

Sarooma

Room Acoustics Software



The screenshot shows the Sarooma software interface. On the left, there's a sidebar with room selection options like 'Room 1: Office', 'Room 2: Open Office', and 'Room 3: Meeting Room'. The main area features a graph of Reverberation Time T (s) versus Frequency [Hz] (125, 250, 500, 1k, 2k, 4k). Below the graph, there are two lines: a red line for 'Description of room during measurement' and a blue line for 'Design with additional abs. a. num.'. The right sidebar contains a 'Description' field, a 'Standard' dropdown set to 'ASR A3.7 (May 2018)', and a 'Usage' dropdown set to 'Multi-person or open-plan office with measurement of reach. time in an empty room'. Below this, room parameters are listed: Room shape: Rectangular, Length l: 12.0 m, Width w: 7.0 m, Height h: 3.5 m, Volume: 294.0 m³. A table shows Measured Reverberation Time T (s) for frequencies 125 Hz, 250 Hz, 500 Hz, 1 kHz, 2 kHz, and 4 kHz, with values 2.13, 1.78, 1.56, 1.43, 1.30, and 1.10 respectively. The bottom section shows 'Additional furniture for: Workplaces (office)', 'Additional absorbers: Knuf AMF', and 'Material: Mineral ceiling with acoustic tissue facing THERMATX Alpha, TCH = 200 mm'. A diagram of a room cross-section is also visible.

Optimized for perfect room acoustic design

The Sarooma Room Acoustics DesktopApp is tailored to the needs of professional acousticians, designers and planners. It offers many functions and numerous possibilities for an individualized acoustical room concept. It provides acoustic calculations based on Sabine's formula for the diffuse sound field and checks if requirements from a user-chosen standard and room usage are met. All calculations are performed in octaves in the frequency range from 125 Hz to 4 kHz. The required target values are derived depending on the chosen regulatory standard. In addition to the reverberation time, further target parameters can be calculated, such as the total equivalent absorption area in the room, or the noise reduction by sound-absorbing measures. The current version offers a German and English user interface and allows planning according to the following standards:

DIN 18041
VDI 2569
ASR 3.7
ÖNORM B 8115-3
Building Bulletin 93
Sarooma Recommendations for Residential Spaces (RRS)
Arrêté du 25 avril 2003
NF S 31-080
PN-B-02151-4
CSN 73 0527

Further standards are added regularly.

Room acoustics

Projects allow a structured work environment

Individual rooms can be grouped into projects and stored in a single file. Rooms can be copied, also between projects, thus making the creation of starting points and variants easy.

Variable planning strategies

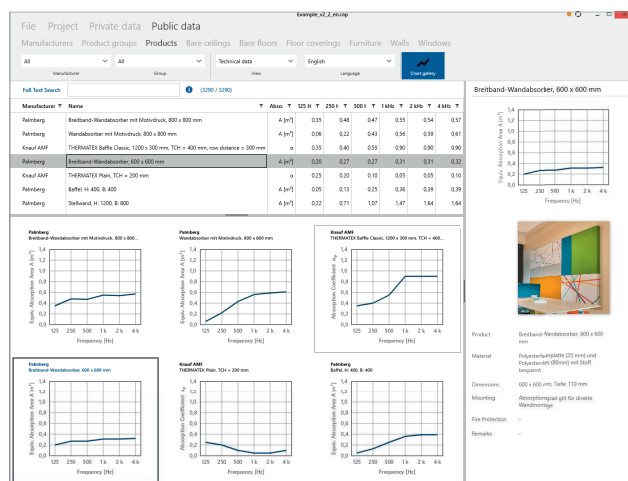
Users can plan rooms based on geometry alone or on a mixture of architectural design and measured reverberation times. Reverberation times can be entered or imported from measurement devices made by Norsonic, NTi Audio and Dr. Jordan Design. The results of several series of measurements can be averaged during import. Moreover, we now offer our own measurement app RTMeter for mobile devices.

Rich absorber product database

The DesktopApp contains a constantly updated product database (PublicData) with nearly 4000 up-to-date sound absorbing products from over 40 manufacturers. More than 90 standard or published literature values for building materials (flooring, walls, windows, etc.) and over 40 data sets for various constellations of persons and furnishings are included.

Synced user absorption values

You can add unlimited amounts of your favorite product (PrivateData). If you work in a team, your data is shared within the team, enabling easy collaboration. Our Sarooma-Team-Cloud takes care of data synchronization automatically.



Easy and flexible documentation with the Word Export

Once the planning of a room is finished, the project can be exported to a Word document and edited there. For each room, two tables are created - one with the information about the room, including furniture and absorbers, and a second one with the results of the calculation.

Several user-friendly ways to find your ideal absorber

The Chart Gallery offers a quick overview of the absorption graphs for all (chosen) products in tiles. Filtering, sorting and context menu are available and a Full Text Search further simplifies finding a suitable absorber. Color coding in the Product Select Box is another great way to find matching products in a given situation: For each product, the software calculates if it meets the chosen standards requirements. The product appears in black font if it does, light gray if not, and dark gray if it almost fits the requirements. This enables you to immediately assess which products are suitable under given conditions.

Planning for different occupancy states

In addition to the specifications of the standards, it is possible to have the reverberation time calculated for different occupancy states. For example, one can estimate whether a large seminar room is also suitable for a small audience.

Seamless integration with SoundPLANnoise

There is an interface available to easily transfer product data from the Sarooma Database to the SoundPLANnoise Absorption Library and use it with the sound particle model, for more complicated room geometries.

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