NEWS RELEASE

For Immediate Release

E4S Release 26.11 Now Available with Remote Desktop Support, Expanded Agentic-AI Tools, GPU Communication Runtimes, and More Than 125 HPC and AI Packages

EUGENE, OR., November 16, 2026— The E4S Project today announced the immediate availability of E4S Release 26.11.

E4S, an HPSF project, is the open-source, community-driven *HPC-AI Software Ecosystem for Science*. This curated, Spack based collection of scientific libraries and tools forms the foundation of some of the world's most advanced scientific applications.

E4S 26.11 container images are now available for Ubuntu 24.04 LTS and Rocky Linux 9.8 with Python 3.12.14 and more than 125 HPC and AI packages. Images are provided for x86_64, aarch64 (including NVIDIA Grace), and ppc64le, with CPU-only, NVIDIA CUDA (Ampere, Hopper, and Blackwell), AMD ROCm (MI100, MI200, MI300A, and MI350P), and Intel oneAPI variants. GPU support is updated to CUDA 13.0, AMD ROCm 7.2.4, and Intel oneAPI 2026.1.

The E4S Spack build cache [https://e4s.io/e4s-buildcache/] supports this release using Spack 1.3.0.dev0, and release images now come preconfigured with the E4S binary mirror. New E4S Cache-Backed Images [https://e4s.io/cache-backed-images/] pair a minimal container holding Spack with the build cache, so any E4S product can be installed on demand; in one test, a laptop went from a blank system to a running parallel LAMMPS simulation in under two minutes.

E4S open source software is thoroughly tested for interoperability and portability to multiple host computing architectures (aarch64, x86_64, and ppc64le) and will continue to be enhanced and expanded to address architectural changes and emerging new architectures. While E4S supports many products and distributions, users can confidently select any subset of functionality. The E4S team builds and tests the whole so users may select what they need.

Key features of E4S 26.11 include:

- **Apache Guacamole remote desktop** [https://guacamole.apache.org/], providing browser-based access to graphical tools inside E4S containers, including visualization tools such as ParaView and VisIt. See the E4S Guacamole guide [https://e4s.io/guacamole/]
- **Expanded agentic-AI tools**, including the **Hermes Agent** desktop [https://hermes-agent.nousresearch.com/], the **pi coding agent**, **OpenCode**, **Ollama,** and the **Orca IDE**, joining the Model Context Protocol (MCP), SGLang, LangChain, LangGraph, Agent2Agent (A2A), OpenAI, Anthropic, and Google Python APIs and Gemini CLI tools introduced in earlier releases

- **GPU communication runtimes NVIDIA Collective Communications Library (NCCL), NVIDIA Inference Xfer Library (NIXL), and NVIDIA NVSHMEM**, which support multi-GPU and multi-node training and high-throughput, disaggregated LLM inference
- **NVIDIA BioNeMo Inference Runtime (IR)**, extending the BioNeMo Framework for AI-driven drug discovery, high-throughput biomolecular structure prediction inference, and computational biology
- **New Python AI packages**, including **DSPy** [https://dspy.ai/] for programming (rather than prompting) language models, **Atlas UI 3**, an open-source AI agent platform for secure enterprise and engineering environments, **ucimlrepo** for direct access to the UCI Machine Learning Repository datasets, and **Hypothesis** for property-based testing
- **New HPC tools**: **FFTX** with **SPIRAL** code generation, **Kokkos Tools** for profiling and debugging Kokkos applications, **Kokkos FFT** for performance-portable FFTs, **TAU Commander**, and **SALT-FM**, a source analysis and instrumentation toolkit that works with TAU. **Julia** with support for MPI, CUDA, and **JACC** and **Chapel** now build with NVIDIA GPU support
- **Developer tools in every release image**, including gdb, Valgrind, strace, ltrace, lsof, and htop, so users can debug and inspect applications without installing extra software
- **Security and quality improvements**, including removal of packages that bundled end-of-life Apache Log4j, updated Intel GPU drivers for newer GPUs such as the Intel Arc B70, and improved Singularity/Apptainer image support
- E4S continues to include updated newer versions of **PyTorch**, **TensorFlow**, **JAX**, **vLLM**, **Ray**, **Hugging Face Transformers**, **Pandas, Triton**, and **Megatron**, along with HPC applications such as **CP2K**, **GROMACS**, **LAMMPS**, **NWChem**, **OpenFOAM**, **Nekbone**, **Quantum ESPRESSO**, **WarpX**, and **WRF**, optimized for GPUs where available

ParaTools Pro for E4S™ [https://paratoolspro.com] supports NVIDIA GPUs on multi-user, multi-node, multi-GPU clusters using Heidi AI from Adaptive Computing [https://adaptivecomputing.com] using **SLURM** [https://slurm.schedmd.com/] scheduler featuring **NVIDIA GPUs with Ubuntu and Rocky Linux** images on commercial cloud platforms such as **AWS, Microsoft Azure, Google Cloud (GCP), Oracle Cloud Infrastructure (OCI), and IBM Cloud**.

"E4S 26.11 brings the full HPC-AI workstation experience into a container," said Prof. Sameer Shende, University of Oregon and ParaTools, Inc. *"With a browser-based remote desktop, a growing set of agentic-AI coding and assistant tools, and the GPU communication runtimes that modern training and inference depend on, users can move from a laptop to a GPU cluster or a commercial cloud without rebuilding their software stack. Every one of the more than 125 packages in this release is built and tested together with Spack 1.3 across x86_64, aarch64, and ppc64le, and is backed by a binary build cache, giving scientists reproducible, ready-to-run HPC-AI environments."*

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