



As Rational Acoustics has completed its purchase of the Smaart brand product line from EAW/LOUD Technologies, effective November 9th, 2009, and effective immediately Smaart is wholly owned and operated by Rational. We would like to inform you that Sound Classy got the exclusive China, Taiwan, Hong Kong and Macau distributor of Smaart.

**Rational Acoustics 在 2009 年 11 月 9 日收購了 EAW / LOUD Technologies 旗下的 Smaart 品牌，並立即全資擁有 Smaart 產品線的所有經營權。我們“盈聲控股有限公司”獲得 Smaart 產品中國、台灣、香港和澳門區總經銷。**

### Smaart v.7

What' s New in Smaart v7?

**Smaart v7 有哪些新功能?**

In short... Everything.

**簡單來說...什麼功能都有。**

Smaartv7 is a completely new code base developed from the ground - up. By start in with a clean slate, we have been able to reconsider, revise and improve all areas of the program - from the program' s fundamental architecture through to the details of the control interface. Version 7 is a quantum leap for Smaart in both power and elegance.

**Smaart v7 在原有的成熟基礎上用上新代碼。我們由零開始發展到能夠重新策劃、修訂和改善程序的所有功能 - 從程序的基本結構到控制界面的細節。對於 Smaart 來說，第 7 版是質的飛躍。**

However, the changes to Smaart extend far beyond the application itself. One of the most exciting new features of Smaart v7 is Rational Acoustics itself. We are the same people who have been developing and steering Smaart for the last 12 yrs as SIA Software Company within EAW. Now however, as Rational Acoustics, we are a small, independent company focused only on Smaart. This means we can make decisions that make sense for our software and our market. And we can focus full - time on providing the high level of support

and development that have been the hall mark of the Smaart platform. In other words, Smaart v7.0 is just the start.

然而，Smaart 的改變遠遠超出了應用程序本身。Smaart v7 最令人興奮的一個新特點就是 Rational Acoustics 本身。在過去的 12 年裏，我們僅僅為一個開發和指導 Smaart 發展的團隊。而現在，我們則以一個企業的身份去全力發展 Smaart。這意味著我們能夠針對軟件和市場方面制訂戰略方針及作出重要決定，我們可以集中所有精力提供最高水平的技術支持和致力發揮 Smaart 平台所有的優點。換句話說，Smaart v7.0 只是開端。

So, what's new in Smaartv7? Let's take a look...

那麼，Smaart v7 有哪些新增功能呢？



Smaartv7 (beta) TopPane:Live IR; MiddlePane:4x Live RTA; Bottom Pane:4x Live Transfer Function

### Multi-Channel, Multi-Platform, Multi-Mania:

Smaart v7 is inherently multi - channel and multi - platform, able to access modern multi - channel input devices and operate native in both Windows and Mac Operating Systems (including 32 - and 64 - bit versions). And as you can see from the screen capture above, v7 can run multiple, simultaneous Spectrum and Transfer Function Measurements. Smaart 7 is truly multi - maniacal.

### 多通道，多平台，多瘋狂：

Smaart v7 本身是多通道、多平台的軟件，可以行使現代的多通道輸入設備，並且可以在 Windows 和 Mac 操作系統（包括 24-和 64-bit 版本）下進行操作。可以從上面的截圖上看到 v7 可以分析多光譜、實時光譜和傳遞函數測量。Smaart 7 是真正的多瘋狂。

### Built From the Start to Make Use of Power:

If there is one thing that has remained “constant” over Smaart's decade plus of evolution, it is the relentless expansion of the processing power, speed and memory in our personal computers. And with those comes the potential for greater measurement power and possibilities - if you can make use of it. From day one, the Smaart7 code base was optimized to

make use of the all power that modern processor configurations present, whether that be from one processor or eight. Your Smaart rig might not need to use all of your PC' s power right now, but if history is any indicator, you will.

