



# Multi-committers

or How I Learned to Stop Worrying and Learned to Love media-CI



Ricardo Ribalda / 16th September 2024

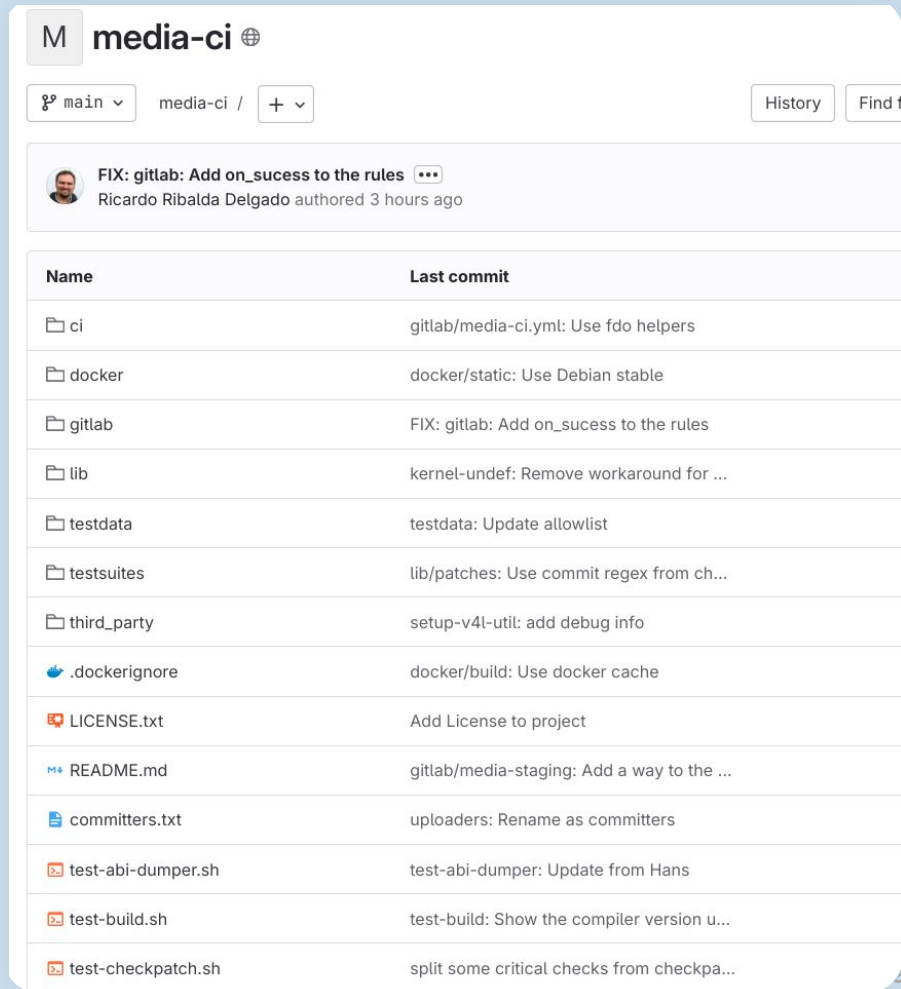
# Media-ci


The canonical test suite for linux-media. It is a set of scripts that originated from the Maintainers that is distributed in different forms:


- Script that can be run in your computer
- Docker container
- Gitlab Pipeline


It is the result of 360 patches, 136 MR, 59 bugs and tens of hours of discussions.















If your code does not throw an error in media-ci: Your code does not have any typical error.



M **media-ci** 

 main media-ci / + ▼ History Find f

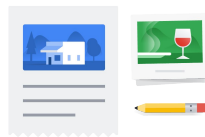
 **FIX: gitlab: Add on\_sucess to the rules** ...  
Ricardo Ribalda Delgado authored 3 hours ago

| Name   | Last commit                                |
|--|--|
|  ci                   | gitlab/media-ci.yml: Use fdo helpers       |
|  docker               | docker/static: Use Debian stable           |
|  gitlab               | FIX: gitlab: Add on_sucess to the rules    |
|  lib                  | kernel-undef: Remove workaround for ...    |
|  testdata             | testdata: Update allowlist                 |
|  testsuites           | lib/patches: Use commit regex from ch...   |
|  third_party          | setup-v4l-util: add debug info             |
|  .dockerignore        | docker/build: Use docker cache             |
|  LICENSE.txt          | Add License to project                     |
|  README.md            | gitlab/media-staging: Add a way to the ... |
|  committers.txt       | uploaders: Rename as committers            |
|  test-abi-dumper.sh   | test-abi-dumper: Update from Hans          |
|  test-build.sh        | test-build: Show the compiler version u... |
|  test-checkpatch.sh | split some critical checks from checkpa... |

