RT Pro Software Version 6.0

Software Release Note

July 20, 2004

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This document describes the new features included in the RT Pro 6.0 Software and new options supported with the 6.0 release.

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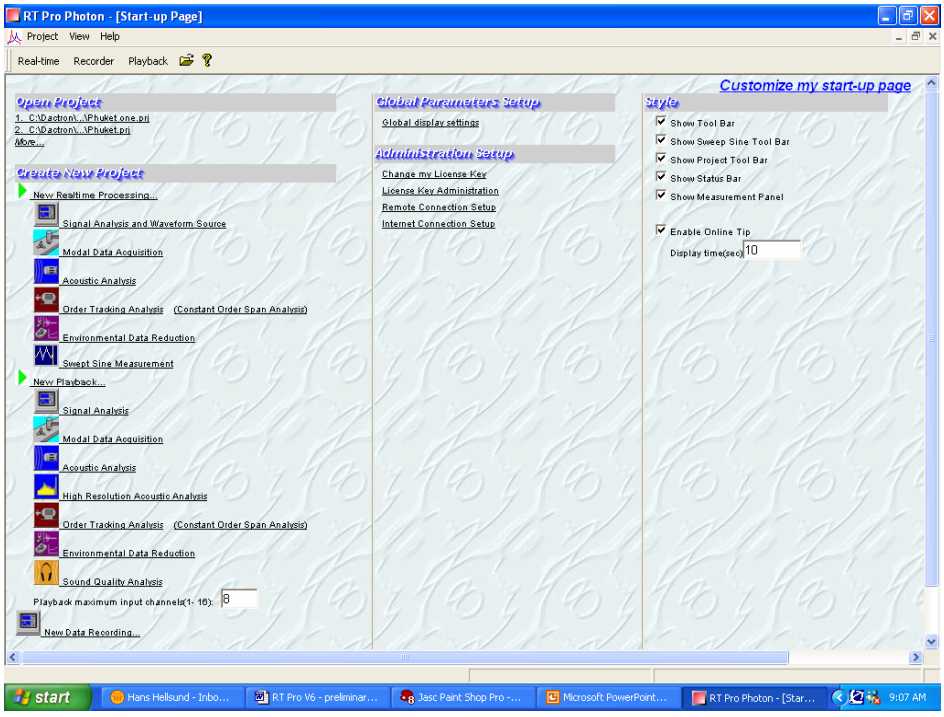
New Startup Page

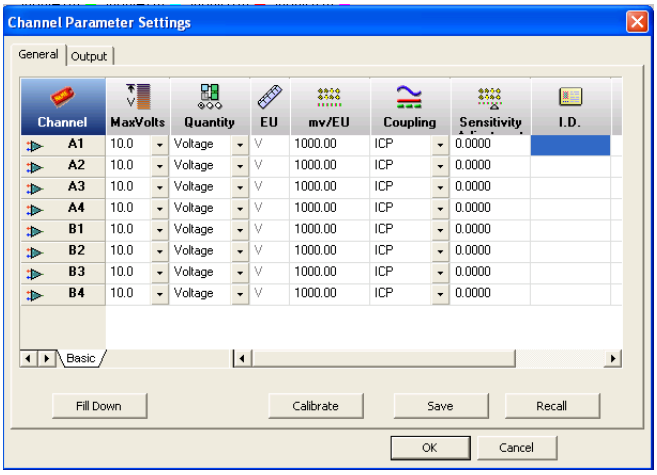
The new application startup page provides quick access to:

- All project types in single display (real-time, playback, record)
- Recently created projects
- Project Sequence setup/run
- Administrative functions
- Customization of the startup layout and contents

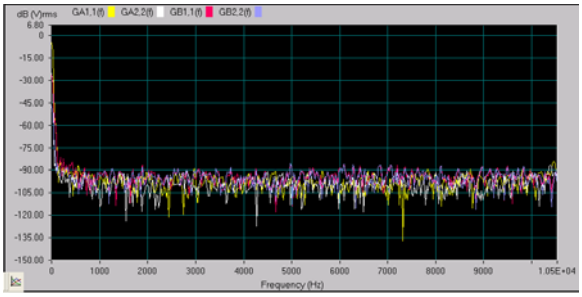


Multi-Focus II Support

- Multi-Focus II Channel Parameter Settings– Master unit channels designated by an “A” character. Slave unit channels designated by a “B” character

