Smaart v8.4 Release Overview

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8.4 Update Information

The 4th major version update for Smaart v8 has been released. This update includes a substantial update to Smaart's SPL measurement functionality.

The 8.4 release includes many significant feature additions, interface modifications and bug fixes. This FREE update is recommended for all Smaart v8 users. The most significant feature additions are outlined below.

To update (if you are running Smaart 8.1 or newer and are connected to the internet) simply open Smaart and click File > Check for Updates. Otherwise, you can download the v8.4 installer from within your license management account at my.rationalacoustics.com.

You DO NOT need to deactivate your existing installation to install the update. If you do, you will most likely end up talking to the fine folks in Rational Tech Support.

8.4 Release Notes

8.4 Features Outline New features in 8.4

- Web browser interface for remote sound level measurements
- SPL History Improvements
    - o Added Time Range control box for controlling the range of time viewed in the secondary history plot
    - o Added plot markers at time where log file Notes are available, with hover text showing Note contents
    - o Added plot markers to indicate the time when an Alarm was triggered
    - o Reduced minimum plot height; window no longer resizes when you expand the secondary History plot
    - o Added Summary Report for analyzing a user-configured time range of a log file
    - o SPL History metric swatch colors now match actual trace colors o Plot look-and-feel improvements
- Added Meter Color Config dialog, now you can assign color thresholds based on individual metrics and/or inputs
- Added Alarm Config dialog, with the ability to add more than 2 alarms
- Added option to measure Octave-banded sound level
- Added "Exposure" based on popular dosage measurement methods
- If an input is calibrated, and no SPL Meters are configured, a 1x1 grid is automatically configured
- Added Full-screen support to the SPL Meter grid
- Added support for "X second" Leqs - add 's' to Leq time in Advanced Meter Config to use seconds
- When "Default Light" skin is applied, a darker yellow is used for level meters
- Changed default location for 10EaZy MAM to be above other meters
- Calibration Offset shown in Amplitude Calibration now shows .1 dB precision, matching everywhere else in the program
- Commas are now used in SPL Reports when the option is enabled in General Options

- If system time changes by more than 2 minutes, SPL logging restarts and an alert appears
- Added hover text showing all IP addresses that are usable with the Smaart API when hovering mouse over IP Address in API Options
- Triggering the "Hide All" command in the Data Library no longer opens all folder containing shown traces • Added Normalized Spectrum Power Average
- Improved performance of FFT computations
- Added hotkeys for New Spectrum and TF Averages dialogs (Shift+CMD+S / T) • Changed Spectrum Options -> Magnitude Range to be a user-defined default range
- Config Management improvements - rename Config via double-click, added "Overwrite" button
- Trace Average dialog tree now uses the same sort order as the Data Library
- IR "Continuous" state and "Band" settings are now persistent • Changed Spectrograph threshold widget label to be white in High Contrast mode
- Added border to Color Selection dialog so it doesn't blend in with Trace Info
- Mac build is now 64-bit, to support upcoming macOS release
- SPL Meter metric selector now uses SPL Meter text color instead of Label text color
- Graphical improvements to SPL History
- Alarms are now displayed in the SPL History plot, indicated by an orange bar
- Calibration is no longer editable on actively logging inputs
- Fixed a bug where the Smaart version stored in Data Traces was being changed after viewing Trace Info
- Fixed a bug where open Trace Folders would close when toggling between Transfer Function and Spectrum plot views
- Fixed a bug where changing the gain on the Smaart I-O while logging would break logging
- Fixed a bug where opening Options with an API password configured would pop a bubbleMessage for no reason
- Fixed a bug where Smaart would only display the computer's APIPA address in API Options
- Fixed a bug where Data Bar and Control Bar would reflect different measurement types