# Use-cases of media-ci



Developers



Maintainers



Patchwork



Multi  
committers  
tree

# Developers

Test their code before submitting it to the ML.

linux-media / users / jmondi / Pipelines / #1257810

## media: pisp\_be: Fix pm\_runtime underrun in probe

Failed Jacopo Mondì created pipeline for commit 897d2a68 2 weeks ago, finished 2 weeks ago

For [pispbe/mainline/split-jobs-handling-v2](#)

latest 80 8 jobs 16 minutes 15 seconds, queued for 5 seconds

[Retry](#) [Delete](#)

Pipeline Needs Jobs 8 Failed Jobs 2 **Tests 28**

### Summary

28 tests 8 failures 0 errors 71.43% success rate 22m 33s

### Jobs

| Job              | Duration | Failed | Errors | Skipped | Passed | Total |
|------------------|----------|--------|--------|---------|--------|-------|
| abi              | 7.89s    | 0      | 0      | 0       | 7      | 7     |
| doc              | 2m 31s   | 0      | 0      | 0       | 3      | 3     |
| build            | 7m 50s   | 6      | 0      | 0       | 0      | 6     |
| static-upstream  | 11m 57s  | 2      | 0      | 0       | 2      | 4     |
| media-patchstyle | 2.81s    | 0      | 0      | 0       | 4      | 4     |
| checkpatch       | 3.35s    | 0      | 0      | 0       | 4      | 4     |

```

ribalda@denia:~/work/linux$ sh ../media-ci/test-media-patchstyle.sh
"../media-ci/test-media-patchstyle.sh " Completed!
ribalda@denia:~/work/linux$ sh ../media-ci/test-spec.sh
make[3]: Nothing to be done for 'html'.
Using alabaster theme
source directory: media
"../media-ci/test-spec.sh " Completed!
ribalda@denia:~/work/linux$ sh ../media-ci/test-misc.sh
"../media-ci/test-misc.sh " Completed!
ribalda@denia:~/work/linux$ sh ../media-ci/test-kernel-doc.sh
"../media-ci/test-kernel-doc.sh " Completed!
ribalda@denia:~/work/linux$ sh ../media-ci/test-pahole.sh
"../media-ci/test-pahole.sh " Completed!
ribalda@denia:~/work/linux$ sh ../media-ci/test-abi-dumper.sh
WARNING: module version is not specified (-lver NUM)
Reading debug-info
Creating ABI dump

The object ABI has been dumped to:
./ABI.dump
Preparing, please wait ...
Comparing ABIs ...
Comparing APIs ...
Creating compatibility report ...
Binary compatibility: 100%
Source compatibility: 100%
Total binary compatibility problems: 0, warnings: 0
Total source compatibility problems: 0, warnings: 0
Report: compat_reports/abi-test.o/X_to_Y/compat_report.html
"../media-ci/test-abi-dumper.sh " Completed!
ribalda@denia:~/work/linux$

```

# Maintainers

Check PR before landing them

linux-media / users / jmondi / Pipelines / #1257810

## media: pisp\_be: Fix pm\_runtime underrun in probe

✖ Failed Jacopo Mondì created pipeline for commit [897d2a68](#) 2 weeks ago, finished 2 weeks ago

For [pispbe/mainline/split-jobs-handling-v2](#)

latest 80 8 jobs 16 minutes 15 seconds, queued for 5 seconds

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| checkpatch       | 3.35s    | 0      | 0      | 0       | 4      | 4     |

## Media-CI report

[Gitlab Link](#)

- Job triggered by: [ribalda](#)

Branch Head:

- **Commit Author:** Hans Verkuil [hverkuil-cisco@xs4all.nl](mailto:hverkuil-cisco@xs4all.nl)
- **Commit:** [b36c41c51e9d763393634359b90f02414ef470a3](#)
- **Subject:** media: atomisp: set lock before calling vb2\_queue\_init()

