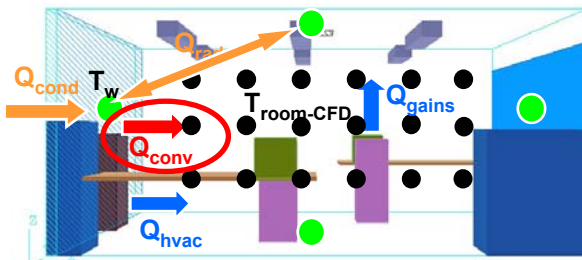


The Integration of CFD and Building Energy Simulation

Complements of ES and CFD	ES	CFD
Weather and solar impact	Yes	No
Enclosure temperature	Yes	No
HVAC system capacity	Yes	No
Energy consumption	Yes	No
Thermal comfort (T, V, R, Turb)	No	Yes
Indoor air quality (C)	No	Yes
HVAC system distribution	No	Yes
Natural ventilation	No	Yes

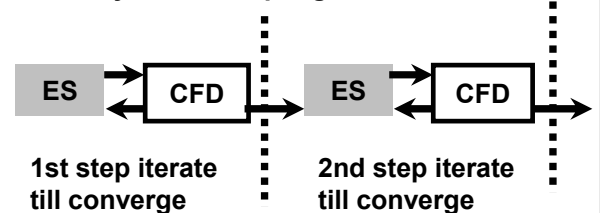
Fundamentals and Applications

- Couple benefits
- Couple approaches
- Couple strategies
- Couple implementation
- Couple performance
- Couple application

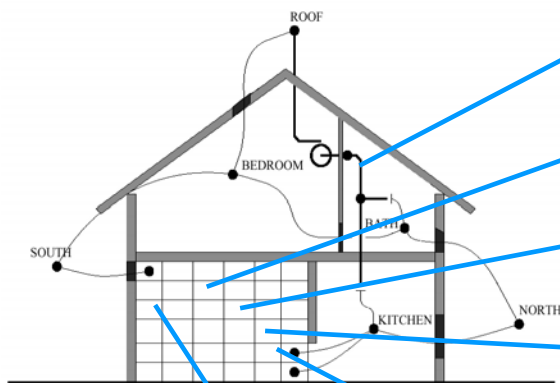


Static/Dynamic/Virtual Coupling Strategy

Full-Dynamic Coupling



A period of time



Do you need CFD in ES ?

Which zone do you need CFD ?

Which coupling strategy do you choose ?

Which coupling frequency do you choose ?

Which data exchange method do you choose ?

If virtual coupling, which database do you choose?

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