

## Introduction

This technical bulletin provides all the key information for a correct use of the L-Acoustics GLL in EASE.

For more information and general support on L-Acoustics GLL, please contact [soundvision@l-acoustics.com](mailto:soundvision@l-acoustics.com).

EASE® is a registered trademark of AFMG Technologies GmbH.

## Release notes

Soundvision\_EASE\_v11.3:

- Addition of K SERIES K3 GLL to the GLL library.
- Clarification for banded SPL comparison between Soundvision and EASE.

## Managing 3D rooms between Soundvision and EASE

L-Acoustics provides a SketchUp plug-in for the export of 3D room data from SketchUp to Soundvision.

Refer to the **Third-party software** section of the Soundvision user guide for more information on how to download, install and use Soundvision's SU4SV SketchUp plug-in.

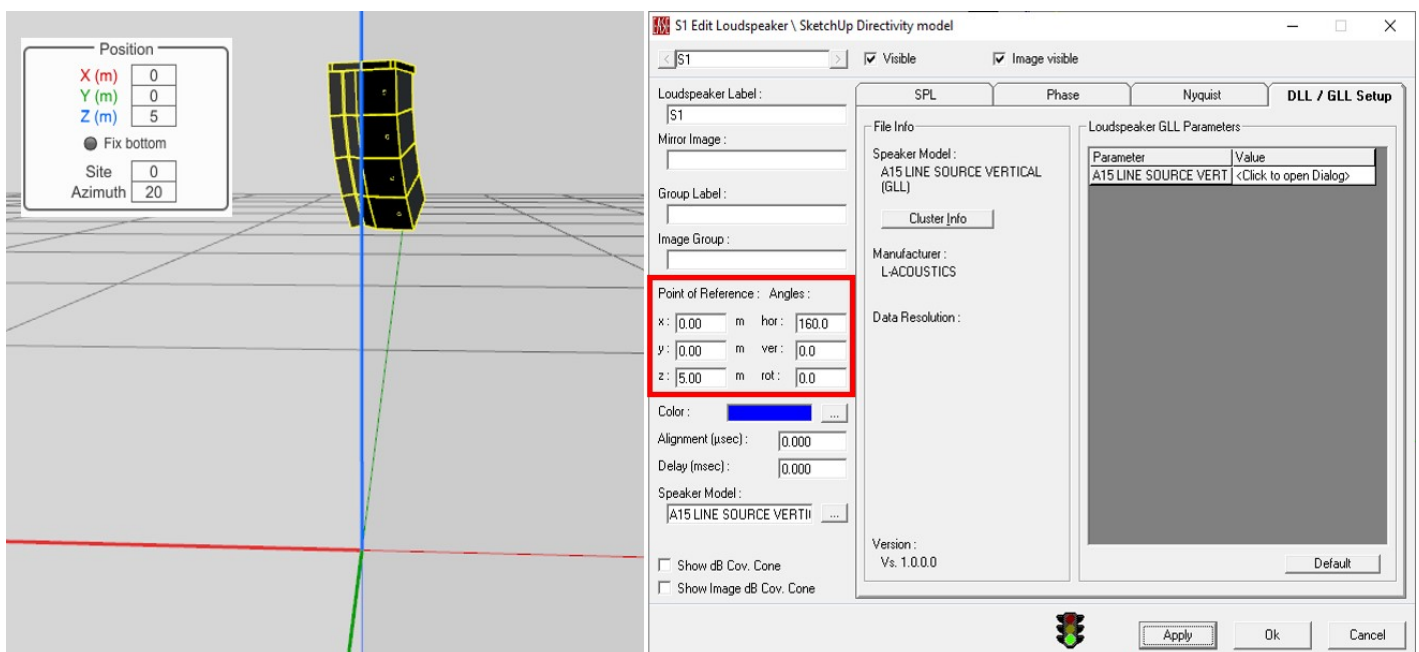
EASE offers the possibility to import and export 3D room data as SketchUp files.

Refer to EASE user guide for instructions on how to proceed.

## Positioning loudspeakers

In Soundvision, loudspeakers face the positive Y axis. In EASE, loudspeakers face the negative Y axis.

Subtract the azimuth angle defined in Soundvision to 180° to obtain identical orientation in EASE. For example, 20° in Soundvision corresponds to  $180 - 20 = 160^\circ$  in EASE, and conversely.



