Configuring the Trojan2 for 24 hour measurement blocks.

Cirrus Research plc

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1 What are the benefits of using 24 hour data blocks? 4
1.1 Management of data 4
1.2 Error correction during download 4
2 Are there any downsides to using 24 hour blocks? 5
2.1 Viewing measurements 5
2.2 Automatic start & stop of measurements 5
3 Configuring the Trojan for 24 hour measurement blocks 6
3.1 Connect the Trojan to the NoiseTools software 6
3.2 Open the configuration options 6
3.3 Configure the instrument 8
3.4 Program the instrument 12
4 Downloading the 24 hour data blocks 13
5 Viewing the measurements 14

1 What are the benefits of using 24 hour data blocks?

1.1 Management of data

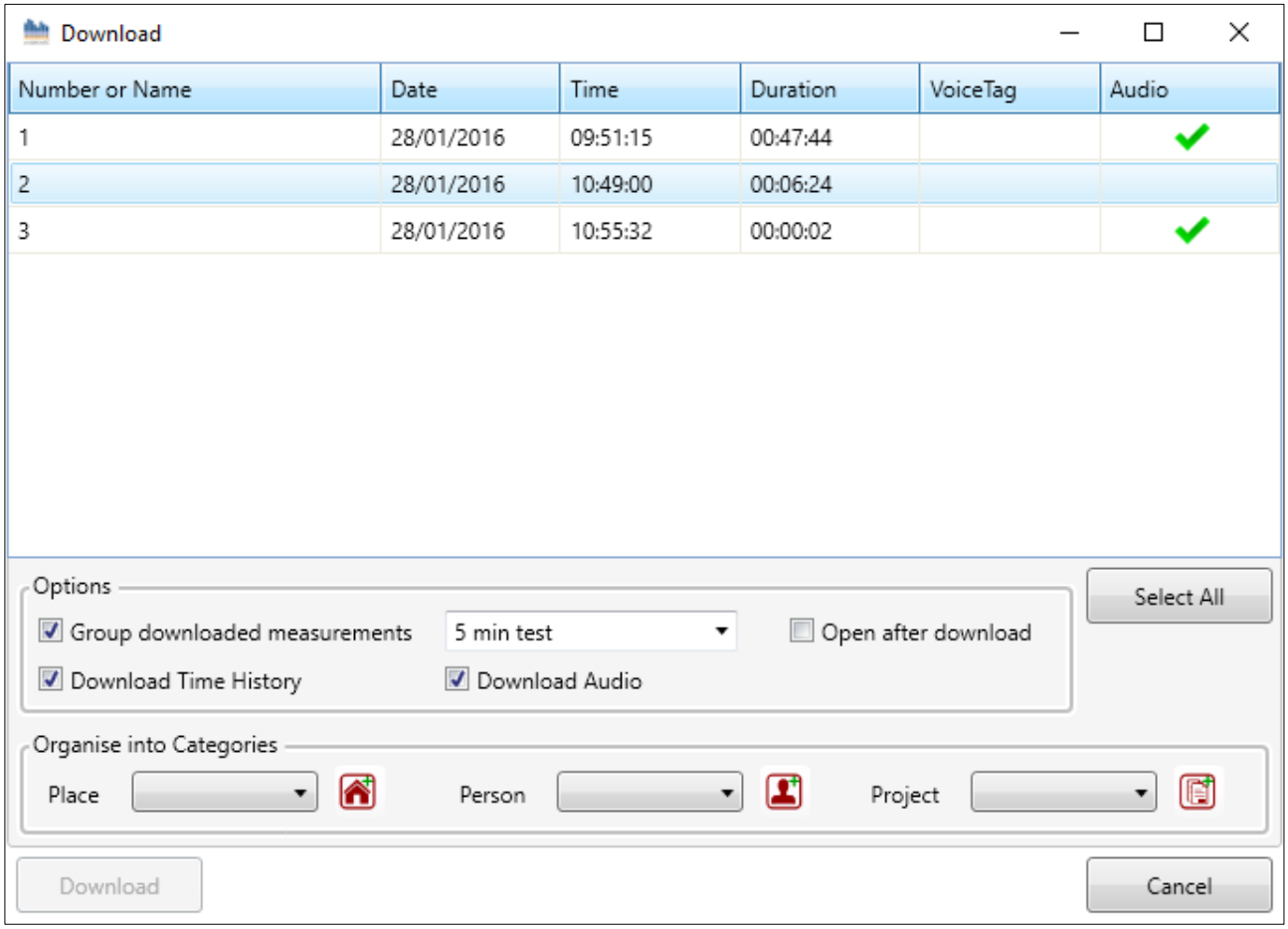
Downloading data in sections can be more efficient as only blocks where audio recordings have been made will need to be downloaded.

Where a measurement contains one or more audio recordings, a green tick is shown in the download window.

If there is no tick, no audio recordings were made during that period and so it may not be necessary to download that particular block of data.

This can reduce the overall download time and also the time needed to view and listen to the measurement data.

In the example below, measurements 1 and 3 contain one or more audio recordings. Measurement number 2 does not contain any audio recordings.



When the measurements have been downloaded, they can be opened individually for analysis or playback.

Opening an individual 24 hour measurement will reduce the memory needed by NoiseTools as less time history data will need to be opened and fewer audio recordings will need to be retrieved from the storage location.

This can be particularly effective if the data is stored on a remote server rather than on the local hard drive.

1.2 Error correction during download

When measurement data is downloaded from the Trojan, the NoiseTools software check to see if there are any errors in the data transmission.