Web Browser Interface

Smaart 8.4 includes an internal web server capable of serving real-time sound level measurement data to a remote client through a conventional web browser. The web API has access to all inputs and measurement types configured for logging in the host Smaart session and can serve any number of real-time meters along with up to thirty minutes of history for two measurement types on a selected input channel. The browser interface is accessible via multiple PC, macOS, or mobile devices simultaneously.
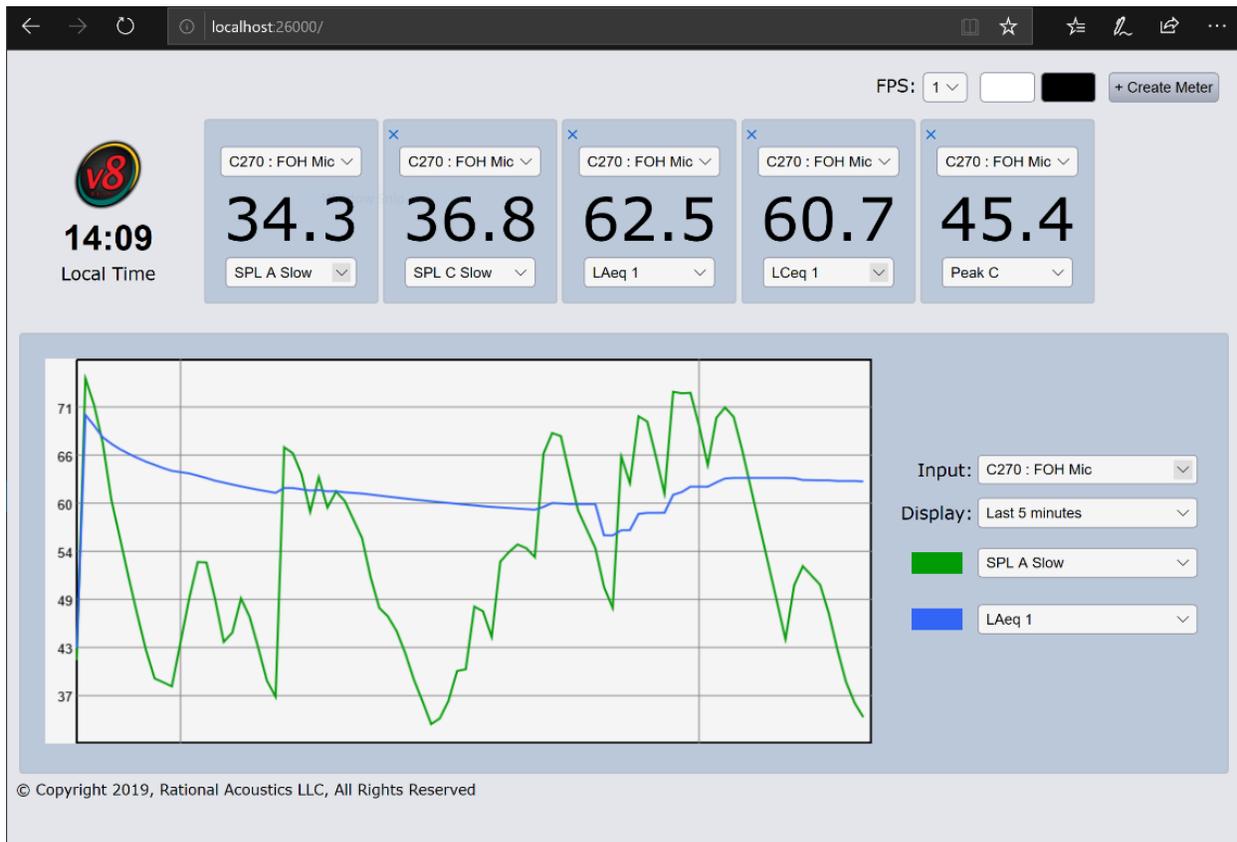
SPL History Improvements

SPL History now displays plot markers when an Alarm is triggered (yellow marker) and when a Note is added to a live log, or present in a loaded log file (white marker). A "Time Range" control has been added to below the History plot, allowing you to precisely control the range of time that is displayed in the secondary plot (also controlled using the arrow widgets in the navigation plot). Clicking the "Generate Report" button below the plots creates a summarized log file containing max values, Alarms, and other important information about the zoomed region that you are viewing in the secondary plot.

