

StepArray Steering Calc

Userguide



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3. Step 2 : StepArray Steering Calc

Open StepArray Steering Calc.



Figure 2 : *StepArray Steering Calc*

Select:

- The Model of the column (1)
- The Range (the same value entered in NUT Designer) (2)
- The Balance (3): The scale is different from the scale used in NUT Designer. The scale in StepArraySteering Calc is from -1 to 1 (In NUT the scale is from 0 to 1) . The conversion is as follows :

$$\text{Balance}_{\text{StepArray Steering Calc}} = (2 \times \text{Balance}_{\text{Nut}}) - 1$$

3.1. Export for Ease

When the parameters are OK, click on «SAVE EASE FILE AS», choose a directory and save the file.

SteepArray Steering Calc generates an EASE preset File (.xglc).

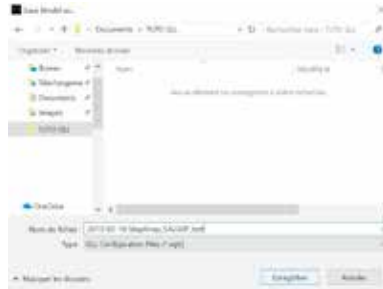


Figure 3 : Export file for Ease

3.2. Export for CATT-Acoustic™

When the parameters are OK, click on «SAVE CATT FILE AS», choose a directory and save the file.

SteepArray Steering Calc generates an CATT-Acoustic™ File (*.CTA).
Save your *.CTA file in folder CATT/SD.

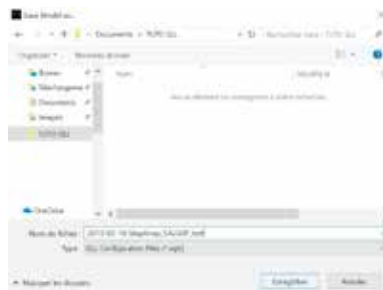


Figure 4 : Export CATT-Acoustic™

4. Etape 3 : Modelling

4.1. Ease

Open an EASE MODEL and add a loudspeaker.

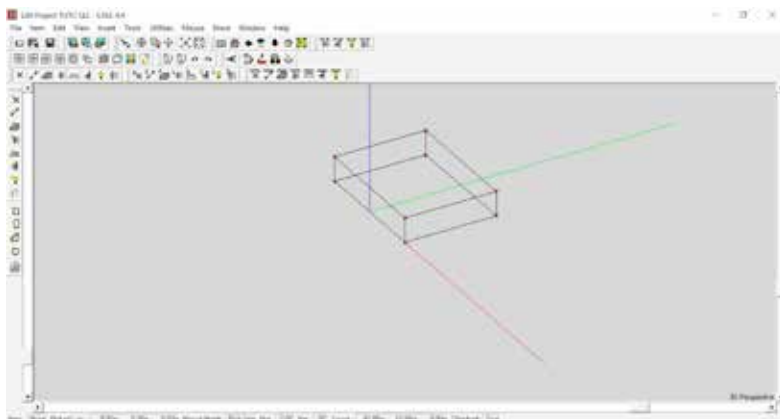


Figure 5 : EASE model

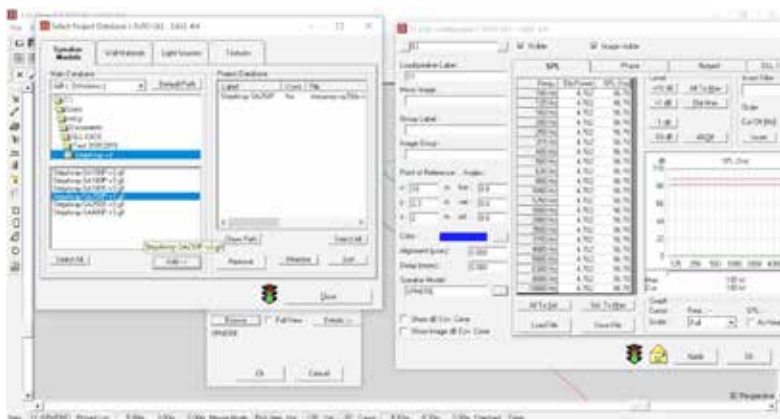


Figure 6 : Loudspeaker selection

Enter the position of the loudspeaker. The height of the loudspeaker must be the same as the height enter in NUT Designer.

