

# Basic Data Protocol

Basic Data Protocol  
to estimate room acoustics

Company	
Address	
Telephone	Fax
Contact	

General information:

In order to have a basis for an accurate assessment of a room's acoustic characteristics one needs an expertise based on measurements. Preparing such an expertise is a complex technical process and can be time and cost-intensive and is often completely out of proportion to the room acoustic measures which result.

In response to this situation, Hanno has developed a computer simulation which can calculate the acoustic characteristics in a simplified fashion from a description of the room.

Any such calculation can only be as good as its basic data.  
Please take some time when you fill in the basic data protocol.

First of all here are some questions on assessing the situation

What is the goal of the sound proofing?	Yes	No
Improve the general acoustic climate of the room (reduce echo).		
Reduce noise at a workplace directly next to the noise source		
Reduce the noise in workplaces in the vicinity of the noise source		
Provide better protection to persons in adjacent rooms to the noise.		
Provide persons in neighbouring buildings with better protection from noise.		

Have any noise measurements been performed in the past (your own, professional associations). (If yes, please supply a copy of the results)		
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How would you describe the noise?	Yes	No
Is the noise level fairly uniform.		
Does the noise fluctuate wildly.		
Is the noise level dominated by pulses (e.g. hammer noises)		

Does the noise comprise more	high pitch sounds		
	low pitch sounds		
	mixed pitch sounds		
	very varied pitch sounds		

What source(s) does the noise have?
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Room dimensions (please remember to add the height)

Length

Width

Height



Please sketch the room or add a scale drawing.  
Please mark in noise source(s) and workplace(s).

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How many persons are in the room on average?

Description of room surfaces.

Sound travels through rooms and reflects on all edges and surfaces of the room and objects within it, therefore it is important to describe the room and its contents as precisely as possible. In principle, even the smallest edge/surface influences sound propagation. In order to keep the effort within reason, we have limited ourselves to the main areas in a room.

Example of surface description			
Description of wall surface no..... 3.... (marked as per sketch/layout)			
Total area	48 m <sup>2</sup>		
		Smooth	Rough
of which .... 34 .. m <sup>2</sup> ... window .....	of .... glass..... surface	x	
Of which ... 12 .. m <sup>2</sup> ... trapezoidal sheet steel..	of... metal.. surface...painted...	x	
Of which ... 2 ... m <sup>2</sup> ... door... of... wood... surface... painted		x	

Please fill in (and add notes if necessary)

Description of ceiling surface				Total area				m <sup>2</sup>	
								smooth	rough
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		

Description of floor area				Total area				m <sup>2</sup>	
								smooth	rough
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		

Notes:



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Description of wall surface no.				Total area			m <sup>2</sup>		
								smooth	rough
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		

Description of wall surface no.				Total area			m <sup>2</sup>		
								smooth	rough
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		

Description of wall surface no.				Total area			m <sup>2</sup>		
								smooth	rough
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
of which	.....	m <sup>2</sup>	.....	of	.....	surface	.....		
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