Secure Erase Proposal

Begin

Cache driveId catalog

Bootstrap-ubuntu

Delay
(Wait for disk scan)

Catalog driveId and Megaraid

Secure erase job
(Inside dot line rectangle)

If user options Valid?

No

Yes

Extend drive Information from latest catalog

If drives esxiWwid Identical?

No
(Raid operation happened outside RackHD, to void erasing wrong disks, graph will be terminated)

Yes

Get drives physical info

Create Secure Erase Command

Run Secure Erase Script

Re-catalog driveId and Megaraid

Reboot
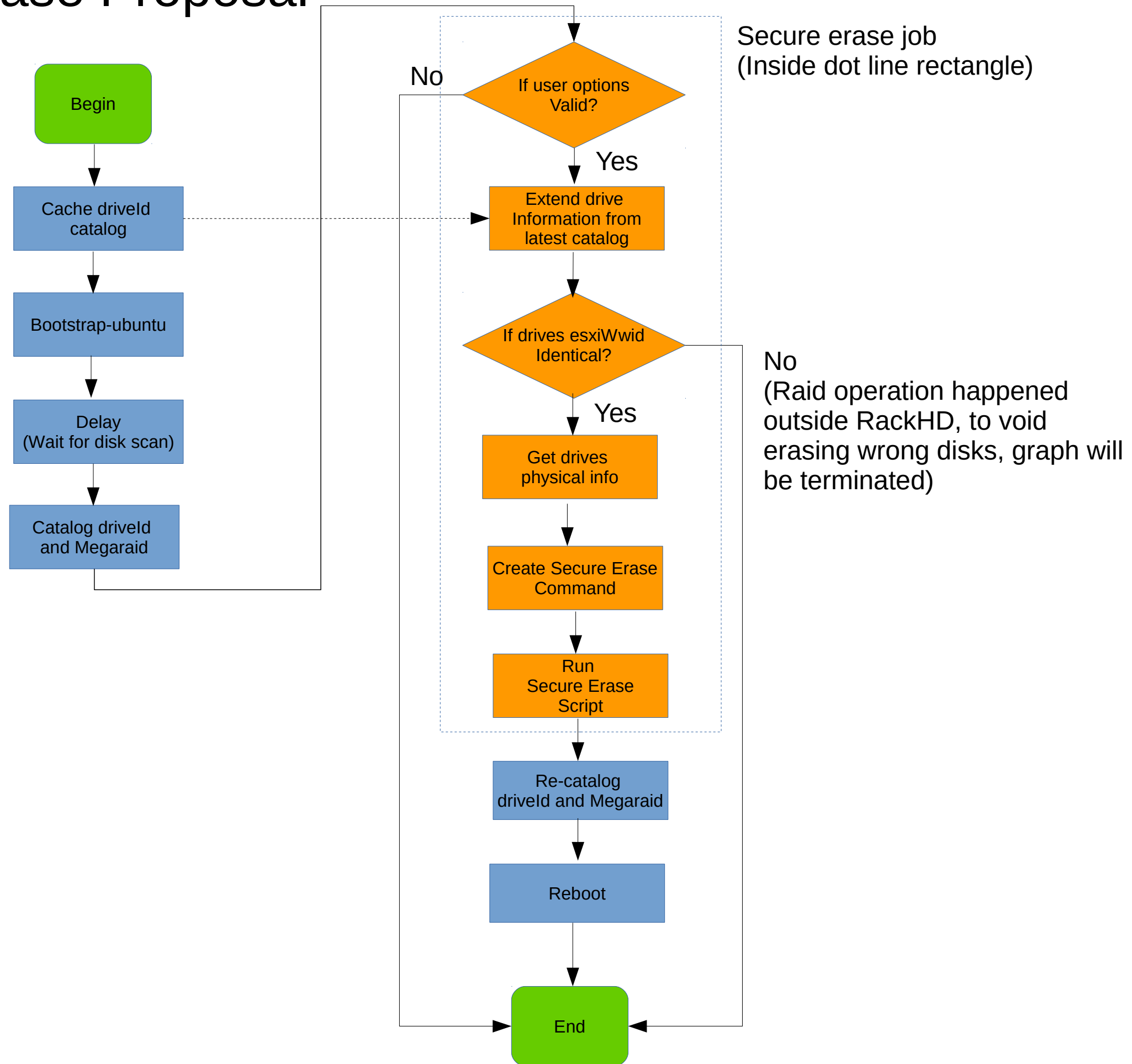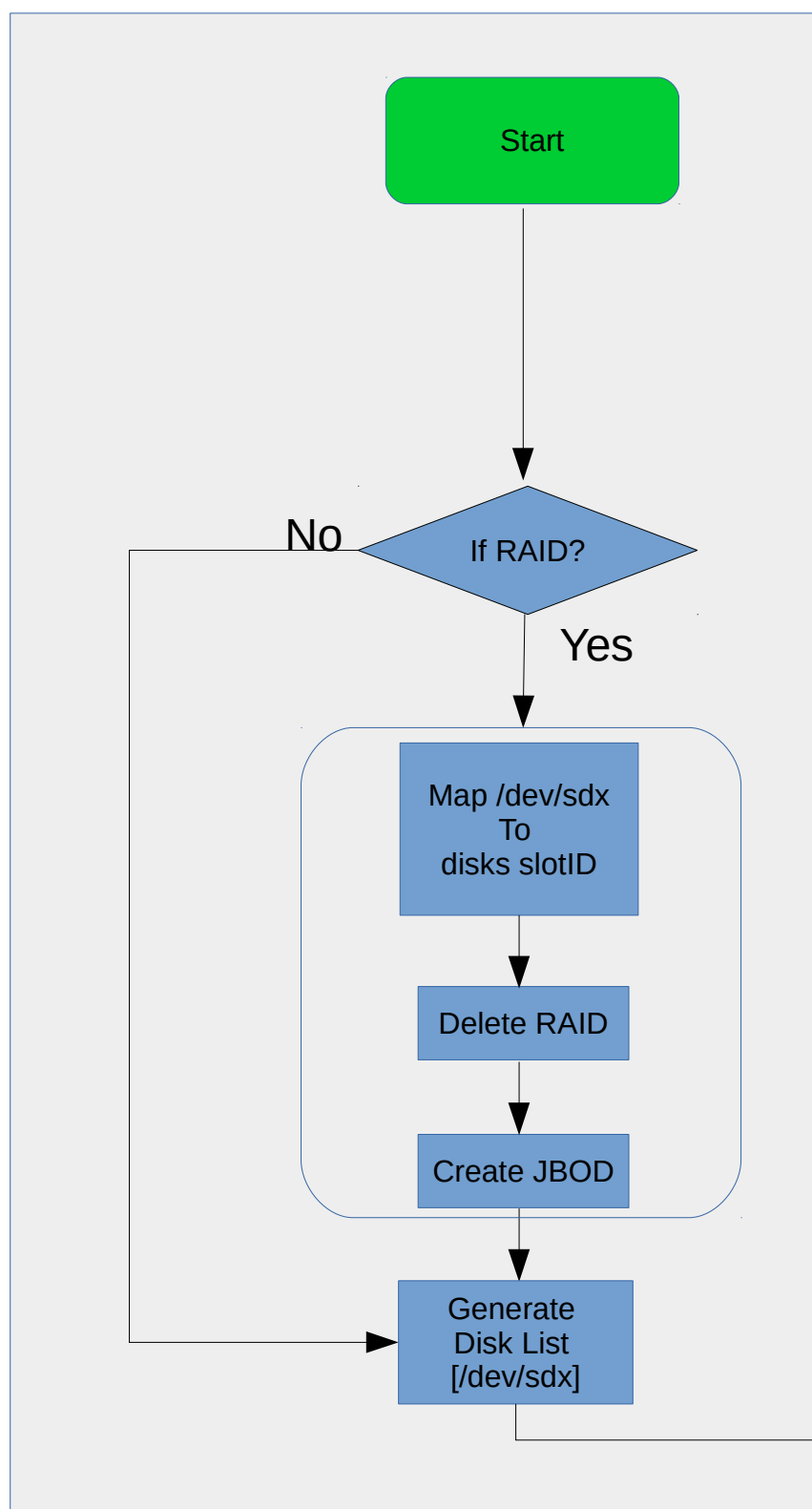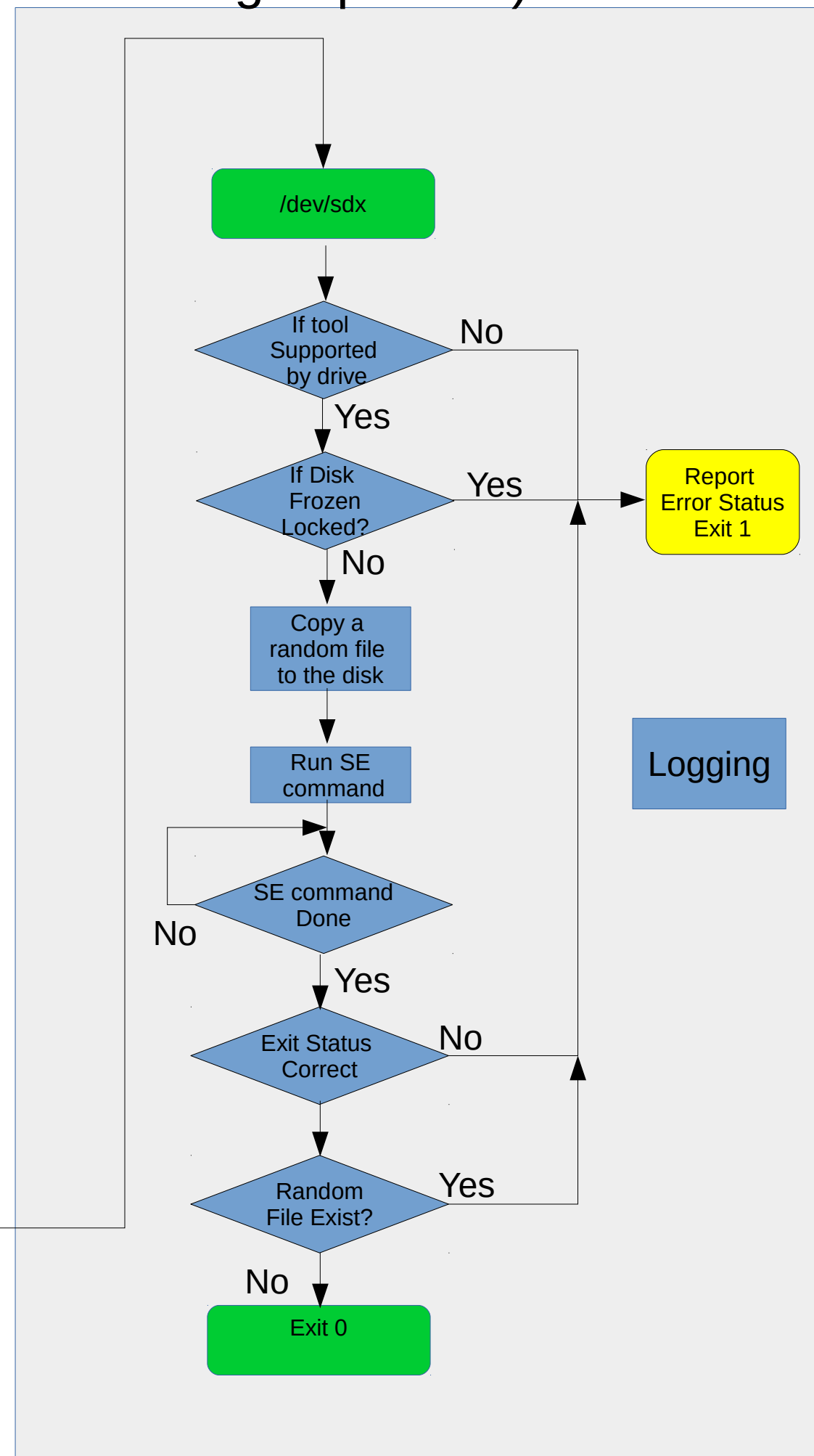
End

