The Rust Programming Language

A language empowering everyone to build reliable and efficient software

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This is the main source code repository for [Rust]. It contains the compiler, standard library, and documentation.

Why Rust?

- **Performance:** Fast and memory-efficient, suitable for critical services, embedded devices, and easily integrated with other languages.
- **Reliability:** Our rich type system and ownership model ensure memory and thread safety, reducing bugs at compile-time.
- **Productivity:** Comprehensive documentation, a compiler committed to providing great diagnostics, and advanced tooling including package manager and build tool ([Cargo]), auto-formatter ([rustfmt]), linter ([Clippy]) and editor support ([rust-analyzer]).

Quick Start

Read ["Installation"] from [The Book].

Installing from Source

If you really want to install from source (though this is not recommended), see INSTALL.md.

Getting Help

See https://www.rust-lang.org/community for a list of chat platforms and forums.

Contributing

See CONTRIBUTING.md.

For a detailed explanation of the compiler's architecture and how to begin contributing, see the rustc-dev-guide.

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