

# Changelog

All notable changes to this project will be documented in this file. See Changelog Update if you want to update this document.

## Unreleased / In Rust Nightly

0eff589...master

## Rust 1.59 (beta)

Current beta, release 2022-02-24

e181011...0eff589

### New Lints

- `index_refutable_slice` #7643
- `needless_splitn` #7896
- `unnecessary_to_owned` #7978
- `needless_late_init` #7995
- `octal_escapes` #8007
- `return_self_not_must_use` #8071
- `init_numbered_fields` #8170

### Moves and Deprecations

- Move `if_then_panic` to `pedantic` and rename to `manual_assert` (now allow-by-default) #7810
- Rename `disallow_type` to `disallowed_types` and `disallowed_method` to `disallowed_methods` #7984
- Move `map_flatten` to `complexity` (now warn-by-default) #8054

### Enhancements

- overlapping ranges weren't linted anymore #7909
- #7944
- #7948
- #7957
- `needless_borrow` #7977
  - Lint when a borrow is auto-dereffed more than once
  - Lint in the trailing expression of a block for a match arm
- `strlen_on_c_strings` 8001
  - Lint when used without a fully-qualified path
  - Suggest removing the surrounding unsafe block when possible
- #8034
- `rsplit_once`, `replace`, and `replacen` #8077

- `Vec::new`, `HashSet::new`, and `HashMap::new` #8163
- `shadow_unrelated` #8165

### False Positive Fixes

- `or_fun_call`, `unnecessary_lazy_evaluations`: Improve heuristics, so that cheap functions (e.g. calling `.len()` on a `Vec`) won't get linted anymore #7639
- #7896
- Don't show `no_effect` or `unnecessary_operation` warning for unit struct implementing `FnOnce` #7898
- triggered on `let-else` statements #7955
- #7980
- would create code requiring mutably borrowing a value multiple times #7982
- #7997
- #8009
- #8030
- #8080
- #8086
- #8100
- of a camel-case word #8127
- #8183

### Suggestion Fixes/Improvements

- #7463
- and adapts the suggestion accordingly #7877
- #7949
- types #7950
- #7968
- #7971
- #7974
- #8006
- suggestion #8011
- #8028
- #8067
- #8117
- apply this lints suggestion #8133
- #8144
- in match arms #8185
- `to_radians` and `to_degrees` #8187

### ICE Fixes

- `undocumented_unsafe_blocks` #7945 #7988
- `unnecessary_cast` #8167

## Documentation Improvements

- `print_stdout`, `print_stderr`, `dbg_macro`: Document how the lint level can be changed crate-wide #8040
- Added a note to the `README` that config changes don't apply to already compiled code #8175

## Others

- Clippy's lint list now displays the version a lint was added. :tada: #7813
- New and improved issue templates #8032
- *Dev*: Add `cargo dev lint` command, to run your modified Clippy version on a file #7917

## Rust 1.58

Current stable, released 2022-01-13

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### Rust 1.58.1

- Move `non_send_fields_in_send_ty` to nursery (now allow-by-default) #8075
- #8295

## New lints

- `transmute_num_to_bytes` #7805
- `match_str_case_mismatch` #7806
- `format_in_format_args`, `to_string_in_format_args` #7743
- `uninit_vec` #7682
- `fn_to_numeric_cast_any` #7705
- `undocumented_unsafe_blocks` #7748
- `trailing_empty_array` #7838
- `string_slice` #7878

## Moves or deprecations of lints

- Move `non_send_fields_in_send_ty` to `suspicious` #7874
- Move `non_ascii_literal` to `restriction` #7907

## Changes that expand what code existing lints cover

- `question_mark` now covers `Result` #7840
- Make `useless_format` recognize bare `format!("{}",)` #7801
- Lint on underscored variables with no side effects in `no_effect` #7775
- Expand `match_ref_pats` to check for multiple reference patterns #7800

### False positive fixes

- Fix false positive of `implicit_saturating_sub` with `else` clause #7832
- Fix `question_mark` when there is call in conditional predicate #7860
- `mut_mut` no longer lints when type is defined in external macros #7795
- Avoid `eq_op` in test functions #7811
- `cast_possible_truncation` no longer lints when cast is coming from `signum` method call #7850
- `match_str_case_mismatch` no longer lints on uncased characters #7865
- `ptr_arg` no longer lints references to type aliases #7890
- `missing_safety_doc` now also accepts “implementation safety” headers #7856
- `missing_safety_doc` no longer lints if any parent has `#[doc(hidden)]` attribute #7849
- `if_not_else` now ignores else-if statements #7895
- Avoid linting `cast_possible_truncation` on bit-reducing operations #7819
- Avoid linting `field_reassign_with_default` when `Drop` and `Copy` are involved #7794
- `unnecessary_sort_by` now checks if argument implements `Ord` trait #7824
- Fix false positive in `match_overlapping_arm` #7847
- Prevent `needless_lifetimes` false positive in `async` function definition #7901

### Suggestion fixes/improvements

- Keep an initial `::` when `doc_markdown` suggests to use ticks #7916
- Add a machine applicable suggestion for the `doc_markdown` missing back-ticks lint #7904
- `equatable_if_let` no longer expands macros in the suggestion #7788
- Make `shadow_reuse` suggestion less verbose #7782

### ICE fixes

- Fix ICE in `enum_variant_names` #7873
- Fix ICE in `undocumented_unsafe_blocks` #7891

### Documentation improvements

- Fixed naive doc formatting for `#[must_use]` lints (`must_use_unit`, `double_must_use`, `must_use_candidate`, `let_underscore_must_use`) #7827
- Fix typo in example for `match_result_ok` #7815

### Others

- Allow giving reasons for `disallowed_types` #7791

- Fix `manual_assert` and `match_wild_err_arm` for `#![no_std]` and Rust 2021. #7851
- Fix regression in `semicolon_if_nothing_returned` on macros containing while loops #7789
- Added a new configuration `literal-suffix-style` to enforce a certain style writing `unseparated_literal_suffix` #7726

## Rust 1.57

Released 2021-12-02

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### New Lints

- `negative_feature_names` #7539
- `redundant_feature_names` #7539
- `mod_module_files` #7543
- `self_named_module_files` #7543
- `manual_split_once` #7565
- `derivable_impls` #7570
- `needless_option_as_deref` #7596
- `iter_not_returning_iterator` #7610
- `same_name_method` #7653
- `manual_assert` #7669
- `non_send_fields_in_send_ty` #7709
- `equatable_if_let` #7762

### Moves and Deprecations

- Move `shadow_unrelated` to `restriction` #7338
- Move `option_if_let_else` to `nursery` #7568
- Move `branches_sharing_code` to `nursery` #7595
- Rename `if_let_some_result` to `match_result_ok` which now also handles `while let` cases #7608
- Move `many_single_char_names` to `pedantic` #7671
- Move `float_cmp` to `pedantic` #7692
- Rename `box_vec` to `box_collection` and lint on more general cases #7693
- Uplift `invalid_atomic_ordering` to `rustc rust-lang/rust#84039`

### Enhancements

- Rewrite the `shadow*` lints, so that they find a lot more shadows and are not limited to certain patterns #7338
- The `avoid-breaking-exported-api` configuration now also works for `box_collection`, `redundant_allocation`, `rc_buffer`, `vec_box`, `option_option`, `linkedlist`, `rc_mutex` #7560

- #7584
- lint message #7621
- #7629
- #7642
- #7657
- #7734

### False Positive Fixes

- also consumed in the arm #7531
- `Iterator::filter` method #7562
- #7566
- #7573
  - `break` and `continue` statements local to the would-be closure are allowed
  - Don't lint in `const` contexts
  - Don't lint when `yield` expressions are used
  - Don't lint when the captures made by the would-be closure conflict with the other branch
  - Don't lint when a field of a local is used when the type could be potentially moved from
  - In some cases, don't lint when scrutinee expression conflicts with the captures of the would-be closure
- wide pointers with thin pointers #7592
- `Not` trait with `Output = bool` #7605
- immediately followed by a `break`; #7607
- and false negatives #7640
- false negatives #7661
- variant #7677
- #7685
- #7707
- already written in the shortest form #7722
- #7772

### Suggestion Fixes/Improvements

- function call in an indexing operation #7453
- `rsplitn` is used #7663
- #7690
- #7741
- Correctly handle signs in exponents in numeric literals lints #7747
- #7770
- Drop exponent from suggestion if it is 0 in numeric literals lints #7774

### ICE Fixes

- `implicit_hasher` #7761

## Others

- Clippy now uses the 2021 Edition! #7664

## Rust 1.56

Released 2021-10-21

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## New Lints

- `unwrap_or_else_default` #7516

## Enhancements

- #7477
- #7488
- #7506
- #7522
- #7556

## False Positive Fixes

- #7478
- #7534
- `similar` #7546

## Suggestion Fixes/Improvements

- #7221
- suggesting adding a `Default` implementation #7493
- #7520
- `references` #7533
- #7535
- `applicable` #7541

## Documentation Improvements

- Clippy now uses a lint to generate its lint documentation. Lints all the way down. #7502
- Reworked Clippy's website: #7172 #7279
  - Added applicability information about lints
  - Added a link to jump into the implementation
  - Improved loading times
  - Adapted some styling
- `cargo clippy --help` now also explains the `--fix` and `--no-deps` flag #7492

- example #7507

## Rust 1.55

Released 2021-09-09

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### Important Changes

- Stabilized cargo cliippy --fix :tada: #7405

### New Lints

- rc\_mutex #7316
- nonstandard\_macro\_braces #7299
- strlen\_on\_c\_strings #7243
- self\_named\_constructors #7403
- disallowed\_script\_idents #7400
- disallowed\_types #7315
- missing\_enforced\_import\_renames #7300
- extend\_with\_drain #7270

### Moves and Deprecations

- Moved from\_iter\_instead\_of\_collect to pedantic #7375
- Added suspicious as a new lint group for *code that is most likely wrong or useless* #7350
  - Moved blanket\_clippy\_restriction\_lints to suspicious
  - Moved empty\_loop to suspicious
  - Moved eval\_order\_dependence to suspicious
  - Moved float\_equality\_without\_abs to suspicious
  - Moved for\_loops\_over\_fallibles to suspicious
  - Moved misrefactored\_assign\_op to suspicious
  - Moved mut\_range\_bound to suspicious
  - Moved mutable\_key\_type to suspicious
  - Moved suspicious\_arithmetic\_impl to suspicious
  - Moved suspicious\_assignment\_formatting to suspicious
  - Moved suspicious\_else\_formatting to suspicious
  - Moved suspicious\_map to suspicious
  - Moved suspicious\_op\_assign\_impl to suspicious
  - Moved suspicious\_unary\_op\_formatting to suspicious

