AdaCore DIGEST

NOVEMBER 2024



25.0 Release

We're happy to announce the release of branch 25 of our technology! As every year, this is an early release, marked 25.0, made available for feedback and early integration. The first stable version will be released Q1 2025 and marked 25.1, followed by a bugfix release in the summer marked 25.2. If you select this branch for productization builds, it is possible to subscribe to the assurance product on that specific branch and receive critical bug fixes passed this date.

Highlights of this release include our yearly GCC upgrade which is now on version 13, more LLVM-based compilers, new SPARK-compatibles libraries, better support for selective instrumentation and coverage analysis, simpler integration of static analysis tools in continuous integration workflows, enhanced Ada and SPARK VS Code support, new targets for Rust, and much more. Full release notes are available here.

Yearly Survey

Our yearly customer satisfaction survey is out! If you are an active AdaCore customer, we are interested in hearing about your experience and learning more about your needs, present and future. Access the survey here.

GNATformat

GNATformat is our new state-of-the-art source code formatter for Ada and SPARK. It aims to be a consistent and opinionated formatter with a sane style.

In this 25.0 release, you will find the first beta of GNATformat, bundled with GNAT Pro, and integrated into the Ada Language Server (GNAT Studio and VS Code plugin). Our goal until release 26.0 is to converge into a formatting style that most AdaCore developers, customers, and the Ada community at large agree with and are willing to use.

We would greatly appreciate your feedback on the formatting style. Please do feel free to report any issues you may find.

Events

On 26th September, AdaCore held our Paris Tech Day. We were delighted to welcome customers from all over Europe for a day of technology and roadmap highlights, live demonstrations, networking and breakout sessions led by our AdaCore experts. If you would like to attend an AdaCore Tech Day in 2025, reach out to your account manager to express your interest.

The High Integrity Software Conference (HISC) was held on 22nd October in Newport, Wales. Hosted for the first time at a brand new venue, the ICC Wales, the Organising Committee received highly positive feedback from attendees about the conference, which is co-sponsored by AdaCore and Capgemini. Our team enjoyed meeting customers and high-integrity technology professionals at our AdaCore booth and sharing the latest in GNAT Pro for CHERI technology from the SCHEME programme's booth. If you're interested in joining us next year, register your interest in attending HISC 2025.

AdaCore will be exhibiting at <u>Embedded World Europe</u> in Nuremberg, Germany on 11 - 13 March 2025. Meet us at Booth 4-148 to discover demonstrations and talk to our experts about high-integrity technologies including Ada, SPARK, C/C++, Rust and more.

Look out for more Tech Days, exhibitions, conferences and workshops coming up in 2025 on our <u>Events page</u>

Training

Transform your programming skills with our Public Ada Virtual Training Course. This standardized course is perfect for individuals and small groups who want to master the Ada language when private, customized training is not a feasible option. Over five days, you'll dive into the core features of Ada through instructor-led lectures, participatory quizzes, and hands-on lab exercises.

Our curriculum covers essential programming concepts and advanced Ada language features. This course is suitable for those with a software engineering background or experience in any compilable programming language.

Join us remotely for an immersive learning experience that will enhance your proficiency in Ada. Upcoming dates are available in both the EU and the US:

US Public Ada Training:

- March 17 21, 2025
- September 8 12, 2025

EU Public Ada Training:

- January 6 10, 2025
- June 16 20, 2025

Register now to secure your spot and elevate your programming capabilities.

AdaCore in the press

Explore the <u>AdaCore blog</u> to discover articles from across the organization. These include technical articles, employee stories, and project updates.

Our most popular recent blogs include:

- · AdaCore Memories: A delve into the past 30 years with our founders
- Should I choose Ada, SPARK or Rust over C/C++?: Chief Product and Revenue Officer
 Quentin Ochem leads a strategic discussion surrounding the differences and similarities
 between the most commonly found high-integrity software
- A new year of Capstones: A Recap of the last Projects: As part of the AdaCore <u>GNAT Academ ic Program</u>, Capstones offers senior higher education students the opportunity to take on chal lenging and exciting engineering projects within a high-integrity technology and culture framework. You can read a recap of the latest projects.

AdaCore has secured press coverage in a range of industry and technical publications.

Celebrating 30 years of AdaCore

"For 30 years, AdaCore has provided the essential tools for building reliable, safe, and secure software. Throughout these decades, the Ada programming language and freely licensed open-source software have been integral to AdaCore's mission."

Featured in Military Embedded Systems

We announced our participation in SCHEME

"AdaCore is excited to announce its participation in the SCHEME research project. Rolls-Royce has assembled a world-class consortium of UK industry and academia to deliver the next generation of high-integrity processing platforms for use in aerospace and other harsh environments."

Featured in Aerospace Innovations

Rapita Systems Integrates AdaCores GNAT Pro for Rust

"We are excited to see a new language coming into the fold for the development of safety-critical systems, which promises some unique benefits. Rust's memory safety, combined with strong error-handling mechanisms, ensures system stability and reliability, making it ideal for safety-critical software. We're delighted that we can work together with AdaCore to bring together compiler and verification tools needed for safety-critical systems using Rust," said Antoine Colin, CTO at Rapita Systems.

Featured in eeNews Europe

deepsense.ai Case Study

The Copilot for Ada programming language project aimed to research and develop a proof-of-concept code completion tool and evaluate its performance on the Ada code generation task. Its idea is to boost Ada software developers' productivity by providing intelligent code completions and suggestions, improving the pace of task automation, and saving significant amounts of time on repetitive and boilerplate code.

You can download the case study and read more about this successful project here.

If you have questions about any of the technologies or services mentioned above, please reach out to your Account Manager or email us at info@adacore.com