## A big supporter of BIM

scSTREAM

Thermo-fluid simulation software that leads the architectural industry

scSTREAM thermo-fluid simulation software has serviced the architectural and other industries for over 30 years. A direct interface for BIM software has been implemented that can read native data, which minimizes time and effort. Solver performs a calculation at a high speed in parallel computing and achieves effective processing as the speed increases depending on the number of subdomains.
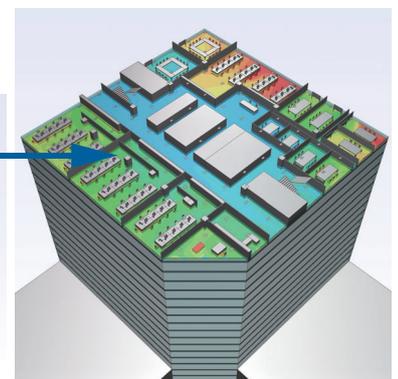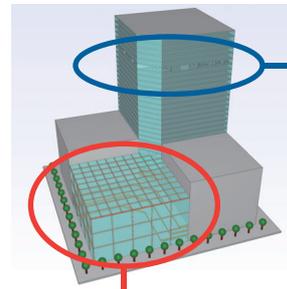

scSTREAM
Thermofluid Analysis System
with Structured Mesh

Main Functions and Analysis Examples
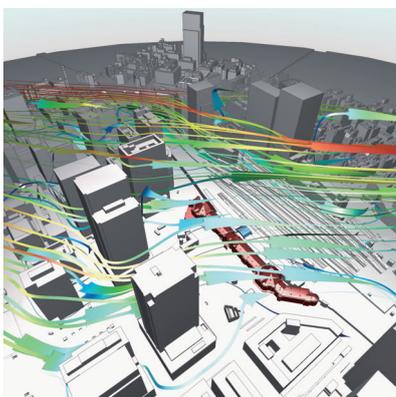

Wind Environment

Simulatimg wind environment in urban area using scSTREAM helps predict and assess the wind environment around a newly designed building ahead of construction and inform neighborhood residents of the environmental effects of the building.

The wind environment is ranked automatically by calculating the parameters for 16 directions and the plant canopy model can be used to consider wind hazards.


Double Skin Façade Consideration

scSTREAM can be used when estimating the effect of solar radiation or the indoor temperature by width of double skin, glass specification, or the blinds. Also, the calculation of the indoor will help estimate the tendency of the lower floor, the higher floor or the window side.
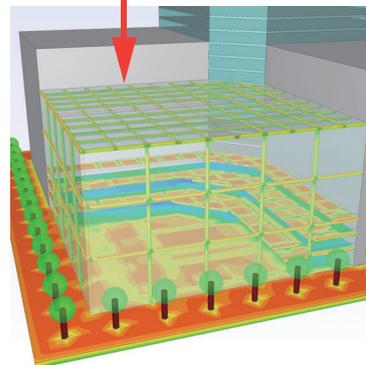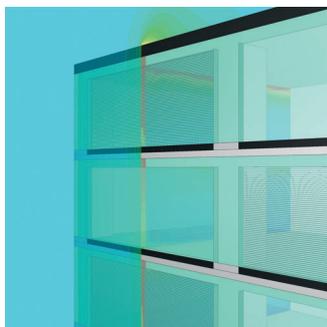
Analysis of Office Building

As well as condition of outdoor, the temperature distribution can be calculated including solar radiation and heat radiation. This analysis is used for considering the air-conditioner or the layouts (above figure). Also, the software can calculate the illuminance of daylight and artificial lightning (left figure).

Although the lighting and the reduction of heat loss are related in a transactions, the balance of the light and heat can be considered using scSTREAM.
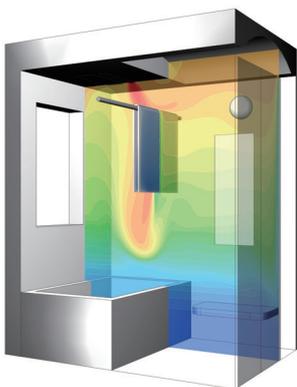
Drying Laundry in a Bathroom

Humidity, dew condensation, evaporation and analysis accounting for latent heat can be calculated. In addition to the humidity of the air, moisture absorption and desorption of solid can be calculated as well. The analysis is effective when simulating laundry in a bathroom with dryer. The data helps considering the layout for drying objects or the wind direction.

Analysis of Natural Air Ventilation Efficiency

Ventilation analysis helps evaluate paths of air beforehand. Also, the calculation of the effect of ventilation will provide the parameter of the age of air which shows how long the air has been stayed in a room or the contribution ratio for each opening. Visually demonstrating the effectiveness of ventilation helps decide where to allocate inlet and outlet to remove confined air.