Federation Platform

EFP Interactive

4 March 2026

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CSC - IT Center for Science

https://my-eurohpc.eu
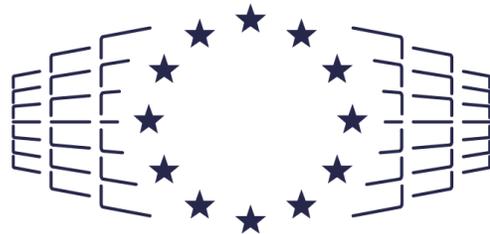
The EuroHPC Federation Platform (EFP)
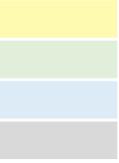
"A one-stop-shop for accessing and utilizing EuroHPC systems and services"

A platform and federation framework which provides **a streamlined, single point of onboarding** and via which user can **access all systems and services** available to them in the EuroHPC ecosystem.

Direct access | Interactive interfaces | Programmatic APIs | Unified software stack

EuroHPC
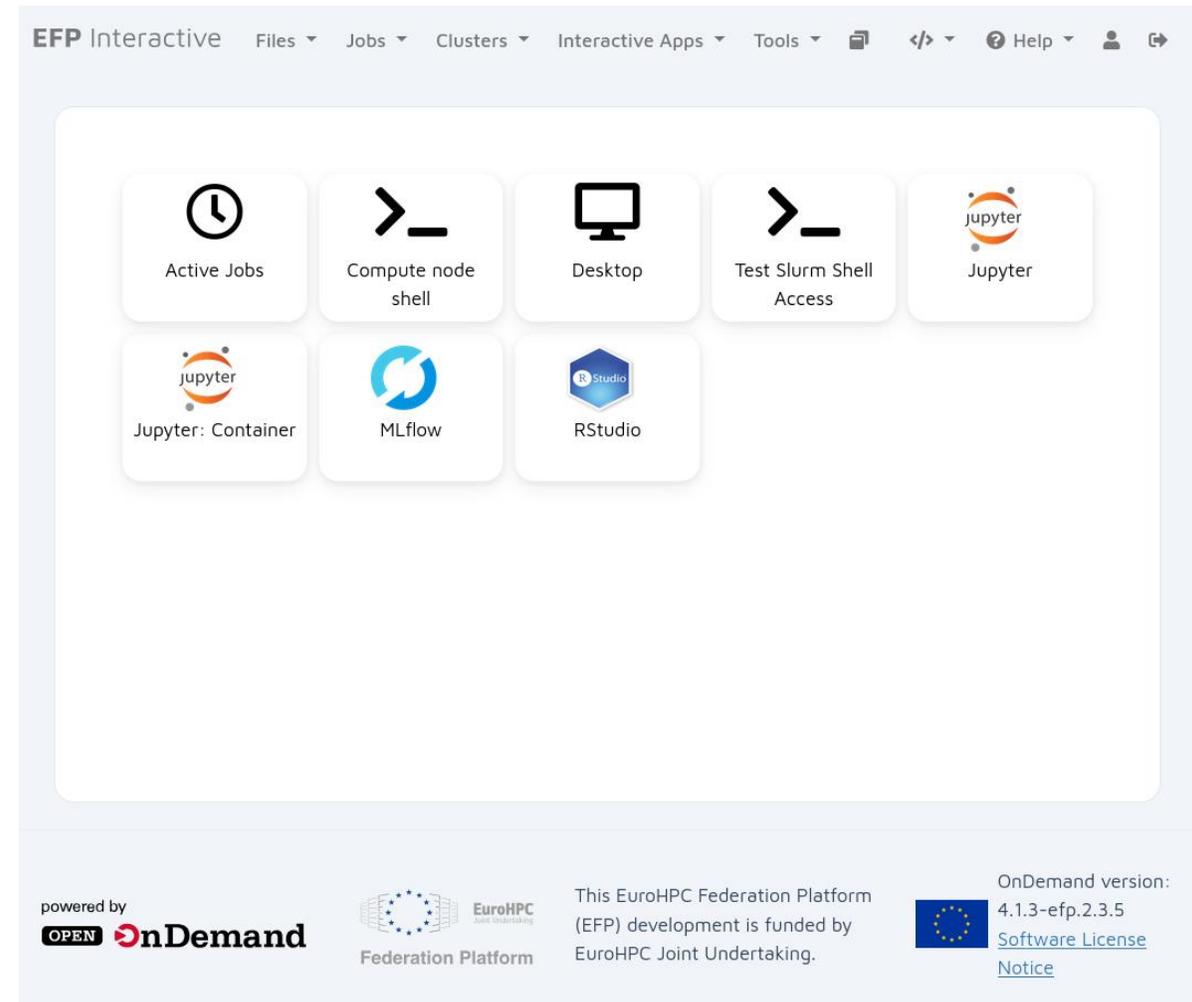Joint Undertaking

Federation Platform

EFP Interactive

- EFP Interactive provides interactive access

- Easy to use web interface

  - Suitable for both new and advanced users

  - Standard internet browser works, no plugins

- Main features

  - File management

  - Job management

  - Shell access

  - Interactive apps

- Based on Open OnDemand

 - Centralized federated instance for EFP

EuroHPC
Joint Undertaking

Federation Platform

Interactive

OPEN
OnDemand

Federated Open OnDemand,
powered by EFP FSC

EESSI

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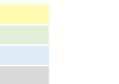 - Centralized federated instance for EFP

Open OnDemand
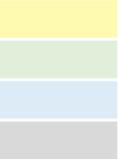
> **Open OnDemand is the base for EFP Interactive**

- Open-source web portal for HPC

- Maintained by Ohio Supercomputer Center