### Enhancements

- #7262
- #7357



- Add `FreeBSD` to the default configuration as an allowed identifier #7334
- `wildcard_enum_match_arm`, `match_wildcard_for_single_variants`: Now allows wildcards for enums with unstable or hidden variants #7407
- #7308
- #7379
- #7437
- `disallowed_methods`, `disallowed_types`: The configuration values `disallowed-method` and `disallowed-type` no longer require fully qualified paths #7345
- #7396

#### False Positive Fixes

- #7446
- #7288
- #7439
- #7462
- #7160
- #7346
- #7325
- #7442
- #7442
- #7319

#### Suggestion Fixes/Improvements

- #7289
- #7382
- #7326

#### ICE Fixes

- `zero_sized_map_values` #7470
- `redundant_pattern_matching` #7471
- `modulo_one` #7473
- `use_self` #7428

## Rust 1.54

Released 2021-07-29

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#### New Lints

- `ref_binding_to_reference` #7105

- `needless_bitwise_bool` #7133
- `unused_async` #7225
- `manual_str_repeat` #7265
- `suspicious_splitn` #7292

## Moves and Deprecations

- Deprecate `pub_enum_variant_names` and `wrong_pub_self_convention` in favor of the new `avoid-breaking-exported-api` config option (see Enhancements) #7187
- Move `inconsistent_struct_constructor` to `pedantic` #7193
- Move `needless_borrow` to `style` (now warn-by-default) #7254
- Move `suspicious_operation_groupings` to `nursery` #7266
- Move `semicolon_if_nothing_returned` to `pedantic` #7268

## Enhancements

- #6966
- #7156
- #7163
- #7177
- Add `avoid-breaking-exported-api` config option for the lints `enum_variant_names`, `large_types_passed_by_value`, `trivially_copy_pass_by_ref`, `unnecessary_wraps`, `upper_case_acronyms`, and `wrong_self_convention`. We recommend to set this configuration option to `false` before a major release (1.0/2.0/...) to clean up the API #7187
- #7188
- `missing_docs_in_private_items`: No longer sees `#[<name> = "<value>"]` like attributes as sufficient documentation #7281
- `needless_collect`, `short_circuit_statement`, `unnecessary_operation`: Now work as expected when used with `allow` #7282

## False Positive Fixes

- false positives #6951
- and the struct is used in the loop #6966
- #7089
- #7118
- variable wasn't picked up #7144
- #7150
- dereferenced #7165
- #7167
- #7174
- type #7175
- non-Copy types #7182
- #7201
- #7215

- #7216
- `use_self`, `useless_conversion`: Fix false positives when generic arguments are involved #7223
- #7233
- #7255
- closure #7263

### Suggestion Fixes/Improvements

- `implicit_return` #6951
  - Fix suggestion for async functions
  - Improve suggestion with macros
  - Suggest to change `break` to `return` when appropriate
- #6966
- effects #7095
- #7105
- buffer #7183
- when a `<_ as Trait>::_` is involved #7264
- #7294

### ICE Fixes

- Fix ICE when running Clippy on `libstd` #7140
- `implicit_return` #7242

## Rust 1.53

Released 2021-06-17

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### New Lints

- `option_filter_map` #6342
- `branches_sharing_code` #6463
- `needless_for_each` #6706
- `if_then_some_else_none` #6859
- `non_octal_unix_permissions` #7001
- `unnecessary_self_imports` #7072
- `bool_assert_comparison` #7083
- `cloned_instead_of_copied` #7098
- `flat_map_option` #7101

### Moves and Deprecations

- Deprecate `filter_map` lint #7059
- Move `transmute_ptr_to_ptr` to `pedantic` #7102

## Enhancements

- #6820
- #6828
- wildcard\_enum\_match\_arm, match\_wildcard\_for\_single\_variants: #6863
  - Attempt to find a common path prefix in suggestion
  - Don't lint on `Option` and `Result`
  - Consider `Self` prefix
- #6865
- #6928
- `vec_box`, `linkedlist`, `option_option`: Also lint in `const` and `static` items #6938
- #6942
- #6959
- `is_empty` don't match #6980
- #6991
- #7000
- #7029
- #7067
- #7100
- now stable #7138

## False Positive Fixes

- #6805
- `map` call #6831
- `manual_map`, `manual_unwrap_or`: No longer lints in `const` functions #6917
- #6924
- from different macro contexts #6935
- #6937
- #6950
- generic arguments #6952
- #6981
- of `IntoIterator` #6982
- suggesting to use `derive` instead #6993
- #6996
- #7000
- #7002
- the clone is in use #7011
- #7018
- #7026
- #7060
- #7063
- `self` is involved #7064
- involved #7076

- #7087
- #7097
- #7120

### Suggestion Fixes/Improvements

- change the drop order #6568
- `write_literal`, `print_literal`: Add auto-applicable suggestion #6821
- #6856
- #6892
- as appropriate #6937
- #6962
- when the value is from a macro call #6975
- #6988
- #7000
- #7004
- Fix needless parenthesis output in multiple lint suggestions #7013
- #7020
- #7036
- #7092
- implement `PartialEq` #7093
- #7099
- #7136

### ICE Fixes

- `macro_use_imports` #7022
- `missing_panics_doc` #7034
- `tabs_in_doc_comments` #7039
- `missing_const_for_fn` #7128

### Others

- Clippy's lint list now supports themes #7030
- Lints that were uplifted to `rustc` now mention the new `rustc` name in the deprecation warning #7056

## Rust 1.52

Released 2021-05-06

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### New Lints

- `from_str_radix_10` #6717
- `implicit_clone` #6730

- `semicolon_if_nothing_returned` #6681
- `manual_flatten` #6646
- `inconsistent_struct_constructor` #6769
- `iter_count` #6791
- `default_numeric_fallback` #6662
- `bytes_nth` #6695
- `filter_map_identity` #6685
- `manual_map` #6573

### Moves and Deprecations

- Moved `upper_case_acronyms` to `pedantic` #6775
- Moved `manual_map` to `nursery` #6796
- Moved `unnecessary_wraps` to `pedantic` #6765
- Moved `trivial_regex` to `nursery` #6696
- Moved `naive_bytecount` to `pedantic` #6825
- Moved `upper_case_acronyms` to `style` #6788
- Moved `manual_map` to `style` #6801

### Enhancements

- #6674
- trigger the lint if there is more than one uppercase character next to each other #6788
- #6754
- #6665
- Improved value usage detection in closures #6698

### False Positive Fixes

- #6833
- #6179
- #6814
- #6771
- #6783
- `missing_panics_doc`: No longer lints on `unreachable!` #6700
- #6701
- #6843
- #6871
- #6801
- #6697
- the `len` method as well as the type definition. #6853
- #6682
- #6601
- `publish = false` is defined in the manifest #6650

### Suggestion Fixes/Improvements

- #6766
- #6790
- #6801
- Aligned Clippy's lint messages with the rustc dev guide #6787

### ICE Fixes

- zero\_sized\_map\_values #6866

### Documentation Improvements

- #6854
- Clippy's README.md: Includes a new subsection on running Clippy as a rustc wrapper #6782

### Others

- Running `cargo clippy` after `cargo check` now works as expected (`cargo clippy` and `cargo check` no longer shares the same build cache) #6687
- Cargo now re-runs Clippy if arguments after `--` provided to `cargo clippy` are changed. #6834
- Extracted Clippy's `utils` module into the new `clippy_utils` crate #6756
- Clippy lintcheck tool improvements #6800 #6735 #6764 #6708 #6780 #6686

## Rust 1.51

Released 2021-03-25

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### New Lints

- upper\_case\_acronyms #6475
- from\_over\_into #6476
- case\_sensitive\_file\_extension\_comparisons #6500
- needless\_question\_mark #6507
- missing\_panics\_doc #6523
- redundant\_slicing #6528
- vec\_init\_then\_push #6538
- ptr\_as\_ptr #6542
- collapsible\_else\_if (split out from collapsible\_if) #6544
- inspect\_for\_each #6577
- manual\_filter\_map #6591
- exhaustive\_enums #6617
- exhaustive\_structs #6617

## Moves and Deprecations

- Replace `find_map` with `manual_find_map` #6591
- `unknown_clippy_lints` Now integrated in the `unknown_lints` rustc lint #6653

## Enhancements

- `ptr_arg` Now also suggests to use `&Path` instead of `&PathBuf` #6506
- `cast_ptr_alignment` Also lint when the `pointer::cast` method is used #6557
- `collapsible_match` Now also deals with `&` and `*` operators in the `match` scrutinee #6619

## False Positive Fixes

- `similar_names` Ignore underscore prefixed names #6403
- `print_literal` and `write_literal` No longer lint numeric literals #6408
- `large_enum_variant` No longer lints in external macros #6485
- `empty_enum` Only lint if `never_type` feature is enabled #6513
- `field_reassign_with_default` No longer lints in macros #6553
- `size_of_in_element_count` No longer lints when dividing by element size #6578
- `needless_return` No longer lints in macros #6586
- `match_overlapping_arm` No longer lint when first arm is completely included in second arm #6603
- `doc_markdown` Add WebGL to the default configuration as an allowed identifier #6605

## Suggestion Fixes/Improvements

- `field_reassign_with_default` Don't expand macro in lint suggestion #6531
- `match_like_matches_macro` Strip references in suggestion #6532
- `single_match` Suggest `if over if let` when possible #6574
- `ref_in_deref` Use parentheses correctly in suggestion #6609
- `stable_sort_primitive` Clarify error message #6611

## ICE Fixes

- `zero_sized_map_values` #6582

## Documentation Improvements

- Improve search performance on the Clippy website and make it possible to directly search for lints on the GitHub issue tracker #6483
- Clean up README.md by removing outdated paragraph #6488
- `await_holding_refcell_ref` and `await_holding_lock` #6585



- `as_conversions` #6608

## Others

- Clippy now has a Roadmap for 2021. If you like to get involved in a bigger project, take a look at the Roadmap project page. All issues listed there are actively mentored #6462
- The Clippy version number now corresponds to the Rust version number #6526
- Fix oversight which caused Clippy to lint deps in some environments, where `CLIPPY_TESTS=true` was set somewhere #6575
- Add `cargo dev-lintcheck` tool to the Clippy Dev Tool #6469

## Rust 1.50

Released 2021-02-11

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## New Lints

- `suspicious_operation_groupings` #6086
- `size_of_in_element_count` #6394
- `unnecessary_wraps` #6070
- `let_underscore_drop` #6305
- `collapsible_match` #6402
- `redundant_else` #6330
- `zero_sized_map_values` #6218
- `print_stderr` #6367
- `string_from_utf8_as_bytes` #6134

## Moves and Deprecations

- Previously deprecated `str_to_string` and `string_to_string` have been un-deprecated as `restriction` lints #6333
- Deprecate `panic_params` lint. This is now available in `rustc` as `non_fmt_panics` #6351
- Move `map_err_ignore` to `restriction` #6416
- Move `await_holding_refcell_ref` to `pedantic` #6354
- Move `await_holding_lock` to `pedantic` #6354