- [Media-CI report](#)
  - [Job report](#)
  - [Job virtme32](#)
    - [Test test-virtme](#)
  - [Job virtme64](#)
    - [Test test-virtme](#)
  - [Job bisect](#)
  - [Job doc](#)
    - [Test test-kernel-doc](#)
    - [Test htmldocs](#)
    - [Test pdfdocs](#)
  - [Job build-ancient](#)
    - [Test llvm](#)

# Patchwork

Check for typical errors before anyone reviews it

| Patch  | Series   | A/C/F/R/T | S/W/F | ▲ D  |
|--|--|-----------|-------|------|
| media: platform: video-mux: Fix mutex locking  | media: platform: video-mux: Fix mutex locking                            | - - - 1 - | 11--  | 2024 |
| [1/1] media: i2c: alvium: add camera sysfs attributes  | media: i2c: alvium: add camera sysfs attributes                          | - - - - - | 6-5   | 2024 |
| [RESEND,v2,19/19] prandom: Include <linux/percpu.h> in <linux/prandom.h>                           | random: Resolve circular include dependency and include <linux/percpu.h> | - - - - - | 10-1  | 2024 |
| [RESEND,v2,18/19] random: Do not include <linux/prandom.h> in <linux/random.h>                     | random: Resolve circular include dependency and include <linux/percpu.h> | - - 1 - - | 10-1  | 2024 |
| [RESEND,v2,17/19] netem: Include <linux/prandom.h> in sch_netem.c                                  | random: Resolve circular include dependency and include <linux/percpu.h> | - - - - - | 10-1  | 2024 |
| [RESEND,v2,16/19] lib/test_scanf: Include <linux/prandom.h> instead of <linux/random.h>            | random: Resolve circular include dependency and include <linux/percpu.h> | 1 - - - - | 10-1  | 2024 |
| [RESEND,v2,15/19] lib/test_parman: Include <linux/prandom.h> instead of <linux/random.h>           | random: Resolve circular include dependency and include <linux/percpu.h> | - - - - - | 10-1  | 2024 |
| [RESEND,v2,14/19] bpf/tests: Include <linux/prandom.h> instead of <linux/random.h>                 | random: Resolve circular include dependency and include <linux/percpu.h> | - - - - - | 10-1  | 2024 |
| [RESEND,v2,13/19] lib/rbtree-test: Include <linux/prandom.h> instead of <linux/random.h>           | random: Resolve circular include dependency and include <linux/percpu.h> | - - - - - | 10-1  | 2024 |
| [RESEND,v2,12/19] random32: Include <linux/prandom.h> instead of <linux/random.h>                  | random: Resolve circular include dependency and include <linux/percpu.h> | - - - - - | 10-1  | 2024 |
| [RESEND,v2,11/19] kunit: string-stream-test: Include <linux/prandom.h> instead of <linux/random.h> | random: Resolve circular include dependency and include <linux/percpu.h> | - - - - - | 10-1  | 2024 |
| [RESEND,v2,10/19] lib/interval_tree_test.c: Include <linux/prandom.h> instead of <linux/random.h>  | random: Resolve circular include dependency and include <linux/percpu.h> | - - - - - | 10-1  | 2024 |
| [RESEND,v2,09/19] bpf: Include <linux/prandom.h> instead of <linux/random.h>                       | random: Resolve circular include dependency and include <linux/percpu.h> | - - - - - | 10-1  | 2024 |
| [RESEND,v2,08/19] scsi: libfcoe: Include <linux/prandom.h> instead of <linux/random.h>             | random: Resolve circular include dependency and include <linux/percpu.h> | - - - - - | 10-1  | 2024 |
| [RESEND,v2,07/19] fs/crypto: Include <linux/once.h> in fs/crypto/keyring.c                         | random: Resolve circular include dependency and include <linux/percpu.h> | - - - - - | 10-1  | 2024 |
| [RESEND,v2,06/19] mtd: tests: Include <linux/prandom.h> instead of <linux/random.h>                | random: Resolve circular include dependency and include <linux/percpu.h> | 1 - - - - | 10-1  | 2024 |
| [RESEND,v2,05/19] media: vivid: Include <linux/prandom.h> in vivid-vid-cap.c                       | random: Resolve circular include dependency and include <linux/percpu.h> | 1 - - - - | 10-1  | 2024 |
| [RESEND,v2,04/19] drm/lib: Include <linux/prandom.h> instead of <linux/random.h>                   | random: Resolve circular include dependency and include <linux/percpu.h> | - - - - - | 10-1  | 2024 |
| [RESEND,v2,03/19] drm/i915/selftests: Include  | random: Resolve circular include dependency and                          | 1 - - - - | 10-1  | 2024 |