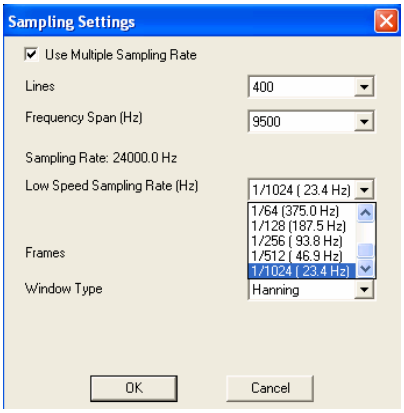


- Multi-Focus II Data display – Master unit signals designated by an “A” character. Slave unit signals designated by a “B” character

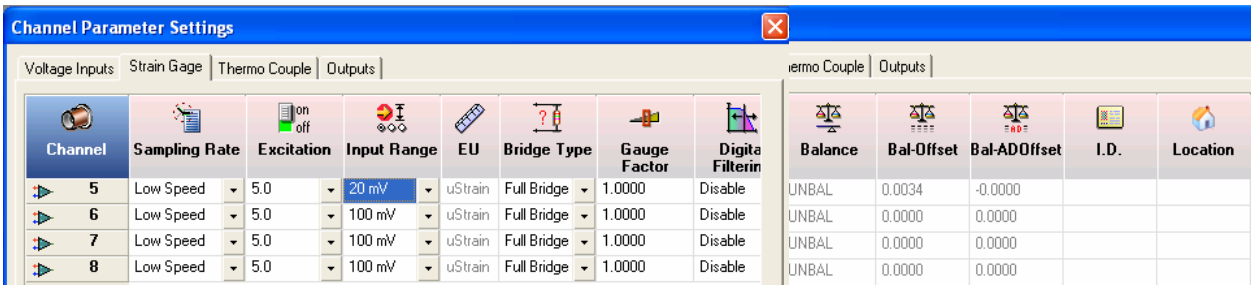


DAQ Modules for FOCUS II

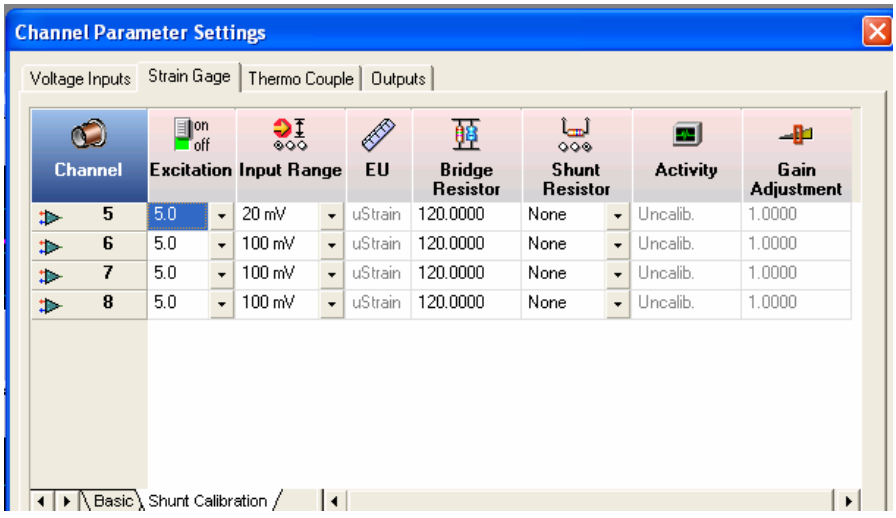
Support added to the Data Acquisition (Strain gauge and Thermocouple) support for Focus II



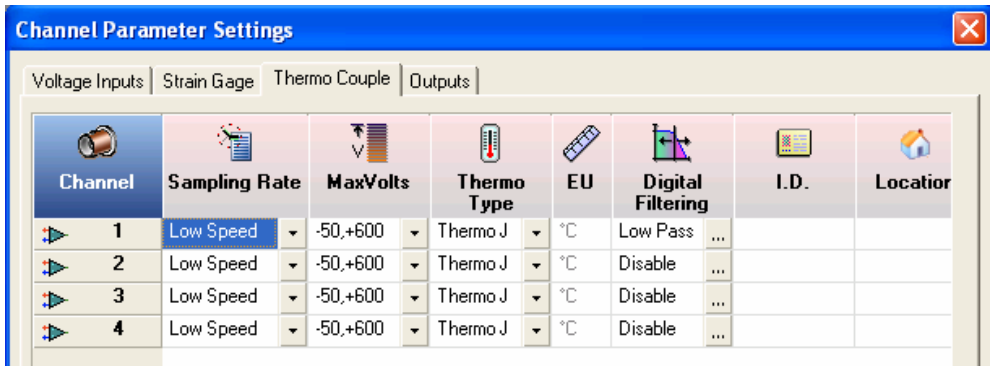
- Multiple sampling rate support. Allows for a different sampling rate to be used for slower data channels such as with strain gauges and thermocouples. Function found in the Setup ->Measurement Parameters->Sampling.
- Channel Parameter setup - expanded to accommodate Strain Gauge and Thermocouple setup.
- Strain gauge module settings include Sampling Rate, Excitation Voltage, Input Range, Units, Bridge selection (Full or Half), Gauge Factor, Signal Filtering, and Balancing function/offsets.