## Enhancements

- Add the `unreadable-literal-lint-fractions` configuration to disable the `unreadable_literal` lint for fractions #6421
- #6443
- #6339

- #6377
- #6119
- #6442
- #6360
- #6205
- #6267
- #6316
- #6449

#### False Positive Fixes

- #6382
- #6370
- #6435
- #6290
- #6269
- #6301
- #6464
- #6313
- `unnecessary_cast` No longer lints cfg-dependent types #6369
- `declare_interior_mutable_const` and `borrow_interior_mutable_const`: Both now ignore enums with frozen variants #6110
- `field_reassign_with_default` No longer lint for private fields #6537

#### Suggestion Fixes/Improvements

- #6271
- #6320
- #6272
- #6294
- #6362

#### ICE Fixes

- Fix a crash in `from_iter_instead_of_collect` #6304
- Fix a silent crash when parsing doc comments in `needless_doctest_main` #6458

#### Documentation Improvements

- The lint website search has been improved (#6477):
  - Searching for lints with dashes and spaces is possible now. For example `missing-errors-doc` and `missing errors doc` are now valid aliases for lint names
  - Improved fuzzy search in lint descriptions
- Various README improvements #6287
- Add known problems to `comparison_chain` documentation #6390

- Fix example used in `cargo_common_metadata` #6293
- Improve `map_clone` documentation #6340

### Others

- You can now tell Clippy about the MSRV your project supports. Please refer to the specific README section to learn more about MSRV support here #6201
- Add `--no-deps` option to avoid running on path dependencies in workspaces #6188

## Rust 1.49

Released 2020-12-31

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### New Lints

- `field_reassign_with_default` #5911
- `await_holding_refcell_ref` #6029
- `disallowed_methods` #6081
- `inline_asm_x86_att_syntax` #6092
- `inline_asm_x86_intel_syntax` #6092
- `from_iter_instead_of_collect` #6101
- `mut_mutex_lock` #6103
- `single_element_loop` #6109
- `manual_unwrap_or` #6123
- `large_types_passed_by_value` #6135
- `result_unit_err` #6157
- `ref_option_ref` #6165
- `manual_range_contains` #6177
- `unusual_byte_groupings` #6183
- `comparison_to_empty` #6226
- `map_collect_result_unit` #6227
- `manual_ok_or` #6233

### Moves and Deprecations

- Rename `single_char_push_str` to `single_char_add_str` #6037
- Rename `zero_width_space` to `invisible_characters` #6105
- Deprecate `drop_bounds` (uplifted) #6111
- Move `string_lit_as_bytes` to `nursery` #6117
- Move `rc_buffer` to `restriction` #6128

### Enhancements

- #5727

- #6037
- #6105
- #6167
- #6176
- #6187
- #6190
- #6216
- #6229

#### **False Positive Fixes**

- lifetime #5978
- is incremented #6076
- #6077
- range #6102
- #6104
- float (e.g. 713.32\_64) #6114
- #6132
- #6133
- clause #6198

#### **Suggestion Fixes/Improvements**

- #6078
- #6093
- #6151
- #6162
- #6200
- #6247

#### **Documentation Improvements**

- Some doc improvements:
  - rc\_buffer #6090
  - empty\_loop #6162
- #6107

### **Rust 1.48**

Released 2020-11-19

09bd400...e636b88

#### **New lints**

- self\_assignment #5894
- unnecessary\_lazy\_evaluations #5720

- `manual_strip` #6038
- `map_err_ignore` #5998
- `rc_buffer` #6044
- `to_string_in_display` #5831
- `single_char_push_str` #5881

## Moves and Deprecations

- Downgrade `verbose_bit_mask` to pedantic #6036

## Enhancements

- Extend `precedence` to handle chains of methods combined with unary negation #5928
- #5907
- #5884
- `invalid_atomic_ordering`: detect misuse of `compare_exchange`, `compare_exchange_weak`, and `fetch_update` #6025
- Avoid `redundant_pattern_matching` triggering in macros #6069
- #5937
- #5912
- #5929
- Re-enable `len_zero` for ranges now that `range_is_empty` is stable #5961
- #5933

## False Positive Fixes

- `useless_attribute`: permit allowing `wildcard_imports` and `enum_glob_use` #5994
- #5999
- #5920
- Fix false positive in `borrow_interior_mutable_const` when referencing a field behind a pointer #5949
- `doc_markdown`: allow using “GraphQL” without backticks #5996
- `to_string_in_display`: avoid linting when calling `to_string()` on anything that is not `self` #5971
- `indexing_slicing` and `out_of_bounds_indexing` treat references to arrays as arrays #6034
- #5725
- #5903
- Restrict `unnecessary_sort_by` to non-reference, Copy types #6006
- Avoid suggesting `from_bits/to_bits` in const contexts in `transmute_int_to_float` #5919
- `declare_interior_mutable_const` and `borrow_interior_mutable_const`: improve detection of interior mutable types #6046

## Suggestion Fixes/Improvements

- #5946
- #6035
- #5892
- `float_cmp` and `float_cmp_const`: change wording to make margin of error less ambiguous #6043
- #5993
- #5992
- Do not suggest empty format strings in `print_with_newline` and `write_with_newline` #6042
- #5931
- #5935
- Show line count and max lines in `too_many_lines` lint message #6009
- Keep parentheses in the suggestion of `useless_conversion` where applicable #5900
- `option_map_unit_fn` and `result_map_unit_fn`: print the unit type () explicitly #6024
- #5899
- Make lint messages adhere to rustc dev guide conventions #5893

## ICE Fixes

- Fix ICE in `repeat_once` #5948

## Documentation Improvements

- #6019
- #5913
- Add example of false positive to `ptr_arg` docs. #5885
- `box_vec`, `vec_box` and `borrowed_box`: add link to the documentation of `Box` #6023

## Rust 1.47

Released 2020-10-08

c2c07fa...09bd400

## New lints

- `derive_ord_xor_partial_ord` #5848
- `trait_duplication_in_bounds` #5852
- `map_identity` #5694
- `unit_return_expect_ord` #5737
- `pattern_type_mismatch` #4841
- `repeat_once` #5773
- `same_item_push` #5825

- `needless_arbitrary_self_type` #5869
- `match_like_matches_macro` #5769
- `stable_sort_primitive` #5809
- `blanket_clippy_restriction_lints` #5750
- `option_if_let_else` #5301

## Moves and Deprecations

- Deprecate `regex_macro` lint #5760
- Move `range_minus_one` to `pedantic` #5752

## Enhancements

- Improve `needless_collect` by catching `collect` calls followed by `iter` or `into_iter` calls #5837
- `panic`, `todo`, `unimplemented` and `unreachable` now detect calls with formatting #5811
- Detect more cases of `suboptimal_flops` and `imprecise_flops` #5443
- Handle asymmetrical implementations of `PartialEq` in `cmp_owned` #5701
- Make it possible to allow `unsafe_derive_deserialize` #5870
- Catch `ord.min(a).max(b)` where  $a < b$  in `min_max` #5871
- Make `clone_on_copy` suggestion machine applicable #5745
- Enable `len_zero` on ranges now that `is_empty` is stable on them #5961

## False Positive Fixes

- Avoid triggering `or_fun_call` with const fns that take no arguments #5889
- Fix `redundant_closure_call` false positive for closures that have multiple calls #5800
- Don't lint cases involving `ManuallyDrop` in `redundant_clone` #5824
- Treat a single expression the same as a single statement in the 2nd arm of a match in `single_match_else` #5771
- Don't trigger `unnested_or_patterns` if the feature `or_patterns` is not enabled #5758
- Avoid linting if key borrows in `unnecessary_sort_by` #5756
- Consider `Try` impl for `Poll` when generating suggestions in `try_err` #5857
- Take input lifetimes into account in `manual_async_fn` #5859
- Fix multiple false positives in `type_repetition_in_bounds` and add a configuration option #5761
- Limit the `suspicious_arithmetic_impl` lint to one binary operation #5820

## Suggestion Fixes/Improvements

- Improve readability of `shadow_unrelated` suggestion by truncating the RHS snippet #5788

- Suggest `filter_map` instead of `flat_map` when mapping to `Option` in `map_flatten` #5846
- Ensure suggestion is shown correctly for long method call chains in `iter_nth_zero` #5793
- Drop borrow operator in suggestions of `redundant_pattern_matching` #5815
- Add suggestion for `iter_skip_next` #5843
- Improve `collapsible_if` fix suggestion #5732

### ICE Fixes

- Fix ICE caused by `needless_collect` #5877
- Fix ICE caused by `unnested_or_patterns` #5784

### Documentation Improvements

- Fix grammar of `await_holding_lock` documentation #5748

### Others

- Make lints adhere to the rustc dev guide #5888

## Rust 1.46

Released 2020-08-27

7ea7cd1...c2c07fa

### New lints

- `unnested_or_patterns` #5378
- `iter_next_slice` #5597
- `unnecessary_sort_by` #5623
- `vec_resize_to_zero` #5637

### Moves and Deprecations

- Move `cast_ptr_alignment` to pedantic #5667

### Enhancements

- Improve `mem_replace_with_uninit` lint #5695

### False Positive Fixes

- #5656
- #5680
- #5692



- #5702
- #5712
- #5724

### Suggestion Fixes/Improvements

- Fix suggestion of `unit_arg` lint, so that it suggest semantic equivalent code #4455
- Add auto applicable suggestion to `macro_use_imports` #5279

### ICE Fixes

- Fix ICE in the `consts` module of Clippy #5709

### Documentation Improvements

- Improve code examples across multiple lints #5664

### Others

- Introduce a `--rustc` flag to `clippy-driver`, which turns `clippy-driver` into `rustc` and passes all the given arguments to `rustc`. This is especially useful for tools that need the `rustc` version Clippy was compiled with, instead of the Clippy version. E.g. `clippy-driver --rustc --version` will print the output of `rustc --version`. #5178
- New issue templates now make it easier to complain if Clippy is too annoying or not annoying enough! #5735

## Rust 1.45

Released 2020-07-16

891e1a8...7ea7cd1

### New lints

- `match_wildcard_for_single_variants` #5582
- `unsafe_derive_deserialize` #5493
- `if_let_mutex` #5332
- `mismatched_target_os` #5506
- `await_holding_lock` #5439
- `match_on_vec_items` #5522
- `manual_async_fn` #5576
- `reversed_empty_ranges` #5583
- `manual_non_exhaustive` #5550

