

# 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** BOPTEST **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



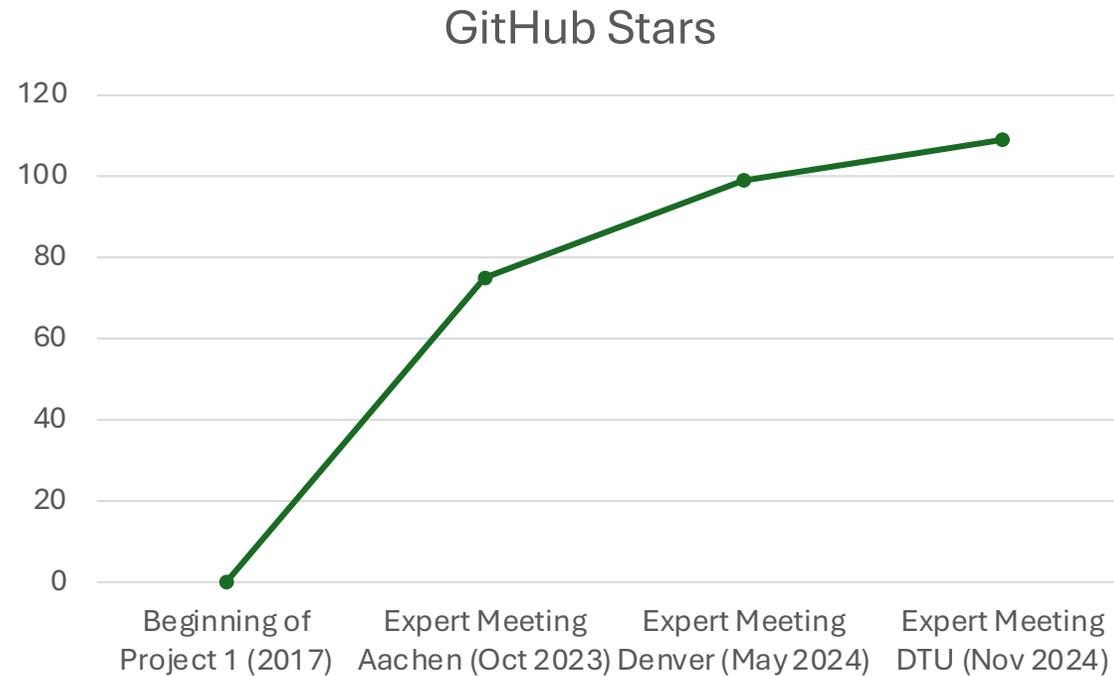
ARUP



School  
development  
programs

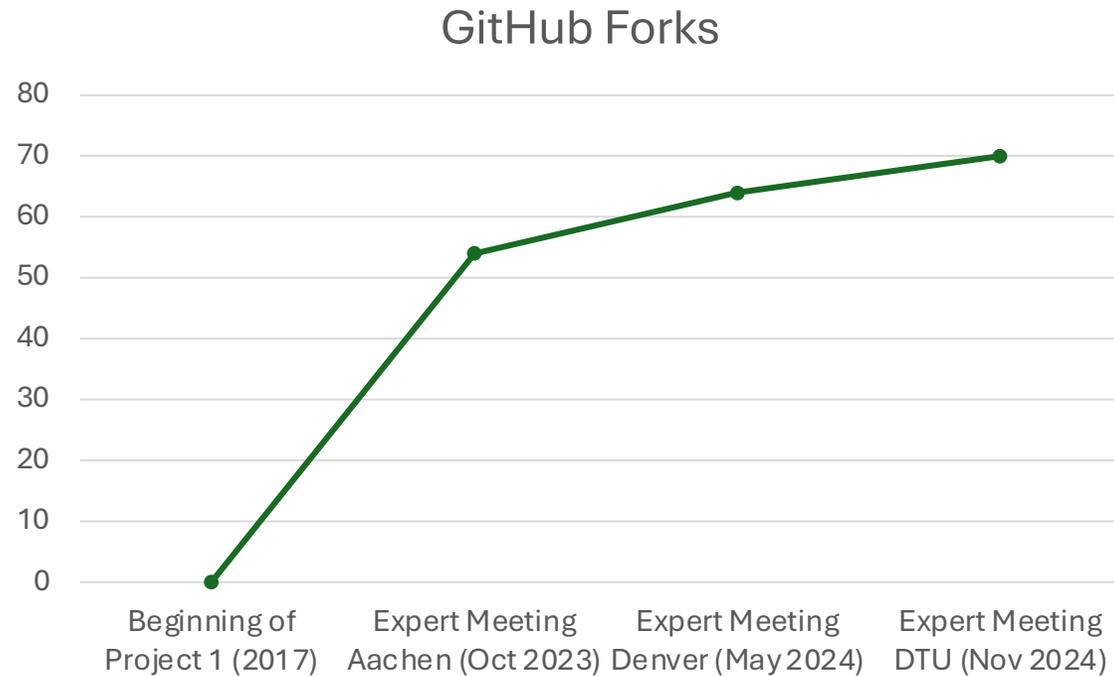
# Progress

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