- Shunt Calibration Settings – these settings are accessed through the “Shunt Calibration” tab at the bottom of Channel Parameter page and include Excitation Voltage, Input Range, Units, Bridge Resistor value, Shunt Resistor selection, shunt calibration Activity, and Gain Adjustment

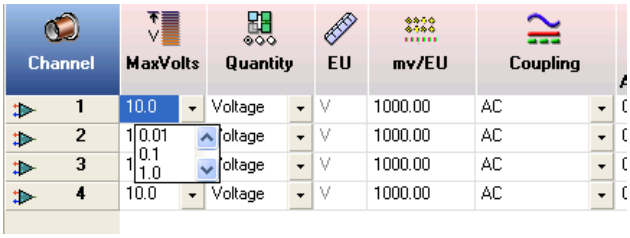


- Thermocouple module settings – includes settings for Sampling Rate, Maximum Voltage Range, Thermocouple Type (J or K), Units, and Signal Filtering

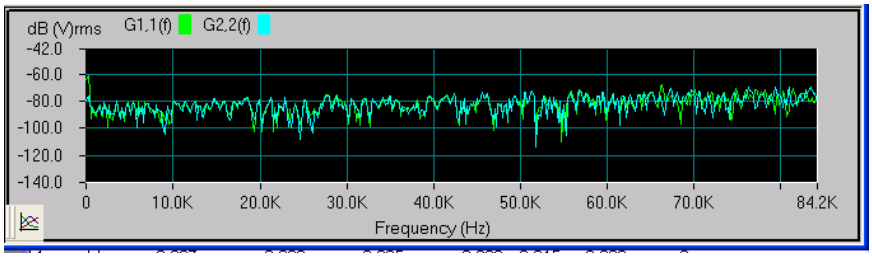


Photon II Support

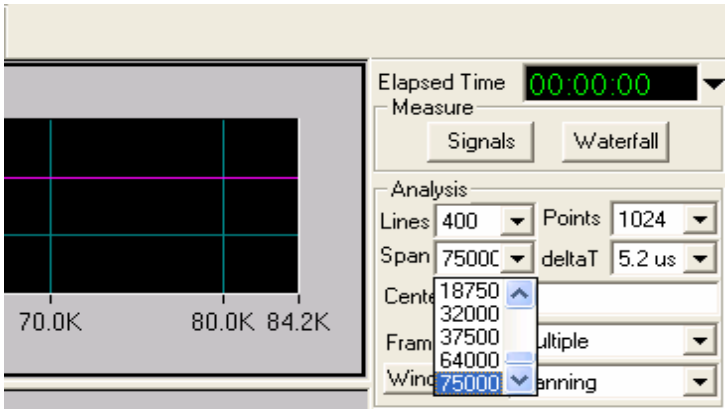
- Two new lower voltage ranges (.01V, 0.1V) - Accessed in Channel Parameters under "Max Volts."



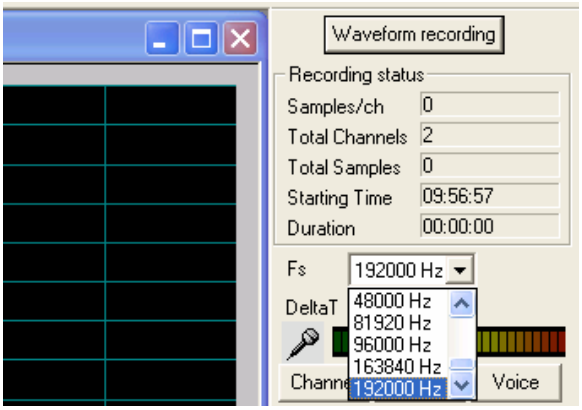
- Higher Frequency Span (84.2 KHz)



- Higher bandwidth options are elected in Analysis -> Span

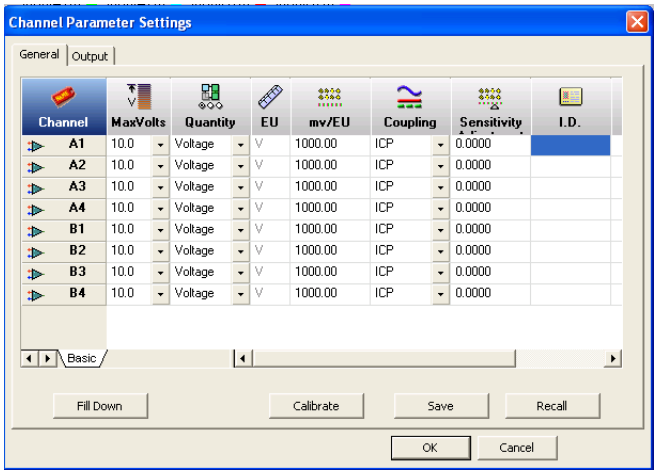


- The Data Recording rate has been increased to 192 KS/sec (single channel).



