Sound to behold

d&b ArrayCalc simulation software V8 featuring ArrayProcessing

d&b audiotechnik

Seeing is believing

The ArrayCalc simulation software faithfully predicts the precise performance of a d&b system for any application. This tool visualizes a complete electroacoustic design and the tasks associated with system modelling, placement, performance, prediction, alignment, level, safety parameters and rigging plans.
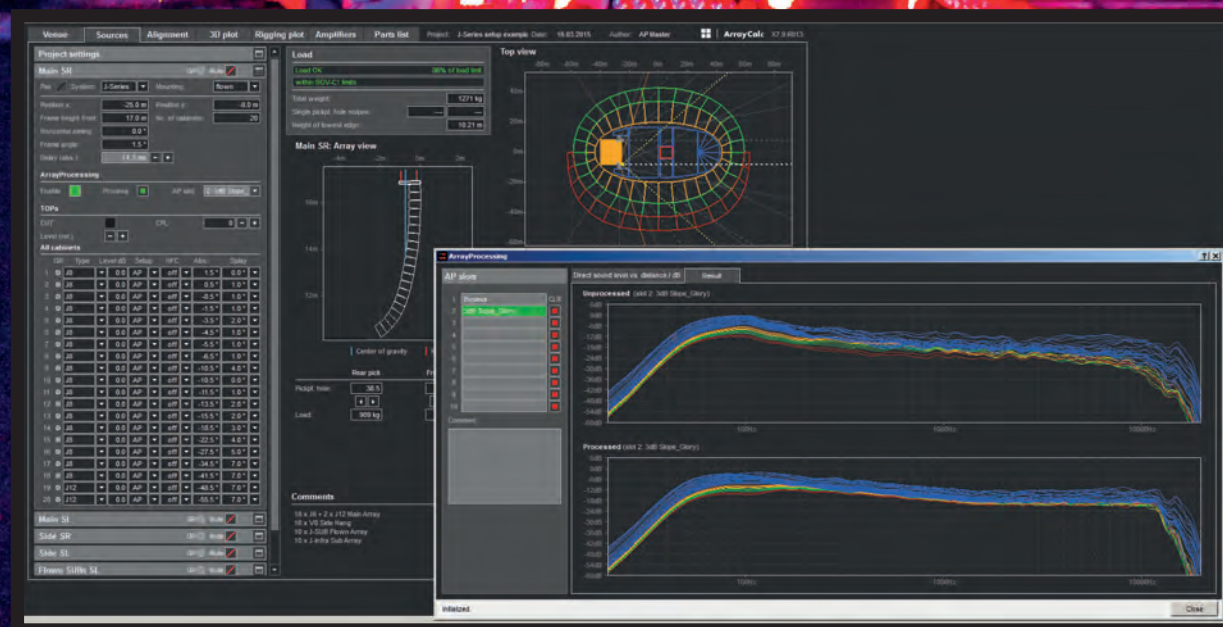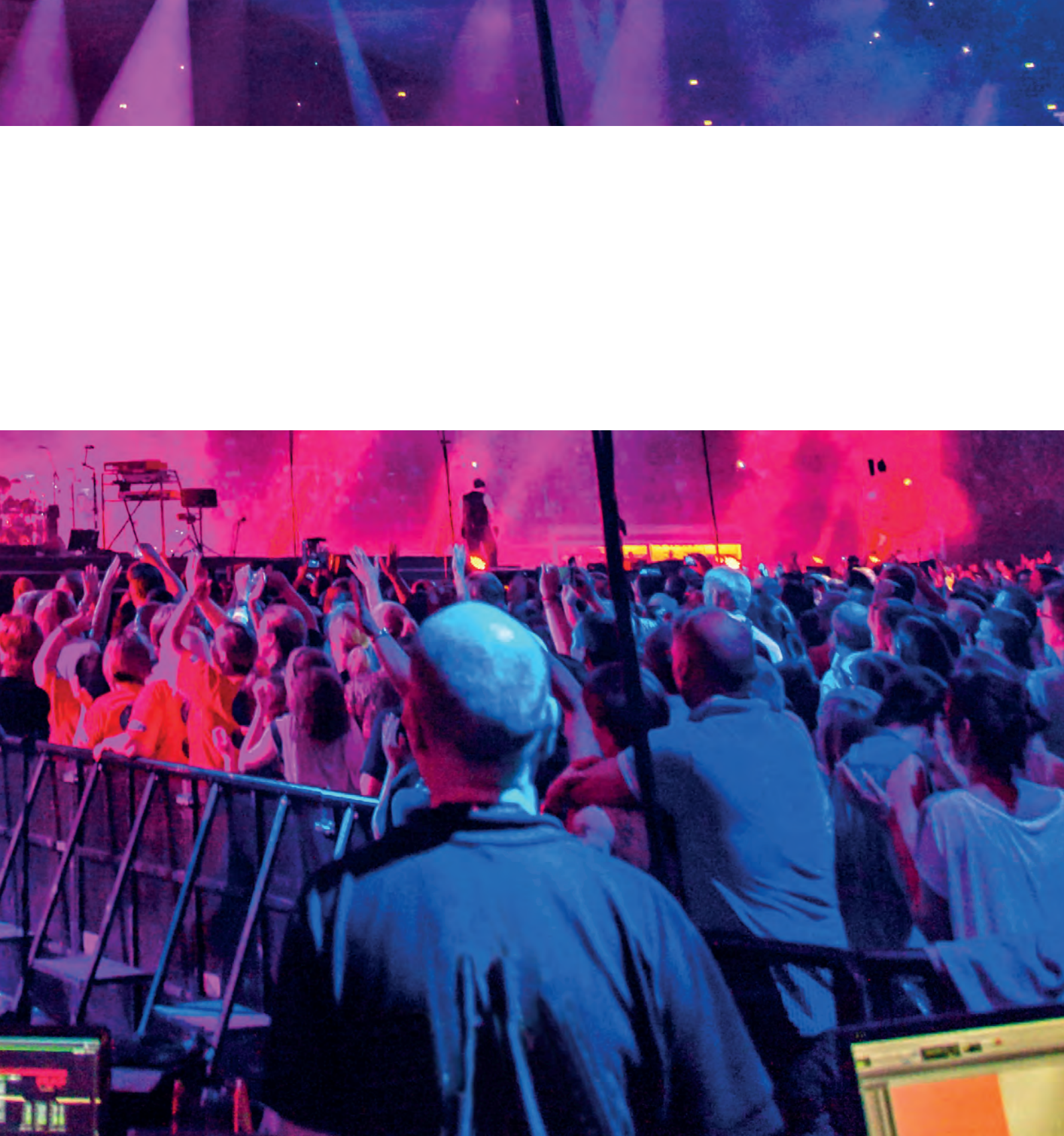
Plenty to process

