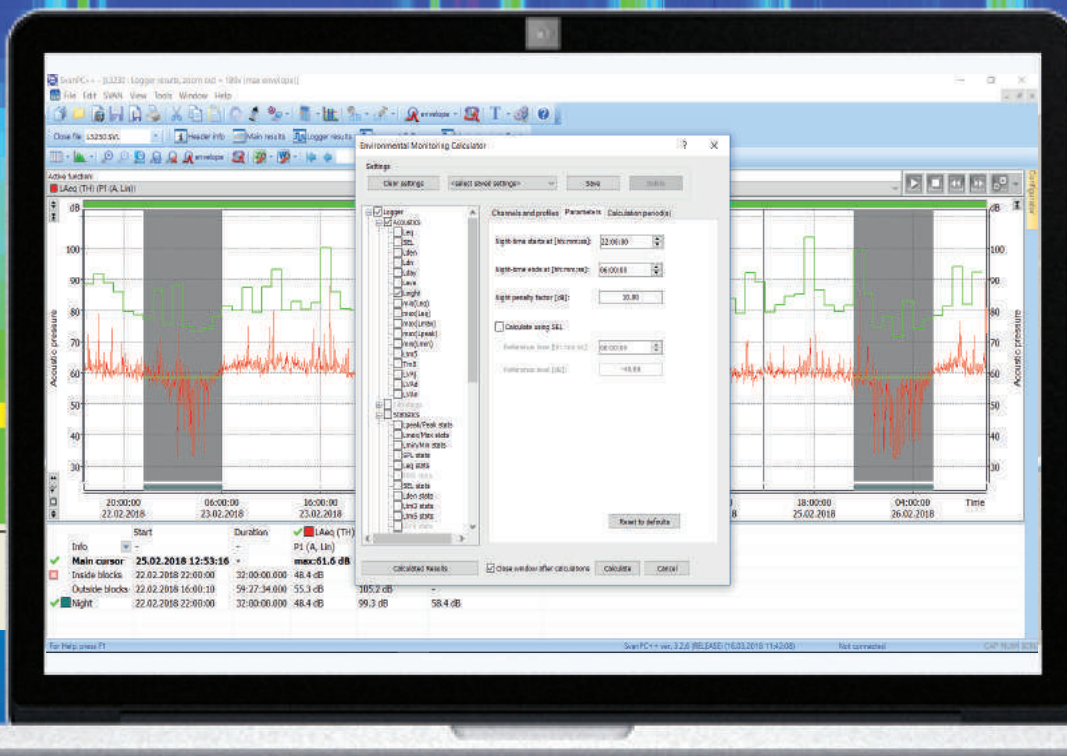# SvanPC++

PC Software Platform

SVANTEK

SvanPC++ Software

SvanPC++ is an advanced PC software supporting SVANTEK measuring instruments including SV10x, SVAN 95x and SVAN 97x series.
The basic software offers functions of editing instrument settings, downloading data files from instrument as well as data preview and basic recalculations of Leq and RMS (logger step recalculation).
Recently the SvanPC++ has been enriched with the new Projects that allow to combine numerous data files into Sessions. The main advantage of using Projects is the possibility of data comparison as well as an easy report management.
Reports are prepared in a form of panels (text, photos, tables, graphs, plots) and can be exported to Excel™ spread sheet or Word™ text editor applications. Each Project can be saved and recalled in the future.
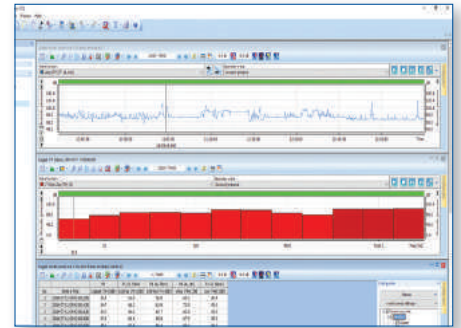
Features

- Instrument connection Wizard offering setup editor and download of measurement data via USB, Bluetooth® and RS 232
- New Projects with customized views saving
- Leq / RMS logger step recalculation
- Data calculation in marked blocks
- Recalculation of FFT to 1/3 and 1/1 octave spectrum
- Logarithmic / linear units recalculation
- Data shift / clip / delete functions
- Spectrogram view for frequency analysis
- Enhanced data presentation with a secondary Y-axis for plots comparison
- WAVE files playback
- Data export to Word™ and Excel™
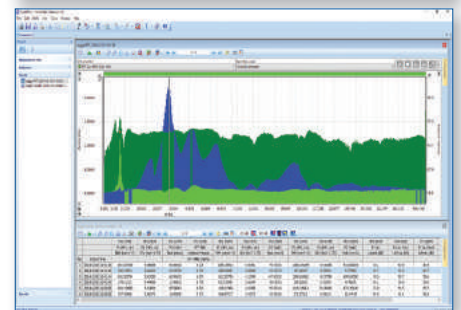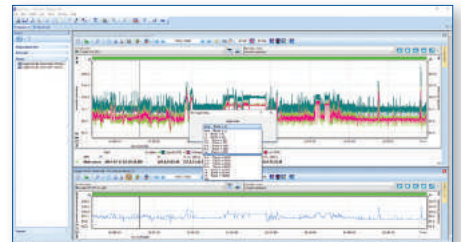
Technical Requirements

