# Software News
November 2016

EAW Resolution v2.1.4.98 Release Notes

Previous Version: EAW Resolution v2.1.3.84

Resolution 2.1.4.98 contains many significant improvements and bug fixes, greatly improving the user experience. For any questions, contact the Applications team at asg@eaw.com. Key features in this release are listed below:

Improved Metering for Adaptive Products

The module metering for Anya, Anna and Otto has undergone a significant redesign to provide more precise, clearer information. Now, users can determine available headroom before the onset of limiting with just a quick glance. Limit thresholds are now indicated by yellow bars on the left side of each channel, with gain reduction (when active) on the right side of each channel as shown below.
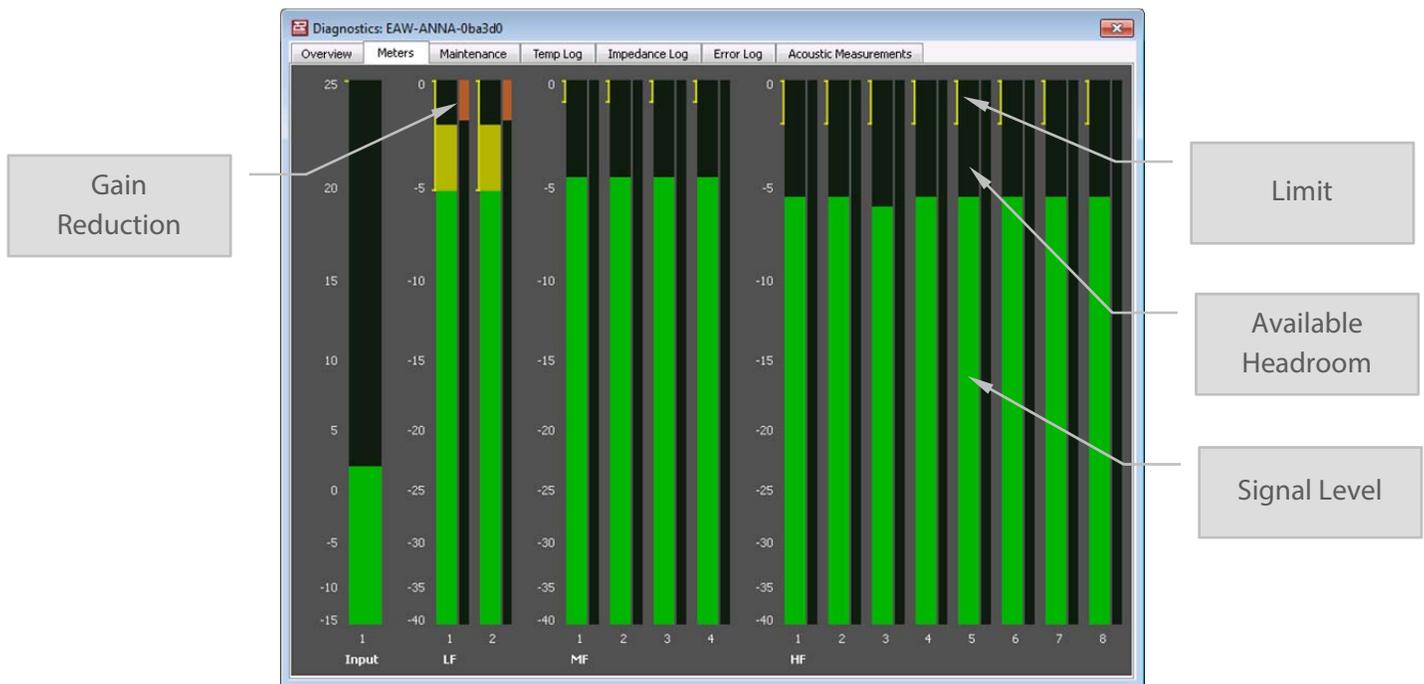
The update speed for the metering display has also been increased by approximately 5x on Anna, providing much more responsive feedback to the user. This change will be implemented in Anya and Otto in early 2017 as well but will require a firmware update.
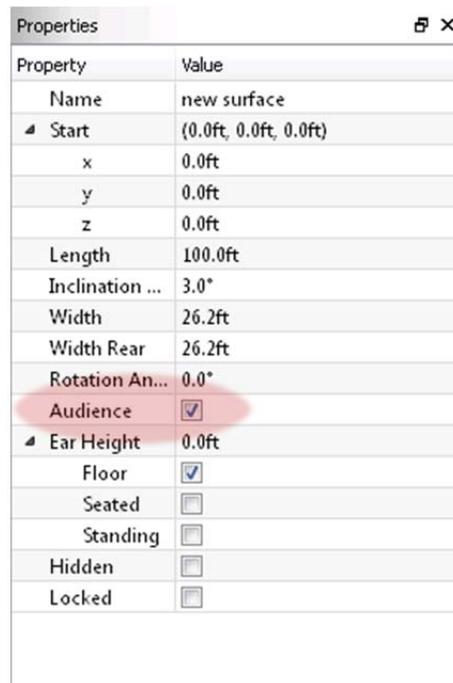
Additionally, the input meter scale now changes depending on the type of input selected. When "Analog" is selected, the input meter units are scaled in dBu, corresponding to input voltage. When AES or Dante is selected, the input meter is scaled in dBFs.