## Selecting inter-elements angles

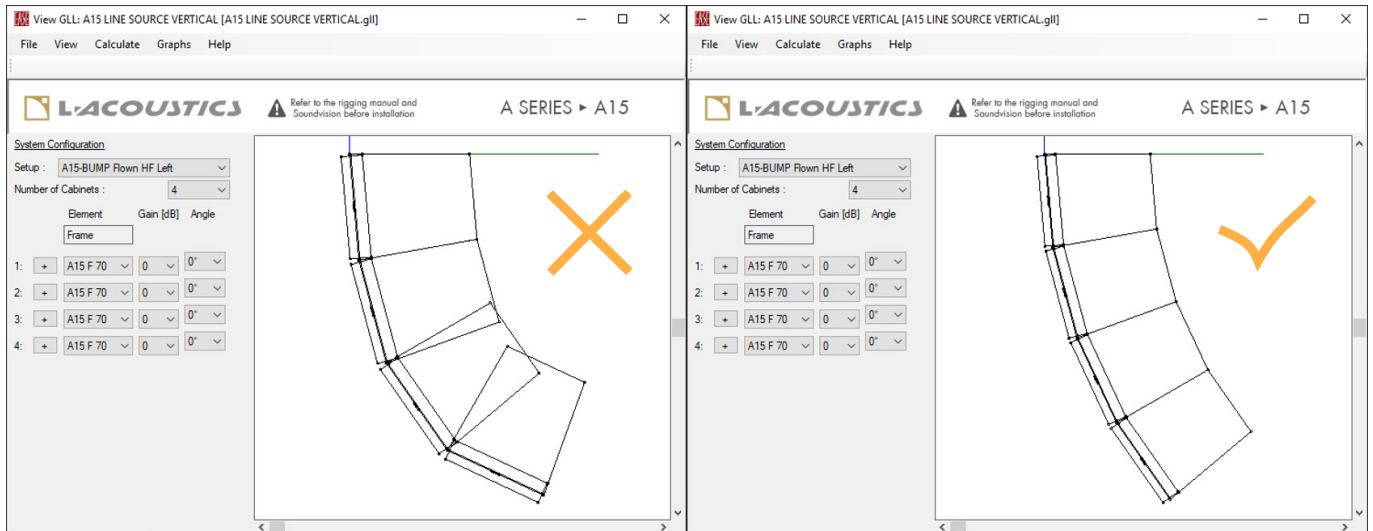
GLL file format provides the same physical adjustments (inter-element angles and enclosure type) as in Soundvision.



### Risk of selecting wrong geometry for the arrays

Inter-elements angles displayed in **Angle** cells may not be correctly applied.

