

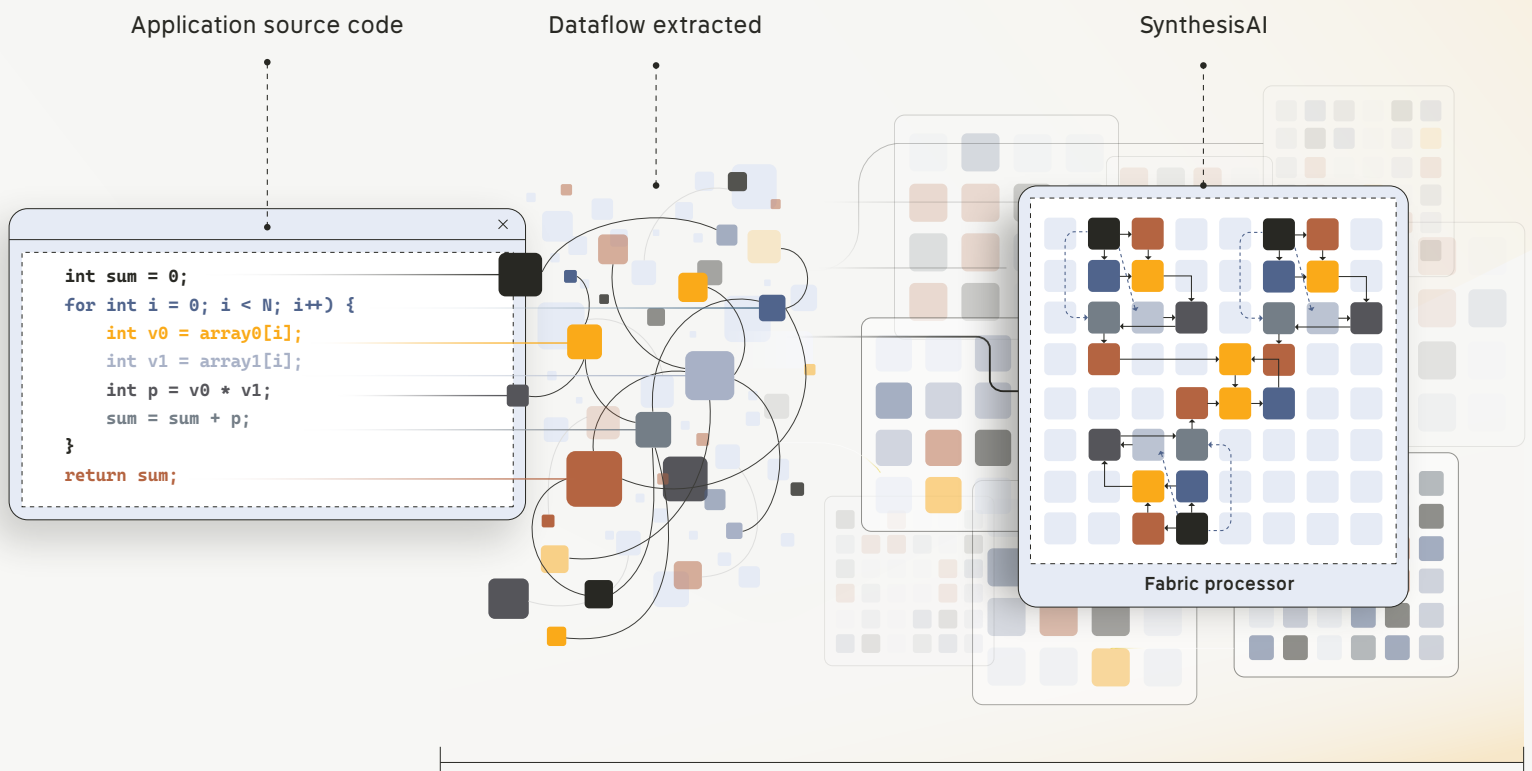
Efficient effcc[®] Compiler — Product Brief

Description

The Efficient effcc[®] Compiler makes your code build and run seamlessly on Efficient's Fabric processor. With Efficient's proprietary **SynthesisAI**[®] technology, effcc optimizes your code for maximum efficiency, analyzing where it spends energy and performing Fabric-specific optimizations to save energy. Compilation is lightning fast, without the intolerably long delays of FPGA synthesis tools. effcc's fast compilation loop gives you more time to refine, test, and deploy new application functionality.

effcc supports popular languages (C/TensorFlow) and libraries, which are being continually expanded to support new on-ramps for developers.

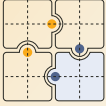
Efficient's effcc and Fabric processor reduce energy by orders of magnitude, allowing applications to extend battery life, expand functionality, or both.





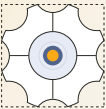
Bring your own code

All major embedded languages are supported. You can build rich intelligent applications that integrate AI/ML, signal processing, data analytics, and other general-purpose data processing computations. Simple, optional annotations (e.g., `#pragma`) to optimize performance and energy efficiency, unlike complex FPGA high-level synthesis (HLS) tools. Simply drop your code in, and let our compiler do all the heavy lifting for you.



Solve a wide range of problems

Our extreme efficiency saves energy across many domains, including ML-enabled extreme-edge machine vision, continuous audio intelligence, and versatile sensory & signals intelligence. effcc supports a growing number of popular standard high-level languages including C, TFLite, and more to come.



Developer tooling

We provide tools for debugging as well as performance and energy optimization. effcc provides a drop-in replacement for gdb, a functional simulator of the Fabric architecture, and power/energy estimation tools. This toolset gets you past functional coding and into optimizing sooner.



Powerful software

Powered by SythnesisAI, our versatile optimizing dataflow compiler drops into your project and optimally maps your programs to Efficient's Fabric processor. Our optimizer progressively makes your code more efficient at low-level representations.

Features

- Support for a growing variety of valuable developer on ramps
 - C (available now)
 - TFLite (available end-2024)
 - ONNX (coming first-half 2025)
 - Embedded C++ (coming first-half 2025)
 - CircuitPython (coming first-half 2025)
 - Rust (coming second-half 2025)
- Ultra-fast compilation times
- Familiar, general-purpose software programmability
- Exceptional developer experience and compatibility
 - Compiler drop-in replacement for GCC/Clang
 - Debugger drop-in replacement for GDB
 - Integrates seamlessly with most build systems
- Extreme energy efficiency

