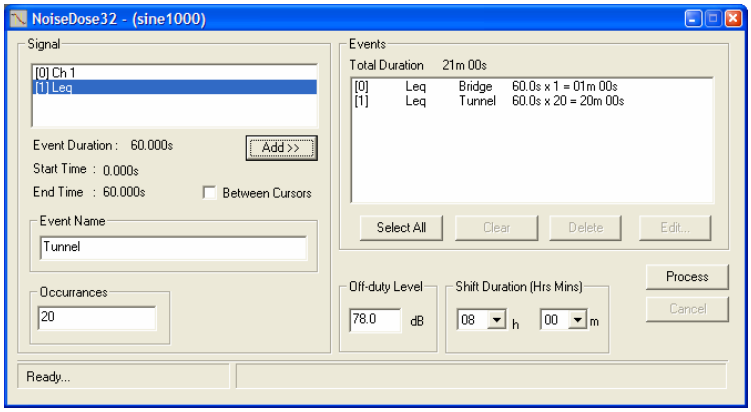
NoiseDose Documentation V1.1

NoiseDose

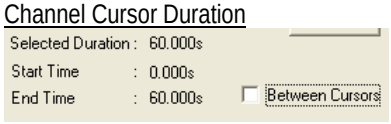


NoiseDose is a single panel application that can generate a NoiseDose figure from a LEQ trace generated using the LEQ module. It is assumed that input data will be LEQ with units of dBA.

The panel is divided into two main groups – "Signal" and "Event". When a signal object is dropped on the module the "Signal" group will be enabled to allow events to be defined.

SIGNAL GROUP OPTIONS

Channel Cursor Duration



If the "Between Cursors" checkbox is checked then the Start and End times will reflect the time interval set between the dotted and solid cursors for the selected object. This will represent the interval over which the NoiseDose will be calculated. The duration can be changed by using the "Trace" module.

If the "Between Cursors" is unchecked then the full signal channel duration will be used irrespective of cursor position.

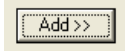
Event Name

Position the signal cursors over a specific event in the signal object. This event can be labelled so that its specific NoiseDose level and its contribution to the overall noisedose can be easily identified. The label will be used in the final NoiseDose report.

Occurances

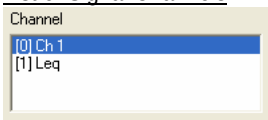
To save time identifying events that are very similar, it is possible to identify one event and then specify how many times it is likely to occur over a typical working period. For example a train driver may pass through 10 tunnels in the course of a journey. The Leq trace for one tunnel could be specified and then the occurances figure set to 10.

Add an Event



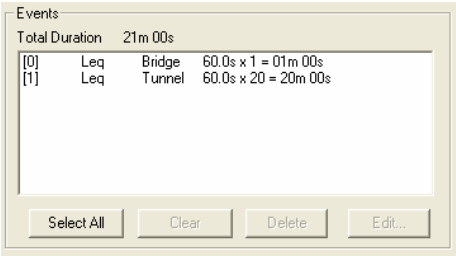
When an event has been specified then click on the add button. This will add it to the Event list so that it will be included in the final noisedose calculation. This same channel can be processed multiple times with different processing options.

List of Signal Channels



When a signal object is dropped on the LEQ module the list of available process channels will be displayed.