## Moves and Deprecations

- Downgrade `match_bool` to pedantic #5408
- Downgrade `match_wild_err_arm` to pedantic and update help messages. #5622
- Downgrade `useless_let_if_seq` to nursery. #5599
- Generalize `option_and_then_some` and rename to `bind_instead_of_map`. #5529
- Rename `identity_conversion` to `useless_conversion`. #5568
- Merge `block_in_if_condition_expr` and `block_in_if_condition_stmt` into `blocks_in_if_conditions`. #5563
- Merge `option_map_unwrap_or`, `option_map_unwrap_or_else` and `result_map_unwrap_or_else` into `map_unwrap_or`. #5563
- Merge `option_unwrap_used` and `result_unwrap_used` into `unwrap_used`. #5563
- Merge `option_expect_used` and `result_expect_used` into `expect_used`. #5563
- Merge `for_loop_over_option` and `for_loop_over_result` into `for_loops_over_fallibles`. #5563

## Enhancements

- Avoid running cargo lints when not enabled to improve performance. #5505
- Extend `useless_conversion` with `TryFrom` and `TryInto`. #5631
- Lint also in type parameters and where clauses in `unused_unit`. #5592
- Do not suggest deriving `Default` in `new_without_default`. #5616

## False Positive Fixes

- `while_let_on_iterator` #5525
- `empty_line_after_outer_attr` #5609
- `unnecessary_unwrap` #5558
- `comparison_chain` #5596
- Don't trigger `used_underscore_binding` in await desugaring. #5535
- Don't trigger `borrowed_box` on mutable references. #5491
- Allow `1 << 0` in `identity_op`. #5602
- Allow `use super::*`; glob imports in `wildcard_imports`. #5564
- Whitelist more words in `doc_markdown`. #5611
- Skip dev and build deps in `multiple_crate_versions`. #5636
- Honor `allow` attribute on arguments in `ptr_arg`. #5647
- Honor lint level attributes for `redundant_field_names`, `just_underscores_and_digits`, `many_single_char_names` and `similar_names`. #5651
- Ignore calls to `len` in `or_fun_call`. #4429

## Suggestion Improvements

- Simplify suggestions in `manual_memcpy`. #5536

- Fix suggestion in `redundant_pattern_matching` for macros. #5511
- Avoid suggesting `copied()` for mutable references in `map_clone`. #5530
- Improve help message for `clone_double_ref`. #5547

#### ICE Fixes

- Fix ICE caused in `unwrap` module. #5590
- Fix ICE on rustc test issue-69020-`assoc-const-arith-overflow.rs` #5499

#### Documentation

- Clarify the documentation of `unnecessary_mut_passed`. #5639
- Extend example for `unneeded_field_pattern`. #5541

### Rust 1.44

Released 2020-06-04

204bb9b...891e1a8

#### New lints

- `explicit_deref_methods` #5226
- `implicit_saturating_sub` #5427
- `macro_use_imports` #5230
- `verbose_file_reads` #5272
- `future_not_send` #5423
- `redundant_pub_crate` #5319
- `large_const_arrays` #5248
- `result_map_or_into_option` #5415
- `redundant_allocation` #5349
- `fn_address_comparisons` #5294
- `vtable_address_comparisons` #5294

#### Moves and Deprecations

- Deprecate `replace_consts` lint #5380
- Move `cognitive_complexity` to nursery #5428
- Move `useless_transmute` to nursery #5364
- Downgrade `inefficient_to_string` to pedantic #5412
- Downgrade `option_option` to pedantic #5401
- Downgrade `unreadable_literal` to pedantic #5419
- Downgrade `let_unit_value` to pedantic #5409
- Downgrade `trivially_copy_pass_by_ref` to pedantic #5410
- Downgrade `implicit_hasher` to pedantic #5411

## Enhancements

- On *nightly* you can now use `cargo clippy --fix -Z unstable-options` to auto-fix lints that support this #5363
- Make `redundant_clone` also trigger on cases where the cloned value is not consumed. #5304
- Expand `integer_arithmetic` to also disallow bit-shifting #5430
- `option_as_ref_deref` now detects more deref cases #5425
- `large_enum_variant` now report the sizes of the largest and second-largest variants #5466
- `bool_comparison` now also checks for inequality comparisons that can be written more concisely #5365
- Expand `clone_on_copy` to work in method call arguments as well #5441
- `redundant_pattern_matching` now also handles `while let` #5483
- `integer_arithmetic` now also lints references of integers #5329
- Expand `float_cmp_const` to also work on arrays #5345
- Trigger `map_flatten` when `map` is called on an `Option` #5473

## False Positive Fixes

- `many_single_char_names` #5468
- `should_implement_trait` #5437
- `unused_self` #5387
- `redundant_clone` #5453
- `precedence` #5445
- `suspicious_op_assign_impl` #5424
- `needless_lifetimes` #5293
- `redundant_pattern` #5287
- `inconsistent_digit_grouping` #5451

## Suggestion Improvements

- Improved `question_mark` lint suggestion so that it doesn't add redundant `as_ref()` #5481
- Improve the suggested placeholder in `option_map_unit_fn` #5292
- Improve suggestion for `match_single_binding` when triggered inside a closure #5350

## ICE Fixes

- Handle the unstable `trivial_bounds` feature #5296
- `shadow_*` lints #5297

## Documentation

- Fix documentation generation for configurable lints #5353
- Update documentation for `new_ret_no_self` #5448

- The documentation for `option_option` now suggest using a tri-state enum #5403
- Fix bit mask example in `verbose_bit_mask` documentation #5454
- `wildcard_imports` documentation now mentions that `use ...::prelude::*` is not linted #5312

## Rust 1.43

Released 2020-04-23

4ee1206...204bb9b

### New lints

- `imprecise_flops` #4897
- `suboptimal_flops` #4897
- `wildcard_imports` #5029
- `single_component_path_imports` #5058
- `match_single_binding` #5061
- `let_underscore_lock` #5101
- `struct_excessive_bools` #5125
- `fn_params_excessive_bools` #5125
- `option_env_unwrap` #5148
- `lossy_float_literal` #5202
- `rest_pat_in_fully_bound_structs` #5258

### Moves and Deprecations

- Move `unneeded_field_pattern` to pedantic group #5200

### Enhancements

- Make `missing_errors_doc` lint also trigger on `async` functions #5181
- Add more constants to `approx_constant` #5193
- Extend `question_mark` lint #5266

### False Positive Fixes

- `use_debug` #5047
- `unnecessary_unwrap` #5132
- `zero_prefixed_literal` #5170
- `missing_const_for_fn` #5216

### Suggestion Improvements

- Improve suggestion when blocks of code are suggested #5134

## ICE Fixes

- `misc_early` lints #5129
- `missing_errors_doc` #5213
- Fix ICE when evaluating `usizes` #5256

## Documentation

- Improve documentation of `iter_nth_zero`
- Add documentation pages for stable releases #5171

## Others

- Clippy now completely runs on GitHub Actions #5190

## Rust 1.42

Released 2020-03-12

69f99e7...4ee1206

## New lints

- `filetype_is_file` #4543
- `let_underscore_must_use` #4823
- `modulo_arithmetic` #4867
- `mem_replace_with_default` #4881
- `mutable_key_type` #4885
- `option_as_ref_deref` #4945
- `wildcard_in_or_patterns` #4960
- `iter_nth_zero` #4966
- `invalid_atomic_ordering` #4999
- `skip_while_next` #5067

## Moves and Deprecations

- Move `transmute_float_to_int` from nursery to complexity group #5015
- Move `range_plus_one` to pedantic group #5057
- Move `debug_assert_with_mut_call` to nursery group #5106
- Deprecate `unused_label` #4930

## Enhancements

- Lint vectored IO in `unused_io_amount` #5027
- Make `vec_box` configurable by adding a size threshold #5081
- Also lint constants in `cmp_nan` #4910
- Fix false negative in `expect_fun_call` #4915
- Fix false negative in `redundant_clone` #5017

## False Positive Fixes

- `map_clone` #4937
- `replace_consts` #4977
- `let_and_return` #5008
- `eq_op` #5079
- `possible_missing_comma` #5083
- `debug_assert_with_mut_call` #5106
- Don't trigger `let_underscore_must_use` in external macros #5082
- Don't trigger `empty_loop` in `no_std` crates #5086

## Suggestion Improvements

- `option_map_unwrap_or` #4634
- `wildcard_enum_match_arm` #4934
- `cognitive_complexity` #4935
- `decimal_literal_representation` #4956
- `unknown_clippy_lints` #4963
- `explicit_into_iter_loop` #4978
- `useless_attribute` #5022
- `if_let_some_result` #5032

## ICE fixes

- `unsound_collection_transmute` #4975

## Documentation

- Improve documentation of `empty_enum`, `replace_consts`, `redundant_clone`, and `iterator_step_by_zero`

## Rust 1.41

Released 2020-01-30

c8e3cfb...69f99e7

- New Lints:
  - `exit` #4697
  - `to_digit_is_some` #4801
  - `tabs_in_doc_comments` #4806
  - `large_stack_arrays` #4807
  - `same_functions_in_if_condition` #4814
  - `zst_offset` #4816
  - `as_conversions` #4821
  - `missing_errors_doc` #4884
  - `transmute_float_to_int` #4889
- Remove plugin interface, see Inside Rust Blog for details #4714

- Move `use_self` to nursery group #4863
- Deprecate `into_iter_on_array` #4788
- Expand `string_lit_as_bytes` to also trigger when literal has escapes #4808
- Fix false positive in `comparison_chain` #4842
- Fix false positive in `while_immutable_condition` #4730
- Fix false positive in `explicit_counter_loop` #4803
- Fix false positive in `must_use_candidate` #4794
- Fix false positive in `print_with_newline` and `write_with_newline` #4769
- Fix false positive in `derive_hash_xor_eq` #4766
- Fix false positive in `missing_inline_in_public_items` #4870
- Fix false positive in `string_add` #4880
- Fix false positive in `float_arithmetic` #4851
- Fix false positive in `cast_sign_loss` #4883
- Fix false positive in `manual_swap` #4877
- Fix ICEs occurring while checking some block expressions #4772
- Fix ICE in `use_self` #4776
- Fix ICEs related to `const_generics` #4780
- Display help when running `clippy-driver` without arguments, instead of ICEing #4810
- Clippy has its own ICE message now #4588
- Show deprecated lints in the documentation again #4757
- Improve Documentation by adding positive examples to some lints #4832

## Rust 1.40

Released 2019-12-19

4e7e71b...c8e3cfb

- New Lints:
  - `unneeded_wildcard_pattern` #4537
  - `needless_doctest_main` #4603
  - `suspicious_unary_op_formatting` #4615
  - `debug_assert_with_mut_call` #4680
  - `unused_self` #4619
  - `inefficient_to_string` #4683
  - `must_use_unit` #4560
  - `must_use_candidate` #4560
  - `double_must_use` #4560
  - `comparison_chain` #4569
  - `unsound_collection_transmute` #4592
  - `panic` #4657
  - `unreachable` #4657
  - `todo` #4657
  - `option_expect_used` #4657