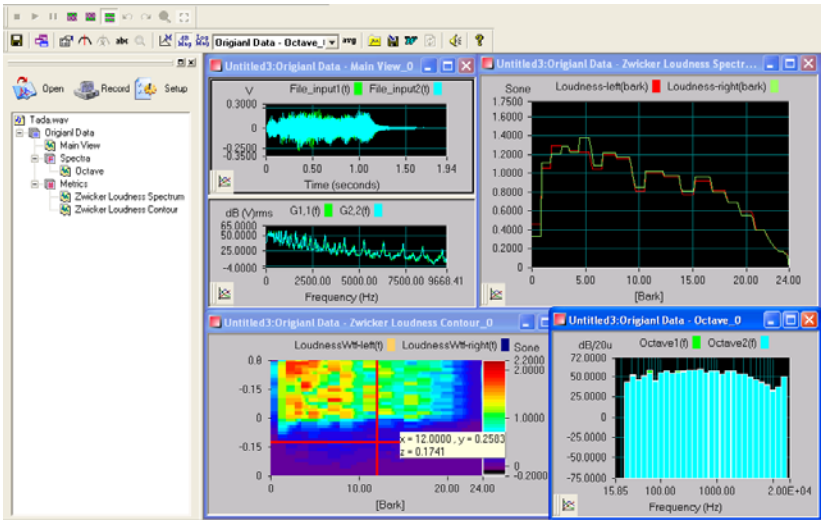
Multiple Photons Run from RT Pro

RT Pro now supports multiple Photons connected to the same PC running under a single user interface. Up to four Photons can be run from RT Pro simultaneously. Individual Photon channel settings are set in the Channel Parameters with “A”, “B”, “C” and “D” prefixes used for the input channels. Data acquisition commences at the same time on all units by pressing the Start button. Note that the sampling rate for the multiple units is not synchronized.

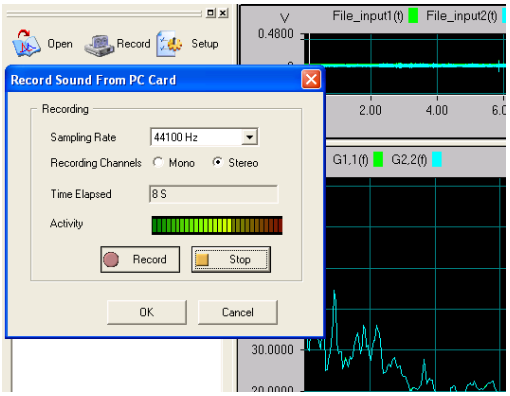


Sound Quality Module in Playback

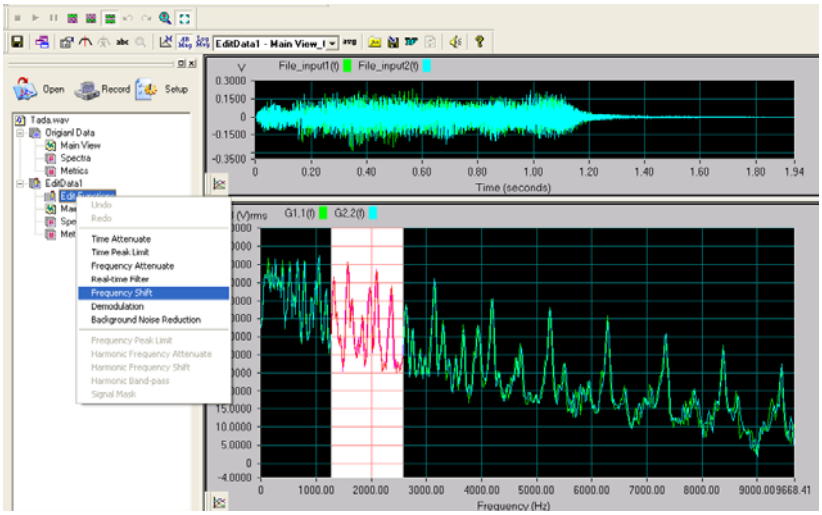
A major new analysis module has been added to RT Pro Analyze Anywhere for sound quality assessment.



