CAE
Software & Systems

Manual
SoundCam

Hardware
Transportation case and SoundCam

Transportation case

1 SoundCam
2 headphones
3 power cable part 1
4 tripod
5 power cable part 2

1 On/Off Button and Status LED
Turn on: Press & Hold (~2 sec.), status LED flashes while booting and turns green when finished.
Turn Off: Press & Hold until all battery level (4) LEDs are off
Check battery level: Press short
2 USB connector to transfer data to USB stick
3 Power jack
4 Battery level indicator
5 (from below) Input for headphones
6 + 7 Buttons for software operations (defined by user)
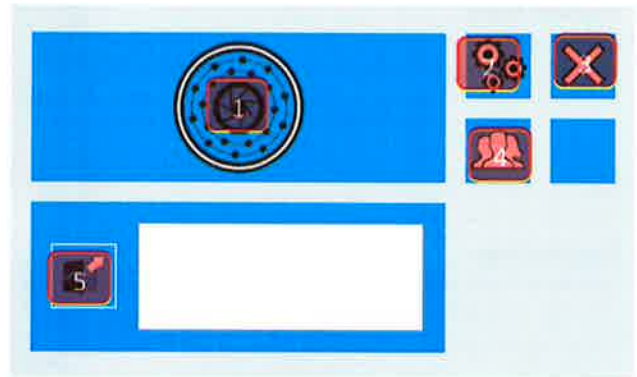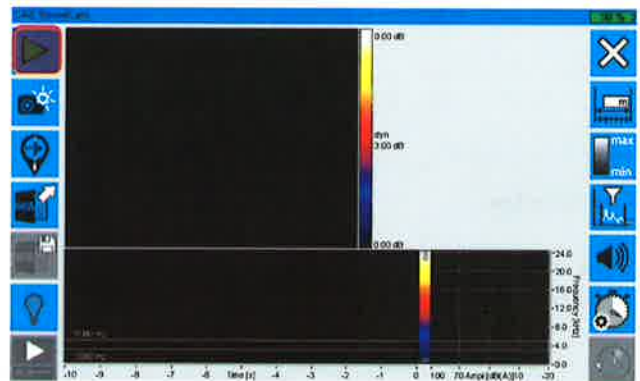8 Ethernet interface (not supported)

SoundCam
Software - Starter Guide

1 Start measurement
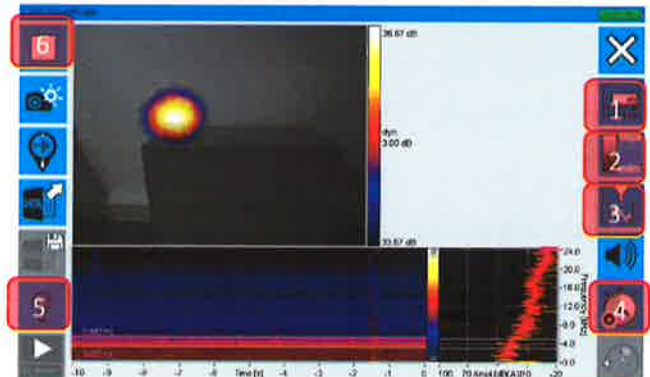2 Settings
3 Shut system down
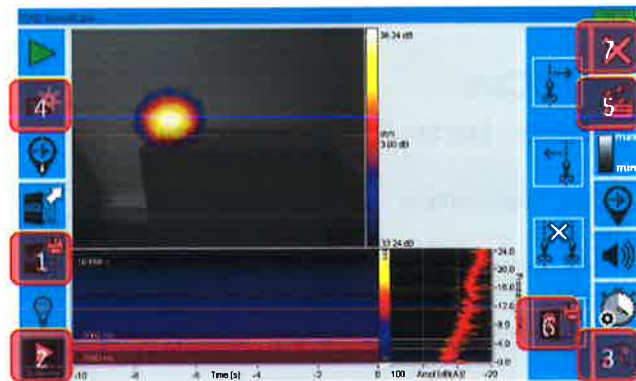4 Profile
5 Saved measurements

Press 1 – start measurement

Start

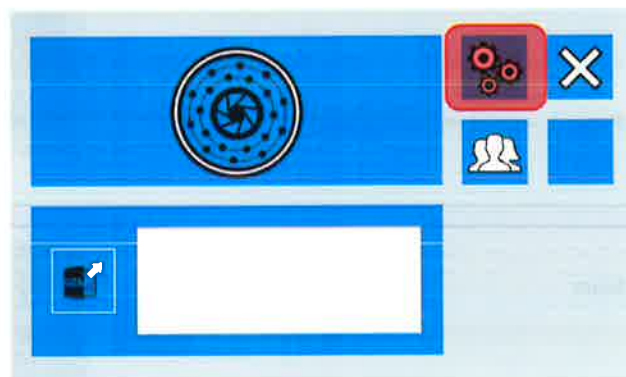1 Distance between mic and surface
2 Scaling
3 Frequency filter
4 Record duration
5 Light on/off
6 Stop

