

# Kernel Janitors

Function balancing

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# Assignment

- Find unmatched function calls.
- Memory allocated by `pci_alloc_consistent()` needs to be freed by `pci_free_consistent()`.
- Write automatic Coccinelle script.

# Result

- Finished script for `pci_free_consistent()`.
- Not yet added to the kernel repository.

```
id = pci_alloc_consistent@p1(x,y,&z)
... when != e = id
if (id == NULL || ...) { ... return ...; }
... when != pci_free_consistent(x,y,id,z)
    when != if (id) { ... pci_free_consistent(x,y,id,z) ... }
    when != if (y) { ... pci_free_consistent(x,y,id,z) ... }
    when != e = (T)id
    when exists
(
return 0;
|
return 1;
|
return id;
|
return@p2 ...;
)
```

# Community

- Outdated website, hard to find relevant information.
- Most of the communication was with Julia Lawall who was very helpful.