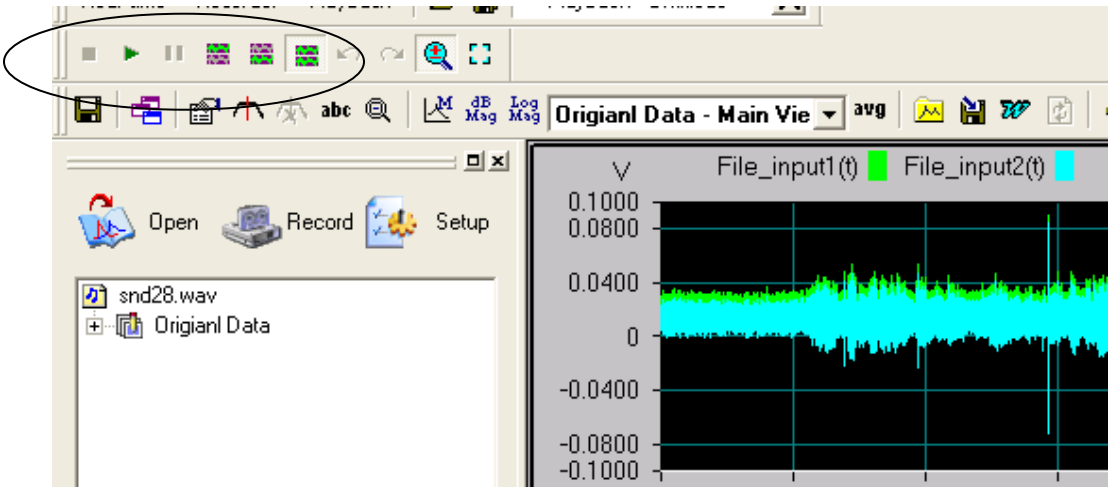
- Record using Photon, Focus II using Data Recorder or Long Waveform Recorder
- Or Record Using PC Sound Card



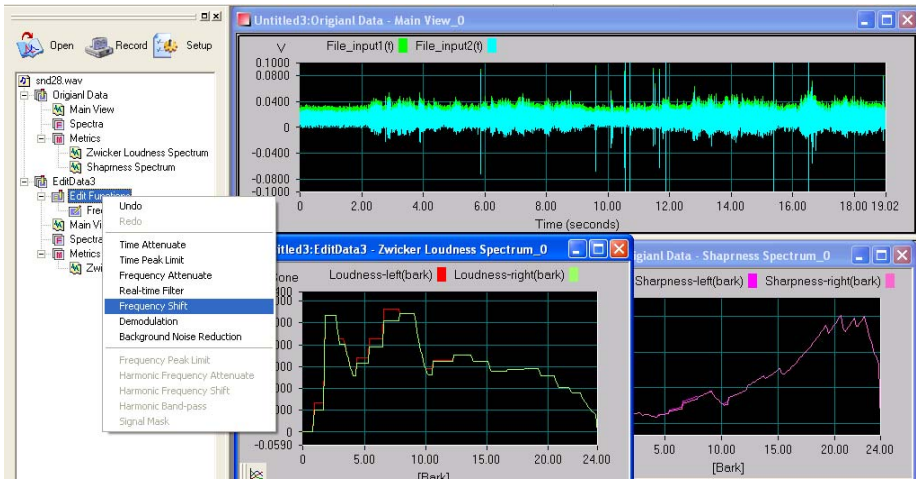
- Data Editing Functions to apply to entire signal or discreet portions



- Audio Playback of Recorded/Edited Signals (left, right, binaural)