1 Save recording
2 Play recording
3 Time navigation
4 Take snapshot (online/offline)
5 Create video
6 Save video
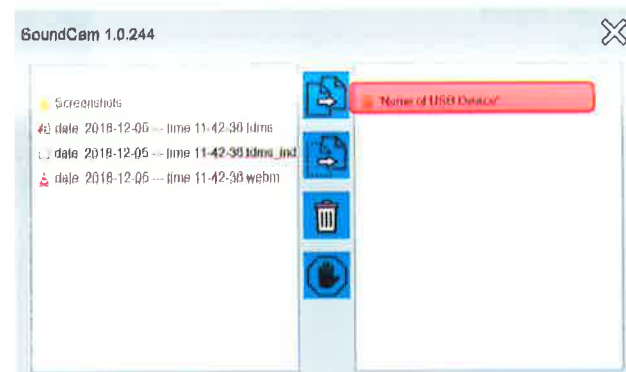7 Close window

Press settings

Press button

Plug your USB stick (not included in delivery content) into SoundCam
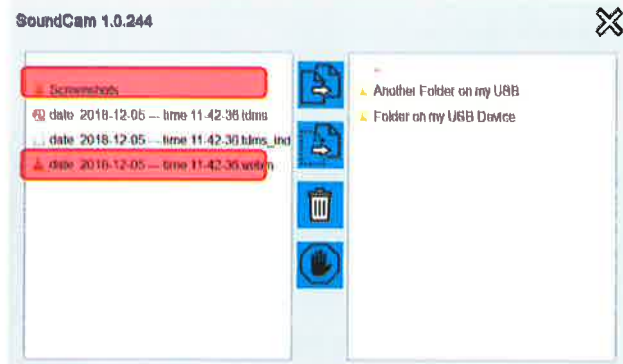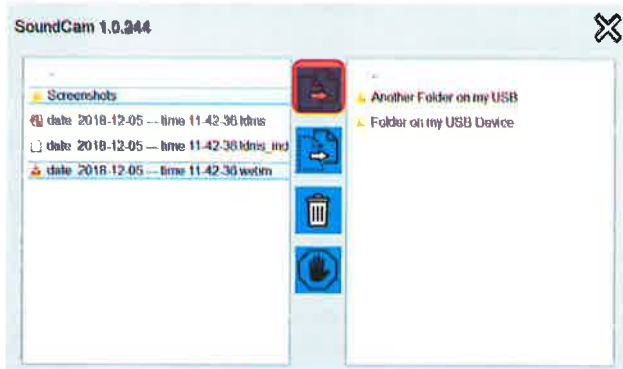

Double-click on your USB stick

Mark files

Video are *.webm
(can be opened by all internet explorers)
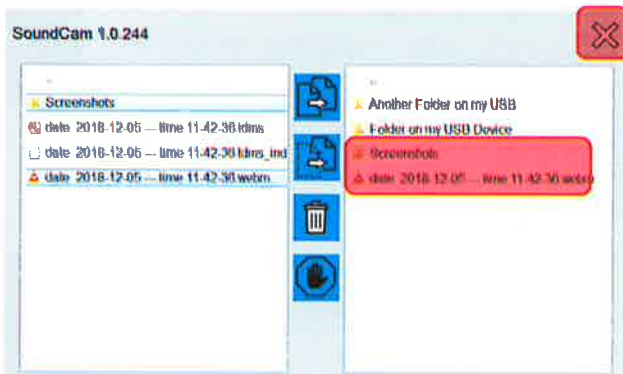
Snapshot are *.png

Copy on your USB stick

Copy is done

Close window!

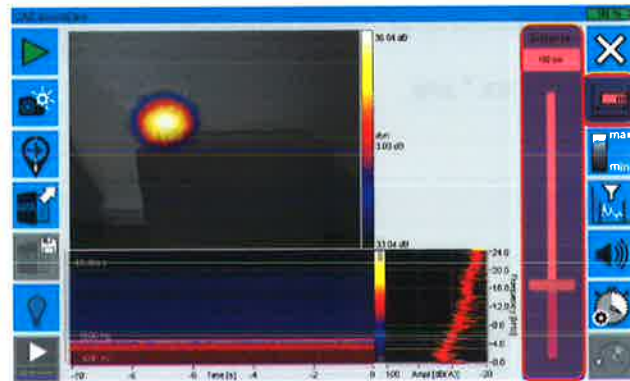Remove USB stick and enjoy on your PC

SoundCam
Software - Function Buttons

Distance settings

Set up the distance between the SoundCam and your measurement object by using the slider.
If the measurement object is further away than 350 cm set it to the max level 350cm.
You can also type in numbers by clicking into the Distance box.

