



Quick Start Guide

Using NoiseTools, how to download, analyse and build reports.



About this quick start guide

- The instructions in this user manual refer to the operation of Cirrus Research plc NoiseTools software version 1.8.4*
- Where the term 'NoiseTools' is used, it refers to the software in general, and not a specific version or release
- Full technical details for all instruments compatible with NoiseTools, including the Classic Optimus range, the Optimus+ range, the doseBadge MK 4 and MK5, the Trojan noise nuisance recorder, the Optimus outdoor measurement kits, the 800c series, and the 260A+ series, can be found on the Cirrus Research website at www.cirrusresearch.co.uk/library/datasheets/
- For full operational instructions for individual instruments, please consult the handbook that was supplied with your equipment

*As part of the routine upgrading of software to fix minor bugs or to add additional functionality, we will periodically release updated versions of NoiseTools, which can be downloaded from www.cirrusresearch.co.uk/library/software. Any minor changes should not affect the functionality of the software as described in this document. Any major changes, such as the addition or removal of functionality, will be detailed in an updated version of this document, which will be available for download from www.cirrusresearch.co.uk/library/user-manuals. All changes to the software will be detailed in release notes, available on the Cirrus Research website and blog.

Please note: NoiseTools is only available for the Microsoft Windows operating system (Windows 7 or newer); macOS, Linux and other operating systems are not supported.

Copyright

Copyright © Cirrus Research plc 2010-2019

All rights reserved.

You may re-use this document/publication (not including the Cirrus Research plc logo and other product logos) free of charge in any format for research, private study or internal circulation within an organisation. You must re-use it accurately and not use it in a misleading context.

You must not modify text, images or illustrations in any way. The material must be acknowledged as Cirrus Research plc copyright and you must give the title of the source document/publication.

Where any third-party copyright material is identified you will need to obtain permission from the copyright holders concerned.

Trademarks

Cirrus Research plc, the Cirrus Research plc Logo, doseBadge, DOSEBADGE, Optimus, the NoiseTools Logo and the Noise-Hub Logo are either registered trademarks or trademarks of Cirrus Research plc in the United Kingdom and/or other countries. Microsoft and Windows are registered trademarks of Microsoft, Inc. The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Cirrus Research is under license. Other trademarks and trade names are those of their respective owners.

Updates

In the interests of continuous product improvement, Cirrus Research plc reserves the right to make changes to product specifications without notice.

To learn about the latest updates that have been implemented into this product and to download the most current version of this user manual, visit our website at www.cirrusresearch.co.uk

Version 1 Q3 2019

Contents

1. Downloading and installing NoiseTools to your PC.....	6
2. Using with an Optimus/Optimus+ sound level meter.....	9
2.1 The 'New Instrument' wizard.....	9
2.2 Configuring your Optimus in NoiseTools.....	11
2.3 Downloading measurements from your Optimus.....	12
2.4 Creating a report from your data.....	12
3. Using with a doseBadge ⁵ noise dosimeter.....	14
3.1 Configuring your doseBadge ⁵ in NoiseTools.....	15
3.2 Downloading measurements from your doseBadge ⁵ and creating a report.....	15
4. Using with a doseBadge MK4.....	18
4.1 Configuring your doseBadge MK4 in NoiseTools.....	18
4.2 Downloading measurements from your doseBadge MK4 and creating a report....	18
5. Managing measurement data.....	21
5.1 Searching for measurements.....	21
5.2 Measurement groups.....	22

Welcome to NoiseTools!

NoiseTools is your noise measurement database, which allows you to download readings from your instruments, analyse your findings, select the most appropriate hearing protection*, and create detailed reports to help you manage and control noise levels in your workplace or in the environment.

NoiseTools is an extensive piece of software with several helpful features to help you get the most out of your data, in turn, allowing you to protect people and the environment from the dangers of excessive noise exposure more effectively.

NoiseTools is completely licence-free, which means you can install it on as many computers as you need to, and there's no charge for the basic software package. Additional modules are available to purchase, but for the majority of users, the functionality that comes as standard in the software is more than enough to get what is required from your noise data.

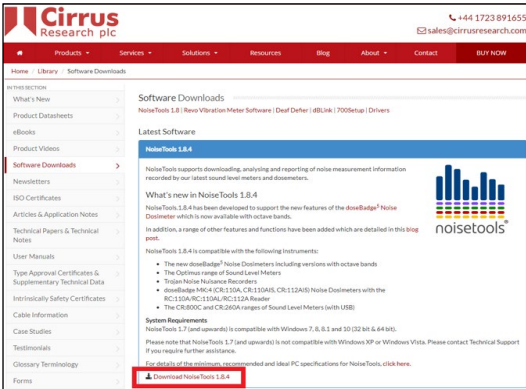
Information about the additional NoiseTools modules can be found at www.cirrusresearch.co.uk/products/noisetools-software.

This quick start guide covers the basics: how to download your data; how to configure your instruments; how to create reports; and how to manage your data. There is a lot more that NoiseTools can do to help you, so if you find that you need additional help, please feel free to get in touch with our team at any point either by phone, email or live chat.

Alternatively, you can head over to our YouTube channel, where you'll find demonstrations of certain features and functions in NoiseTools: www.youtube.com/cirrusresearch.

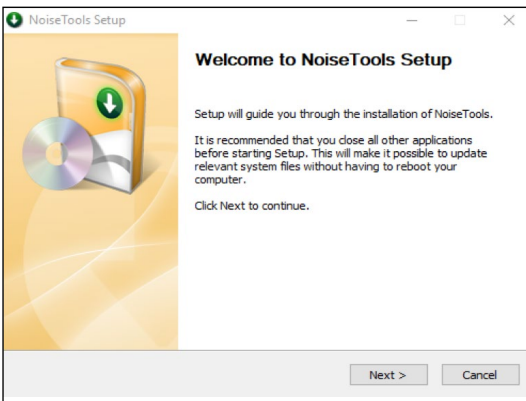
*The selection of hearing protection requires your instrument to have octave band functionality.

