

# Task 1: Outreach and Community Building

*Technical objectives, progress and plan*

Javier Arroyo, Wedoco  
Expert Meeting at DTU  
November 20<sup>th</sup>, 2024



IBPSA Project 2



# Outline

- Objective
- Progress
- Planning

# Objective

# Objective

*“Focus on activities that **encourage**, **facilitate**, and **disseminate** BOPTTEST **usage**, **adoption**, and **feedback to development**.”*

- 👉 Organize events and initiatives that encourage adoption.
- 👉 Track usage and community building.
- 👉 Website and other media.

# Progress

# Progress

- 2 virtual meetings since beginning of Project 2 where we have discussed:

👉 **Events**: workshops, presentations, and contests.

👉 **Community**: track new adopters, usage, and feedback.

👉 **Website** maintenance.

# Progress

- **Events (past)**: workshops, presentations, and contests:

*(Chronological order)*

2023/10/12 → Expert meeting in Aachen (International Modelica Conference).

2024/05/22 → Expert meeting in Denver (IBPSA USA SimBuild).

2024/05/27 → Workshop at Seville University (test case development).

2024/08/12 → Workshop at CCAI Summer School (BOPTTEST-Gym).

2024/09/30 → Adrenalin contest.

2024/10/21 → Presentation at DOE Peer Review.

# Progress

- **Events (planned)**: workshops, presentations, and contests:

*(Chronological order)*



2024/11/27 → 1st Project 2 research webinar at IBPSA Webinar Series.



2025/01/xx → 2nd Project 2 research webinar at IBPSA Webinar Series.



2025/05/13 → Presentation at the Building Digital Twin International Congress.



2025/08/24 → BS2025 in-person meeting and workshop.



2025/08/24 → BS2025 papers on software and test cases.



