How to Factory Staging Project work

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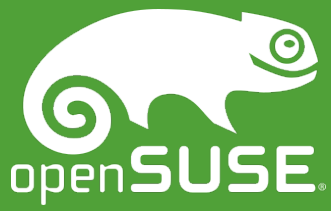
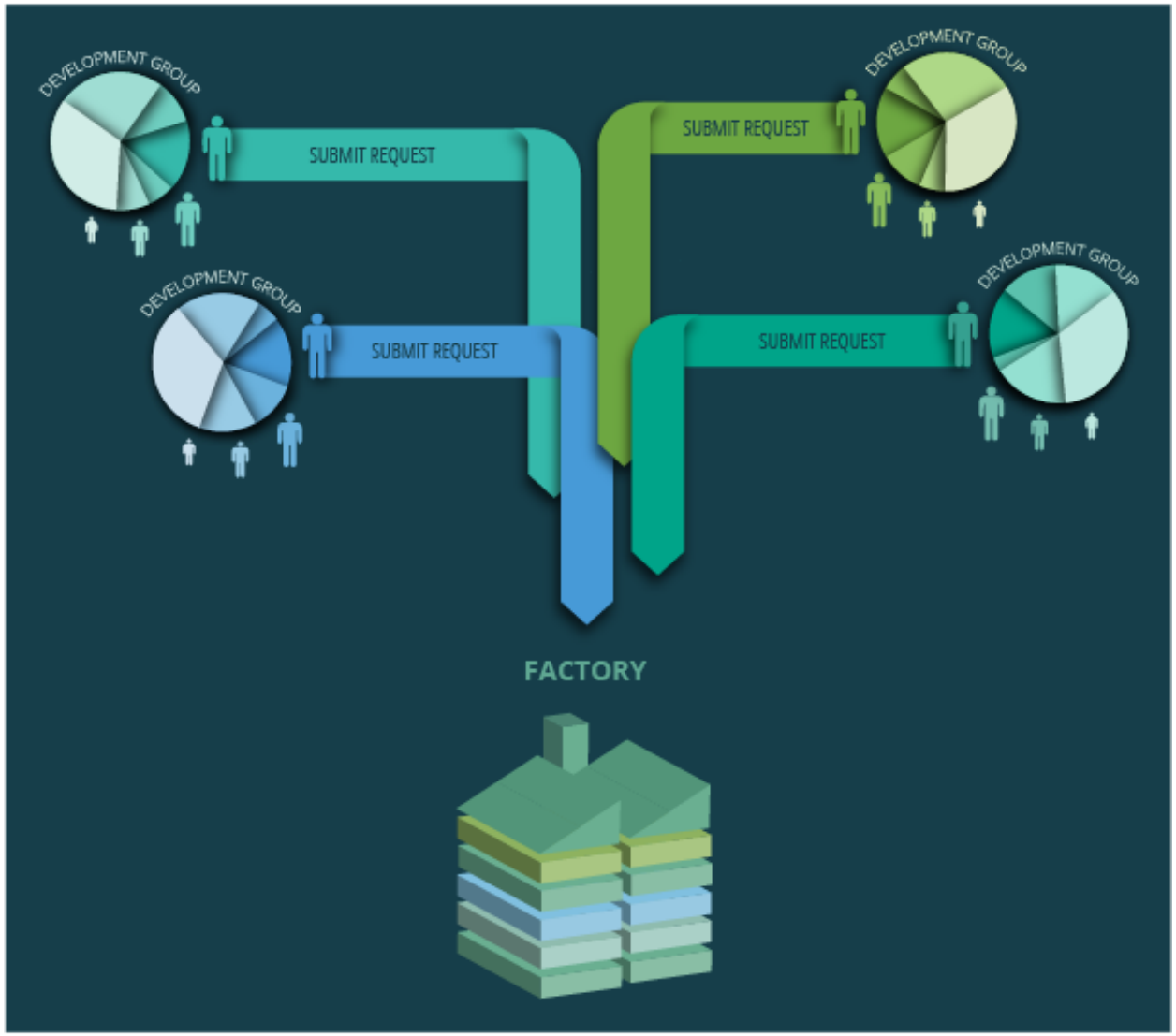


