

## d&b ArrayCalc V10 Release notes

The d&b ArrayCalc simulation software is the simulation tool for d&b line arrays, column and point source loudspeakers as well as subwoofers. This is a comprehensive toolbox for all tasks associated with acoustic design, performance prediction, alignment, rigging and safety parameters.

### OS requirements

**Windows:** Win7 or higher

**macOS:** 10.12 or higher

### V10.8.3

#### MacOS information:

This new ArrayCalc version V10.8.3 requires macOS 10.12 or higher. If you are running macOS versions prior to 10.12, you can use ArrayCalc version 10.6.13 from our heritage software section. See link:

<https://www.dbaudio.com/global/en/products/software/software-archive/>

#### Bug fixes:

- Issue when loading a project file containing M4, M6 or Ci90 from previous ArrayCalc versions fixed.
- Issue when loading a project file using a Q7 in a line array fixed.
- Empty "Grab link position" diagram fixed when loading a project with an array using Compression mode .
- Issues when saving a project containing a mixed SUB array fixed.
- Dispersion lines for the outer cabinets of an A-Series horizontal array fixed.
- For A-Series arrays, the single pickpoint is no longer shown in steps of 0.5 but in steps of integer values.
- For V-Series arrays, in practice the last possible pickpoint hole position 40 cannot be used. Therefore in ArrayCalc position 39.5 was defined as the last possible pickpoint position.
- Issue with a message prompted that the project was changed by another program fixed when saving a project in a DropBox folder using macOS.
- After importing a SUB array, the Alignment section for the SUB array is now properly shown.
- After changing the amplifier model from D80 to D12, the project file can now be properly loaded.
- Crash when changing amplifier model from D80 to D12 and applying the "Configure amps" function fixed.
- Crash when changing the series for multiple selected arrays fixed.
- Crash when changing the SUB system of a symmetrically linked SUB array fixed.
- Crash when changing the linking mode of the SUB array fixed.
- Missing labels for the positions in the SUB array fixed.
- Missing update of the speaker drop-down selection for a point source group in the Alignment view fixed.
- Typing error in the Preferences dialog for the "Controls" tab fixed.

12/2019

## V10.8.2

### MacOS information:

This new ArrayCalc version V10.8.2 requires macOS 10.12 or higher. If you are running macOS versions prior to 10.12, you can use ArrayCalc version 10.6.13 from our heritage software section. See link:

<https://www.dbaudio.com/global/en/products/software/software-archive/>

### Features:

- Support of A-Series
- Support of B8-SUB in SUB array

### Bug fixes:

- In a mixed operation of HiDPI and normal screens, all icons on normal screen are now displayed in the correct size.
- Inconsistent behavior in changing loudspeaker types in a mixed SUB array fixed.
- Y coordinate in the "Alignment SUB array" diagram always displaying 0 fixed.
- Issue with parts of the balloon being cut off for J-SUB, J-INFRA and SL-SUB fixed.
- Issue with AP symmetry warning for circular planes fixed.
- Wrong limit for maximum number of cabinets for Q-Series and T-Series fixed.
- Issue with tessellation of a superelliptic plane fixed if one of the minor axis is zero.
- Issue with rotating a multi-selection of arc segments by 180° fixed.
- Issue with a multi-selection of planes fixed if they show different values for the back height although it is the same value.
- In mixed SUB arrays, the field for entering the number of cabinets per position is now correctly enabled.
- The number of characters allowed in the field for the name of an ArrayProcessing slot now corresponds to the number of characters allowed in the remote control of the amplifier (15).
- B8-SUB polarity swap fixed.
- Wrong single pickpoint hole position for KSL with load beam position "front" fixed.
- Issue with Top/End/Side/ISO buttons on the Rigging plot view not resetting the zoom and translation factor to the default value fixed.
- Issue with changing a single array to a paired array resulting in splay angle changes only applying to the left side fixed.
- ArraySight devices that were created in R1 are no longer skipped when loading the project. Instead a dialog opens which enables the user to assign the ArraySight devices to arrays.
- Possible wrong SL-SUB splay angle setting of 2.5° adjusted to the correct value of 2.0.

10/2019

## V10.6.13

### Bug fixes:

- Wrong profile diagrams fixed.
- Function group setting fixed to apply to both hangs when changing a single array into a paired array.

