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New ArrayCalc and R1 Beta versions including new integrated project file format support

The ArrayCalc V10.0 Beta and R1 V3.0 Beta 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.
The new project format can be also opened in the new versions of NoizCalc and the ArrayCalc Viewer app.

Advantages of new project file format

- Single project file for both ArrayCalc and R1: all information regarding a project is contained in the same file, including venue information, system setup, ArrayProcessing data and remote control views.
- R1 can automatically generate remote views on demand for the system defined in ArrayCalc
- Customized remote views can be created in R1, which are not lost if changes to the system setup are made in ArrayCalc afterwards. This is especially useful for touring situations, where the system setup changes slightly from venue to venue.

Transition period for new project format

As the new project file format introduces major changes in the architecture of both ArrayCalc and R1, a transition period has been defined for the migration from the current dual project file (.dbac2 and .r1p) to the new integrated project format (.dbpr).

Current ArrayCalc V9 and R1Remote control V2 versions will be supported until April 2018, in parallel to the later ArrayCalc V10 and R1Remote control V3. New features will only be added to the ArrayCalc V10 and R1Remote control V3 versions, but ArrayCalc V9 and R1 V2 will still receive bug fixes where necessary. Please note that due to the architectural changes, it is likely that stability will be higher for the ArrayCalc V9.x and R1 Remote control V2.x versions than for the new Beta versions.
Both the old and new versions ArrayCalc and R1 can be installed simultaneously on the same computer. Please note: the automatic update mechanisms for ArrayCalc V9 and R1 Remote control V2 will not automatically update to ArrayCalc V10.0 Beta and R1 Remote V3.0 Beta.
The new versions must be manually downloaded from www.dbaudio.com. After they are installed, they will also receive automatic updates for subsequent ArrayCalc V10.x and R1 Remote control V3.x versions.

Recommended workflow for transition period

Please note: the .dbpr projects cannot be opened in ArrayCalc V9 and R1 Remote control V2. The following approach can be used for backwards compatibility:

- Create new projects in ArrayCalc V9 (.dbac2)
- Open .dbac2 in ArrayCalc V10.0 Beta
- Save this as a .dbpr in ArrayCalc V10.0 Beta (this creates a new file, without overwriting the original .dbac)
- The .dbpr project file can be opened in both ArrayCalc V10.0 Beta and R1 Remote control V3.0 Beta to take advantage of all the latest features in these versions*.
- For backwards compatibility, the original .dbac2 file can be opened in R1 Remote control V2 for remote control purposes, being saved as .r1p, as per the current workflow.

* **Please note:** if an R1 Remote control V2 project is converted from the .r1p format to the .dbpr format, the software will warn that the data is not complete (missing loudspeaker data), hence the recommendation to use .dbac2 files as a starting point for creating .dbpr projects.

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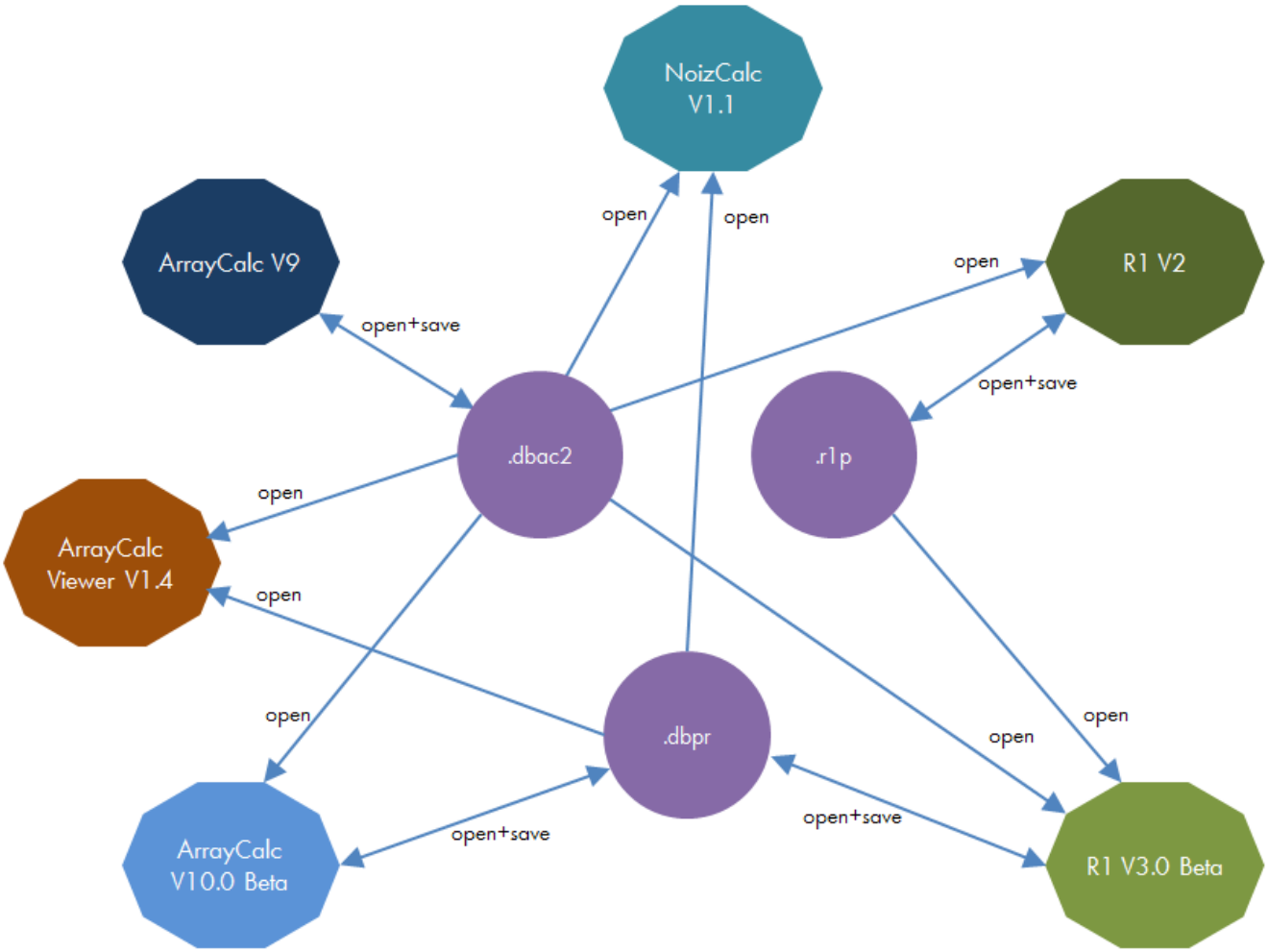
Summary

