Contributing to R Core

R Forwards

(updated on 2020-07-15)

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R Core Developer's Guide

This guide is heavily influenced by the Python Developer Guide, and is a comprehensive resource for contributing to R Core – for both new and experienced contributors. It is maintained by [XXX]. We welcome your contributions to R Core!

This box denotes a tip for the reader.

- 1.1 Quick Reference
- 1.2 Quick Links
- 1.3 Status of R Core Branches
- 1.4 Contributing
- 1.5 Proposing Changes to R Core
- 1.6 Other Interpreter Implementations
- 1.7 Key Resources
- 1.8 Additional Resources
- 1.9 Code of Conduct

Getting Started

- 2.1 Install git
- 2.2 Get the source code
- 2.3 Compile and build
- 2.3.1 UNIX
- 2.3.2 Windows
- 2.4 Install dependencies
- 2.4.1 Linux
- 2.4.2 maxOS and OS X
- 2.5 Regenerate configure
- 2.6 Troubleshoot the build
- 2.6.1 Avoid recreating auto-generated files
- 2.7 Editors and Tools
- 2.8 Directory structure

Where to Get Help

- 3.1 Ask r-dev
- 3.2 Zulip
- 3.3 Core Mentorship
- 3.4 Core Developers Office Hours
- 3.5 Mailing Lists
- 3.6 File a Bug

Lifecycle of a Pull Request

- 4.1 Introduction
- 4.2 Quick Guide
- 4.3 Step-by-step Guide
- 4.3.1 Resolving Merge Confilcts
- 4.4 Making Good PRs
- 4.5 Making Good Commits
- 4.6 Licensing
- 4.7 Submitting
- 4.8 Converting an Existing Patch
- 4.9 Reviewing
- 4.9.1 How to Review a Pull Request
- 4.10 Leaving a Pull Request Review
- 4.11 Committing/Rejecting
- 4.12 Crediting

Lifecycle of a Pull Request

- 5.1 Introduction
- 5.2 Quick Guide
- 5.3 Step-by-step Guide
- 5.3.1 Resolving Merge Confilcts
- 5.4 Making Good PRs
- 5.5 Making Good Commits
- 5.6 Licensing
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- 5.9 Reviewing
- 5.9.1 How to Review a Pull Request
- 5.10 Leaving a Pull Request Review
- 5.11 Committing/Rejecting
- 5.12 Crediting

Help

6.1 Identify specific areas where help is needed

- Help needed on recommended packages: MASS, survival
- Testing pre-releases
 - write how-to?
 - set up virtual machines for people to test on?
- $\bullet\,$ Responding on R-devel/R-package-devel
 - introduce moderation?

Running & Writing Tests

- 7.1 Running
- 7.1.1 Unexpected Skips
- 7.2 Writing
- 7.3 Benchmarks

Increase Test Coverage

- 8.1 Common Gotchas
- 8.2 Measuring Coverage
- 8.2.1 Using covr
- 8.3 Filing the Issue
- 8.4 Measuring coverage of C code

Helping with Documentation

- 9.1 R Core Documentation
- 9.2 Helping with Documentation
- 9.3 Proofreading
- 9.4 Helping with the Developer's Guide
- 9.5 Developer's Guide workflow

Documenting R

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- 10.2 Style Guide
- 10.2.1 Whitespace
- 10.2.2 Footnotes
- 10.2.3 Capitalization
- 10.2.4 Affirmative Tone
- 10.2.5 Economy of Expression
- 10.2.6 Security Consideration
- 10.2.7 Code Examples
- 10.2.8 Code Equivalents
- 10.2.9 Audience

10.3 reStructuredText Primer

- 10.3.1 Paragraphs
- 10.3.2 Inline markup
- 10.3.3 Lists and Quotes
- 10.3.4 Source Code
- 10.3.5 Hyperlinks
- 10.3.6 Sections
- 10.3.7 Explicit Markup
- 10.3.8 Directives
- 10.3.9 Footnotes
- 10.3.10 Comments

Silence Warnings From the Test Suite

Silence Warnings From the Test Suite

Fixing "easy" Issues (and Beyond)