- Used by over 2,100 organizations worldwide

- EFP consortium is in close touch with Open OnDemand developers

OPEN OnDemand

https://www.openondemand.org
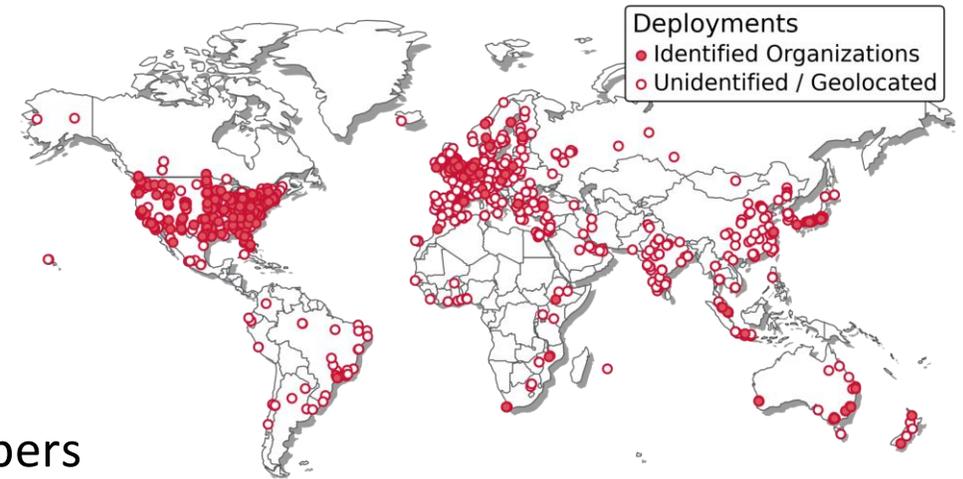
Main features of EFP Interactive: File management

- GUI for managing files on the cluster

- Supported file operations

  - Create, edit, copy, move, rename, delete files and directories

- Upload (within limits) and download files

EuroHPC Federation Platform – EFP Interactive (4 Mar 2026) | https://my-eurohpc.eu

Main features of EFP Interactive: Job management

- List and manage active Slurm jobs

    - Queued, running and recently completed

    - Older batch jobs submitted from EFP Interactive

- Submit Slurm batch jobs

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Main features of EFP Interactive: Shell access

- Login node shell

  - Session ends when browser tab closes or on network disconnection

- Compute node shell

  - Uses tmux to be persistent

  - Can safely close tab and resume later

  - More resources, runs in a Slurm job
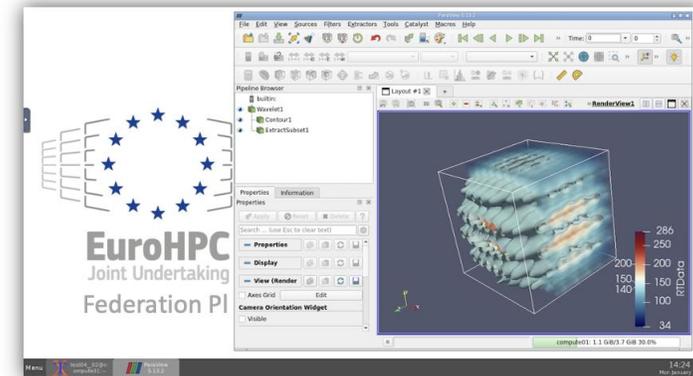
- No need for browser plugins

Main features of EFP Interactive: Interactive apps

- Runs on the compute nodes

- Runs software from EFP FSC (EESSI)

- Currently available:

  - Jupyter

  - RStudio

  - MLflow

  - Desktop with GUI applications

    - For example: ParaView

- No need for browser plugins

Main features of EFP Interactive: Interactive apps

1. Launch app through form

   • Select cluster, Slurm account, resources, etc.

