Ring programming language 1.27 Delivers Landmark Performance Gains and a Complete Document Ecosystem

NY, UNITED STATES, May 28, 2026 /EINPresswire.com/ -- The Ring programming language is an open-source, multi-paradigm dynamic language designed for productivity and clarity, today announced the release of version 1.27 — a milestone update that brings sweeping performance improvements, a complete document-generation ecosystem, a Rust-powered web framework, and over 70 new RayLib games and applications.

Ring logo

The performance story in Ring 1.27 begins at the virtual machine level. Two new VM instructions — ICO_LOADMETHODP and ICO_LOADBRACEMETHODP — restructure how the Ring VM dispatches object method calls, bringing dot-operator method invocation from 3.63 seconds to 0.73 seconds in benchmark loops of 10 million iterations. That 5x improvement compounds across every object-oriented program written in Ring, with no code changes required.

> I am studying Ring (I am a senior programmer). I certainly never cease to be amazed about this language; it seems to be a wish from a marvelous lamp of computer genius”
>
> *Antonio F.S. (Spain)*

Equally significant is the introduction of automatic hash table acceleration for lists used as hash maps. When a list grows beyond a threshold of string-keyed entries, Ring now silently builds a hash table behind the scenes, replacing linear scans. In benchmarks, a 105-entry mixed list saw lookup time drop from 2,702 ms to 239 ms — an 11x gain — across three million key accesses. The behavior is fully transparent and backwards-compatible, including Ring's case-insensitive key matching.

WebLib, Ring's HTML generation library, received a complete internal rewrite in 1.27 to improve the performance of HTML generation uses objects and nested braces style. The previous

architecture allocated a separate Ring object for every HTML element in a brace block, generating hundreds of objects for a typical data table. A new stack-based rendering engine eliminates that overhead entirely. A report page with 100 rows across 5 columns now renders in 9 ms — down from 703 ms in Ring 1.26, a 78x improvement. This optimization is useful for developers who prefer a declarative style when generating HTML documentation, but if performance is the priority, other approaches—such as using functions or templates—are much faster.


Mahmoud Fayed


Youssef Saeed

Ring 1.27 debuts six pure-Ring document libraries installable via ringpm: DOCXLib for Word documents, XLSXLib for Excel spreadsheets, PPTXLib for PowerPoint presentations, PDFLib for PDF generation, SVGLib for scalable vector graphics, and DBFLib for Visual FoxPro .dbf database files. Each library carries zero external dependencies and exposes a fluent, chainable API consistent with Ring's object-brace syntax. DOCXLib alone supports mail merge, native OOXML charts, footnotes, form controls, and full round-trip document reading and reconstruction. Rounding out the new package lineup are Bolt, a modern web framework pairing an Express.js-style routing DSL with a Rust-powered async HTTP engine; Ring-Python, built on PyO3, giving Ring programs seamless access to the entire Python ecosystem including NumPy, Pandas, and Matplotlib; and Ring-CFFI, a foreign function interface library built on libcffi that allows Ring to call any C function from a shared library at runtime — without writing a single line of C extension code. The Bolt framework and Ring-Python/Ring-CFFI packages are developed by Youssef Saeed, a famous developer in Ring community known in Ring Team as the Packages Master.

Ring 1.27 accompanies the publication of a peer-reviewed research article in Electronics (MDPI). The release also ships over 70 new RayLib applications and games — more than 62,000 lines of code developed using Claude Code — which serve simultaneously as a stress test of AI-assisted Ring development, a living test suite for the runtime, and a reusable code base for community projects. The new Ring version is available now for Windows, Linux and macOS. All new packages are installable via the Ring Package Manager (RingPM). Full release notes and documentation are

available at the official Ring website.

About the Ring Programming Language
Ring is an innovative, multi□paradigm programming language designed by Dr. Mahmoud Samir Fayed to make software development simpler, more expressive, and more accessible. Created with a focus on natural□language programming, readability, and rapid application development. Ring supports procedural, object□oriented, functional, declarative, and event□driven styles within a unified environment. Its lightweight architecture and straightforward syntax make it suitable for education, research, and real□world application development alike. Ring powers tools such as PWCT2 (Programming Without Coding Technology 2.0), enabling developers to build applications using visual and natural□language workflows. As an emerging language with a growing ecosystem, Ring continues to attract developers interested in flexible design, human□centric programming, and experimentation with new software□engineering methodologies.

Ring Team
Ring (free open-source project)
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