

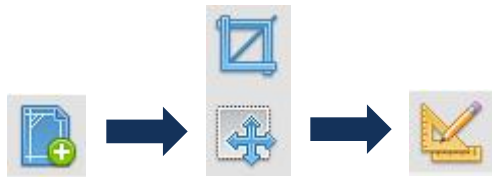
## NOISE MAP CALCULATION IN 3 STEPS

A room's noise map is a particularly useful graphic element for analysis and decision making concerning acoustic treatments to be implemented, but also for presentations and project follow-ups. With *RAP-ONE II*, a noise map is rapidly obtained in only 3 steps:

- Definition of the room's configuration
- Positioning of the noise sources
- Determination of the noise map

### 1) Definition of the room's configuration

The first step consists in importing a file (JPG, PNG, BMP or PDF) that will be used as the background image, making the room's modeling easier. If you want to change the image's position or scale, it can be done during the file importation. A tool is also available to adjust the scale of the model.



*RAP-ONE II* allows to quickly define the configuration of your room using the features available. With a simple click, it is possible to add walls, screens, absorbent panels and fitting areas.



Other functions are available to determine the acoustic properties of the room's surfaces. Note that the program can be used for any room shape, the only requirement being that the ceiling and floor are flat and parallel.

The room plan is traced with straight lines by clicking with the mouse.

To define the acoustic properties of the room's surfaces, a list of predetermined values is integrated into the software. You only have to choose the values corresponding to the type of material you are interested in (concrete, aluminum, brick, wood, etc.).



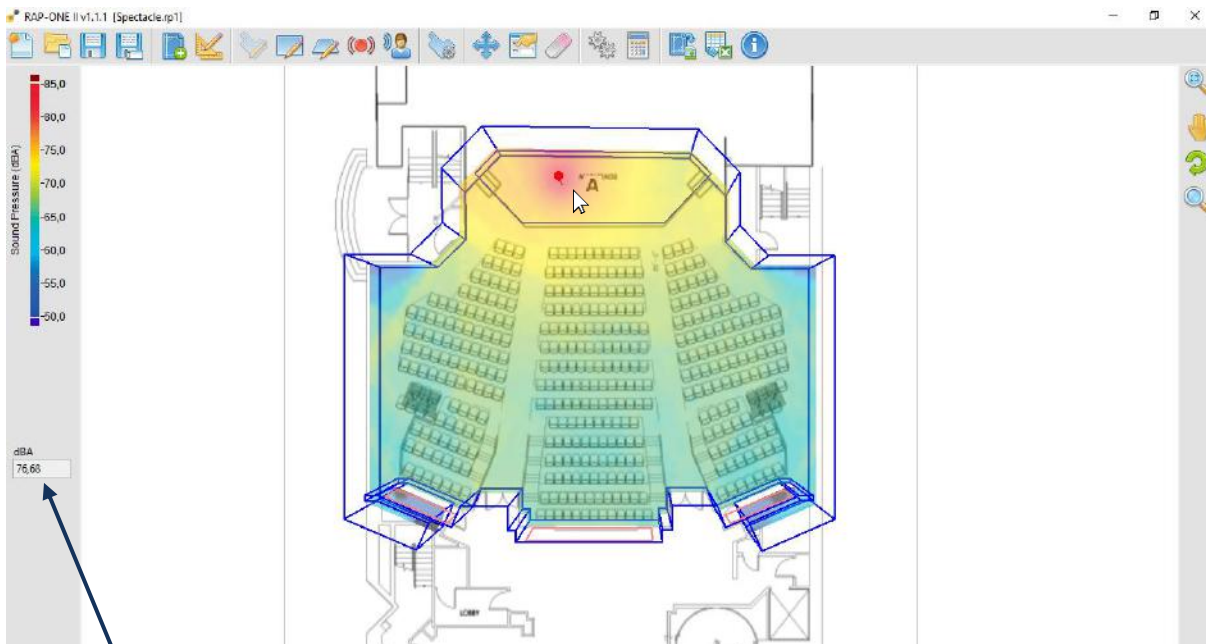
## 2) Positioning of the noise sources

With the source tool, it is easy to add and position noise sources in the room plan. Once this step is done, all that remains is to define their acoustic power. A source's power may be provided by the manufacturer. Otherwise, the software will assist you in evaluating the power using specially designed dialog boxes.