1 Downloading and installing NoiseTools to your PC



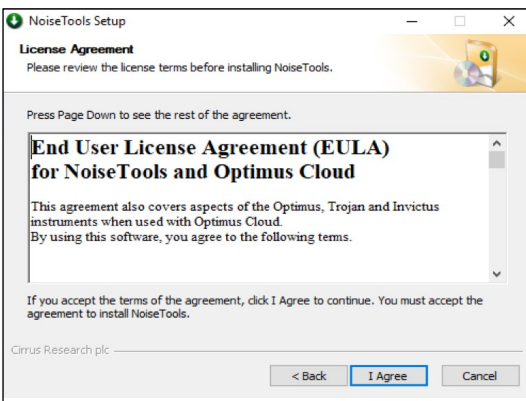
Download the latest version of the NoiseTools software from our website: www.cirrusresearch.co.uk/library/software

A copy of the software can also be found on the USB stick supplied with your equipment. (This USB stick also contains a copy of the manuals for your equipment).

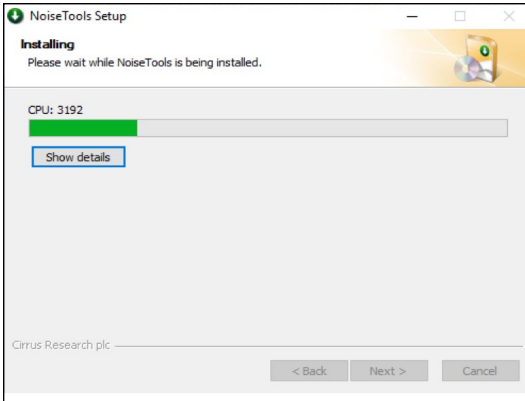


Run the file 'NoiseToolsSetup.exe' and follow the on-screen prompts to continue with the installation of the software.

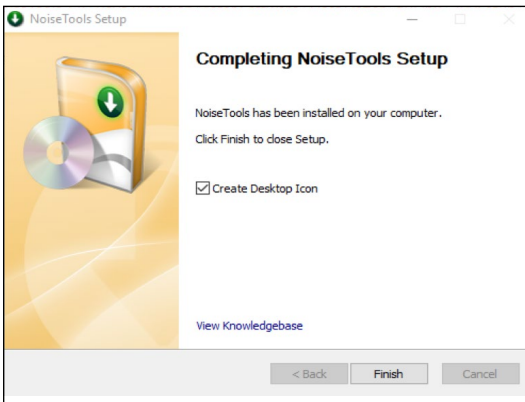
Please note: you must have permission from your IT system administrator to install programs on your PC/laptop. If you require administrator privileges to install the software, you will need to contact your organisation's IT department.



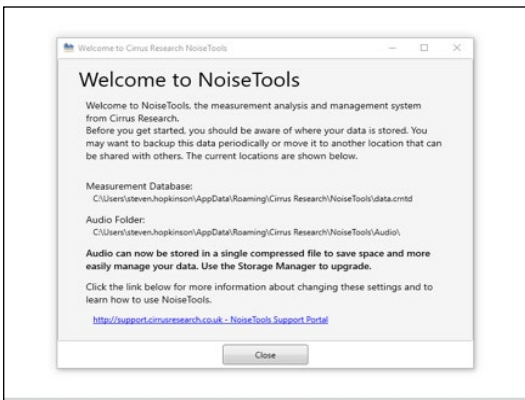
In order in to install the software, you must agree to the End User Licence Agreement. Do this by clicking 'I Agree'.



NoiseTools will begin installing on your PC/laptop. The green bar will indicate the progress that has been made.



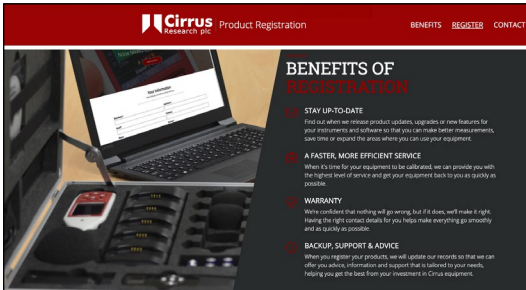
Once the installation has finished, you will be presented with this screen. You will have the option to create a desktop icon; this will enable you to access the program quickly, by double-clicking the application shortcut on your PC/laptop's desktop screen.



Upon completion of the installation process, you will need to launch the program either through the desktop shortcut you've just created, or through the shortcut on the 'Start' menu.

When NoiseTools is started for the first time, you will be greeted with this welcome message.

This screen displays the save location of your measurement data and audio recordings.



The screenshot shows the Cirrus Research Product Registration page. The header includes the Cirrus Research logo, 'Product Registration', and navigation links for 'BENEFITS', 'REGISTER', and 'CONTACT'. The main content area is titled 'BENEFITS OF REGISTRATION' and lists four key advantages:

- STAY UP-TO-DATE**
Find out when we release product updates, upgrades or new features for your instruments and software so that you can make better measurements, save time or expand the areas where you can use your equipment.
- A FASTER, MORE EFFICIENT SERVICE**
When it's time for your equipment to be calibrated, we can provide you with the highest level of service and get your equipment back to you as quickly as possible.
- WARRANTY**
We're confident that nothing will go wrong, but if it does, we'll make it right, making this the contact centre that you hope make everything go smoothly and as quickly as possible.
- BACKUP, SUPPORT & ADVICE**
When you register your products, we will update our records so that we can offer you advice, information and support that is tailored to your needs, helping you get the best from your investment in Cirrus equipment.

