New Features in NorReview version 5.0

The new upgraded NorReview v5.0 has got the following new features compared with the previous v4.0 release:

'Step-line' graph style feature in L(t) Views

In the L(t) View Axis Properties dialogue box there is a new selection within the Graph style box. In addition to the previous styles 'High/Low' and 'Line', a new feature called 'Step-line' has been added. This new style is similar to the 'Line' style, but it always drawn the lines between two measurement points as a horizontal line and then an straight vertical line.
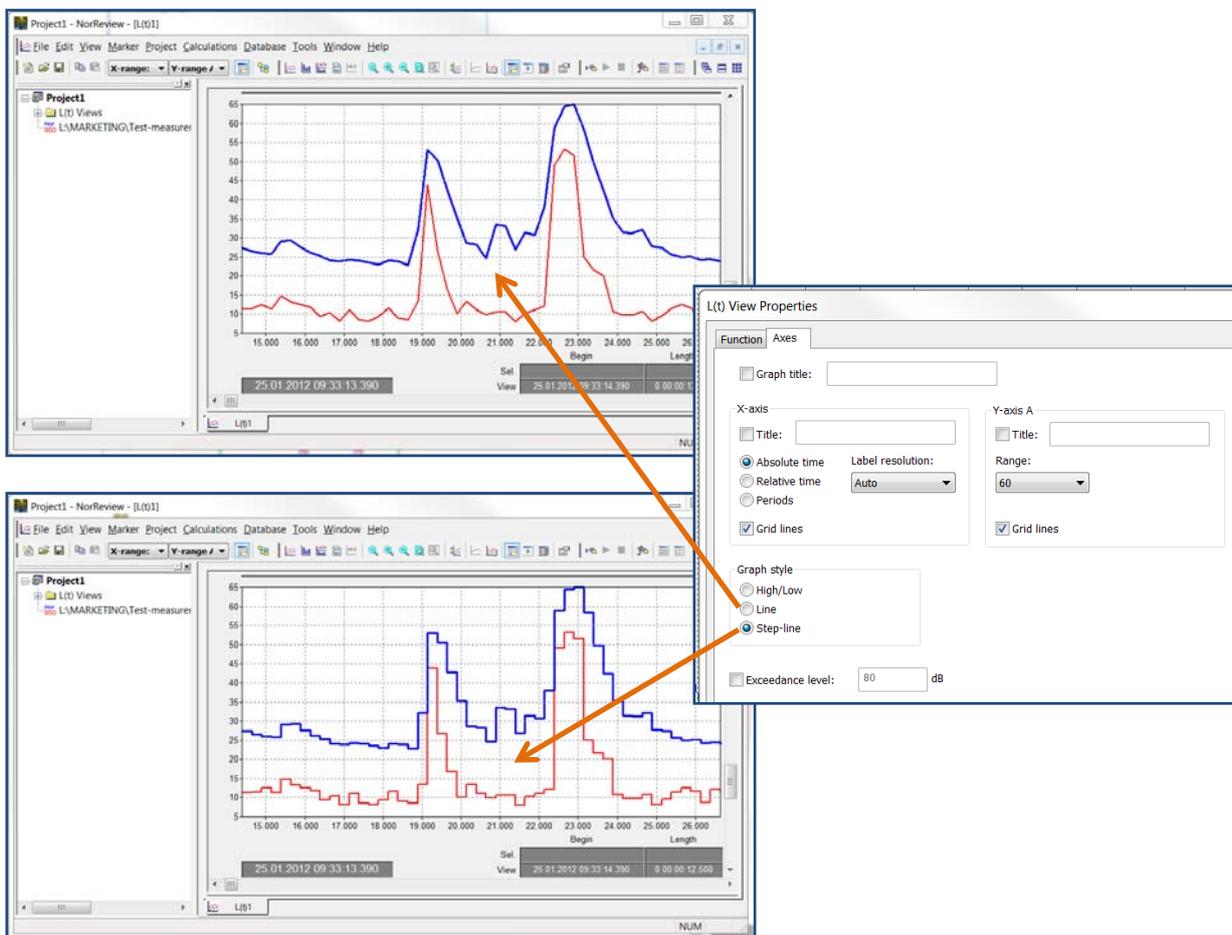

