

10 Creating Reports and exporting Data

10.1 Exporting data a simple .csv report

One very simple but useful function is to export data from 1 or more SoundEar3 units into one spreadsheet.

- 1 Selected the devices, dates and times required
- 2 **Important:** Select the parameter required from the 'Show in Chart' section
- 3 Click the 'Show' button
- 4 Finally click on the Export button where a drop-down menu will show Csv (spreadsheet format).

The screenshot shows the 'Library' section of the software. At the top, there are three dropdown menus: 'Select device(s)', 'Select date', and 'Select time', followed by a 'Show...' button. Below these is a 'Show as: Chart' dropdown. The main area contains a line graph showing noise level (SP (dB)) over time (from 09 Jul 18 to 21 Jul 18). The graph is labeled 'SE3-2008585850'. Below the graph is a 'Chart statistics' dropdown and a 'Show in chart' button. A settings panel is open, showing 'LAeq' selected with a value of '60 min'. Other options include 'LCpk max', 'LAF max', 'LAS max', 'LCF max', and 'LCS max'. On the right side, there is an 'Export' button with a dropdown menu showing 'Csv' as the selected option.

Useful tip: When selecting data to export to .csv think about the time interval to select. Try selecting either the 60 min LAeq (average) or 15 minute average if you want to get a good feel for general noise levels.

Please note that .csv files can't be edited unless they are saved into another format (such as Microsoft Excel). When you first open the file you may need to widen the first field (A) to create the width required to show the date data .

Other parameters can be selected such as LAFmax or LCpk max or LASmax . For these parameters you can't select a time interval, it will be 1 second so you will get a very large spreadsheet (3600 seconds per hour which means 3600 spreadsheet rows per hour!). Therefore for most reporting applications select the LAeq value and longer time intervals such as 15 minutes or 1 hour.

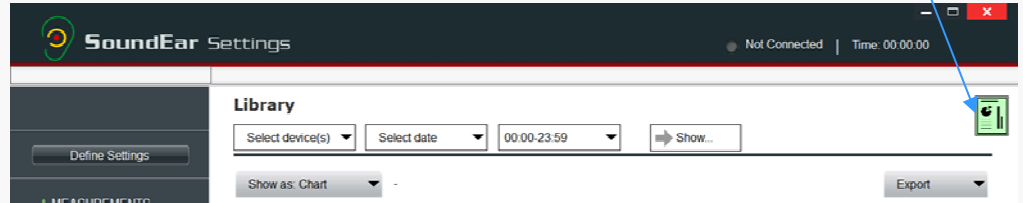
	A	B
1	Date	Time
2	#####	00:00:00
3	#####	00:01:00
4	#####	00:02:00
5	#####	00:03:00
6	#####	00:04:00

	A	B	C
1	Date	Time	Mike Demo[LAeq
2	09/07/2018	00:00:00	66.3
3	09/07/2018	00:01:00	66.4
4	09/07/2018	00:02:00	66.9
5	09/07/2018	00:03:00	66.4
6	09/07/2018	00:04:00	68.9
7	09/07/2018	00:05:00	71
8	09/07/2018	00:06:00	69.8
9	09/07/2018	00:07:00	65.7
10	09/07/2018	00:08:00	66.7
11	09/07/2018	00:09:00	69.6
12	09/07/2018	00:10:00	65
13	09/07/2018	00:11:00	66.4

10.2 Creating PDF reports

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Once you have selected a Device along with a date(s) and times you can view the results but also have the added option of creating a PDF report using some of the simple reporting options. These can be accessed by the special report button.