	.dbac2	.r1p	.dbpr
ArrayCalc V9	Open/Save	-	-
ArrayCalc V10 Beta	Open	-	Open/Save
ArrayCalc Viewer V1.4	Open	-	Open
NoizCalc V1.1	Open	-	Open
R1 V2	Open	Open/Save	-
R1 V3 Beta	Open	Open	Open/Save



Feedback from experiences with the Beta versions is most welcome, please address this to support@dbaudio.com including in the subject line: 'Beta feedback'.

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ArrayCalc V10.0 Beta

The latest version of the ArrayCalc software adds a number of new features and improvements:

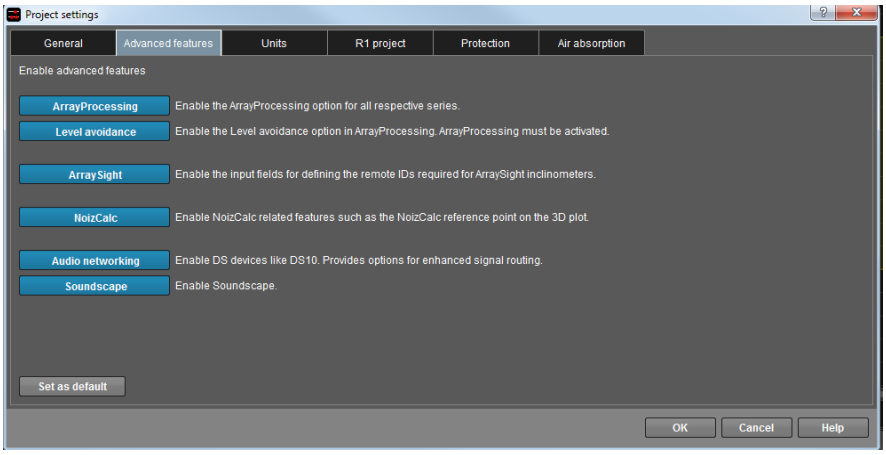
- Support for .dbpr integrated project file (see above)
- Support for d&b Soundscape systems, including the DS100 Signal Engine and the En-Scene and En-Space software functions
- Venue view improvements
- Sources view improvements
- General improvements

d&b Soundscape Support

d&b Soundscape systems are designed in ArrayCalc V10.0 Beta. The main functionalities are described below.

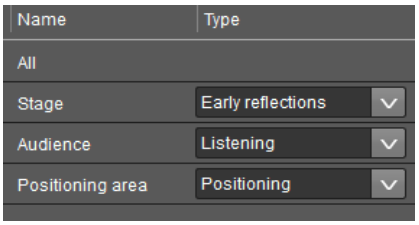
Extended project settings

The project settings dialog has been extended to allow the user to enable or disable the advanced features as desired for a given project. For Soundscape systems, both 'Audio networking' and 'Soundscape' options must be enabled.



Additional venue elements

- When entering the venue data, two additional plane types can be added for Soundscape systems:
- Positioning: this plane can be used in the R1 En-Scene views as a reference for positioning the sound objects. Additionally, this plane can be used as a reference for the coordinate mapping functionality in conjunction with OSC interfaces. A maximum of four Positioning planes can be defined per project.
- Early reflections: this plane corresponds with the area for which the En-Space algorithm calculates additional convolutions, in order to achieve better reproduction of the early reflections on the primary venue. In many applications this area will coincide with the stage. A maximum of one Early reflections plane can be defined per project.