Non-Audience Surfaces

Users can now add surfaces to a Resolution design for visual reference and SPL mapping, but exclude them from coverage via the "Audience" checkbox in each surface's Properties pane. This enables users to now enter and display architectural surfaces in a venue (such as ceilings and walls) that are useful for visual reference and/or to see SPL mapping, but that should not be covered by the sound system.

When "Audience" is unchecked, SPL will still plot on surfaces. The "Hidden" option will prevent SPL from plotting on surfaces, but they will still be covered by the sound system unless "Audience" is also unchecked.

NOTE: Non-audience surfaces are not included in Resolution's verification of shadowing by surfaces. In other words, if a surface is not indicated as "Audience", Adaptive algorithms will completely ignore it, which may result in aiming lines intersecting non-audience surfaces while actually covering the audience surfaces behind it.


By default, newly-inserted surfaces have the 'Audience' parameter enabled.

## Improved Surface Isolation for Adaptive Systems

This version of Resolution significantly improves Anya and Anna's ability to avoid areas between surfaces, both increasing the isolation of the audience surfaces from a building's architecture and further improving SPL and consistency. With this improvement, SPL is reduced between audience surfaces by as much as 10-15 dB (the reduction will vary by audience geometry and array configuration).
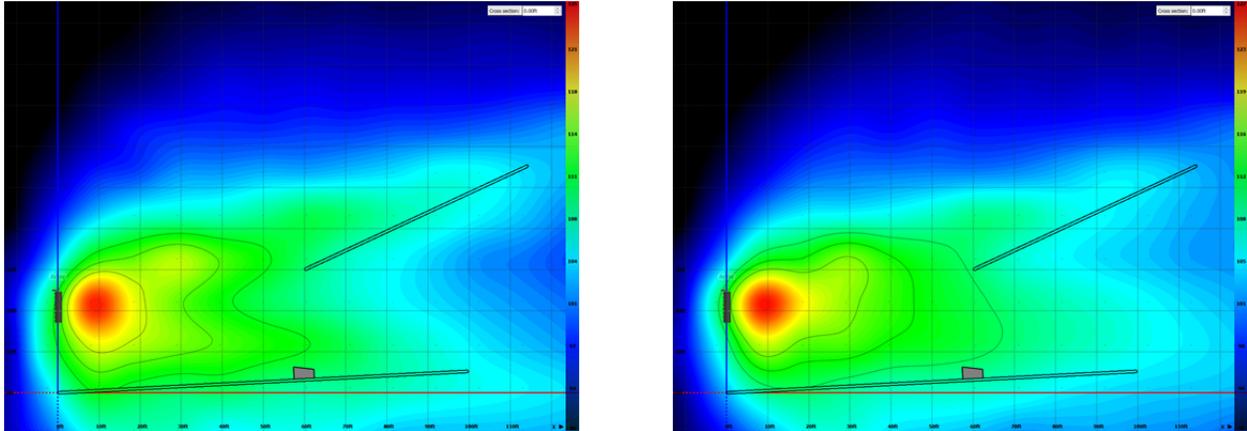
NOTE: It is **not necessary** to define non-audience areas to achieve this effect. Resolution will automatically reduce SPL between active audience surfaces

