Luna brings visual development to functional programming

Developers typically start sketching components and dependencies on a whiteboard before coding, so Luna's creators argue that it doesn't make sense to then implement that logic only in text

By Paul Krill

Editor at Large, InfoWorld

JUL 6, 2017

Described by the creators as a developer's whiteboard "on steroids," the Luna functional language promises to enable application assembly by clicking and dragging visual elements together.

Expected to be released as open source when Luna reaches beta, its compiler will produce native code for the developer's choice of Linux, MacOS, Windows, or JavaScript. The team behind Luna is seeking candidates for a private alpha release.

[Get started with functional programming, including examples in F#. | Keep up with hot topics in programming with InfoWorld's App Dev Report newsletter.]

Luna's creators argue that because developers typically start sketching components and dependencies on a whiteboard before coding, it doesn't make sense to then implement that logic only in text. Software can have thousands of lines of code distributed in hundreds of files, which can trip up the implementation of that visual data flow and application architecture. Tools such as UML architecture diagrams only deal with the symptoms and not the problem's source, Luna's creators argue.

That's why Luna features both visual and textual representations. Developers can maintain their coding habits while also having a graphical whiteboard-like interface.

Luna's visual representations reveal structure, behavior, and data flow. It allows prototyping and visual profiling to understand performance bottlenecks. Luna gathers statistics including computation time, CPU/GPU memory allocation, network transfer, and threading model.

Other promised Luna capabilities include:

- parallelism
- higher order functions
- non-strict semantics
- user-defined algebraic types
- a monadic I/O system that includes a type checker and influencer that understand which functions are I/O actions and which are pure.
- data flow error-handling
- a strong dependent type system

Luna will also support language interoperability, with developers able to create a "foreign" node and paste in Python or Haskell code. Interoperability with JavaScript and C++ is planned as well. But Luna's creators caution that other languages were not designed with visual representation in mind, so their source code cannot be represented graphically like Luna code can.

Paul Krill is an editor at large at InfoWorld, whose coverage focuses on application development.

Follow 👤 ✉ 🐦 g+ 🔊

YOU MIGHT LIKE

This Game Will Keep You Up All Night!
Vikings: War of Clans

Millions of People Are Cancelling Their Netflix Account Because of This One
My Finance Today

Les Enfants De 27 Stars Qui Sont Vraiment Bons A Rien!
Loan Pride

Doe Dit Voordat U Gaat Slapen Om De Hele Nacht Uw Haar Te Groeien
FollicleRX

Would You Vote Her? - 19 Sexiest Women In Politics You Didn't Know About
Viral IQ

Het Beste Dieet Voor Luie Mensen! Geen Zware Training! Tot -22 Kg in 4 Weken!
InterState

Peut-il Être Ceci? Voyez Comment Sophie a Choqué Les Fans À L'instant
Beautyhelp

Angelina Jolie's Pose With This Snake Is Not Dangerous Compared To These Celebs
bradofo.com

80 Perfectly Timed Photos,The Last One Is Hilarious
bradofo.com

He Is A Kid But Worth's Billions Of Dollars,Here Is The Source Of His Wealth
Bradofo.com