- `result_expect_used` #4657
- Move `redundant_clone` to perf group #4509
- Move `manual_mul_add` to nursery group #4736
- Expand `unit_cmp` to also work with `assert_eq!`, `debug_assert_eq!`, `assert_ne!` and `debug_assert_ne!` #4613
- Expand `integer_arithmetic` to also detect mutating arithmetic like `+=` #4585
- Fix false positive in `nonminimal_bool` #4568
- Fix false positive in `missing_safety_doc` #4611
- Fix false positive in `cast_sign_loss` #4614
- Fix false positive in `redundant_clone` #4509
- Fix false positive in `try_err` #4721
- Fix false positive in `toplevel_ref_arg` #4570
- Fix false positive in `multiple_inherent_impl` #4593
- Improve more suggestions and tests in preparation for the unstable `cargo fix --clippy` #4575
- Improve suggestion for `zero_ptr` #4599
- Improve suggestion for `explicit_counter_loop` #4691
- Improve suggestion for `mul_add` #4602
- Improve suggestion for `assertions_on_constants` #4635
- Fix ICE in `use_self` #4671
- Fix ICE when encountering `const` casts #4590

## Rust 1.39

Released 2019-11-07

3aea860...4e7e71b

- New Lints:
  - `uninit_assumed_init` #4479
  - `flat_map_identity` #4231
  - `missing_safety_doc` #4535
  - `mem_replace_with_uninit` #4511
  - `suspicious_map` #4394
  - `option_and_then_some` #4386
  - `manual_saturating_arithmetic` #4498
- Deprecate `unused_collect` lint. This is fully covered by `rustc's #[must_use]` on `collect` #4348
- Move `type_repetition_in_bounds` to pedantic group #4403
- Move `cast_lossless` to pedantic group #4539
- `temporary_cstring_as_ptr` now catches more cases #4425
- `use_self` now works in constructors, too #4525
- `cargo_common_metadata` now checks for license files #4518
- `cognitive_complexity` now includes the measured complexity in the warning message #4469
- Fix false positives in `block_in_if_*` lints #4458

- Fix false positive in `cast_lossless` #4473
- Fix false positive in `clone_on_copy` #4411
- Fix false positive in `deref_addrrof` #4487
- Fix false positive in `too_many_lines` #4490
- Fix false positive in `new_ret_no_self` #4365
- Fix false positive in `manual_swap` #4478
- Fix false positive in `missing_const_for_fn` #4450
- Fix false positive in `extra_unused_lifetimes` #4477
- Fix false positive in `inherent_to_string` #4460
- Fix false positive in `map_entry` #4495
- Fix false positive in `unused_unit` #4445
- Fix false positive in `redundant_pattern` #4489
- Fix false positive in `wrong_self_convention` #4369
- Improve various suggestions and tests in preparation for the unstable cargo fix `--clippy` #4558
- Improve suggestions for `redundant_pattern_matching` #4352
- Improve suggestions for `explicit_write` #4544
- Improve suggestion for `or_fun_call` #4522
- Improve suggestion for `match_as_ref` #4446
- Improve suggestion for `unnecessary_fold_span` #4382
- Add suggestions for `unseparated_literal_suffix` #4401
- Add suggestions for `char_lit_as_u8` #4418

## Rust 1.38

Released 2019-09-26

e3cb40e...3aea860

- New Lints:
  - `main_recursion` #4203
  - `inherent_to_string` #4259
  - `inherent_to_string_shadow_display` #4259
  - `type_repetition_in_bounds` #3766
  - `try_err` #4222
- Move `{unnecessary,panicking}_unwrap` out of nursery #4307
- Extend the `use_self` lint to suggest uses of `Self::Variant` #4308
- Improve suggestion for needless return #4262
- Add auto-fixable suggestion for `let_unit` #4337
- Fix false positive in `pub_enum_variant_names` and `enum_variant_names` #4345
- Fix false positive in `cast_ptr_alignment` #4257
- Fix false positive in `string_lit_as_bytes` #4233
- Fix false positive in `needless_lifetimes` #4266
- Fix false positive in `float_cmp` #4275
- Fix false positives in `needless_return` #4274
- Fix false negative in `match_same_arms` #4246

- Fix incorrect suggestion for `needless_bool` #4335
- Improve suggestion for `cast_ptr_alignment` #4257
- Improve suggestion for `single_char_literal` #4361
- Improve suggestion for `len_zero` #4314
- Fix ICE in `implicit_hasher` #4268
- Fix allow bug in `trivially_copy_pass_by_ref` #4250

## Rust 1.37

Released 2019-08-15

082cfa7...e3cb40e

- New Lints:
  - `checked_conversions` #4088
  - `get_last_with_len` #3832
  - `integer_division` #4195
- Renamed Lint: `const_static_lifetime` is now called `redundant_static_lifetimes`. The lint now covers statics in addition to consts #4162
- `match_same_arms` now warns for all identical arms, instead of only the first one #4102
- `needless_return` now works with void functions #4220
- Fix false positive in `redundant_closure` #4190
- Fix false positive in `useless_attribute` #4107
- Fix incorrect suggestion for `float_cmp` #4214
- Add suggestions for `print_with_newline` and `write_with_newline` #4136
- Improve suggestions for `option_map_unwrap_or_else` and `result_map_unwrap_or_else` #4164
- Improve suggestions for `non_ascii_literal` #4119
- Improve diagnostics for `let_and_return` #4137
- Improve diagnostics for `trivially_copy_pass_by_ref` #4071
- Add macro check for `unreadable_literal` #4099

## Rust 1.36

Released 2019-07-04

eb9f9b1...082cfa7

- New lints: `find_map`, `filter_map_next` #4039
- New lint: `path_buf_push_overwrite` #3954
- Move `path_buf_push_overwrite` to the nursery #4013
- Split `redundant_closure` into `redundant_closure` and `redundant_closure_for_method_calls` #4110
- Allow allowing of `toplevel_ref_arg` lint #4007
- Fix false negative in `or_fun_call` pertaining to nested constructors #4084

- Fix false positive in `or_fun_call` pertaining to enum variant constructors #4018
- Fix false positive in `useless_let_if_seq` pertaining to interior mutability #4035
- Fix false positive in `redundant_closure` pertaining to non-function types #4008
- Fix false positive in `let_and_return` pertaining to attributes on lets #4024
- Fix false positive in `module_name_repetitions` lint pertaining to attributes #4006
- Fix false positive on `assertions_on_constants` pertaining to `debug_assert!` #3989
- Improve suggestion in `map_clone` to suggest `.copied()` where applicable #3970 #4043
- Improve suggestion for `search_is_some` #4049
- Improve suggestion applicability for `naive_bytecount` #3984
- Improve suggestion applicability for `while_let_loop` #3975
- Improve diagnostics for `too_many_arguments` #4053
- Improve diagnostics for `cast_lossless` #4021
- Deal with macro checks in desugarings better #4082
- Add macro check for `unnecessary_cast` #4026
- Remove `approx_constant`'s documentation's "Known problems" section. #4027
- Fix ICE in `suspicious_else_formatting` #3960
- Fix ICE in `decimal_literal_representation` #3931

## Rust 1.35

Released 2019-05-20

1fac380..37f5c1e

- New lint: `drop_bounds` to detect `T: Drop` bounds
- Split `redundant_closure` into `redundant_closure` and `redundant_closure_for_method_calls` #4110
- Rename `cyclomatic_complexity` to `cognitive_complexity`, start work on making lint more practical for Rust code
- Move `get_unwrap` to the restriction category
- Improve suggestions for `iter_cloned_collect`
- Improve suggestions for `cast_lossless` to suggest suffixed literals
- Fix false positives in `print_with_newline` and `write_with_newline` pertaining to raw strings
- Fix false positive in `needless_range_loop` pertaining to structs without a `.iter()`
- Fix false positive in `bool_comparison` pertaining to non-bool types
- Fix false positive in `redundant_closure` pertaining to differences in borrows

- Fix false positive in `option_map_unwrap_or` on non-copy types
- Fix false positives in `missing_const_for_fn` pertaining to macros and trait method impls
- Fix false positive in `needless_pass_by_value` pertaining to procedural macros
- Fix false positive in `needless_continue` pertaining to loop labels
- Fix false positive for `boxed_local` pertaining to arguments moved into closures
- Fix false positive for `use_self` in nested functions
- Fix suggestion for `expect_fun_call` (<https://github.com/rust-lang/rust-clippy/pull/3846>)
- Fix suggestion for `explicit_counter_loop` to deal with parenthesizing range variables
- Fix suggestion for `single_char_pattern` to correctly escape single quotes
- Avoid triggering `redundant_closure` in macros
- ICE fixes: `#3805`, `#3772`, `#3741`

## Rust 1.34

Released 2019-04-10

1b89724...1fac380

- New lint: `assertions_on_constants` to detect for example `assert!(true)`
- New lint: `dbg_macro` to detect uses of the `dbg!` macro
- New lint: `missing_const_for_fn` that can suggest functions to be made `const`
- New lint: `too_many_lines` to detect functions with excessive LOC. It can be configured using the `too-many-lines-threshold` configuration.
- New lint: `wildcard_enum_match_arm` to check for wildcard enum matches using `_`
- Expand `redundant_closure` to also work for methods (not only functions)
- Fix ICEs in `vec_box`, `needless_pass_by_value` and `implicit_hasher`
- Fix false positive in `cast_sign_loss`
- Fix false positive in `integer_arithmetic`
- Fix false positive in `unit_arg`
- Fix false positives in `implicit_return`
- Add suggestion to `explicit_write`
- Improve suggestions for `question_mark` lint
- Fix incorrect suggestion for `cast_lossless`
- Fix incorrect suggestion for `expect_fun_call`
- Fix incorrect suggestion for `needless_bool`
- Fix incorrect suggestion for `needless_range_loop`
- Fix incorrect suggestion for `use_self`
- Fix incorrect suggestion for `while_let_on_iterator`
- Clippy is now slightly easier to invoke in non-cargo contexts. See `#3665` for more details.