# Progress

- Community



# Progress

- **Community**: new adopters and usage



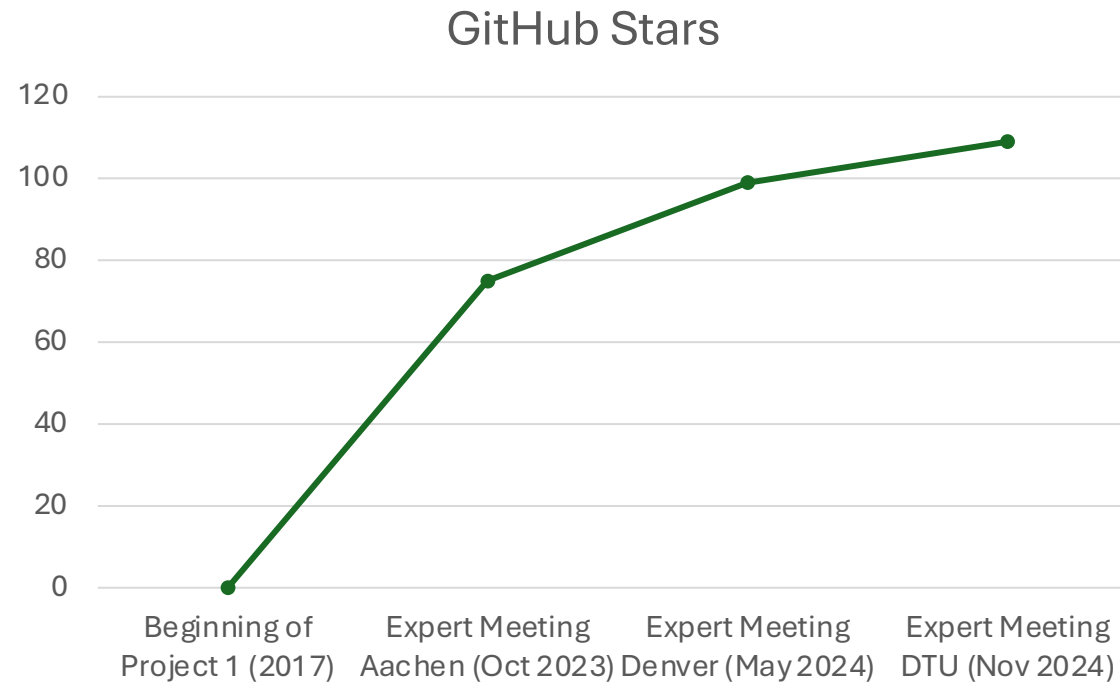
ARUP



School  
development  
programs

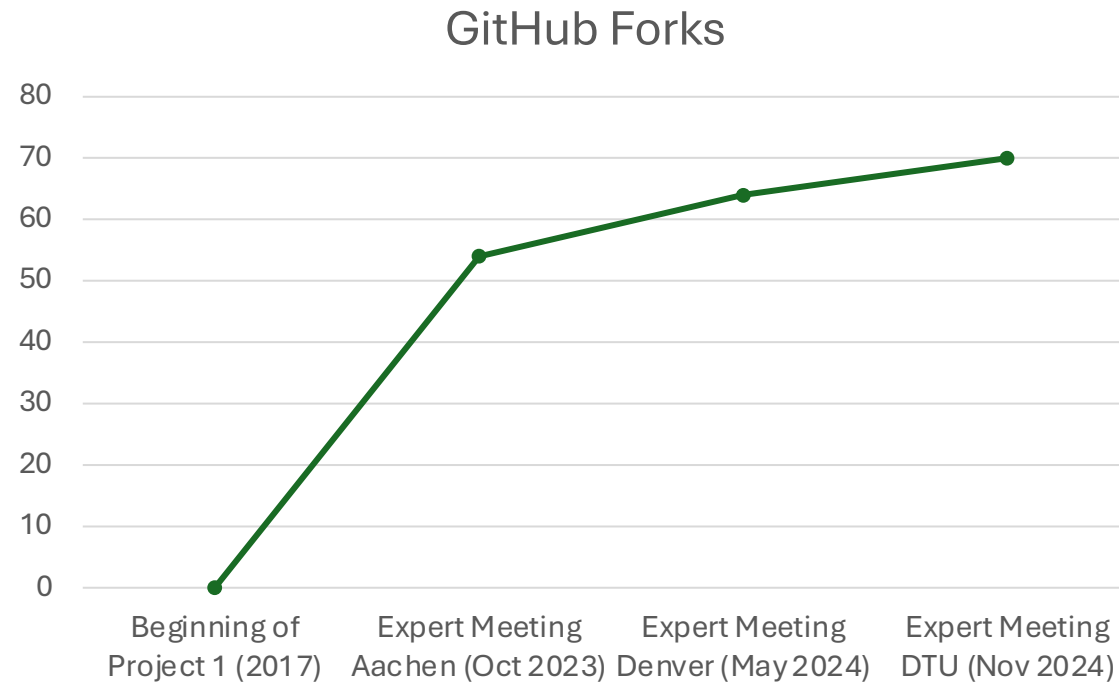
# Progress

- **Community**: new adopters, usage and feedback:



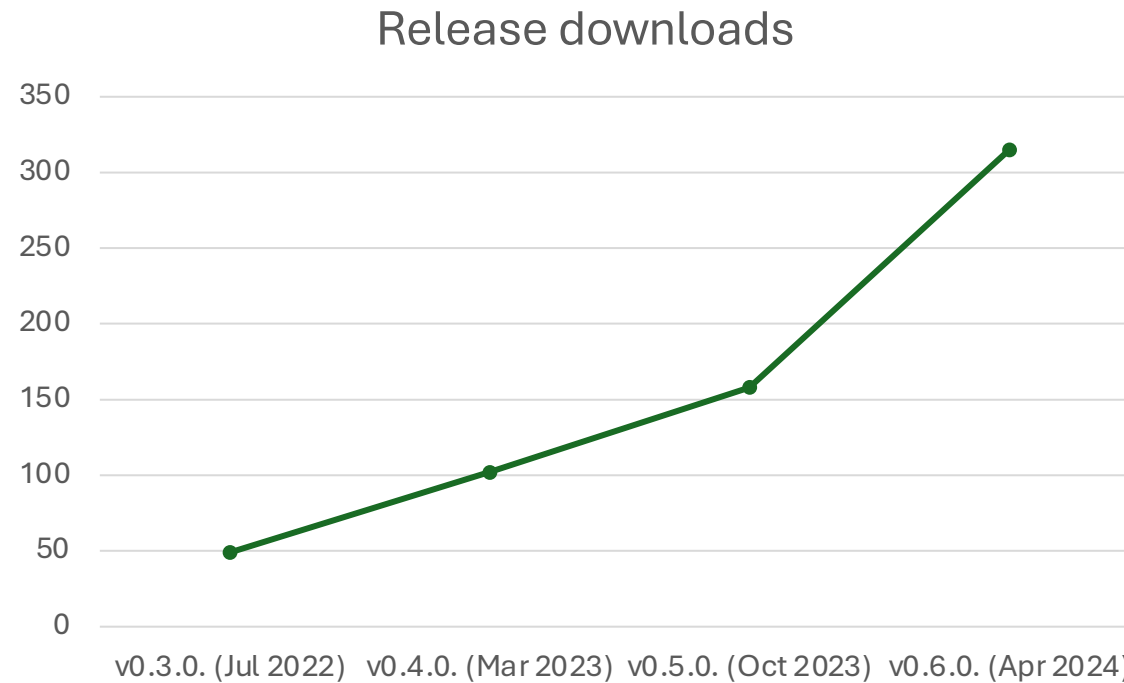
# Progress

- **Community**: new adopters, usage and feedback:



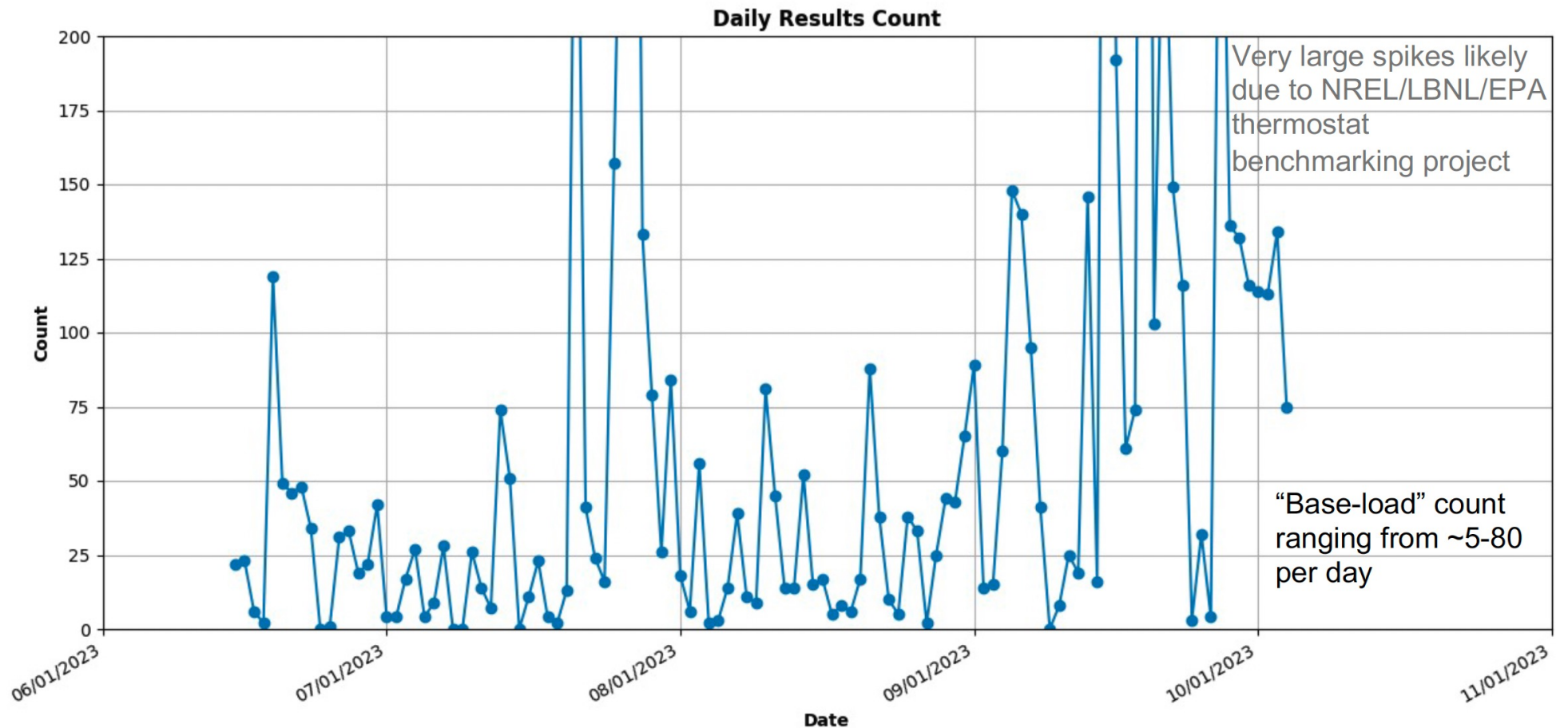
# Progress

- **Community**: new adopters, usage and feedback:



# Progress

- **Community**: new adopters, usage and feedback:



# Progress

## ResearchGate

- **Community**: new adopters, usage and feedback:

Research Interest Score	56.7
Citations	95
Recommendations	9
Reads ⓘ	398

### To cite BOPTEST, please use:

D. Blum, J. Arroyo, S. Huang, J. Drgona, F. Jorissen, H.T. Walnum, Y. Chen, K. Benne, D. Vrabie, M. Wetter, and L. Helsen. (2021). "[Building optimization testing framework \(BOPTEST\) for simulation-based benchmarking of control strategies in buildings.](#)" *Journal of Building Performance Simulation*, 14(5), 586-610.

