

AdaCore DIGEST

NEWSLETTER

26.0 Release

We're happy to announce the release of branch 26 of our technology! As every year, this is an early release, marked 26.0, made available for feedback and early integration. The first stable version will be released in Q1 2026 and marked 26.1, followed by a bugfix release in the summer marked 26.2. 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 14, <u>two new GNAT-specific Ada extensions</u>, and the <u>introduction of GPRbuild2</u>, the successor to our build orchestration tool GPRbuild. GPRbuild2 is considered beta, but will be the default in the 27 release. <u>Full release notes are available here.</u>

CodeSonar Joins the AdaCore Family

We are excited to announce that CodeSonar has joined the AdaCore family of tools. CodeSonar is a static code analysis solution that offers deep, whole-program analysis to help you find and understand quality and security defects in your source code or binaries. CodeSonar offers broad language coverage, focusing on C/C++ and including Java, C#, Kotlin, Python, Go, Rust, JavaScript, and TypeScript. CodeSonar integrates with major IDEs and development tools, so it will fit the way your team works. The CodeSonar hub offers a single pane of glass to investigate, manage, and report on findings. Starting with the 27.0 release, Ada customers will be able to view, explore, and manage GNAT SAS warnings in the CodeSonar hub, with further capabilities to follow as we deepen the GNAT SAS—CodeSonar integration. Of course, we will bring these capabilities into GNAT Studio for a seamless workflow.

Our engineering teams are hard at work integrating CodeSonar into the AdaCore family. We will soon share demonstrations and videos, starting with a first webinar on November 4th (Sign up for the webinar). If you want to learn more about our plans, please speak with your AdaCore sales team or Technical Account Manager to arrange a demo.

GNAT IQ

GNAT IQ, our LLM-powered chatbot that sources its answers from AdaCore product documentation, is getting close to launch. AdaCore remains committed to answering your questions via tickets on GNATtracker; we love hearing from you and truly value these discussions. But we also realize that, sometimes, you might have a quick question that could be answered from our documentation, but you might not be sure where to look. GNAT IQ is meant to address this case. GNAT IQ searches the docs for answers to your questions and provides an answer, with citations, and with the possibility for follow-up.

We will soon be offering access to select customers, starting with those who attended our recent Tech Days in Denver and Munich. If you'd like to try out GNAT IQ, please reach out to your Account Manager!

Taint Analysis in GNAT SAS

With the release 26.0, the GNAT Static Analysis Suite introduces a powerful new taint analysis capability designed to help you detect security defects related to untrusted data flows, before you even run your code. Taint analysis helps you find security flaws by tracking how potentially unsafe information (from sources like user input, e.g., Text_IO.Get) travels through your code to sensitive parts (called sinks, e.g., running an operating-system command). If this unsafe information isn't handled carefully, it could create serious security vulnerabilities. New Taint_Source and Taint_Sink aspects allow you to declare custom sources and sinks in your code. These new annotations let you drive Taint Analysis through the specificities of your own codebase. In addition, GNAT SAS 26.0 comes with a built-in identification of key sources and sinks from the Ada runtime, the GNATColl library, and key parts of the Ada Web Server (AWS). Check out the documentation for more details.

GNAT SAS will report on dangerous data flows from these identified sources, through your code, and to identified sinks. Each sink is associated with a specific CWE (Common Weakness Enumeration), and the tool reports any detected flow from an untrusted source to a sink with the relevant CWE reference, including CWE-20 (Improper Input Validation), CWE-22 (Path Traversal), CWE-77 (Command Injection), CWE-78 (OS Command Injection), CWE-79 (Cross-site Scripting), CWE-89 (SQL Injection), CWE-94 (Code Injection), CWE-200 (Information Exposure), and CWE-918 (Server-Side Request Forgery).

Events

CodeSonar: Finding the Needle in a Haystack on 4th November

DevSecOps offers the promise of delivering solutions faster, with higher quality, and more security. The challenge is how to build safe code, at scale, while going fast. Join our Product Manager, Sean Evoy, to learn how to integrate CodeSonar and static application security testing in your DevSecOps pipeline and help your developers separate the needles from the hay. Sign up for the webinar

High Integrity Software Conference: Join us on 13th November

The full programme has now been announced for HISC 2025, featuring keynotes from Google and Rolls-Royce, as well as talks from AdaCore, AWS, Dstl, Rapita Systems, Volant Autonomy, Wind River and many more. The key themes for this year are GenAl, Large Programmes, Cyber and Tools & Techniques. Check out the programme

AdaCore will be attending, exhibiting and co-sponsoring the conference again this year. Meet us at our booth to watch our CodeSonar and Lauterbach demos. Learn how to optimize DevSecOps with Static Analysis and see Lauterbach's demo in action for TRACE32®, the industry's first development tool suite to fully support the AdaCore GNAT Pro Ada compiler.

Join us at the ICC Wales on 13 November. Registration is open so be sure to book your conference tickets asap.

Get tickets for HISC 2025

Training

Make it your new year's resolution to skill up in Ada. Places are available for our <u>training sessions</u> in 2026. This training course is for software professionals new to the Ada programming language, live, hands-on training with AdaCore's expert instructors.

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

US

March 16–20, 2026 September 14–18, 2026

EU

January 12–16, 2026 June 8–12, 2026

We look forward to seeing you there - sign up for the training here

AdaCore in the press

One of our recent successes is being mentioned by NVIDIA in their <u>blog</u> about the THOR ecosystem. The NVIDIA DRIVE AGX Thor developer kit provides developers and researchers worldwide with an advanced platform to accelerate the design, testing, and deployment of AVs and intelligent mobility solutions. This blog was picked up by several key automotive news sites, and it's great to have our name included as a key collaborator.

Several interviews have been published discussing programme language choice. One of the most fun is a two-part interview with Quentin Ochem and ipXchange.

You can see the interviews here:

Interview 1

Interview 2

Our efforts in Rust have also gained some interesting press coverage, including a part of this Embedded Computing Design roundtable, <u>"Will Rust replace C?"</u>, and an article on pages 60 and 61 of <u>Military Systems and Technology.</u>

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