[RESEND,v2,19/19] prandom: Include <linux/p

Message ID 20240909075641.258968-20-ubizjak@gmail.com (mailing list arc

State New

Headers

Series random: Resolve circular include dependency and include <linux/p

## Checks

Context Check Description

media-ci/HTML\_report [successLink](#)

media-ci/report [successLink](#)

media-ci/virtme32 [successLink](#)

media-ci/virtme64 [successLink](#)

media-ci/bisect [successLink](#)

media-ci/doc [successLink](#)

media-ci/build [successLink](#)

media-ci/static-upstream [successLink](#)

media-ci/abi [successLink](#)

media-ci/media-patchstylefail [Link](#)

media-ci/checkpatch [successLink](#)

## Commit Message

# Multi-committers tree:

# Multi Committers tree

Linux media tree that is:

- Hosted in Gitlab
- Automatically validated with media-ci
- Always open for contributions
- Committers can land their code without maintainers help







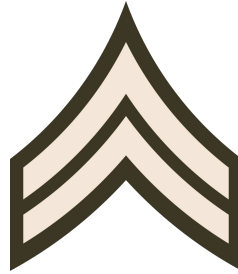
## Subsystem Maintainer

Mauro and Hans



## Core Committer

Subsystem Maintainers + Laurent  
+ Sakari + Sean +  
Sebastian



## Committer

Core Maintainers +  
TBD List Provided by  
Hans

## Contributor

Anyone that posts a  
patch to the  
linux-media mailing  
list

# Contributor

## Responsabilites

- Fix any warning / error thrown by CI before pinging the ML for a review (or explain why the warning / error cannot be fixed).

## Rights

- Use the playground tree

# Contributor

```

user@host:~linux$ git fetch media-staging
user@host:~linux$ b4 prep -n myfeature
user@host:~linux$ HACK!!!!!!!
user@host:~linux$ b4 send

```

[RESEND,v2,19/19] prandom: Include <linux/p

**Message ID** 20240909075641.258968-20-ubizjak@gmail.com (mailing list arc

**State** New

**Headers** [show](#)

**Series** random: Resolve circular include dependency and include <linux/p

## Checks

| Context                       | Check Description |
|-------------------------------|-------------------|
| media-ci/HTML_report          | successLink       |
| media-ci/report               | successLink       |
| media-ci/virtme32             | successLink       |
| media-ci/virtme64             | successLink       |
| media-ci/bisect               | successLink       |
| media-ci/doc                  | successLink       |
| media-ci/build                | successLink       |
| media-ci/static-upstream      | successLink       |
| media-ci/abi                  | successLink       |
| media-ci/media-patchstylefail | Link              |
| media-ci/checkpatch           | successLink       |

## Commit Message

# Committer

## Responsibilities

- Prepare Merge Request (MR) following Subsystem Maintainers rules
  - Create tooling to simplify it
- Contribute to media-ci
  - Implement maintainer rules
  - allowlist/Fix new warnings when there is a new Linus release
- Try to attend Monthly Committer meetings
- Keep Patchwork up to date

## Rights

- Land MR into the tree
  - Patches need to pass CI
  - Patches cannot introduce subsystem ABI changes
  - Patches are not fixes for the current rcX mainline git repo
  - Patches cannot modify core files
  - Patches need to be reviewed by at least another Committer
  - MR are landed via "fast-forward"
- Own a user repository
- Use the CI bots



# Committer

```
user@host:~linux$ b4 shazam -l bla@chromium.org
user@host:~linux$ git push multi-committer -o
merge_request.create
```

The screenshot shows a Jenkins pipeline interface for the commit `3c4855cd`. The pipeline is titled "media: uvcvideo: Exit early if there is not int\_urb" and was created by Ricardo Ribalda Delgado. It is currently running, with 12 merge requests related to it. The pipeline consists of several stages:

- lint**: Contains jobs `abi`, `checkpatch`, and `media-patchstyle`, all of which are completed successfully (green checkmarks).
- static**: Contains jobs `static-mchehab` and `static-upstream`, both completed successfully.
- build**: Contains jobs `build`, `build-ancient`, `build-cross`, `build-gcc11`, and `build-llvm`. The `build` job is currently running (blue lightning bolt), while the others are completed.
- doc**: Contains the job `doc`, which is completed successfully.
- bisect**: Contains the job `bisect`, which is currently running.
- report**: Contains the job `report`, which is currently running.