### Additional publications:

L. Maier, J. Brillert, E. Zanetti, and D. Müller (2023). "[Approximating model predictive control strategies for heat pump systems applied to the building optimization testing framework \(BOPTEST\).](#)" *Journal of Building Performance Simulation*, Available Online.

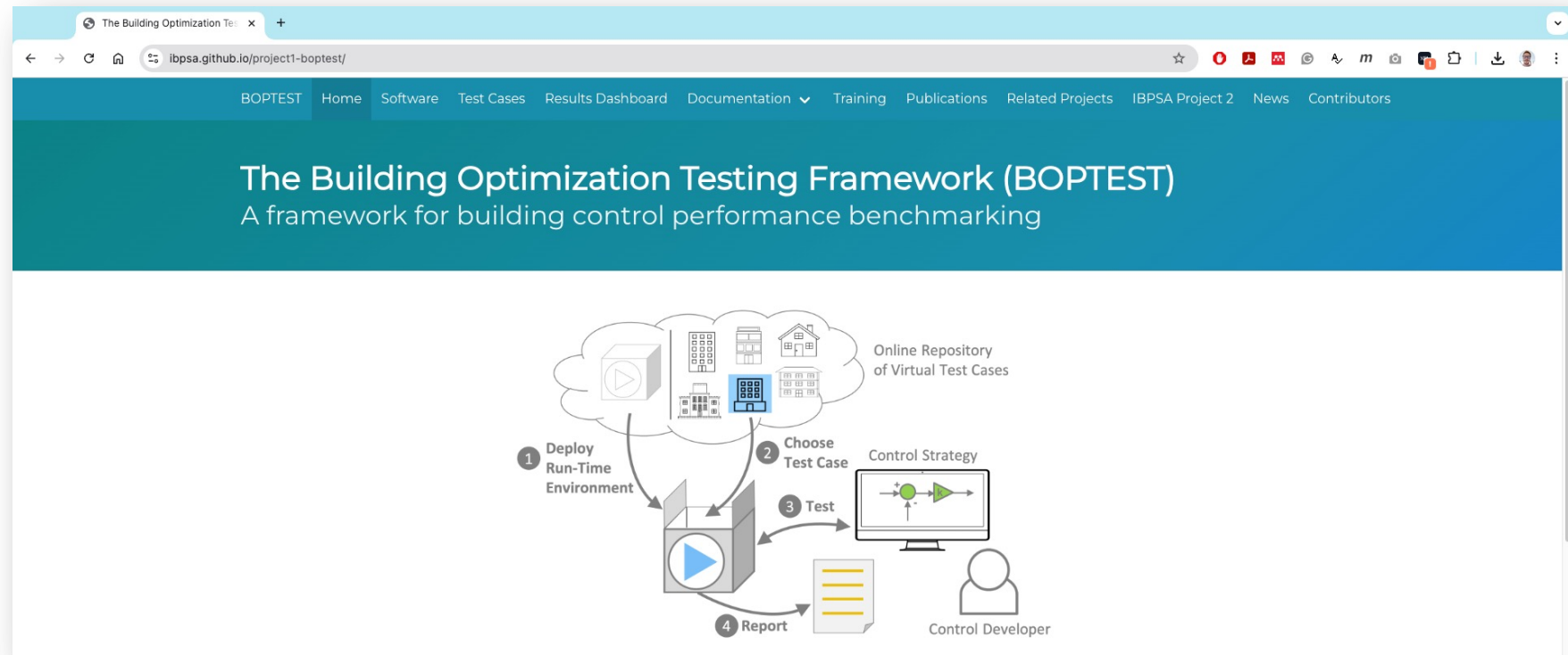
C. A. Faulkner, R. Lutes, S. Huang, W. Zuo, D. Vrabie. (2023). "[Simulation-based assessment of ASHRAE Guideline 36, considering energy performance, indoor air quality, and control stability.](#)" *Building and Environment*, 240, 110371.

