αCell

"AlphaCell is probably the most advanced TMM/FTMM suite for NVH simulations"

AlphaCell predicts the **vibro-acoustic** response of **multi-layer systems** to various sound excitations :

- ↪ **easy & fast** simulations
- ↪ broad application material **library**
- ↪ **complete set** of material models
- ↪ various **imports / exports**
- ↪ **reactive** and **skilled support**

Save your time and energy to focus on your **core activities !**

AlphaCell is a software product by MATELYS-Research Lab > http://alphacell.matelys.com/

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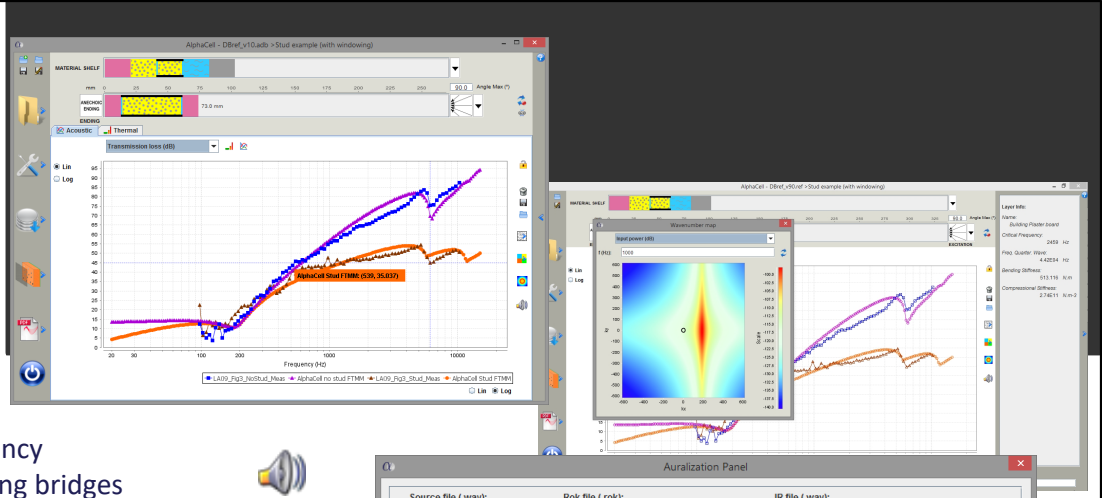
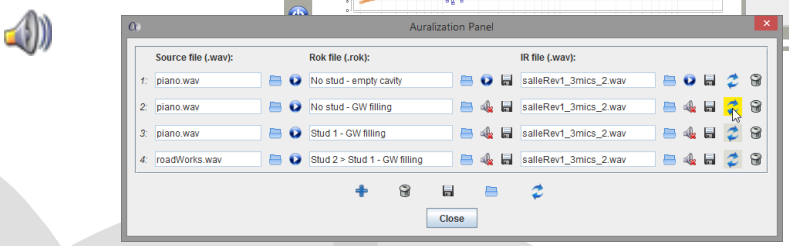
AlphaCell

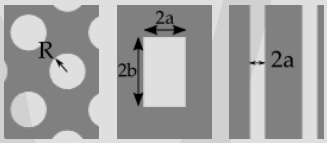


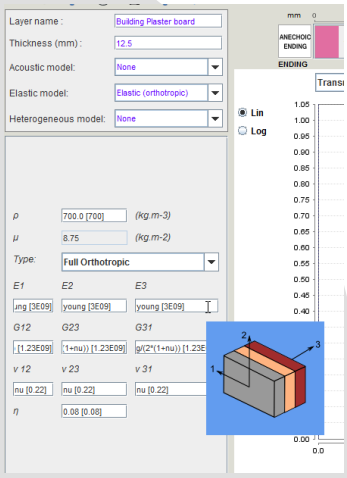
KEY FEATURES

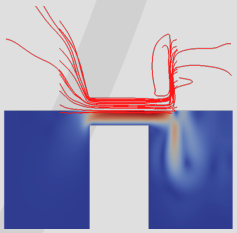
- **intuitive** interface
- **listening** of solution efficiency
- **thermal** properties including bridges
- multiple **studs** in series
- generalised **equivalent plate** models
- **corrugated** & **ribbed** plates
- multiple **fluids** including **water**
- **compressed** fibrous model
- extended material **library**
- fully **scriptable**
- export of material **cards** (Actran, Nastran, OptiStruct)

