IBPSA Project 1

Modelica Buildings library

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Current activities
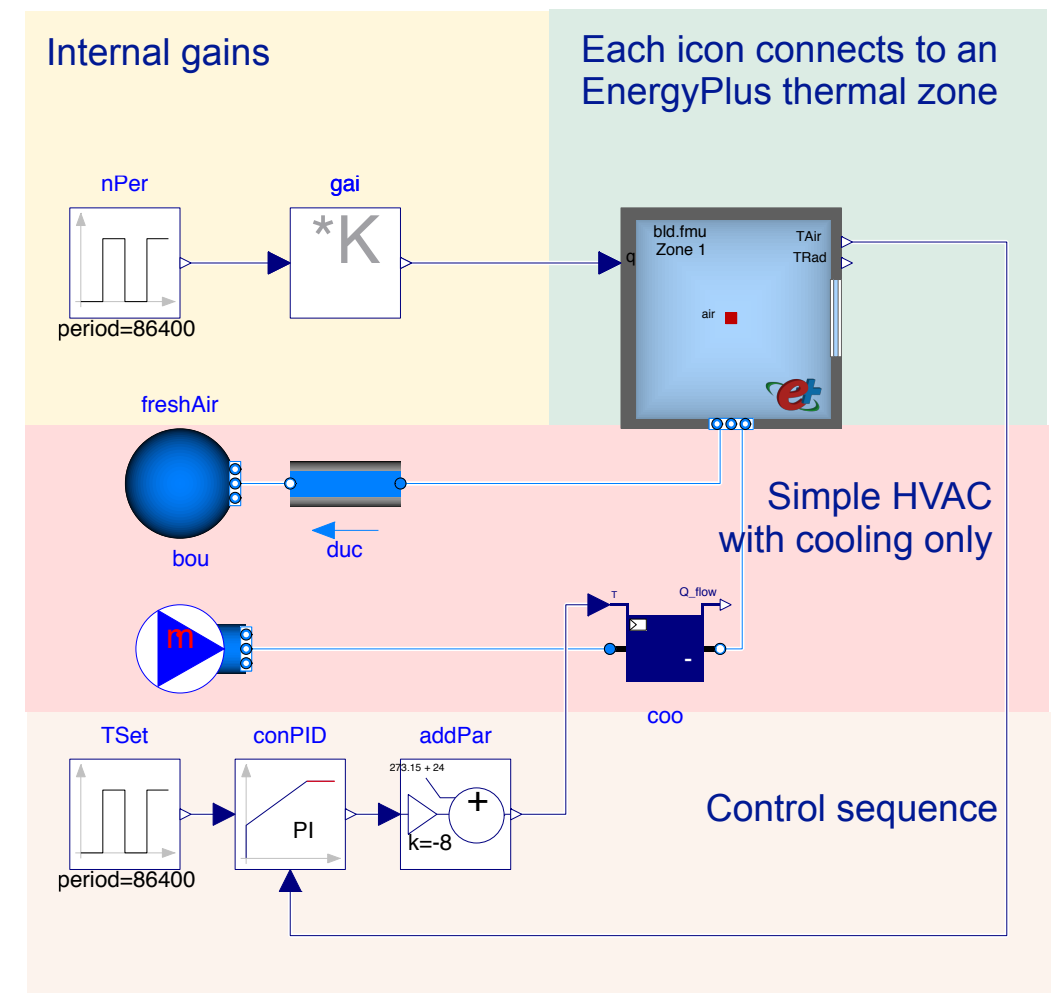
Spawn of EnergyPlus

- Direct loading of EnergyPlus FMU

OpenBuildingControl (additional 3 year funding)

- Control description language CDL
- Update ASHRAE Guideline 36 to official guideline
- Implement chiller plant sequences from ASHRAE RP 1711

District heating and cooling

- Template models for URBANopt (Modelica edition)

Export to BRICK

Current activities

Building HVAC

- Cooling coil (not using finite differences)

- Heat pump model similar to EnergyPlus (in development)

- CHP model similar to EnergyPlus (in development)

- Templates for HVAC systems (including controls)

District heating and cooling systems

- URBANopt Modelica edition with NREL, CU Boulder and Engie Lab

- Component models

- Templates for district energy models

https://github.com/lbl-srg/funnel

https://github.com/lbl-srg/modelica-json

Models for potential addition to IBPSA

Python package (Utilities.IO.Python27 from master).

Buildings.Controls.OBC.{CDL,ASHRAE}

Buildings.Electrical

Buildings.Occupants (from master)