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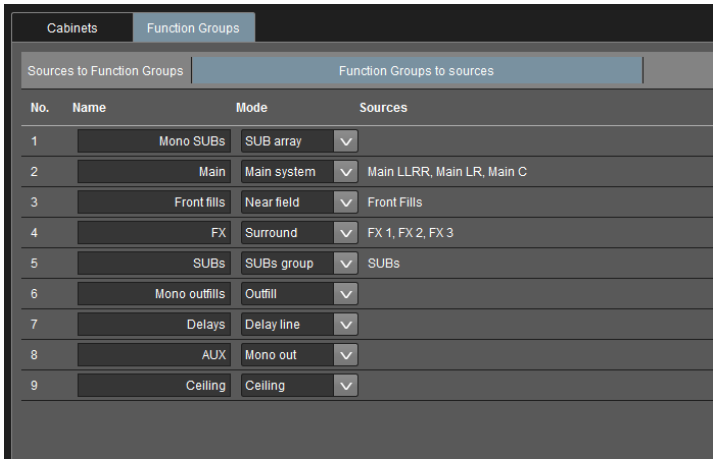
Function groups

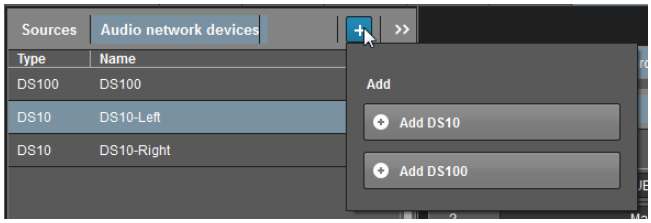
Each source group can be assigned a function group for En-Scene and En-Space applications. The default Source groups can be edited within the Devices (formerly known as Amplifiers) view.



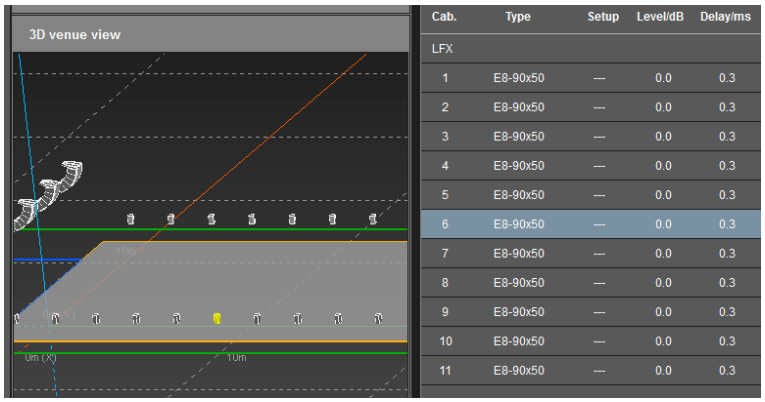
Patching

The Devices view adds the possibility of defining the signal patching from DS100 to loudspeaker, through DS10 and Amplifier devices.

DS100 and DS10 devices can be added on the Audio network devices tab.



Additionally, when selecting any given loudspeaker within the Devices view, it will be highlighted in the new 3D Venue view within the same page:



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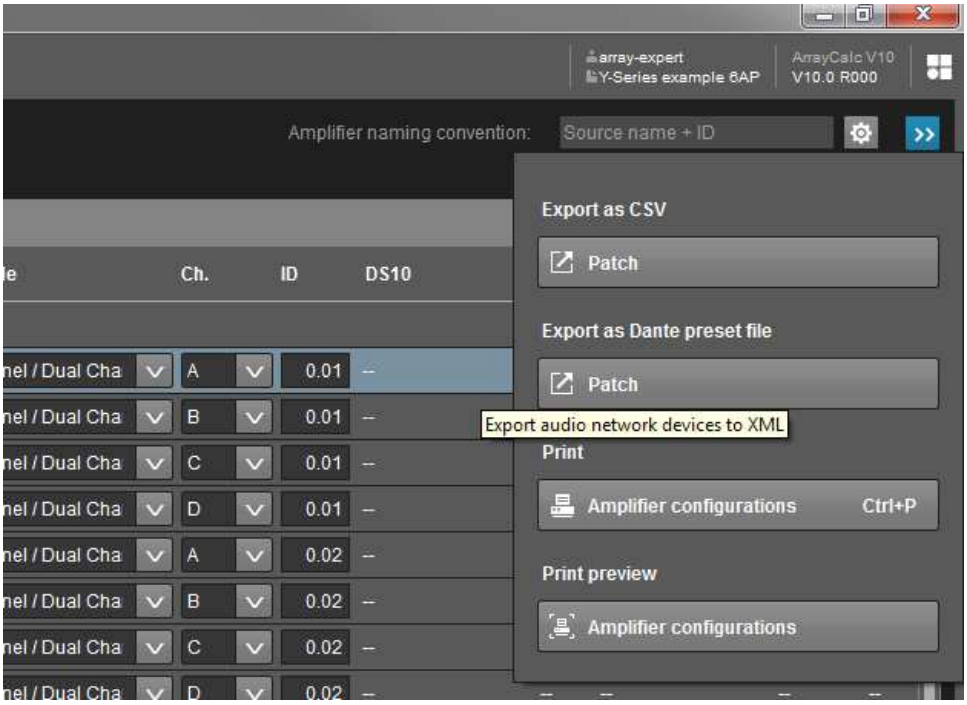
When the patching has been defined for a project, a Dante Controller preset file (.xml) can be automatically generated from ArrayCalc. This preset file includes all necessary channel routings from the configured DS100 to the DS10s in the system. The preset file can then be loaded into Dante Controller to set up the audio network subscriptions. Please check the Dante Controller manual for more information.



