Sound Insulation Calculation Software **NorBuild**

Type Nor1028

NorBuild is a program for the calculation of building acoustic indices as set out in National and International standards.

Features:

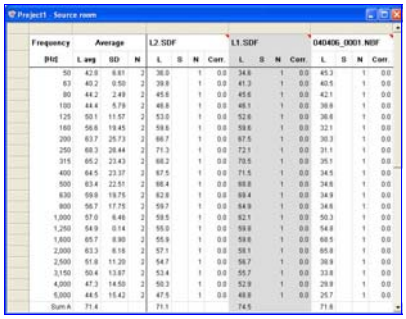
- Sound insulation calculation software compatible with Windows 2000 and XP
- Implements a wide range of National and International standards; e.g. ISO 140 / 717, ÖNORM, SIA 181, etc.
- Calculation of spectrum adaption terms C, C_{tr} and C_I
- Direct calculation of R'_w, $R'_{9,w}$, D_{nTw}, L'_{nw}, L'_{nTw}, etc.
- Field and laboratory measurement protocols supported
- Air and structure borne insulation and absorption indices calculated
- Measurement data may be transferred directly from instruments via NorXfer (Nor110, 118, 843, 121), from files (Nor840, CtrlBuild, NorSic) or input manually
- Data editing and selective averaging of the stored measurement data
- Graphical and numerical display of the results
- Multiple display of the results on the same diagram to aid comparison
- User friendly presentation of results with direct print out of the standardised report forms
- Export of the entire project to Excel for user-specific formatting (inserting company logo, changing the layout etc.)

Data Import

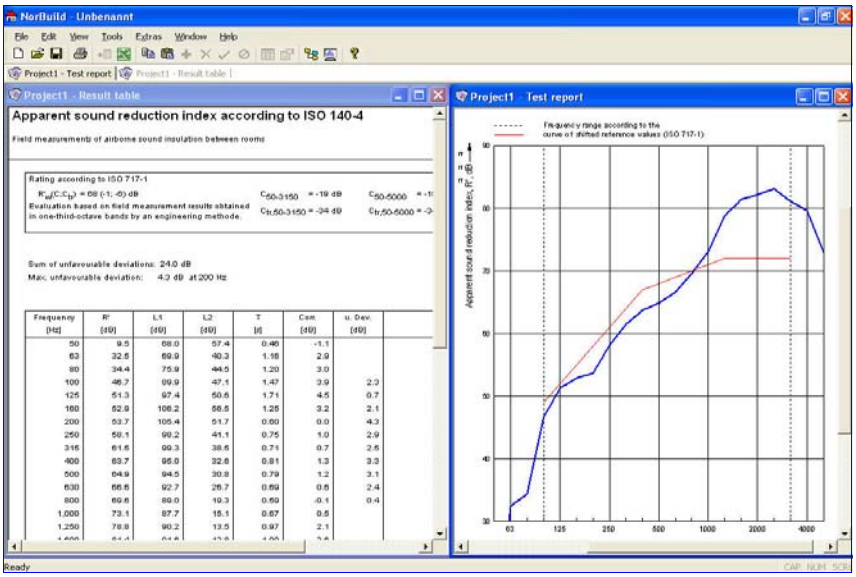
The NorBuild program accepts input data from a wide range of sources. Measurement files can either be read in per drag & drop directly from the analyser using the software module NorXfer or can be imported from the hard disk. Measurement data from the control module CtrlBuild can be adopted directly. Additionally data can be keyed-in manually or pasted from the clipboard.

Measurement data is stored in convenient table formats for review prior to processing. Any individual measurement value may be edited or even a complete series excluded from the ensuing averaging process if necessary. All edited data is tagged for subsequent identification and all excluded data may be subsequently reintroduced to the calculations should that be required. This high degree of flexibility allows "what if" scenarios to be run at a later date as an aid to trouble shooting. Within the corresponding measurement tables the averages for source, receive, background and reverberation data are calculated automatically. These are calculated following the standardised protocol and produced complete with standard deviation information. Where necessary the background noise data is used to correct the measured data and a schedule is then produced showing the actions taken as set out in the standards.