Importing Nor850 measurement files

The version 5.x of NorReview is prepared for reading-in measurement files from Nor850 general mode multichannel measurements. The feature also supports recording files that are taken during the Nor850 measurements. By browsing onto the Nor850 measurement directory header, the entire set of all measurement channels are imported. The desired channels and functions to be viewed are selected from the L(t) View Function Properties dialogue box where the data are split between Global measurement files and Profile measurement files.
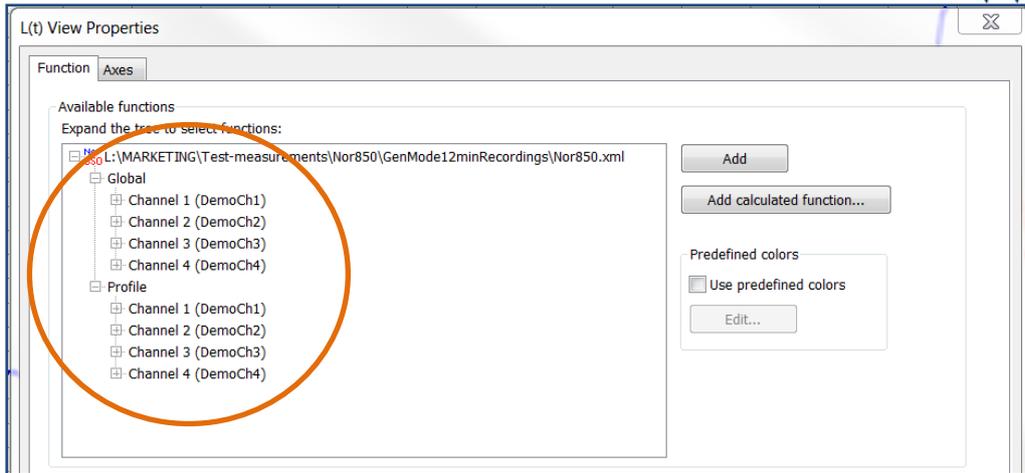
Importing .txt files with ASCII characters as data source

For viewing other kind of measurement data (such as weather station data, old measurement data etc), a new feature for importing .txt files is included. The .txt file must be generated in accordance with a pre-defined format and using Tab-delimited ASCII data. This feature expands the possible use of NorReview as the imported ASCII data also can used with the existing event and calculation features.
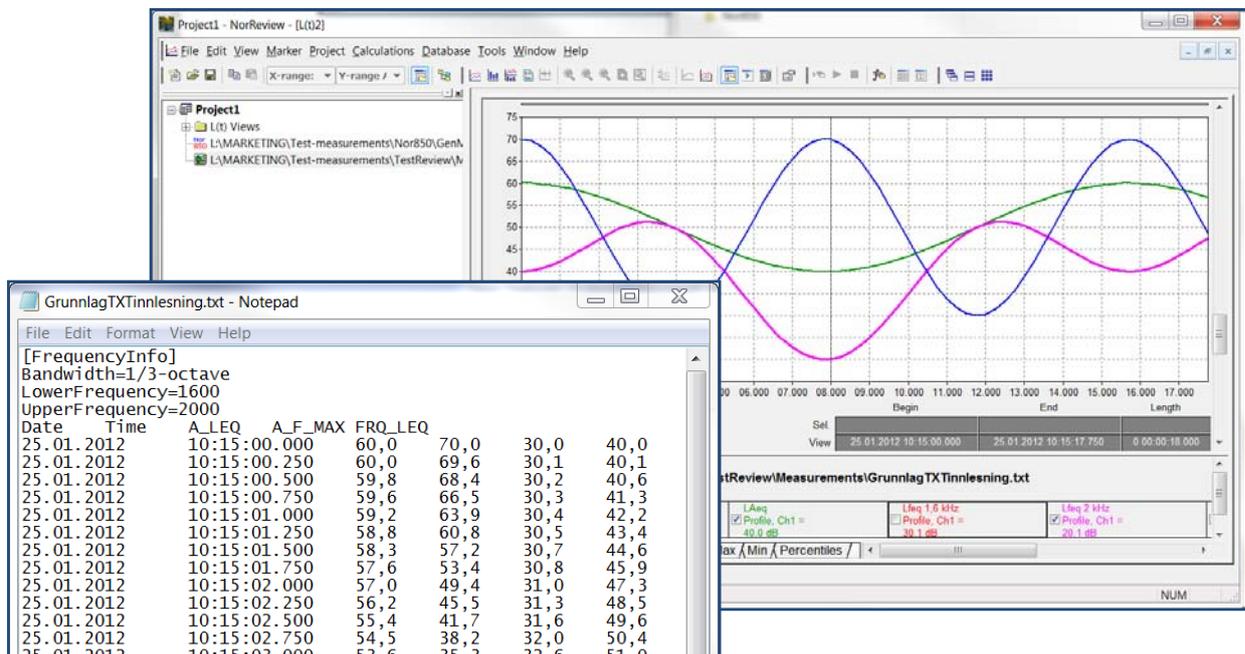
Single markers available from Marker Bar list