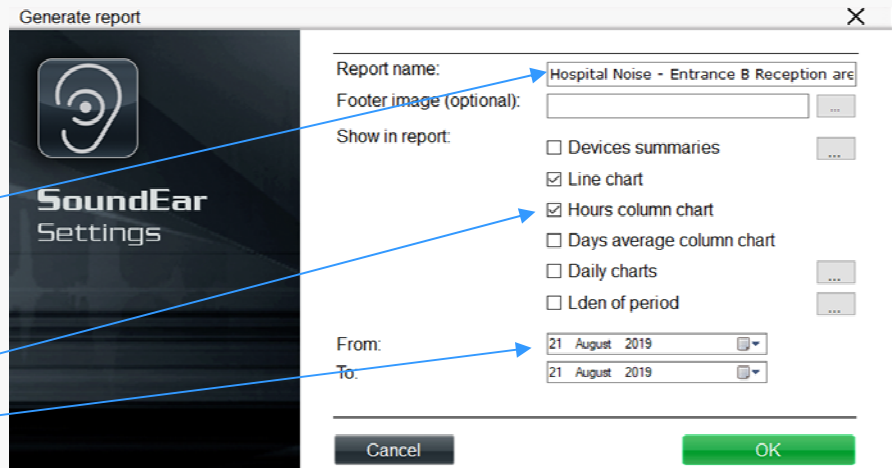


Useful tip: The key to creating clear reports using the SoundEar3 software is just to select the information that you need rather than just ticking all of the boxes. This will give you a clear and focused report.

- a) Left click on the 'Report' icon.

Another window will open allowing you to select which information you wish to include in your report.

- b) Name the report.
 c) Include a Footer image if required.
 d) Tick the options you want including in your report.
 e) Select dates

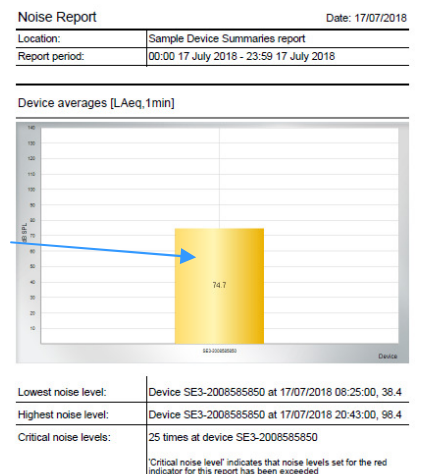


10.2.1 Device summaries

This first 'Device summaries' option may be excluded if you want to focus on other reporting options as this takes 2 pages per device. A lot of this information will be included in other report options. The pie chart is unique to this report though.

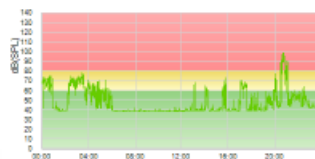
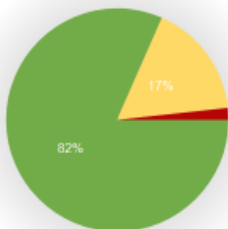
The Device Summary will create:

- 1st page: a daily average along with highest and lowest noise levels etc
 2nd page a simple Pie Chart and colour coded 'time history chart' along with Chart Statistics Box.



Noise Report		Date: 17/07/2018
Location:	Sample Device Summaries report	
Report period:	00:00 17 July 2018 - 23:59 17 July 2018	

SE3-2008585850



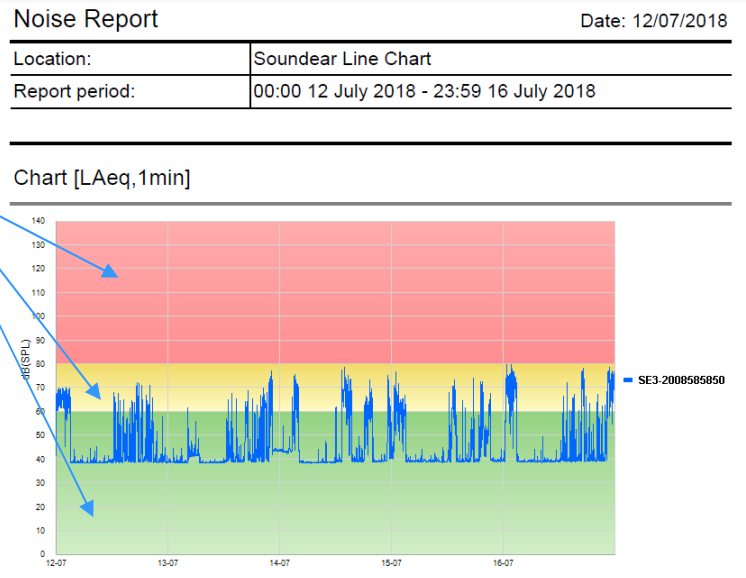
SE3-2008585850					
LAeq, 1min, min	38.4	dB(A)			
LAeq, 1min, max	98.4	dB(A)			
LAeq, 1min, avg	74.7	dB(A)			
Peak count:	>105	>110	>115	>120	Max
	0	0	0	0	0.0

