d&b ArrayCalc V12 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:	Win10 or higher. Vulkan support required. MS "Media Feature Pack" required.
macOS (Intel):	11.0 or higher (Metal support required).
macOS (M*):	11.0 or higher (Metal support required).

Notes:

The Windows version starting from ArrayCalc V10.16.1 is created for 64-bit operating systems. This is the recommended version for all users. If a 32-bit version of ArrayCalc is required, use ArrayCalc V10.14.1, which can be downloaded from the Software archive.

For Windows N OS, the MS "Media Feature Pack" needs to be installed manually.

With the Windows version starting from ArrayCalc V12.0.3, we have updated the graphics backend from OpenGL to Vulkan, which provides improved performance, better multi-threading, and more efficient use of modern GPUs. Please be aware that some older Windows devices may not support Vulkan. In such cases, upgrading to newer hardware may be required. If an OpenGL version of ArrayCalc is required, use ArrayCalc V11.8.1, which can be downloaded from the Software archive.

Project file compatibility

To check whether your project will open in ArrayCalc, please refer to the project file compatibility table at the end of this document.

V12.0.5

Bug fixes:

- ArrayCalc not running on Mac OS 11 and 12 fixed.
- Robustness of Vulkan graphics device detection improved.
- DS100M no longer shows 128 Milan inputs on Patch plan.
- Parts list now correctly shows content for sources with the same name.

04/2025

V12.0.4

Bug fixes:

- Issue with ArrayCalc not starting after installation in certain Windows environments fixed.
- Crash when switching from passive to active speaker system fixed.
- Crash when increasing number of flown SL-SUBs fixed.
- ArrayCalc no longer freezes at 91% when loading projects that contain HeadroomCalc audio snippet data.
- Missing active GR LEDs of sources on HeadroomCalc view fixed.
- ArrayCalc no longer crashes on Mac OS when deleting a DS10 from the network devices table.
- Crash when exporting 3D plot raw data and statistics fixed.
- Crash when disabling audio networking feature on Mac OS fixed.

- ArrayCalc no longer crashes when showing print preview of amplifier configurations.
- Crash when closing ArrayCalc on Mac OS fixed.
- Configure amps dialog on Devices view improved.
- Silent/quiet mode installation of ArrayCalc on IT managed Windows PCs fixed.
- Warning message shown when Vulkan graphics engine is not working properly. When you encounter this message, please contact support@dbaudio.com.

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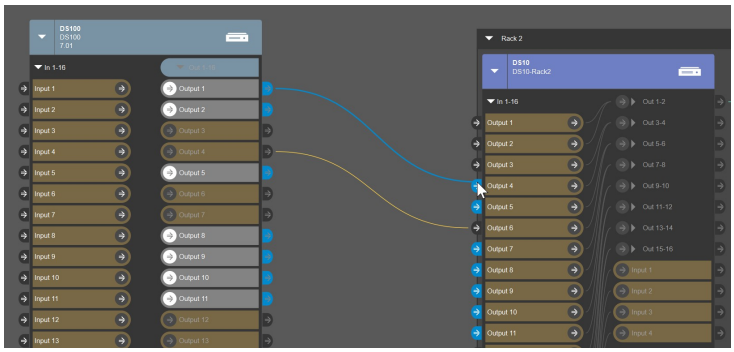
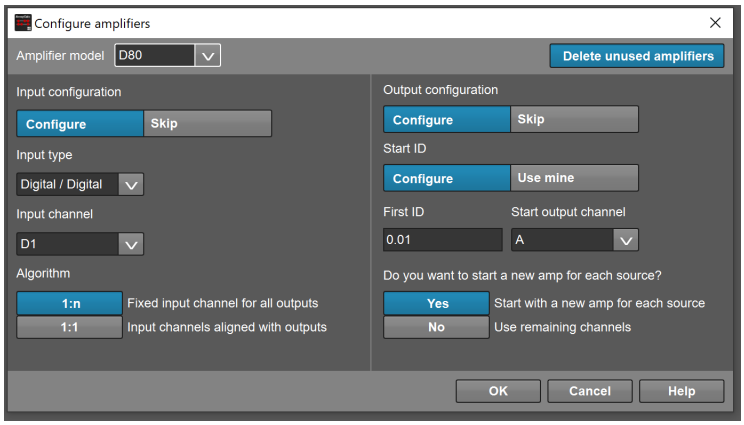
V12.0.3

Features:

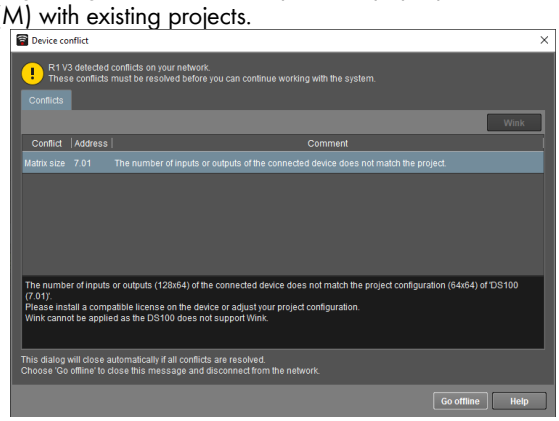
- Graphical interactive Patch plan on Devices view:



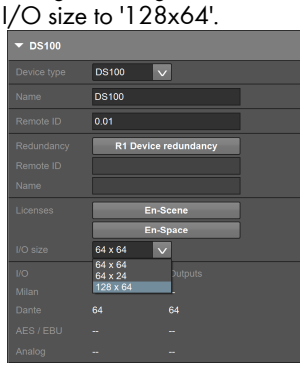
  - Interactive visual patching of devices and sources.
  - Highlighting of a patched signal path from source to sink.
  - Multi-selection and automatic algorithms to quickly patch a project.
  - Visualization of patching errors and not yet used amplifier channels.
  - PDF export of the Patch plan overview or details of all devices.
  - Example projects updated to include Patch plan designs.
- Support of signal engine inputs added.
- Soundscape workflow without amplifiers enabled:
  - Projects with direct draft patches to cabinets are “Ready for R1” and can be used to operate a DS100/DS100M without the need for dummy amplifiers in R1.
- New amplifier workflow:
  - To enable the workflow of adding racks and amplifiers before connecting them to cabinets, ArrayCalc no longer generates amplifiers automatically when new cabinets are added. Instead, you can add amplifiers in the Patch plan or with the new Configure amplifiers dialog.
- Configure amplifiers as dialog providing several options:



- Support of CL-Series added.
- Support of Milan in D90 / D40 / 40D amplifiers added.
- Support of variable DS100(M) input and output counts added.
  - As from DS100(M) firmware version 3.0.0 or higher, the input count of existing devices will be extended to 128 inputs at no extra cost.
  - **Note:**
    DS100(M) firmware version 3.0.0 or higher is required for this feature. Although the DS100(M) with firmware 3.0.0 or higher will show up in older versions of R1, initialization of the device will fail without notice. The failing initialization will result in audible issues.
  - After updating the DS100(M) to firmware version 3.0.0 or higher, a conflict regarding the number of inputs will pop up when using the DS100(M) with existing projects.



  - To overcome this error, go offline in R1, open the project in ArrayCalc V12.0.0 or higher, navigate to the Devices tab, select the DS100 and set the I/O size to '128x64'.



  - After selecting the new I/O size, save the project and open it again in R1 V3.40.0 or higher.

- Support of up to 32 Function groups in one project added.
  - Here, the same constraints as described in the note above apply.
- Support of J-Series TOPs (J8 / J12) added to 40D amplifier.
- Improved user experience in 3D diagrams.
  - The zooming and rotation functions now allow more precise navigation.
  - Measurement grid now scales with zoom level.
  - Track pad gestures for panning and zooming.
- Improved calculation method for estimating the broadband gain reduction threshold.
  - Please note that depending on the selected system, its configuration, and the selected broadband signal, this can cause the GR LEDs to light up at marginally different input levels when compared to previous ArrayCalc versions.
- Support of System Design Export (SDE)
  - The designed sound system as it is including all current settings can be exported according to the SDE-standard to an SDE-file, which then can be used in noise prediction software like SoundPLAN. The SDE-standard provides a unified, free-to-use file format and calculation method, enabling accurate and easy noise prediction for outdoor entertainment events with sound systems.

Bug fixes:

- XSL Pullback frame no longer missing in DXF export.
- "Frame height front" can now also be set below zero in the Rigging plot view.
- IEC60268-16 spectrum not triggering the GR LED fixed.
- Wrong calculation of SL-SUB single pick position fixed.

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Project file compatibility

The following table lists the supported software versions required to maintain project file compatibility.

<table>
<tr><th>Created in...</th><th colspan="4">Open with...</th></tr>
<tr><th>ArrayCalc</th><th>ArrayCalc</th><th>ArrayCalc Viewer</th><th>R1</th><th>NoizCalc</th></tr>
<tr><td>12.0.x</td><td>12.0.x</td><td rowspan="6">1.22.x
1.20.x</td><td>3.40.x</td><td>4.2</td></tr>
<tr><td>11.8.x</td><td>11.8.x</td><td>3.38.x</td><td rowspan="4">4.0</td></tr>
<tr><td>11.6.x</td><td>11.6.x</td><td>3.36.x</td></tr>
<tr><td>11.4.x</td><td>11.4.x</td><td>3.34.x</td></tr>
<tr><td>11.2.x</td><td>11.2.x</td><td>3.32.x</td></tr>
<tr><td>11.0.x</td><td>11.0.x</td><td>3.30.x</td><td>3.2</td></tr>
<tr><td>10.26.x</td><td>10.26.x</td><td rowspan="3">1.18.x</td><td>3.26.x</td><td rowspan="3">3.0
2.8</td></tr>
<tr><td>10.24.x</td><td>10.24.x</td><td rowspan="2">3.22.x</td></tr>
<tr><td>10.22.x</td><td>10.22.x</td></tr>
</table>

Note:
In general, project files are upward compatible, i.e. later versions of an application open project files created with previous versions of the same application.