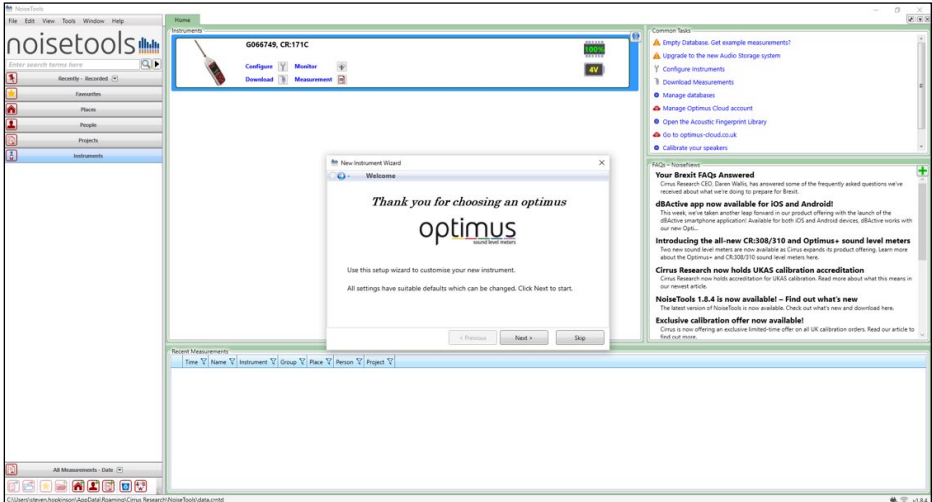
When you click 'close' on the welcome message window, your web browser may direct you to a web page where you can register your instruments with us, which we highly recommend.

You can register your instruments at any time by visiting register.cirrusresearch.com.

Once you're ready to use NoiseTools, go ahead and connect your instrument to your PC/laptop, using the USB cable provided with your equipment.

2 Using with an Optimus/Optimus+ sound level meter

The following chapter details the steps required to configure, download and view measurements from the Classic Optimus and Optimus+ range of sound level meters (including the Yellow, Red and Green variants, as well as the Trojan^{LITE} and Trojan2 noise nuisance recorders).



When you connect an Optimus sound level meter for the first time, you'll be prompted to use the New Instrument Wizard to customise its settings. This will allow you to set the language, date and time, and brightness settings, as well as configuring the meter for repeat measurements (if required/available).

2.1 The 'New Instrument' wizard



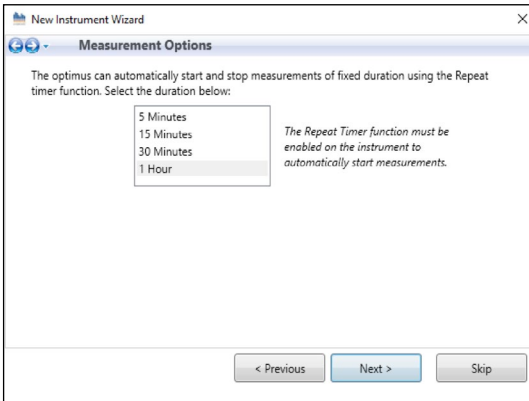
Click 'Next' to begin using the wizard. Click 'Skip' to close the window.



Choose the flag that best represents your location. This will be used to set the language, the date/time format, and the integrators on your instrument.

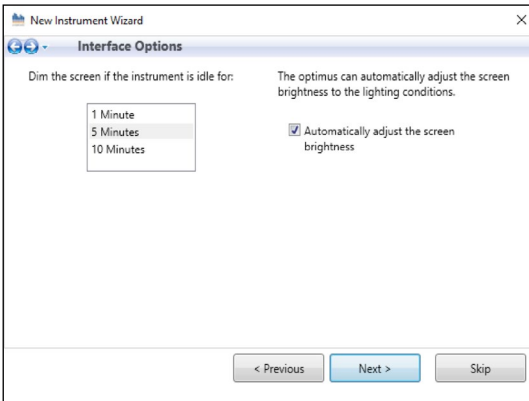
Please note: selecting the European Union flag will set the language to English and the integrators to EU standards.

All other countries will use the language and integrators relevant to them.

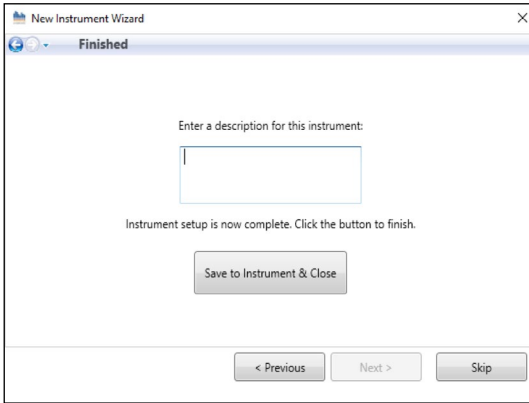


If you have an Optimus/Optimus+Green, you can choose the Repeat Timer duration from this screen.

Repeat Timers are used to capture data over a set period of time. The measurement will stop after the selected time has elapsed and automatically start a second measurement of the same duration.



Select the length of time after which you would like the screen on your instrument to be dimmed when left idle. This will save battery power.



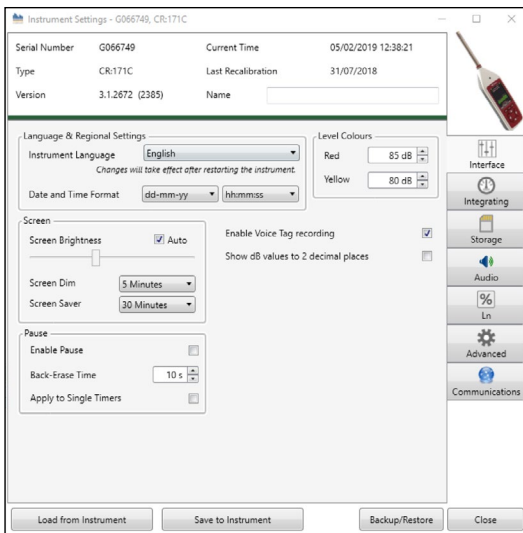
Providing a description of your instrument will help to identify it.

For example: John's Optimus.