In the Marker Bar, the Marker Properties Dialogue Box now include the choice between 'Single point' or 'Toggle' markers. Hence, NorReview users may insert 'Single' markers and not only 'Toggle' markers from the Marker Bar entry.
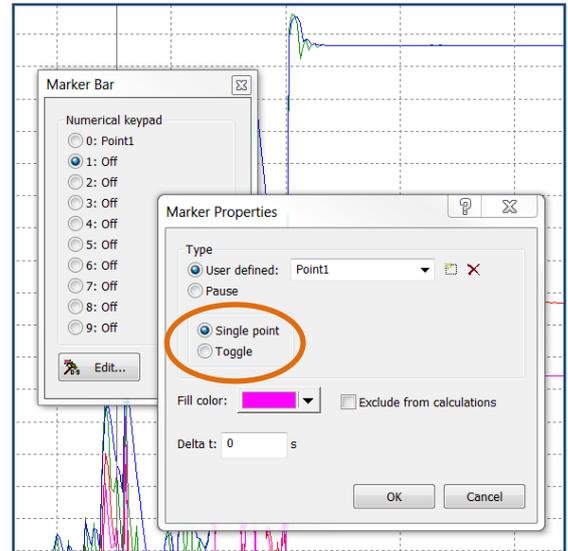
Marker entry to multiple data sources

Inserting markers for multiple data sources is now possible. The user must then activate the marker display of those data sources that shall get the new marker inserted before the new marker is entered. The new marker will be entered individually to all activated data sources, hence for three sources the insertion of a new marker will automatically produce three new markers with exact the same position along the time axis.
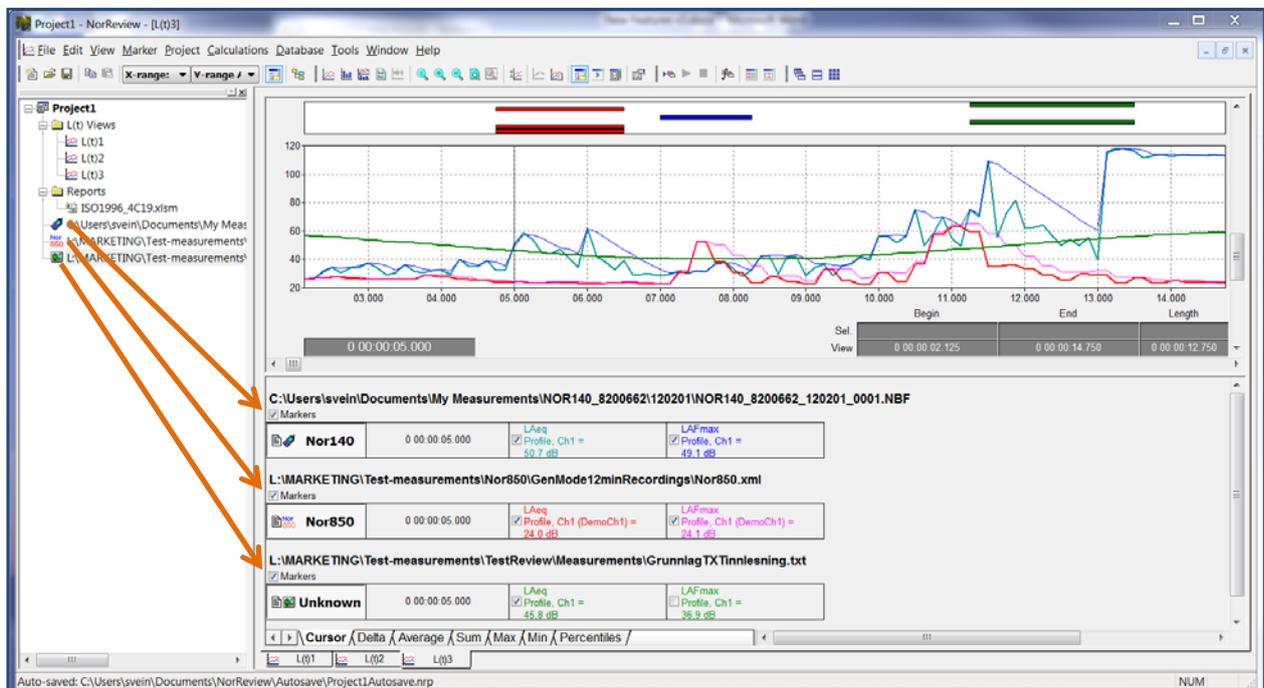
**Marker entry in 'QuickView' displays**

