SoftNoise
DEVELOPERS PREDICTOR & LIMA

Welcome to this Softnoise newsletter.
This newsletter gives information related to our software and to calculation methods in general. It includes an overview of latest software releases and an overview of events where you can meet us.
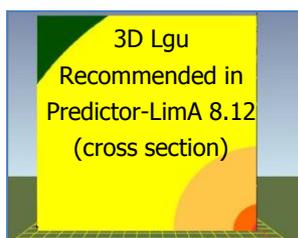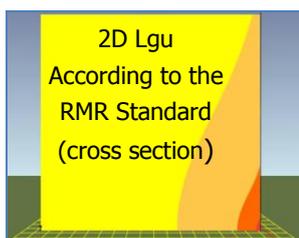
New Predictor™ version 8.12

Recently version 8.12 has been released. New features include:

- RMR 1996: Improved full 3D calculation of distance attenuation term Lgu. The user can now choose between 2D (according to the official standard) or a more realistic full 3D calculation (recommended).
- ISO 9613: Entry of total Lw for Line sources emitting facades and emitting roofs. This was a strong user wish for modeling low speed driving equipment
- NMPB-2008: Latest version of "PropagationNMPB.dll" dated 8 December 2011 as distributed by CETE de l'est - LRPC de Strasbourg.

Predictor™ is a Trademark of Brüel & Kjær. Predictor-LimA is distributed exclusively by Brüel & Kjær worldwide.

Railway noise method RMR 1996

The description of the distance attenuation and directivity term Lgu in the Dutch, and European interim, RMR-1996 Standard for Railway Noise is not very straight forward to interpret. When it comes to the decision which angle and distance definition is to be seen in 2D or 3D one ends up with formula that will work fine when source and receiver are on equal height above a flat ground but does not work properly wherever source and receiver heights vary significantly. The RMR-1996 standard is therefore clearly written for flat propagation conditions and low receiver heights. In order to bring the distance attenuation of RMR in line with ISO or e.g. CRN, the parameters used in the formula suggested in RMR need to be interpreted in a 3D manner. The way the formula may be interpreted will also affect the directivity term. In Predictor 8.12 the user can define in the calculation settings whether the calculation of the distance attenuation and directivity is done in a 2D manner, as described in the standard, or in a 3D manner, which gives better results in case of height differences. The default setting is the 3D option.

2D Lgu
According to the RMR Standard
(cross section)

3D Lgu
Recommended in Predictor-LimA 8.12
(cross section)

Modeling of wind turbines in PL8

Since version 8.0 of Predictor-LimA the modeling of wind turbines in Predictor can be done with the new wind turbine item. The wind turbine item is used to model wind turbines in a Predictor model for ISO 9613 and DAL 32 calculations. It has specific attributes enabling a clear method of calculating noise from wind turbines in Predictor. The specific attributes, like cut-in and cut-out speed and sound power per wind speed, can be entered manually or retrieved by selecting a wind turbine from the wind turbine database. The product specification of wind turbines provided by manufacturers can be stored by the user in the wind turbine database.
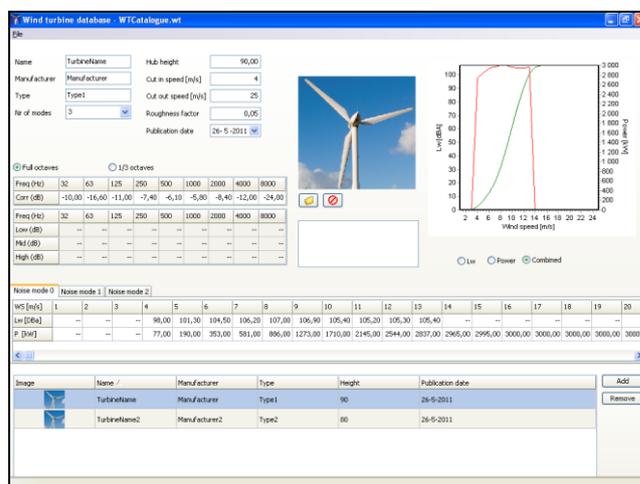

The equivalent noise level is calculated using the wind speed statistics at hub height. Wind speeds at 10 meter height are automatically converted into wind speeds at hub height using the terrain roughness.

