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.

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Release notes

Soundvision_EASE_v14.0:

- Added X SERIES X6i and X8i GLL to the GLL library.
- S SERIES and X SERIES loudspeakers are now visible by default in the 3D view when loaded in EASE 5.

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.

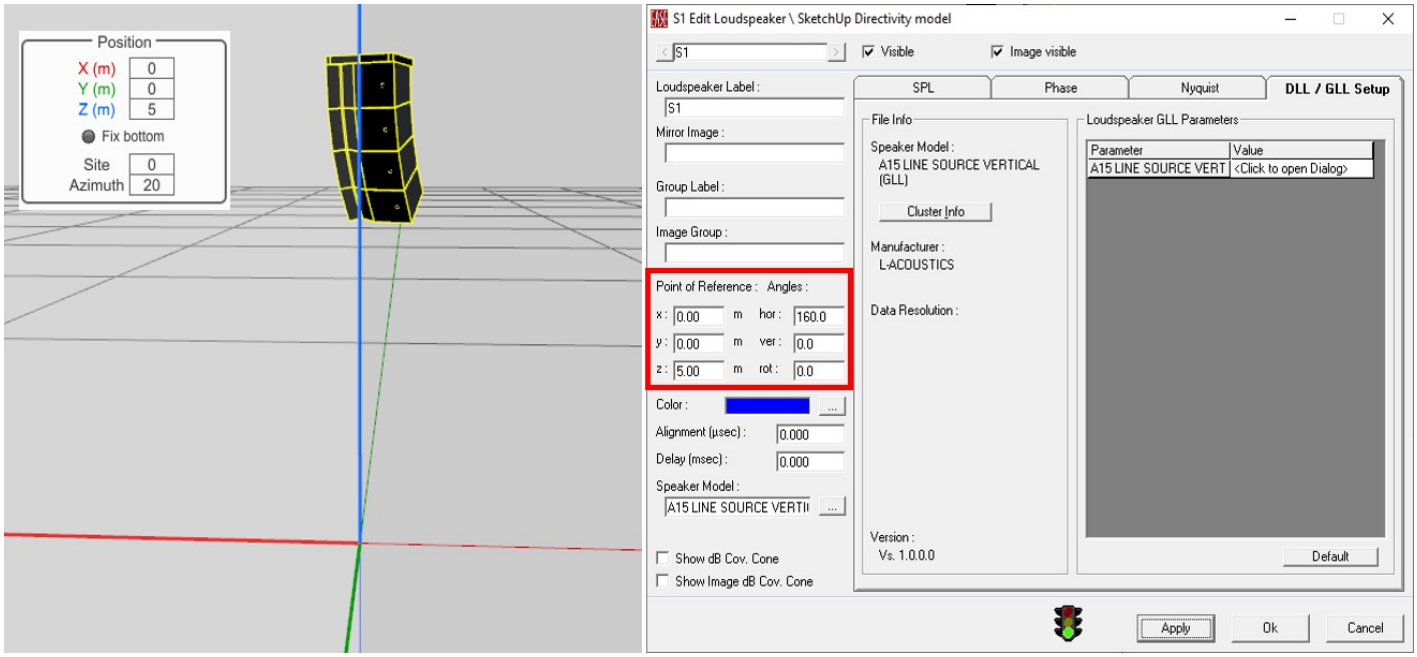
EASE offers the possibility to import and export 3D room data as SketchUp files.

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° in EASE, and conversely.



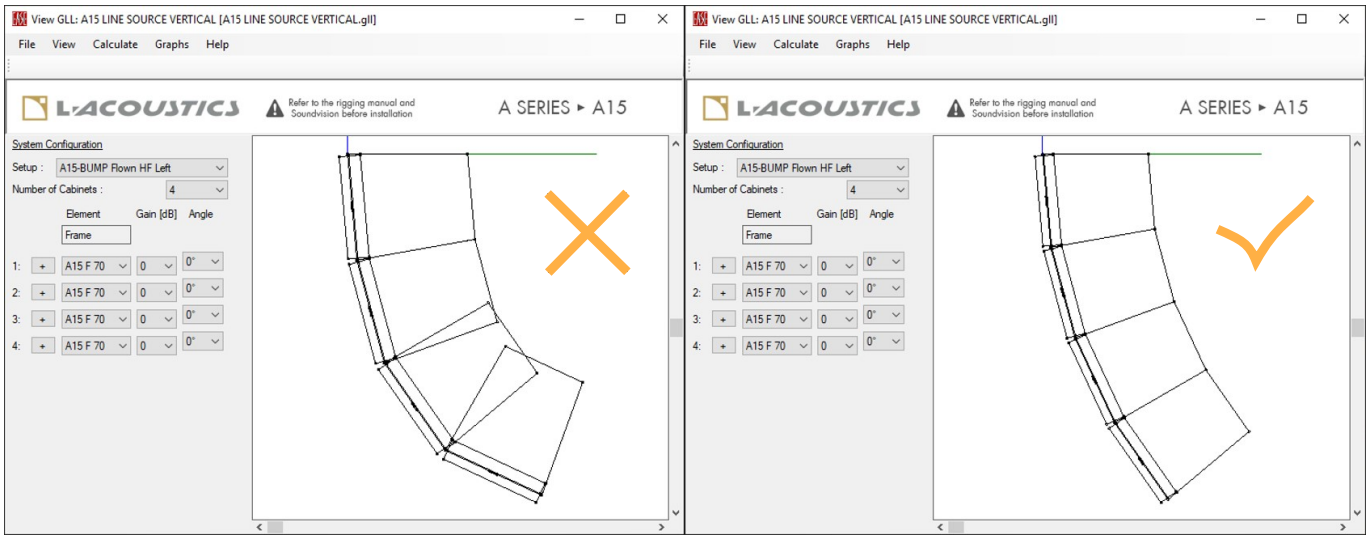
Selecting inter-elements angles

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).