The latest ArrayCalc version elevates the performance of d&b line arrays even further. ArrayCalc V8 incorporates powerful filter algorithms that calculate and optimize the sonic performance of a line array over an entire audience. This optional function is called ArrayProcessing, and the results speak for themselves.

EleV8ting sound

ArrayProcessing ensures that every member of the audience benefits from the same remarkable quality of sound. The optimization intensifies the clarity and tonal balance of the J-Series, V-Series or Y-Series line array solutions; taking existing d&b systems to dizzying heights. All of this is achieved with a software update, available to download from www.dbaudio.com. It doesn't get more democratic than that.

Where does ArrayProcessing fit in?

ArrayProcessing optimizes the tonal and level performance of a line array column within the coverage mechanically defined by the vertical profile. This significantly improves the consistency of the frequency response over distance, as well as seamlessly correcting for air absorption. The level drop over distance can be defined to ensure a consistent spatial balance.

ArrayProcessing applies a target frequency response to different loudspeaker columns, giving each array the same sonic character and consistency regardless of Series, column length and splay settings.

ArrayProcessing generates filter settings for each loudspeaker to run on the latest generation of d&b amplifiers, with individual channels driving each array element. This can significantly enhance the performance of existing systems without requiring fundamental changes in the configuration design.

The best seat in the house

ArrayCalc V8 models exactly how sound will be distributed around a given space. ArrayProcessing enhances the spectral consistency with a defined level distribution, achieving consistent tonal balance over the entire listening area. This means the outcome delivers the same pin-sharp sound to the entire audience, wherever they are.

# When it comes to exceptional sound, hearing is believing

Prediction

First things first, the ArrayCalc simulation software V8 accurately maps and simulates the targeted performance in any given space. A planning toolbox that will enable predictions that match real life, before stepping onsite.

Optimization

Next up, to achieve the targeted performance, ArrayProcessing controls and optimizes the spectral and spatial performance of d&b line arrays using combinations of FIR and IIR filters. All data, including the intuitive user interface for the complete system is transferred to the R1 Remote control software, and then transported to the d&b amplifiers.

The d&b ArrayCalc V8 software gives users the power to optimize the tonal and level balance of an array to maximize the performance for each listener. The simulation accurately displays the sonic results for everyone, everywhere, allowing greater creative and technical freedom for the engineer before arriving at the event.