Load the .gll of the similar loudspeaker chosen in NUT Designer. The gll file must have v3 in its name.



Figure 7 : *Gll configuration windows*

Go into the GLL setup window and click on «import». A dialog box opens. Open the preset file (.xglc) you have saved. The model of the column used in EASE and SteepArray Steering Calc must be the same.

Apply and compile the EASE model. At this time, you can duplicate the column in the model if it's necessary.

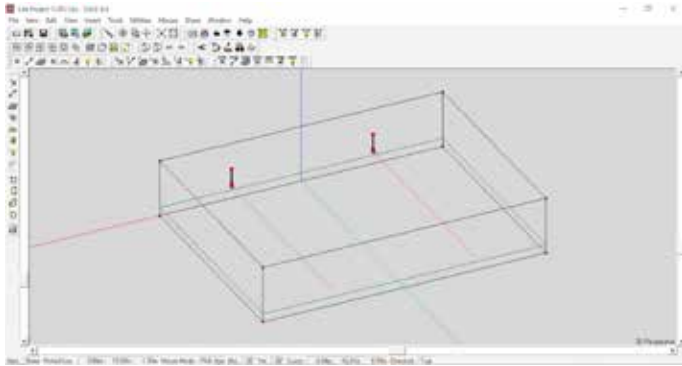


Figure 8 : EASE model with loudspeakers

Calculate as same as you make with standard loudspeaker.

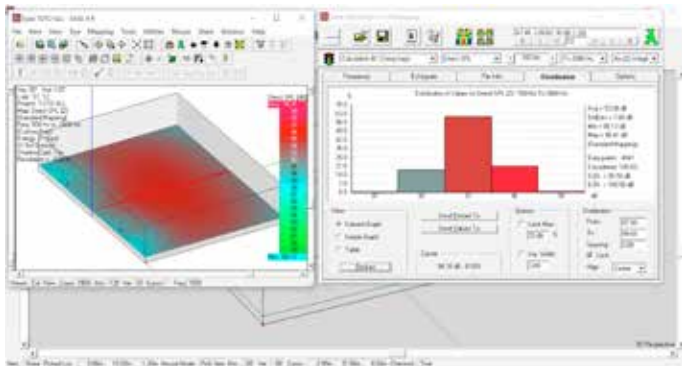


Figure 9 : EASE calculation windows

4.2. CATT-Acoustic™

Compile *.CTA File : With module Directivity of CATT-Acoustic™, open the *.CTA file you have saved.

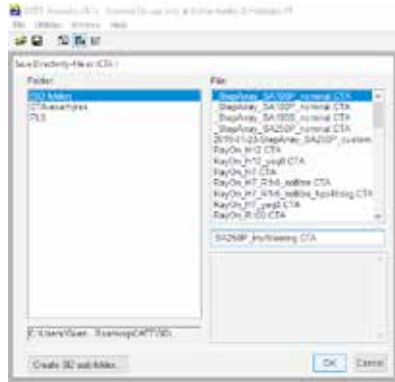


Figure 10 : Open *.CTA file

Select Save Directivity in menu File. That creates in folder SD a file with same name, but with termination *.CBA.

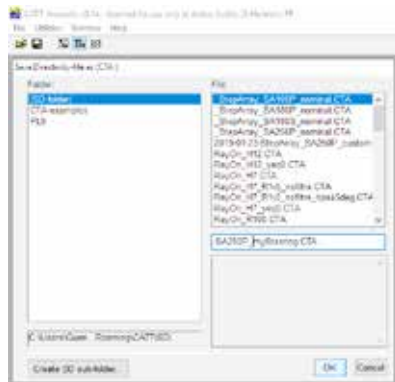


Figure 11 : Save *.CBA and *.CTA files

You can display the balloon and polar directivity by clicking on Balloon or Polars.

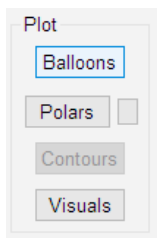


Figure 12 : *Display directivity*

In the source file *.LOC, specify the *.CBA file you have saved. For example :

```
SOURCE A0
DIRECTIVITY = "SA250P_mySteering.CBA"
POS = 8.5 3.8 2.5
AIMANGLES = 0 0
LvIn = lv_pink 0
GAIN = <0 0 0 0 0 0 : 0 0 >
END
```

You may then start CATT-Acoustic™ calculations.

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