- We now have improved documentation on how to add new lints

## Rust 1.33

Released 2019-02-26

b2601be...1b89724

- New lints: `implicit_return`, `vec_box`, `cast_ref_to_mut`
- The `rust-clippy` repository is now part of the `rust-lang` org.
- Rename `stutter` to `module_name_repetitions`
- Merge `new_without_default_derive` into `new_without_default` lint
- Move `large_digit_groups` from `style` group to `pedantic`
- Expand `bool_comparison` to check for `<`, `<=`, `>`, `>=`, and `!=` comparisons against booleans
- Expand `no_effect` to detect writes to constants such as `A_CONST.field = 2`
- Expand `redundant_clone` to work on struct fields
- Expand `suspicious_else_formatting` to detect `if .. {...} {...}`
- Expand `use_self` to work on tuple structs and also in local macros
- Fix ICE in `result_map_unit_fn` and `option_map_unit_fn`
- Fix false positives in `implicit_return`
- Fix false positives in `use_self`
- Fix false negative in `clone_on_copy`
- Fix false positive in `doc_markdown`
- Fix false positive in `empty_loop`
- Fix false positive in `if_same_then_else`
- Fix false positive in `infinite_iter`
- Fix false positive in `question_mark`
- Fix false positive in `useless_asref`
- Fix false positive in `wildcard_dependencies`
- Fix false positive in `write_with_newline`
- Add suggestion to `explicit_write`
- Improve suggestions for `question_mark` lint
- Fix incorrect suggestion for `get_unwrap`

## Rust 1.32

Released 2019-01-17

2e26fdc2...b2601be

- New lints: `slow_vector_initialization`, `mem_discriminant_non_enum`, `redundant_clone`, `wildcard_dependencies`, `into_iter_on_ref`, `into_iter_on_array`, `deprecated_cfg_attr`, `cargo_common_metadata`
- Add support for `u128` and `i128` to integer related lints
- Add float support to `mistyped_literal_suffixes`
- Fix false positives in `use_self`

- Fix false positives in `missing_comma`
- Fix false positives in `new_ret_no_self`
- Fix false positives in `possible_missing_comma`
- Fix false positive in `integer_arithmetic` in constant items
- Fix false positive in `needless_borrow`
- Fix false positive in `out_of_bounds_indexing`
- Fix false positive in `new_without_default_derive`
- Fix false positive in `string_lit_as_bytes`
- Fix false negative in `out_of_bounds_indexing`
- Fix false negative in `use_self`. It will now also check existential types
- Fix incorrect suggestion for `redundant_closure_call`
- Fix various suggestions that contained expanded macros
- Fix `bool_comparison` triggering 3 times on on on the same code
- Expand `trivially_copy_pass_by_ref` to work on trait methods
- Improve suggestion for `needless_range_loop`
- Move `needless_pass_by_value` from pedantic group to `style`

## Rust 1.31

Released 2018-12-06

125907ad..2e26fdc2

- Clippy has been relicensed under a dual MIT / Apache license. See #3093 for more information.
- With Rust 1.31, Clippy is no longer available via crates.io. The recommended installation method is via `rustup component add clippy`.
- New lints: `redundant_pattern_matching`, `unnecessary_filter_map`, `unused_unit`, `map_flatten`, `mem_replace_option_with_none`
- Fix ICE in `if_let_redundant_pattern_matching`
- Fix ICE in `needless_pass_by_value` when encountering a generic function argument with a lifetime parameter
- Fix ICE in `needless_range_loop`
- Fix ICE in `single_char_pattern` when encountering a constant value
- Fix false positive in `assign_op_pattern`
- Fix false positive in `boxed_local` on trait implementations
- Fix false positive in `cmp_owned`
- Fix false positive in `collapsible_if` when conditionals have comments
- Fix false positive in `double_parens`
- Fix false positive in `excessive_precision`
- Fix false positive in `explicit_counter_loop`
- Fix false positive in `fn_to_numeric_cast_with_truncation`
- Fix false positive in `map_clone`
- Fix false positive in `new_ret_no_self`
- Fix false positive in `new_without_default` when `new` is `unsafe`
- Fix false positive in `type_complexity` when using extern types
- Fix false positive in `useless_format`

- Fix false positive in `wrong_self_convention`
- Fix incorrect suggestion for `excessive_precision`
- Fix incorrect suggestion for `expect_fun_call`
- Fix incorrect suggestion for `get_unwrap`
- Fix incorrect suggestion for `useless_format`
- `fn_to_numeric_cast_with_truncation` lint can be disabled again
- Improve suggestions for `manual_memcpy`
- Improve help message for `needless_lifetimes`

## Rust 1.30

Released 2018-10-25

14207503...125907ad

- Deprecate `assign_ops` lint
- New lints: `mistyped_literal_suffixes`, `ptr_offset_with_cast`, `needless_collect`, `copy_iterator`
- `cargo clippy -V` now includes the Clippy commit hash of the Rust Clippy component
- Fix ICE in `implicit_hasher`
- Fix ICE when encountering `println!("{}", a);`
- Fix ICE when encountering a macro call in match statements
- Fix false positive in `default_trait_access`
- Fix false positive in `trivially_copy_pass_by_ref`
- Fix false positive in `similar_names`
- Fix false positive in `redundant_field_name`
- Fix false positive in `expect_fun_call`
- Fix false negative in `identity_conversion`
- Fix false negative in `explicit_counter_loop`
- Fix `range_plus_one` suggestion and false negative
- `print_with_newline` / `write_with_newline`: don't warn about string with several `\ns` in them
- Fix `useless_attribute` to also whitelist `unused_extern_crates`
- Fix incorrect suggestion for `single_char_pattern`
- Improve suggestion for `identity_conversion` lint
- Move `explicit_iter_loop` and `explicit_into_iter_loop` from style group to pedantic
- Move `range_plus_one` and `range_minus_one` from nursery group to complexity
- Move `shadow_unrelated` from restriction group to pedantic
- Move `indexing_slicing` from pedantic group to restriction

## Rust 1.29

Released 2018-09-13



v0.0.212...14207503

- :tada: :tada: **Rust 1.29 is the first stable Rust that includes a bundled Clippy** :tada: :tada: You can now run `rustup component add clippy-preview` and then `cargo clippy` to run Clippy. This should put an end to the continuous nightly upgrades for Clippy users.
- Clippy now follows the Rust versioning scheme instead of its own
- Fix ICE when encountering a `while let (..) = x.iter()` construct
- Fix false positives in `use_self`
- Fix false positive in `trivially_copy_pass_by_ref`
- Fix false positive in `useless_attribute` lint
- Fix false positive in `print_literal`
- Fix `use_self` regressions
- Improve lint message for `neg_cmp_op_on_partial_ord`
- Improve suggestion highlight for `single_char_pattern`
- Improve suggestions for various print/write macro lints
- Improve website header

### 0.0.212 (2018-07-10)

- Rustup to *rustc 1.29.0-nightly (e06c87544 2018-07-06)*

### 0.0.211

- Rustup to *rustc 1.28.0-nightly (e3bf634e0 2018-06-28)*

### 0.0.210

- Rustup to *rustc 1.28.0-nightly (01cc982e9 2018-06-24)*

### 0.0.209

- Rustup to *rustc 1.28.0-nightly (523097979 2018-06-18)*

### 0.0.208

- Rustup to *rustc 1.28.0-nightly (86a8f1a63 2018-06-17)*

### 0.0.207

- Rustup to *rustc 1.28.0-nightly (2a0062974 2018-06-09)*

### 0.0.206

- Rustup to *rustc 1.28.0-nightly (5bf68db6e 2018-05-28)*

### 0.0.205

- Rustup to *rustc 1.28.0-nightly* (990d8aa74 2018-05-25)
- Rename `unused_lifetimes` to `extra_unused_lifetimes` because of naming conflict with new rustc lint

### 0.0.204

- Rustup to *rustc 1.28.0-nightly* (71e87be38 2018-05-22)

### 0.0.203

- Rustup to *rustc 1.28.0-nightly* (a3085756e 2018-05-19)
- Clippy attributes are now of the form `clippy::cyclomatic_complexity` instead of `clippy(cyclomatic_complexity)`

### 0.0.202

- Rustup to *rustc 1.28.0-nightly* (952f344cd 2018-05-18)

### 0.0.201

- Rustup to *rustc 1.27.0-nightly* (2f2a11dfc 2018-05-16)

### 0.0.200

- Rustup to *rustc 1.27.0-nightly* (9fae15374 2018-05-13)

### 0.0.199

- Rustup to *rustc 1.27.0-nightly* (ff2ac35db 2018-05-12)

### 0.0.198

- Rustup to *rustc 1.27.0-nightly* (acd3871ba 2018-05-10)

### 0.0.197

- Rustup to *rustc 1.27.0-nightly* (428ea5f6b 2018-05-06)

### 0.0.196

- Rustup to *rustc 1.27.0-nightly* (e82261dfb 2018-05-03)

### 0.0.195

- Rustup to *rustc 1.27.0-nightly* (ac3c2288f 2018-04-18)

### 0.0.194

- Rustup to *rustc 1.27.0-nightly* (*bd40cbbe1 2018-04-14*)
- New lints: `cast_ptr_alignment`, `transmute_ptr_to_ptr`, `write_literal`, `write_with_newline`, `writeln_empty_string`

### 0.0.193

- Rustup to *rustc 1.27.0-nightly* (*eeea94c11 2018-04-06*)

### 0.0.192

- Rustup to *rustc 1.27.0-nightly* (*fb44b4c0e 2018-04-04*)
- New lint: `print_literal`

### 0.0.191

- Rustup to *rustc 1.26.0-nightly* (*ae544ee1c 2018-03-29*)
- Lint audit; categorize lints as style, correctness, complexity, pedantic, nursery, restriction.

### 0.0.190

- Fix a bunch of intermittent cargo bugs

### 0.0.189

- Rustup to *rustc 1.26.0-nightly* (*5508b2714 2018-03-18*)

### 0.0.188

- Rustup to *rustc 1.26.0-nightly* (*392645394 2018-03-15*)
- New lint: `while_immutable_condition`

### 0.0.187

- Rustup to *rustc 1.26.0-nightly* (*322d7f7b9 2018-02-25*)
- New lints: `redundant_field_names`, `suspicious_arithmetic_impl`, `suspicious_op_assign_impl`

### 0.0.186

- Rustup to *rustc 1.25.0-nightly* (*0c6091fbd 2018-02-04*)
- Various false positive fixes

### 0.0.185

- Rustup to *rustc 1.25.0-nightly* (56733bc9f 2018-02-01)
- New lint: `question_mark`

### 0.0.184

- Rustup to *rustc 1.25.0-nightly* (90eb44a58 2018-01-29)
- New lints: `double_comparisons`, `empty_line_after_outer_attr`

### 0.0.183

- Rustup to *rustc 1.25.0-nightly* (21882aad7 2018-01-28)
- New lint: `misaligned_transmute`

### 0.0.182

- Rustup to *rustc 1.25.0-nightly* (a0dcecff9 2018-01-24)
- New lint: `decimal_literal_representation`

### 0.0.181

- Rustup to *rustc 1.25.0-nightly* (97520ccb1 2018-01-21)
- New lints: `else_if_without_else`, `option_option`, `unit_arg`, `unnecessary_fold`
- Removed `unit_expr`
- Various false positive fixes for `needless_pass_by_value`

### 0.0.180

- Rustup to *rustc 1.25.0-nightly* (3f92e8d89 2018-01-14)