Adaptive Aiming Lines

Resolution now allows users to see the general aiming and allocation of sources in Adaptive arrays. Though this view is simplified (2 lines per enclosure), it provides users with a quick visual indication of how the array is covering the audience and if any areas of the venue are shadowed (Adaptive arrays will not 'shoot' through one surface to reach another). Additionally, users can quickly assess the 'throw' or coverage distance to various audience areas by simply reading the distance associated with each aiming line.
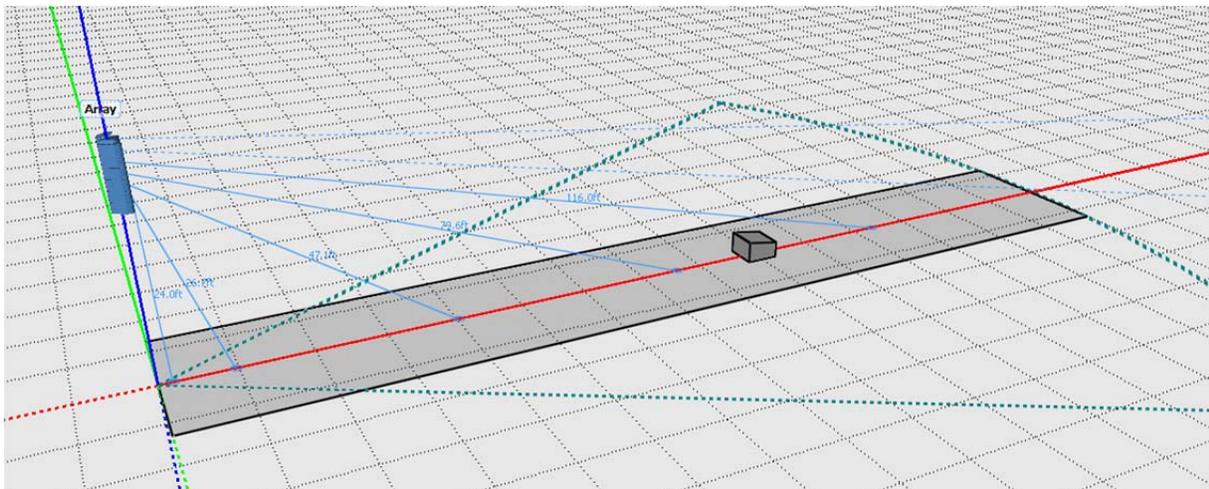
Array Assistant with Mixed Full Range + Subwoofer Arrays

Resolution's Array Assistant will now fully optimize splay angles for arrays with mixed full-range and subwoofer modules, making products like RADIUS (RSX208L + RSX12), KF (KF730 + SB730) and others even easier to use than before.

