IBPSA Project 2: BOPTEST
Task 3 Emulator development
Virtual Progress Meeting
08/05/2024
6:00 AM –7:00 AM U.S. Pacific Time

Participation

	Name	Affiliation
1	David Blum	LBNL
1	Ettore Zanetti	
1	Kun Zhang	École de Technologie Supérieure (ÉTS)
1	Iago Cupeiro Figeuroa	Denergy
1	Javier Arroyo	
1	Zhe (Walter) Wang	Hong Kong University of Science and Technology
1	Matthias Van Hove	Danmarks Tekniske Universitet
1	Lucas Bex	KU Leuven
1	Lucas Verleyen	
1	Carlos Gil	
1	Hafeez	
1	KUL	ESAT

Minutes:

Current Emulator developments

Multizone Hydronic Simple [Bart, Iago]

David to finalize reviewing, close to being done.

- Large Office [Yan, Xing] –
  Xing was able to run the simulation for the whole year. They are working on optimizing pressure losses and component sizing to reduce compute time and increase robustness.
- ADRENALIN Emulators and general update [Harald] – competition online. Test cases may be updated as early as October

- DOPTEST [Javier]
  Javier working on disaggregating KPIs. Parallel effort from KU Leuven team to try and use OpenModelica directly to generate wrapped.mo and simulate avoiding FMU generation.
- Twozone Apartment Hydronic [Ettore]
  Laura sent an updated BOPTEST model to Ettore, he will take care of updating the model.

DOPTEST presentation discussion

Lucas presented KU Leuven development on DOPTEST. They have been mainly focused on making DOPTEST test cases work with OpenModelica. FMU compilation takes a lot of time for large models and they suffer from memory leaks (OM team aware). Because of this, they used OM "dumpXMLDAE" to generate the wrapper.mo model without compiling the FMU. OMPython is used as an interface to compile and run the model without generating an FMU to generate setpoints and .csv files for the whole year. Then they generate an FMU for normal DOPTEST use. Lucas opened an issue on BOPTEST repository to share their approach https://github.com/ibpsa/project1-boptest/issues/666.

So far DOPTEST development has been done on a private repository. Lucas may join Task 3 meetings to give periodic updates on DOPTEST development.

Naming convention presentation discussion

Add keyword testbed to building types

Increase level of detail in HVAC descriptors (VAV,FCU,RAD,RADF,etc..)

Use unique identifiers that are easy to autocomplete (boptest1,2,...,n)

The presentations are available on Task 3 section in the BOPTEST website. If you want to submit a new test case application here is the form and if you want to leave comments on the updated review document.