### 0.0.179

- Rustup to *rustc 1.25.0-nightly* (61452e506 2018-01-09)

### 0.0.178

- Rustup to *rustc 1.25.0-nightly* (ee220daca 2018-01-07)

### 0.0.177

- Rustup to *rustc 1.24.0-nightly* (250b49205 2017-12-21)
- New lint: `match_as_ref`

### 0.0.176

- Rustup to *rustc 1.24.0-nightly* (0077d128d 2017-12-14)

### 0.0.175

- Rustup to *rustc 1.24.0-nightly* (bb42071f6 2017-12-01)

### 0.0.174

- Rustup to *rustc 1.23.0-nightly* (63739ab7b 2017-11-21)

### 0.0.173

- Rustup to *rustc 1.23.0-nightly* (33374fa9d 2017-11-20)

### 0.0.172

- Rustup to *rustc 1.23.0-nightly* (d0f8e2913 2017-11-16)

### 0.0.171

- Rustup to *rustc 1.23.0-nightly* (ff0f5de3b 2017-11-14)

### 0.0.170

- Rustup to *rustc 1.23.0-nightly* (d6b06c63a 2017-11-09)

### 0.0.169

- Rustup to *rustc 1.23.0-nightly* (3b82e4c74 2017-11-05)
- New lints: `just_underscores_and_digits`, `result_map_unwrap_or_else`, `transmute_bytes_to_str`

### 0.0.168

- Rustup to *rustc 1.23.0-nightly* (f0fe716db 2017-10-30)

### 0.0.167

- Rustup to *rustc 1.23.0-nightly* (90ef3372e 2017-10-29)
- New lints: `const_static_lifetime`, `erasing_op`, `fallible_impl_from`, `println_empty_string`, `useless_asref`

### 0.0.166

- Rustup to *rustc 1.22.0-nightly* (b7960878b 2017-10-18)
- New lints: `explicit_write`, `identity_conversion`, `implicit_hasher`, `invalid_ref`, `option_map_or_none`, `range_minus_one`, `range_plus_one`, `transmute_int_to_bool`, `transmute_int_to_char`, `transmute_int_to_float`

### 0.0.165

- Rust upgrade to rustc 1.22.0-nightly (0e6f4cf51 2017-09-27)
- New lint: `mut_range_bound`

### 0.0.164

- Update to rustc 1.22.0-nightly (6c476ce46 2017-09-25)
- New lint: `int_plus_one`

### 0.0.163

- Update to rustc 1.22.0-nightly (14039a42a 2017-09-22)

### 0.0.162

- Update to rustc 1.22.0-nightly (0701b37d9 2017-09-18)
- New lint: `chars_last_cmp`
- Improved suggestions for `needless_borrow`, `ptr_arg`,

### 0.0.161

- Update to rustc 1.22.0-nightly (539f2083d 2017-09-13)

### 0.0.160

- Update to rustc 1.22.0-nightly (dd08c3070 2017-09-12)

### 0.0.159

- Update to rustc 1.22.0-nightly (eba374fb2 2017-09-11)
- New lint: `clone_on_ref_ptr`

### 0.0.158

- New lint: `manual_memcpy`
- `cast_lossless` no longer has redundant parentheses in its suggestions
- Update to rustc 1.22.0-nightly (dead08cb3 2017-09-08)

### 0.0.157 - 2017-09-04

- Update to rustc 1.22.0-nightly (981ce7d8d 2017-09-03)
- New lint: `unit_expr`

### 0.0.156 - 2017-09-03

- Update to rustc 1.22.0-nightly (744dd6c1d 2017-09-02)

### 0.0.155

- Update to *rustc 1.21.0-nightly* (*c11f689d2 2017-08-29*)
- New lint: `infinite_iter`, `maybe_infinite_iter`, `cast_lossless`

### 0.0.154

- Update to *rustc 1.21.0-nightly* (*2c0558f63 2017-08-24*)
- Fix `use_self` triggering inside derives
- Add support for linting an entire workspace with `cargo clippy --all`
- New lint: `naive_bytecount`

### 0.0.153

- Update to *rustc 1.21.0-nightly* (*8c303ed87 2017-08-20*)
- New lint: `use_self`

### 0.0.152

- Update to *rustc 1.21.0-nightly* (*df511d554 2017-08-14*)

### 0.0.151

- Update to *rustc 1.21.0-nightly* (*13d94d5fa 2017-08-10*)

### 0.0.150

- Update to *rustc 1.21.0-nightly* (*215e0b10e 2017-08-08*)

### 0.0.148

- Update to *rustc 1.21.0-nightly* (*37c7d0ebb 2017-07-31*)
- New lints: `unreadable_literal`, `inconsistent_digit_grouping`, `large_digit_groups`

### 0.0.147

- Update to *rustc 1.21.0-nightly* (*aac223f4f 2017-07-30*)

### 0.0.146

- Update to *rustc 1.21.0-nightly* (*52a330969 2017-07-27*)
- Fixes false positives in `inline_always`
- Fixes false negatives in `panic_params`

### 0.0.145

- Update to *rustc 1.20.0-nightly* (*afe145d22 2017-07-23*)

### 0.0.144

- Update to *rustc 1.20.0-nightly* (086eaa78e 2017-07-15)

### 0.0.143

- Update to *rustc 1.20.0-nightly* (d84693b93 2017-07-09)
- Fix `cargo clippy` crashing on dylib projects
- Fix false positives around `nested_while_let` and `never_loop`

### 0.0.142

- Update to *rustc 1.20.0-nightly* (067971139 2017-07-02)

### 0.0.141

- Rewrite of the `doc_markdown` lint.
- Deprecated `range_step_by_zero`
- New lint: `iterator_step_by_zero`
- New lint: `needless_borrowed_reference`
- Update to *rustc 1.20.0-nightly* (69c65d296 2017-06-28)

### 0.0.140 - 2017-06-16

- Update to *rustc 1.19.0-nightly* (258ae6dd9 2017-06-15)

### 0.0.139 — 2017-06-10

- Update to *rustc 1.19.0-nightly* (4bf5c99af 2017-06-10)
- Fix bugs with for loop desugaring
- Check for `AsRef/AsMut` arguments in `wrong_self_convention`

### 0.0.138 — 2017-06-05

- Update to *rustc 1.19.0-nightly* (0418fa9d3 2017-06-04)

### 0.0.137 — 2017-06-05

- Update to *rustc 1.19.0-nightly* (6684d176c 2017-06-03)

### 0.0.136 — 2017—05—26

- Update to *rustc 1.19.0-nightly* (557967766 2017-05-26)

### 0.0.135 — 2017—05—24

- Update to *rustc 1.19.0-nightly* (5b13bff52 2017-05-23)



#### **0.0.134 — 2017—05—19**

- Update to *rustc 1.19.0-nightly* (*0ed1ec9f9 2017-05-18*)

#### **0.0.133 — 2017—05—14**

- Update to *rustc 1.19.0-nightly* (*826d8f385 2017-05-13*)

#### **0.0.132 — 2017—05—05**

- Fix various bugs and some ices

#### **0.0.131 — 2017—05—04**

- Update to *rustc 1.19.0-nightly* (*2d4ed8e0c 2017-05-03*)

#### **0.0.130 — 2017—05—03**

- Update to *rustc 1.19.0-nightly* (*6a5fc9eec 2017-05-02*)

#### **0.0.129 — 2017-05-01**

- Update to *rustc 1.19.0-nightly* (*06fb4d256 2017-04-30*)

#### **0.0.128 — 2017-04-28**

- Update to *rustc 1.18.0-nightly* (*94e884b63 2017-04-27*)

#### **0.0.127 — 2017-04-27**

- Update to *rustc 1.18.0-nightly* (*036983201 2017-04-26*)
- New lint: `needless_continue`

#### **0.0.126 — 2017-04-24**

- Update to *rustc 1.18.0-nightly* (*2bd4b5c6d 2017-04-23*)

#### **0.0.125 — 2017-04-19**

- Update to *rustc 1.18.0-nightly* (*9f2abadca 2017-04-18*)

#### **0.0.124 — 2017-04-16**

- Update to *rustc 1.18.0-nightly* (*d5cf1cb64 2017-04-15*)

#### **0.0.123 — 2017-04-07**

- Fix various false positives

#### **0.0.122 — 2017-04-07**

- Rustup to *rustc 1.18.0-nightly* (91ae22a01 2017-04-05)
- New lint: `op_ref`

#### **0.0.121 — 2017-03-21**

- Rustup to *rustc 1.17.0-nightly* (134c4a0f0 2017-03-20)

#### **0.0.120 — 2017-03-17**

- Rustup to *rustc 1.17.0-nightly* (0aeb9c129 2017-03-15)

#### **0.0.119 — 2017-03-13**

- Rustup to *rustc 1.17.0-nightly* (824c9ebbd 2017-03-12)

#### **0.0.118 — 2017-03-05**

- Rustup to *rustc 1.17.0-nightly* (b1e31766d 2017-03-03)

#### **0.0.117 — 2017-03-01**

- Rustup to *rustc 1.17.0-nightly* (be760566c 2017-02-28)

#### **0.0.116 — 2017-02-28**

- Fix cargo `clippy` on 64 bit windows systems

#### **0.0.115 — 2017-02-27**

- Rustup to *rustc 1.17.0-nightly* (60a0edc6c 2017-02-26)
- New lints: `zero_ptr`, `never_loop`, `mut_from_ref`

#### **0.0.114 — 2017-02-08**

- Rustup to *rustc 1.17.0-nightly* (c49d10207 2017-02-07)
- Tests are now ui tests (testing the exact output of rustc)

#### **0.0.113 — 2017-02-04**

- Rustup to *rustc 1.16.0-nightly* (eedaa94e3 2017-02-02)
- New lint: `large_enum_variant`
- `explicit_into_iter_loop` provides suggestions

#### **0.0.112 — 2017-01-27**

- Rustup to *rustc 1.16.0-nightly* (df8debf6d 2017-01-25)

#### 0.0.111 — 2017-01-21

- Rustup to *rustc 1.16.0-nightly* (*a52da95ce 2017-01-20*)

#### 0.0.110 — 2017-01-20

- Add badges and categories to `Cargo.toml`

#### 0.0.109 — 2017-01-19

- Update to *rustc 1.16.0-nightly* (*c07a6ae77 2017-01-17*)

#### 0.0.108 — 2017-01-12

- Update to *rustc 1.16.0-nightly* (*2782e8f8f 2017-01-12*)

#### 0.0.107 — 2017-01-11

- Update regex dependency
- Fix FP when matching `&&mut` by `&ref`
- Reintroduce `for (_, x) in &mut hash_map->for x in hash_map.values_mut()`
- New lints: `unused_io_amount`, `forget_ref`, `short_circuit_statement`

