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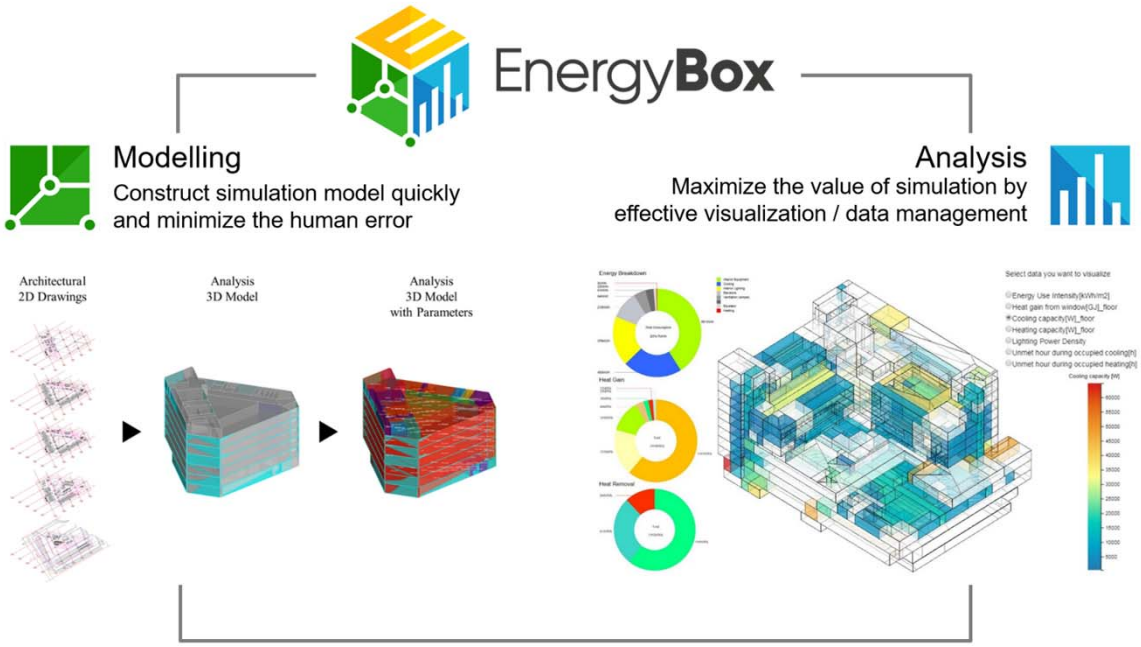
EnergyBox: an integrated automation toolset for energy simulation

Arup



In building design, energy simulation is used to estimate how designed building use energy. It is supposed to contribute to performance-driven design as it provides quantifiable data for the decision-making process. However, the simulation requires huge manual input and output processes. The time cost is significant, and the workflow is too long to catch up with the design schedule. Very often, the energy simulation result can only be used a part of the routine design submission, but unable to provide insightful feedback to decision-making based on simulation result in the building design process.

EnergyBox is an integrated automation toolset for building energy simulation to solve above-mentioned problem.

It allows energy modelers to create energy simulation model quickly minimizing the tedious data input. Through its ability to automate data processing and analysis pipeline, EnergyBox saves time, reduces human error, increase data reusability and an effective visualization through web interface. In addition, all the simulation result is stored into central database automatically with meta data (e.g. project name, climate zone, version etc.) structurally. This help project manager to keep track of current simulation result at different project stage for better communication with multiple stakeholders.