Loudspeaker Data Format XLD

General Description

The LD (Loudspeaker Data) text file describes sound system configurations that can be opened in a new or existing EASE 5 project. The import includes the location and aiming as well as the gain, delay and filter settings for each loudspeaker. Referenced speaker models are assigned automatically.

This file uses the file extension .xld.

XLD files can be exported from EASE Focus, as well as from any 3rd party software that has an xld export function.

The file consists of two mandatory blocks in a defined sequence:

- A File Header Block, which contains only information about the format of the file.
- A Data Block, which consists of several individual blocks depending on the amount of loudspeakers saved in the xld file..

The XLD import is implemented as a Unicode text import in EASE 5, but we currently recommend working in ASCII format, as this is the only fully supported format.

- In general, each item or list of items of the format is preceded by a keyword in quotation marks.
- The keyword identifies the data that follows.
- Text items, such as display names, are also enclosed in quotation marks.
- Text items cannot contain additional quotation marks.
- The only decimal separator is the period (“.”).
- Adjacent two items in a line are separated by comma (“, ”).
- Description lines must be continuous; they cannot be continued on a consecutive line.
- Different lines are separated by a carriage return (CR, ASCII 13) or carriage return and line feed (EASE 5 allows the usage of either “\r\n”, “\r” or “\n”).
- Lines are to contain only characters of ASCII values from 32 to 127 (standard letters) (EASE 5 xld import uses system encoding).
- Comment lines are allowed and must begin with a semicolon in quotes (“;”).
- The file can contain any number of empty lines or comment lines between description lines.

General format conventions

Comments

Comments can be added to the file by placing a semicolon (;) at the beginning of the line. This enables a product-specific description such as:

```
; EASE Focus 3 - AFMG -
;
; Exported on 09.02.2024 13:17
;
;============================
```

to be inserted in front of the header.

It can also be used to improve structure within the file.

File Header Block

```
"FileType","Loudspeakers"
"Format",4.1
"LengthUnit","m"
;
```

FileType Needs to be set to “Loudspeakers” for the xld format.

Format Needs to be set to 4.1 without quotation marks.

LengthUnit Can only be set to “m” for meter (SI unit system). Upon export of an XLD file, if a different unit has been used within the program, it must be converted to meters.

Data Block

This data block contains the information about the loudspeaker.

```
"Label","Delay L"
"Position",21.42,-7,11
"Ver/Hor/Rot",-11.72,75,0
"Speaker","al-4"
"Delay/Align",0,0
"dB   1m",-12,-12,-12,-12,-12,-12,-12,-12,-12,-12,-12,-12,-12,-12,-12,-12,-12,-12,-12,-12,-12,-12,-12
"Phase",0
"Watts",0
;
```

Label Refers to the label that the loudspeaker receives as soon as it is imported into EASE 5.

Position Is the location of the loudspeaker in X / Y / Z coordinates in the Length Unit defined in the header.

Ver/Hor/Rot Describes the vertical, horizontal and rotation orientation of the loudspeaker in degrees.

Speaker Is the correct display name of the loudspeaker GLL used. It must not differ from the respective GLL name, as the correct loudspeaker then cannot be assigned.

Delay/Align Describes the defined Delay and Alignment of a loudspeaker in milliseconds and microseconds (both as integer values).

dB 1m Relative filter gain of the 21 1/3rd Octave band values (from 100 Hz to 10 kHz), must be equal or smaller to 0, i.e. relative to the maximum output level.

Phase Will not be used upon import in EASE 5. Can be set to 0 (one value is enough). But can also be entered for informational purpose (21 1/3rd Octave band values as for the sound pressure).

Watts Needs to be set to 0.