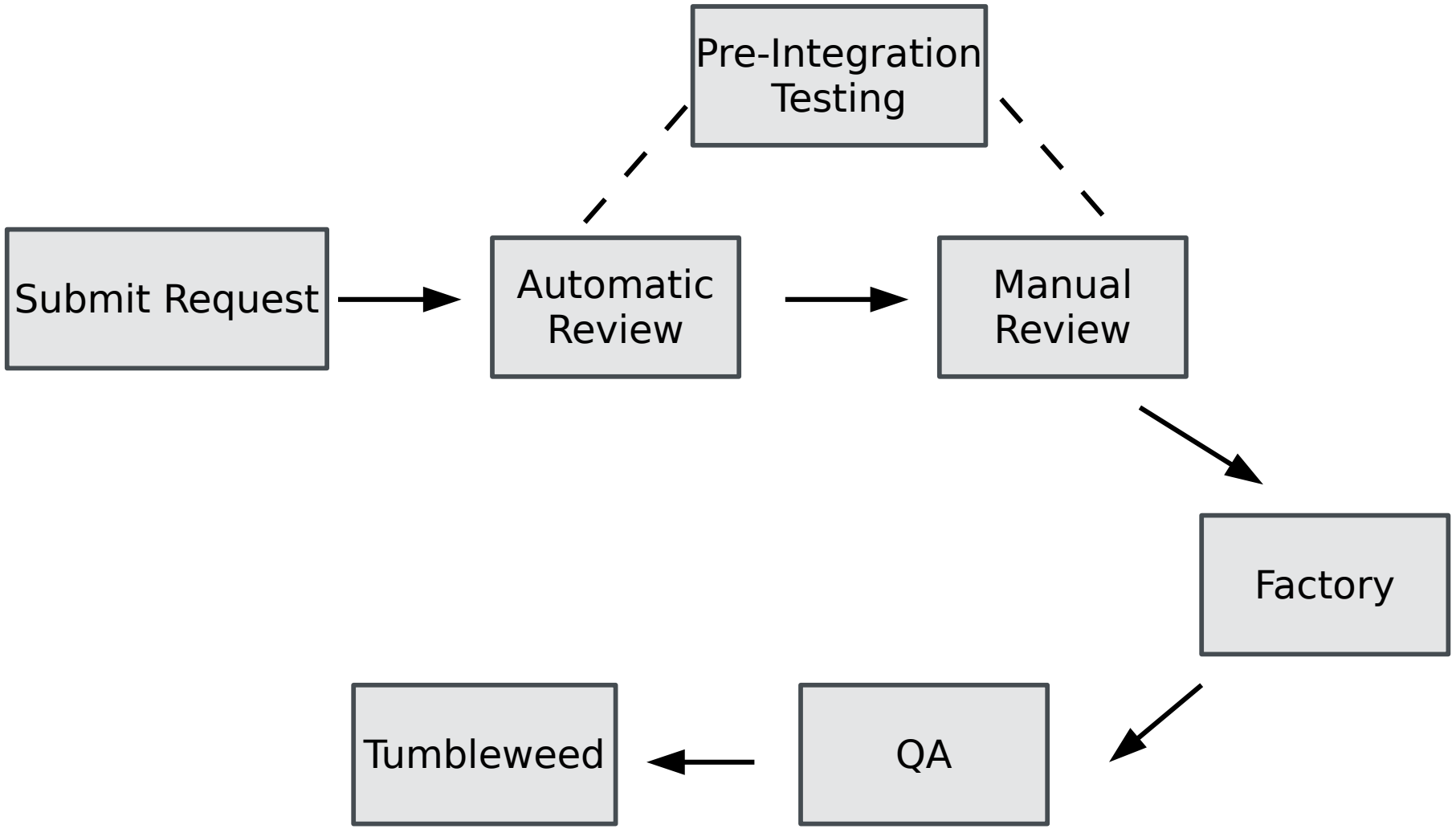
Factory development



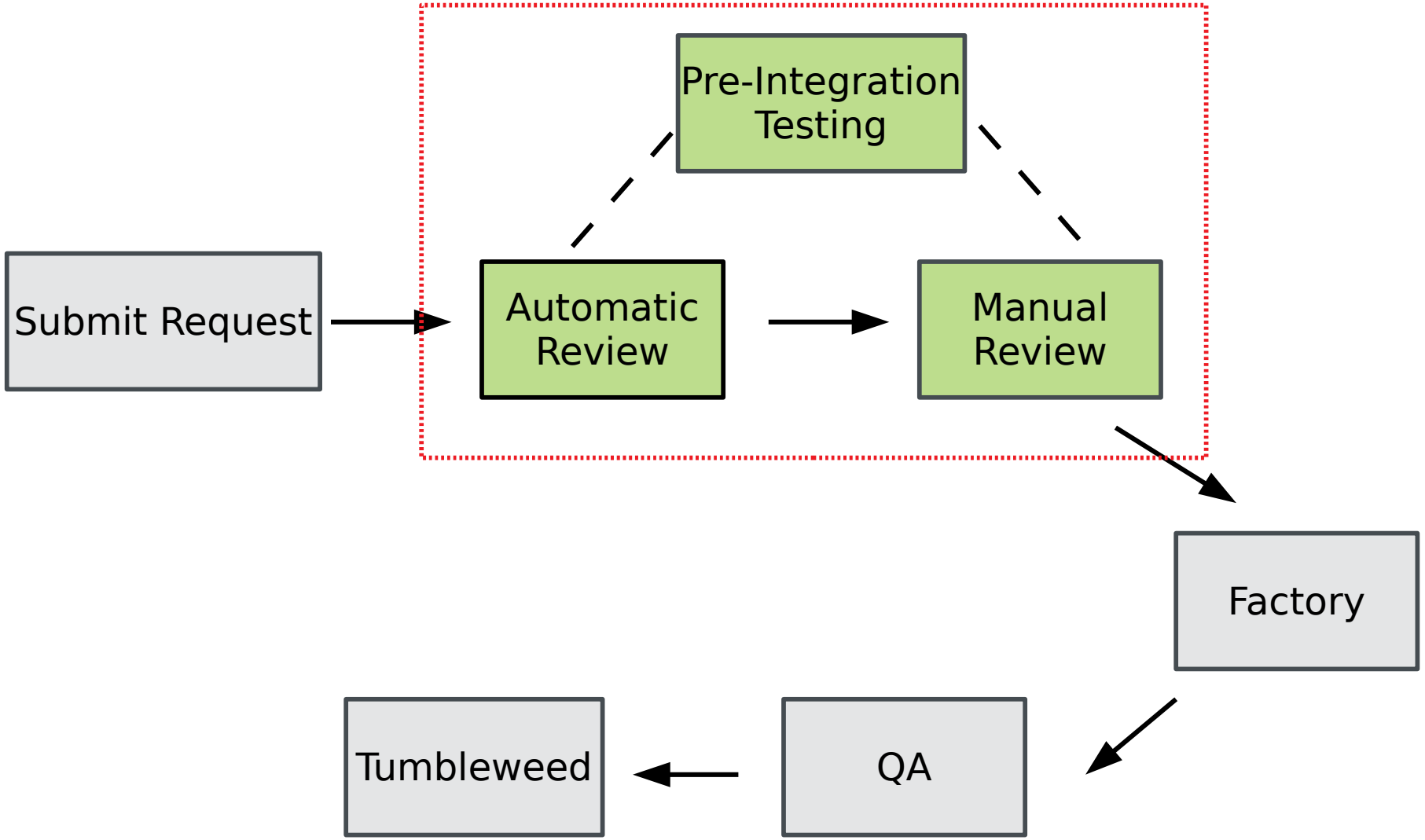
Problem

- Sometimes the package fails to build
- Sometimes it caused the other package fails to build
- Sometimes the package is uninstallable
- Sometimes the package does not work
- Sometimes you don't know what things is going wrong, just a mess!
- Hard to address the problem and debugging