To ensure the system performs perfectly, the precisely predicted ArrayCalc project file can be adapted and optimized onsite, even during the show. Sound designers become architects of sound, exceeding their targets, aims and intentions to realize more than ideal results.
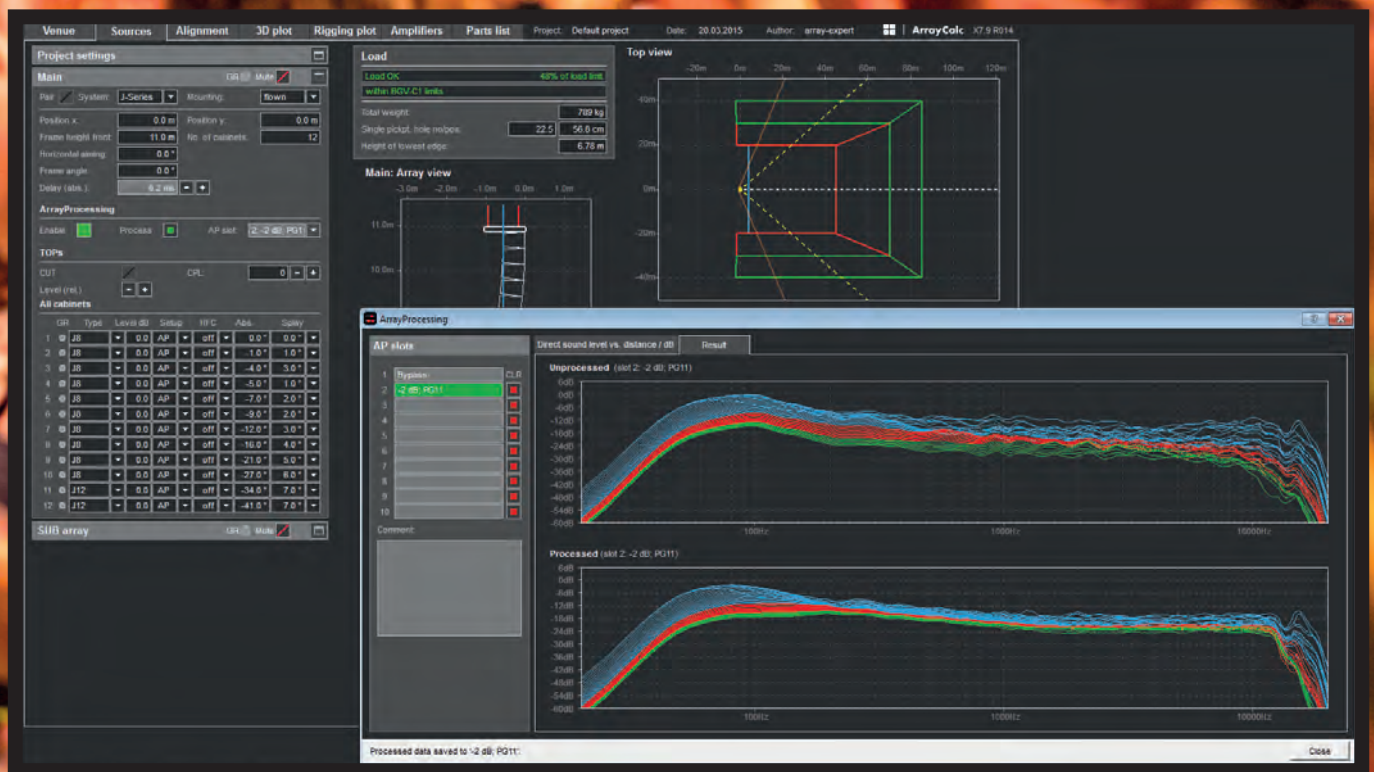
Realization

Optimization with ArrayProcessing means there is a uniform balance for the tonal and level characteristics. From all the elements, in all the line arrays, across the whole area, the same sound reaches everyone in the audience, bringing true democracy to listeners.

The future is only software away

d&b audiotechnik never stops advancing, experimenting and discovering new insights into the science of sound. Now it's time to spread the word.

Future ready systems from d&b

d&b systems are developed with the future in mind. The highly specified hardware, firmware and software is always being improved and developed. But that doesn't always mean that d&b products need to be continually replaced as new technology becomes available.

Through firmware and software upgrades, a d&b system evolves, growing into the future, maximising return on investment. Whether part of a rental inventory or a permanent installation, this latest innovation is available at the click of a button.

Don't just take our word for it

Teenage Cancer Trust, Royal Albert Hall, England:
Liam Halpin, Freelance System Designer/Technician, March 2015

Using ArrayProcessing at the Teenage Cancer Trust shows (TCT) in the Royal Albert Hall meant we recovered from a load-in delay outside our control. The delay left us no time to fiddle around tuning the system. I loaded the ArrayProcessing settings and time alignment from ArrayCalc into the amplifiers and handed the system over. The processing immediately gave me the cleanest sound I've ever had in the Royal Albert Hall, and I've been working in that room, notoriously challenging as it is, for over 15 years, providing the system design for TCT for five out of the last six years.

ArrayProcessing is the icing on the cake of an already predictable and dependable d&b system. The uniformity of coverage was unparalleled, and, outside the listener areas, it reduced the amount of energy exciting the (very) reverberant roof. I look forward to utilizing it in more challenging spaces, and will be specifying it for all my designs.

PUR & friends, Veltins-Arena, Germany:
Frank Müller, System Technician, 8 Days a week, PA supplier to German band PUR, September 2014
I was really surprised how well it worked and how audible the difference was. I'll plan all my shows with D80 amplifiers to be able to use the ArrayProcessing feature. We played that venue five times, each time with a different kind of PA system. The version with the d&b V Series, using ArrayProcessing, was absolutely the best result. In my mind all ArrayProcessing features worked very well and improved the result. This time we were super relaxed at FoH, talking about things like, 'It could be a bit more shiny.' Not worrying about some potential catastrophe and how we can survive it.

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www.dbaudio.com   www.arraycalc.com