Contribution ID: **35** Contribution code: **T-5** Type: **Talk & (optional) poster**

Connecting NEST

Friday 24 June 2022 10:50 (25 minutes)

NEST Simulator runs on a multitude of different hardware platforms and operating systems. In the past year huge advances in infrastructure and deployments have made NEST available through different channels [1, 2, 3, 4], each offering unique features for various use-cases. In this talk we will highlight some of the available possibilities and give an overview of the tool and service interoperability in the NEST ecosystem. This covers tools closely related to NEST itself, workflow and development tools, as well as services on cloud [4, 5] or HPC resources.

Acknowledgements

This project has received funding from the European Union's Horizon 2020 Framework Programme for Research and Innovation under Specific Grant Agreement:
No. 945539 (Human Brain Project SGA3),
No. 785907 (Human Brain Project SGA2),
No. 720270 (Human Brain Project SGA1),
No. 754304 (DEEP-EST), and
No. 800858 (ICEI).

The NEST developers gratefully acknowledge the support and funding received from:
Jülich Aachen Research Alliance (JARA),
computing time granted by the JARA-HPC Vergabegremium and provided on the JARA-HPC Partition part of the supercomputers JUQUEEN and JURECA at Forschungszentrum Jülich (VSR computation time grant JINB33),
Priority Program (SPP 2041 "Computational Connectomics") of the Deutsche Forschungsgemeinschaft [S.J. van Albada: AL 2041/1-1],
Next-Generation Supercomputer Project of MEXT, Japan,
Helmholtz Association through the Helmholtz Portfolio Theme "Supercomputing and Modeling for the Human Brain",
European Union 7th Framework Program under grant agreement no. 269921 (BrainScaleS),
European Union 7th Framework Programme ([FP7/2007-2013]) under grant agreement no. 604102 (Human Brain Project, HBP),
European Union 6th and 7th Framework Program under grant agreement no. 15879 (FACETS),
Excellence Initiative of the German federal and state governments,
Helmholtz young investigator's group VH-NG-1028 "Theory of multi-scale neuronal networks",
compute time provided by UNINETT Sigma2 - the National Infrastructure for High Performance Computing and Data Storage in Norway and its predecessors, and
eScience program of the Research Council of Norway under grant 178892/V30 (eNeuro).

Preferred form of presentation

Talk & (optional) poster

Topic area

interoperability, data and infrastructure

I agree to the copyright and license terms

Yes

I agree to the declaration of honor

Yes

References

[1] https://ebrains.eu/services#category2
[2] https://lab.ebrains.eu
[3] https://jupyter-jsc.fz-juelich.de
[4] https://hub.docker.com/r/nestsim/nest
[5] https://pypi.org/project/nest-server/

Speaker time zone

UTC+2

Keywords

cloud, interoperability, HPC, EBRAINS

Primary author: TERHORST, Dennis (Institute of Neuroscience and Medicine (INM-6) Computational and Systems Neuroscience & Theoretical Neuroscience, Institute for Advanced Simulation (IAS-6) Jülich Research Centre, Member of the Helmholz Association and JARA,Forschungszentrum Jülich GmbH)

Presenter: TERHORST, Dennis (Institute of Neuroscience and Medicine (INM-6) Computational and Systems Neuroscience & Theoretical Neuroscience, Institute for Advanced Simulation (IAS-6) Jülich Research Centre, Member of the Helmholz Association and JARA,Forschungszentrum Jülich GmbH)

Session Classification: Talks

Track Classification: Main track