06/2019

## V10.6.12

### Bug fixes:

- Wrong pick point values for Q Flying Adapter fixed.
- Wrong number of loudspeakers for an additional amplifier group shown in the Parts list on Summary tab fixed.
- Crash when dragging and dropping cabinets and then reducing the number of cabinets in the source group fixed.
- Part numbers of the xS/xA Series updated.
- Possible change of position of a multiselection of locked venue elements with different shapes fixed.
- Possible change of the type of a locked venue element fixed.
- Automatically generated amplifier channel names no longer use the input number but the cabinet number when the channel is patched to a DS10.
- Issue with the import of source groups regarding non-linked cabinets on the same amplifier channel fixed.
- Maximum number of linked cabinets for Ci80 fixed to 4.
- Missing update of the symmetrical twin of a point source regarding horizontal aiming fixed.
- When using the tab key to just switch through input fields of a multi-selection with different values, the existing value is no longer taken over for all selected elements.
- Unused 2-way active channel of a 10D set to not supported C3 fixed.
- Issue with the test point not following the plane profile in SUB array alignment diagram fixed.
- Missing curve of J-SUB in diagram of section 5.8 in TI385 added.
- Issue with zooming Venue editor back in again after zooming out to maximum fixed.
- Issue with displaying the data of the wrong cabinet of a point source group fixed when changing source group selection.
- Using "Configure amplifiers" now also recreates the amplifier names.

06/2019

## V10.6.9

### Features:

- Support of B8-SUB.

### Bug fixes:

- Smaller bug fixes and improvements.

04/2019

## V10.6.6

### Bug fixes:

- Crash when opening a project on MacOS using double click or 'Open with' fixed.
- Incorrect warnings that a file saved in the cloud is used by another application while saving fixed.
- Wrong default value of relative delay of a newly added SUB array fixed.
- Export problems to Dante controller when project names contain an ampersand fixed.

03/2019

## V10.6.4

### Bug fixes:

- Crash when reading snapshot entries during project load fixed.
- Shrinking speaker type field after changing the speaker type in a point source group fixed.
- -/+ buttons now properly aligned with input fields of a point source group.
- Possible changes in dock height fixed when switching between Sources, Alignment and 3D plot.

02/2019

## V10.6.3

### Features:

- Support of upright SL-SUBs in the SUB array.
- Inclinator laser beam shown for GSL and KSL systems.
- Rigging comment field added.
- Saving of project file improved.
- New option in Preferences regarding zooming direction using the mouse wheel.
- New option in Preferences regarding diagram rotation.
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### Notes:

- When installing ArrayCalc V10 on Windows, no desktop shortcut will be created any more.

### Bug fixes:

- Locking mechanism added to prevent accidental overwriting when working with R1 & ArrayCalc on the same project at the same time. (Requires R1 V3.6.0 or higher).

02/2019

## V10.4.7

### Bug fixes:

- Issue with missing update of the compression load limits when changing the value for the compression hoist fixed.
- Issue with wrong loudspeaker type shown in R1 fixed when source groups contain linked cabinets.
- Crash caused when saving a project after reducing the number of cabinets or changing remote IDs for a source group with linked loudspeakers fixed.

- No more unintended password prompt when opening a project created using the Western Arabic numeric system on a computer that does not use this setting.
- Issue caused when reordering cabinets with drag&drop and trying to link the cabinets fixed.
- Level over distance diagram now properly updated when importing or pasting an array.
- Conflicted snapshot fixed when loading a project in R1 that uses C-Series loudspeakers.

01/2019

#### V10.4.4

##### **Bug fixes:**

- KSL data (weight, center of gravity, splay offsets for both Compression and Tension rigging modes) updated with production average.
- KSL stacked option temporarily disabled as it does not support KSL carts yet.
- Venue: Issue with editing the corner points of quadrangular planes fixed.
- Issues with SUB array print preview and printout missing 3dB per division text fixed.
- Display issues when using various screens with different ratios or different scaling settings fixed.
- Issues fixed when reading .dbac project files from older ArrayCalc versions.