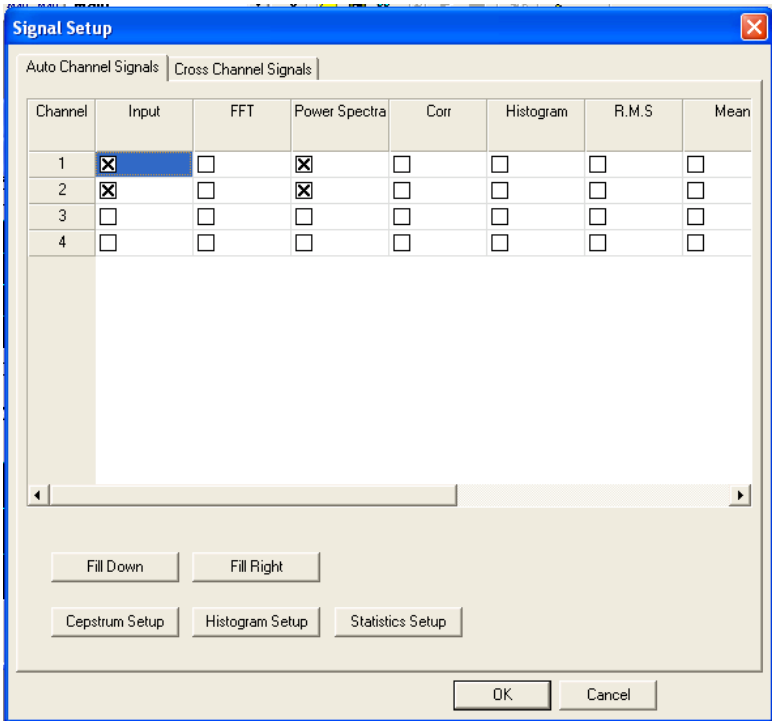


- Calculate Zwicker loudness (ISO 532B) and other SQ metrics on recorded and edited data



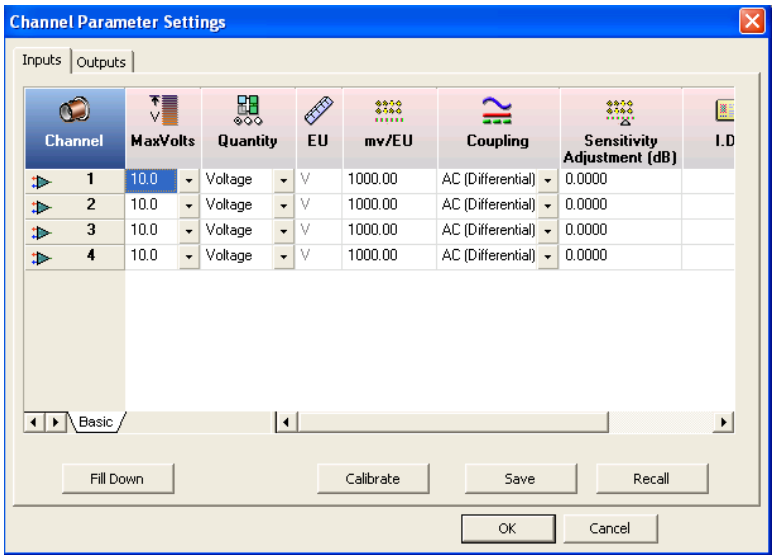
New Signals Dialog

A new Signals dialog allows all measurement functions to be selected from a single dialog.



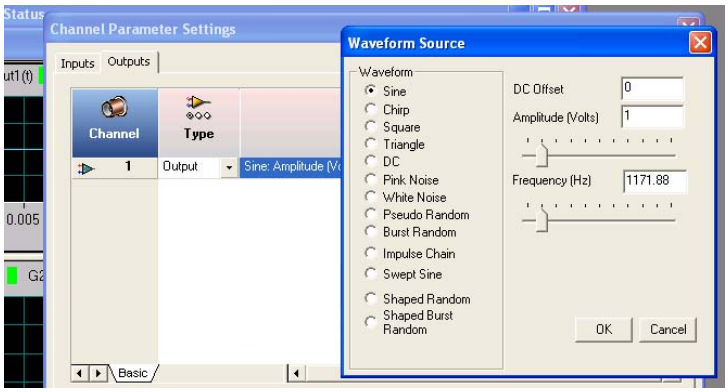
New Channel Parameter Dialog

The new Channel Parameter dialog features new column icons for easier location of the information that the user is searching for.



Waveform Source Enhancements

- Pink Noise added to Waveform Source
- Programmable DC offset output in signal source
- Waveform Source menu now accessed in Channel Parameters



Synthesized Octave Spectra

New option to the Contents dialog in the Signal Analysis and Waveform Source module to allow the display of an octave spectrum synthesized from FFT data.