充分利用 Smaart 的各種功能:

如果有一樣東西是可以在 Smaart 十幾年的成長與發展中” 永恆不變” ，這就是它處理能力的無限擴展和在個人電腦裏的速度和留下的印記。如果你充分利用它，你可以發現它的巨大測量潛能和解決問題的效能。從第一天開始，Smaart 7 代碼庫就被用予優化現代處理器設置的所有功能。

Smaart v7 System Hardware - recommended Configuration:

- Microsoft XP, Vista or Windows 7 (32 & 64 - bit) or -
- Mac OSX 10.5 or 10.6 (Leopard & Snow Leopard)
- 2 GHz Dual - Core Processor
- Graphics Processor with 128M dedicated video RAM
- Compatible Sound Hardware with ASIO, Wav or CoreAudio drivers

Smaart v7 系統硬件 - 推介配置:

- Microsoft XP, Vista or Windows 7 (32 & 64 - 比特) 或
- Mac OSX 10.5 or 10.6 (Leopard & Snow Leopard)
- 2GHz 雙核處理器
- 帶 128M 專用視頻內存的圖片處理器
- 帶 ASIO、Wav 或 CoreAudio 驅動程序的兼容聲音硬件

REAL-TIME MODE: TRANSFER FUNCTION ENGINE (Frequency Response):

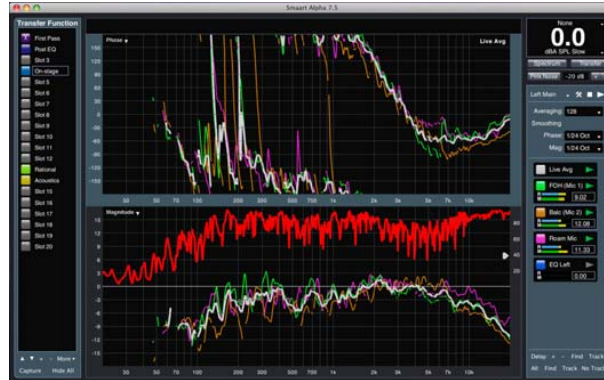
- New MTW( Multi - Time Window) FFT provides better than 48<sup>th</sup> Oct frequency resolution from 60 Hz up. (MTW takes the place of FPP0)
- Improved fractional-octave smoothing provides better trace readability
- New averaging algorithm greatly enhances trace stability
- Separate smoothing control for Phase and Mag. Traces
- Overload protection - TF average rejects data during input clip.

實時模式: 傳遞函數 (頻率響應)

- 新 MTW( Multi - Time Window) FFT 提供更好的 48th 倍頻程頻率清晰度，至少大於 60Hz (MTW 已取代 FPP0)
- 改良分倍頻程平滑(smoothing) 提供更好的軌跡讀數能力
- 新的平均算法大大提升了軌跡的穩定性
- 用於相位和規模 (Mag.) 軌跡的獨立平滑控制
- 過載保護 -在輸入削波過程中的 TF 平均拒絕數據

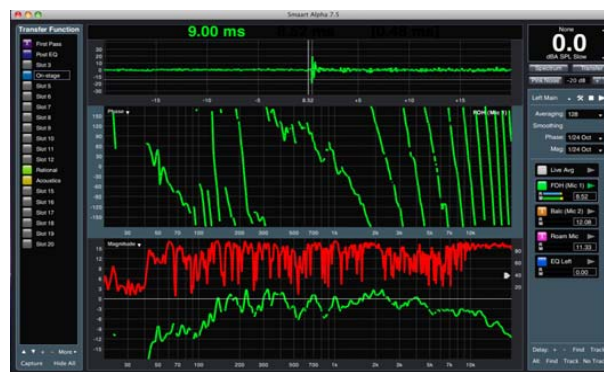
Multi-channel input allows for multiple, simultaneous transfer functions as well as calculation of “live-averages” of those measurements. Groups of Transfer Function measurements can be configured for managing multi-channel system alignment.

多路通道輸入允許多個傳遞函數（頻率響應）和測量實時平均值對比分析  
多組傳遞函數（頻率響應）可以設置成管理多路通道系統校準



Live IR (Top data pane) shows the TF measurement in a linear IR view.

實時 IR（上端數據盤）在線性 IR 概覽中顯示 TF 測量



### Live IR

- Window centered at the TF' s delay
- User -selectable FFT size up to 32k
- FIFO Averaging up to 8 Averages

### 實時 IR

- 窗口位於 TF 延遲的中心
- 用戶可選最大 FFT 容量為 32k
- FIFO 平均值為 8

### TF Delay Tracking

When engaged, Delay Tracking automatically measures and adjusts measurement cycle! Go ahead, move the mic, Smaart will track the delay change.

### TF 延遲跟蹤

當啟動 TF 延遲跟蹤，它就會自動測量和調整每個測量周期的 TF 延遲！繼續，移動話筒，

## Smaart 將跟蹤延遲的更改

### IMPULSE RESPONSE MODE

Smaart v7's Impulse Response mode has been significantly expanded to include much of the functionality from our AcousticTools software package, with the intent of giving a user a robust and intuitive set of tools for making and analyzing Impulse Response measurements.