hdparm erase

Erase Command Module
(Each disk have such module
running in parallel)

RAID Deletion Module:
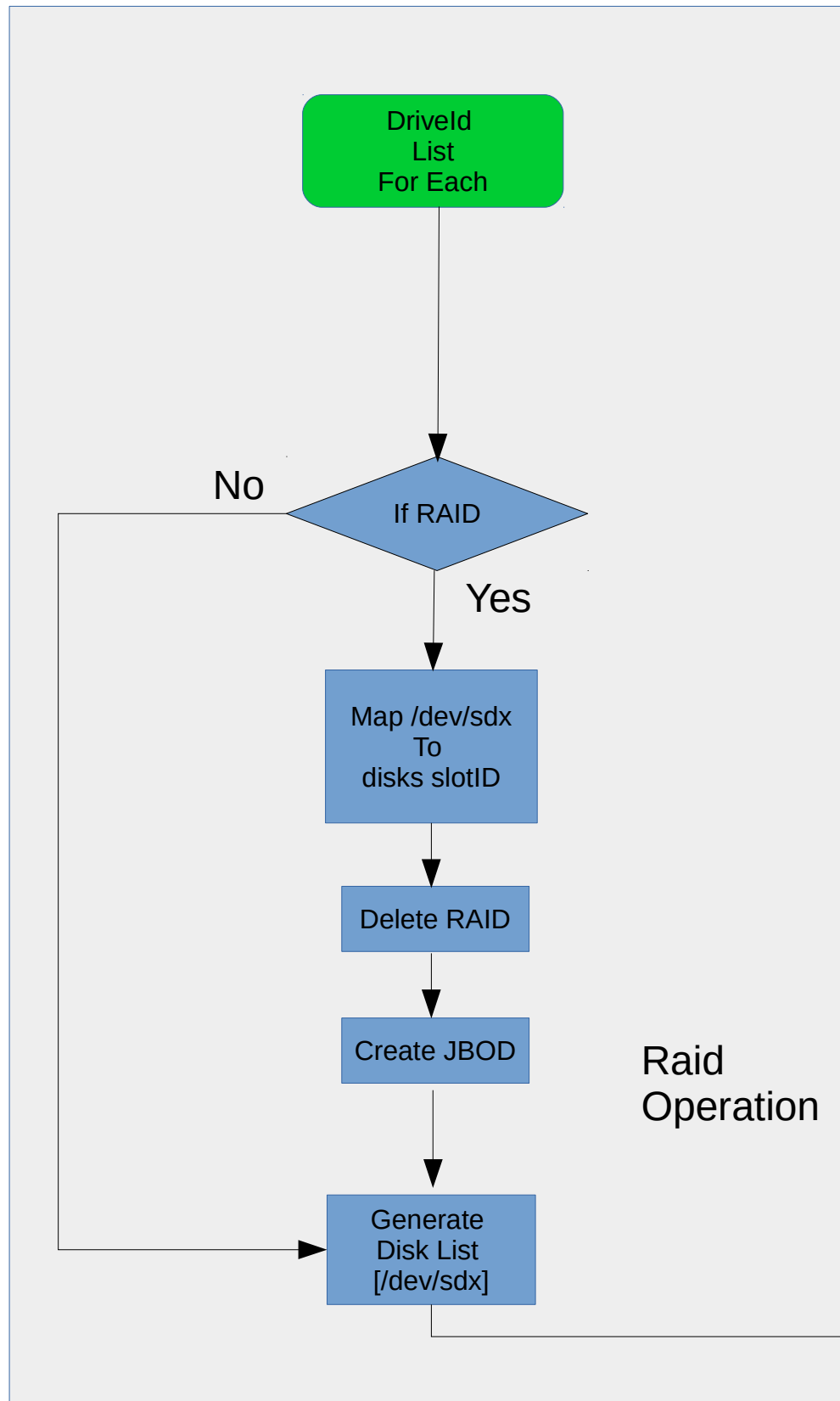Input: /dev/sdx w/ raid
Output: /dev/sdx w/o raid

RAID Deletion Module (flowchart)

- Start
- If RAID?
  - No → Generate Disk List [/dev/sdx]
  - Yes →
    - Map /dev/sdx To disks slotID
    - Delete RAID
    - Create JBOD
    - Generate Disk List [/dev/sdx]

Erase Command Module (flowchart)