#### 0.0.106 — 2017-01-04

- Fix FP introduced by rustup in `wrong_self_convention`

#### 0.0.105 — 2017-01-04

- Update to *rustc 1.16.0-nightly* (*468227129 2017-01-03*)
- New lints: `deref_addrof`, `double_parens`, `pub_enum_variant_names`
- Fix suggestion in `new_without_default`
- FP fix in `absurd_extreme_comparisons`

#### 0.0.104 — 2016-12-15

- Update to *rustc 1.15.0-nightly* (*8f02c429a 2016-12-15*)

#### 0.0.103 — 2016-11-25

- Update to *rustc 1.15.0-nightly* (*d5814b03e 2016-11-23*)

#### 0.0.102 — 2016-11-24

- Update to *rustc 1.15.0-nightly* (*3bf2be9ce 2016-11-22*)

### 0.0.101 — 2016-11-23

- Update to *rustc 1.15.0-nightly* (7b3eeea22 2016-11-21)
- New lint: `string_extend_chars`

### 0.0.100 — 2016-11-20

- Update to *rustc 1.15.0-nightly* (ac635aa95 2016-11-18)

### 0.0.99 — 2016-11-18

- Update to *rustc 1.15.0-nightly* (0ed951993 2016-11-14)
- New lint: `get_unwrap`

### 0.0.98 — 2016-11-08

- Fixes an issue due to a change in how cargo handles `--sysroot`, which broke `cargo clippy`

### 0.0.97 — 2016-11-03

- For convenience, `cargo clippy` defines a `cargo-clippy` feature. This was previously added for a short time under the name `clippy` but removed for compatibility.
- `cargo clippy --help` is more helping (and less helpful :smile:)
- Rustup to *rustc 1.14.0-nightly* (5665bdf3e 2016-11-02)
- New lints: `if_let_redundant_pattern_matching`, `partial_eq_ne_impl`

### 0.0.96 — 2016-10-22

- Rustup to *rustc 1.14.0-nightly* (f09420685 2016-10-20)
- New lint: `iter_skip_next`

### 0.0.95 — 2016-10-06

- Rustup to *rustc 1.14.0-nightly* (3210fd5c2 2016-10-05)

### 0.0.94 — 2016-10-04

- Fixes bustage on Windows due to forbidden directory name

### 0.0.93 — 2016-10-03

- Rustup to *rustc 1.14.0-nightly* (144af3e97 2016-10-02)
- `option_map_unwrap_or` and `option_map_unwrap_or_else` are now allowed by default.
- New lint: `explicit_into_iter_loop`

### 0.0.92 — 2016-09-30

- Rustup to *rustc 1.14.0-nightly* (289f3a4ca 2016-09-29)

### 0.0.91 — 2016-09-28

- Rustup to *rustc 1.13.0-nightly* (d0623cf7b 2016-09-26)

### 0.0.90 — 2016-09-09

- Rustup to *rustc 1.13.0-nightly* (f1f40f850 2016-09-09)

### 0.0.89 — 2016-09-06

- Rustup to *rustc 1.13.0-nightly* (cbe4de78e 2016-09-05)

### 0.0.88 — 2016-09-04

- Rustup to *rustc 1.13.0-nightly* (70598e04f 2016-09-03)
- The following lints are not new but were only usable through the `clippy` lint groups: `filter_next`, `for_loop_over_option`, `for_loop_over_result` and `match_overlapping_arm`. You should now be able to `#[allow/deny]` them individually and they are available directly through `cargo clippy`.

### 0.0.87 — 2016-08-31

- Rustup to *rustc 1.13.0-nightly* (eac41469d 2016-08-30)
- New lints: `builtin_type_shadow`
- Fix FP in `zero_prefixed_literal` and `0b/0o`

### 0.0.86 — 2016-08-28

- Rustup to *rustc 1.13.0-nightly* (a23064af5 2016-08-27)
- New lints: `missing_docs_in_private_items`, `zero_prefixed_literal`

### 0.0.85 — 2016-08-19

- Fix ICE with `useless_attribute`
- `useless_attribute` ignores `unused_imports` on use statements

### 0.0.84 — 2016-08-18

- Rustup to *rustc 1.13.0-nightly* (aef6971ca 2016-08-17)

### 0.0.83 — 2016-08-17

- Rustup to *rustc 1.12.0-nightly* (1bf5fa326 2016-08-16)
- New lints: `print_with_newline`, `useless_attribute`

### 0.0.82 — 2016-08-17

- Rustup to *rustc 1.12.0-nightly* (197be89f3 2016-08-15)
- New lint: `module_inception`

### 0.0.81 — 2016-08-14

- Rustup to *rustc 1.12.0-nightly* (1deb02ea6 2016-08-12)
- New lints: `eval_order_dependence`, `mixed_case_hex_literals`, `unseparated_literal_suffix`
- False positive fix in `too_many_arguments`
- Addition of functionality to `needless_borrow`
- Suggestions for `clone_on_copy`
- Bug fix in `wrong_self_convention`
- Doc improvements

### 0.0.80 — 2016-07-31

- Rustup to *rustc 1.12.0-nightly* (1225e122f 2016-07-30)
- New lints: `misrefactored_assign_op`, `serde_api_misuse`

### 0.0.79 — 2016-07-10

- Rustup to *rustc 1.12.0-nightly* (f93aaf84c 2016-07-09)
- Major suggestions refactoring

### 0.0.78 — 2016-07-02

- Rustup to *rustc 1.11.0-nightly* (01411937f 2016-07-01)
- New lints: `wrong_transmute`, `double_neg`, `filter_map`
- For compatibility, `cargo clippy` does not defines the `clippy` feature introduced in 0.0.76 anymore
- `collapsible_if` now considers `if let`

### 0.0.77 — 2016-06-21

- Rustup to *rustc 1.11.0-nightly* (5522e678b 2016-06-20)
- New lints: `stutter` and `iter_nth`

### 0.0.76 — 2016-06-10

- Rustup to *rustc 1.11.0-nightly* (7d2f75a95 2016-06-09)
- `cargo clippy` now automatically defines the `clippy` feature
- New lint: `not_unsafe_ptr_arg_deref`

### 0.0.75 — 2016-06-08

- Rustup to *rustc 1.11.0-nightly* (763f9234b 2016-06-06)

### 0.0.74 — 2016-06-07

- Fix bug with `cargo-clippy` JSON parsing
- Add the `CLIPPY_DISABLE_DOCS_LINKS` environment variable to deactivate the “for further information visit *lint-link*” message.

### 0.0.73 — 2016-06-05

- Fix false positives in `useless_let_if_seq`

### 0.0.72 — 2016-06-04

- Fix false positives in `useless_let_if_seq`

### 0.0.71 — 2016-05-31

- Rustup to *rustc 1.11.0-nightly* (a967611d8 2016-05-30)
- New lint: `useless_let_if_seq`

### 0.0.70 — 2016-05-28

- Rustup to *rustc 1.10.0-nightly* (7bddce693 2016-05-27)
- `invalid_regex` and `trivial_regex` can now warn on `RegexSet::new`, `RegexBuilder::new` and byte regexes

### 0.0.69 — 2016-05-20

- Rustup to *rustc 1.10.0-nightly* (476fe6eef 2016-05-21)
- `used_underscore_binding` has been made `Allow` temporarily

### 0.0.68 — 2016-05-17

- Rustup to *rustc 1.10.0-nightly* (cd6a40017 2016-05-16)
- New lint: `unnecessary_operation`

### 0.0.67 — 2016-05-12

- Rustup to *rustc 1.10.0-nightly* (22ac88f1a 2016-05-11)

### 0.0.66 — 2016-05-11

- New `cargo clippy` subcommand
- New lints: `assign_op_pattern`, `assign_ops`, `needless_borrow`

### 0.0.65 — 2016-05-08

- Rustup to *rustc 1.10.0-nightly* (62e2b2fb7 2016-05-06)
- New lints: `float_arithmetic`, `integer_arithmetic`

### 0.0.64 — 2016-04-26

- Rustup to *rustc 1.10.0-nightly* (645dd013a 2016-04-24)
- New lints: `temporary_cstring_as_ptr`, `unsafe_removed_from_name`, and `mem_forget`

### 0.0.63 — 2016-04-08

- Rustup to *rustc 1.9.0-nightly* (7979dd608 2016-04-07)

### 0.0.62 — 2016-04-07

- Rustup to *rustc 1.9.0-nightly* (bf5da36f1 2016-04-06)

### 0.0.61 — 2016-04-03

- Rustup to *rustc 1.9.0-nightly* (5ab11d72c 2016-04-02)
- New lint: `invalid_upcast_comparisons`

### 0.0.60 — 2016-04-01

- Rustup to *rustc 1.9.0-nightly* (e1195c24b 2016-03-31)

### 0.0.59 — 2016-03-31

- Rustup to *rustc 1.9.0-nightly* (30a3849f2 2016-03-30)
- New lints: `logic_bug`, `nonminimal_bool`
- Fixed: `match_same_arms` now ignores arms with guards
- Improved: `useless_vec` now warns on `for ... in vec![...]`

### 0.0.58 — 2016-03-27

- Rustup to *rustc 1.9.0-nightly* (d5a91e695 2016-03-26)
- New lint: `doc_markdown`

### 0.0.57 — 2016-03-27

- Update to *rustc 1.9.0-nightly* (a1e29daf1 2016-03-25)
- Deprecated lints: `str_to_string`, `string_to_string`, `unstable_as_slice`, `unstable_as_mut_slice`
- New lint: `crosspointer_transmute`



### **0.0.56 — 2016-03-23**

- Update to *rustc 1.9.0-nightly (0dcc413e4 2016-03-22)*
- New lints: `many_single_char_names` and `similar_names`

### **0.0.55 — 2016-03-21**

- Update to *rustc 1.9.0-nightly (02310fd31 2016-03-19)*

### **0.0.54 — 2016-03-16**

- Update to *rustc 1.9.0-nightly (c66d2380a 2016-03-15)*

### **0.0.53 — 2016-03-15**

- Add a configuration file

### **~~0.0.52~~**

### **0.0.51 — 2016-03-13**

- Add `str` to types considered by `len_zero`
- New lints: `indexing_slicing`

### **0.0.50 — 2016-03-11**

- Update to *rustc 1.9.0-nightly (c9629d61c 2016-03-10)*

### **0.0.49 — 2016-03-09**

- Update to *rustc 1.9.0-nightly (eabfc160f 2016-03-08)*
- New lints: `overflow_check_conditional`, `unused_label`, `new_without_default`

### **0.0.48 — 2016-03-07**

- Fixed: ICE in `needless_range_loop` with globals

### **0.0.47 — 2016-03-07**

- Update to *rustc 1.9.0-nightly (998a6720b 2016-03-07)*
- New lint: `redundant_closure_call`