Inserting new markers when viewing measurement data from a database in the 'QuickView' display screen is now possible using the Marker Bar entry feature. Hence, even for noise monitoring applications, the online insertion of markers have become possible.

Single Marker Calculations within Marker Administration Window

Calculations made in the Marker Administration window now allow calculations even on 'Single point' markers. Hence, the value of a maximum position or the value of each individual segment in the Leq profile may be part of the calculated values. It also means that each 'Single point' marker has a true value for the duration equal the resolution for the profile measurement.

Importing Nor133/Nor136 vibration measurement files

It is now possible to read the Profile data from the Norsonic vibration meters Nor133 or Nor136 equipped with Opt. 3-Long Time. The meters are then capable of logging the parameters down to 1 second resolution in "Long" mode. The resulting .vlt files are first converted with the NorVibConverter program using the "NorReview Export function", upon which the file Nor136.xml can be imported to Nor Review.
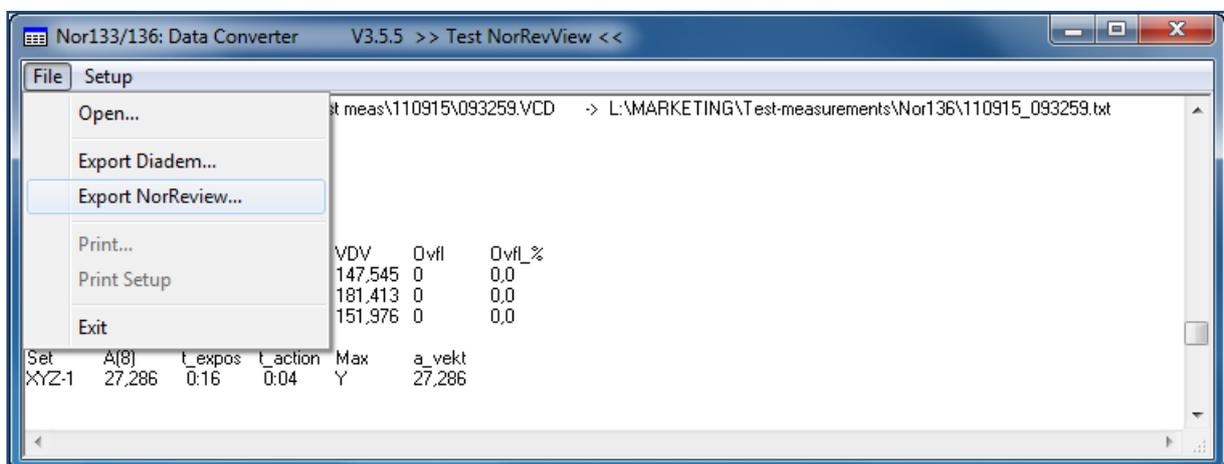
The measurement results for 3 or 6 channels can be displayed in the L(t) graph, the available acceleration- or velocity functions for the different Hand Arm-, Whole Body- and Building standards.