2.2 Configuring your Optimus in NoiseTools



When NoiseTools is connected to your sound level meter, it will be displayed in the instruments panel. You will see the 'Configure', 'Monitor', 'Download' and 'Measurement' options.



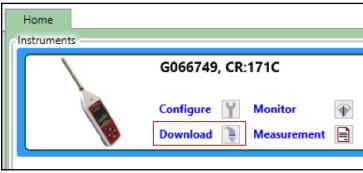
To configure your Optimus, click 'Configure' from the menu above.

This will open the window to the left, from which all customisable settings on your meter can be changed. Navigate to the different screens using the tabs on the right (the available tabs will depend on the Optimus variant you have).

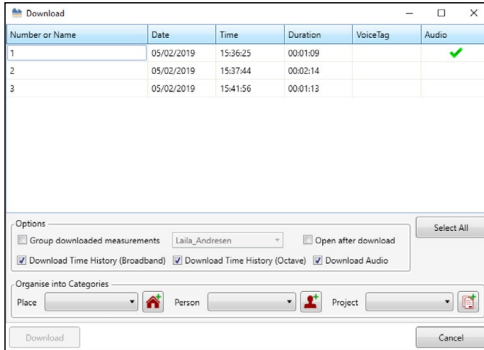
For the majority of users using the equipment for UK occupational noise measurements, you will not need to make any changes to the default configuration.

Once you have made any changes, click 'Save to Instrument' before closing the window.

2.3 Downloading measurements from your Optimus

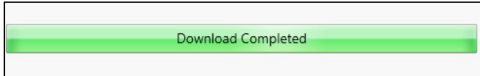


Once you have used your instrument to take noise measurements, plug it in to your PC/laptop, open NoiseTools, and click 'Download'.



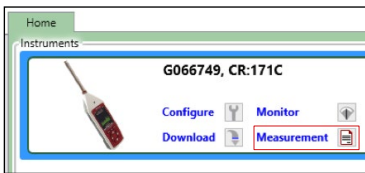
A screen showing all the measurements on your instrument will be displayed. To download all of the measurements, including all data and audio, click 'Select All' and then 'Download'.

Your data will then be downloaded from your sound level meter and into the NoiseTools database.

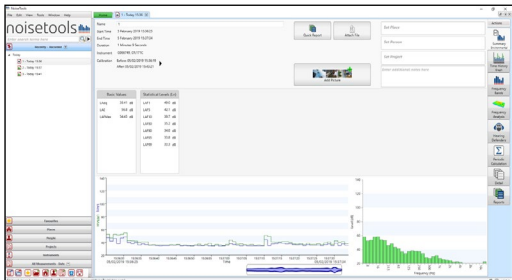


Once complete, the download box will close and your data will appear in the 'Measurements' panel.

2.4 Creating a report from your data



To view the measurements you've downloaded from your Optimus, click on 'Measurement'.

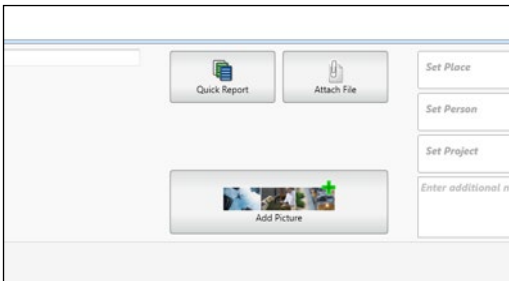


Double click a measurement to open and view it. This will open the summary view for that measurement, from which you'll be able to navigate between different modules in order to fully analyse your data.

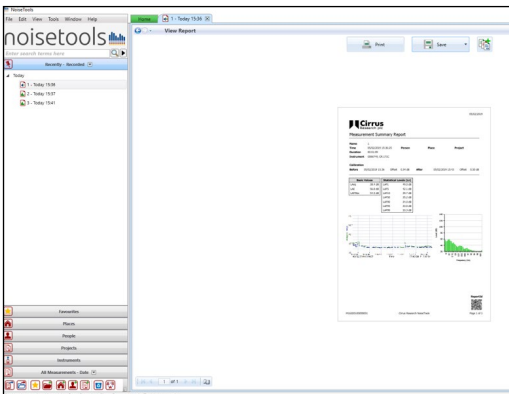
The standard modules available in NoiseTools for individual measurements are as follows:

- Summary - a summary view of the measurement
- Time-history graph - a detailed time-history graph and audio playback
- Frequency bands - a table and graph of octave band information
- Frequency analysis - a 3D analytic tool for octave band and 1:12 (FFT) information
- Hearing defenders - a tool that enables you to select the most appropriate PPE based on the data your meter has collected
- Periodic calculation - a calculation tool for the analysis of specific periods of the measurement
- Detail - tables containing the full set of measurement data that can be exported to .csv file format
- Reports - a wizard for generating a range of measurement reports

Please note: you will only see modules in NoiseTools that match the functionality of your sound level meter. For example, the frequency bands, frequency analysis and hearing defenders modules will not be available for those instruments that don't have octave band capability.



To generate a quick report from the 'Summary' view, click 'Actions' and select 'Quick Report'. This immediately generates a summary report and provides a preview.



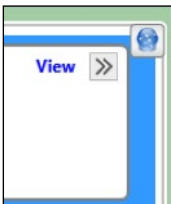
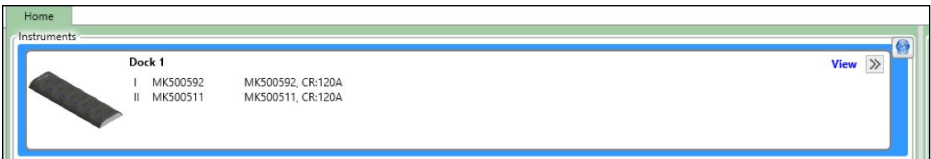
The report can be printed directly or saved in a range of file formats, including MS Word, so that it may be edited further if required.