An example system is shown below before and after splay optimization:
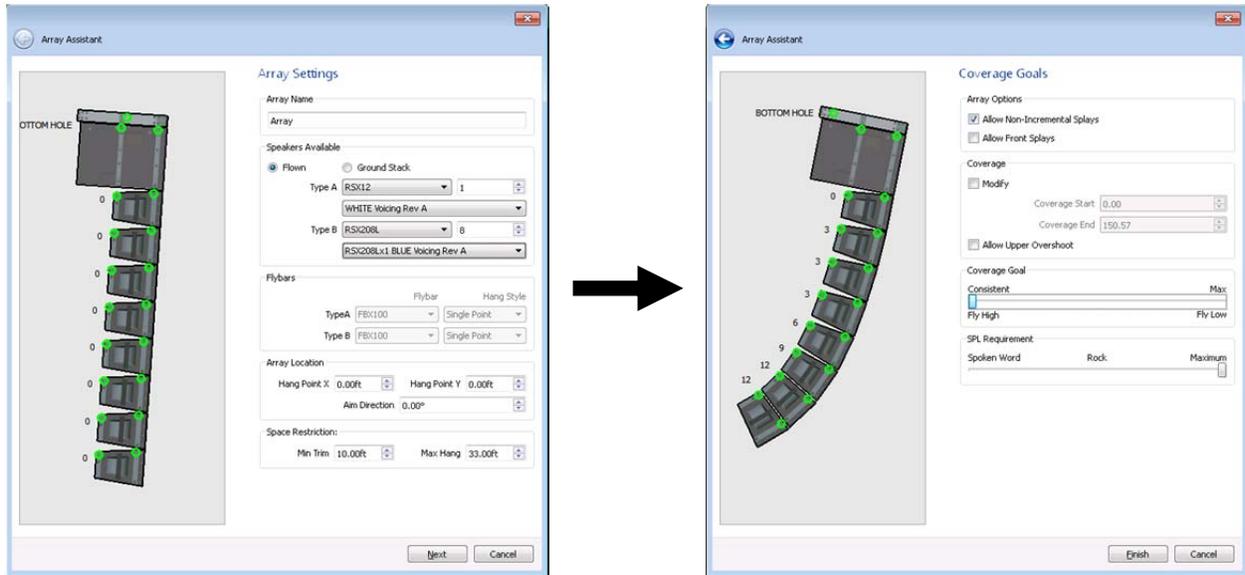
NOTE: it is necessary to include both subwoofers and full-range modules on page 1 of the Array Assistant. Subwoofers will not be included in the array unless a quantity of 1 or more is added to the array by the user.

Other Changes:

- Added "Use Multicast" option when assigning inputs of Adaptive arrays. This permits more than 32 modules to be subscribed to a Dante transmitter (such as an Adaptive module).

- Added warning when attempting to link processing for arrays of different type.

- Improved software update status indications.

- Suppressed tilt sensor warnings for Adaptive systems.

- Added ability for Resolution to save directly to image files (in addition to clipboard).

- Added option to disable acoustic calculations ("Enable Calculations", under the "View" menu).

- Fixed issue where Otto gain structure was lower than expected in certain rare cases.

- Fixed issue where Resolution could crash when disconnecting from a network.

- Fixed issue where Resolution could crash when deleting Otto modules from an array.

- Improved Otto acoustical model calculations. Resolution will no longer sometimes pause for long periods of time at 40%.

- Improved speed at which Resolution recalculates the acoustic model for Adaptive Systems after changes are made to a design.

Known Issues:

- EASE export may fail for larger Anya arrays.

  o Workaround: Contact EAW Application Support for assistance in exporting EASE balloons for large arrays.

- Reading logs from Adaptive systems can sometimes take a long time or fail.

  o Workaround: Retry log request.

- Coverage lines are not visible on elevated surfaces (greater than z=0).

  o Workaround: Rotate 3D venue model perspective vertically (so as to view underside of model) to see location of coverage lines.

- The Array Assistant will sometimes indicate that the array is 'not aimed at a surface' for venues built in the –X direction.

  o Workaround: Click 'OK', ensure that coverage start and finish are correct, and finish the Array Assistant. The array will be inserted and the acoustic model will still calculate normally.