D. Wang, W. Zheng, Z. Wang, Y. Wang, X. Pang, W. Wang. (2023). "[Comparison of reinforcement learning and model predictive control for building energy system optimization.](#)" *Applied Thermal Engineering*, 228, 120430.

E. Zanetti, D. Kim, D. Blum, R. Scoccia, and M. Aprile. (2023). "[Performance comparison of quadratic, nonlinear, and mixed integer nonlinear MPC formulations and solvers on an air source heat pump hydronic floor heating system.](#)" *Journal of Building Performance Simulation*, 16(2), 144-162.

# Progress

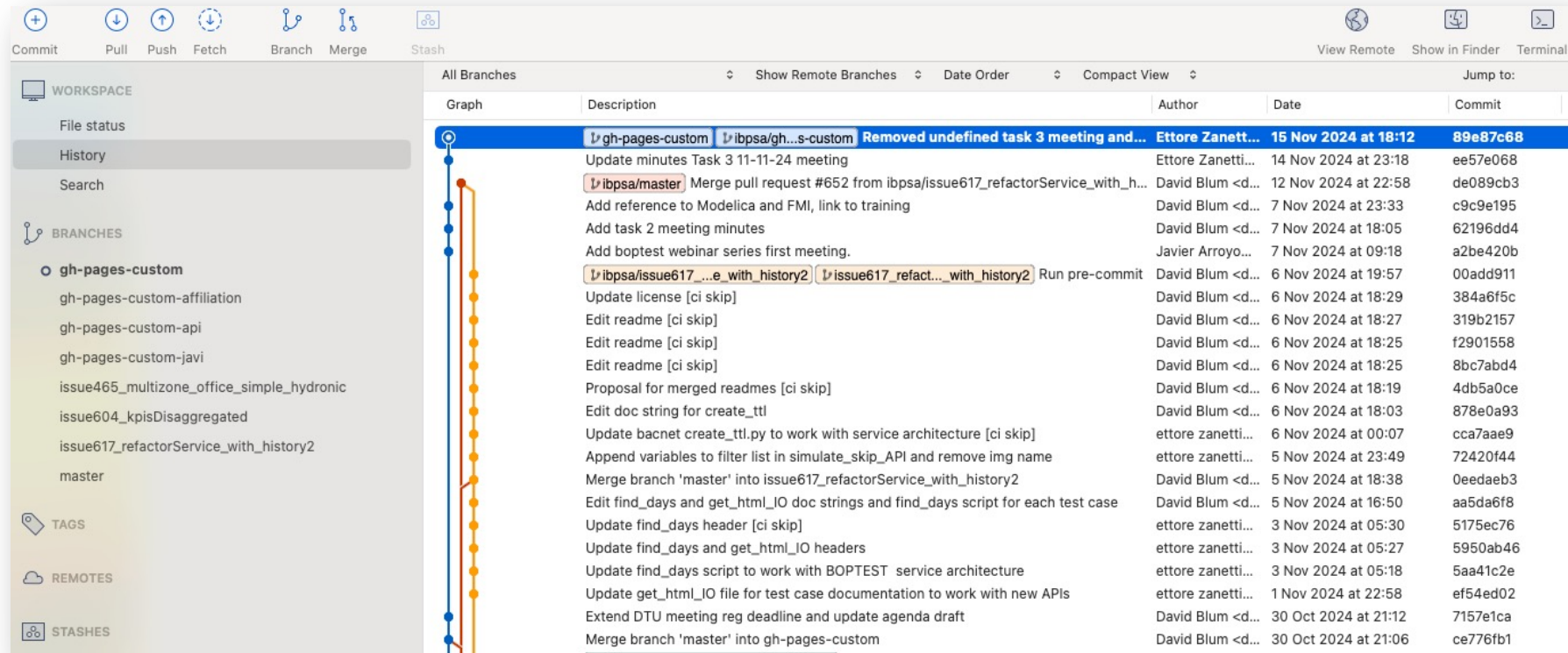
- Website:





# Progress

- Website:



Graph	Description	Author	Date	Commit
gh-pages-custom	Removed undefined task 3 meeting and...	Ettore Zanetti...	15 Nov 2024 at 18:12	89e87c68
	Update minutes Task 3 11-11-24 meeting	Ettore Zanetti...	14 Nov 2024 at 23:18	ee57e068
ibpsa/master	Merge pull request #652 from ibpsa/issue617_refactorService_with_h...	David Blum <d...	12 Nov 2024 at 22:58	de089cb3
	Add reference to Modelica and FMI, link to training	David Blum <d...	7 Nov 2024 at 23:33	c9c9e195
	Add task 2 meeting minutes	David Blum <d...	7 Nov 2024 at 18:05	62196dd4
	Add bopstest webinar series first meeting.	Javier Arroyo...	7 Nov 2024 at 09:18	a2be420b
ibpsa/issue617...e_with_history2	Run pre-commit	David Blum <d...	6 Nov 2024 at 19:57	00add911
issue617_refact...with_history2		David Blum <d...	6 Nov 2024 at 18:29	384a6f5c
	Update license [ci skip]	David Blum <d...	6 Nov 2024 at 18:27	319b2157
	Edit readme [ci skip]	David Blum <d...	6 Nov 2024 at 18:25	f2901558
	Edit readme [ci skip]	David Blum <d...	6 Nov 2024 at 18:25	8bc7abd4
	Proposal for merged readmes [ci skip]	David Blum <d...	6 Nov 2024 at 18:19	4db5a0ce
	Edit doc string for create_ttl	David Blum <d...	6 Nov 2024 at 18:03	878e0a93
	Update bacnet create_ttl.py to work with service architecture [ci skip]	ettore zanetti...	6 Nov 2024 at 00:07	cca7aae9
	Append variables to filter list in simulate_skip_API and remove img name	ettore zanetti...	5 Nov 2024 at 23:49	72420f44
	Merge branch 'master' into issue617_refactorService_with_history2	David Blum <d...	5 Nov 2024 at 18:38	0eedaeb3
	Edit find_days and get_html_IO doc strings and find_days script for each test case	David Blum <d...	5 Nov 2024 at 16:50	aa5da6f8
	Update find_days header [ci skip]	ettore zanetti...	3 Nov 2024 at 05:30	5175ec76
	Update find_days and get_html_IO headers	ettore zanetti...	3 Nov 2024 at 05:27	5950ab46
	Update find_days script to work with BOPTST service architecture	ettore zanetti...	3 Nov 2024 at 05:18	5aa41c2e
	Update get_html_IO file for test case documentation to work with new APIs	ettore zanetti...	1 Nov 2024 at 22:58	ef54ed02
	Extend DTU meeting reg deadline and update agenda draft	David Blum <d...	30 Oct 2024 at 21:12	7157e1ca
	Merge branch 'master' into gh-pages-custom	David Blum <d...	30 Oct 2024 at 21:06	ce776fb1

# Progress

- Website:

The screenshot displays the GitHub Actions interface for the repository 'ibpsa / project1-boptest'. The 'Actions' tab is selected, showing a workflow named 'Custom web build and deploy'. A specific run is highlighted with the title 'Removed undefined task 3 meeting and old links #72', which has a green checkmark indicating success. The run was triggered by a push from user 'EttoreZ' 4 days ago. The summary table shows a 'Success' status, a total duration of '6m 35s', and '1' artifact. The 'Summary' tab is active, showing a 'build' job with a green checkmark and a duration of '6m 21s'. Below the job summary, the workflow file 'custom-web-build.yml' is shown, triggered on 'push'. A terminal window at the bottom shows the execution of 'makefile' with the command 'run-build-docs-and-serve-web' and the output '\$(COMMAND\_RUN) /bin/bash -c "make build\_docs\_and\_serve\_web"'. The terminal window also shows the file 'makefile' and the command 'web > M makefile'.

ibpsa / project1-boptest

<> Code Issues 60 Pull requests 13 Discussions Actions Projects Wiki Security 47 Insights

← Custom web build and deploy

✓ Removed undefined task 3 meeting and old links #72

Summary

Jobs

✓ build

Run details

Usage

Workflow file

Triggered via push 4 days ago

EttoreZ pushed 89e87c6 gh-pages-custom

Status: Success

Total duration: 6m 35s

Artifacts: 1

custom-web-build.yml

on: push

✓ build 6m 21s

<https://ibpsa.github.io/project1-boptest/>

boptest

M makefile

web > M makefile

```
36 run-build-docs-and-serve-web:
37 | $(COMMAND_RUN) /bin/bash -c "make build_docs_and_serve_web"
```

# Planning

# Planning

- Breakout session Task 1:
  - Breakout Session 5, Day 2, 2:45-3:45pm
- 1. Events, workshops, and presentations.
- 2. New adopters, usage, and feedback.
- 3. Website and other media.
- 4. Miscellaneous.

# Thank you!

Javier.arroyo@wedoco.io

