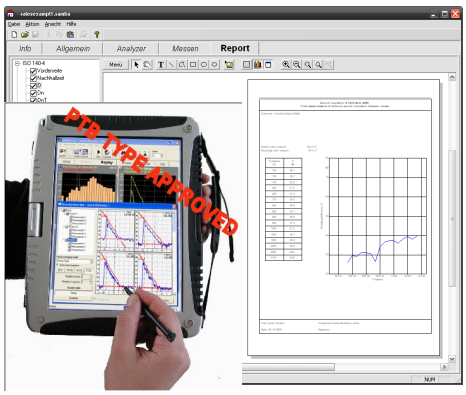
SAMURAI option: BUILDING ACOUSTICS



Field of Application:

The field of building acoustics deals amongst other things with the acoustical properties of rooms, dividing walls, structural elements and building materials. The determination of airborne and impact sound insulation is of particular importance.

Description:

The SAMURAI option: BUILDING ACOUSTICS (SAMBA) allows the convenient performance of building acoustics measurements according to the standards listed below. Apart from reverberation time measurements (already included in the basic scope of SAMURAI), this option allows the source, receiving and background noise spectra to be determined. The organization of the rooms and transmission paths together with measurement, analysis and report functions are integrated into a cohesive and clear user interface. The excitation can be performed with noise, impulse or sine sweep signals.

Technical Data

Standards implemented	ISO 140-3,4,5,6,7,8; ISO 717, ISO 354; ISO 3382 and ASTM standards
Measurement range	50 Hz to 5 kHz
Features	• Clear navigation including status display • Management of source/receiving rooms and transmission paths • Management of additional information such as manufacturer, operator, company, address, description, building structure volumes, areas etc. • Selectable frequency ranges (100 ... 3150 Hz or 50 ... 5000 Hz) • Measurement of reverberation time spectra EDT, RT15, RT20, RT30; automatic or manual fitting of linear approximations to level decay curves, backward integration selectable • Averaging of results from selected positions and measurements • Standards integrated: ISO 140-3 (Laboratory measurements, airborne sound insulation of building elements) ISO 140-4 (Field measurements, airborne sound insulation between rooms) ISO 140-5 (Field measurements, airborne sound insulation of facades) ISO 140-6 (Laboratory measurements, impact sound insulation of floors) ISO 140-7 (Field measurements, impact sound insulation of floors) ISO 140-8 (Laboratory measurements, reduction of transmitted impact noise by floor coverings) ISO 140-12 (Laboratory measurements, room-to-room airborne and impact sound insulation) ISO 717-1 (Rating, airborne sound insulation) ISO 717-2 (Rating, impact sound insulation) ISO 3382 (Measurements, reverberation time of rooms) DIN 4109 (Requirements and testing, sound insulation in buildings) DIN 4109-10 (Recommendations, enhanced sound insulation in apartments) • Usage of internal or external signal generators • Flexible creation of measurement reports according to standards • Export and printing of the results

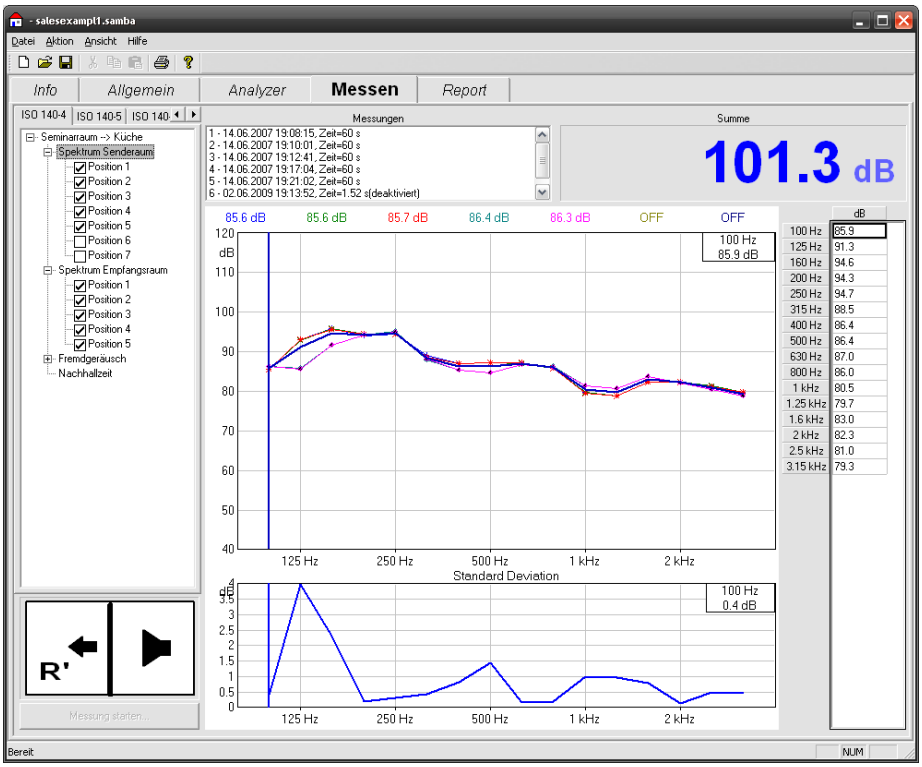


Figure 1: Example measurement according to ISO 140-4

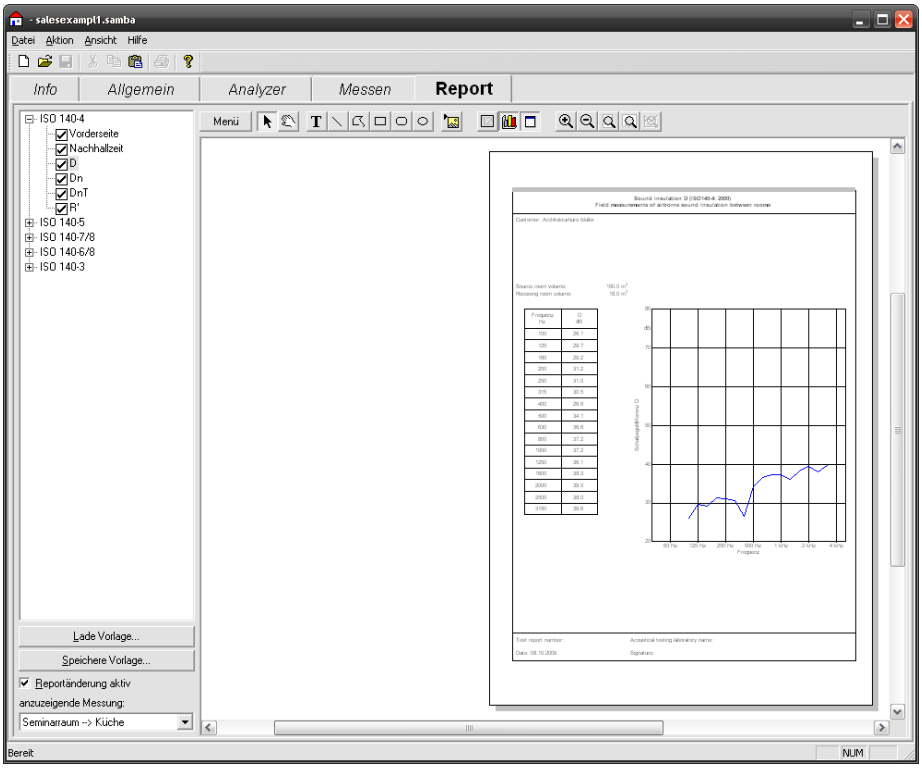


Figure 2: Report according to ISO 140-4