Scaling settings
Choose your scaling by clicking on the first dark blue box: auto -> Max. found in the pictures is used as maximum.
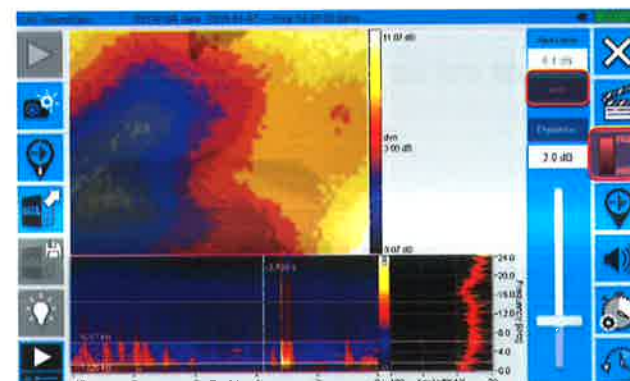Smart -> Removes background noise. Average level of the picture is calculated and crest factor is added. Off -> Set up maximum level by clicking into the box.
Set up the dynamic range using the slider for auto and off scaling.
For smart scaling set up dynamic range and crest factor. Click on the dark blue box above the slider to change between dynamic range and crest factor.
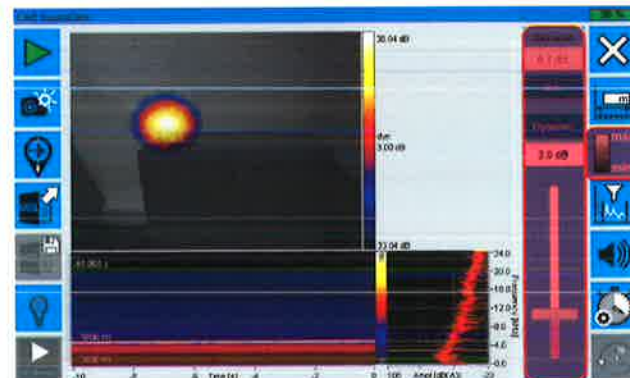
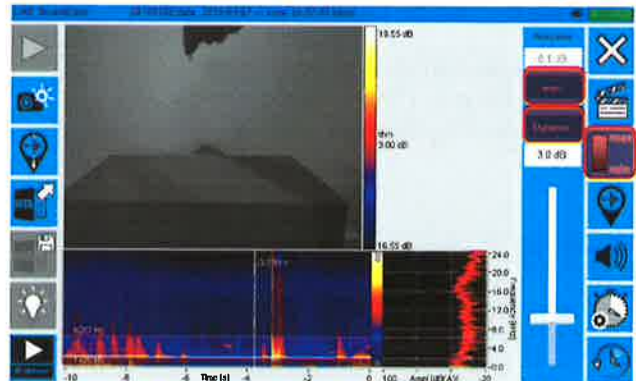Auto scaling: you see background noise

Smart scaling: background noise is removed

Click on Dynamic to see Crest
Move the cursor to adjust the crest factor
Small number = remove less background noise
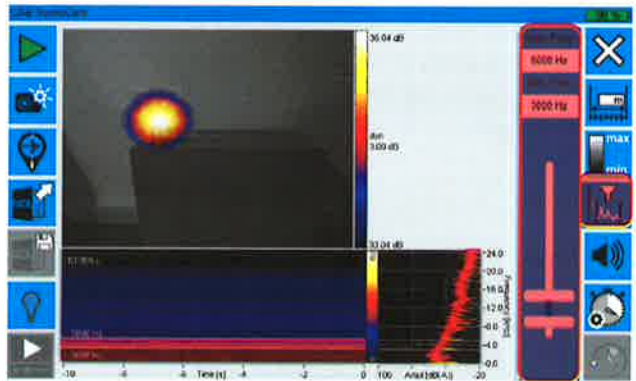Big number = remove more background noise

Frequency filter

Select the frequency range you want to see in
the acoustic picture using the double slider.
You can also type in numbers by clicking into
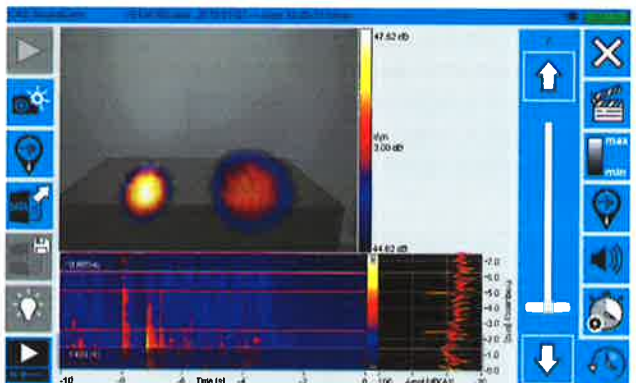the Max. Freq. or Min. Freq. box.