The interface also shows a sidebar with navigation options like Project, Pinned, Merge requests, Manage, Code, Build, Pipelines, Jobs, Pipeline editor, Pipeline schedules, Artifacts, Deploy, and Settings.

The screenshot shows the "Properties" panel for a pipeline, with the following configuration options:

- Change state:** Set to `Accepted`.
- Delegate to:** Set to `no change`.
- Archive:** Set to `no change`.
- update**: A button to update the pipeline configuration.

# Core Committer

## Responsibilities

- Promptly review core changes

## Rights

- Land Merge Requests affecting core files
  - They cannot change subsystem ABI
  - Patches need to be reviewed by at least another core committer.
  - MR are landed via "fast-forward"



# Subsystem Maintainer

## Responsibilities

- Merge branches directly
  - Linus' rcs into the tree (maybe you want help from a "gardener" that you nominate?)
  - Other subsystem stable branches (when needed)
  - Fixes branch (when needed)
- Review subsystem ABI changes
- Define the tests that should be checked in CI
- Forward content of the tree to Linus
- Promote / Demote committers



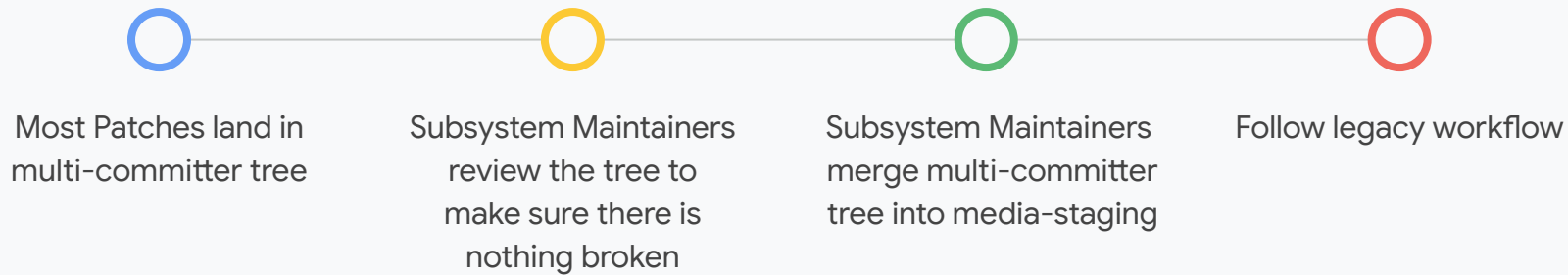
## Rights

- Unlimited push rights to the repository.
  - This includes rebasing
- Can bypass CI

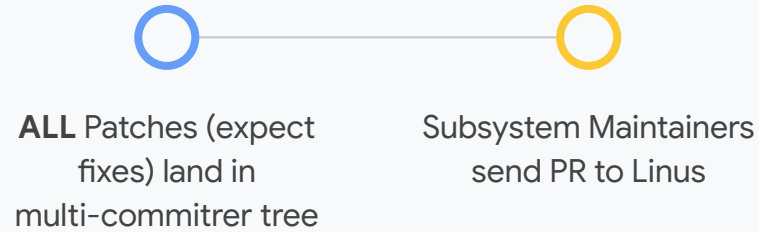
# Patches workflow



# Current workflow



# Future workflow



# Promo

# Become a committer

- Committers / Maintainers propose a new committer to the Subsystem Maintainers
- Committer candidates must have:
  - Good contribution records
  - Must have their key signed by at least one Committer
  - Must have been met in person by another Committer
  - GPG sign the committers agreement

Whole process is done Out of mailing list, to avoid putting pressure into the Maintainers.

After promo, a welcome message is sent to the Mailing List and their name is added to committers.txt



# Stop being a committer

- Subsystem maintainers can decide at any time to demote a person.
- Committers can self-exclude themselves if they feel pressure from their company or they retire.
- A committer that stops committing is auto-excluded.

The process is done out of the mailing list.

After demotion their name is removed from committers.txt.