12/2018

#### V10.4.3

##### **Bug fixes:**

- Crash after splitting an array and copying the data of the left hang to the right hang fixed.
- Crash when opening a .dbac (old project file format) project fixed when the project contains an array without a loudspeaker system selected.
- Issue with disabled splay angle dropdown of the lowest box in a stacked array fixed.
- Issue with loading a project containing a mixed SUB array with activated HCD filter fixed.
- Issue with ArrayProcessing symmetry warning fixed.
- Issue with linking not working after disabling ArrayProcessing fixed.
- Issue with empty temperature dropdown in ArrayProcessing dialog fixed.
- Issue with using Configure amplifiers option while symmetrical linking is activated fixed. Configure amplifiers did not start with channel A while symmetrical linking was activated.
- Wrong relative delay incrementation of a point source group containing linked cabinets fixed.
- Issue with odd round shapes drawn instead of a cuboid fixed when the cuboid was placed outside of the visible area of the Venue view diagram.
- Issue with high curvature values changing the coordinates of P1/P2 of a super elliptic listening plane fixed.
- Missing update of receiver channel names of DS10 on Devices view after running Configure patch option fixed.
- Issue with the selection of a D20 amplifier for an M4 monitor in a Point source group fixed.

- Selection of Mix TOP/SUB output mode for a D12 amplifier no longer needs to be made twice to be activated.

11/2018

#### V10.4.1

##### Features:

- Support of KSL loudspeakers.
- Color (green) for GSL and KSL loudspeakers Compression ok sign updated.
- Symmetrical pair linking for point source groups, the SUB array and additional amplifier groups.
- Permitted number of source groups and sources increased: 40 arrays, 30 point source groups with maximum 50 loudspeakers each and 20 additional amplifier groups.
- Start of ArrayCalc sped up by loading only acoustic data of loudspeakers used in the current project.
- Markup for Early reflections areas on Venue view improved.
- Enabling and disabling of ArrayProcessing for a multiselection of arrays.
- Collapse option added in Details views.
- DS100 EnScene and EnSpace license settings can now also be edited in ArrayCalc.

##### Bug fixes:

- Crash when loading a project containing invalid CAN subnets fixed.
- Changing the loudspeaker type does no longer cause unsupported linking.
- Unnecessary SPL recalculation when changing pickpoint fixed.
- Issue with storing Alignment test point coordinates fixed.
- Opacity option in color picker of Venue elements removed.
- Issue with Configure amplifiers resulting in different output mode settings for a particular amplifier fixed.
- ArrayCalc no longer overwrites EnScene or EnSpace settings from R1.
- Wrongly added offset of around 40m (130ft) on printouts of Level over distance diagram fixed.
- Project can now be correctly saved after having changed a stacked array from 0 to 1 loudspeaker.
- Flat cuboids can now be properly edited and duplicated.
- Issue with SUB array alignment test point fixed when it "flies" away from the listening plane.
- Issue with test point on Alignment view fixed when it does not snap to set the listener height of the respective listening plane.
- Issue with incorrectly triggered messages about file changes made by another application (e.g. R1) on MacOS fixed.

10/2018

#### V10.2.5

##### Bug fixes:

- Crash when printing a 3D plot memory including non-transparent obstacles fixed.
- Issue with grey areas when printing or exporting 3D plot to PNG fixed.
- Issue with invalid SPL calculation resolution on 3D plot diagram and point source group mapping diagram fixed.
- Issue with HFC settings not taken into account for Q-Series in Level over distance diagram and 3D plot diagram fixed.

- Issue with not working deselection for a multiselection of planes fixed.
- Unintentional shift of a multiselection of planes after saving the project fixed.
- Drawing issues with V-, Y- and T-Series cabinets in Array view and 3D plot diagram fixed.

07/2018

#### V10.2.4

##### **Bug fixes:**

- Crash when using drag & drop to move cabinets on Sources view fixed.
- Crash when printing or exporting 3D plot of projects containing venue element groups fixed.
- Permanently disabled ArrayProcessing feature fixed.
- Scale ratio of Venue profile view diagram corrected.
- Possible Remote IDs for D12, D6 and E-PAC outside of CAN range fixed.
- Misaligned column headers when scrolling on Devices view fixed.
- Non-rectangular listening planes no longer permitted as Early reflections areas.
- ArrayProcessing button now shows the progress when preparatory calculations have to be performed.
- Single pickpoint calculation for GSL arrays corrected.
- Issues with file saving after having loaded a .dbac2 project fixed.
- Issues with linking 12S-SUB fixed.
- Missing HF orientation dropdown menu for single xA-Series arrays fixed.
- Differences between live and memory diagram printouts on 3D plot view fixed.
- Issues with imported venues after saving and reloading projects fixed.
- Issue with setting the height (z) of a multiselection of quadrangular venue elements fixed.