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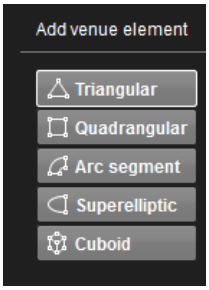
Venue view improvements

Join/split venue elements

Multiple venue elements can be joined, so that they can be moved together. The group then can be split. For this, select the elements to be joined and click on the 'Join/Split' button within the Tools area.

Triangular planes

Triangular planes can now be added to a venue.



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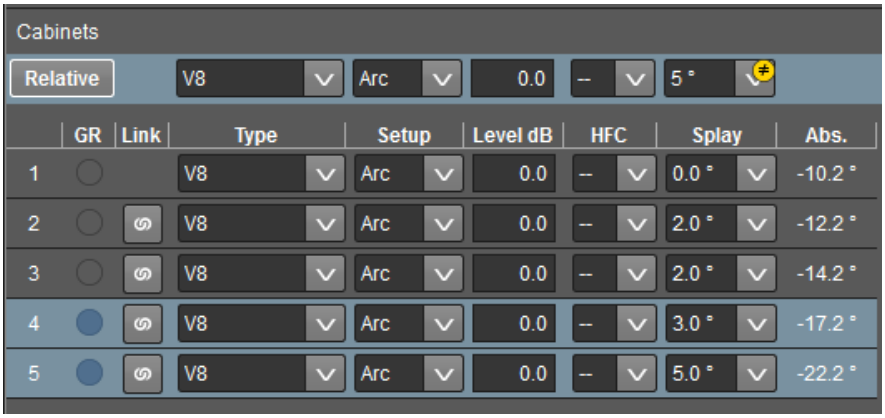
Sources view improvements

Drag & Drop of cabinets
Cabinets can be easily reordered within an Array or Point Source group using drag & drop.

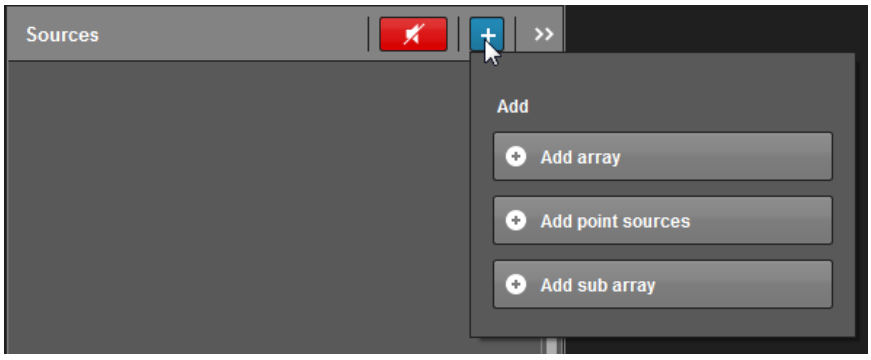
Multi-selection of cabinets
Multiple cabinets can be selected within an Array or Point Source group and changes made simultaneously for all the selected cabinets. Changes can be either absolute or relative.



Point Source groups including SUB loudspeakers
Point Source groups can now include SUB loudspeakers. Also Point Source groups containing a mix TOP and SUB cabinets are allowed.

Amp selection and linking in Sources tab
In the Sources view the amplifier model can be selected for each Source group, and the channel linking can be configured. Please note that the acoustical SPL simulations are always performed with the D80, independently of the selected amplifier model.

SUB Array group can be deleted
It is now possible to delete the SUB Array in projects which do not make use of it. After deleting it, a SUB Array can be added on the Sources tab. Please note only one SUB Array is allowed per project.



