2.6)	123.0 (2.6)	142.9 (2.6)	118.3 (2.6)	128.3 (2.6)	120.8 (2.6)	112.6 (2.6)	1...
Tm	10m:33s	37m:06s	00m:21s	32m:51s	04h:00m:00s	05m:00s	06m:00s	0...
Spectrum	Si	Si	Si	Si	Si	No	No	No
PPE	None	Bilsom - Leig...	Howard Lei...	Bilsom - Viki...	Bilsom - Clari...	Bilsom - Tihu...	None	N...
Atten [dB]		26.9 ±4.1 (0...	31.3 ±3.4 (1...	24.4 ±3.3 (0...	34.1 ±2.7 (0...	25.6 ±2.4 (0...		
LAeq conf[dB]		77.8 (7.1)	83.3 (5.9)	76.8 (5.7)	74.7 (4.8)	73.6 (4.4)		
LCpkmax conf[dB]			115.7 (6.7)					
Noise Type	Constant	Cyclic	Fluctuating ...	Fluctuating	Fluctuating	Fluctuating	Constant	C...
Meas.type	Profile	Profile	Profile	Profile	Profile	Profile	Profile	C...
Meas. in'	1	1	1	1	1	5	1	1
Meas.type	Total Exp.	Partial Exp. ...	Worst condi...	Worst condi...	Total Exp.	Partial Exp.		
Impulsive Index			10.3					
Otoloxic Substances								
Hand Arm Vibrations								
Whole Body Vibrat...								
Acoustic alarms								
Notes								
Conformity	Nessuna	Si	Si	Si	Si	Si	Si	Si

Confidence Lev. 95% 80dB < LAeq < 85dB - 135dB < Lpkmax < 1 85dB < LAeq < 87dB - 137dB < Lpkmax < 1 LAeq < 87dB - Lpkmax < 140dB



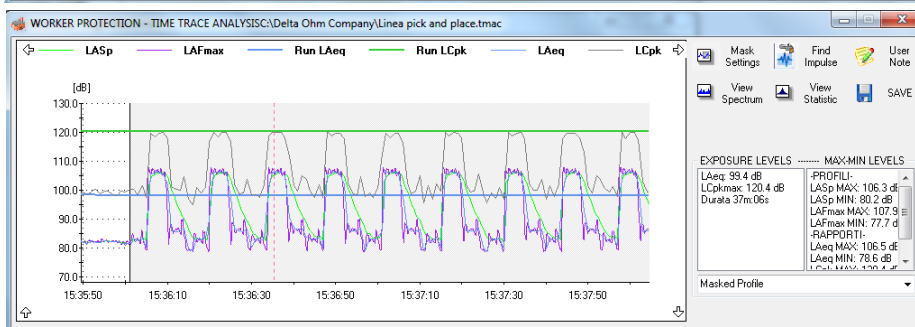
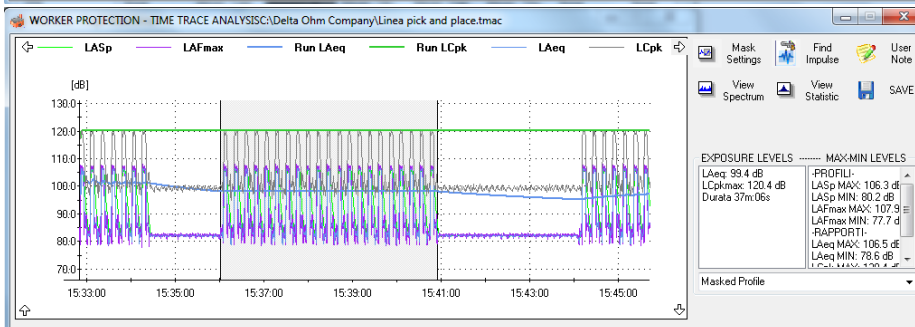
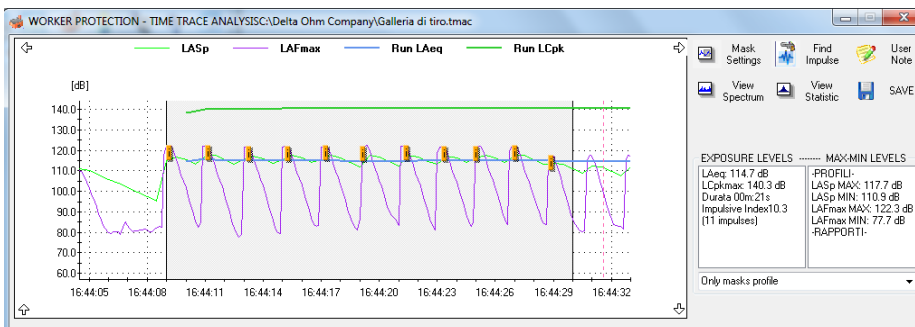
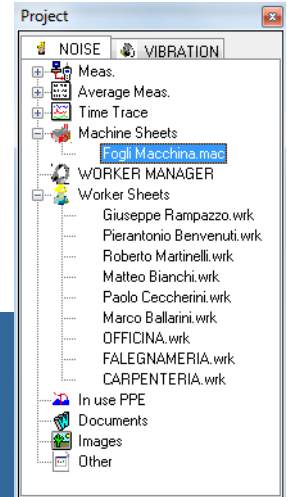
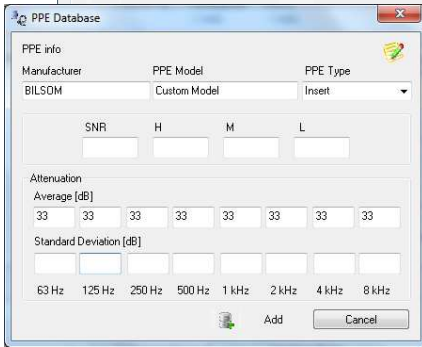
PPE Management

- ◆ Real time attenuation display (PPE choice auxiliary)
- ◆ Customizable PPE
- ◆ PPE efficiency
- ◆ Double PPE management
- ◆ Wide database included
- ◆ Calculation methods SNR, OBM, HML (impulse)

MEASUREMENT UNCERTAINTY: measurement data are displayed including extended uncertainty and customizable coverage factor. The extended uncertainty includes instrument, positioning and sampling uncertainties according to ISO9612/11 standard

PROJECT data organization with all-in one tree structure.

Direct access to significative data with a simple click. Possibility to include Word documents and pictures in the project for comprehensive data reporting. Integrated Noise and Vibration data management



MEASURE Management

Noise Studio integrates time profile data post-processing in the NS1 Workers protection module with multiple masking function on time profiles. This function allows to exclude from calculation unwanted noise events. NS1 module allows also automatic identification of impulse noise and its characteristics (cyclic, stationary, fluctuating).

Distributor

Language: English, Italian

Software compatibility: Win98, 2000, Vista, XP, Win7 (32-64), Win8