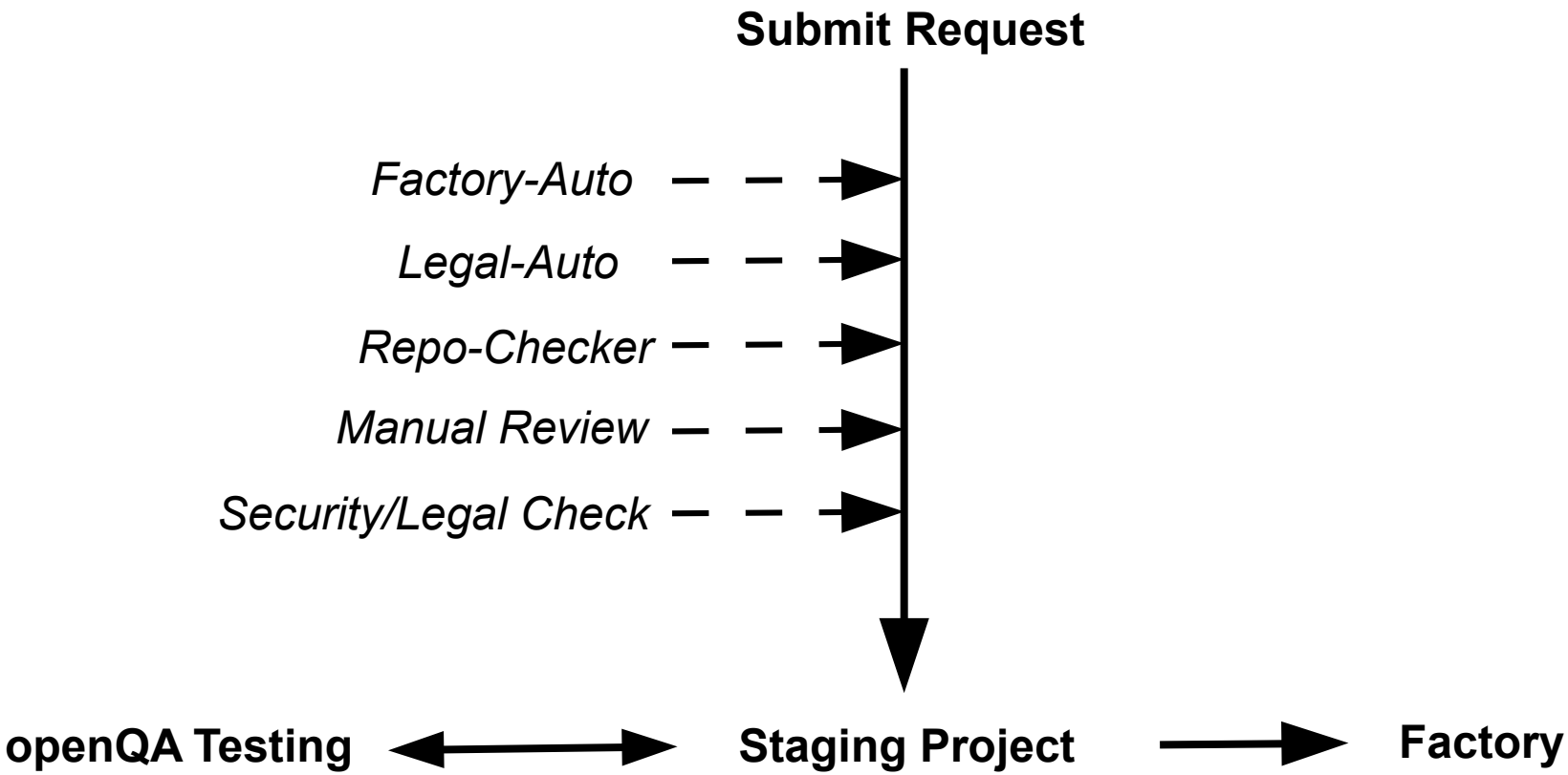
The workflow



The workflow(cont.)