EAW Resolution v2.1.3.84 Release Notes

Previous Version: EAW Resolution v2.1.3.83

Changes:

Adds EAW RADIUS family loudspeaker data – NOTE: Users may need to enable **loudspeakers and flybars** in Resolution Inventory Manager (see Help File for details) in order to use them. Models include:

- RSX208L line source

- RSX129 and 126 point sources

- RSX89 and 86 point sources

- RSX12 flyable subwoofer

- RSX18 ground-supported subwoofer

- FBX100 flybar for RSX208L and RSX12

Known Issues:

- EASE export may fail for larger Anya arrays.

  o Workaround: Contact EAW Application Support for assistance in exporting EASE balloons for large arrays.

- Reading logs from Adaptive systems can sometimes take a long time or fail.

  o Workaround: Retry log request.

- Coverage lines are not visible on elevated surfaces (greater than z=0).

  o Workaround: Rotate 3D venue model perspective vertically (so as to view underside of model) to see location of coverage lines.

- Progress bar for Otto acoustic model sometimes pauses at 40% (20% or 70% for two arrays).

  o Workaround: N/A. Acoustic model calculation time varies by array. Allow calculation to complete.

- The Array Assistant will sometimes indicate that the array is 'not aimed at a surface' for venues built in the –X direction.

  o Workaround: Click 'OK', ensure that coverage start and finish are correct, and finish the Array Assistant. The array will be inserted and the acoustic model will still calculate normally.

- An Adaptive Systems module cannot serve as an on-ramp for more than 32 modules. This occurs because routing is established as unicast flows (which have a limit of 32).

      o   Workaround: Configure Dante flow from on-ramp module as multicast prior to selecting inputs in Resolution. Audio routing via Resolution (via normal input assignment process) will then be multicast.

EAW Resolution v2.1.3.83 Release Notes

Date: June 6, 2016

Previous Version: EAW Resolution v2.1.2.76

Changes:

- Adaptive Systems Enhancements

o   Improved log files. Saved log files can be opened via File > Open even when the devices are not online.

o   Improved surface detection in design mode.

o   Improvements to Anna fan speed management.

o   Added support for multicast routing.

    o   General Updates

        o   Improvements to the Equalizer View.

        o   Resolution "updating" procedure now includes status messages.

        o   Minor bug fixes.

        o   Includes updated firmware (see Help File for update procedure)

        o   Anna (1.0.15.0)

        o   Improves stability for systems left powered on continuously for extended periods of time.

Known Issues:

- EASE export may fail for larger Anya arrays.

    o   Workaround: Contact EAW Application Support for assistance in exporting EASE balloons for large arrays.

- Reading logs from Adaptive systems can sometimes take a long time or fail.

    o   Workaround: Retry log request.

- Coverage lines are not visible on elevated surfaces (greater than z=0).

- o Workaround: Rotate 3D venue model perspective vertically (so as to view underside of model) to see location of coverage lines.

- Progress bar for Otto acoustic model sometimes pauses at 40% (20% or 70% for two arrays).

  - o Workaround: N/A. Acoustic model calculation time varies by array. Allow calculation to complete.

- The Array Assistant will sometimes indicate that the array is 'not aimed at a surface' for venues built in the –X direction.

  - o Workaround: Click 'OK', ensure that coverage start and finish are correct, and finish the Array Assistant. The array will be inserted and the acoustic model will still calculate normally.

- An Adaptive Systems module cannot serve as an on-ramp for more than 32 modules. This occurs because routing is established as unicast flows (which have a limit of 32).

  - o Workaround: Configure Dante flow from on-ramp module as multicast prior to selecting inputs in Resolution. Audio routing via Resolution (via normal input assignment process) will then be multicast.

EAW Resolution v2.1.2.76 Release Notes

Date: February 17, 2016

Previous Version: EAW Resolution v2.1.1.75

Changes:

- Adaptive Systems Enhancements

  - o Corrected issue where when utilizing a Dante audio input, Adaptive arrays receiving audio from any source channel other than 1 will indicate an unsynchronized input but actually have the correct channel selected in Dante Controller.