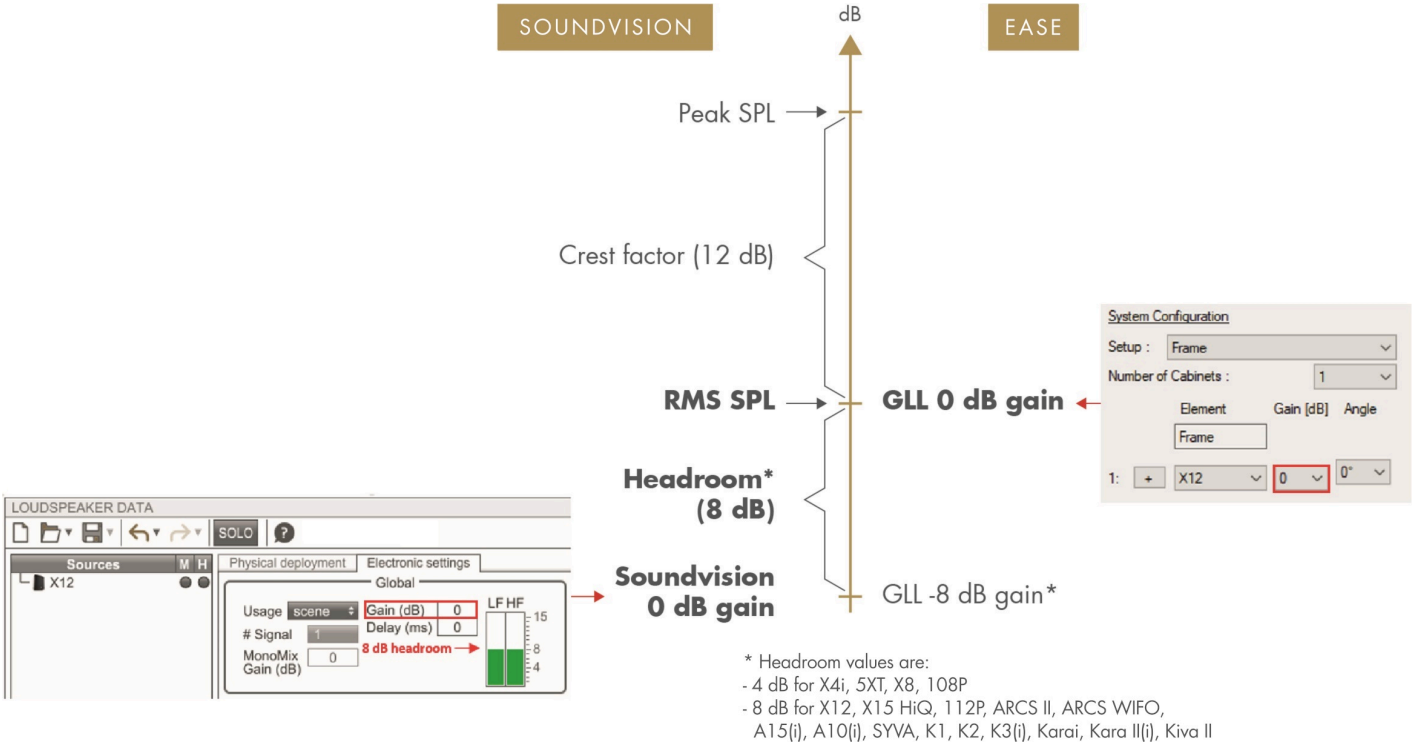
SPL capability reduction

For enclosures driven by LA2Xi in single-ended (SE) mode, the source gain in EASE needs to be manually adjusted down to reflect the SPL capability reduction.

The SPL capability is visible in the resources gauges in Soundvision (**Loudspeaker data** > **Electronic settings** > **Groups**).

For more information, refer to Soundvision help.

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: $-14.9 + 10*\text{Log}_{10}(\text{number of considered bands})$

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

Gain offset: $-14.9 + 10*\text{Log}_{10}(8) = -5.9$ dB

In Soundvision, apply a gain offset of –5.9 dBU 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.

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.

Using EASE Export

EASE Export feature allows the export of configuration files from Soundvision projects to speed up the setup of EASE models.

Access to this feature is granted through a request submission and approval process.

EASE Export is only compatible with the latest GLL library downloadable from L-Acoustics website.

The following configurations are not supported by the export:

- stacked configurations
- K3i source with a K3i-CEILINGBRACKET or K3i-CEILINGBRACKET Inv rigging element
- Kara II source with a KARAIIi-TILTBRACKET, KARAIIi-TILTBRACKET Inv, or KARAIIi-TILT Inv rigging element
- A Series horizontal sources with more than six enclosures
- A Series horizontal sources with mixed enclosures (Wide and Focus)
- A Series horizontal sources with mixed horizontal angles for the adjustable fins (**H Opening** set to 35/35, 55/35, …)

The gain exported in the *.xld file is equivalent to:
Exported Gain (dB) = Soundvision Source Ov. Gain - Source Headroom*

* The source headroom is the SPL resource available when the source is driven by any amplifier other than LA2Xi in single-ended (SE) mode.

The user has to manually make sure not to exceed the SPL resources in any amplifier configuration. Refer to Setting gains (p.2).