10.2 Creating PDF reports (cont)

10.2.2 Line Chart

By ticking the 'Line Chart' box a colour coded time history graph will be included.

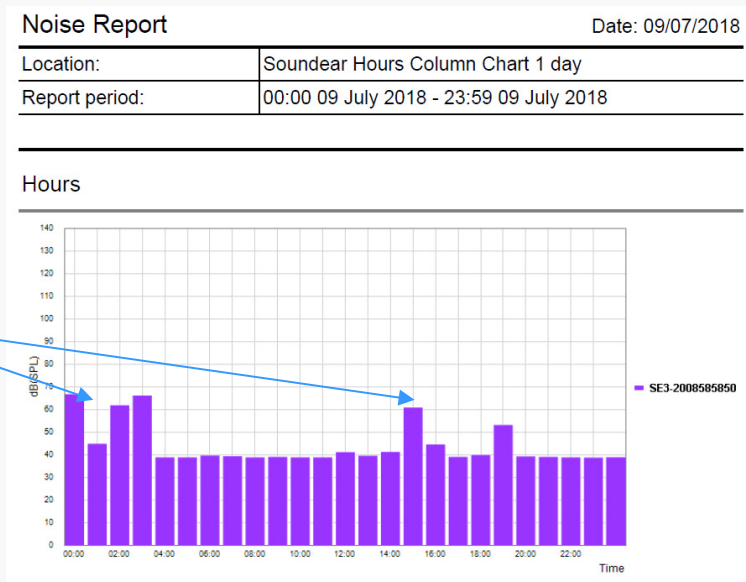
The colour coding (Red, Yellow and Green) will be based on the limit values you have set for the device.



10.2.3 'Hours column chart'

Check this box to include a bar chart showing the hourly average values. This type of report is generally useful to show hourly noise levels over one day rather than multiple days.

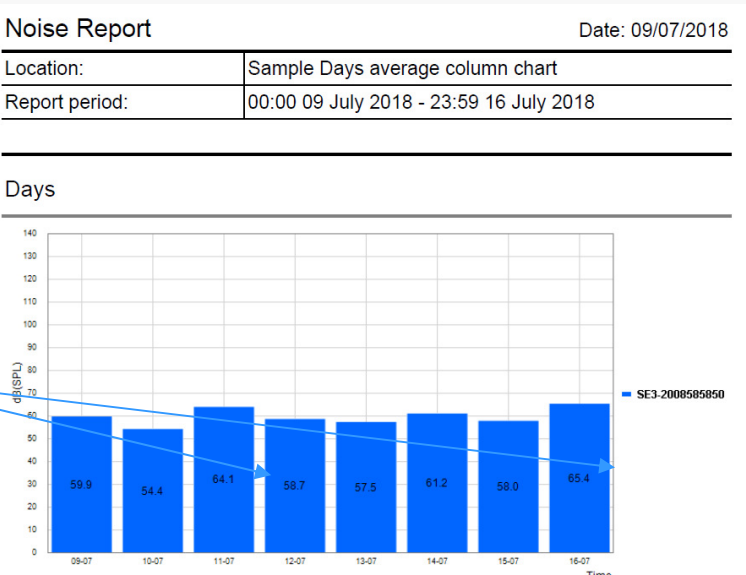
For example: From this chart we can see there are some louder levels around midnight and the early hours of the morning and around 3 pm in the afternoon.