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Supported Operating Systems	Windows 7 Windows 8 / 8.1 Windows 10
Minimum PC Requirements	Processor 1.6 GHz 1 GB RAM 200 MB free disk space for installation 5 GB free disk space for operating (e.g. temporary files)

SvanPC++ Environmental Measurements Module

Advanced calculator

SvanPC++ Environmental Monitoring module offers the advanced calculator that works together with logger files containing time histories of noise or vibration signals. The calculator supports analysis of Day/Night/Evening levels, statistics analysis as well as tonality or impulsivity calculation from 1/3 octave spectra. Calculation results are displayed both as a graph and table form.
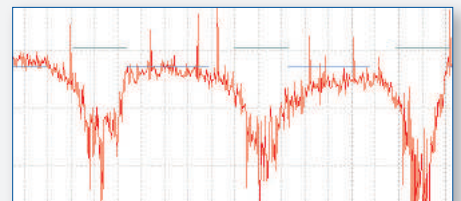
Markers & Block Generator

Environmental measurement often provide large amount of data. The Marker Block Generator browses through the long logger files in search of events defined by the user. It can find data in the given time range and cross check it with noise, vibration or meteo thresholds. Search results can be also filtered by the event duration or time of the day etc.
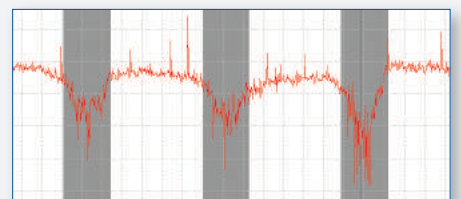
Data comparison

Environmental Monitoring module offers comparison of measurement results with reference ones. An imported file or calculated function can be used as the comparison reference. Comparison of spectra (e.g. 1/3 octave) is also possible.
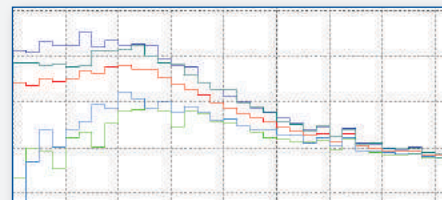

Reporting

Reporting is based on MS Word™ and it allows to export tables or graphs to a printable text document. Any created report can be saved as a template and used with other data files. Reports and templates are saved together with the Project so they can be recalled whenever necessary.
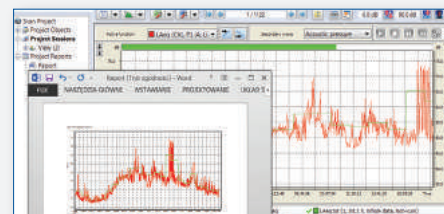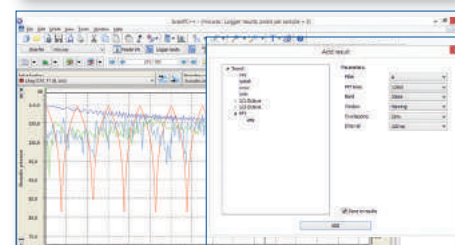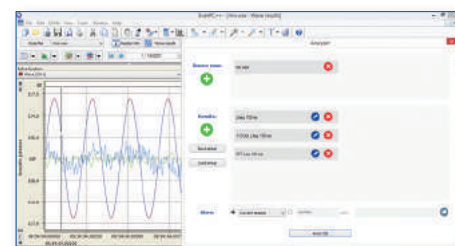

SvanPC++ Wave Analyser

SvanPC++ offers the Wave Analyser that is designed for analysis of wave files from Svantek's noise or vibration instruments. The module provides calculation of overall results such as Leq, Lmax, Lmin, Lpeak as well as 1/3 octave and FFT calculations. The module has been designed to make calculations from a selected number of wave files enabling for example a tonality analysis from 24 wave files in a single operation.
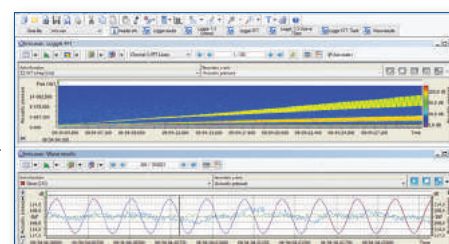
Features

