



# IBPSA Project 1

BIM/GIS and Modelica Framework  
for  
building and community energy system  
design and operation

## **WP 1.1- Modelica Library for Design and Operation**

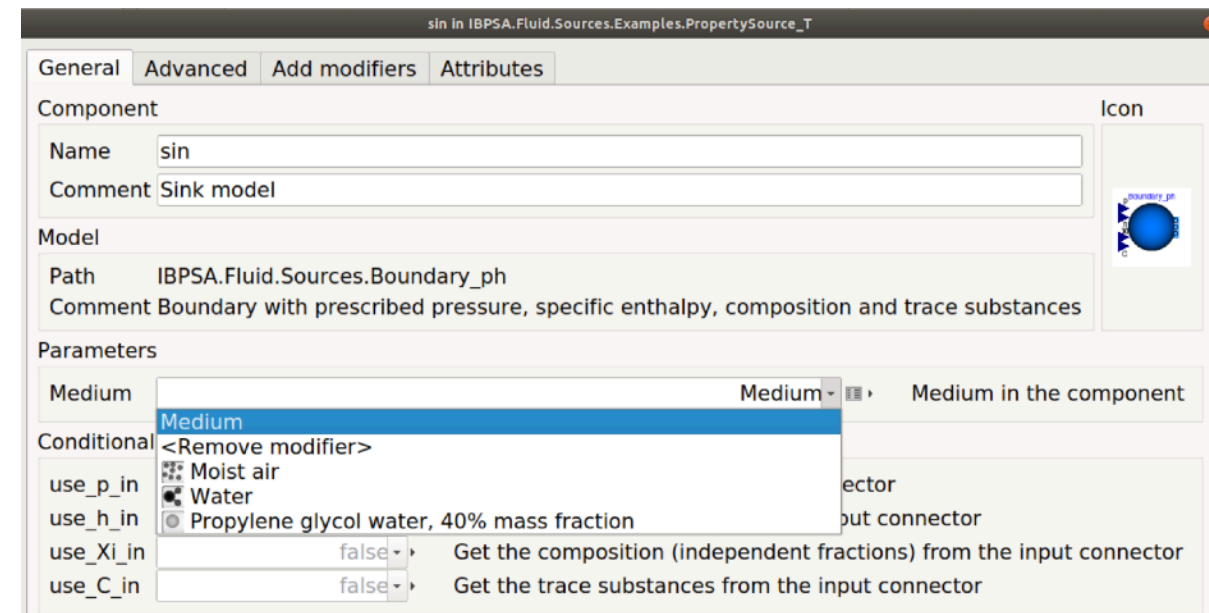
April 3, 2019

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# Progress in last half year

Main focus was on maintenance and compatibility with various simulation backends:

- In weather data reader, enabled simulation of multiple years, and periods that do not cover a full year but cross January 1.
- Constraint media selection.
- Corrected too long string when computing sha code in **Cryptographics** package.
- Improved error messages when media gets outside min/max limits.
- Removed unused parameters in **Airflow** package.
- Corrected various syntax errors (such as wrong use of **each** qualifier).



# Breakout sessions

New and upcoming developments of individual libraries.

Joint meeting with Work Package 1.2, BOPTEST.

Joint meeting with Task 2 (OpenBuildingControl, Semantic Web, Controls in BIM).

Joint meeting with Task 3 about DHC substations and plants.

New and/or improved models

- Pressure independent actuator
  - fix problem at low flow with new implementation
  - fix problem with reported actuator position
- Fan coil
- Geothermal models
- Refrigerants
- Heat pumps
- Vendor annotations
- Changes to BuildingsPy
  - funnel integration
  - test report generation