These can be caused, for example, by electrical interference from fluorescent lights, mobile phones, radios and so on.

If the software detects an error, it will restart the download of the measurement data from the start of the data block.

This is transparent to the user but may increase the download time.

If the data block is 7 days for example, the whole block will have to be downloaded again. However, if the data block is shorter, 24 hours for example, the amount of data to be re-downloaded is smaller and the download time will be shorter.

2 Are there any downsides to using 24 hour blocks?

2.1 Viewing measurements

The only functionality that is not available when using separate measurements is the ability to view the entire measurement with any associated audio recordings.

Viewing of audio recordings alongside the noise data is only available for individual measurements.

The measurements can be opened individually at which point all of the normal functionality is available such as listening to audio recordings and creating measurement reports specific to the Trojan Noise Nuisance Recorder.

This functionality may be added in later versions of NoiseTools but is not available in NoiseTools 1.6.1.

If the measurements are opened into a group, the group time history view will allow the time history data to be viewed for all of the measurements and any markers can be displayed.

2.2 Automatic start & stop of measurements

When the Trojan is configured for 24 hour measurement blocks, the change from one measurement to the next will occur at midnight (00:00).

If the instrument is recording audio at the change over from one measurement to the next, the audio recording will be stopped and stored before the next measurement starts. The audio recording will not restart until the user presses the record button again or any automatic level triggers are activated.

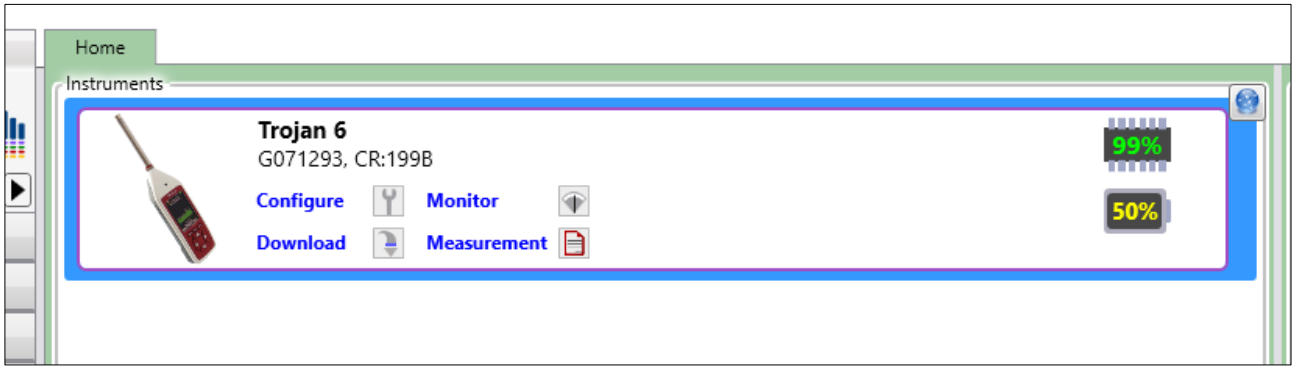
3 Configuring the Trojan for 24 hour measurement blocks

Note that as with the default configuration, when configured for 24 hour measurement blocks, the instrument will auto-start after 10 minutes.

3.1 Connect the Trojan to the NoiseTools software

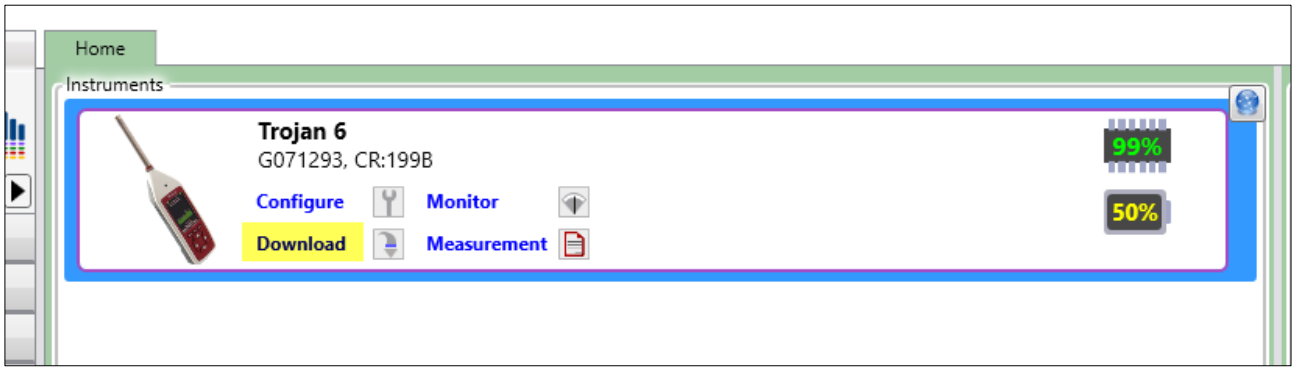
Connect the instrument to the NoiseTools software. Switch on the instrument if necessary.

