Whitepaper - Get started with Intelli-Ware and Smaart 7

Revision: June 2012

Foreword

Starting from v1.4, Intelli-Ware offers integration with Rational Acoustics' Smaart 7 API, enabling transfer of measurement data from Smaart to Intelli-Ware. Either Smaart's transfer function or spectrum analyser response can then seen as an underlay in all parametric EQ bode-plot and crossover windows. Key features of Smaart can also be controlled directly from within Intelli-Ware, removing the need for switching from one application window to another when tuning a system.

Smaart may run on the same PC as Intelli-Ware, or on another PC or Mac on the same network.

Note that Smaart supports multiple clients; this means when using multiple copies of Intelli-Ware on the same network, Smaart 7 data can be displayed on each copy of Intelli-Ware.

Requirements

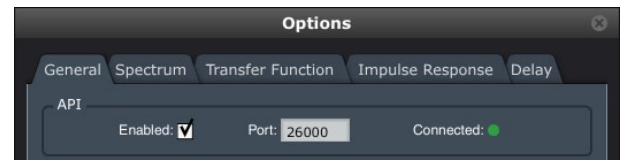A Windows (XP or 7, 32 or 64 bits) computer with Intelli-Ware installed.

The same, or another networked computer, with Windows or Mac OSX installed to run Smaart. When running Intelli-Ware and Smaart on different machines, make sure those machines are connected to the same network (same IP address range etc.)

A working copy of Smaart 7.3 onwards. The latest version can be downloaded from RationalAccoustics' site:
http://my.rationalacoustics.com/downloads/Smaart7DemoSetup.exe for Windows users
http://my.rationalacoustics.com/downloads/Smaart7Demo.dmg for Mac users

Intelli-Ware v1.4.0.0 onwards, downloadable from the Apex website www.apex-audio.eu or directly from:
http://www.apex-audio.be/manufacturing/support/downloads/download/45

Setting-up Smaart

Once Smaart is installed, launch it and go to menu "Options" then "General". Make sure the "API Enabled" checkbox is ticked and hit "Apply". The red "Connected" indicator should turn GREEN. Close the options dialogue.

If you are new to Smaart, configure it to recognize and use your soundcard or USB audio interface. This is explained in Smaart's documentation that can be found in the Help menu. Alternatively, downlad the following PDF or watch the training videos available on Rational Acoustics' website:
http://www.rationalacoustics.com/files/Getting_Started_with_Smaart_v7.2.pdf
http://www.rationalacoustics.com/pages/Smaart7_Videos

Start Smaart's generator and set it to generate pink noise at a level which doesn't clip your soundcard or USB audio interface's inputs.

Select either Spectrum or Transfer mode and make sure a sensible trace is visible on the Smaart screen.

Hint: the easiest way to get started is to simply loopback your soundcard or USB adapter's left output to its left input, and similarly its right output to its right input. All measurements should then be flat.

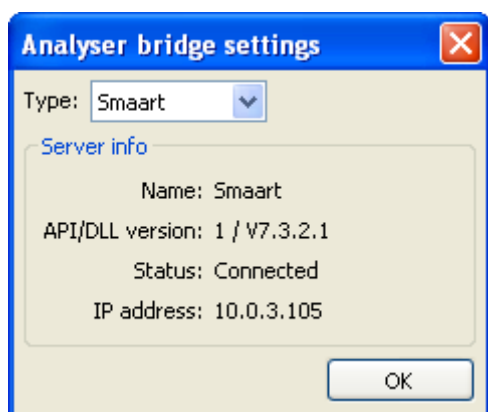In Spectrum mode, the spectrograph and/or RTA readout should show activity on the screen.

In Transfer mode, a horizontal trace should be seen in the Magnitude and Phase readout.

Setting-up Intelli-Ware

While Smaart is running, launch Intelli-Ware. Go to the "Tools" menu and choose "Analyser bridge settings". A new window will open giving you the option to select the "Type" of the analyser you wish to use. Choose "Smaart".

Intelli-Ware and Smaart should find each other automatically. Wait a moment as the "Server's status" should change to "Connected" and show the IP address of the computer running Smaart. You may now close the analyser bridge dialogue window.

If you don't have an Intelli-X^2 connected to Intelli-Ware then it is possible to open a virtual device. Right-click in the "Selector" pane and add one of the virtual devices present in the context menu.

In the "Overview" pane switch to any of the device's PEQ (either input or output) or crossover (only at the outputs).

In the "Dashboard" pane , click on the RTA option button. A new side-window will open allowing remote control of the analyser.

Select either Spectrum or Transfer and click on the Play button.

In Spectrum mode, the Play button and the Group and Measurement drop down menus are remote controls of Smaart. The same measurement can be seen in Smaart as in Intelli-Ware's PEQ and crossover windows. Freeze, Scale Top, Points per octave, Averaging and Weighting filter drop down menus and are local controls and can be set without affecting Smaart.

In Transfer mode, the Play and (Delay)-Find buttons, the Delay spin-box, the (Delay)-Track check-box and the Group and Measurement drop down menus are remote controls of Smaart. The Freeze button, Scale Ref spin-box, Invert check-box, the Averaging and Smoothing drop-down menu are local controls and can be set without affecting Smaart.

The Smaart's Group and Measurement setup is only read out by Intelli-Ware at the time of enabling the Analyser Bridge in Intelli-Ware. If any new Group or Measurement is added in Smaart 7, the Analyser Bridge should manually be stopped and restarted in Intelli-Ware to reflect the changes.
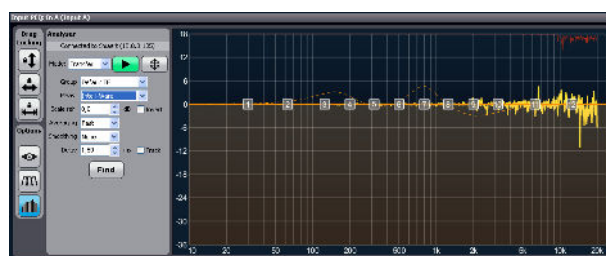
For more information regarding all these features, please refer to the Smaart's documentation.

www.apex-audio.eu
www.rationalacoustics.com

Smaart bridge in spectrum mode

Smaart bridge in transfer mode