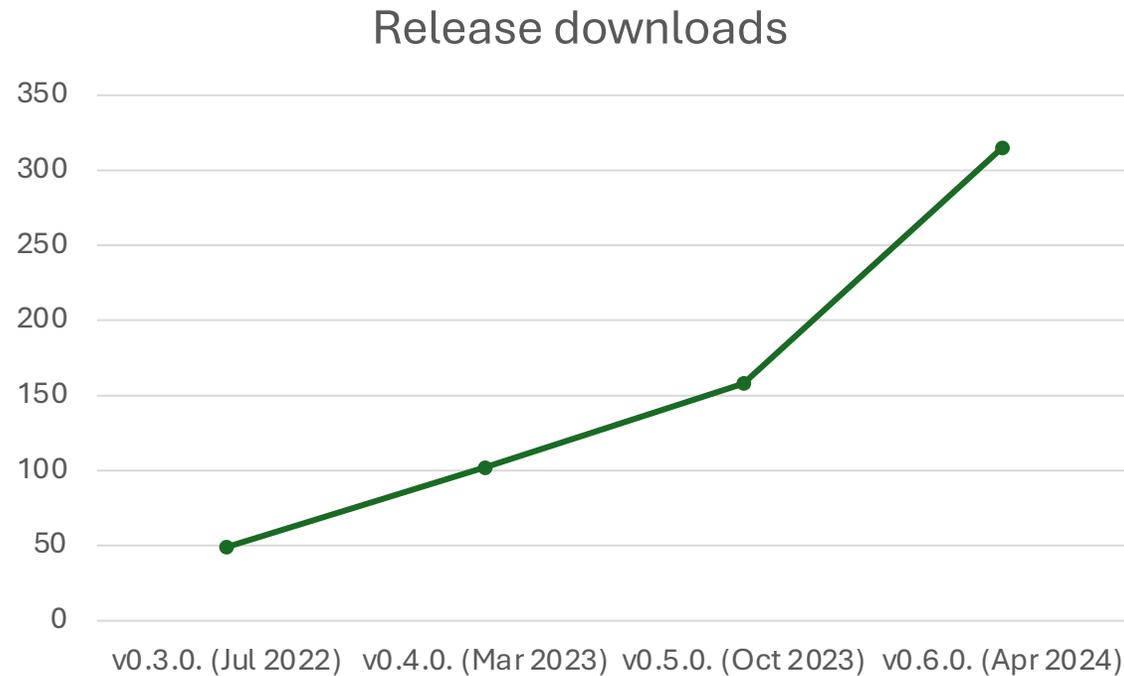
# Progress

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



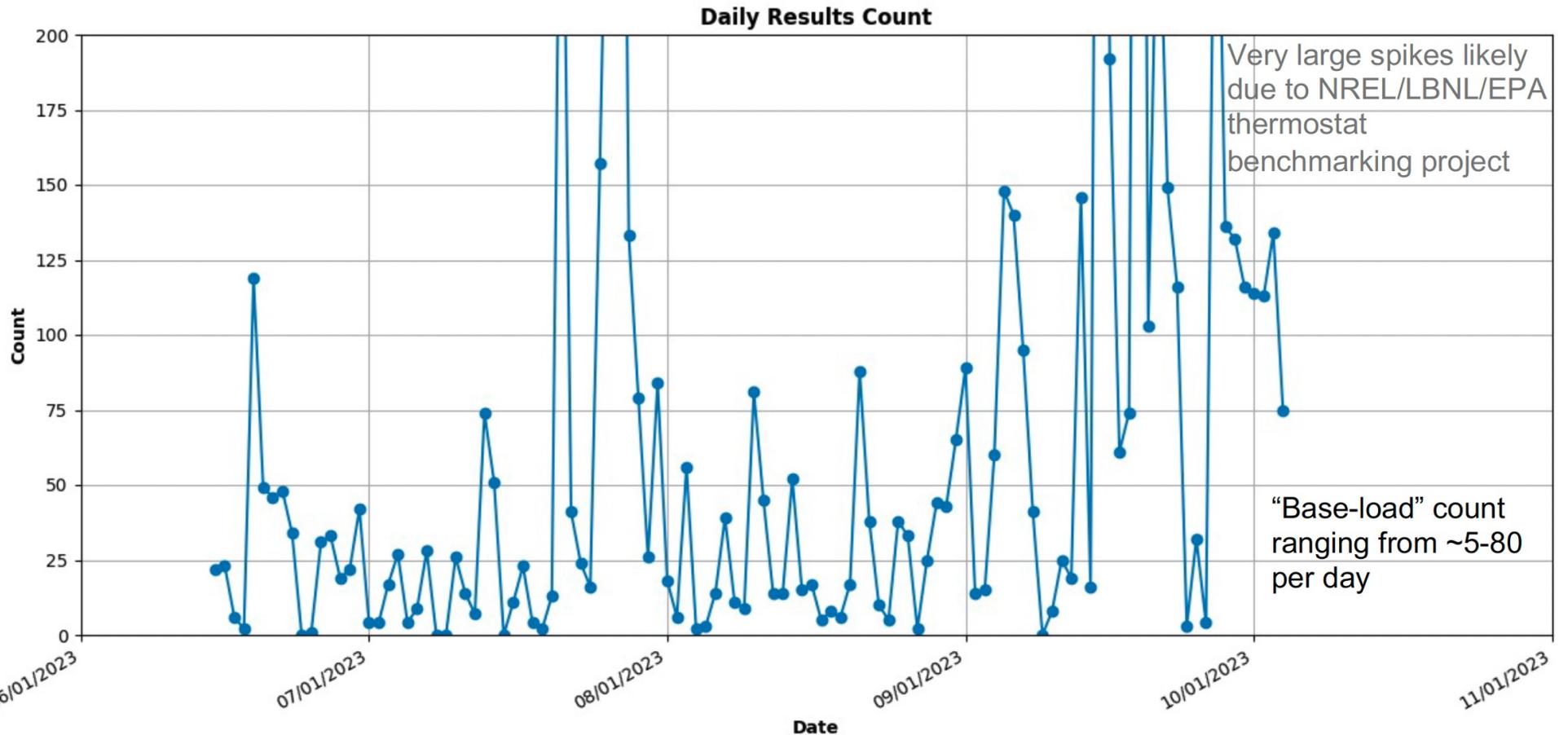
# Progress

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



# Progress

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



# Progress

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

## ResearchGate

Research Interest Score	56.7
Citations	95
Recommendations	9
Reads ⓘ	398

### To cite BOPTTEST, 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 (BOPTTEST) 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 (BOPTTEST)." *Journal of Building Performance Simulation*, Available Online.

