S O U N D   P R O J E C T S

EASE ARRAY CONFIGURATION DLL
FOR
Linex^{TM}

How to use the Linex™-dll for EASE

Select the linex.dll speaker model (EASE "Edit Loudspeaker" menu) from the Sound Projects\Line-arrays\ speaker database.

Press "Dll-Setup" at the lower left corner. You can enter the dll by pressing the value field beside "Linex Setup" to the right of the "Edit Loudspeaker" window.

Delay and alignment, are controlled by the standard EASE "Edit Loudspeaker" window. All other system parameters are controlled by the dll itself (other settings than delay or alignment in the "Edit Loudspeaker" window are ignored).

Settings

Type:
The dll allows you to choose between a ground stack and flown array configuration. This can be done, by selecting the corresponding array type. The ground stack is configured from bottom to top. The flown stack is configured from top to bottom. Meaning for a ground stack, box1 is the bottom cabinet and visa versa for the flown configuration.

Cabinets:
This setting allows you to select the number of cabinets.

Angle:
Selects the angle setting between the current cabinet and the previous one.

Gain:
This setting can be used to align the entire array with other speakers in the room with respect to power output (SPL). The setting is always negative because 0 dB corresponds to the maximum possible output the array can produce, given a certain controller setting.

Controller:
This selects if the S O U N D   P R O J E C T S recommended controller setting would be used during the simulation process. These settings are prefabricated pre EQ-settings, which provide the

necessary acoustical power corrections, given a certain line-array shape, to ensure flat frequency response of the direct radiated frequency response. The number identifying a recommended controller is also provided by the dll, these are similar to the settings given by the S O U N D   P R O J E C T S array configuration software (SPArC™). More detailed information about this subject can be found at www.soundprojects.com or by contacting the manufacturer (info@soundprojects.com).

The use of the recommended controller settings would show, with small arrays, a limitation of the full bandwidth maximum response. This is because the low frequency headroom of a small system limits the mid- and high frequency response. For large arrays, this is the other way around and the high frequency headroom would limit the full bandwidth maximum response. The simulation with controller settings turned "on" can therefore differ remarkably from the actual 1/3 octave maximum capabilities of the system.

When the controller is turned "off" no controller setting is used by the dll during calculations, instead the dll uses the 1/3 octave MAX SPL capabilities of the line array. This is a useful setting when one needs to know the actual maximum address power capabilities of a particular frequency band. For instance when an array would be used as a delay system to aid high frequency response of the main PA at large distances.

Note! This setting is automatically turned on when any change is made to the array, which changes its acoustical behaviour.

Recommended controller setting:
Displays the number identifying the recommended controller settings S O U N D   P R O J E C T S supplies for several controller models with the Linex™ line- array system. See also the above paragraph.