10.2.4 'Days average Chart'

This allows you to display a Bar chart showing the overall average values for each day. The daily average is shown to one decimal place for each day.

For example: From this chart we can see the average daily noise levels were at there greatest on Wednesday 11th and Sunday 16th.



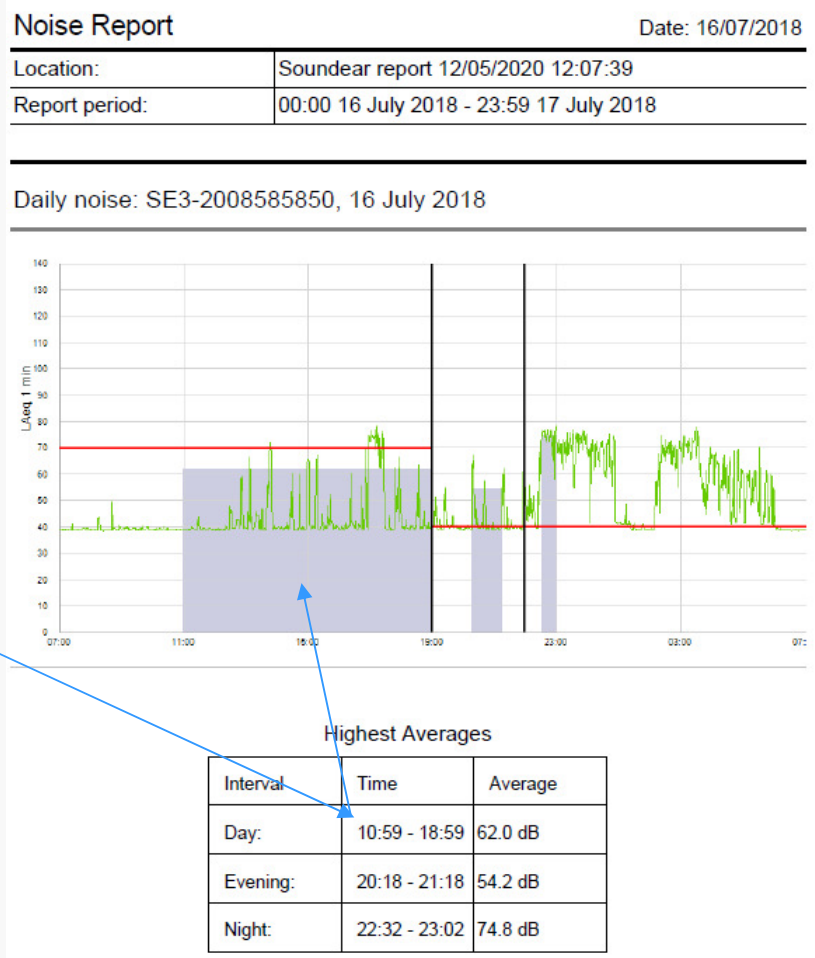
10 Creating PDF reports (cont)

10.2.5 Daily Charts

Check the 'Daily Charts' box and the window shown below will pop up. This allows you to define the Day / Evening / Night start times and define a limit for each.

A time history graph will be included in your report with the limit values shown as red lines for the Day, Evening and Night.

A box at the bottom of the graph a small table will show the typical higher average value areas which are shaded in the graph as grey. It will also state when these periods started and stopped.



10.2.6 Lden of period

The Lden, also known as a 'Community Noise Equivalent Level', is a noise calculation often used for Environmental Noise on construction projects but it can be useful for other scenarios.

It aims to calculate a daily average noise level but adds a penalty of 5dB for the evening hours and 10dB for the night time hours to reflect the typical expectancy of reduced noise levels during the evening and night time.