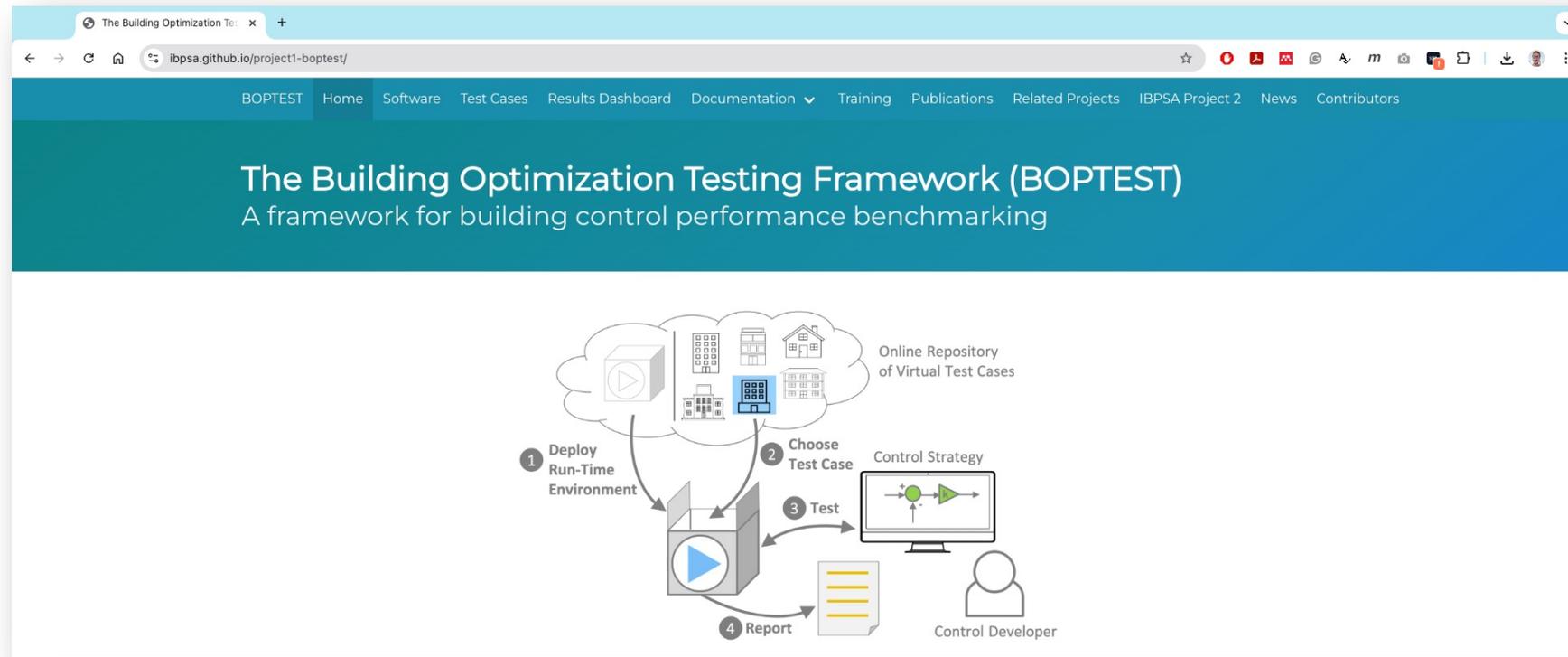
C. A. Faulkner, R. Lutes, S. Huang, W. Zuo, D. Vrabie. (2023). "Simulation-based assessment of ASHRAE Guideline 36, considering energy performance, indoor air quality, and control stability." *Building and Environment*, 240, 110371.

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.