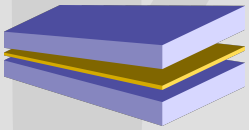


MATERIAL MODELS



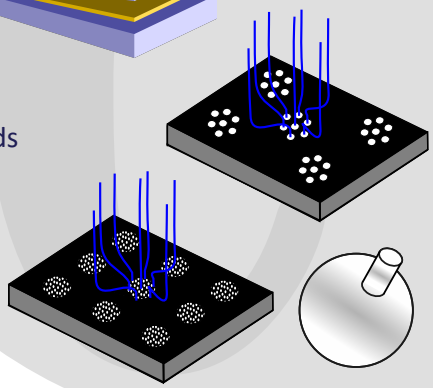


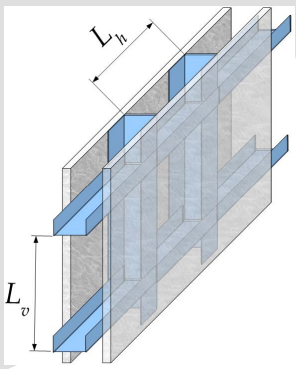




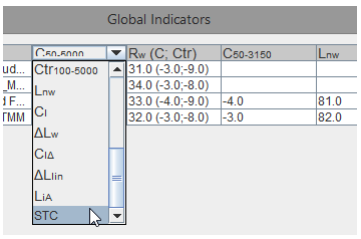
- **porous materials**
  fibrous, foams, granulars, compressed, orthotropic
- **perforated plates**
  circular, square, slit perf., woven/non-woven, high SPL
- **solid materials**
  isotropic, visco-elastic, orthotropic
- **orthotropic solid materials**
  3D, thin plate, transverse isotropic
- **equivalent plate models**
  condensed, corrugated, stiffened plates
- **heterogeneous materials**
  elastic / solid / porous inclusions, resonators, studs

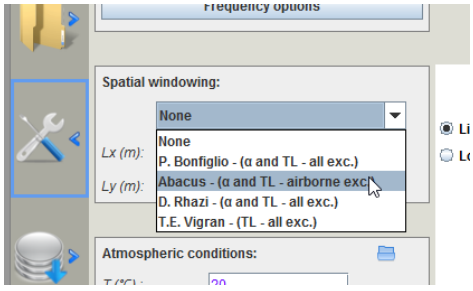
VIBRO-ACOUSTIC EXCITATIONS

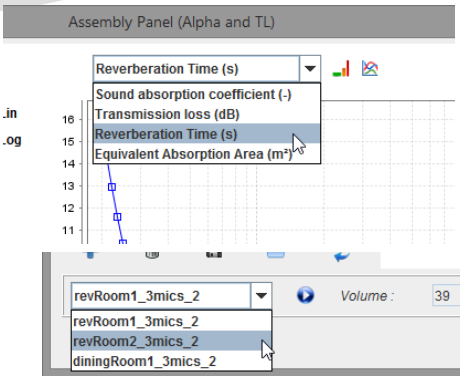




- **air borne sounds**
  plane waves, diffuse field, modal sound field
- **structure borne excitations**
  dynamic force, tapping machine, rain fall
- **turbulent boundary layer**







AlphaCell runs under
MS-Windows 7,8,10 ; Linux ; Unix ; Mac

MATELYS Research Lab

AlphaCell is a software product designed and developed by MATELYS-Research Lab

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