

What's New in Cantata 26.04?

Cantata 26.04 is available from June 2026.

The main feature of this release is the introduction of AI-assisted test generation, enabling developers to create Cantata test cases directly within the IDE and through expanded AI skill packs. The release also introduces open JSON interfaces, enhanced Visual Studio Code and command-line integrations, and further usability improvements across the Eclipse environment.

These additions strengthen Cantata's support for modern AI-assisted development workflows while maintaining the robust testing, coverage, and compliance capabilities required for safety-critical software.

This document details the most important changes introduced in Cantata version 26.04.

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Introduction

Cantata 26.04 is the first major Cantata release of 2026 and is available from June 2026. Building on the 26.01 preview release, it introduces AI-assisted test case generation, expanded AI framework support, open JSON interfaces, and further enhancements for Visual Studio Code, command-line automation, and modern development workflows

Cantata 26.04 remains fully backward compatible with Cantata 22.10 and later, including 26.01 and 25.07, for C and C++ code with the existing coverage file and library update considerations. As in previous versions, coverage files created from Cantata 7.0 onwards can be viewed in the IDE, but must be regenerated to analyse results with the 26.04 core tools.

AI-assisted Testing Enhancements

Cantata 26.04 introduces the first generation of in-GUI AI test case generation tools within the Eclipse UI, complementing the deterministic AutoTest engine. These tools use AI to generate Cantata test cases directly within the development environment, with graphical user interface support introduced for the first time in this release.

Generate Test Script

Test Script Structure
For AI-Generated Tests, please specify values for coverage rule set and AI provider.

Type: ☒ Function ☐ Class

Initial Test Cases: ☐ None ☐ Test Case Per Function ☐ AutoTest ☒ AI-Generated Tests

Script Name(s):

Coverage Rule Set:

AI Provider:

Generate tests with Test Steps: ☐

< Back Next > **Finish** Cancel

Generate Test Script Wizard with a new AI-Generated Tests option

New skill packs are also provided for several major agentic AI frameworks, extending the Anthropic Claude skill pack introduced in Cantata 26.01 into a broader AI ecosystem. This significantly strengthens support for AI-assisted workflows, including integration with external agents that can propose, generate, or refine Cantata test cases.

VS Code and Command-Line Productivity

Cantata 26.04 extends the VS Code workflow introduced in 26.01 with new and enhanced extensions for test script generation.

Command-line tooling is expanded with a new List Rule Set Details mode in the Cantata Command Line Test Manager (CPPTTESTMAN) to retrieve coverage rule set information directly from the CLI.

Together with the CSI and test script creation tools introduced in 25.07 and 26.01, this provides a more complete scriptable interface for CI/CD pipelines and headless environments.

Open JSON Interfaces

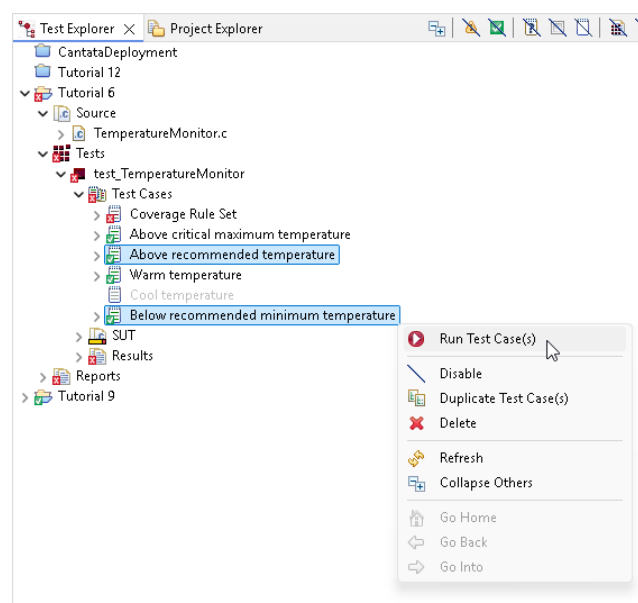
Cantata 26.04 adds open JSON format interfaces both for defining test cases and for exporting test results. This enables external tools, AI agents, and custom automation to describe tests and consume Cantata outputs in a structured, language-agnostic format.

Eclipse IDE and Test Explorer Improvements

Several enhancements improve everyday use of the Eclipse-based IDE and Test Explorer in 26.04. A new "Run Test Cases" action allows users to execute only selected test cases directly from Test Explorer, while a "Clean Tests" action has been added to the Test Properties view, as well as an entry in the Test Explorer which performs the same operation as the Clean button across selected tests.

Correspondingly, the build action has been refined to perform incremental builds with console output. Full rebuilds can therefore be achieved by performing a Clean followed by Build, without automatically executing tests.

Additional usability improvements include clearer configuration of "Test case per function" preferences and real-time Test Explorer updates when Data Manager filters are changed.