07/2018

#### V10.2.2

##### **Bug fixes:**

- Issue with saving project files containing compressed GSL setups fixed.
- Issue with phase response calculation of SUB array on Alignment view fixed.
- Crash when using the undo function after deleting several planes with DEL key fixed.
- Crash when printing or exporting 3D plot quad view as PNG fixed.
- Color selection dialog now also correctly displays the currently selected color.
- Wrong channel naming of linked cabinets fixed.
- Issue with cabinets not selected after using the respective splay angle dropdown menus in the cabinets table on Mac OS fixed.
- Configure amplifiers option now working correctly for mixed and linked SUB array.
- Issue with linked boxes of SUB array in .dbpr files fixed.
- Issue with opening .dbac files containing obstacles fixed.
- Issue with transparency of obstacles in y direction fixed.
- When selecting elements individually in All elements list of Venue view, the multiselection buttons are now disabled.

06/2018

## V10.2.0

### Features:

- Heritage loudspeakers now available in point source groups.
- All elements list on Venue view enhanced with additional functionality including drag-and-drop, multiselection using the shift key and display of the basic shape of an element.
- Separate comments section on Venue view added.
- Profile diagram for test point selection added on Alignment view.
- Using the mousewheel to change dropdown values can now be disabled in Preferences.
- Copying an array with ArrayProcessing enabled now also copies the the ArrayProcessing settings.
- Automatic patching option for DS100 devices added.

### Bug fixes:

- Issue with triangular planes mirrored upside down fixed.
- Missing alignment of splay angles of left and right hangs of a duplicated paired array fixed.

06/2018

## V10.0.14

### Bug fixes:

- Crash when selecting a point source group on Devices view fixed.
- Delay values can no longer be set to less than 0.3 ms or to negative values.
- Backward compatibility with .dbac files fixed.

05/2018

## V10.0.13

### Bug fixes:

- Issue with level incremented twice for linked loudspeakers fixed.
- Issue with PO of arc segment in Venue editor no longer movable fixed.
- Issue with E-PACs in Additional amplifier groups and CPL fixed.
- Saving 3D plot to memory workflow optimized.
- 3D plot resolution value no longer missing after loading .dbac2 project files.
- Audio networking devices are now properly deleted after disabling the Audio networking feature.
- Issue with not correctly restored total delay of linked loudspeakers in a SUB array fixed.
- Issue with moving locked planes when using relative editing fixed.
- Issue with wrong positions of joined venue elements after importing a venue fixed.
- Issue with Structure type venue elements not always being transparent fixed.
- Missing update of frequency list in the simulated signal section of point source groups corrected when switching between these groups .

05/2018



## V10.0.12

### Bug fixes:

- Crash fixed when saving a project after disabling the ArraySight feature.
- Issue fixed where ArraySight devices are not removed from a project after deleting the relevant array.
- Issue with unreported duplicate RemotelDs fixed when the same RemotelD is used for both an ArraySight device and an amplifier.
- Issue with Y7P/Y10P listed as V7P/V10P in Parts list fixed.
- Issue with level increased twice for linked loudspeakers fixed.
- Missing amplifier RemotelD in ArrayCalc viewer file (.dbev) fixed.
- Issue with disabled HFC switch fixed when creating a new project with air absorption enabled by default.
- Issues caused by exported Dante controller preset files named using an umlaut fixed.
- Issue caused by duplicating a point source group with CUT enabled fixed.
- Issue with the absolute value editing fields fixed when changing the Lock option while multiple planes are selected.

04/2018

## V10.0.11

### Bug fixes:

- Crash fixed when reducing the number of cabinets of an array containing linked cabinets or when transforming a paired array containing linked cabinets into a single array.
- Crash fixed when enabling/disabling the ArraySight option in a project that does not contain any source group.
- Missing update of amplifier names after renaming a source group fixed.
- Missing update of input mode when unlinking channels fixed.
- Missing update of input source when unlinking the cabinets of an array fixed.