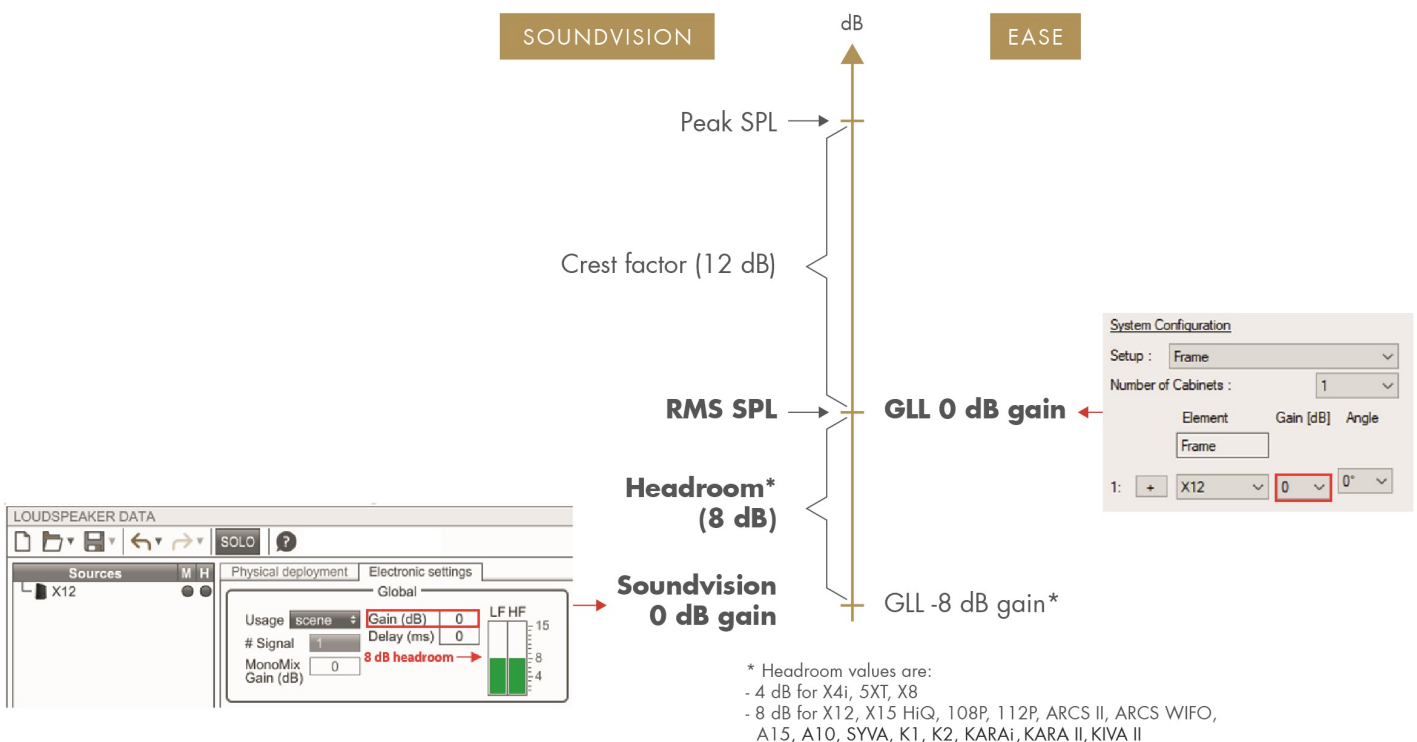
Re-select each angle and verify geometry on the side view.



## Setting gains

In EASE, only negative gain can be applied per enclosure. The maximum gain available is 0 dB and corresponds to the maximum gain allowed in Soundvision for an enclosure (including headroom).

In EASE, setting the gain to 0 dB delivers the maximum continuous SPL. For the peak SPL, add a crest factor of 12 dB to the RMS value.



## Adding filters

IIR and FIR filters can be added per enclosure to match Soundvision design.

For more information on how to build or import filters in the GLL, please refer to the EASE user guide.

## SPL variations between Soundvision and EASE

### Overall SPL

Due to differences in the calculation methods between the two software, differences can be observed in direct SPL. Direct SPL values in EASE are slightly higher and variations range between +0.1 dB and +1.4 dB.

These differences shall be kept in mind when comparing designs between Soundvision and EASE.

### Banded SPL

Due to the use of different conventions, banded SPL differ between the two software.

SPL displayed in Soundvision for a selected bandwidth is higher than in EASE. To display a banded SPL comparable to EASE in Soundvision, a gain offset needs to be entered in the console output level in Soundvision

This gain offset depends on the number of third-octave bands contained in the selected bandwidth. The gain offset is calculated with the following formula:

Gain offset:  $-14.9 + 10 \cdot \log_{10}(\text{number of considered bands})$

For example, the gain offset for the 1000 Hz - 5000 Hz frequency range (8 third-octave bands) corresponds to:

Gain offset:  $-14.9 + 10 \cdot \log_{10}(8) = -5.9 \text{ dB}$

In Soundvision, apply a gain offset of -5.9 dB in the console output level.

In EASE, the total SPL for this frequency band is obtained by summing the energy contributions of all 8 third-octave bands contained in it. No gain offset needs to be applied.

## Physical deployment limitations

L-Acoustics GLL were built accounting for most deployment possibilities (connections between enclosures and inter-element angles) available in Soundvision. For unavailable deployment options, please contact [soundvision@l-acoustics.com](mailto:soundvision@l-acoustics.com).

## Mechanical safety



### **Mechanical safety limitations are not accounted for in EASE**

Always refer to the mechanical data and warning indications in Soundvision (in **Mechanics View**) to check the mechanical conformity of the system before installation.

Refer to the rigging procedures of each product for additional instructions.