

ENGINEERING UPDATE

June 2016 | Vol. 21

PRICE'S POWERFUL AND PRACTICAL ACOUSTIC SOFTWARE

By Alex Michaud, Senior Product Manager – Noise Control

Price's innovative and user-friendly Acoustic Analysis Software has been used by hundreds of design professionals to model, predict and solve indoor and outdoor noise problems. Some of the software's most useful and commonly accessed features are discussed below:

1. **Top Ribbon:** Select important functions including (from left to right):
 - a. *New Path* – Create a new sound path by clicking this button
 - b. *Help* – Review a living document that outlines features and source material
2. **Source:** Acoustic Analysis allows users to model Supply, Return and Radiated noise. All noise source information is entered in one location including airflow (cfm), tags and notes.
3. **Summation:** Multiple sound paths can be combined to describe

the total noise level (for example, inside a room with both supply and return grilles as well as potential breakout/radiated noise from equipment or ductwork). This is done using the green *Path Summation* button in the Top Ribbon.

4. **Analysis Report:** Quickly create professional reports with transparent calculations and helpful graphs as either Microsoft Word or Microsoft Excel documents by clicking the *Analysis Report* button in the Top Ribbon.
5. **Multiple Screens:** Users with multiple screens will find the

Sound Source Properties

Name: Source
Tag: AHU-1
Notes: Rooftop unit above conf room 243

Sound Source
Air Flow: 80000 CFM

Active Sound Level

Supply Return Radiated

Sound Power (dB)

	63	125	250	500	1K	2K	4K	8K
Supply	95	99	101	103	101	99	97	93

A-weighted Sound Power (dBA): 106

Sound Levels

Supply Sound Power (dB)

	63	125	250	500	1K	2K	4K	8K
Supply	104	106	106	108	109	107	103	99

A-weighted Sound Power (dBA): 113

Return Sound Power (dB)

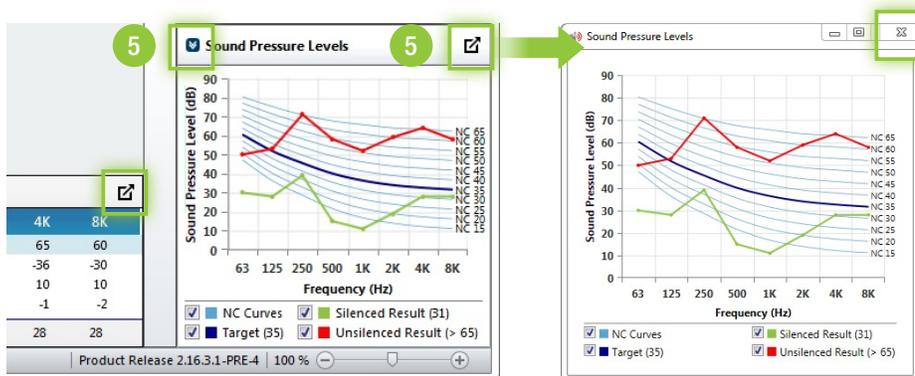
	63	125	250	500	1K	2K	4K	8K
Return	95	99	101	103	101	99	97	93

A-weighted Sound Power (dBA): 106

Radiated Sound Power (dB)