Run Test Case(s) action in the Test Explorer

Core Tool and Coverage Enhancements

Cantata 26.04 includes a substantial list of resolved issues in the core components, affecting coverage accuracy, template handling, and Cantata Hybrid functionality.

Improvements have been made to AutoTest handling of designated initialisers. Cantata Hybrid has also received numerous fixes covering licensing compatibility, performance, runtime stability, and coverage reporting accuracy.

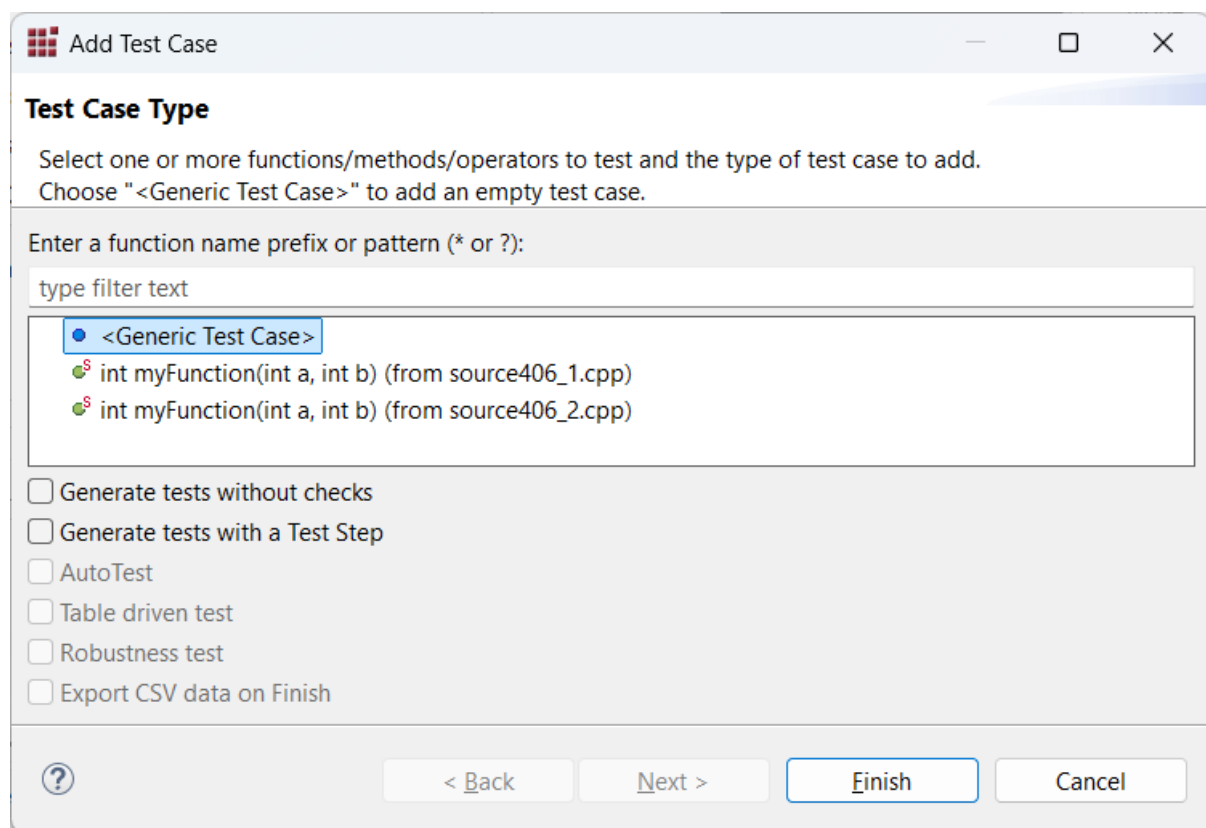
Additional work has focused on template, stub, and wrapper generation, particularly for nested and specialised templates, improving robustness when working with modern C and C++ codebases.

Minor and Supporting Tool Changes

In addition to headline features, Cantata 26.04 delivers a range of minor but practical improvements across ancillary tools and integrations.

Highlights include better handling of file-static functions with identical signatures across SUT files in the “Add Test Case” dialog; all variants are now offered with file context instead of a single ambiguous entry.

For full details of Visual Studio Code extension changes, 26.04 continues to use the marketplace revision history, as in the 26.01 release notes.



View of the enhanced content displayed within the Add Test Case Dialog

Summary

Cantata 26.04 represents a significant step forward in AI-assisted software verification.

By introducing in-GUI AI test generation, expanded AI framework support, open JSON interfaces, and enhanced automation capabilities, this release helps development teams accelerate test creation while improving integration with modern development environments and CI/CD pipelines.

Combined with continued improvements to coverage analysis, Cantata Hybrid, Eclipse usability, and test generation workflows, Cantata 26.04 further strengthens Cantata's position as a comprehensive verification solution for modern C and C++ software development, particularly in safety-critical environments where automation, traceability, and compliance must work together.

For more information or support, please visit:

 [QA Systems Cantata Support](#)

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