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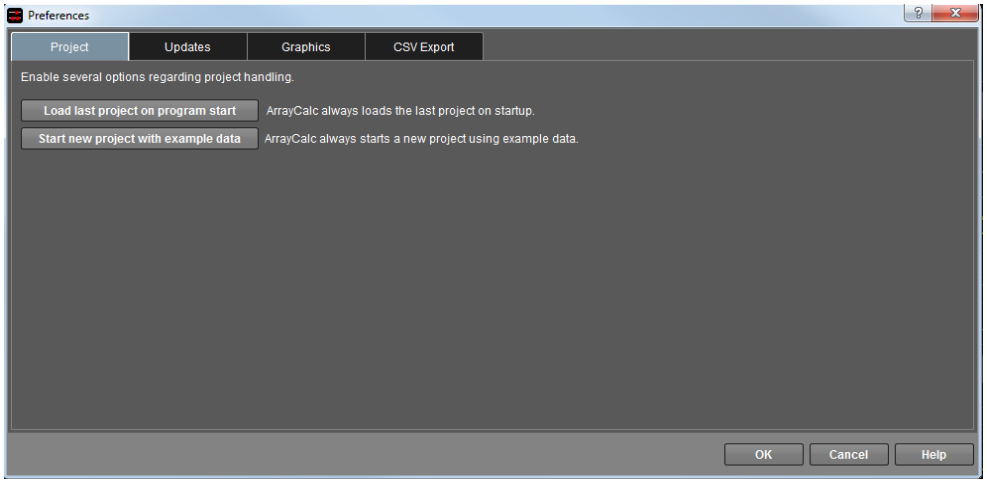
General improvements

Program start and new project preferences

In the ArrayCalc Preferences menu the user can define if the last project should be automatically loaded on program start, and if new projects are to be filled with example data.



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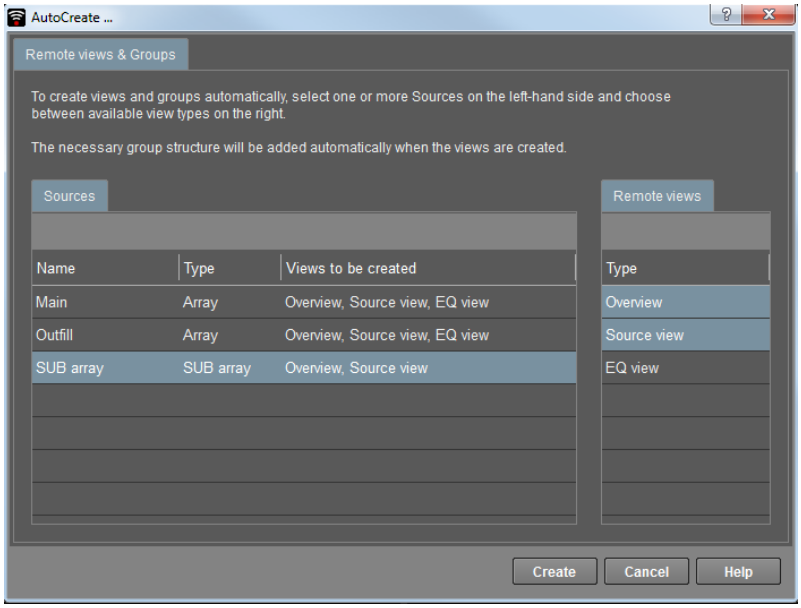
R1 V3.0 Beta

The latest version of the R1 Remote control software adds the following features:

- Support for .dbpr integrated project file (see above)
- Autocreate function for Remote views
- Snapshot update and content editor
- Support for Soundscape systems, the DS100 Signal Engine and the En-Scene and En-Space software functions are included

Autocreate

If a system has been designed in ArrayCalc, R1 V3.0 Beta can automatically create remote views for the system using the 'Autocreate' function within the Remote views section in the Home area.