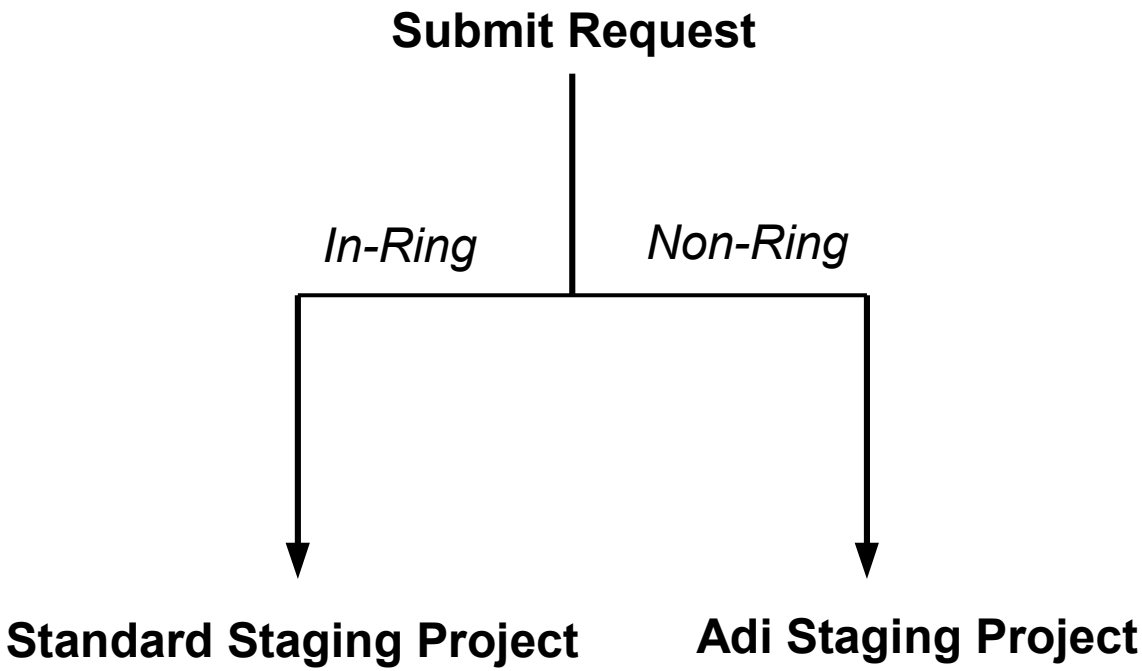
Review process



Review process

- Factory-Auto: checks basic rules and adds additional reviewers
- Legal-Auto: checking if the license of the package is in the permitted license database
- Review Team: human check of the request
- Repo-Checker: a more deeper automatic check
- Factory-Staging: review by Staging Master (manual check and assisted by repochecker and openQA)

In-Ring vs. Non-Ring



Rings

	Description	Packages
Ring-0	The bootstrap cycle of factory	108
Ring-1	Packages to generate the minimal-X DVD	1119
Ring-2	A pretty much complete DVD	1069

Standard Staging Project

- Inherited all packages from Rings
- Staging1 – Ring-0 + Ring-1
  - i586/ppc64le/x86_64 build enabled
- Staging2(:DVD) – sub-project of Staging1 + Ring-2
  - ppc64le/x86_64 build enabled
- Will rebased at some point.

Adi Staging Project (Ad-Interim)

- For *non-ring* packages
- Ensure the package can built against Factory/x86_64
- Repo-Checker has involved
- It can not handle delete request!

Repo-Checker

- Build result verification, including sub-package
- The binary files is installable
- Checks the conflicts with other packages
- Detects new build cycle
- Checks the validation of *delete request* as far as possible
- Commenting on the request if found the problem

Generate staging DVD

- Mirrored the binary files from build service
- Execute rpm2solv against all binaries and generate the solv file
- There is the testcase file represents package requirements to build a image
- Execute testsolv against testcase then get the packages list(or detects the error)
- Parse the packages list and add it to the kiwi file
- Generated DVD according to that kiwi file

