

Utilizing original tools, E-Qualtet and E-Entry, to propose energy-saving technologies



Architecture Division, Architecture Design 2
Branch, Equipment Design Group
Mr. Hiroyuki Kawahara
Maeda Corporation
<http://www.maeda.co.jp/>

As professional proposer, he addressed his points clearly. Great tools makes his jobs easier.

What is the policy for energy-saving, CO2 reduction, sustainability at Maeda Corporation?

Maeda Corporation works to be recognized as “Environmental Corporate Management #1 in constructions.” Architectural Designing Division included “Corporate Assessment System for Building Environment Efficiency (CASBEE)” (<http://www.ibec.or.jp/CASBEE/english/index.htm>) in ISO14001 implementation. We are now preparing menus for environmental treatments and technology proposals for CASBEE evaluation. One of the most important aspect is to visualize the CASBEE levels. This helps promoting environmental technologies in early stages of planning and designing.

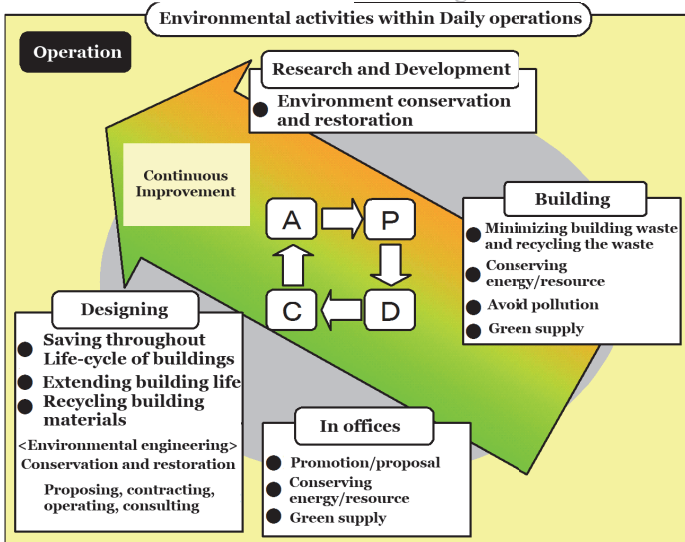
In building designing, directions of buildings and placements, insulation of external walls, shading of openings are important. In equipment designing, using more efficient equipments, selecting proper heat load, and most effective arrangements of equipments are considered to optimize the cost-performance. We utilize the tool called “E Qualtet” which we developed 8 years ago. “E Qualtet” is the energy-saving technology proposing tool. It combines various architectural and equipmental technologies to propose economical yet environmentally friendly solutions. It utilizes accurate simulations to evaluate in terms of Life Cycle cost (LCC) for cost concerns and Life Cycle CO2 (LCCO2) for environmental load concerns. We also start using “E-Entry” from last year. This lets us to “entry” conditions through interviews with clients. This calculates energy consumption of the building and suggests some energy-saving techniques. This is the work horse for early stage of sales. This complies to the Japanese Energy-saving law revised in April and Tokyo’s Environment Preservation Pact and suggest most cost effective solutions to save energy. This tool makes the solution and its effectiveness easy to understand for clients.

How do you use FlowDesigner in your daily duties. What do you think about FlowDesigner?

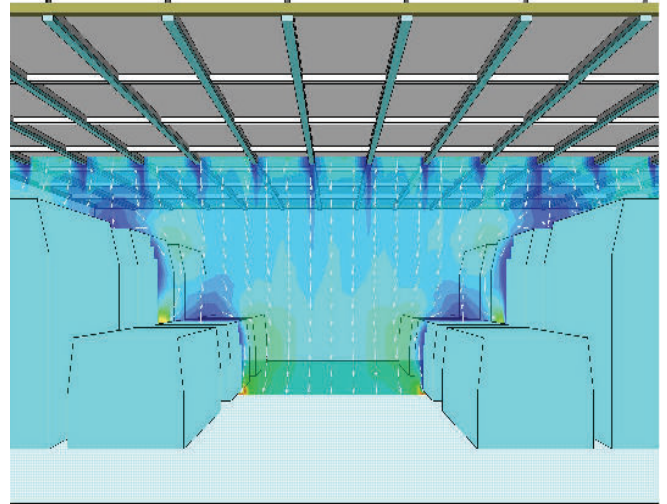
We use FlowDesigner from planning stages to renewals in many different stages. For instance, if a client is considering to upgrade the air-conditioning unit and he wants to know how the condition will be, we utilize FlowDesigner to convince the client. Indoor heating condition, temperature distribution in working spaces, flow distribution, ventilations, cooling efficiency of the outdoor units, are some examples we use FlowDesigner for. Recently we analyzed fume from trash disposal area.

Before FlowDesigner, it was given by numbers. However, it was not easy to understand for most non-technical clients. Their complains were; “hard to evaluate” and “hard to understand.” Visualization of FlowDesigner with false-color maps and vector representations is the key to make the convincing easier. And it makes huge impression on clients.

FlowDesigner has been improving as version number grows. Actual users commented that. Most analysis have no trouble but some complicated cases we get thorough user supports. User support is always timely. That makes our jobs easier.



<Maeda's environmental efforts>



<Analysis in a cleanroom>

What are you planning for energy-saving, CO2 reduction, sustainability in daily duties?

Architecture Designing Division will keep working on “environmentally friendly proposals” from early planning stages. We will make sure to consider every possible aspect of building life to be cost-effectively ecological, including CO2 emission reduction, services and renewals. Total evaluation is important. Regretably, still many people think the “environment conservation” is the equipment’s responsibility. Good energy-saving requires all aspect of building working together. Using all energy-saving technologies with equipments do not work out if the building design is not compliant to the equipments. I hope FlowDesigner becoming to be used more widely specially with early planning stages. The ease of use should let more people utilize this tool for effective communications.

Please give us comment.

I am a part of equipment designing team, my main job is in deveopment. FlowDesigner is an effective tool for my presentations. I will keep utilizing FlowDesigner to make my preseatation easir for my clients to understand. Environmental concerns are necessary for buildings and most clients have extensive knowledge. So, we need to keep updating our knowledge.

I want people to know Meada Corporation’s attitude towards environment. I will do my best to be a good representation of our effort.