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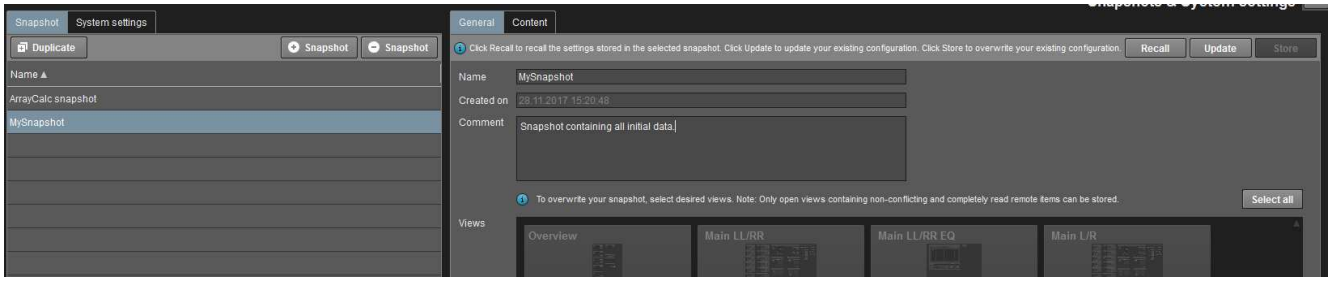
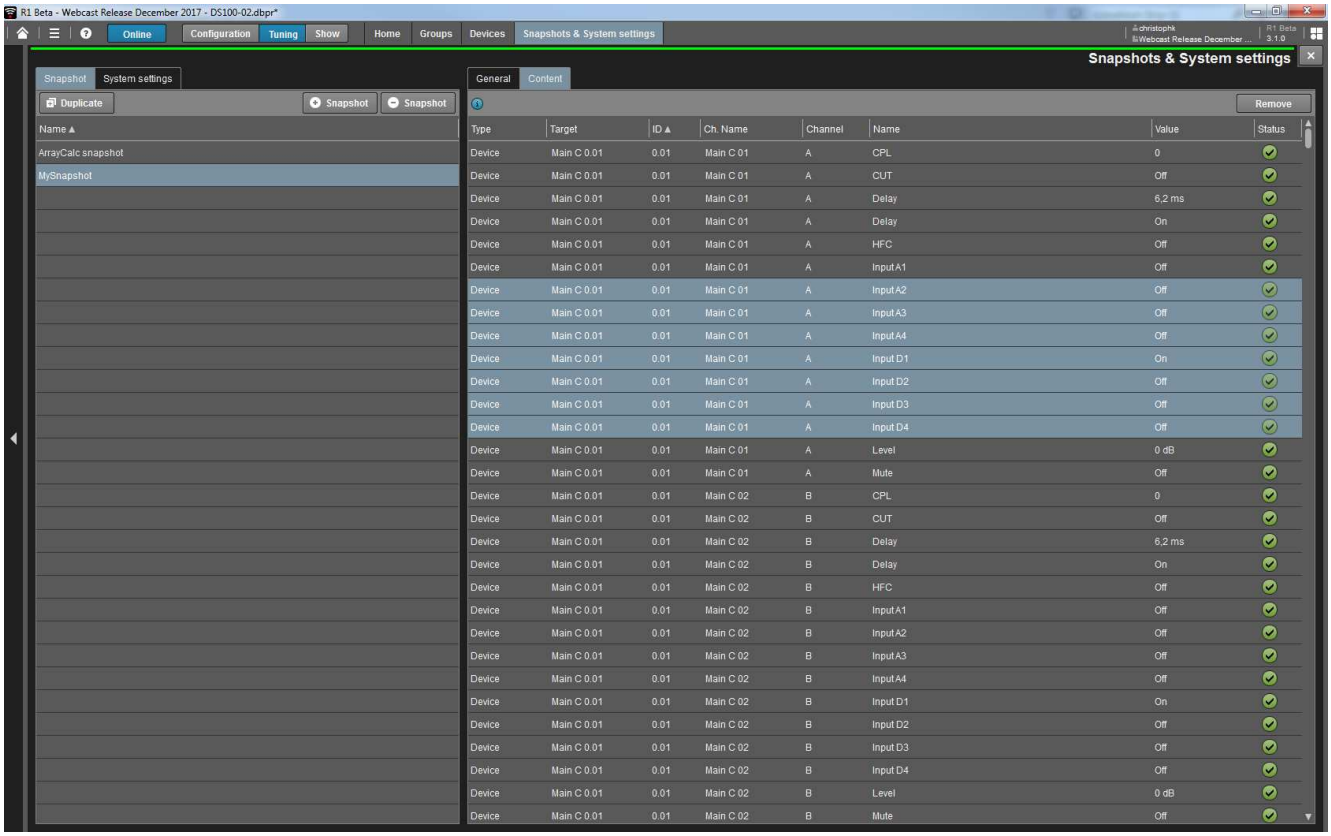
Snapshot update and content editor

After a Snapshot has been saved, its contents can now be updated with current values from the devices ('Update' button on the top bar of the 'General' tab). A new snapshot containing the same properties can also be created by duplicating an existing one. Together with the 'Update' functionality, snapshots for different settings can be created in an efficient way.



Furthermore, the snapshot contents now be viewed within the 'Content' tab. Individual properties can be selected and removed from the snapshot if desired.



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Soundscape Support

All d&b Soundscape functions can be controlled from R1 V3.0 Beta, the main functionalities are described below.

DS100 Signal Engine

The DS100 Level/Delay Matrix can be controlled from the Devices View (Tuning mode) or via the Remote Views. Similarly, the DSP functionality in the input and output channels can be also accessed on the Devices View and via Remote View elements.