NorBuild holds all the raw and processed data in clearly annotated tables.



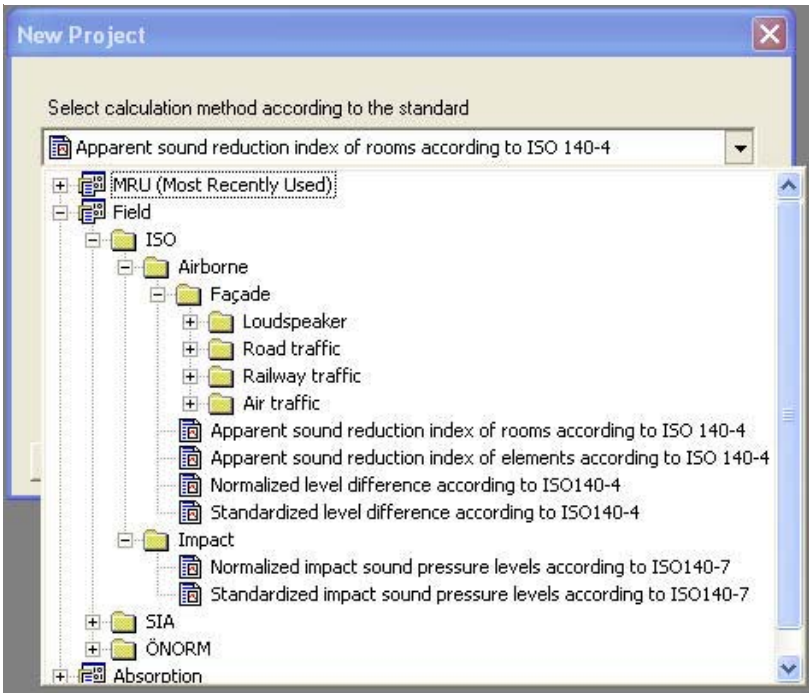
NorBuild produces report ready results in numerical and graphical format as required by -the standards.



Computation of Ratings
Where standards require additional information relating to the dimensions of the room for the correct calculation of the transmission indices details are entered directly into the input fields on the test report. Additionally there are fields for the element, room, object and order description. Thus, detours via extra input menus are spared and both the descriptive details and the presentation of the results are directly present on the test report. All information along with the measurement data is stored in one project file. The stored details about the used measurement instrumentation and its settings meet the requirements of modern quality assurance.
The standards used to describe sound transmission contain a number of different ratings with many different parameters used to describe each situation. NorBuild provides standardized calculation methods for each possible situation. No further settings are necessary once the user has selected a calculation method. For example if the selection "Standardised level difference according to ISO 140-4" is made the program would automatically calculate the value in terms of $D_{nT,w}$ with all the supporting information like the sum of deviations, the maximum deviation and the C-values.

Report Format
The NorBuild program completes all the necessary calculations and will produce a test report ready to print of the sound reduction indices in the format set out in the standard selected. Measurement data from one project can be easily re-used in other projects, for example in order to analyse it using a different evaluation method.
The 'report' option allows exporting the entire NorBuild project to MS-Excel. The use of templates facilitates to create reports with user-specific settings and formats. For example company logos can be inserted and diagram properties or font settings be changed.

When creating a new project you simply select the desired standard according to which the evaluation shall be made. The results will then be automatically displayed in the standardised format.



Automatic Measurement Systems
The NorBuild program forms a key element in the Norsonic automated system for making sound insulation measurements. When used with the companion CtrlBuild program and either the Nor118 or Nor843 Sound Level Analysers a measurement system with a high degree of automation controlling the set up, data collection and processing is realised.

The Nor1516 system even works wireless. This configuration provides a considerable saving in the time taken in both making measurements and producing the final report.

System Requirements
Personal computer running Windows 2000 or Windows XP.
It is possible that NorBuild also runs on older operating systems, however, Norsonic AS recommends using Windows 2000 or Windows XP.

Time limited test licenses are available on request from your local Norsonic distributor.

In order to take account of new developments the information given in this publication may be revised at any time.

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