Issue Tracking

- 14.1 Using the Issue Tracker
- 14.1.1 Checking if a bug already exists
- 14.1.2 Reporting an issue
- 14.1.3 Understanding the issue's progress and status
- 14.2 Disagreement With a Resolution on the Issue Tracker
- 14.3 Helping Triage Issues
- 14.3.1 Classifying Reports
- 14.3.2 Reviewing Patches
- 14.3.3 Finding an Issue You Can Help With
- 14.4 Gaining the "Developer" Role on the Issue Tracker
- 14.5 The Meta Tracker

Triaging an Issue

- 15.1 Python triage team
- 15.2 Becoming a member of the Python triage team
- 15.2.1 GitHub Labels for PRs
- 15.3 Fields in the Issue Tracker
- 15.3.1 Title
- 15.3.2 Type
- 15.3.3 Stage
- 15.3.4 Components
- 15.3.5 Versions
- 15.3.6 Priority
- 15.3.7 Keywords
- 15.3.8 Nosy List
- 15.3.9 Assigned To
- 15.3.10 Dependencies
- 15.3.11 Superseder
- 15.3.12 Status
- 15.3.13 Resolution
- 15.3.14 Mercurial Repository
- 15.4 Generating Special Links in a Comment
- 15.5 Checklist for Triaging

Following R's Development

- 16.1 Mailing Lists
- 16.2 Zulip
- 16.3 IRC
- 16.4 Blogs
- 16.5 Standards of behaviour in these communication channels
- 16.6 Setting Expectations for Open Source Participation
- 16.7 Additional Repositories

Porting R to a new platform

How to Become a Core Developer

- 18.1 What it Takes
- 18.2 What it Means
- 18.3 Gaining Commit Privileges
- 18.3.1 Mailing Lists
- $18.3.2 \quad {\bf Sign~a~Contributor~Agreement}$
- 18.3.3 Pull Request merging
- 18.4 Responsibilities

Developer Log

19.1 Procedure for Granting or Dropping Access

Accepting Pull Requests

- 20.1 Is the PR ready to be accepted20.1.1 Does the test suite still pass?20.1.2 Patch checklist
- 20.2 Handling Others' Code
- 20.3 Contributor Licensing Agreements
- 20.4 Checking if the CLA has been received
- 20.5 What's New and News Entries
- 20.6 Working with Git
- 20.6.1 Active branches
- 20.6.2 Backporting Changes to an Older Version
- $20.6.3 \quad \text{Reverting a Merged Pull Request}$

Development Cycle

- 21.1.1 In-development (main) branch
- 21.1.2 Maintenance branches
- 21.1.3 Security branches
- 21.1.4 End-of-life branches
- 21.2 Stages
- 21.2.1 Pre-alpha
- 21.2.2 Alpha
- 21.2.3 Beta
- 21.2.4 Release Candidate (RC)
- 21.2.5 Final

21.3 Repository Administration

- 21.3.1 Organization Repository Policy
- 21.3.2 Organization Owner Policy
- 21.3.3 Current Owners
- 21.3.4 Repository Administrator Role Policy
- 21.3.5 Current Administrators
- 21.3.6 Repository Release Manager Role Policy

Continuous Integration

- 22.1 Checking results of automatic builds
- 22.2 Stability
- 22.3 Flags-dependent failures
- 22.4 Ordering-dependent failures
- 22.5 Transient failures
- 22.6 Custom builders

Adding to the Stdlib

- 23.1 Adding to a pre-existing module
- 23.2 Adding a new module
- 23.2.1 Acceptable Types of Modules
- 23.2.2 Requirements
- 23.2.3 Proposal Process

Experts Index

- 24.1 Stdlib
- **24.2** Tools
- 24.3 Platforms
- 24.4 Miscellaneous
- 24.5 Documentation Translations

gdb Support

- 25.1 gdb 7 and later
- 25.2 gdb 6 and earlier

Exploring R Internals

Changing R's Grammar

Design of R Compiler

Design of R's Garbage Collector

Updating standard library extension modules

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Dynamic Analysis with Clang

Running a buildbot worker

Core Developer Motivations and Affiliations

- 34.1 Published entries
- 34.2 Goals of this page
- 34.3 Limitations of Scope

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36.1.1	Does the test suite still pass?
36.1.2	Patch checklist
36.2	Handling Others' Code
36.3	Contributor Licensing Agreements
36.4	Checking if the CLA has been received
36.5	What's New and News Entries
36.6	Working with Git
36.6.1	Active branches
36.6.2	Backporting Changes to an Older Version
36.6.3	Reverting a Merged Pull Request