  - o Improved communications via Dante API, resulting in significantly faster online system discovery.

  - o General Updates

- Minor bug fixes.

Known Issues:

- EASE export may fail for larger Anya arrays.

  - o Workaround: Contact EAW Application Support for assistance in exporting EASE balloons for large arrays.

- Reading logs from Adaptive systems can sometimes take a long time or fail.

  - Workaround: Retry log request.

- Coverage lines are not visible on elevated surfaces (greater than z=0).

  - Workaround: Rotate 3D venue model perspective vertically (so as to view underside of model) to see location of coverage lines.

- Progress bar for Otto acoustic model sometimes pauses at 40% (20% or 70% for two arrays).

  - Workaround: N/A. Acoustic model calculation time varies by array. Allow calculation to complete.

- The Array Assistant will sometimes indicate that the array is 'not aimed at a surface' for venues built in the –X direction.

  - Workaround: Click 'OK', ensure that coverage start and finish are correct, and finish the Array Assistant. The array will be inserted and the acoustic model will still calculate normally.

- An Adaptive Systems module cannot serve as an on-ramp for more than 32 modules. This occurs because routing is established as unicast flows (which have a limit of 32).

  - Workaround: Configure Dante flow from on-ramp module as multicast prior to selecting inputs in Resolution. Audio routing via Resolution (via normal input assignment process) will then be multicast.

EAW Resolution v2.1.1.75 Release Notes

Date: December 17, 2015

Previous Version: EAW Resolution v2.1.0.45

Changes:

- Adaptive Systems Enhancements

- Added Anna and capabilities to generate Anna and mixed Anya/Anna arrays to Array Assistant.

- Added Adaptive Parameter Sync feature, which continually monitors and reports synchronization status between Resolution and Adaptive Arrays.

- Added ability to utilize multiple hang styles within a multi-column Adaptive array (accessed by the 'Properties' pane at the column level').

- Added option to ignore Tilt Errors for Adaptive products, as well as Previous/Next paging buttons for warning banners.

- Improved Acoustic Measurement function for Otto and Anna. As a result, users no longer need to 'Calibrate' after driver replacement (still required for Anya).

- Includes most recent voicings for Anya and Otto to maximize compatibility, reliability and performance.

  o Overall Usability Improvements

- Improved SPL mapping on "Fastest" and "Normal" interpolation levels, reducing calculation time by up to 80% (model-dependent).

- Added Laser and Cartesian data entry options for improved workflow when using laser distance meters and CAD drawings (respectively) to create venue models.

- Added Copy, Paste and Link functions for mirroring equalization across multiple arrays.

- Increased maximum delay time in Array Processing window from 100 milliseconds to 1,200 milliseconds.

- Added ability to modify quantity of modules in a column or array from Properties pane.

- Removed 'Overshoot' Array Assistant function.

- Added capability to create trapezoidal audience areas.

- Added 'Global Ear Height' setting.

- Improved reporting of maximum hang quantities for arrays.

- Improved legibility of virtual microphone SPL in certain situation.

- Corrected issue where Array Assistant-generated arrays can sometimes extend below minimum defined trim.

- Corrected bug where EQ enable/disable state would not store with .eawresolution file.

  o Network & Dante Improvements

- Added ability to select both primary and secondary network interfaces.

- Non-EAW products are now listed first in Device List.

- Improved communications via updated Dante API.

  o General Updates

- Minor bug fixes.

  o Updated Help File.

Known Issues:

- When utilizing a Dante audio input, Adaptive arrays receiving audio from any source channel other than 1 will indicate an unsynchronized input, but actually have the correct channel selected in Dante Controller.

  o Workaround: None needed – this is a visual bug only. The arrays have the correct input assigned, as indicated in Dante Controller.

- EASE export may fail for larger Anya arrays.

  o Workaround: Contact EAW Application Support for assistance in exporting EASE balloons for large arrays.