Marker calculations for vibration measurements

Calculations on the main parameters are also possible to get the Global results, Average and Max, over the entire measurement, or on selected parts using Insert Marker and Exclude parts of the measurement as shown below.

L:\MARKETING\Test-measurements\Nor136\110915_093259\Nor136.xml

☑ Markers	15.09.2011 09:33:56.000	a_w (Wh) ☑ Profile, Ch1 (X1) = 1,472 m/s²	a_w (Wh) ☑ Profile, Ch2 (Y1) = 3,714 m/s²	a_w (Wh) ☑ Profile, Ch3 (Z1) = 10,365 m/s²
📋✎ Nor136				
Average	0 00:00:07.000	10,463 m/s²	33,702 m/s²	15,918 m/s²
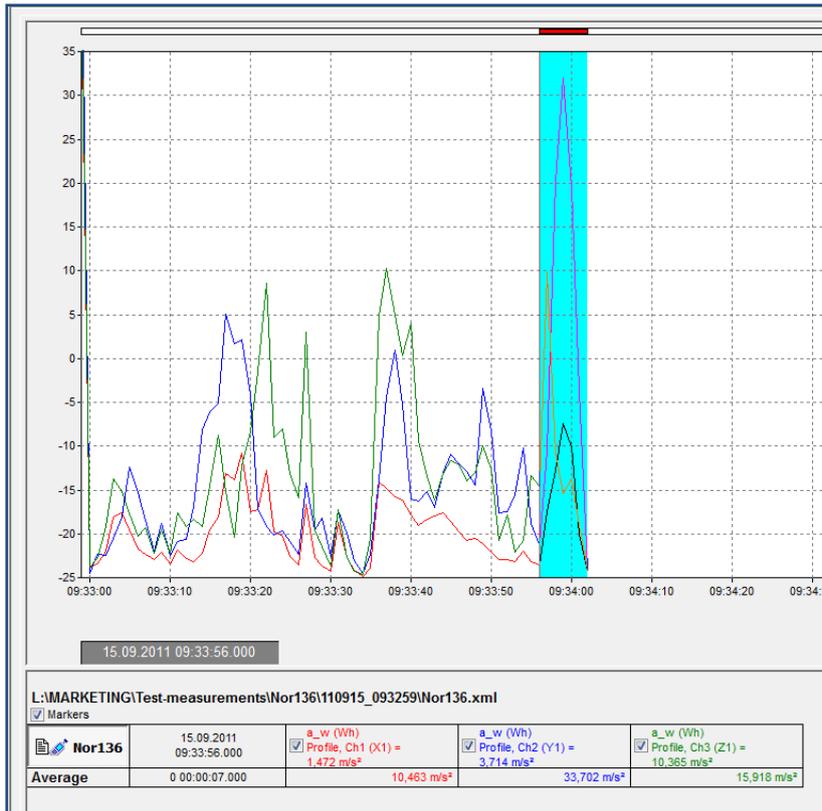
Both the Quick-Calc tabs as well as Marker Management functionality are available for calculations of the vibration data.

Marker	Marker interval (absolute time)	Duration	Notes	Average: a_w (Wh), Profile, Ch1 (m/s²)	Average: a_w (Wh), Profile, Ch2 (m/s²)	Average: a_w (Wh), Profile, Ch3 (m/s²)
✎ L:\MARKETING\Test-measurements\Nor136\11...				10,760 m/s²	18,969 m/s²	16,693 m/s²
Störung		0 00:00:07.000 (1)		10,463 m/s²	33,702 m/s²	15,918 m/s²
Störung	15.09.2011 09:33:56.000 - 15.09.2011 09:34:02.000	0 00:00:07.000		10,463 m/s²	33,702 m/s²	15,918 m/s²

Improved NorReport feature for SPL-based percentiles and vibration data

The NorReport feature for making user-defined excel template reports is enhanced. It now accept SPL-values for calculation of the percentiles as well as vibration data. The vibration parameters are supported in the templates available with NorReport. This means that one can make a "user-defined" template for further vibration analysis. This also means that the marker- & vibration data can be used in customized Excel Macros to do more sophisticated solutions for vibration measurement analysis.

