

utils / coreutils Public

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feat: Expand safe directory traversal to all Unix platforms and fix related type conversions. #9792

Merged [sylvestre](#) merged 40 commits into [utils:main](#) from [abendrothj:main](#) on Jan 9[Conversation](#) 36 [Commits](#) 40 [Checks](#) 133 [Files changed](#) 17 **abendrothj** commented on Dec 23, 2025 • edited

Contributor

feat: enable safe traversal on all Unix platforms

Expands the `safe_traversal` module support from `target_os = "linux"` to `unix`, enabling security improvements (specifically preventing TOCTOU races) on macOS and BSDs.

Changes:

- **Feature Guards:** Replaced `#[cfg(target_os = "linux")]` with `#[cfg(unix)]` in `uucore`, `du`, `chmod`, and `rm`.
- **Refactoring:** Renamed `src/uu/rm/src/platform/linux.rs` to `unix.rs` to reflect the broader platform support.
- **Type Safety:** Added necessary type casts in `safe_traversal.rs` and `du.rs` to handle platform-specific differences in `libc` types (e.g., `mode_t`).

Verification:

Verified with `cargo test` on macOS.

Closes [#9747](#)

 [feat: Expand safe directory traversal to all Unix platforms and fix r...](#) [c9d6f81](#)**github-actions** (Bot) commented on Dec 23, 2025

GNU testsuite comparison:

Skipping an intermittent issue tests/misc/tee (passes in this run but fails in the 'mai
branch)



sylvestre requested changes [on Dec 23, 2025](#)

[View reviewed changes](#)



sylvestre left a comment

Contributor

plenty of jobs are failing, please fix them



abendrothj added 2 commits [4 months ago](#)



fix: Fix type conversion errors and add TOCTOU to dictionary ...

9cd62b3



Merge branch 'main' of <https://github.com/uutils/coreutils> into main ...

f1c7082



abendrothj requested a review from **sylvestre** [4 months ago](#)

sylvestre commented [on Dec 27, 2025](#)

Contributor

Still a few job failures

github-actions Bot commented [on Dec 27, 2025](#)

GNU testsuite comparison:

GNU test failed: tests/cp/cp-mv-enotsup-xattr. tests/cp/cp-mv-enotsup-xattr is passing
'main'. Maybe you have to rebase?
Note: The gnu test tests/csplit/csplit-io-err was skipped on 'main' but is now failing.



abendrothj and others added 3 commits [4 months ago](#)

- Merge branch 'main' into main 1c06851
- fix: Fix macOS/BSD build failures and test compatibility ... e1d5465
- Merge branch 'main' into main cfbf666

github-actions (Bot) commented on Dec 28, 2025

GNU testsuite comparison:

GNU test failed: tests/sort/sort-stale-thread-mem. tests/sort/sort-stale-thread-mem is passing on 'main'. Maybe you have to rebase?



- fix: Add cross-platform type handling in safe_traversal ... 9445537

abendrothj force-pushed the main branch from 00fe208 to 9445537 4 months ago Compare

abendrothj and others added 2 commits 4 months ago

- Merge branch 'main' into main 959d39d

- fix: That should be all the casts ignored by clippy (were showing as d8348c5

github-actions (Bot) commented on Dec 28, 2025

GNU testsuite comparison:

Congrats! The gnu test tests/tail/assert is no longer failing!



- fix: Suppress unnecessary cast warnings in cp and du modules 4f65a77

github-actions Bot commented on Dec 28, 2025

GNU testsuite comparison:

Congrats! The gnu test tests/tail/assert is no longer failing!



abendrothj and others added 3 commits 4 months ago

fix: Ensure proper type handling for mode_t in rm and safe_traversal ... 3cb2071

Merge branch 'main' into main 29a04c0

fix: Improve code formatting for readability in safe_remove_dir_recur... e326036

github-actions Bot commented on Dec 28, 2025

GNU testsuite comparison:

Congrats! The gnu test tests/tail/assert is no longer failing!



abendrothj added 4 commits 4 months ago

fix(unix,redox): platform compatibility ee18c58

fix: Use type inference for mode checks in prompt_file_with_stat and ... c8cc10c

fix(android): handle symlink and directory checks with appropriate ty... 05d675b

fix(redox): improve error handling for unsupported safe traversal ope... 0f48443

github-actions Bot commented on Dec 28, 2025

GNU testsuite comparison:

Congrats! The gnu test tests/tail/assert is no longer failing!



[fix\(unix\): simplify symlink and directory checks for improved readabi...](#) ... e6a9637

github-actions Bot commented [on Dec 28, 2025](#)

GNU testsuite comparison:

Congrats! The gnu test tests/tail/assert is no longer failing!



