



The Data Explorer software for Windows PC is a free download for users that has a powerful data processor for easy and fast analysis of sound level measurement data.

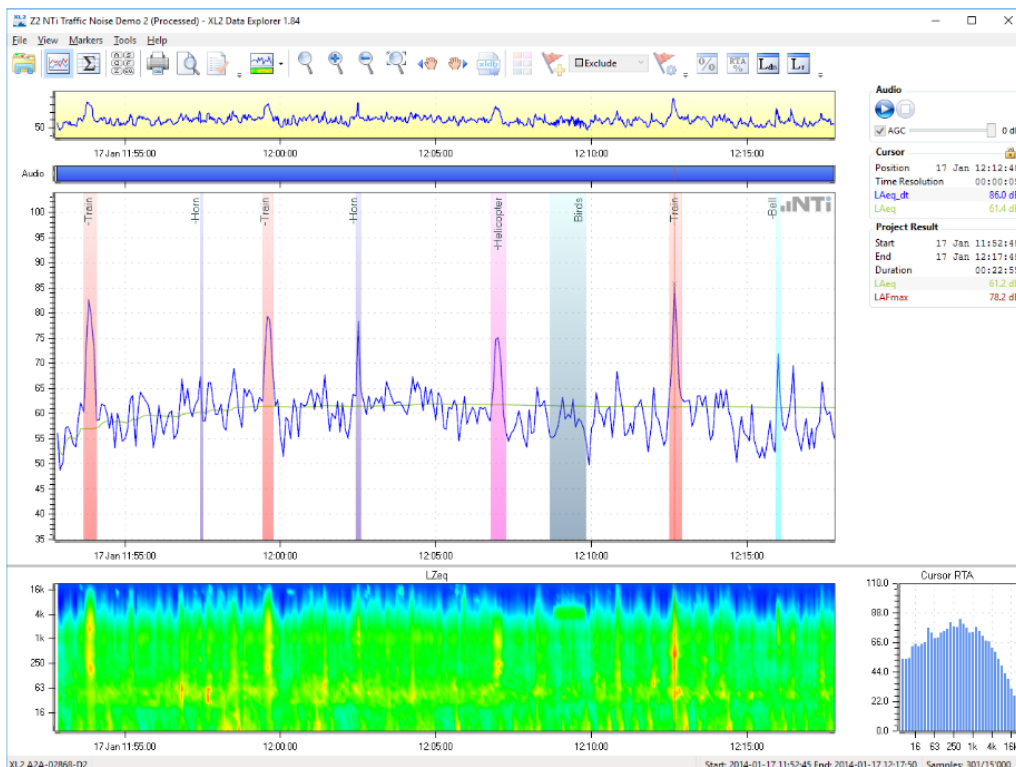
Note that to transfer files from the XL2 sound level meter to the Data Explorer PC software the 25-638 NTI DATA EXPLORER firmware option must be purchased and enabled. Full software functionality enabled when 25-623 NTI EXTENDED ACOUSTIC PACK OPTION firmware option for XL2 analyser is also purchased and enabled.

Once files are transferred via USB from the XL2 sound level meter to the Data Explorer PC software numerous features allow the user to visualize, analyse and control millions of data points. The Data Explorer software is particularly suited to acoustic consultants and noise measurement professionals. It provides a convenient way to view and manage your data with the ability to quickly create customized reports.

- Overview of Features:
- Data visualization
 - Fast zoom and pan of graph
 - Audio playback synchronized to graph
 - Markers with on-the-fly calculation
 - Automated tonal and impulsive marker generation
 - Percentile levels Ln calculation
 - Rating level Lr calculation
 - Customized reporting

Level View with Audio Playback

The chart view shows the logged levels, audio player, spectrogram and frequency spectrum. Mark areas of interest in the graph with a text description and eliminate unwanted noise sources from your results using "Exclude Markers". The marked areas are summed and appear in your report.