3 Using with a doseBadge⁵ noise dosimeter

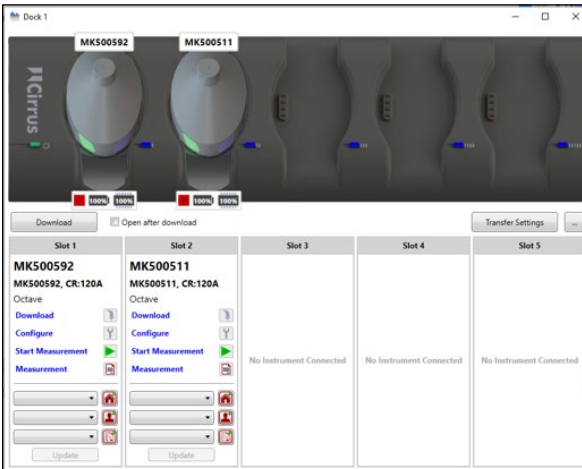
The following chapter details the steps required to configure, download and view measurements from the doseBadge⁵ noise dosimeter.

To configure and download data from your doseBadge⁵, you must ensure that your docking station (supplied with all doseBadge⁵ units) is connected to your PC/laptop with the USB cable provided, and plugged in to a mains power supply.

Once connected, the dock will be displayed in NoiseTools in the instruments panel:



To configure and download data from each doseBadge⁵, you will need to enter the 'dock screen', by clicking on 'View'.

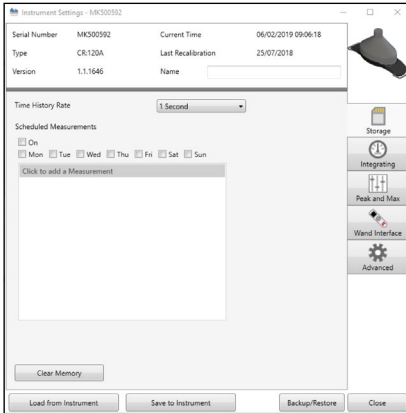


You will then see the 'Download', 'Configure', 'Start Measurement', and 'Measurement' options.

3.1 Configuring your doseBadge⁵ in NoiseTools

The 'Configure' window features a number of tabs from which all doseBadge settings can be configured.

For the majority of users who are using their equipment for UK noise at work assessments, it will not be necessary to make any changes to the default configuration. However, you may wish to name the doseBadge and check the date/time settings as a minimum.

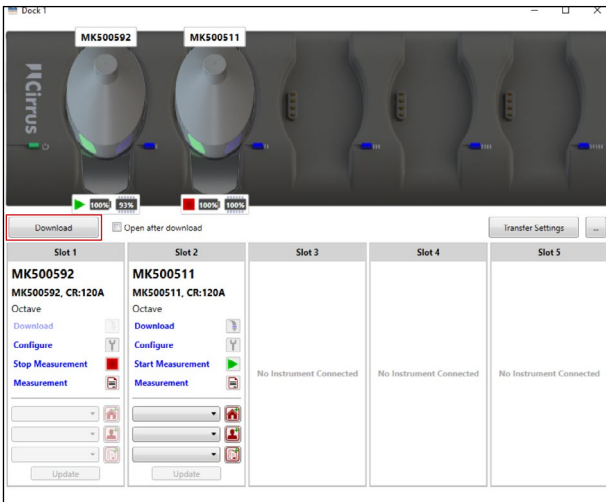


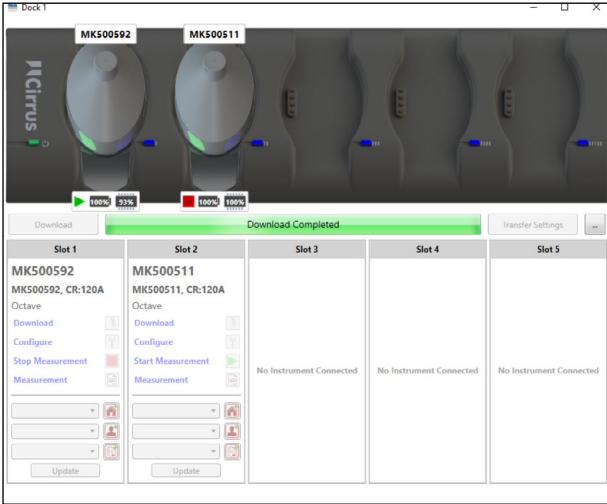
To set the date and time, hover your mouse cursor over the date and time field. A green clock will appear, which you can click to set the date and time to the current values as determined by the computer.

Once you are happy with changes made to the doseBadge's settings, click 'Save to Instrument' to save the configuration you have just set up, before closing the window.

3.2 Downloading measurements from your doseBadge⁵ and creating a report

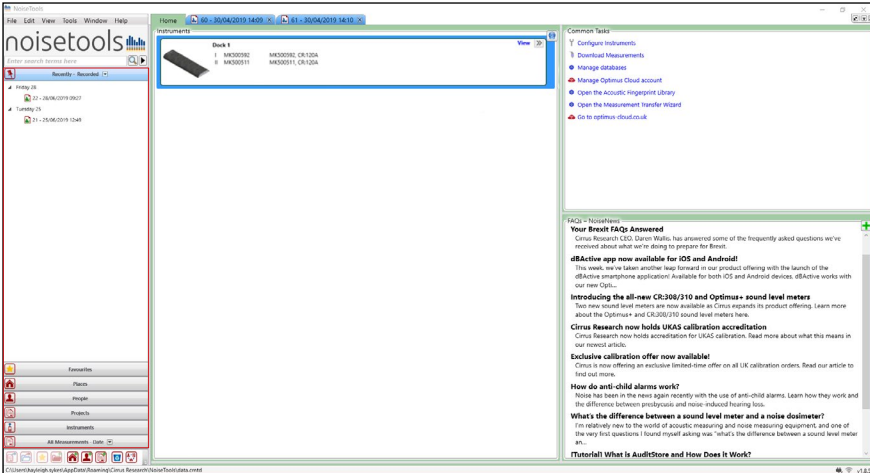
Once you have used your instrument to take noise measurements, connect it in to the dock (which needs to be connected to your PC/laptop and a power supply), open NoiseTools, and click 'Download'.