- Intuitive user interface
- Post-processing of a series of wave files
- Compatibility with tools of SvanPC++_EM
- Noise statistics calculation
- Tonality calculation
- Machine vibration analysis (FFT)
- Calculation of 1/1, 1/3, 1/6 and 1/12 octave spectrum
- Applying filters to the raw signal
- Sound engineering
- Noise statistics calculation

Specifications

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Wave sampling frequencies	51,2 kHz, 48 kHz, 6 kHz ; bits/sample: 8, 16, 24, 32
Sound filters	A, C, Z, G
Vibration filters	HP1, HP3, HP10, Vel1, Vel3, Vel10, Dil1, Dil3, Dil10, VelMF, WBxy, WBz, Wm, WBc, Wv, Wh, HA, Wk, Wd, Wc, Wj, Wg, KB, Wb, BL Wm, BL Wv, BL Wh, BL Wk, BL Wd, BL Wc, BL Wj, BL Wg, BL Wb
Detectors	Linear (true RMS), F, I, S, 100 ms, 125 ms, 200 ms, 500 ms, 1 s, 2 s, 3 s, 5 s, 10 s
Broadband results (sound)	Leq, Lpeak, Lmax, Lmin
Broadband results (vibration)	RMS, PEAK, MAX, MIN, P-P
Results integration period	from 1 ms
Spectrum analysis	1/1, 1/3, 1/6, 1/12, FFT
Octave band analysis bandwidth	1/1: 1 Hz – 16 KHz, 1/3: 0.8 Hz – 20 kHz
FFT window functions	Simple: Rectangle, Bartlett, Parzen, WelchHann (Hanning), Exact Blackman, Nuttal, Blackman, Nuttal Blackman-Harris, Flat top, Cosine, Kaiser-Bessel, Parametric: Triangle, Hamming, Cosine, Blackman, Gaussian, Tukey, Kaiser (Kaiser-Bessel), Exponential
FFT number of analysis points	1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072
FFT overlap	0 – 99 %

SvanPC++ Remote Communication Module

Remote Communication Centre

Remote communication is one of the most important features of unattended monitoring systems. On the PC side communication it is handled by the SvanPC++ Remote Communication Module that offers advanced features such as automatic data download station configuration, CSV and HTML data publishing as well as FTP upload. The heart of the module is the Remote Communication Centre that gives access to all functionalities as well as all monitored stations.
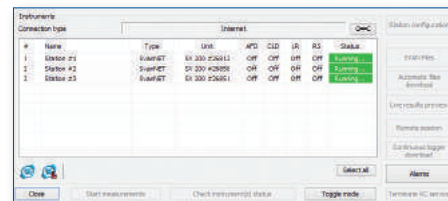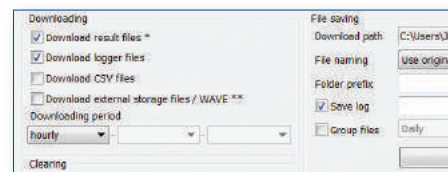

Station Configuration

Station Configuration functionality enables the remote configuration of measurement parameters of noise & vibration monitoring stations. In addition it supports the configuration of settings for advanced alarming.
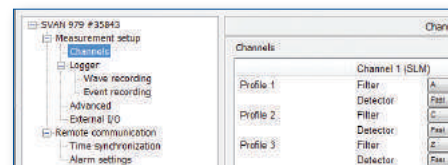

Automatic Data Download

Two main download functions are: 'SVAN Files' for manual operations and 'Automatic files download' for programmed data download.
The Automatic files download can export the downloaded data into HTML or CSV format and upload it to a FTP server. The functionality is based on Windows™ service and works independently to other applications.


Alarms

SvanPC++_RC is able to send e-mail alarms based on level thresholds or system events (e.g. low battery). The functionality works independently to those alarms that are configured in the monitoring station.
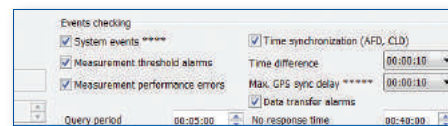
SvanNET Connection

The SvanNET simplifies connection between the PC and monitoring station. The solution is based on a relay server supporting 3G and 4G connection. In addition to connection support, the SvanNET provides information about monitoring stations. For status checks the SvanPC++_RC gives a direct access to the unique SvanNET account associated with the monitoring station.
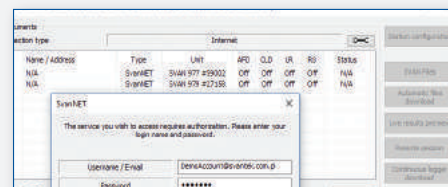
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