Attention!
Higher frequencies can be localized more ac-
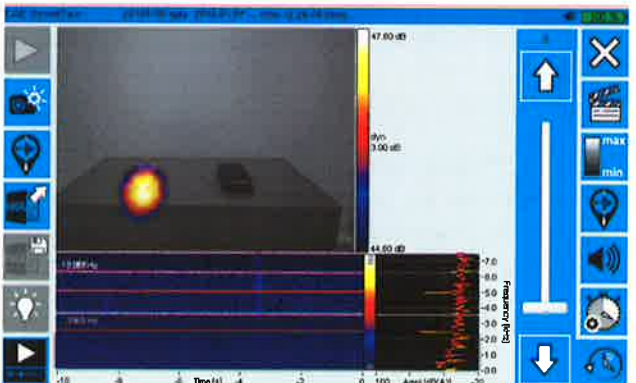curate than lower frequencies.

Example:
two noise sources (2,5 kHz and 5 kHz)
set cursors below and above the range e.g. at
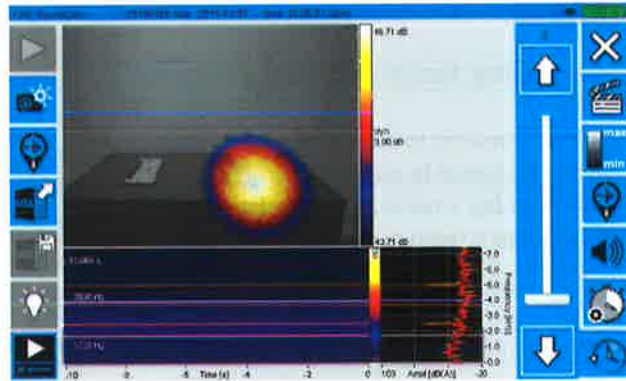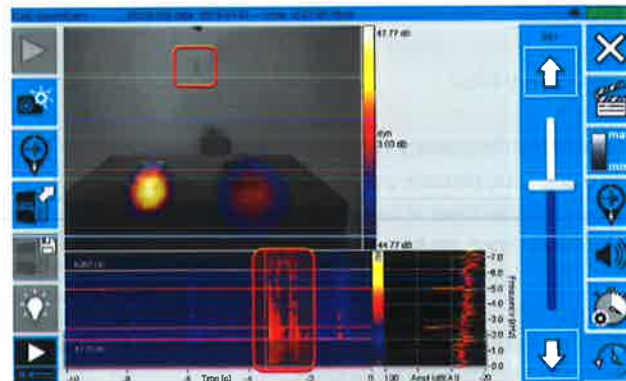1728 Hz and 6267 Hz -> you see two noise
sources

Example:
two noise sources (2,5 kHz and 5 kHz)
set cursors e.g. at 3656 Hz and 6267 Hz -> you
see just the noise source 5 kHz

Example:
two noise sources (2,5 kHz and 5 kHz)
set cursors e.g. at 1728 Hz and 3998 Hz -> you
see just the noise source 2,5 kHz

Example :
two noise sources (2,5 kHz and 5 kHz) +
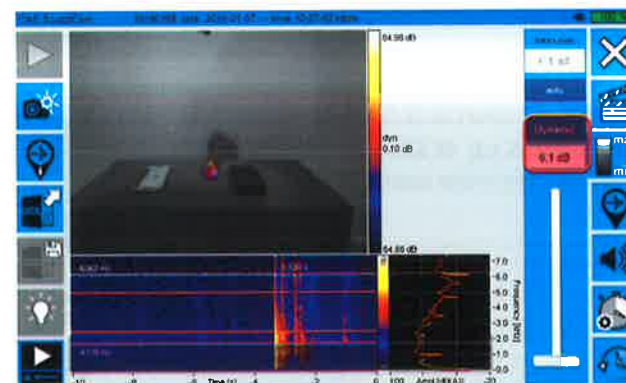Dropping paper clip (Impulse - see red marker
in sonogram)

