



# WIND RIVER DIAB COMPILER

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Boost application performance, reduce memory footprint, and produce high-quality, standards-compliant object code for embedded systems with Wind River® Diab Compiler. It's backed by an award-winning global support organization that draws on 25 years of compiler experience and hundreds of millions of successfully deployed devices.

Diab Compiler is a critical tool in environments where conformance to safety standards is a must. Wind River has a long history of providing software and tools for safety critical applications requiring certification in the automotive, medical, avionics, and industrial markets.

## KEY FEATURES

- **Powerful optimization engine:** The fastest code in the smallest footprint
- **The latest industry standards:** Edison Design Group front end, Dinkumware libraries, ANSI/ISO C and C++ conformance, ISO 26262/ASIL-D TCL3 and IEC 61508
- **One compiler, many architectures:** Support for leading processor architectures
- **Reliable quality:** Tested with millions of test cases and industry standard test suites; POSIX® PSE52 conformance
- **Flexible business model:** Perpetual licenses for one architecture or annual per-developer subscription for all architectures
- **Award-winning global support:** Service Capability and Performance (SCP)-certified support
- **Low-level virtual machine (LLVM)-based technology:** LLVM technology combined with the familiar interface of Diab, allowing us to stay in lockstep with latest SoC architecture advancements and be highly responsive to customers' evolving embedded needs
- **Long Term Support tailored to customers' requirements**

## BIG PERFORMANCE. TINY FOOTPRINT.

In the embedded market, there is tremendous pressure to pack performance and features into small-memory devices that also consume less power. To help meet these demands, Diab Compiler offers hundreds of optimization options such as global, local, processor-specific, profile-driven, and whole-program optimization for fine-tuning of software for performance, footprint, or both.

Use standard global options settings or customize the compiler options for the best results for your application code. With these performance gains, you'll build devices that use less memory and require lower-power processors, reducing the hardware costs of your projects. And each release of Diab Compiler includes new optimizations to unlock further performance and code density improvements. Wind River tests Diab Compiler performance to ensure industry-competitive results using key embedded benchmarking software such as the EEMBC benchmarks suites.

## TECHNICAL SPECIFICATIONS

### *Supported Processor Architectures*

Diab Compiler supports the following target architectures:

- PowerPC
- RH850
- TriCore
- ARM
- Intel
- 68K
- ColdFire
- M-CORE
- MIPS
- SPARC
- SuperH

### *Supported Host Operating Systems*

Diab Compiler supports the following host types:

- Windows 7 32 bit and 64 bit
- Windows 8.1 32 bit and 64 bit
- Windows 10 32 bit and 64 bit
- Red Hat Linux 6.7 32 bit and 64 bit
- Red Hat Linux 7.2 32 bit and 64 bit
- Ubuntu 14.04 LTS 32 bit and 64 bit
- Ubuntu 16.04 LTS 32 bit and 64 bit
- Fedora 22 32 bit and 64 bit
- Fedora 23 32 bit and 64 bit
- SUSE Linux/Open SUSE 13.2 32 bit and 64 bit
- Open Suse Leap 42.1 32 bit and 64 bit
- SLED 12 32 bit and 64 bit

## SAFETY-COMPLIANT CODE

In the automotive, avionics, and industrial markets, it is critical that software conform to industry standards for functional safety. In achieving Automotive SPICE (Software Process Improvement and Capability Determination) Level 2 certification, Wind River reaffirms its commitment to adhere to the world's best practices in developing high-quality software tools for the automotive industry. Diab Compiler has been a reliable code generation tool for avionics products certified to DO-178B, products for the nuclear market certified to IEC 60880, railway applications certified to EN 50128, and industrial products certified to IEC 61508, and it can now be qualified for use in automotive applications certified to ISO 26262.

Diab Compiler is certified by TÜV SÜD to be suitable for developing safety-related software. It supports customers working on automotive safety and industrial products with the creation of safety artifacts that meet their end product's safety certification requirements.

Diab Compiler is exhaustively tested using both industry-standard test suites and a library of in-house test cases to reduce the risk of vulnerability in your safety-critical software. Wind River maintains a unique policy to transparently disclose Diab Compiler issues that might compromise the safety compliance of your project. In these cases, you will work closely with the Wind River award-winning support team to proactively resolve the issue before deploying your product.

## WIND RIVER SERVICES AND SUPPORT

Diab Compiler is backed by our award-winning global support organization. With global support centers, you can get the help you need in the language and time zone that work best for you. Our online Wind River Support Network provides multifaceted self-help options, including an active Q&A Forum. Optional premium services are available, including designated support engineers and hosting of customer-specific environments. Wind River Customer Support has achieved Service Capability and Performance certification. For more information, visit [www.windriver.com/support](http://www.windriver.com/support).

In addition to standard support, Wind River offers Long Term Support services for Diab Compiler customers. Long Term Support lengthens the support window beyond the standard product lifecycle to meet any customer needs that require customized support and maintenance services. In addition, the service provides customized bug fixing and quality assurance to minimize the impact of compiler changes to your code. Contact Wind River Customer Support ([www.windriver.com/support](http://www.windriver.com/support)) or your account manager for more details.

## HOW TO PURCHASE WIND RIVER SOLUTIONS

Visit [www.windriver.com/company/contact](http://www.windriver.com/company/contact) to find your local Wind River sales contact. To have a representative contact you, call +1-800-545-9463 or write to [salesinquiry@windriver.com](mailto:salesinquiry@windriver.com).

