

NATURAL VENTILATION...

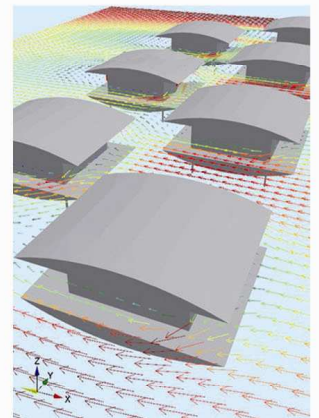
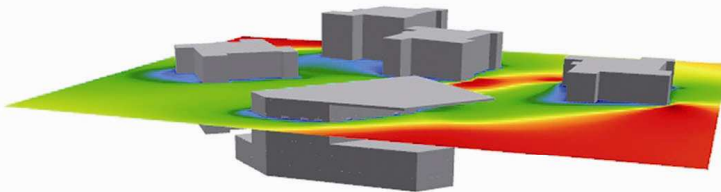
UrbaWind Natural Ventilation

THE CFD SOFTWARE FOR NATURAL VENTILATION ASSESSMENT

IN BUILDINGS

→ Advantages of wind-induced ventilation

- An alternative or a complementary solution to traditional A/C systems which drastically saves the total building energy consumption in hot climate areas
- A way to address the growing demand for sustainable construction of environment-friendly neighborhoods



→ CFD efficiency available for everybody

- Fast and powerful MIGAL solver integrating the most recent numerical techniques
- Full resolution of the 3D Fluid Mechanics equations
- Possibility to import CAD building, contour, and roughness files
- Automatic generation of the mesh and of the boundary conditions
- User-friendly and intuitive graphic interface

The ideal tool to implement green building regulations and to optimize buildings energy consumption

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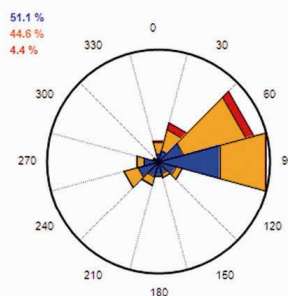
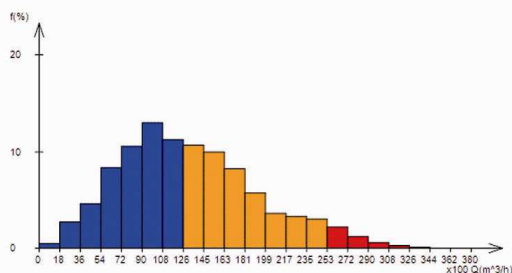
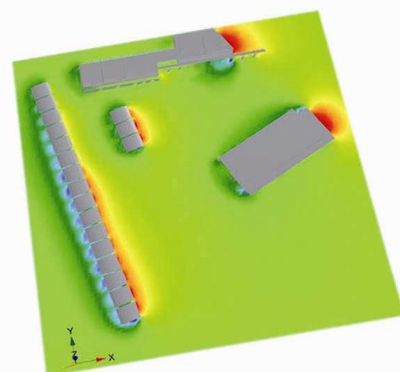


Environment :
Windows 7 - XP - Vista

Minimal Configuration :
4Gb - 2GHz - 256 Mo

→ The Natural Ventilation module

- Air flow characteristics of openings and ventilation ducts taken into consideration
- Computation of flow rates for any kind of openings
- Automatic computation of wind-induced ventilation
- Computation of wind pressure on building facades
- Statistical representation of fluxes based on wind roses
- Seasonal analysis and hourly visualization



→ Indoor airflow calculation for comfort prediction

- Visualization of the airflow inside a building
- Floor layout consideration when computing the flow inside a building

→ Real local wind data consideration

- Meteorological tower data import capability
- Possibility to consider remote stations up to 25 kilometers away thanks to the software **TopoWind**