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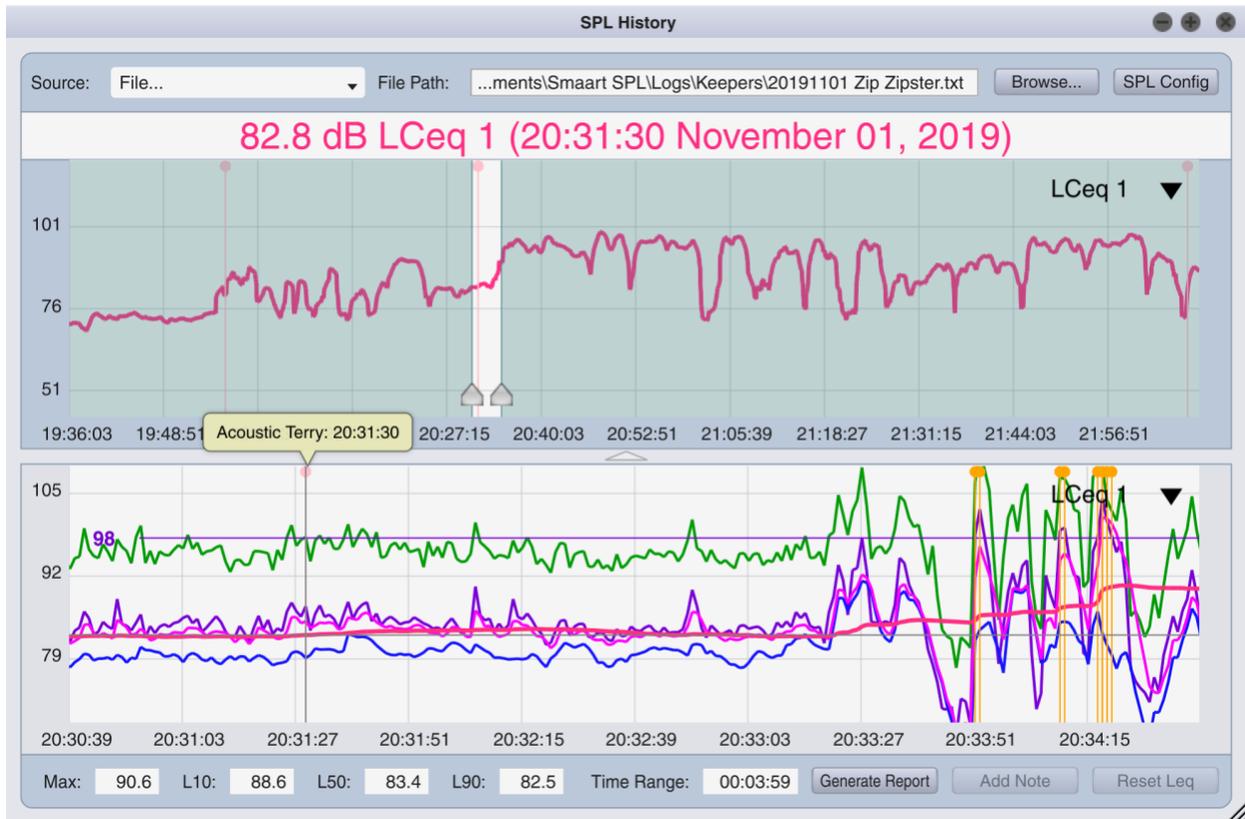
SPL Config

Alarms and Meter Color controls have been moved to their own dialogs with expanded functionality, and new metrics for Exposure and octave-banded measurements have been added to Advanced Meter Config.

Meter Color Config

You can now define meter color thresholds on a per-metric basis.

Alarm Config

The expanded Alarm functionality allows the creation of many alarms, each with configurable input, metric, and level, as well as length of time the visual alarm will persist. When an alarm is triggered, the associated SPL Meter will flash.