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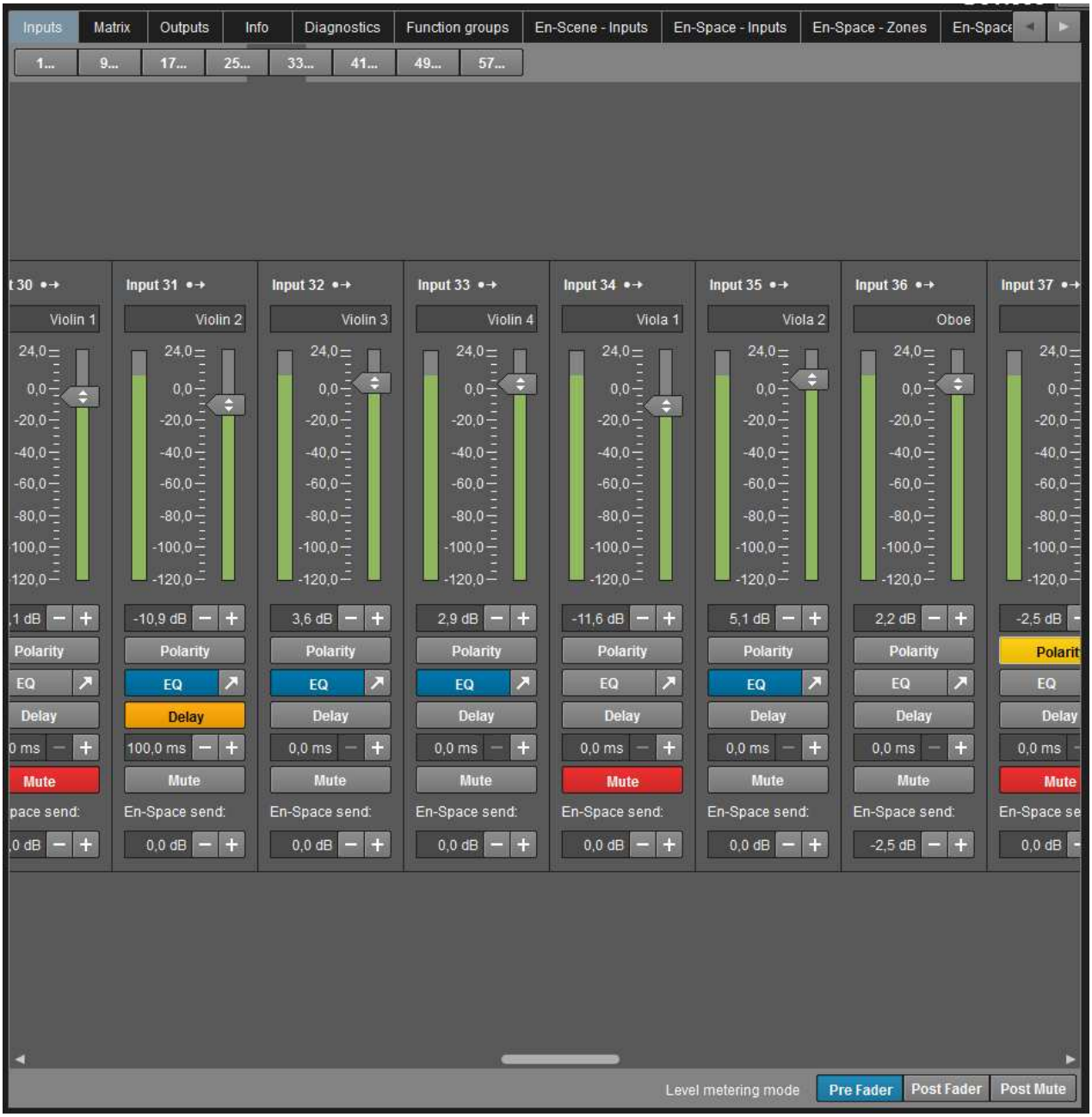