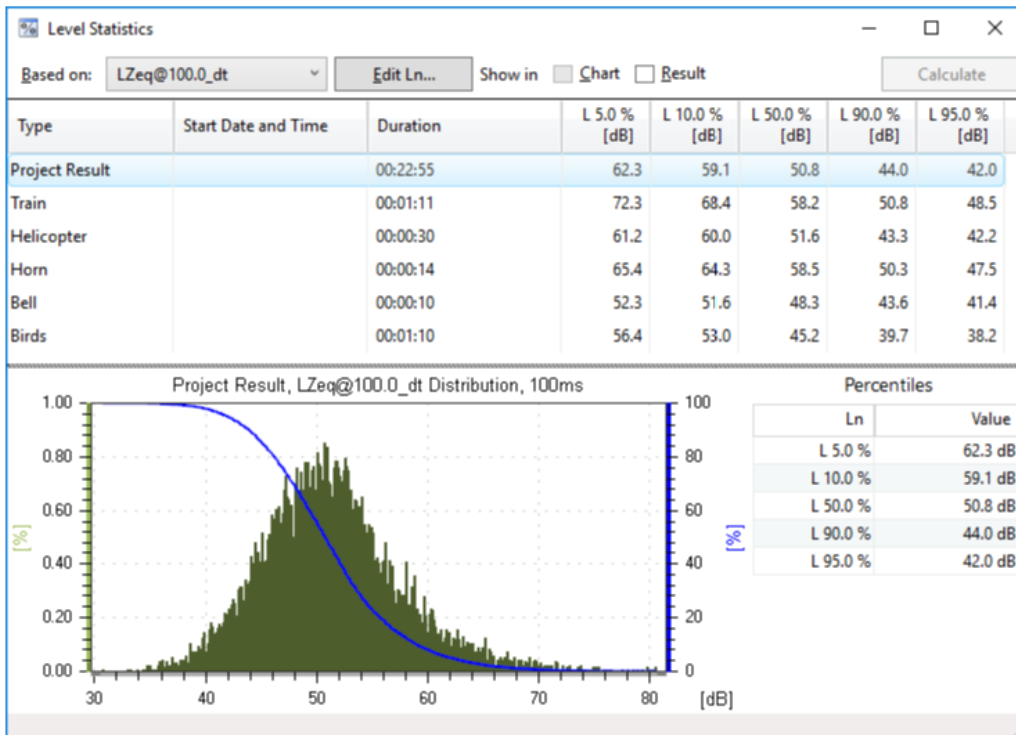
Flexible Data Analysis

A drop-down menu allows you to select the individual levels displayed in the chart. Select one or more, or a range of one-third octave bands for display against time. The fast zoom and pan response over the entire data log period allows for quick data analysis even with very large data sets. Audio recordings are time-aligned to the graphs. Listen to the recordings for a more objective analysis of the noise sources with manual or automatic gain control.



Level Statistics

The software provides a detailed statistical analysis of the logged sound level measurement data. The percentiles can be calculated for wide band levels as well as 1/1 and 1/3 octave band levels. Data Explorer calculates the level statistics of the complete measurement or marked time periods as part of the post-measurement analysis. Excluded periods are considered.



Tonality and Impulsiveness Detection

Generate automated markers based on levels, tones, impulses or time periods in accordance with the ISO 1996:2-2017, BS 4142:2014, DM 16 marzo 1998 and other standards. Each marked period may be exported into a new project for further evaluation by third parties.

Automatic Marker Generator

Marking Method

Level

Pure Tone

Impulsive Sound

Time

Parameters

Calculation: by:

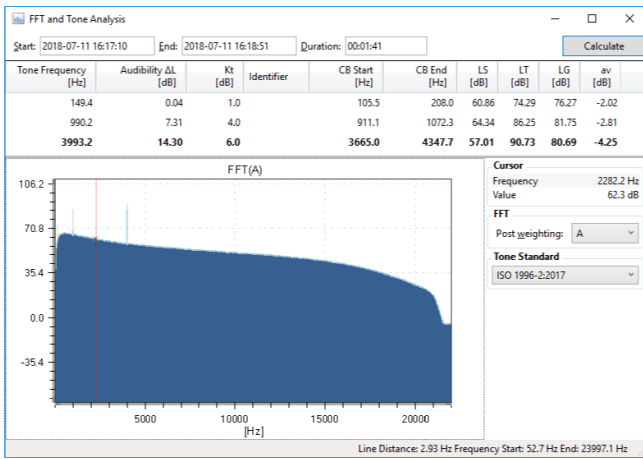
Difference [dB]: for [s]:

First Band: Last Band:

Add Markers

Type:

Delete existing markers of selected type before adding



Calculate the FFT based on a recorded audio file for an objective audible assessment of tones in noise in accordance with the engineering methods described in ISO 1996:2-2017, DIN 45681 and BS 4142:2014.

Rating Level

Data Explorer calculates the rating level Lr with automated penalties for tone, impulsiveness and nighttime in accordance with the BS4142, DIN 45645, and the Italian DM 16 marzo 1998 standards. The day-night levels Lden, Lden, Ldn, Lday, Levening, Lnight are also available.

Rating Level

Periods

Name	Day of Week	From	To	Time Interval
Day	Monday-Sunday	07:00:00	23:00:00	60'
Night	Monday-Sunday	23:00:00	07:00:00	15'

Marker based Correction

Marker Type	Penalty
<input type="checkbox"/> Tone	6.0 dB
<input type="checkbox"/> Impulse	4.0 dB

Time Interval based Correction

Marker Penalty:

Counter, Duration:

Rating Level Calculation

Name	Start Date and Time	Duration	L _{Aeq} [dB]	Markers Penalty	Impulse Penalty	L _r [dB]	Impulse Counter	Impulse Duration
Day	Mi, 26 Feb 18:00:00	00:59:20	33.6	0.0	5.1	38.8	14	00:00:22
Day	Mi, 26 Feb 19:00:00	01:00:00	32.8	0.0	4.0	36.8	6	00:00:07
Day	Mi, 26 Feb 20:00:00	01:00:00	31.6	1.5	1.4	34.5	4	00:00:05
Day	Mi, 26 Feb 21:00:00	01:00:00	31.6	1.1	1.5	34.2	5	00:00:05
Day	Mi, 26 Feb 22:00:00	01:00:00	31.5	1.4	1.3	34.3	4	00:00:06
Night	Mi, 26 Feb 23:00:00	00:15:00	30.8	0.0	0.5	31.3	0	00:00:00
Night	Mi, 26 Feb 23:15:00	00:15:00	32.2	4.6	1.9	38.6	2	00:00:03
Night	Mi, 26 Feb 23:30:00	00:11:37	32.0	4.5	3.8	40.4	1	00:00:01

Z2 NTI Traffic Noise Demo 2 (Processed) - XL2 Data Explorer 1.84

File View Markers Tools Help

Results

Type	Start Date and Time	Duration	L _{Aeq} [dB]	L _A F _{max} [dB]
Recorded		00:25:00	66.9	89.0
-Train (3)		00:01:11	78.3	89.0
-Train	2014-01-17 11:53:37	00:00:26	77.8	84.5
-Train	2014-01-17 11:59:25	00:00:20	76.6	81.9
-Train	2014-01-17 12:12:30	00:00:25	79.6	89.0
-Helicopter (1)		00:00:30	71.3	79.7
-Horn (2)		00:00:14	74.4	88.4
-Bell (1)		00:00:10	69.3	79.1
Project Result		00:22:55	61.2	78.2

Markers

Type	Start Date and Time	Duration	L _{Aeq} [dB]	L _A F _{max} [dB]
Birds (1)		00:01:10	59.3	69.1