- /dev/sdx
- If tool Supported by drive
  - No → (to Report Error Status Exit 1)
  - Yes →
    - If Disk Frozen Locked?
      - Yes → Report Error Status Exit 1
      - No →
        - Copy a random file to the disk
        - Run SE command
        - SE command Done
          - No → (loop back to Run SE command)
          - Yes →
            - Exit Status Correct
              - No → (to Report Error Status Exit 1)
              - Yes →
                - Random File Exist?
                  - Yes → (to Report Error Status Exit 1)
                  - No → Exit 0
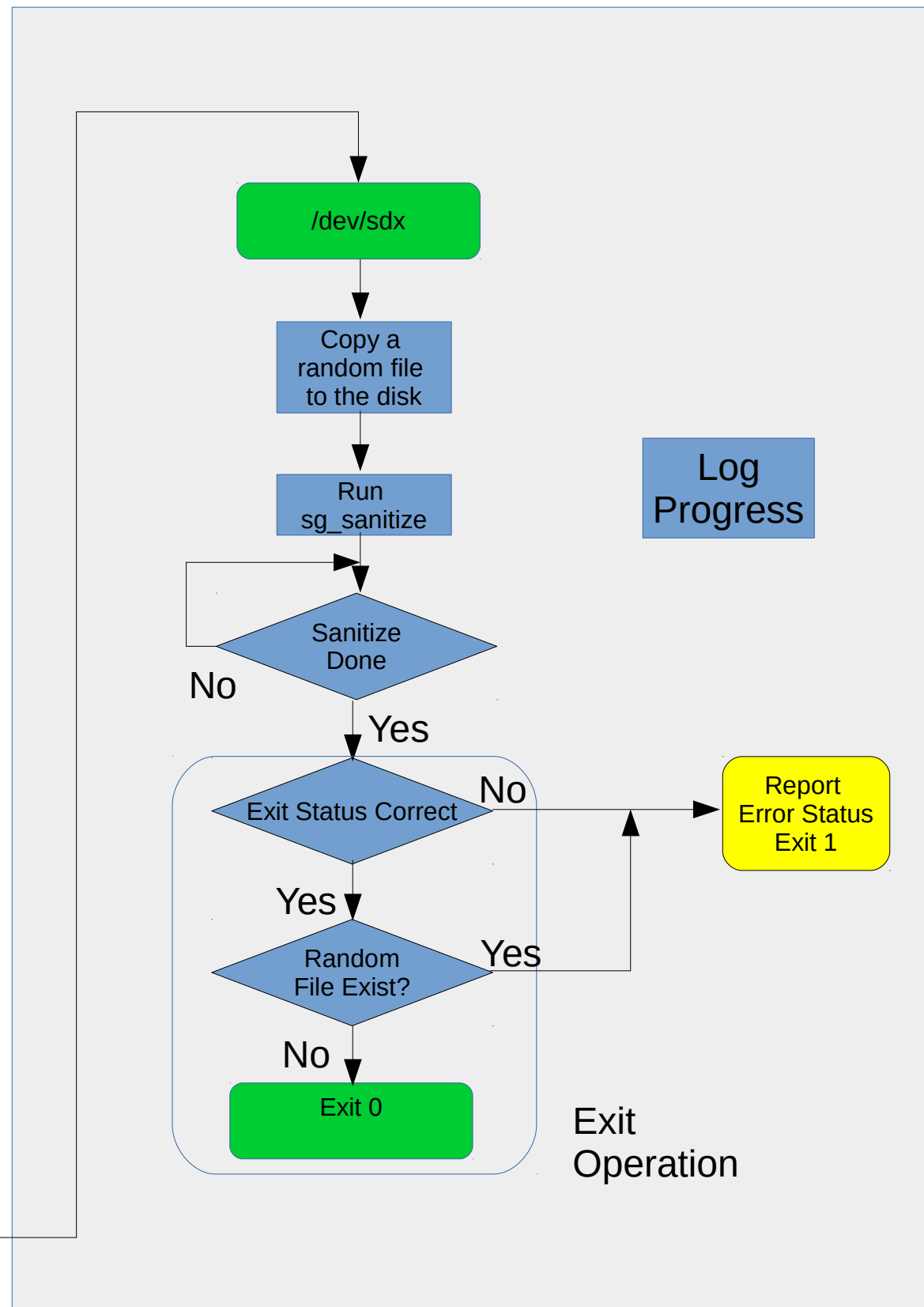
Logging

sg_sanitize/format erase

RAID Deletion Module:
Input: /dev/sdx w/ raid
Output: /dev/sdx w/o raid

Erase Command Module
(Each disk have such module running in parallel)

DriveId
List
For Each

If RAID

No

Yes

Map /dev/sdx
To
disks slotID

Delete RAID

Create JBOD

Raid
Operation

Generate
Disk List
[/dev/sdx]

/dev/sdx

Copy a
random file
to the disk

Run
sg_sanitize

Log
Progress

Sanitize
Done

No

Yes

Exit Status Correct

No

Report
Error Status
Exit 1

Yes

Random
File Exist?

Yes

No

Exit 0

Exit
Operation

scrub erase

RAID Deletion Module:
Input: /dev/sdx w/ raid
Output: /dev/sdx w/o raid

Erase Command Module
(Each disk have such module
running in parallel)

DriveId
List
For Each

If RAID — No

Yes

Map /dev/sdx
To
disks slotID

Delete RAID

Create JBOD

Generate
Disk List
[/dev/sdx]

driveIds

Copy a
random file
to the disk

Run
Scrub

Erase
Done? — No

Yes

Exit Status Correct — No

Yes

Random
File Exist? — Yes

No

Report
Error Status
Exit 1

Exit 0