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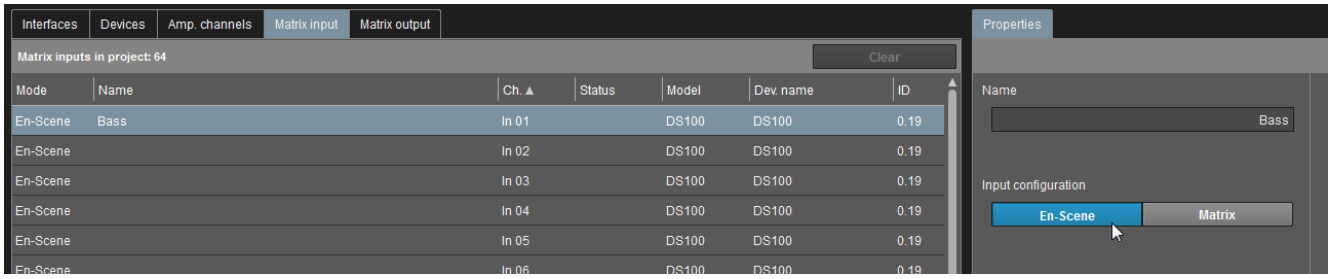
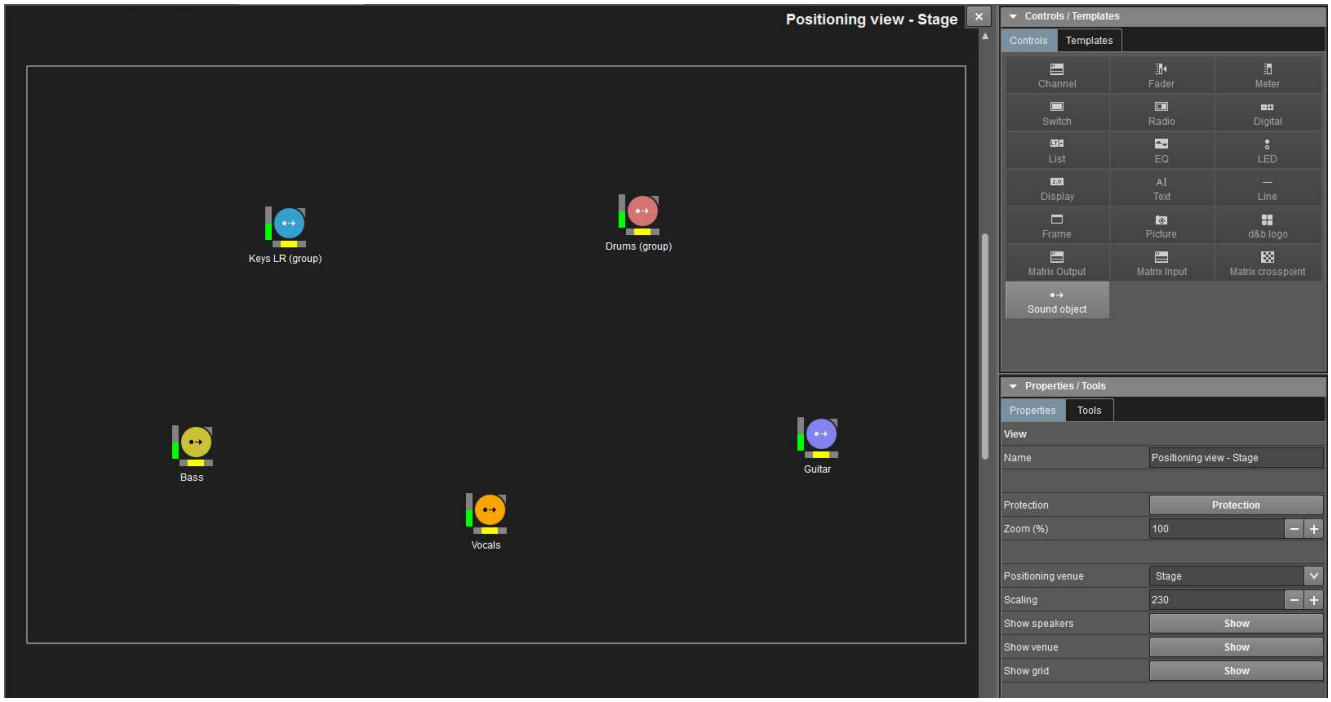
En-Scene

When using the En-Scene software license, the desired inputs need to be set to En-Scene mode.



For positioning sources via the En-Scene software, an En-Scene view can be added to the remote views area. There, an En-Scene area plane (defined in ArrayCalc) can be selected as a reference. Then, Sound objects can be placed for all inputs which have been set to 'En-Scene' mode.



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En-Space

En-Space functionality can also be controlled via R1. The desired room can be selected from the Devices view as well as from Remote view control elements.

Additionally, levels can be set for inputs, zones and outputs.

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Amplifier firmware V2.10

Amplifier firmware with V2.10 or higher includes improved service functions:

- Backup / Restore service function
- Log file collection

Both functions are accessible via the amplifiers Web Remote interface. Please see the respective amplifier manuals for more information on accessing the Web Remote interface), via the Service tab.

Backup / Restore service function

The Backup / Restore function makes it possible to save a complete image of the amplifier settings for service purposes. Please note that the firmware itself is not contained in the image file. The saved file can be applied to the same or a different amplifier.

The advantages of this function are:

- Possible without audio expertise (e.g. maintenance managed by IT people)
- Use of an independent software and PC (not the running R1 project)
- Easy hardware exchange: after the image has been loaded to the new amplifier, only hardware/cabling have to be exchanged for the system to continue normal operation.

1. Login: If the device is locked by password protection, use the corresponding password to log in. If no password protection is applied, use 'dbaudio' as a password.
2. Backup: Select the 'Download backup file from device' button to store the backup file (*.backup) locally. Your web browser will display the corresponding dialog and the file will be saved to the local download directory you have specified in the settings of your browser.
3. Restore:

   a) Select the 'Upload backup file to device' button to upload the backup file onto the device. Your web browser will display the corresponding dialog.

   b) Once the backup file is uploaded, the 'Remote ID' and 'IP settings' become accessible and can be edited, if necessary by simply clicking into the corresponding input field.

   c) As a final step, select the 'Activate backup file on device' button to apply the backup and remote settings.

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Log file collection

For service or trouble shooting purposes, a log file collection can be downloaded.

Select the 'Download log file collection' button to store the collection file (*.logpack) locally. Your web browser will display the corresponding dialog and the file will be saved to the local download directory you have specified in the download settings of your browser.

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