Audit Intervals

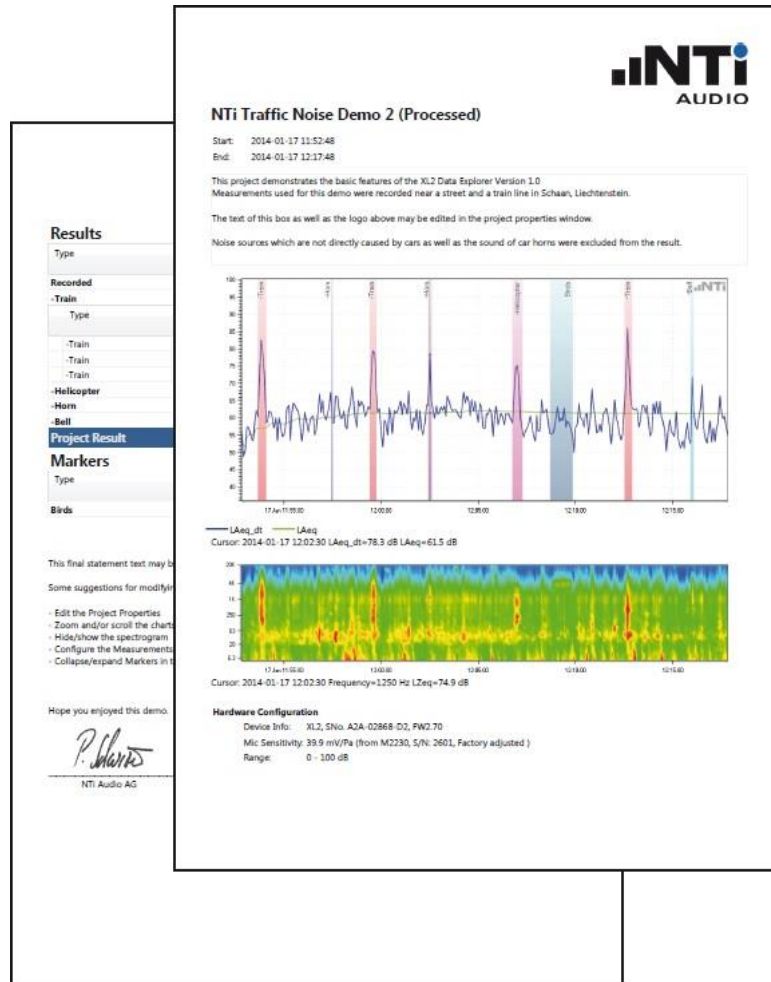
Type	Start Date and Time	Duration	L _{Aeq} [dB]	L _A F _{max} [dB]
5'	2014-01-17 11:50:00	00:01:46	58.2	65.2
5'	2014-01-17 11:55:00	00:04:36	62.2	72.6
5'	2014-01-17 12:00:00	00:04:50	62.5	72.4
5'	2014-01-17 12:05:00	00:04:30	59.9	69.5
5'	2014-01-17 12:10:00	00:04:35	60.9	73.4
5'	2014-01-17 12:15:00	00:02:38	59.7	78.2

Audit Interval Levels

The tabular representation shows all results in a structured and intuitive way. It lists the marked periods and the final result for direct export to Excel. Additionally, Data Explorer divides the noise level data in audit intervals with selectable length of 5, 10, 15, 30, or 60 minutes.

Measurement Report

Complete your professional reports with customized titles and comments. The XL2 Data Explorer automatically adds relevant header data such as the measurement date, calibration information, instrument setup etc., and compiles a tailored report. Simply add your own company logo.



Requirements

XL2 sound level meter with firmware V3.24 or higher with 25-638 NTI DATA EXPLORER firmware option purchased and enabled.
Full software functionality enabled when 25-623 NTI EXTENDED ACOUSTIC PACK OPTION firmware option for XL2 analyser is also purchased and enabled.

Host computer with Windows Vista, 7, 8.x, 10, 11 or higher is required with NTi Data Explorer software installed.

Host computer software installer with demo data is available from the Canford Data Explorer product resources:
https://www.canford.co.uk/Products/2002086/25-638_NTi-DATA-EXPLORER-OPTION-Firmware-for-XL2-Analyser-installation-version

.....or from NTi webpage:
<https://www.nti-audio.com/en/products/software/data-explorer>

Data Explorer PC Windows software can then be installed on an unlimited number of computers in order to analyse imported data providing consultants/users with the freedom to distribute their measurement projects among team members and clients..

NTi Audio Part: 600 000 430