Paper clip hits the ground
Move cursor short before first impulse and
press arrow button in the timeline until the
sound level increases -> new noise source
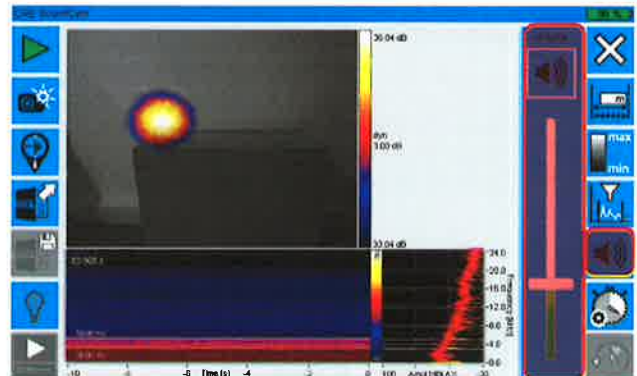comes up (the paper clip hits the ground)
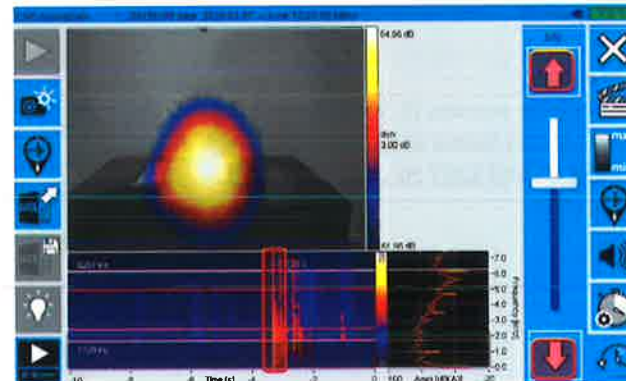
Reduce the dynamic range to see the place of
impact

This "step by step method" is perfect for high
dynamic events e.g. S&R, for structure,
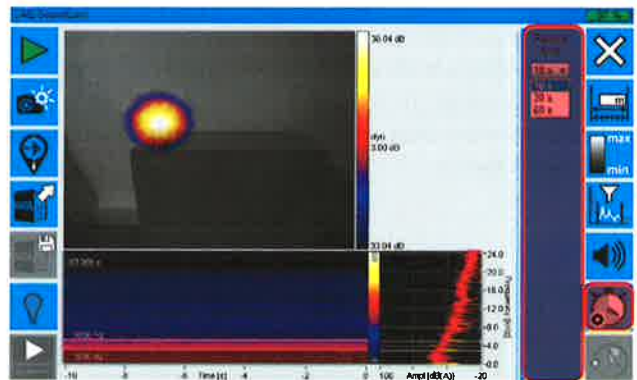material and component tests,...

Sound setting (use headphones)
Enable/disable sound by using the button above the slider.
With enabled sound use the slider to increase/ decrease volume.

Record duration settings
Select the time you want to record using the drop down menu.

Attention!
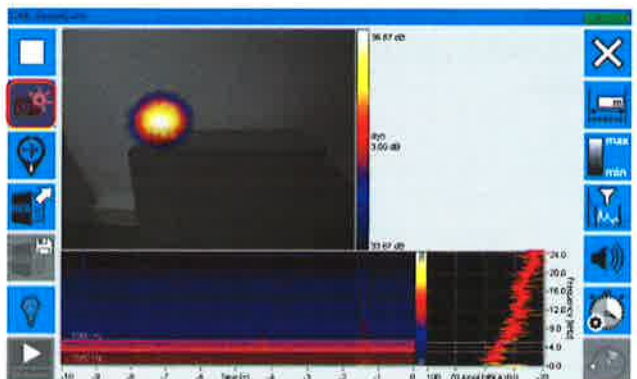Longer record times take longer to process (e.g. saving, opening and create a video)

Scroll your measurement's timeline:
After measurement or after open data
Use the up and down arrows (acoustic pic by acoustic pic) or the slider to scroll through your timeline of your measurement.
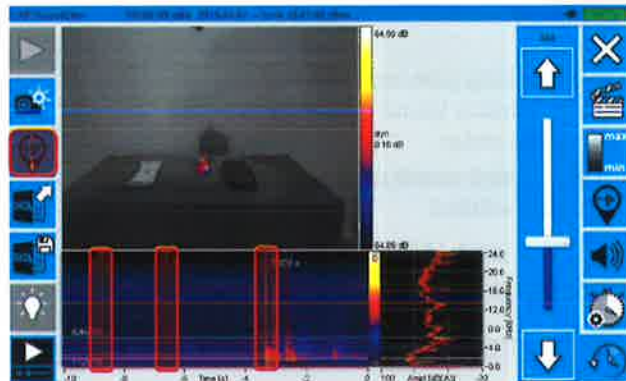
Touchscreen: move cursor direct in the sonogram by touching
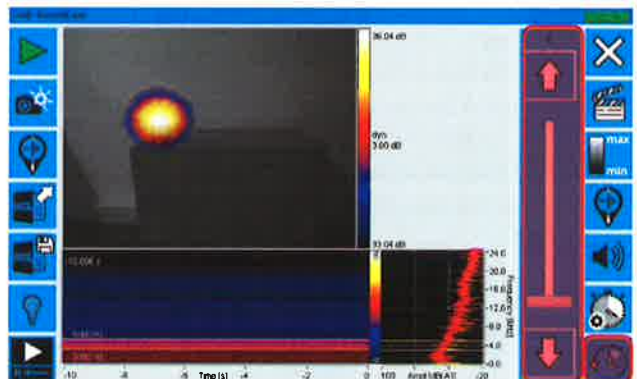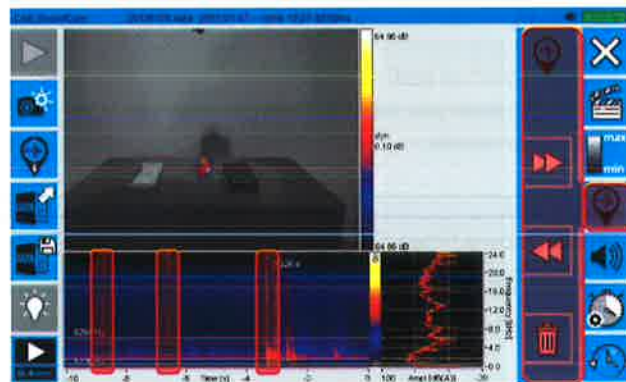