#### 脈沖響應模式

Smaart v7 的脈沖響應模式的作用已經顯著增大，包括許多 AcousticTools 軟件包括的功能，其目的在於為用戶提供一個強有力、直觀的設置界面，進行和分析脈沖響應測量

“Navigator” pane: Full IR record in linear view for controlling Time Domain zooming

“導航器” 盤：線性概覽的全部 IR 記錄用於控制時領的縮放

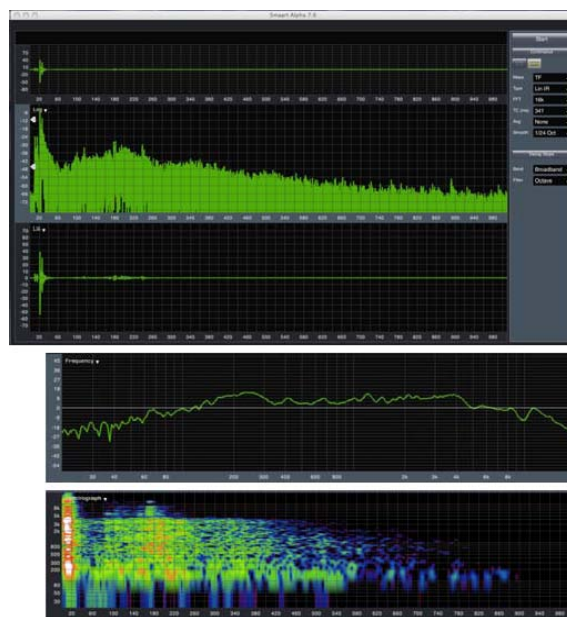
Time Domain Zoom views: These show zoomed portion of IR as Lin, Log or ETC.  
時領縮放概覽：顯示 IR 縮放部分，例如：Lin, Log（物理對數）或 ETC

Frequency Domain view: IR in Frequency Domain. (This feature was incompletely implemented in v6.

頻域概覽：頻域中的 IR（此功能在 v.6 中不完全能進行操作）

Spectrograph: Shows IR as Spectrograph, with on - screen adjustable dynamic range.

頻譜儀：顯示 IR 頻譜，在界面上可調整動態範圍



IR can be filtered in real - time.

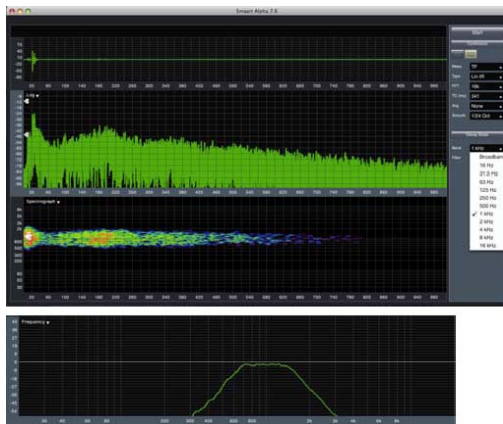
IR 可以進行實時濾波

Here the IR is filtered with an Octave wide filter at 1 kHz

And this is just the beginning. Watch for additional impulse response analysis features to be slipstreamed into Smaart 7 this year in the course of normal maintenance updates.

這裏是 IR 濾波頻譜圖，倍頻程寬濾波器@1kHz

這僅僅是開始。可以在今年的 Smaart 常規維修更新中體會附加的脈沖響應分析功能



So there you have it. Smaart v.7: New code base, modern object-oriented architecture, enhanced data acquisition, improved GUI, awesome-sized measurement engines, and brand new features like delay tracking. And best of all, it is now backed by Rational Acoustics, a dedicated, independent company focused solely on the development and support of Smaart. It' s not just the next version of the Smaart you knew, it' s the beginning of the Smaart you deserve.

擁有 Smaart v.7: 全新代碼庫，面向對象的結構，增強型數據採集，改進型 GUI，棒級了的測量方法和頻段新功能，例如延遲跟蹤。最重要的是：它是由專業的、獨立的、僅致力於 Smaart 開發和支持的 Rational Acoustics 公司設計的。這不僅僅是你所熟知的 Smaart 新版本，而是 Smaart 的開端。這將是值得期待的啟程！



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