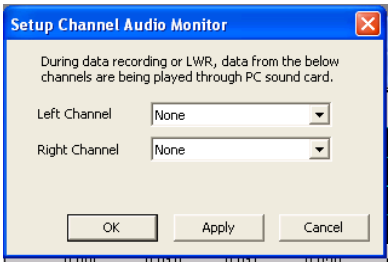
Hand-Arm Vibration Calculation

- Hand-Arm vibration curve added to Signal Calculator in the Acoustics module

- Other Signal Calculator additions -Sine, Cosine, Tan, Arc Tan, Inverse FFT

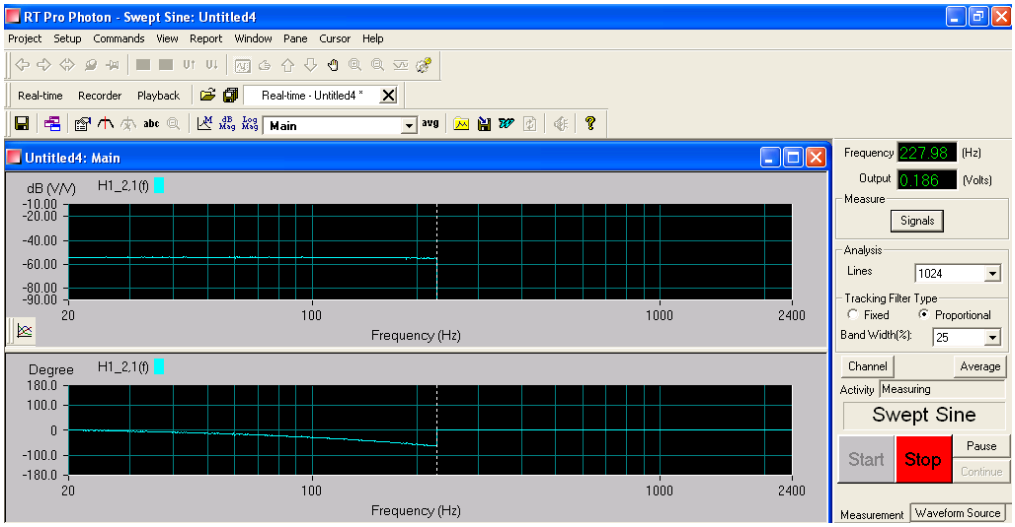
Channel Audio Monitor

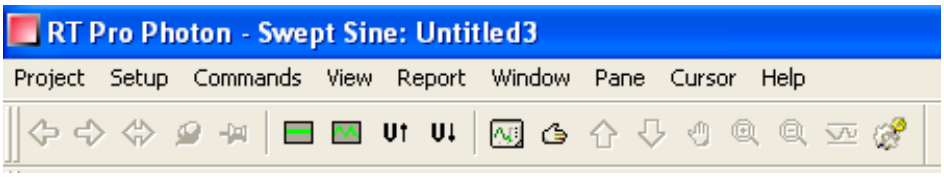
Channel Audio Monitor activates sound card output of channels during Data Recorder or LWR acquisition (accessed in Setup menu)