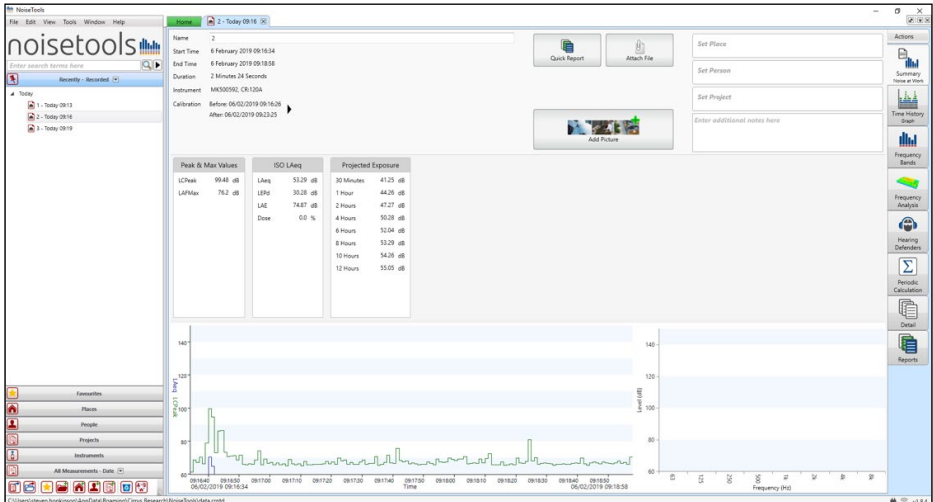
The green bar indicates the progress that has been made in downloading the measurement data from your doseBadge.

Once the progress bar indicates that the download is complete, you can close the dock view and return to the main NoiseTools window.



Your measurements will appear in the 'Measurements' tree to the left of the screen, as shown above.

Double-click a measurement to open and view it. This will open the 'Summary' view. From here, you can navigate between different modules to analyse your data.



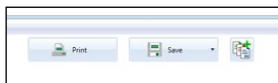
The standard modules available in NoiseTools for individual measurements are:

- Summary - an overview of the measurement
- Time-history graph - a detailed time-history graph
- Frequency bands - a table and graph of octave band information
- Frequency analysis - a 3D analytic tool for octave band information
- Hearing defenders - appropriate hearing defender selection tool
- Periodic calculation - a calculation tool for the analysis of specific periods of the measurement
- Detail - tables containing the full set of measurement data that can be exported to a .csv file
- Reports - a wizard for generating a range of measurement reports

Please note: you will only see modules in NoiseTools that match the functionality of your doseBadge. For example, the frequency bands, frequency analysis and hearing defenders modules will not be available for those instruments that don't have octave band capability, or where this feature is disabled.



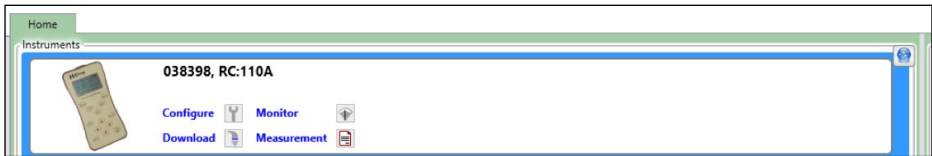
To generate a quick report from the 'Summary' view, click 'Actions' and select 'Quick Report'. This will immediately generate a summary report and provide a preview. The report can be printed or saved in a range of formats, including MS Word, so that it may be edited further if required.



4 Using with a doseBadge MK4 noise dosimeter

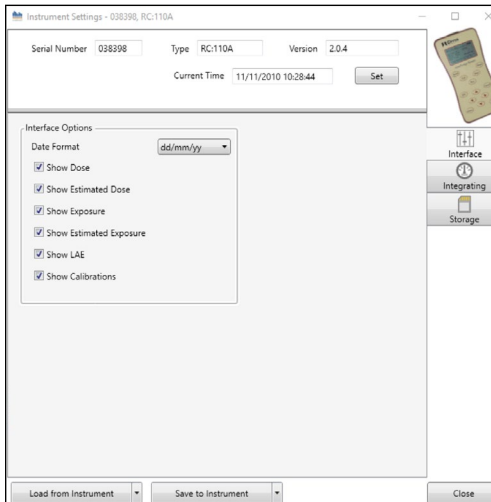
The following chapter details the steps required to configure, download and view measurements from the doseBadge MK4 noise dosimeter. In the context of this document, the doseBadges referenced are the CR:110A models, along with the RC:110A reader.

To configure and download data from your doseBadges, you must first connect the doseBadge reader via the USB cable provided, to your PC/laptop. Once connected, the doseBadge reader will be displayed in the instruments panel, where you will see the 'Configure', 'Monitor', 'Download' and 'Measurement' options.



4.1 Configuring your doseBadge MK4 in NoiseTools

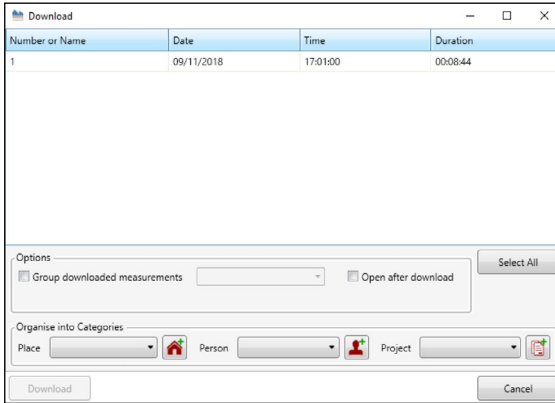
doseBadges retrieve their settings through the reader, which can be configured through NoiseTools. To configure the doseBadge reader and make changes to its settings, click 'Configure'. This will open the 'Configure' window.