Take snapshot (*.png)

Place markers during or after measurement

Time marker settings:
Use the right/left arrow to jump to the next/ previous marker you have set.
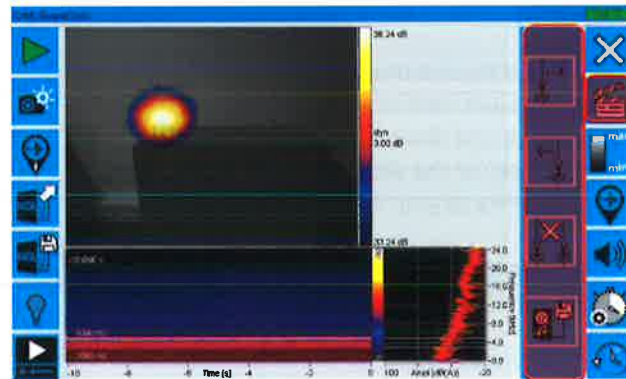Press the delete button to delete the current selected marker.

Create video:
Use the first two buttons to place the start and end point for the video if you do not want to create a video over the whole timeline. The third buttons removes the start and end point. Use the button on the bottom to create the video.

Attention!
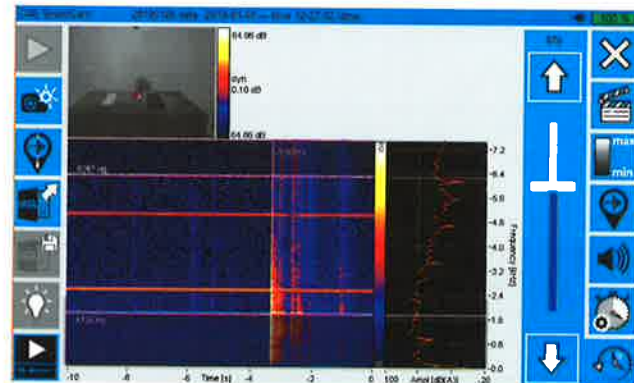Longer record times take longer to create a video.

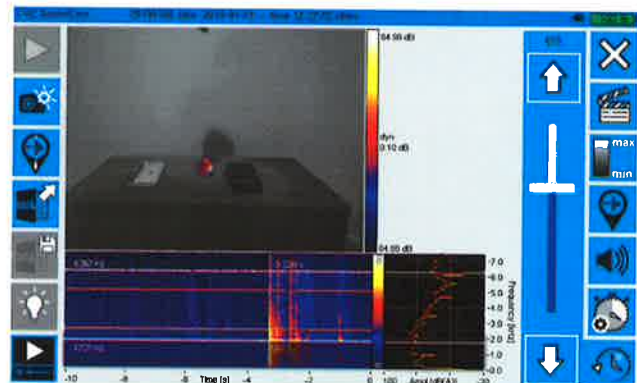Video settings press OK after calculation close window

SoundCam
Software – zoom in/zoom out

Zoom in/zoom out sonogram:
Double click on the sonogram

Zoom in/zoom out optical picture: double click
on the optical picture

Zoom inside sonogram:
Click long in the sonogram -> XYZ pops up
Press X for min/max of the x-axis
Press Y for min/max of the y-axis
Press Z for min/max of the z-axis