New optional Pure Tone module for ISO 1996-2 calculations

A new optional calculation module based on ISO 1996-2 is available in NorReview version 5. The feature is found in the Calculation menu upon selecting the measurement file to be evaluated for possible pure-tone content.
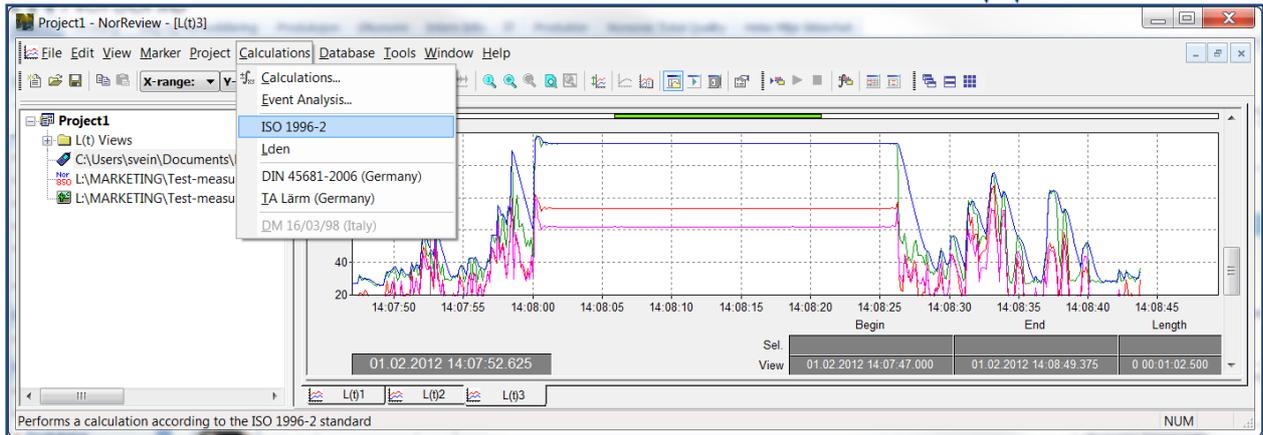
The measurement file must contain a true signal recording. After a few seconds, an excel-report will be produced and automatically saved in the NorReview project tree. The calculated correction values Kt for each pure tone frequency are found in the table below the graph showing the FFT spectrum of the signal.

Pure Tone analysis ISO 1996

Effective analysis bandwidth:	4,39 Hz
Number of averaged spectra:	43
Time window:	Hanning
Time weighting:	Linear
Frequency weighting:	A
Tone seek criterion - Delta:	1,00 dB
Range for linear regression:	0,75*CBW

Spectrum

Frequency [Hz]	3 dB Bandwidth [%]	Lpti [dB]	Kt [dB]	CBW [Hz]	CBW Start [Hz]	CBW End [Hz]	Lpn [dB]	DLta [dB]	Lpt [dB]
1001,95	2,94	169,16	6,00	200,39	901,76	1102,15	93,00	78,98	169,16
2000,98	1,47	100,40	6,00	400,20	1800,88	2201,07	79,63	24,28	100,40
3002,93	,49	111,38	6,00	600,59	2702,64	3303,22	80,94	34,38	111,38
4004,88	,37	89,37	6,00	800,98	3604,39	4405,37	81,62	12,00	89,37
363,28	47,06	87,41	3,60	100,00	313,28	413,28	81,97	7,60	87,41
222,66	17,65	77,27	,19	100,00	172,66	272,66	75,13	4,19	77,27
5006,84	,59	73,98	,00	1001,37	4506,15	5507,52	82,28	-3,80	73,98
7007,81	,21	73,69	,00	1401,56	6307,03	7708,59	82,65	-4,10	73,69