For the majority of users who are using their equipment for UK noise at work assessments, it will not be necessary to make any changes to the default configuration. However, you may wish to check the date/time settings as a minimum.

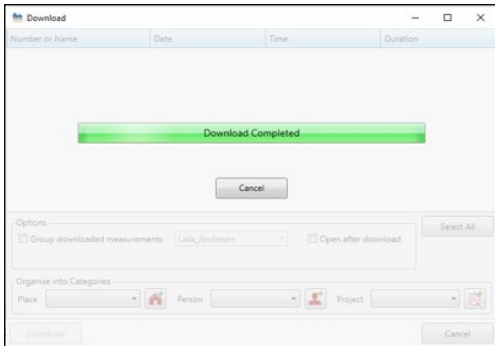
4.2 Downloading measurements from your doseBadge MK4 and creating a report

Once you have used your instrument to take noise measurements and have read the data using the doseBadge reader, connect the reader to your PC/laptop, open NoiseTools, and click 'Download'.

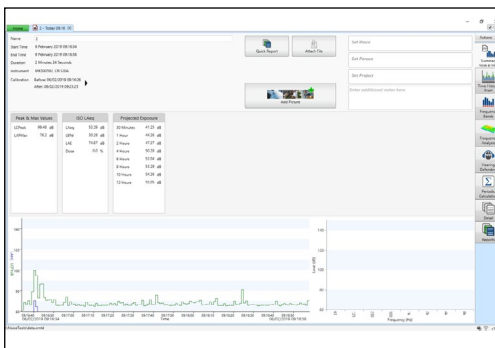
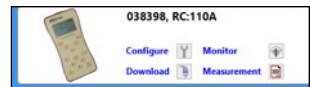


Once you have selected to download the measurements from the doseBadge reader, the 'Download' window will appear. It will display a list of the measurements that are available from the reader, to download into the NoiseTools database.

To download all of the measurements, click 'Select All' and then download.



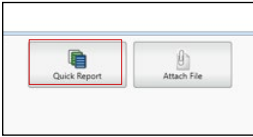
The green bar indicates the progress that has been made in downloading the data into the NoiseTools database. Once the download is complete, the measurement data will appear in the 'Measurements' panel.



Double-click a measurement to open and view it. This will automatically open the 'Summary' view for the measurement you have selected. From here, you can navigate between the different NoiseTools modules to analyse your data.

The standard modules available in NoiseTools for individual measurements are:

- Summary - a summary view of the measurement
- Time-history graph - a detailed time history graph
- Periodic calculation - a calculation tool for the analysis of specific periods of the measurement
- Detail - tables containing the full set of measurement data that can be exported to .csv file format
- Reports - a wizard for generating a range of measurement reports



To generate a quick report from the 'Summary' view, click 'Actions' and select 'Quick Report'.

A screenshot of a 'Measurement Summary Report' from Cirrus Research, LLC. The report includes the following information:

- Name:** 1
- Time:** 09/11/2018 17:00:00
- Location:** 30100 TT
- Instrument:** CANTON, OK 110K
- Person:**
- Place:**
- Project:**

Calibration:

Before: 09/11/2018 17:02 Offset: 0.00 dB

After: 09/11/2018 17:11 Offset: 0.00 dB

Peak & Max Values	ISO Limit	Projected Exposure
CPWR 133.2 dB	LAFD 90.0 dB	30 Minutes 90.0 dB
	LEPD 90.0 dB	1 Hour 90.0 dB
	LAE 95.1 dB	2 Hours 92.0 dB
	Clear 8.0 %	4 Hours 93.0 dB
		6 Hours 94.0 dB
		8 Hours 95.0 dB
		10 Hours 96.0 dB
		12 Hours 97.0 dB

Reported

Page 1 of 1

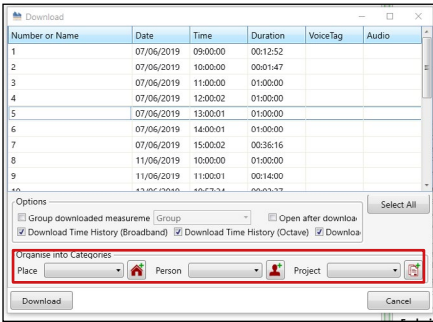
This will immediately generate a summary report and provide a preview. The report can either be printed, or saved in a range of file formats, including MS Word for further editing if required.

5 Managing measurement data

It's important to know how to manage your measurement data, especially as you begin to fill out your NoiseTools database. Being able to quickly identify data is essential, and will be discussed in this part of the quick start guide.

5.1 Searching for measurements

In order to find measurements within your database easily, you can assign them to certain projects, people and places when downloading from your instrument.



To do this, simply highlight the measurements you want to assign to a particular place, person or project, and then choose from the drop-down arrows as highlighted.

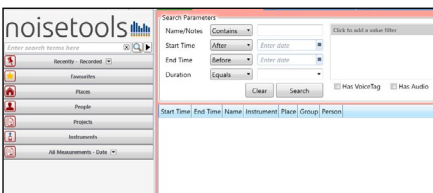
Once the data has been downloaded, you will be able to search for measurements based on these assignments.



On the left-hand side of the NoiseTools screen, you will see a search box.

You can either perform a simple search by typing a search term in the text box and clicking the magnifying glass, or an advanced search by clicking the black arrow icon.

Simple searches will attempt to match your search term with data stored in the categories as listed.

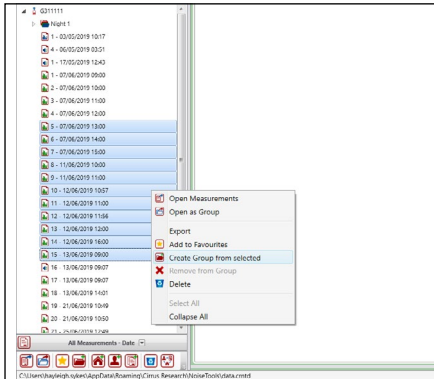


When you click on the black arrow icon, the advanced search box will open to the right.

