

# **Performance Optimisation** and Productivity

A Centre of Excellence in HPC









# POP Newsletter 30 – Issue December 2025

Welcome to the 30<sup>th</sup> newsletter from the EU POP Centre of Excellence.

This 30th issue of the POP newsletter marks the end of the second year of POP 3 as well as the end of 2025. We would like to take this moment to thank you for your readership and wish you a merry Christmas, happy holidays and all the best for the new year!



In this edition, we give you an overview of the recent POP activities including webinars and events. We've also included the recent tool time blog article below.

If you would like to contribute technical content for this newsletter on the topic of parallel performance profiling, please contact us at pop@bsc.es.

This issue includes:

- **POP Webinars** 
  - Recent Webinars
- **POP Events** 
  - Upcoming Events
  - Recent Events

- Tool Time
- The POP Helpdesk

For past editions of the newsletter, see the POP newsletter web page.

## **POP Webinars**

#### **Recent Webinars**

# 36<sup>th</sup> POP Webinar – Scalable Visualization of Nsight Systems Traces with Paraver

An increasing use of GPUs and new parallelisation strategies and communication libraries in HPC environments require us to revise our performance analysis tools and methodologies. On the 10<sup>th</sup> of October Marc Clascà Ramírez showed us how additional performance insight can be gained from Nvidia nsys traces with Paraver.

Watch the recording and find out more <u>here</u>.

# 37<sup>th</sup> POP Webinar – Exploring Compiler Behavior on Applications from Miniapp up to Large-scale Application on Modern Processors

On the 5<sup>th</sup> of November William Jalby demonstrated how MAQAO (www.maqao.org) coupled with QaaS (https://www.compqual.org/qaas\_page/) can be used to explore and detect compiler mistakes or suboptimal decisions, helping the user select the best compiler strategy.

Watch the recording and find out more here.

## 38th POP Webinar - Levels of Detail in Performance Analysis

On the 18<sup>th</sup> of December Jesús Labarta discussed the importance of performance analysis tools and methodologies. He demonstrated how to minimize the number of measurement experiments needed while maximizing the insight gained.

Watch the recording and find out more here.

Browse the full list and catch up on all our previous webinars here.

### **POP Events**

#### **Upcoming Events**

#### **HiPEAC 2026 CoE Workshop**

On Jan 27, 2026, POP, in cooperation with ChEESE-2P, EoCoE-III, ESiWACE3, ExCELLERAT P2, MaX, MultiXscale, and SPACE, organises the workshop "Rethinking scientific applications for exascale and emerging architectures: the Centre of Excellence challenge" at the HiPEAC 2026 conference in Kraków, Poland.

To find out more & register go to: here.

#### **48th VI-HPS Tuning Workshop**

On Feb 9th - 13th 2026, POP, in cooperation with CASTIEL 2, is organising the 48th VI-HPS Tuning Workshop. POP experts will give an overview of the VI-HPS programming tools suite, explain the functionality of individual tools, and how to use them effectively, and offer hands-on experience and expert assistance using the tools on the participants onw codes.

To find out more & register go to: here.

#### **Recent Events**

#### POP @ EuroHPC User Days 2025

From the 30<sup>th</sup> of September to the 1<sup>st</sup> of October HPC experts came together in Copenhagen, Denmark, for the EuroHPC User Days 2025. POP experts Marta Garcia and Marta Garcia-Gasulla (BSC) and Ricardo Nobre (INESC-ID) were in Denmark to represent the POP Consortium informing users what POP can do for them.

To read the full article about POP at the User Days 2025 click here.

## **Tool Time**

### **Analysing HIP codes with Extrae and Paraver**

This article shows that Extrae now supports the GPU programming model HIP — enabling GPU-accelerated codes to be traced without special recompilation or linking.

By analysing these traces with Paraver, developers can visualise GPU kernels, host-device interactions and resource usage, helping to pinpoint performance bottlenecks in heterogeneous CPU-GPU applications.

Read the full article here.

# **Apply For Free Help with Code Optimisation**

We offer a range of <u>free services</u> designed to help EU organisations improve the performance of parallel software. If you are not getting the performance you need from parallel software or would like to review the performance of a parallel code, please apply for help via the short <u>Service</u> <u>Request Form</u>, or <u>email us</u> to discuss the service further and how it can be beneficial.

These services are funded by the EuroHPC research and innovation programme so there is no direct cost to our users.

# The POP Helpdesk

Past and present POP users are eligible to use our <u>email helpdesk</u>. Please contact our team of experts for help analysing code changes, to discuss your next steps and to ask questions about your parallel performance optimisation.