Zoom inside sonogram:
Touchscreen function –zoom in by spreading
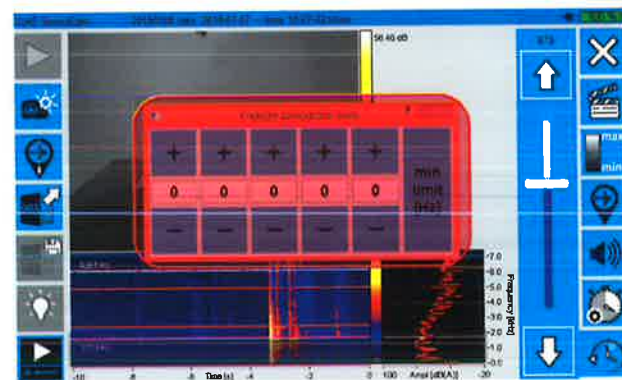2 fingers and move area by moving 2 fingers
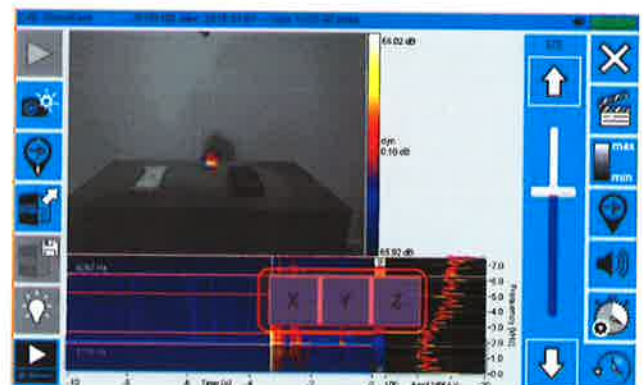
E.g. press Y for min/max of the y-axis choose the max value by +/- and press "max limit"

Press outside the window to close the window or press "max limit" to set the "min limit"
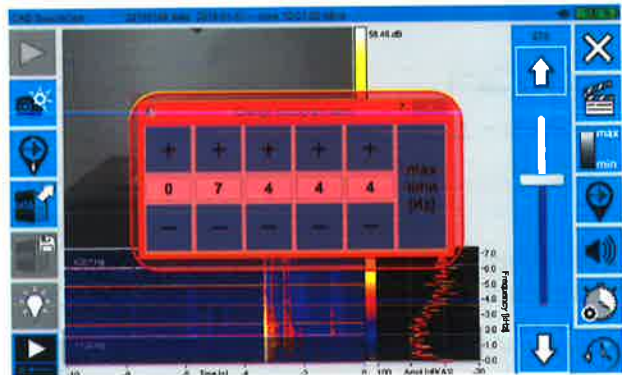
After pressing "max limit" the "min limit" comes up and choose the min value by +/-
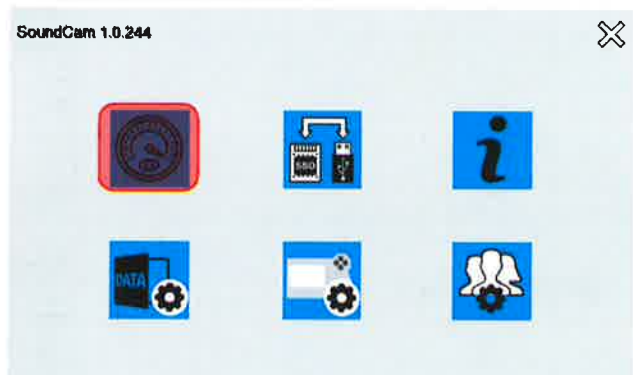
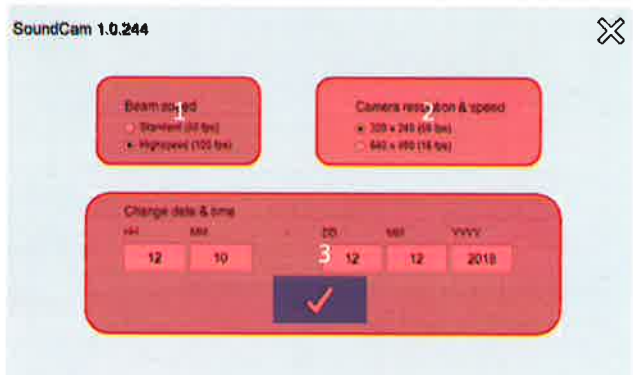# SoundCam
Software – system settings