	63	125	250	500	1K	2K	4K	8K
Radiated	98	87	78	79	81	76	72	68

A-weighted Sound Power (dBA): 84



File Acoustic Analysis Resources Developer

New Path Copy Duplicate Cut Disable Paste Delete Design

Properties Synchronize Products Project Path Summation

Imperial Hard Metric Soft Metric Units Analysis Report Documents

Help Shortcuts Info Overlay Home Noise Control View Schedule Support

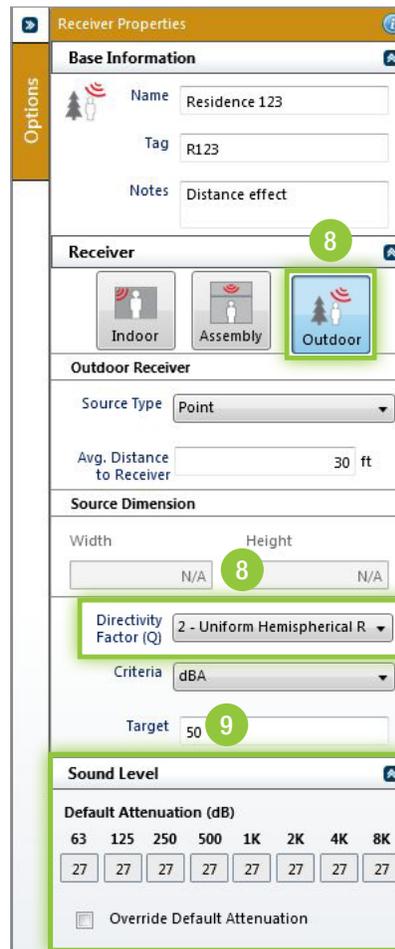
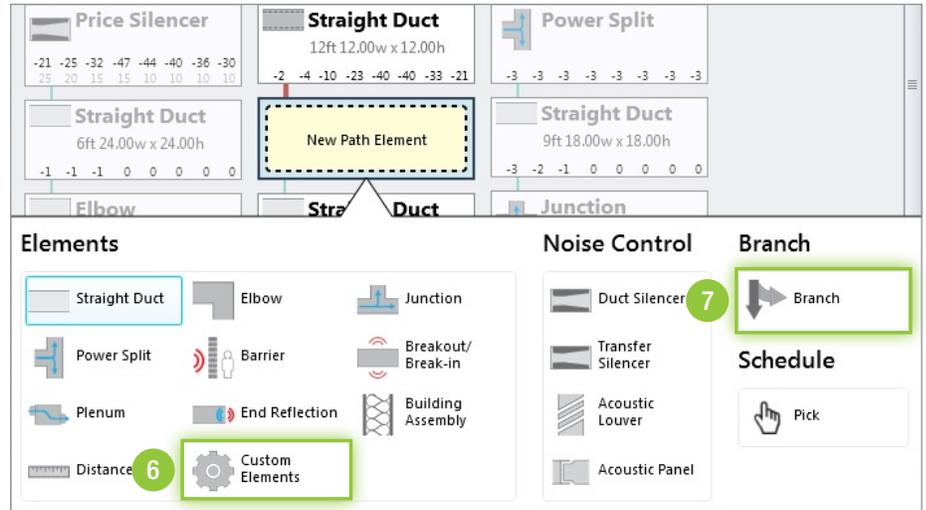
Detach buttons very useful, which are found in the upper right corners of the Summary/Target window and Sound Pressure Levels graph. These buttons detach the corresponding windows from the Acoustic Analysis screen, freeing up work space. Detached windows are resized by clicking on the Close (X) button at the top.

6. **Custom Elements:** Users can create custom elements that function as either sound sources or attenuators. These custom elements can be saved in a library and used on later projects without re-populating information.

7. **Branches:** Often a source's noise is transmitted through multiple paths including supply, return and breakout/radiated. Branches allow for multiple paths and receivers to be considered using the same source, ultimately reducing redundant work and simplifying equipment noise or duct layout updates.

8. **Outdoor Noise & Directivity**
Factor: Applications such as meeting property line noise criteria should use the Outdoor Receiver type, which accounts for various source types. Directivity Factor (Q) is determined by how many reflective surrounding surfaces there are and explained in the Help file (1b).

9. **Override Default Attenuation:**
 All default attenuation values can be changed by the user by simply selecting the Override Default Attenuation box and then filling in the new values.



If you have questions about this industry-leading design tool please contact the Noise Control team at noisecontrol@priceindustries.com. We look forward to helping you utilize this powerful software tool that includes access to hundreds of lab-tested noise control products and resource documents.