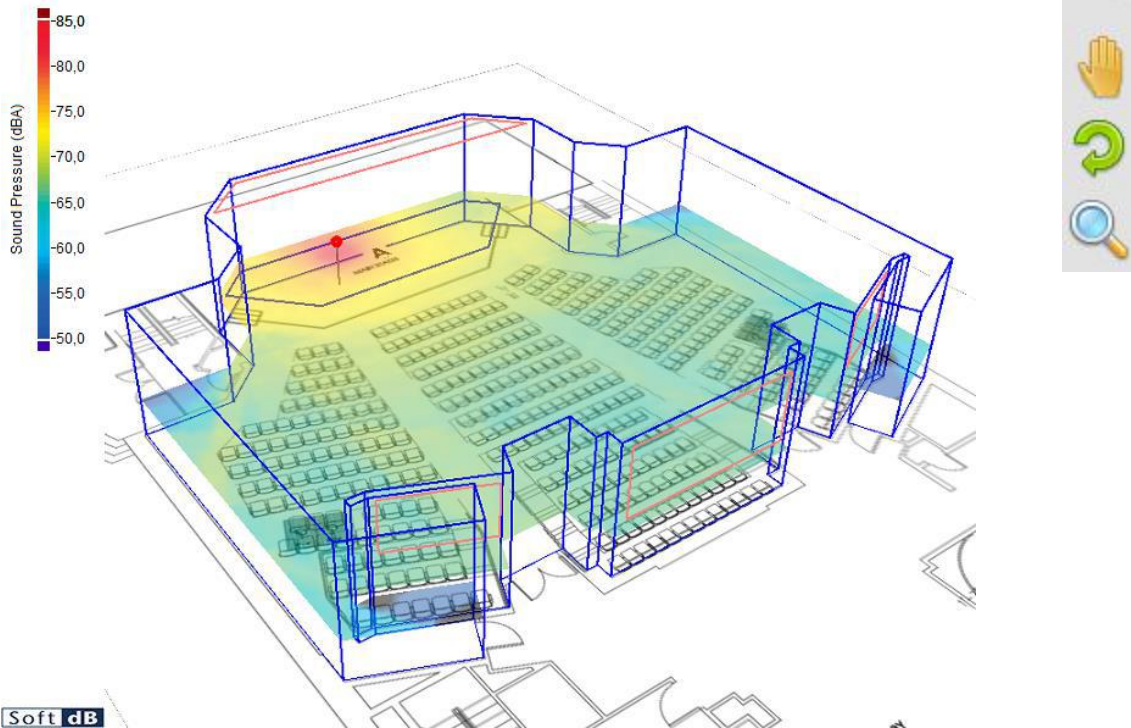
## 3) Determination of the noise map

To obtain the room's noise map: Click on the calculator button. In less than a few minutes, the noise map will appear on screen.



Move your mouse over the noise map to get the exact noise level at where you position the cursor.

You can also view the room in 3D using View tools :



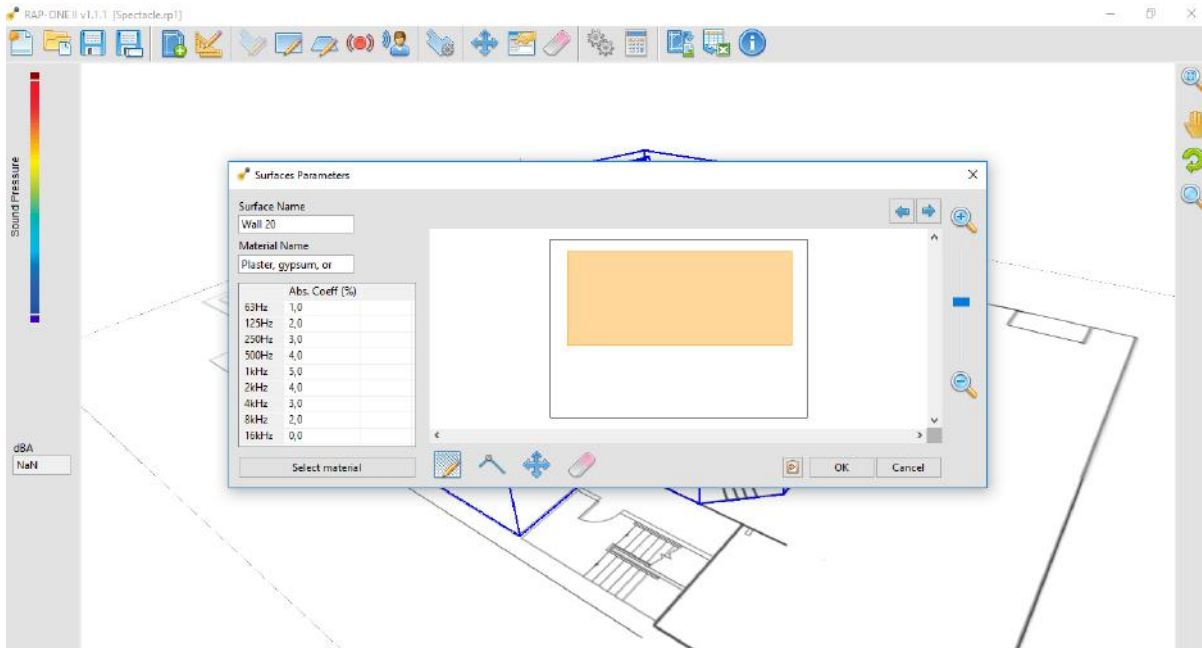
## NOISE CONTROL AND MANAGEMENT TOOL

Too often, noise reduction treatments are applied and do not produce the expected results. With *RAP-ONE II*, these problems are avoided because it allows to know in real time the effectiveness of treatment or a combination of treatments, and this, before their implementation.

These are some of the questions you probably already asked yourself that the software can answer:

- What will be the increase in noise levels if I add another machine?
- What impact will this new machine have on noise levels perceived by workers?
- What will be the noise reduction if a silencer is installed on a vacuum cleaner or if an acoustic treatment is done on the ceiling?
- How can I be sure that my sound reduction approach is structured?

The evaluation of the performance of potential treatments is simple: add the desired acoustic treatments in the room by adding screens using the "barrier" tool, or by double clicking on any surface to open a window that allows you to draw a panel and apply absorbent properties.



The new noise map of this room will present the noise levels obtained with the addition of treatments. The same treatment approach can be applied to the noise sources of the room (e.g. adding a silencer).