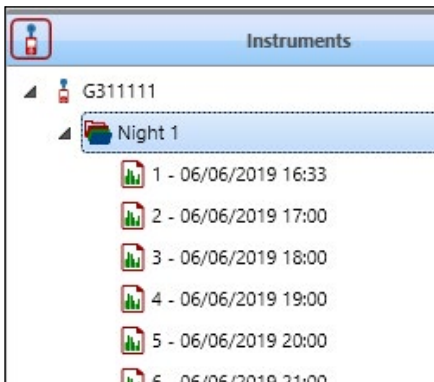
This will allow you to search for data using specific parameters.

5.2 Grouping measurements

Another way to manage your database is to gather your measurements into groups. This can help you quickly and easily identify measurements from particular locations, shifts or machinery etc.

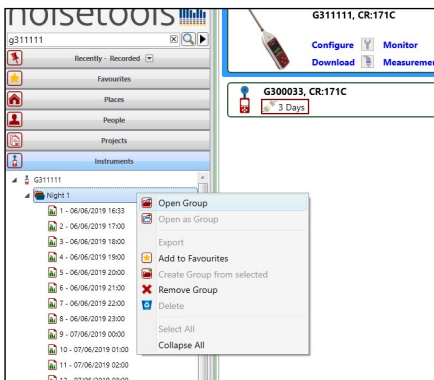


To group measurements together, navigate to the measurement tree on the left-hand side of the NoiseTools window. Highlight the measurements you want to group (using CTRL+click to highlight individual measurements; shift+click to select a range), then right-click and select "Create Group from selected".

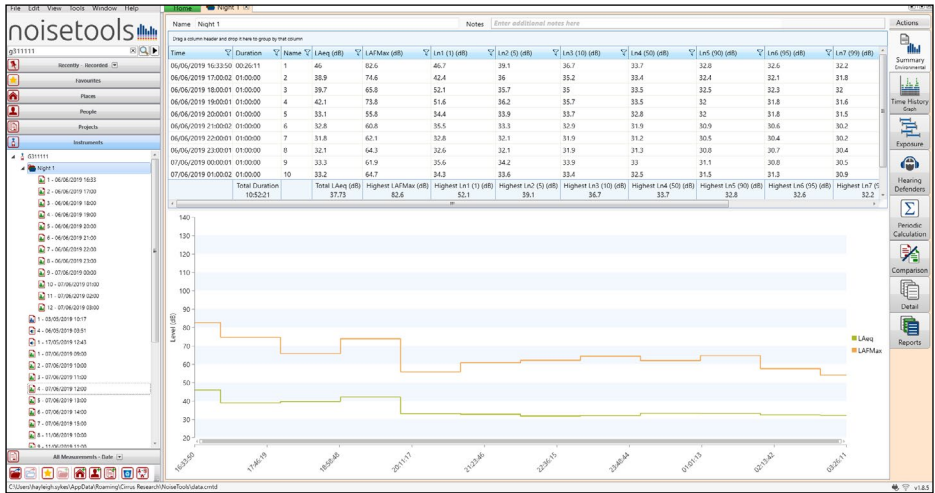


You will then see your newly created group in the measurement tree, with each of the selected measurements underneath.

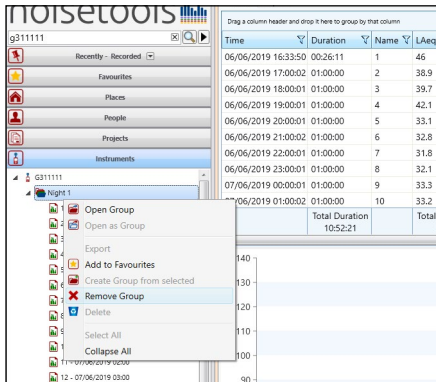
You can rename your group to something memorable to help you identify your measurements easily. To make the measurement tree easier to navigate, click on the small black triangle to the left of the group's name to collapse the selection.



To view all of the measurements in the group simultaneously, simply right-click on the group you wish to view and select "Open Group".



The group view will display all the measurements in your chosen group. Here, you can compare measurements using the graph at the bottom of the window and create reports based on the data in the group.



The groups you create are not permanent; if you want to delete your group, simply navigate back to the measurement tree, right-click the group you wish to delete and select "Remove Group".

This will not delete your measurement data.

The measurements in the group that has just been deleted will be returned to the measurement tree.

ALSO AVAILABLE IN NOISE MONITORING

doseBadge™

The original wireless noise dosimeter

The world's first wireless dosimeter

- Lightweight and robust design
- No controls, dials or screens
- Completely tamper-proof
- Monitor individuals' noise exposure
- Analyse data with licence-free NoiseTools software



doseBadge⁵

The new generation of noise dosimeter

Simplicity redefined

- Bluetooth® enabled
- Can be operated through a smartphone app
- Includes 1:1 octave band filters
- Custom timers can be used for scheduled measurements
- New discreet design



SoundSign

THE NOISE ACTIVATED WARNING SIGN

Creating safer environments

- Noise-activated warning sign
- Alerts employees as to when PPE is required
- Various messages available
- Different languages available
- Custom noise level trigger can be set
- All weather version now available





Cirrus hold UKAS calibration accreditation

We can calibrate sound level meters and acoustic calibrators to the latest British standards, as well as octave band filters.

Having your instruments calibrated to UKAS standards means that the data they record is completely accurate, reliable and traceable.

We also offer standard traceable calibration for all types of noise monitoring equipment and vibration meters, from any manufacturer

TRAINING

Need more support in using your instruments?

Whether it's product-specific training, noise at work awareness or environmental noise training, Cirrus Research offers a host of courses to help you become more confident when it comes noise.

With locations across the UK and dates throughout the year, our courses are perfect for anyone who's just starting out in noise measurement, or for those seasoned professionals looking to freshen up their knowledge.

For every hour you spend at one of our training courses, you'll earn an hour of CPD.