   • Select app specific settings

2. Wait for job to queue and start

3. Connect

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EFP Interactive: Jupyter

- Jupyter
    - Two different versions provided: container and normal
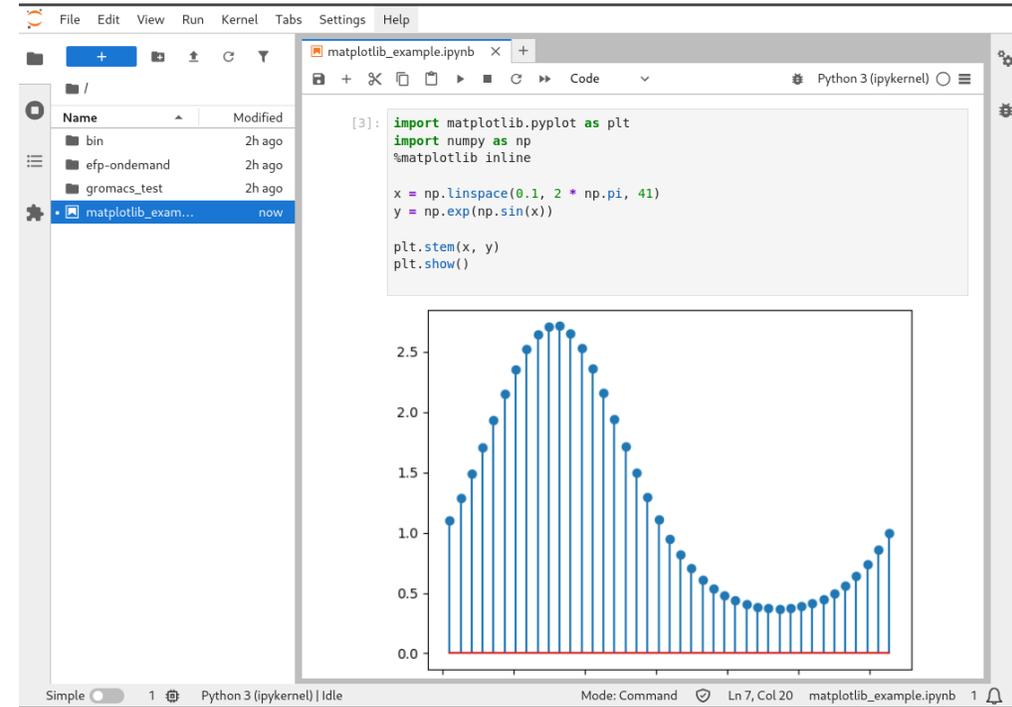- Normal Jupyter
    - Python environment from modules
        - Mainly EESSI 2025.06 (and 2023.06)
    - Extend with user packages or virtual environments
- Container Jupyter
    - Python environment in a Singularity/Apptainer container
    - Container images on shared filesystem or from container registries
    - Extend with user packages or virtual environment

https://jupyter.org/

EFP Interactive: MLflow

- Runs the MLflow Tracking UI

    - Visually explore machine learning experiments and runs

- MLflow module from EESSI

    - Currently version 2.22.4

https://mlflow.org/docs/latest/ml/tracking/
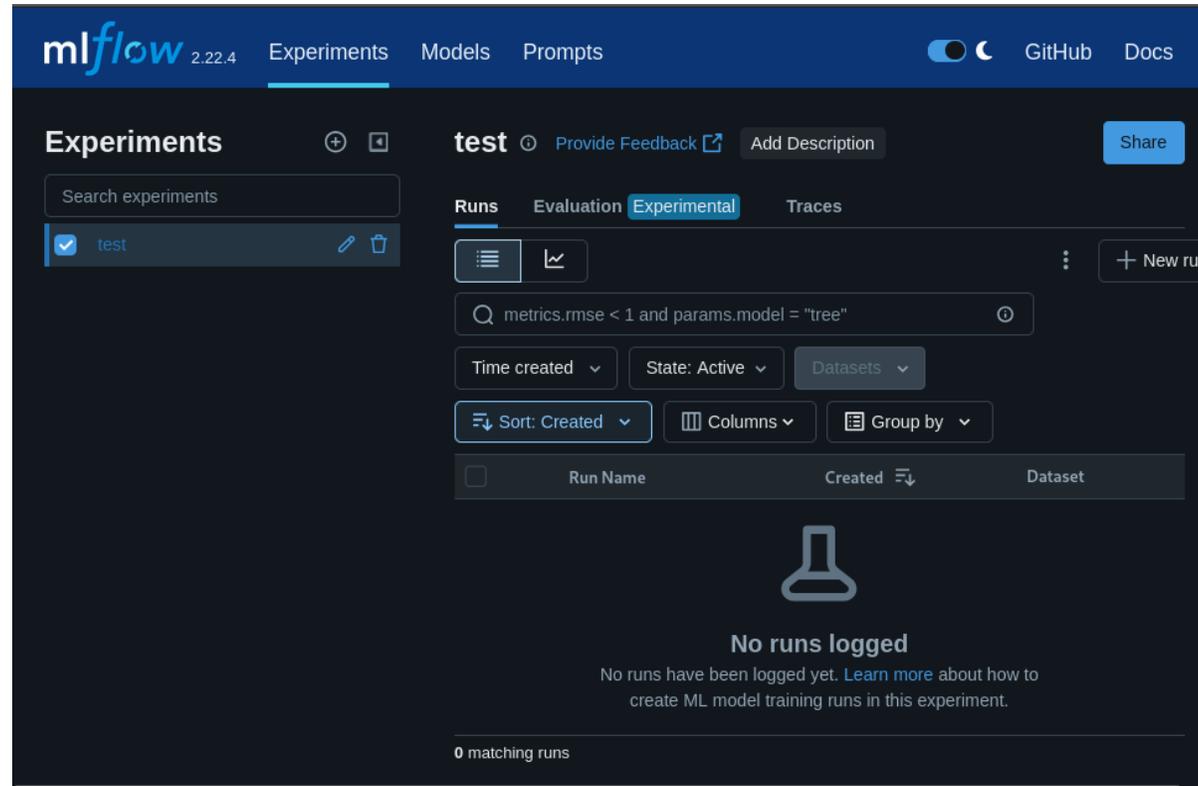
EFP Interactive: RStudio