22 hidden items

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github-actions Bot commented [on Dec 31, 2025](#)

GNU testsuite comparison:

Skipping an intermittent issue tests/timeout/timeout (passes in this run but fails in t
'main' branch)



abendrothj added 2 commits [4 months ago](#)

[rm: add Redox-specific stub implementations for safe traversal](#) 2102a85

[rm: add spell-checker directive for fstatat in Redox stub implementat...](#) ... 370107e

github-actions Bot commented [on Dec 31, 2025](#)

GNU testsuite comparison:

GNU test failed: tests/shuf/shuf-reservoir. tests/shuf/shuf-reservoir is passing on 'main'. Maybe you have to rebase?

GNU test failed: tests/sort/sort-stale-thread-mem. tests/sort/sort-stale-thread-mem is passing on 'main'. Maybe you have to rebase?

Skip an intermittent issue tests/tail/overlay-headers (fails in this run but passes in the 'main' branch)



chmod, du: exclude Redox from safe-traversal feature ...

b6c20a8

github-actions (Bot) commented on Dec 31, 2025

GNU testsuite comparison:

Congrats! The gnu test tests/tty/tty-eof is no longer failing!



cargo: fix formatting of uucore dependencies in Cargo.toml

5cc0c65

github-actions (Bot) commented on Dec 31, 2025

GNU testsuite comparison:

Congrats! The gnu test tests/tty/tty-eof is no longer failing!



abendrothj commented on Dec 31, 2025 • edited ▾

Contributor

Author

That should do it. Let me know if there's anything else needed for this pr to be merged

↑ abendrothj added 2 commits 4 months ago

Merge branch 'main' into main

1fc7d18

  Merge branch 'main' into main

 [44950a2](#)

sylvestre commented [on Jan 3](#)

Contributor

@sylvestre That should do it. Let me know if there's anything else needed for this pr to be merged
still a bunch of jobs are failing :)

abendrothj commented [on Jan 5](#)

Contributor

Author

Oh wow, was passing completely until I updated the branch. Will fix

  Merge branch 'main' into main

 [b135427](#)

github-actions Bot commented [on Jan 5](#)

GNU testsuite comparison:

Congrats! The gnu test tests/basenc/bounded-memory is now passing!
Note: The gnu test tests/dd/no-allocate was skipped on 'main' but is now failing.



  test(chmod): improve error message handling for permission denied cases

 [fe8ab05](#)

abendrothj commented [on Jan 5](#) • edited ▾

Contributor

Author

A new test was added in that merge (added in commit [abd581f](#)) and was failing since it was expecting the old linux-only safe traversal setup. Should be adjusted to the unixification now **@sylvestre** :)

github-actions Bot commented [on Jan 5](#)

GNU testsuite comparison:

Congrats! The gnu test tests/basenc/bounded-memory is now passing!
Note: The gnu test tests/dd/no-allocate was skipped on 'main' but is now failing.



sylvestre reviewed [on Jan 6](#)

[View reviewed changes](#)

> [src/uu/rm/src/platform/redox.rs](#) Outdated Show resolved

sylvestre reviewed [on Jan 6](#)

[View reviewed changes](#)

> [src/uu/rm/src/rm.rs](#) Outdated Show resolved

sylvestre reviewed [on Jan 6](#)

[View reviewed changes](#)

> [src/uu/chmod/src/chmod.rs](#) Outdated Show resolved

abendrothj added 2 commits [3 months ago](#)

[refactor\(chmod, rm\): update platform-specific handling for Redox OS a...](#) ... [b5eab57](#)

[Merge upstream/main and resolve conflicts in chmod.rs](#) [12566dd](#)

abendrothj commented [on Jan 7](#)

Contributor Author

Should be cleaner now!

abendrothj requested a review from **sylvestre** [3 months ago](#)



Merge branch 'main' ...

d8cadbe

github-actions (Bot) commented on Jan 9

GNU testsuite comparison:

Skipping an intermittent issue tests/tty/tty-eof (passes in this run but fails in the 'main' branch)



sylvestre merged commit **30239e6** into **utils:main** on Jan 9

131 of 132 checks passed

[View details](#)

sylvestre commented on Jan 9

Contributor

well done



abendrothj commented on Jan 9

Contributor

Author

Thanks! :)

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Reviewers



sylvestre

Assignees

No one assigned

Labels

None yet

Projects

None yet

Milestone

No milestone

Development

Successfully merging this pull request may close these issues.

Safe traversal module only enabled on Linux

2 participants