1 Camera and beam settings
2 Copy menu
3 Info and update
4 Folder setting
5 Button settings
6 Profile settings

1 Camera and beam settings

1 Beam speed

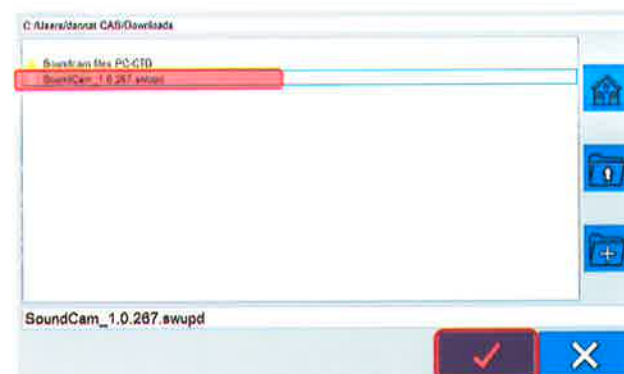2 Camera resolution & speed

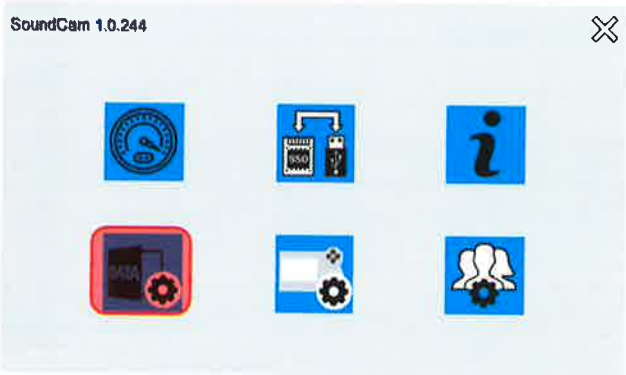3 Change date & time

Info and update

System information

Update your system

Select your SoundCam update *.swupd
your system will be updated

SoundCam_1.0.267.swupd

CAE
Software & Systems

Folder settings

SoundCam 1.0.244

Activate measurement series
and put in measurement series name

SoundCam 1.0.244

Recordings
Path to recordings
Path: C:/Users/dannet.CAS/Downloads

Button settings

SoundCam 1.0.244
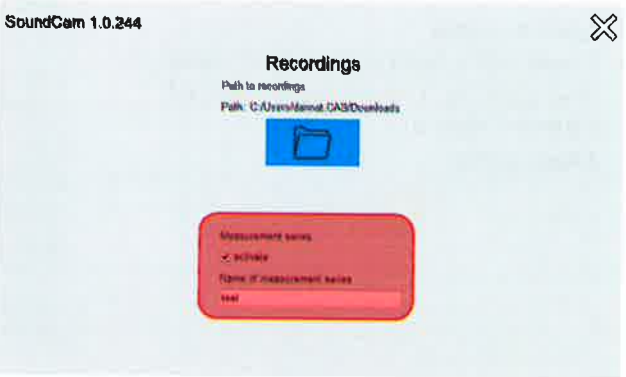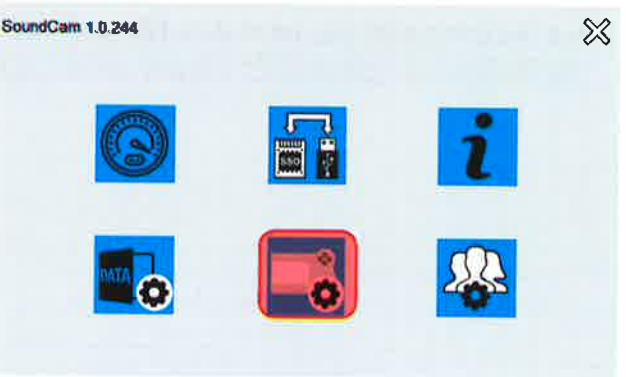
Select a function from the pull down menu

SoundCam 1.0.244

Profile settings

SoundCam 1.0.244
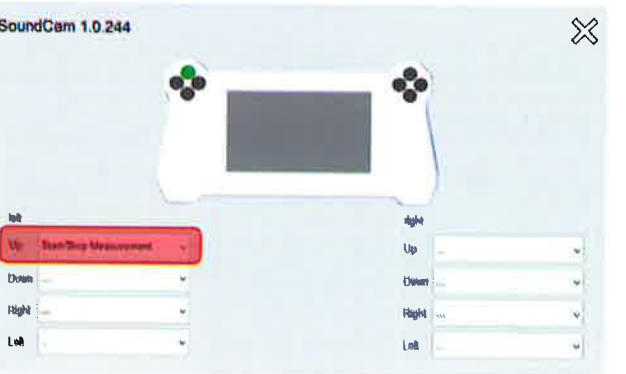
1 Delete profile
2 Load profile from the pull down menu
(load a profile -> all settings are defined)
3 Restore defaults
4 New profile

SoundCam 1.0.244

choose profile
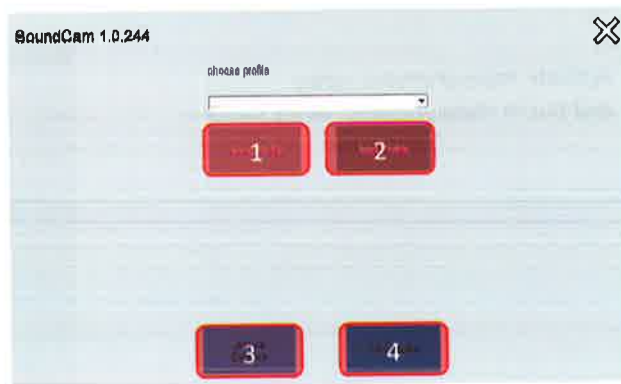
Find the latest software, up-to-date FAQ and much more on our website:
http://www.cae-systems.de/en/soundcam-owners

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