- Reading logs from Adaptive systems can sometimes take a long time or fail.

  o Workaround: Retry log request.

- Coverage lines are not visible on elevated surfaces (greater than z=0).

  o Workaround: Rotate 3D venue model perspective vertically (so as to view underside of model) to see location of coverage lines.

- Progress bar for Otto acoustic model sometimes pauses at 40% (20% or 70% for two arrays).

  o Workaround: N/A. Acoustic model calculation time varies by array. Allow calculation to complete.

- The Array Assistant will sometimes indicate that the array is 'not aimed at a surface' for venues built in the –X direction.

  o Workaround: Click 'OK', ensure that coverage start and finish are correct, and finish the Array Assistant. The array will be inserted and the acoustic model will still calculate normally.

- An Adaptive Systems module cannot serve as an on-ramp for more than 32 modules. This occurs because routing is established as unicast flows (which have a limit of 32).

  o Workaround: Configure Dante flow from on-ramp module as multicast prior to selecting inputs in Resolution. Audio routing via Resolution (via normal input assignment process) will then be multicast.

EAW Resolution v2.1.0.45 Release Notes

Date: December 18, 2014

Previous Version: EAW Resolution v2.0.3.50

Changes:

- Added Otto Adaptive Subwoofer and Otto Array Assistant.

- Several improvements to Network Configuration View for Adaptive systems, including:

- Improved array self-recognition speed and accuracy.

- Added progress bars for improved array feedback.

- Added the ability to reboot modules remotely.

- Added LED options to Array Configuration dialogue for Adaptive Module.

- Added the ability to change inputs even if one or more module is offline.

- Improved handling of communication errors via progress bars and pop-up dialogs.

- Users now have the option to drive multi column Anya arrays either Adaptively or Uniformly (see Help File for more detail).

- Anya and Otto 3D enclosure and flybar models are now significantly more detailed and realistic.

- Adaptive systems acoustical model calculations are now more efficient; calculation time is greatly reduced.

- X, Y and Z-axis lines in the negative direction are now dashed for easier identification.

- Numbering of array elements now only includes loudspeakers (accessories such as flybars and adapter bars are tracked with letters instead of numbers) for easier array size identification.

- General minor bug fixes.

- Updated Help File.

   o   Includes updated firmware (see Help File for update procedure)

- Anya (1.0.39.0)

- § Adds level- and temperature-dependent fan speed control.

- § Power Plants now keep input panel "Test" indicator illuminated while powered on for improved visibility of module status.

- Otto (0.1.9.0)

- § Initial release.

Known Issues:

- EASE export may fail for larger Anya arrays.

    o Workaround: Contact EAW Application Support.

- Reading logs from Adaptive systems can sometimes take a long time or fail.

    o Workaround: Retry log request.

- Coverage lines are not visible on elevated surfaces (greater than z=0).

    o Workaround: Rotate 3D venue model vertically to see location of coverage lines.

- Virtual microphone SPL text sometimes does not display properly with complex surface geometries.

    o Workaround: Rotate 3D venue model to see text.

- Array Assistant-generated arrays can sometimes extend below minimum defined trim in situations with very tight height constraints.

    o Workaround: Re-run Array Assistant with reduced array size until constraints are met.

- Progress bar for Otto acoustic model sometimes pauses at 40% (20% or 70% for two arrays).

    o Workaround: N/A. Acoustic model calculation time varies by array.

EAW Resolution v2.0.3.50 Release Notes

Date: July 7, 2014

Previous Version: EAW Resolution v2.0.2.48

Changes:

- Enhanced implementation of Air Loss Compensation for very long throw distances using Anya.

- Improved handling of audience surfaces shadowed from array coverage in complex venue geometries.

- Updated "Create PDF" function for Anya arrays, no providing significantly more detail about rigging points and loads.

- Inclusion of updated Audinate Dante Redistributable, no longer requiring some users to install it separately.

- General minor bug fixes.