When the connect is made, the instrument window will show:

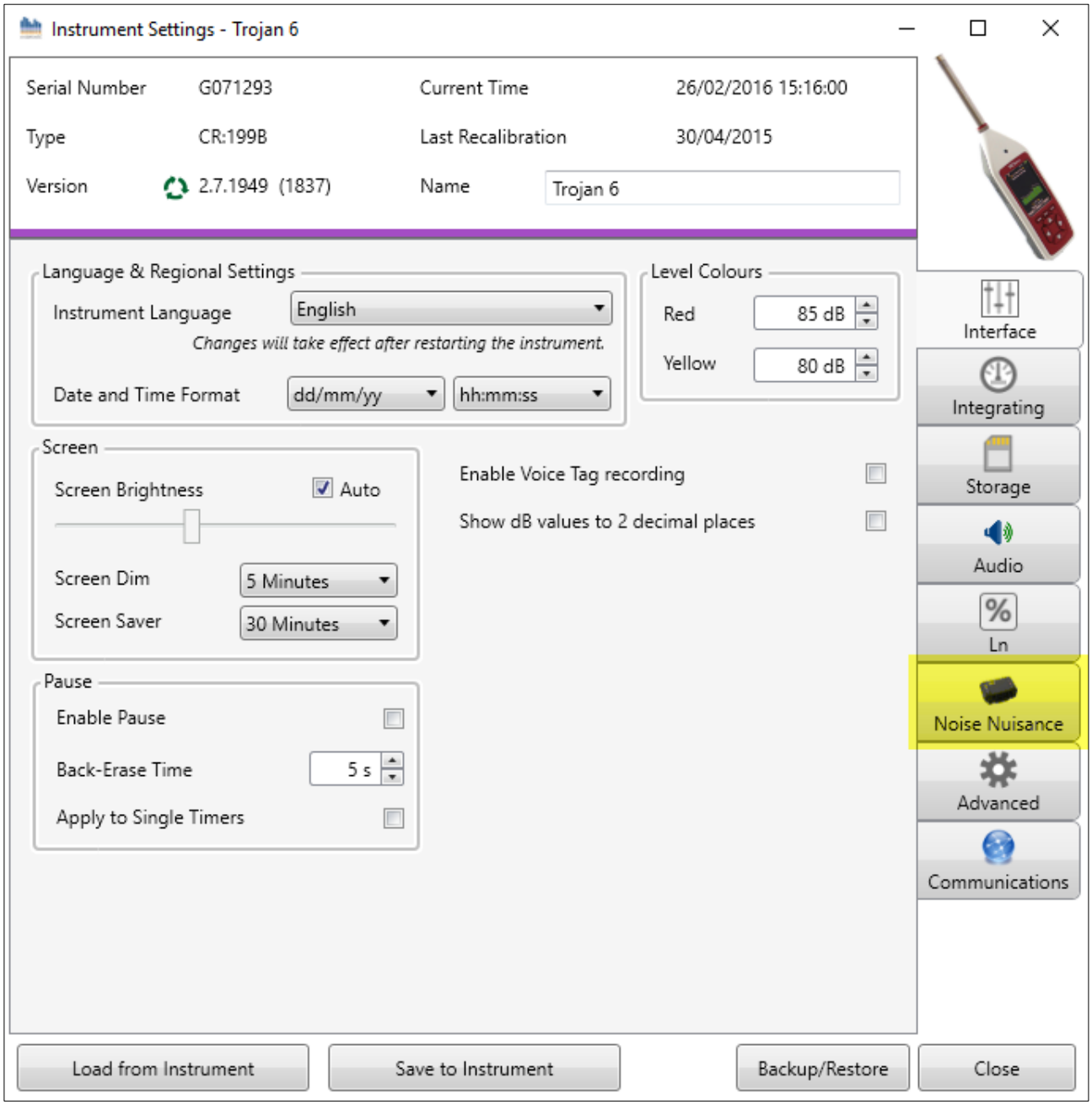


3.2 Open the configuration options

Click the configure link to open the configuration options:

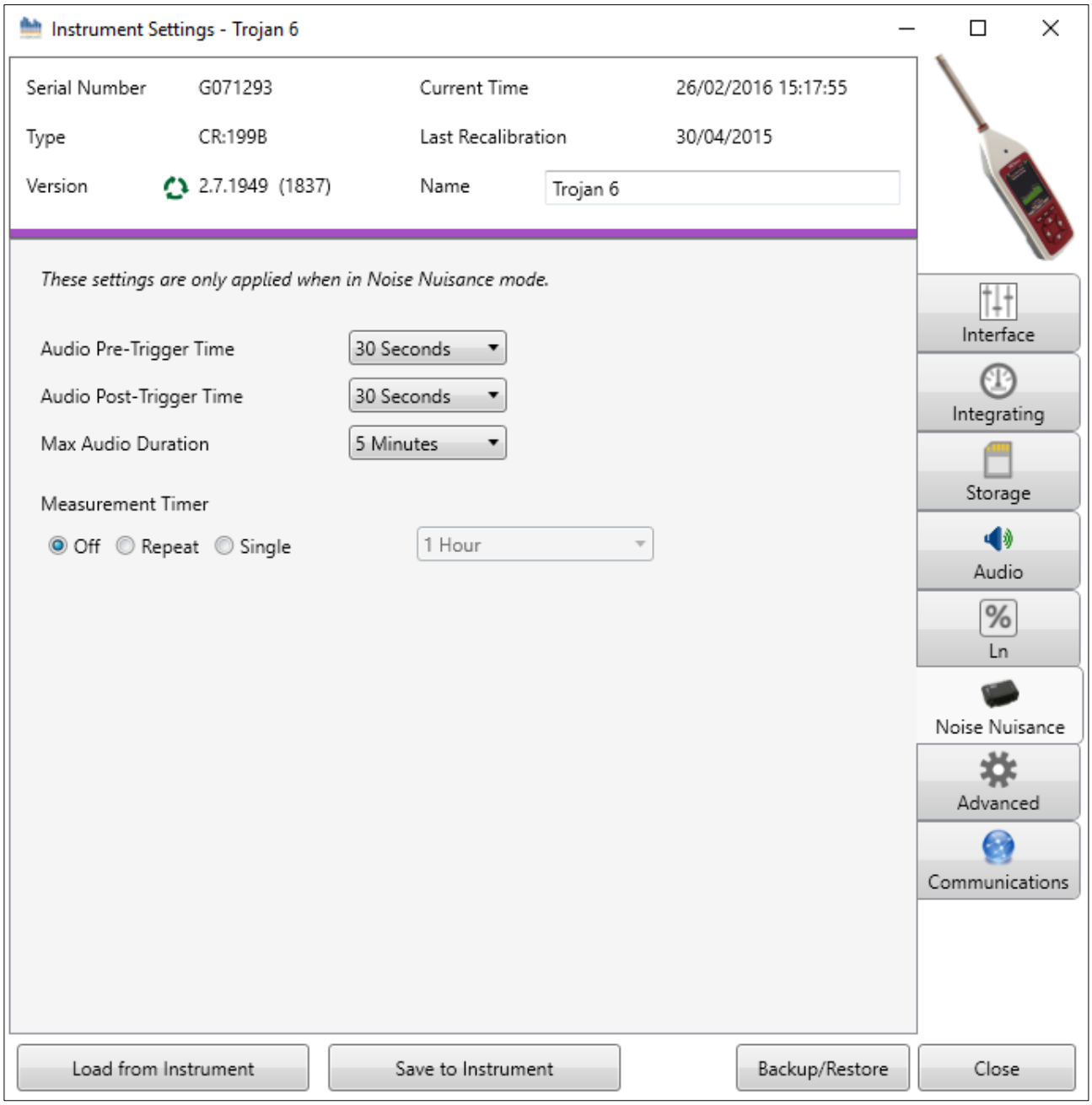


When the Configure options window opens, click on the Noise Nuisance tab on the right hand side:

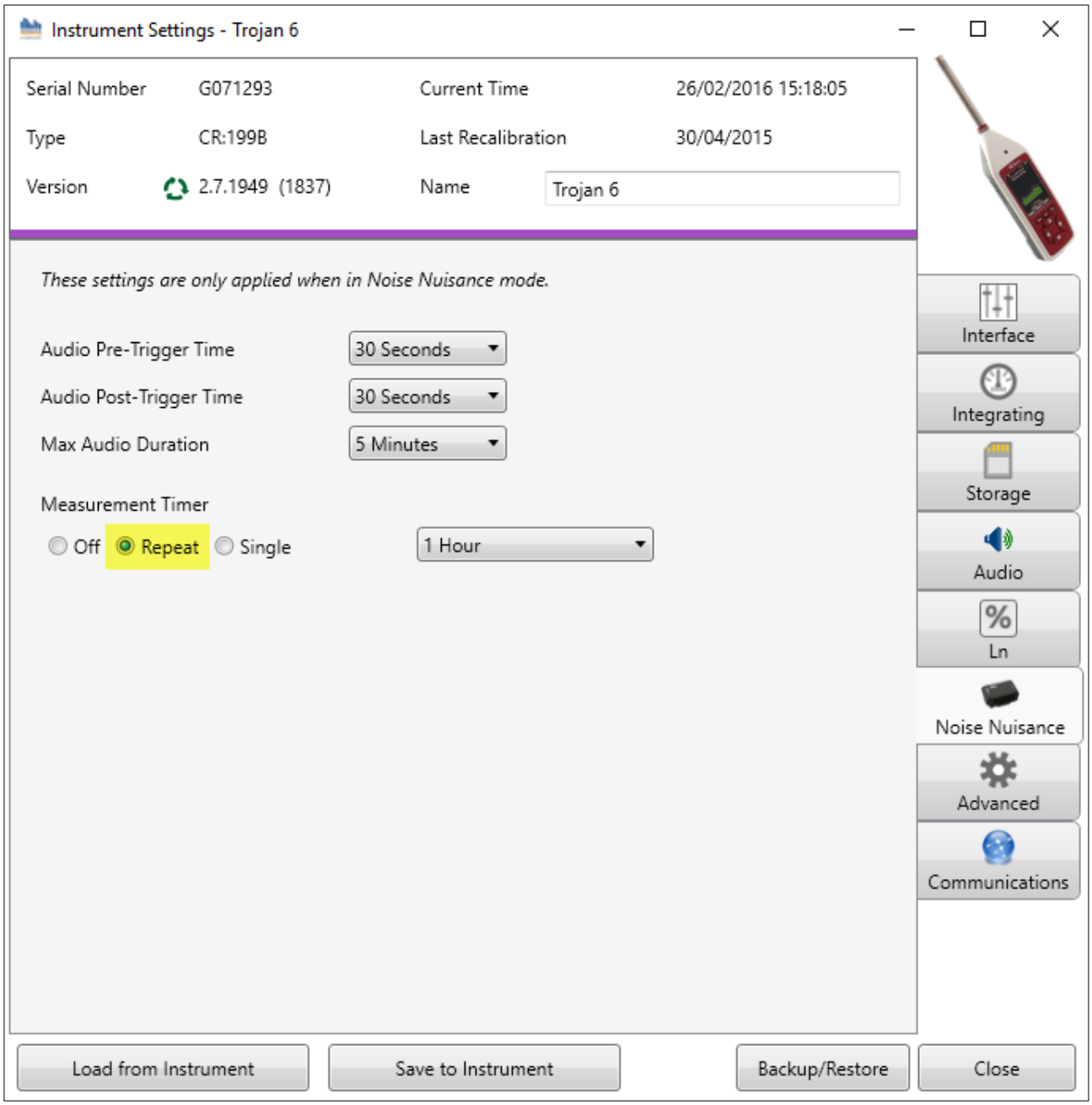

Instrument Settings - Trojan 6
Serial Number
G071293
Current Time
26/02/2016 15:16:00
Type
CR:199B
Last Recalibration
30/04/2015
Version
2.7.1949 (1837)
Name
Trojan 6
Language & Regional Settings
Instrument Language
English
Changes will take effect after restarting the instrument.
Date and Time Format
dd/mm/yy
hh:mm:ss
Level Colours
Red
85 dB
Yellow
80 dB
Screen
Screen Brightness
Auto
Screen Dim
5 Minutes
Screen Saver
30 Minutes
Enable Voice Tag recording
Show dB values to 2 decimal places
Pause
Enable Pause
Back-Erase Time
5 s
Apply to Single Timers
Interface
Integrating
Storage
Audio
Ln
Noise Nuisance
Advanced
Communications
Load from Instrument
Save to Instrument
Backup/Restore
Close

3.3 Configure the instrument

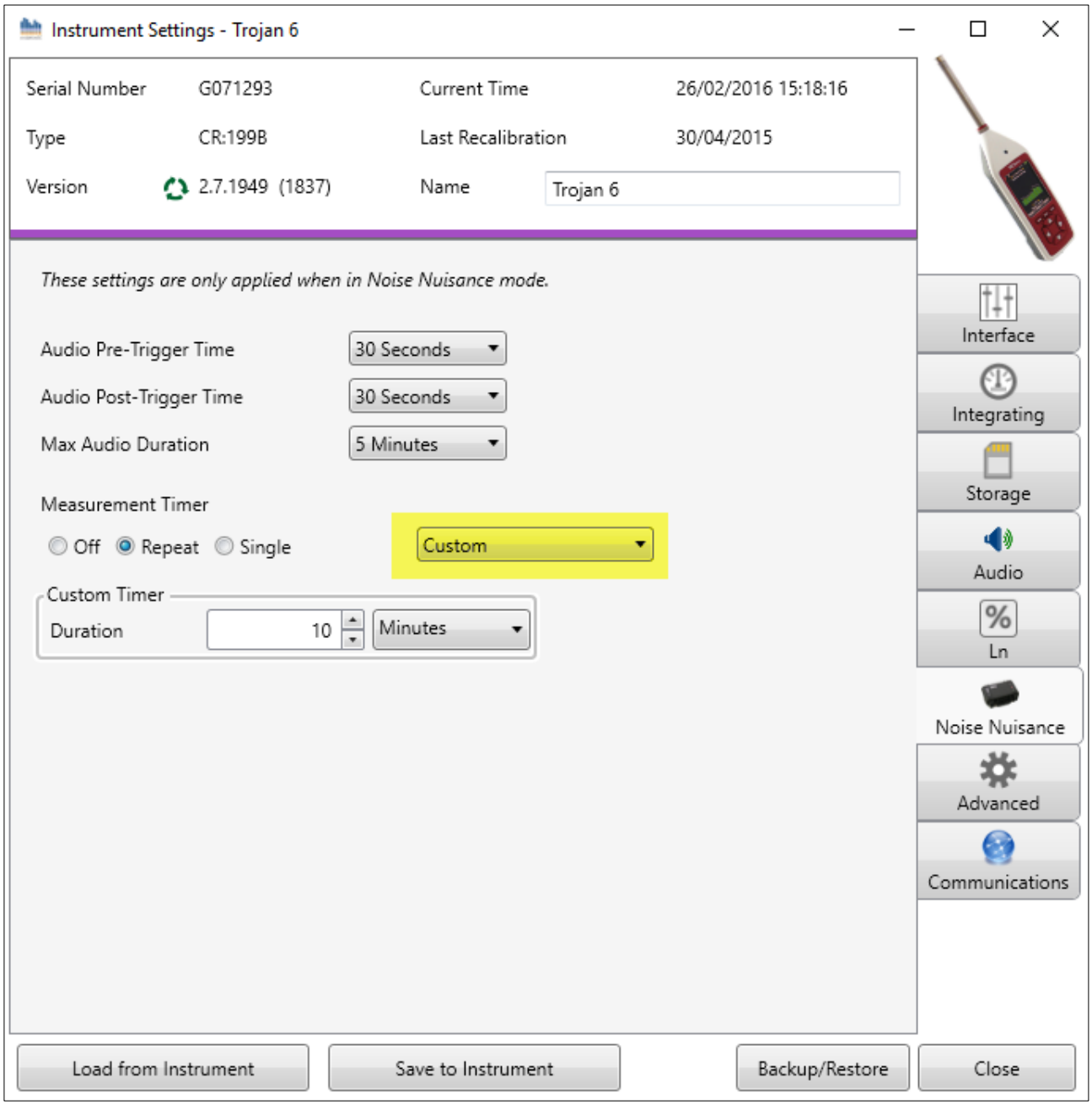
When the Noise Nuisance tab opens, the current configuration is loaded from the instrument. An example is shown below:



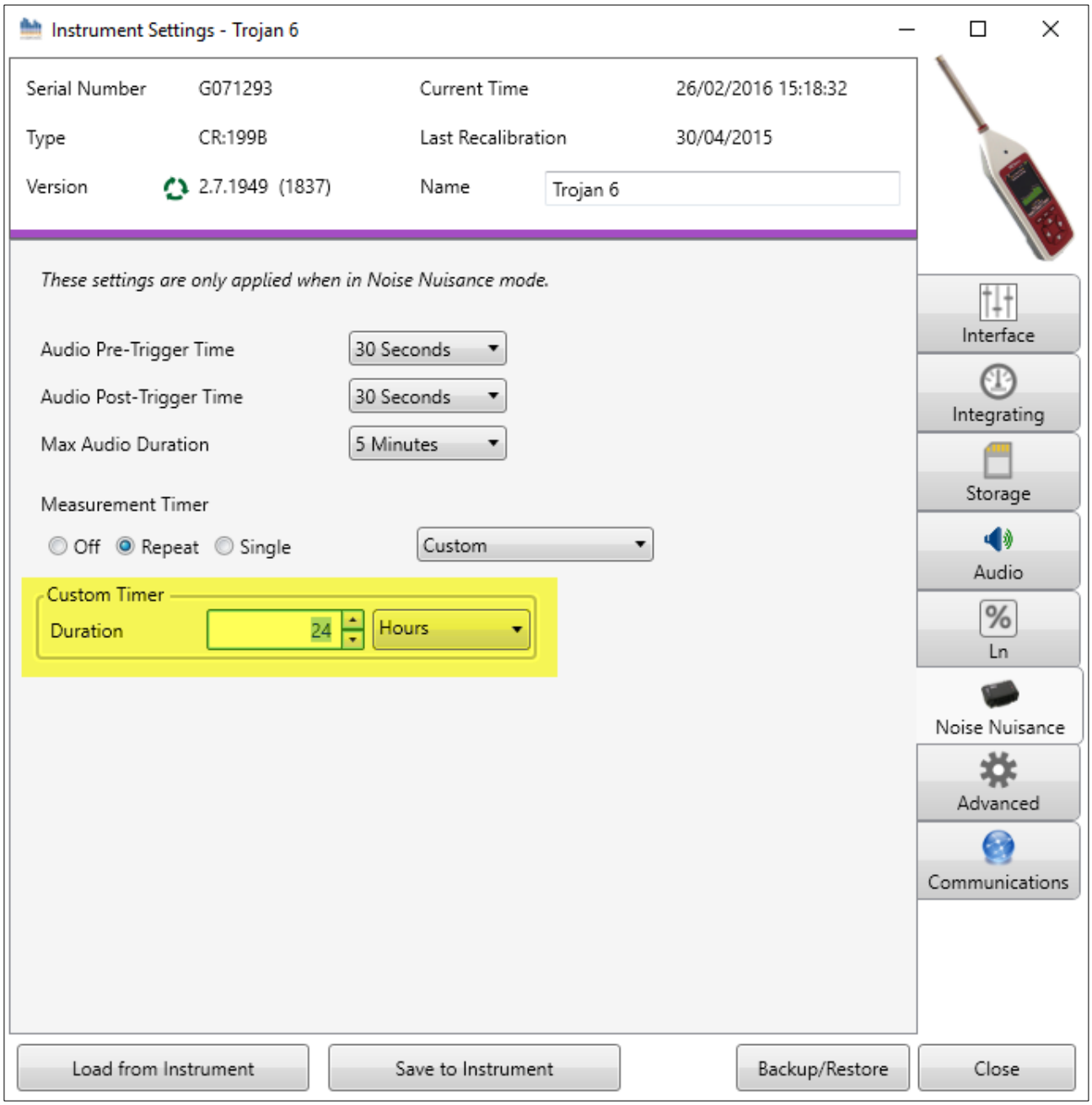
Select Repeat from the Measurement Time Options:



Select Custom from the duration drop down box:

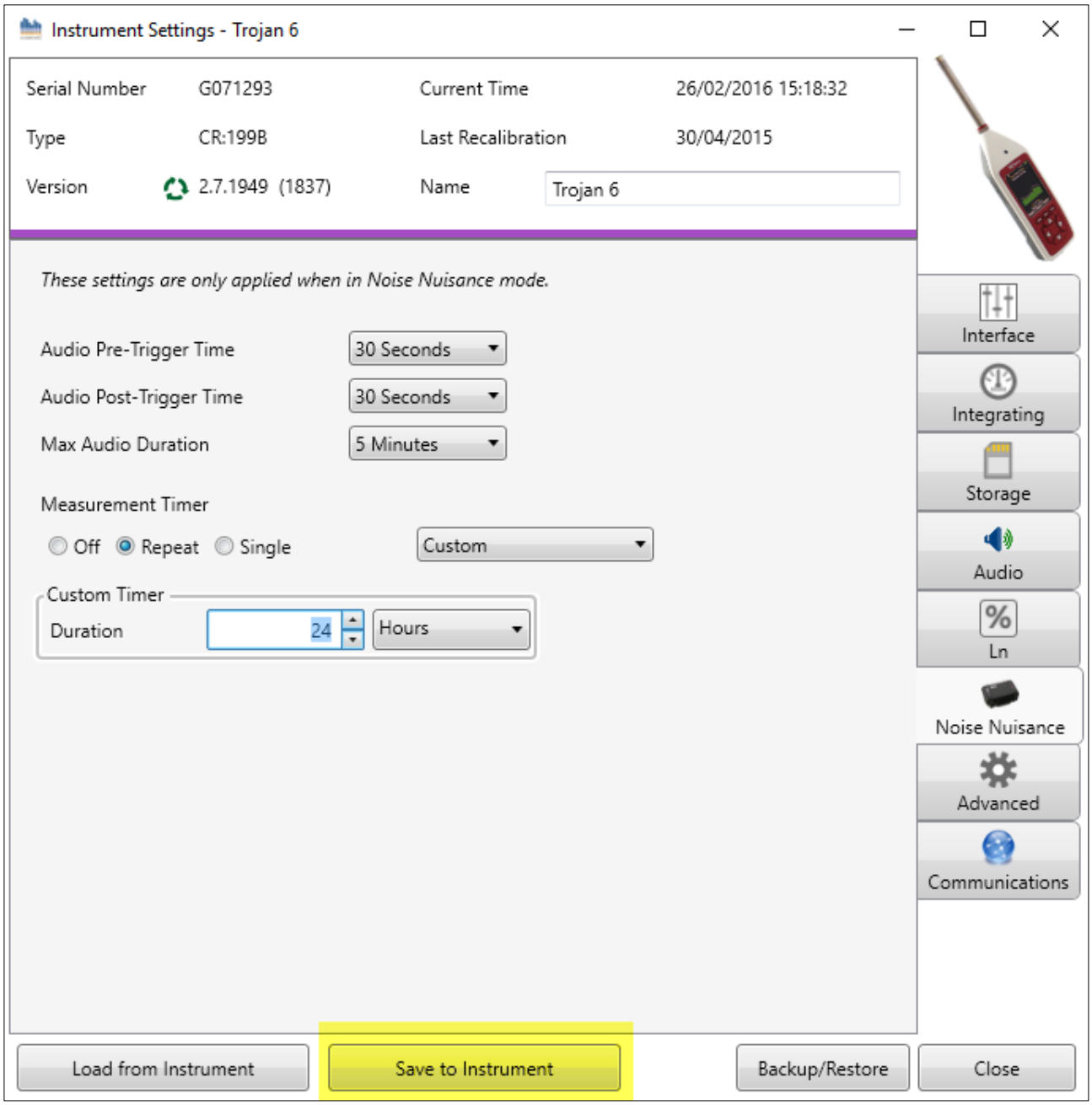


Change the Custom Timer options to 24 hours:



3.4 Program the instrument

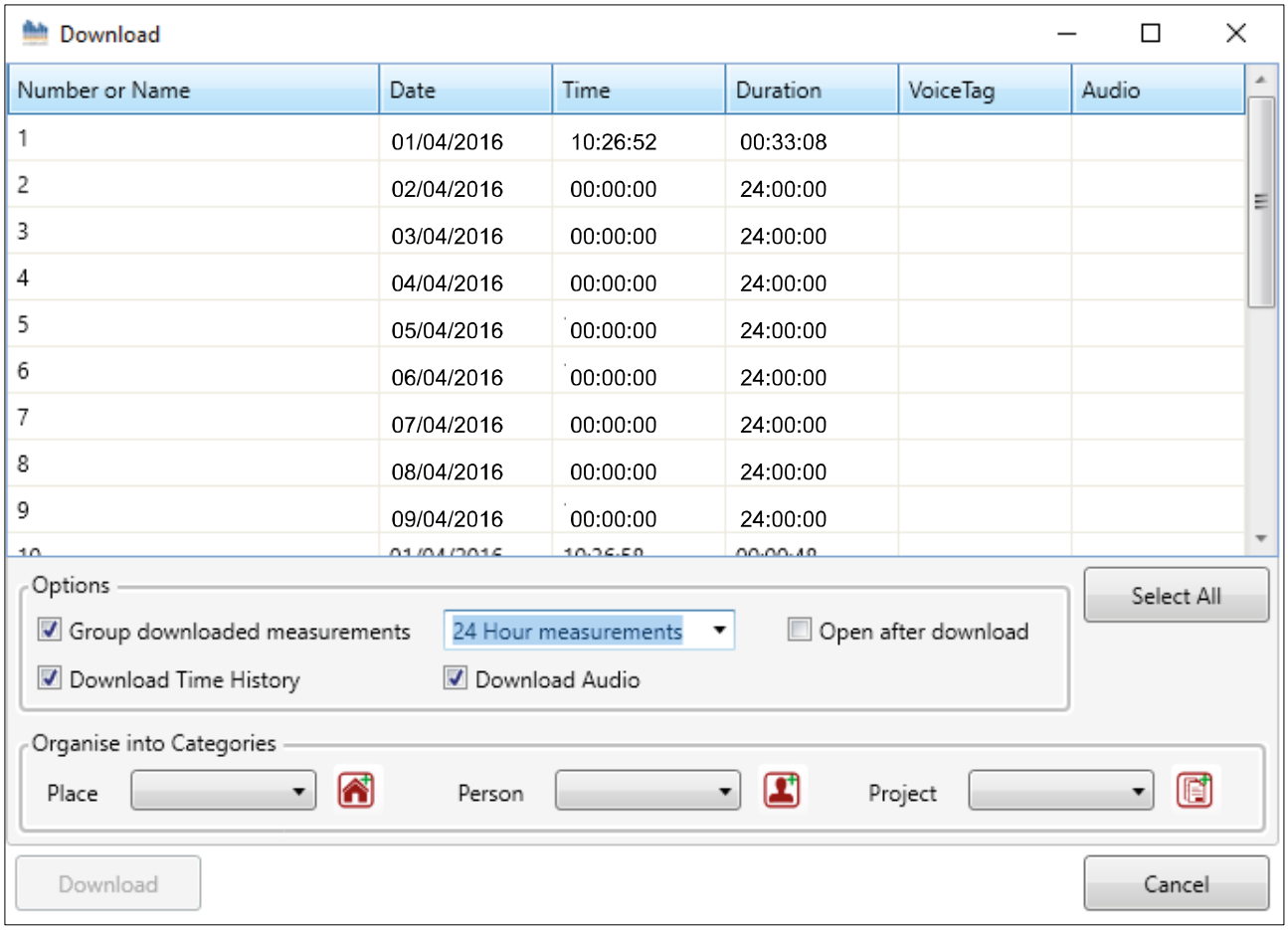
Click Save to Instrument to program the configuration into the instrument:



The instrument will now measure 24 hour blocks of data rather than one single measurement.