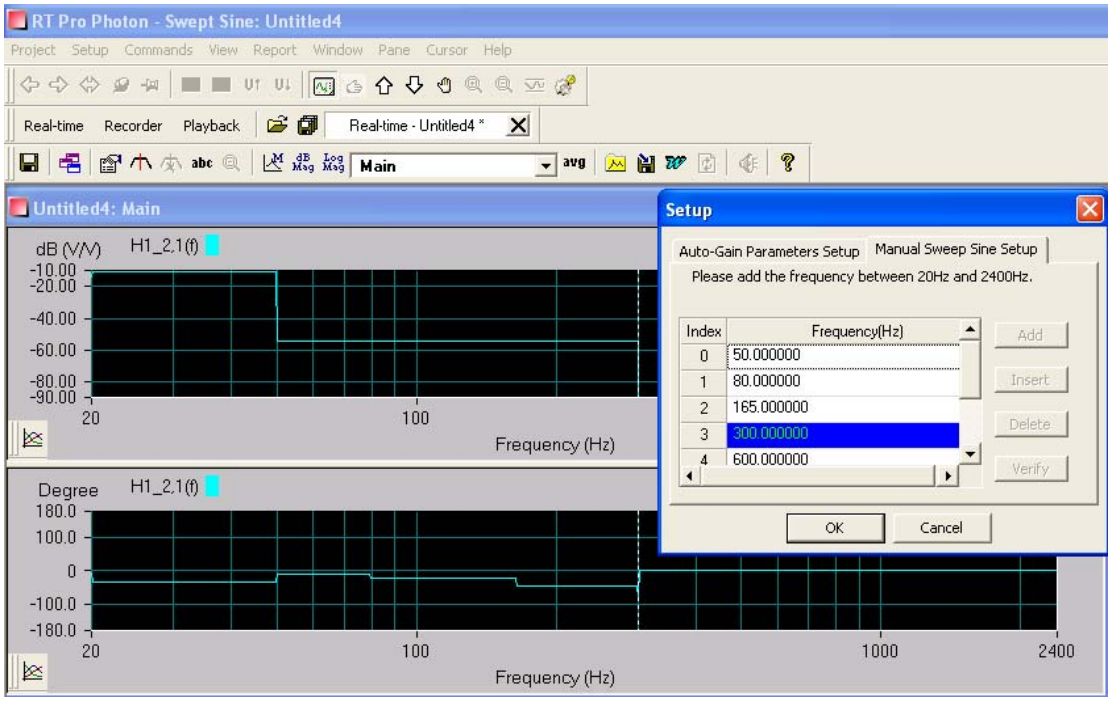
Swept Sine Module Enhancements

- Swept Sine Support on Focus
- Advanced Swept Sine Features

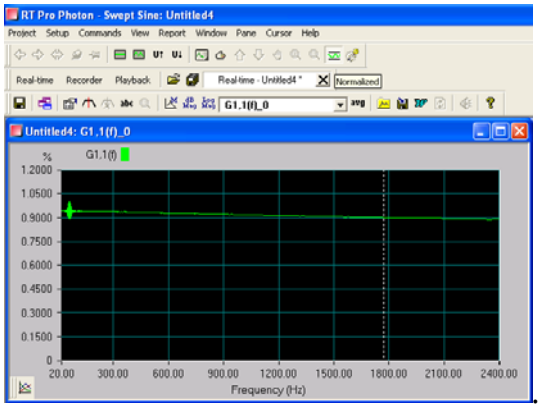




- Auto-Gain Feature – provides gain control in any selected channel.
- Manual Sweep Feature – user selects frequency of a table of frequencies for swine dwell testing. Manually increment/decrement to each desired frequency

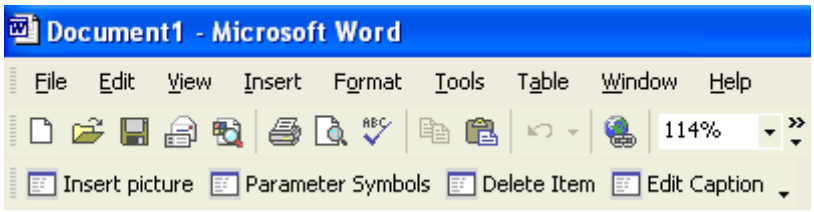


- Normalization Function – Divides the data block by its maximum value to normalize the block to unity amplitude.

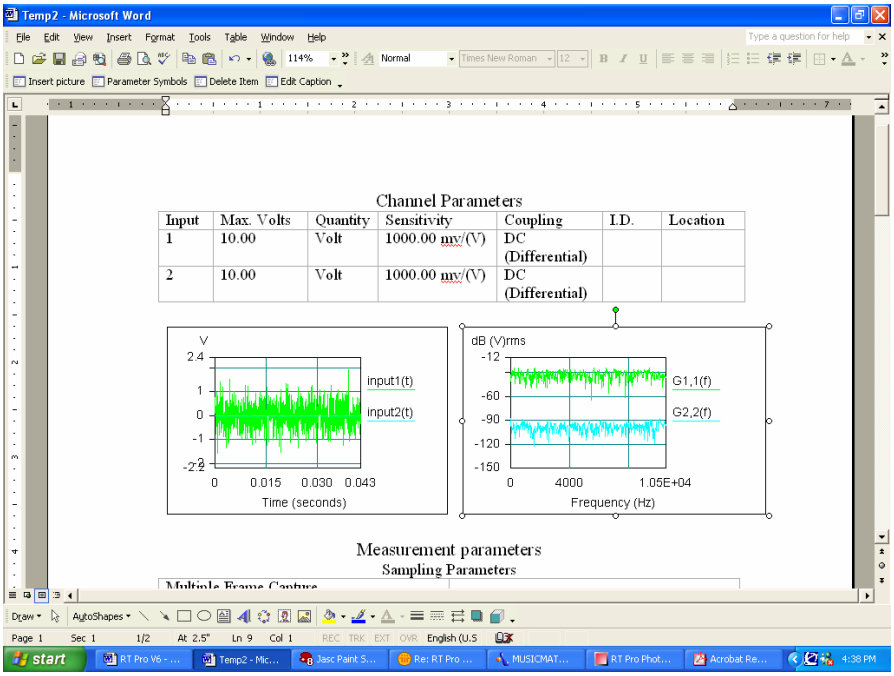


Reporting Enhancements

- Report Type - PDF File Report in Portrait or Landscape formats.
- Setup Template Report Parameters - new features for creating template reports (Parameter Symbol Name, Parameters Name).



Used when one wants to include “Quick Report” type contents (Channel Parameters, Measurement Parameters, etc. in a Template Report. The previous version of Template Reports only allowed for pictures to be inserted into document.



Other New Features

- Prompt Data Folder - moved from Preferences dialog to Signal Save Settings dialog.
- New calibration software (with calibration box) for Photon-II
- Modal Data Acquisition - capability to recall and display data saved in UFF Text or Binary format using Recall Signal Manager