04/2018

## X10.0.10 Beta

### Bug fixes:

- Crash when clicking in the name field of a Function group fixed.
- Crash when selecting a DS100 without selecting a DS10 first fixed.
- Crash when reducing the number of cabinets per position in SUB array fixed.
- Crash when changing SUB systems from linked B4-SUB to V-SUB fixed.
- Issue with loss of patch of even Dante channels after saving and reloading fixed.

03/2018

## X10.0.9 Beta

### Bug fixes:

- Crash when saving project containing duplicated point source groups with linked cabinets fixed.
- Crash when performing "Configure amplifiers" for certain projects fixed.

- Issue caused by loading a project after importing a source group containing linked loudspeakers fixed.
- Issue with case sensitive renaming of DS100 channels fixed.
- Issues with the availability of combined input sources (e.g. 1+2) for point source groups fixed.
- Issue with export to ArrayCalc viewer file fixed.

02/2018

### **X10.0.6 Beta**

#### **Features:**

- Air absorption calculation/compensation improved by wider and finer humidity options.

#### **Bug fixes:**

- Crash fixed when loading projects containing mixed SUB arrays with linked cabinets and in "hop" mode.
- Crash in a Point source group fixed caused by a J-SUB with INFRA switch enabled which is changed to E-Series.
- Issue with copied or imported SUB arrays fixed.
- Missing keyboard interaction option for buttons on Devices view / Cabinets table added.
- Invalid values in snapshots of Additional amplifier groups fixed.
- Wrong mute values in snapshots of Additional amplifier groups fixed.
- Missing description of simulated signal on Memory slots of 3D plot fixed.
- Issue with linked inputs during the patch validation fixed.
- Issue with levels of linked cabinets in stacked arrays after project reload fixed.
- Already patched DS10 or DS100 assignment no longer lost when patching an output channel.
- Unexpected behavior of AutoSplay in connection with certain array / Venue settings fixed.
- "Name" column of the Venue objects table widened. Venue: Missing Listener height input field for triangular shapes added.

01/2018

### **X10.0.4 Beta**

#### **Bug fixes:**

- Crash when increasing the number of positions of a SUB array with more than one cabinet per position fixed.
- ArrayCalc Help: Wrong screenshot for Point Source signal selection and SPL summation method fixed.
- Delay and level of linked cabinets reset when reading project fixed.
- Tab key navigation inside tables fixed.

12/2017

### **X10.0.3 Beta**

#### **Bug fixes:**

- Crash when increasing the number of point sources fixed.
- Crash fixed when saving a project where some sources assigned to audio networking have been deleted.
- Issue with loading input source settings of D6/D12 from project file fixed.

- Issue with reading the rotation of linked point sources from project file fixed.
- Issue with saving a project containing large snapshots/system settings fixed.
- Issue with duplicate Remote IDs fixed.
- Missing confirmation dialog added when deleting snapshots.

12/2017

### **X10.0.1 Beta**

#### **Features:**

- ArrayCalc V10 and R1 V3 include support for the new integrated project file format (\*.dbpr). This new project file format can be opened and saved in both ArrayCalc and R1.  
Note: Please note ArrayCalc V10 can open .dbac2 project files but not save them. Please check the Software Newsletter 12/2017 for details regarding the recommended workflow.
- Support of d&b Soundscape systems, including DS100 Signal Engine, En-Scene and En-Space software options.
- New triangular Venue element shape, improvements on Arc segment shape which can now also be elliptic.
- New Venue element types. Venue element types can now be changed no matter which shape.
- Join/Split of Venue elements.
- Multiselection and drag&drop of cabinets.
- Linking and amplifier selection already available on Source view.
- Point source groups now support SUBs as well.
- SUB array can be deleted from projects where it is not used.
- Pan and zoom for Alignment top view diagram.
- Overall dimensions of an array displayed below the Required space diagram on Rigging plot view.
- Support of DS10 and DS100, including export of a Dante Controller preset file.

For a detailed description of the new features, please also refer to the Software Newsletter 12/2017.

12/2017