EAW Resolution v2.0.2.48 Release Notes

Date: April 25, 2014

Previous Version: EAW Resolution v2.0.1.39

Changes:

- Added display of current cursor position 3D coordinate and SPL value.

- Added trace storage capability for virtual microphone frequency responses.

- Added audience ear height selection for each surface (used for SPL mapping, virtual microphone placement and array coverage calculation).

- Minor improvements to mechanical calculations in Array Wizard, particularly for mixed-model arrays.

- Removed dimensional limitations on ground-stack stage height.

- Added "Mic SPL" toolbar button for even faster SPL calculation.

- Improved "Copy image to clipboard" function.

- Improved Network Configuration View functionality, including:

- "Unassign All" right-click option for Anya arrays.

- Array placement on page is retained with file.

- Improved Anya-related functionality:

- Addition of "Sapphire" voicing.

- Improved EASE export function for Anya arrays. All columns in multi-column arrays now export as single balloon.

- Improved acoustic model recalculation workflow.

- Minor improvements to Adaptive Performance™ algorithm to handle unusual

- Audience geometries and air loss pre-emphasis for longer throws.

- Find Me (Trilateration) function process now includes more comprehensive dialogs.

- Improved "Auto Identify" behavior; LEDs now turn off after 10 seconds or immediately on deselect.

- Anya banner warnings are more specific.

    o Updated Help File.

EAW Resolution v2.0.1.39 Release Notes

Date: February 19, 2014

Previous Version: EAW Resolution v2.0.1.28

Changes:

Improved graphical functionality, including:

- Addition of zoom +/- functionality for frequency response window.

- Users can now define the Y-value of the cross-sectional view in X-Z view.

- Improved visibility of SPL microphones.

- Added "Unsolo All Arrays" toolbar button.

- Addition of shortcut keys and menu options for Free, Side and Top views.

    o   Enhanced menu operation including additional right-click functions such as:

- "Clone" feature for virtual microphones in Venue Configuration window.

- Direct access to processing for Arrays and Loudspeakers in Project Explorer window.

- "Add Array", "Add Surface" and "Add Mic" in Venue Configuration window.

    o   Improved "Create PDF" output and refined mechanical calculations for some loudspeaker models.

    o   Added option to manually recalculate acoustic model if desired.

    o   Improved handling of non-English characters.

    o   Refined integration with Anya systems:

- Further improved "Upload Array Parameters" behavior when making changes to model.

- Added ability to define LED behavior.

- Improved handling of low-frequency coverage for Anya arrays in certain near-field scenarios, and overall EQ optimization.

- This installer also includes Anya voicing version 1.5 (see release notes under "Inventory Manager" for details). Previous voicing revisions are still included.

    o   General minor bug fixes.

EAW Resolution v2.0.1.28 Release Notes

Date: August 22, 2013

Previous Version: EAW Resolution v2.0.0.26

Changes:

- Array Assistant improvements & bug fixes - "Array Wizard" changed to "Array Assistant", moved aim angle to, default coverage changed from 180 to 90 degrees, online array editing improvements

- Coverage assignment improvements - Asymmetrical horizontal coverage fields allowed (relative to array)

- Frequency Response window improvements - added CSV export, copy to clipboard to right click menu, toggle icon bar auto re-size

- Anya diagnostic screen improvements - more intelligent impedance feedback, acoustic measurement improvements

- Added toolbar options - hide all floors button, undo/redo buttons, file & edit toolbars

- Acoustic/SPL workflow improvements - less recalculations & button presses required

- Microphones improvements & bug fixes - Microphones can be locked, "Find Me!" results default to locked

- Array & surface naming improvements & bug fixes - "floor" changed to "surface"

EAW Resolution v2.0.0.26 Release Notes

Date: August 6, 2013

Previous Version: EAW Resolution v1.3.1.39

Changes:

- Initial release of EAW Resolution 2.0

For all questions, please contact asg@eaw.com