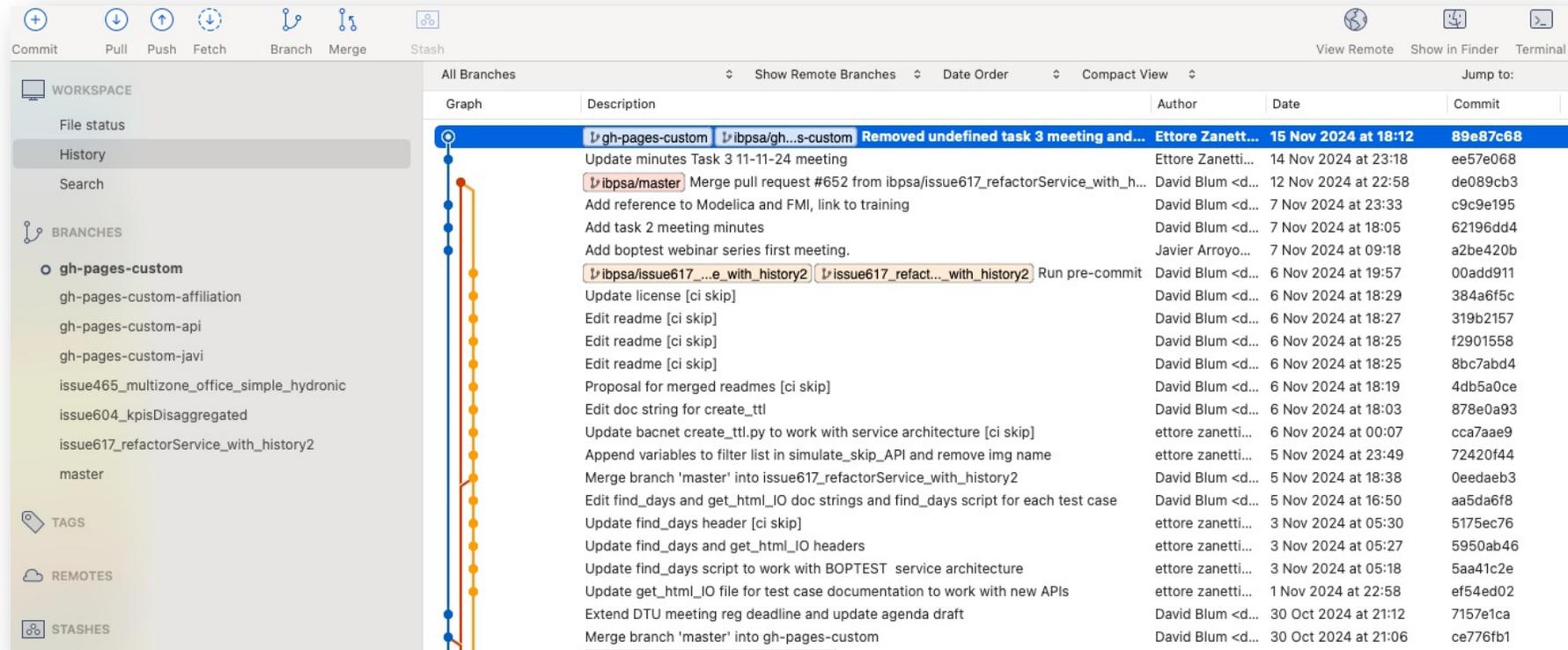
# Progress

- Website:



# Progress

- Website:



The screenshot displays a Git GUI interface with the following components:

- Toolbar:** Commit, Pull, Push, Fetch, Branch, Merge, Stash, View Remote, Show in Finder, Terminal.
- Workspace:** File status, History, Search.
- Branches:** gh-pages-custom (selected), gh-pages-custom-affiliation, gh-pages-custom-api, gh-pages-custom-javi, issue465\_multizone\_office\_simple\_hydronic, issue604\_kpisDisaggregated, issue617\_refactorService\_with\_history2, master.
- Graph:** A vertical timeline showing commit history with colored dots representing commits.
- Table:** A table listing commit details with columns: Description, Author, Date, and Commit.

Description	Author	Date	Commit
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
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 boptest webinar series first meeting.	Javier Arroyo...	7 Nov 2024 at 09:18	a2be420b
Run pre-commit	David Blum <d...	6 Nov 2024 at 19:57	00add911
Update license [ci skip]	David Blum <d...	6 Nov 2024 at 18:29	384a6f5c
Edit readme [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 BOPTTEST 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 shows a GitHub Actions workflow run for the repository 'ibpsa / project1-boptest'. The workflow is named 'Custom web build and deploy' and the specific run is 'Removed undefined task 3 meeting and old links #72'. The run is successful, triggered by a push from 'EttoreZ' 4 days ago. The total duration is 6m 35s, and there is 1 artifact. The workflow file is 'custom-web-build.yml', triggered on 'push'. A job named 'build' completed successfully in 6m 21s, with a link to the website: <https://ibpsa.github.io/project1-boptest/>.

Triggered via push 4 days ago	Status	Total duration	Artifacts
EttoreZ pushed 89e87c6 gh-pages-custom	Success	6m 35s	1

**custom-web-build.yml**  
on: push

build 6m 21s  
<https://ibpsa.github.io/project1-boptest/>

```
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!

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