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Advanced Meter Config

Octave-Banded Sound Level

The Advanced Meter Config dialog now offers an octave banded option for SPL or Leq measurements.
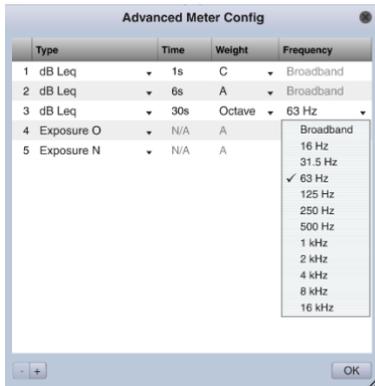

Exposure

Sound exposure can now be directly measured, as modeled after exposure limits specified by the Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH). Exposure is measured in % of daily dosage; with 100% representing the maximum recommended daily sound level dosage.
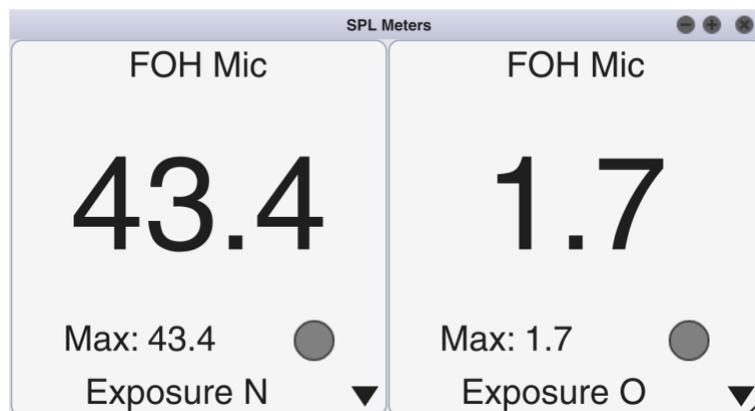
Normalized Spectrum Power Average

This is a new addition to Smaart's existing spatial averaging capabilities. It is similar to the normalized power averaging for transfer functions. During the creation of a live Spectrum measurement average, or the creation of a static average of Spectrum traces, a "Normalize" checkbox is now available. If the checkbox is selected, a column of radio buttons becomes available in the trace table, allowing you to designate a trace to use as a baseline reference for the normalization procedure.
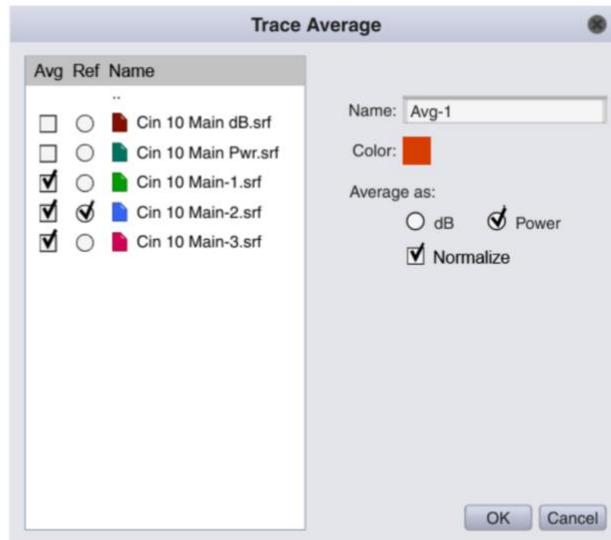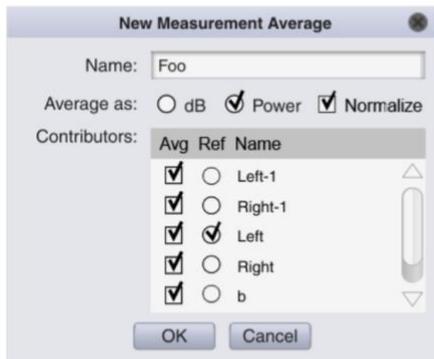
For more information about these new features, please refer to the Help Files within Smaart v8.