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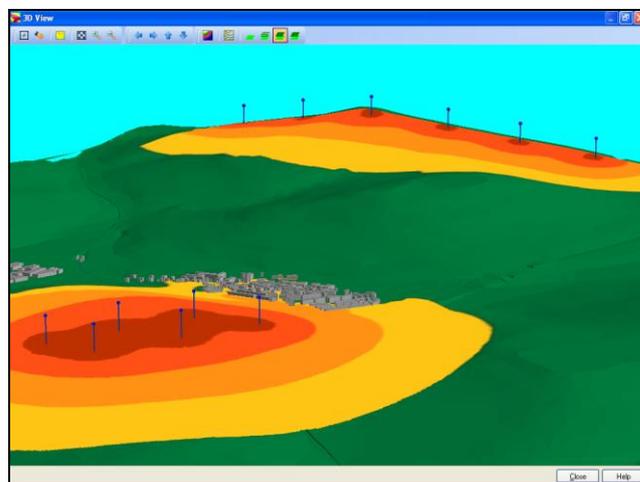
Silence-GIS

Silence-GIS is a large scale noise management system built as an extension on ArcGIS 9.3.1. This system has been designed and developed for the Dutch Highway Authorities. It contains the Predictor calculation core and calculation client technology.
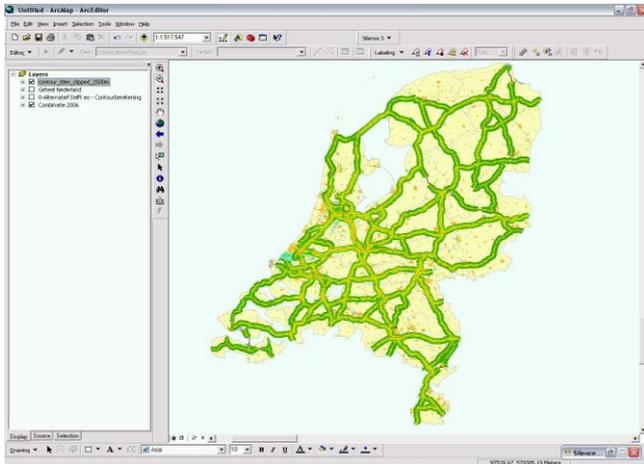
For the development of the latest version an agile development method called 'Scrum' was chosen. Terms were introduced like sprints, scrum meetings, back log and burn down charts.
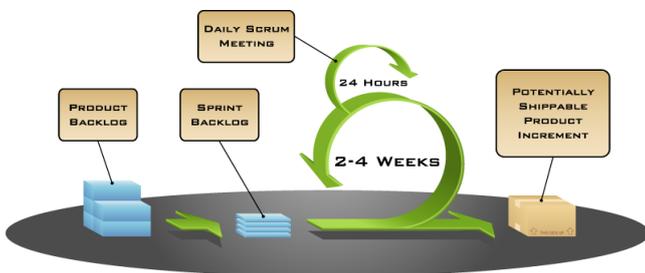
The most important advantage of the Scrum method compared to a more traditional Waterfall method is that developments are far better manageable in time and effort. For more information see the full paper presented at Acoustics 2012.

Predictor - Tip of the day
Did you know that Predictor fully supports pasting of attributes from Excel into the List of Items with a validity check on the attributes?
- Simply select a sound power spectrum in Excel and paste it in the List of Items for a specific point source.
- Or copy the traffic flows of all the Roads from the List of Items and paste it in Excel. Next you can change the traffic flows in Excel, copy them and paste them back into the List of Items.

Acoustics 2012 in Hong Kong

In cooperation with Brüel & Kjær – China, Softnoise presented the latest versions of Predictor-LimA and NoiseAtWork in our Softnoise booth at Acoustics 2012 in Hong Kong. As a treat our customers were offered the amazing Dutch 'Stroopwafels'. Also Softnoise presented 2 papers 'Experiences in development and maintenance of Silence-GIS' and 'Application of Geographic Information Systems to manage and control urban noise'.

New tender out for CNOSSOS-EU

The European commission recently issued a new tender that consists of 3 parts:
- Aggregation of existing databases with data of roads, rail and industrial sources.
- Development of open source software for the source models and the P2P (point to point) for the NMPB-2008, Harmonoise and ISO-9613 methods. Development of test cases. Description of the path finder.
- Good practice guide for using the 3 calculation methods.

So the main approach is to aggregate all existing information and to develop open source software and test cases to be used by (commercial) software developers.

Latest software releases
- » Predictor-LimA V8.12 (Brüel & Kjær Type 7810)
- » NoiseAtWork V3.11 (DGMR Type NAW)

Events – We look forward meeting you!
- » Predictor workshop : 10 Jul, Dublin - Ireland
- » Predictor workshop : 11 Jul, Anglesey - UK
- » Internoise 2012 : 19-22 Aug, New York - USA
- » Internoise 2013 : 15-18 Sep, Innsbruck - Austria