4 Downloading the 24 hour data blocks

When you have connected the Trojan to the NoiseTools software, in the Download window you will see a series of 24 hours measurements as shown below:



To download the measurements, click Select All.

Allocate the measurements to a Place, Person or Project as normal.

Tick the Group downloaded measurements box and enter a name for the group. Typically this would be the location where the measurements have been made.

Ensure that the Download Time History and Download Audio boxes are selected and click Download.

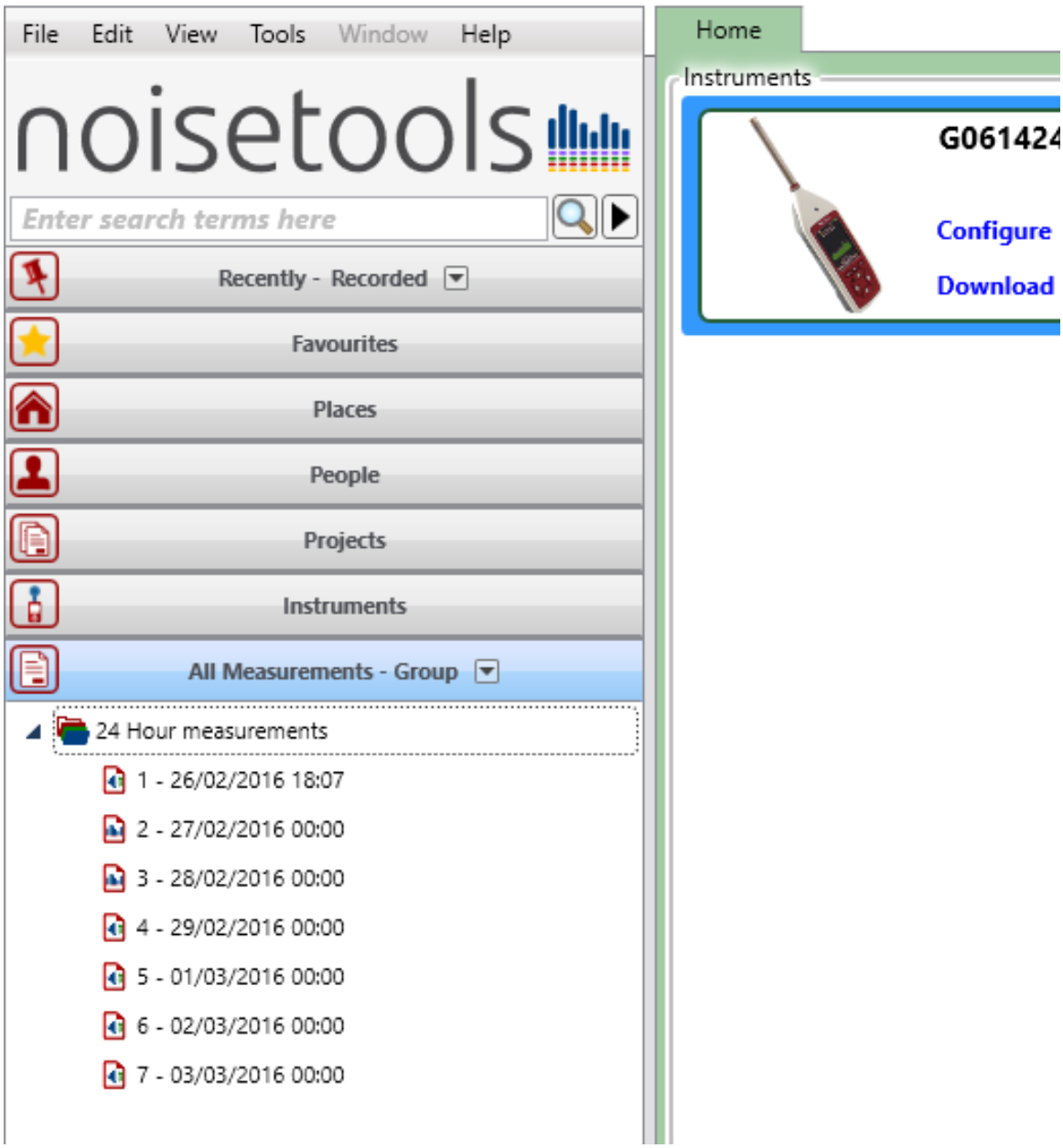
5 Viewing the measurements

When the download is complete, the measurements will be shown in the measurement tree.

Select the All Measurement tab and choose Group. This will show the measurement groups that have been created.

Open the measurement group that have been created when the measurements were downloaded.

The individual measurements can be open as normal and all of the functions such as playback and analysis are available.

To open all of the measurements, select them all using the mouse and the Shift button on the keyboard. When all of the measurements have been selected, right click and choose Open Measurements.

Each of the measurements will open individually.