Why should audiologists use Soundfiles?

Usually hearing aid fitting is performed in a quiet, clinical environment. This does not allow the client to experience the hearing aid in a complex listening situation, such as environments with reverberation, conversations in traffic, or noisy environments with multiple speakers. The client should be exposed to such situations during counselling sessions in order to understand the benefits of our hearing aid features in real life. The use of sound files is an integral part of the personalization process. Problems in these listening environments must be identified during fitting sessions.

What is SoundStudio?

SoundStudio is a 3D sound application that runs on the fitting PC and utilizes the speaker setup in your clinic. Its sound library has a large selection of virtual sound scenes to simulate common listening situations in the fitting room. Sound scenes are composed of various signals, such as speech, music, sounds from natural and technical sources, and background noise situations.

SoundStudio improves your end-user’s understanding of the benefits of hearing aid features in complex listening situations. End-user satisfaction also increases as a result of personalizing the performance of the devices, especially in the environments that are most challenging for the patient.

When should audiologists use SoundStudio?

Counselling
One of the important purposes of a consultation is to make end-users, relatives or carers aware of a hearing problem. Even if hearing in normal listening situations is not perceived as problematic, it may be a problem in complex listening situations.

SoundStudio can be used to demonstrate complex listening situations in the clinical environment and explain the benefit of an hearing aid in these situations. This helps make the end-user more willing and prepared to try a hearing solution.

Tip:
You can use the following sound scenes to demonstrate complex listening situations: competing dialogues, large business meetings, traffic, and navigation in the car.

First fitting session
During the first fitting, SoundStudio can be used to check the hearing aid in standard listening situations. To test the hearing aid experience in a standard listening situation, choose simple rather than complex sound scenes.

Tip:
In order to prevent the end-user becoming overwhelmed, avoid playing too many different sound scenes in one session. You can use the following sound scenes for the first fitting session: conversation, conversation in traffic, music, breaking glass (to test the hearing aid TNR (Transient Noise Reduction) function).

Installation

SoundStudio is delivered with the Genie/Genie 2 fitting software package and is installed together with Genie/Genie 2. The HCP must provide their confirmation in the installation wizard to allow installation of SoundStudio on the PC.

Note:

SoundStudio cannot be launched from your PC desktop. To use SoundStudio, Genie/Genie 2 fitting software must be installed on your PC.

Before starting the application, please ensure that your sound system is installed and properly connected to the PC. SoundStudio will use the PC’s sound card to play sounds and set the volume. SoundStudio is using its local control and the Windows master volume control remains unchanged when SoundStudio is closed.

Getting started

SoundStudio can be started from Genie/Genie 2 by clicking the SoundStudio icon in the toolbar. The software offers a guided tour to explain all the functionalities when first started.

Follow-up session

The end-user may raise particular issues about the performance of the hearing aid at follow-up appointments. Choose sound scenes that help personalize the performance of the devices in the situations of greatest concern to the patient.

Tip:
Use the Find Scenes function to find suitable scenes.

Hardware / software

SoundStudio is installed on the fitting PC and must be used in connection with hearing aid fitting software. Genie/Genie 2 must be installed on the PC.

Sound equipment

The minimum sound equipment required to use SoundStudio is a stereo sound card and loudspeakers. We recommend using a 5.1 surround sound card and an AV receiver or Home Cinema System with 5 loudspeakers. The better the sound quality of the speakers, the better the reproduction of the sound effects in the scenes. The room should ideally be carpeted or sound treated to reduce reverberation effects. Please also see the system requirements for SoundStudio in the installation guide for your Genie/Genie 2 fitting software package.
Calibration

This step must be performed before using SoundStudio for the first time. The calibration dialogue box appears when SoundStudio is opened for the first time after installation. The dialogue box will guide you through the process step-by-step.

There are two different calibration modes:

1. Manual calibration (if you do not have a sound level meter)
   This mode allows calibration of the output of the sound channels on your PC sound card in relation to the distance to the end-user's ear, so that the sound scene effects are experienced realistically. The overall position of the loud speakers must be adjusted subjectively (by listening and adjusting the position manually).