- Interactive RStudio session
- Current versions (from EESSI):
  - 2024.12.0
  - 2024.09.0

https://posit.co/products/open-source/rstudio-server/

EFP Interactive: Desktop

- VNC desktop where you can run GUI applications

- Currently has ParaView and a terminal

- Based on Openbox, tint2, jgmenu, picom

- More tools and improvements coming later

    - Xfce desktop coming soon

- It is possible to run other applications in the Desktop

    - Runs an X server

    - Terminal has $DISPLAY set
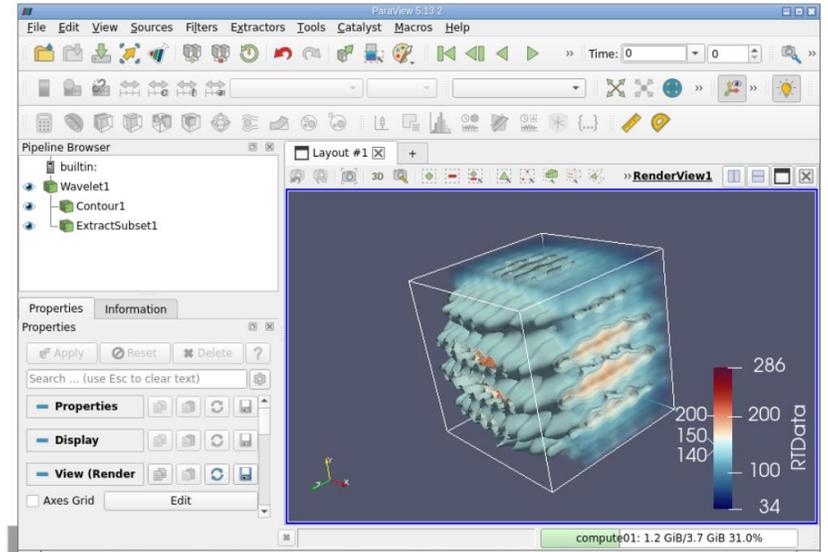
Getting help for EFP Interactive

- If you have questions related to EFP Interactive, contact EFP Helpdesk

    helpdesk@my-eurohpc.eu

- We can provide help with:

    - Answer questions related to using EFP Interactive, incl. provided interactive apps

    - Resolving problems with features and interactive apps provided by EFP Interactive

    - Onboarding of additional software in EFP FSC for use in EFP Interactive

Upcoming webinars – more info at https://my-eurohpc.eu/training

Webinar 1 of 5 — **Introduction to the EuroHPC Federation Platform**
Recording available!

Webinar 2 of 5 — **EFP Federated Software Catalog**
Recording available!

Webinar 4 of 5 — **EFP Authentication & Authorization Infrastructure (AAI)**
Date: Wed 29 April 2026 14:00-15:00 CET
Speaker: Josh Howlett (GÉANT)

Webinar 5 of 5 — **EFP Workflows**
Date: 21 May 2026 *(registration will open soon)*
Speaker: Martin Golasowski (IT4I)

Scan me for more information
on upcoming EFP webinars!

In case of questions, contact EFP consortium via: helpdesk@my-eurohpc.eu

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