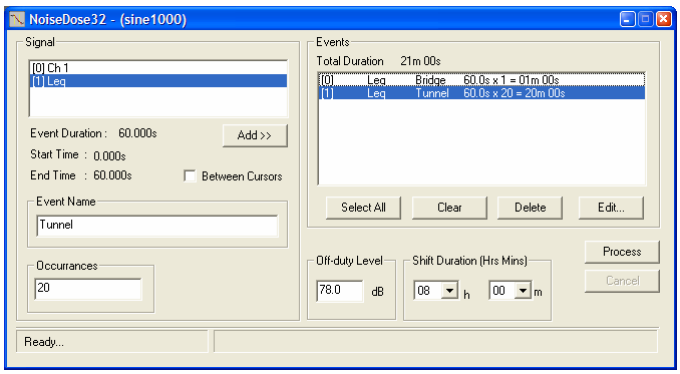
EVENT GROUP OPTIONS

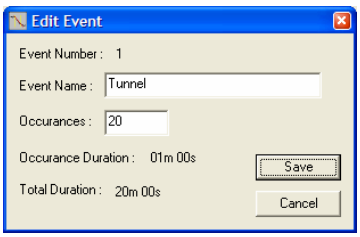


When a signal channel is added to the event list it will appear in the "Process List" listbox. Each entry will display the following information:

- Channel name
- Event name
- Process signal duration
- Number of occurances

The total event time will be displayed at the top of the listbox. Entries in the process list can be selected using either the "Select All" or by clicking on the entries you wish to work with. When entries have been selected the "Clear" and "Delete" buttons will be enabled.

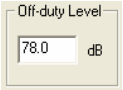




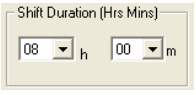
When a single entry is selected the "Edit…." Button will be enabled. This will invoke a dialog that will allow options relating to the event to be modified.

Any changes made to an event will be reflected in the Event List once "Save" is clicked.

Global Settings



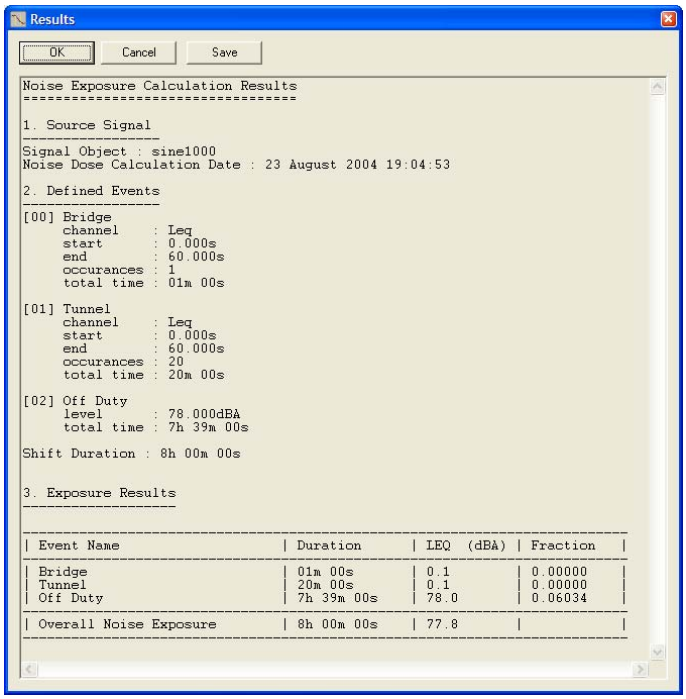
When the noise dose is calculated it requires the overall shift time to be specified. This can be set by setting the shift duration using the drop down options.



When the total shift duration is longer than the total of all the defined events then the NoiseDose calculation will use the Off-Duty level for the remaining time in the shift. If the total event time was 7hrs and the shift is 9hrs then the off-duty level will be used for 1hr.

PROCESSING DATA

When all events have been defined - click on the "Process" button to generate the NoiseDose report.



The Results window will show the noisedose calculation results. Each event will be broken down so that its contribution to the overall noisedose can be seen. The “Fraction” value gives an indication of how significant the event is to the overall noisedose. The higher the figure the more significant the event.

Clicking on “Save” will save the results to a file. The file will be created in the nVision Save place and will have the following format:

SignalnameDDMMYY_HHMMSS.txt

where

SignalName = name of source signal object containing the LEQ traces.

DD = Day
MM = Month
YY = Year

HH = Hour
MM = Minutes
SS = Seconds