2. Calibration with sound level meter
   If you have a sound level meter, you can select this mode to calibrate the output for each speaker channel separately, using test signals. Several apps are available for smart phones that provide accurate sound level readings.

Once the calibration is complete, SoundStudio is ready to use.

Using SoundStudio

Selecting and playing sounds from the My Scenes library

The My Scenes library appears when SoundStudio is launched. It includes a selection of sound scenes commonly used in consultation and fitting in the centre of the screen. Simply click on the scene you want to play. Use the controls at the bottom of the screen to pause, rewind, loop and set the loudness, if necessary.

Note:
The Favorites selection will be expanded when you mark sound scenes with a star.

Finding more scenes in the Scenes Library

You can find more scenes in the All Scenes library. Scroll through the categories to find the scene of your choice. You can also use the Search function to find a scene by typing keywords.

Click a scene to play ...
Scene Editor

The Scene Editor allows you to edit existing scenes or compose new scenes using the sounds and background sounds in SoundStudio. This can be used to create personalized scenes to target issues reported by an end-user or scenes that you want to use to support a particular measure (e.g. a questionnaire).

You can enter the Scene Editor by clicking on the corresponding tab in the top row of the screen at any time.

Editing a scene

You can edit a scene by adding or removing sounds. You can also change or add movement to sounds by adjusting the relative loudness of each sound in the scene individually.

Select the scene you want to edit (e.g. from All Scenes)

To add or change the background sound, click <Scene Background> (the magenta bar at the top of the sound field), select the background scene and adjust its loudness.

Select speech and sounds from the Sound Library on the right hand side of the sound field and add them to the sound field by clicking < + > . To position a sound in the scene simply drag and drop it.

To remove a sound from the scene, drag it from the scene to the recycle bin. If you want to re-use the sound you can “park” it on the grey circle around the sound field.

You can save the scene by clicking the <Save> icon at top of the scene. The scene will be saved in My Scenes. You must enter a unique name for your saved scene.

Editing sound parameters

You can set the volume and movement parameters of each sound played in the scene.

Click <Scene Sounds> on the right side of the screen. This shows all the sounds used in the scene and their parameters. Click on the sound you want to change. Set the volume using the volume control slider and set movement parameters to the sound if required.

The movement effect is a new feature in Sound Studio that can help to create even more realistic scenes than ever before. Movement is created by the logic in SoundStudio using the multi-channel sound system of your PC. The more speaker channels your sound system supports, the better the effect will be. You can pick a source sound that would typically move (for example, a car) and then specify the beginning and ends points. The sound will move across the sound field in the direction, track (linear or circular) and at the speed at which you specify.

Composing a new scene

This is achieved in the same way as editing a scene: Click on <Compose a Scene> and compose your scene by adding background sounds, speech and other sound sources as required. Save the scene as explained above.

Help

There are more functions to discover in SoundStudio. To explore them, please click the <Help> icon in the navigation bar. Markers will pop up on the screen where information may be required. Click on a marker to read the information on the related functionality.

If you no longer need the markers, simply click <Help> again.

Please contact us at any time if you require more information www.oticon.global
System requirements

Operating system: Microsoft® Windows 10, 32/64 bit, all editions
Microsoft® Windows 8, 32/64 bit, all editions
Microsoft® Windows 7, 32/64 bit, all editions
Microsoft® Windows Vista®, 32/64 bit, all editions

Processor 1 GHz or faster
RAM 1 GB
Free hard disk space 5 GB
Graphics 1280 X 768, 16 bit color
Drives DVD drive

Sound system: A 5.1 surround sound card with 5.1 loudspeakers is recommended to take full advantage of SoundStudio's features.

Note: The SoundStudio installation process does not include a check to determine whether the sound card and loudspeakers have been installed. If SoundStudio is started on a PC without a sound card or with an in-active sound card, an error message will be displayed.

Fitting software One of the following fitting modules must be installed on the PC:
Genie 2016.2 and later
Genie 21 2016.2 and later

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