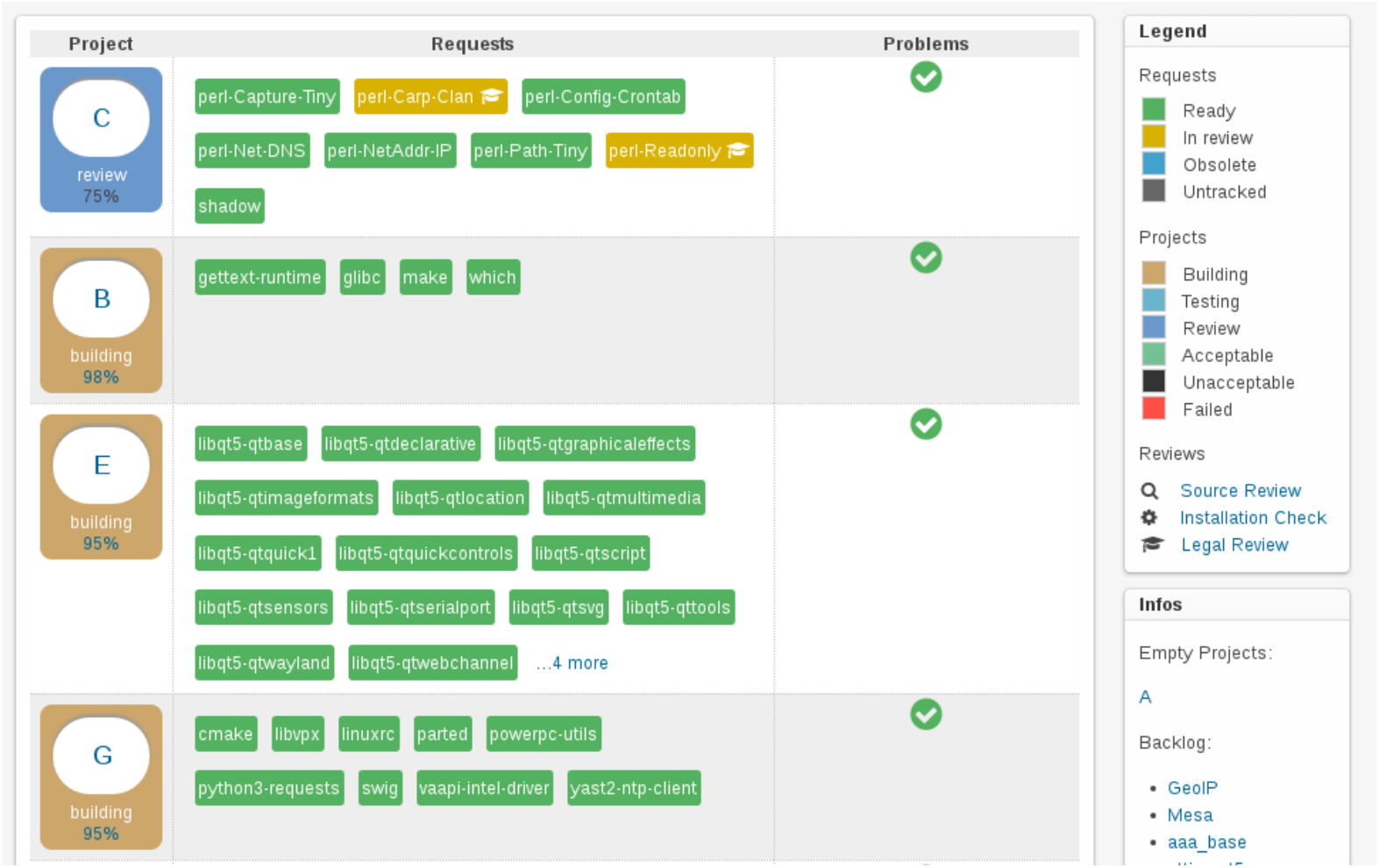
openQA testing

- Normal installation
- Installation on RAID partition(software RAID)
- Installation with cryptlvm enabled
- Installation on UEFI environment
- Boot into rescue system
- Console tools test
- Minimal-X/GNOME/KDE environment work
- Update system to current staging from Leap 42.1 or old staging
- Only test the stuff were in the staging DVD

Acceptable?

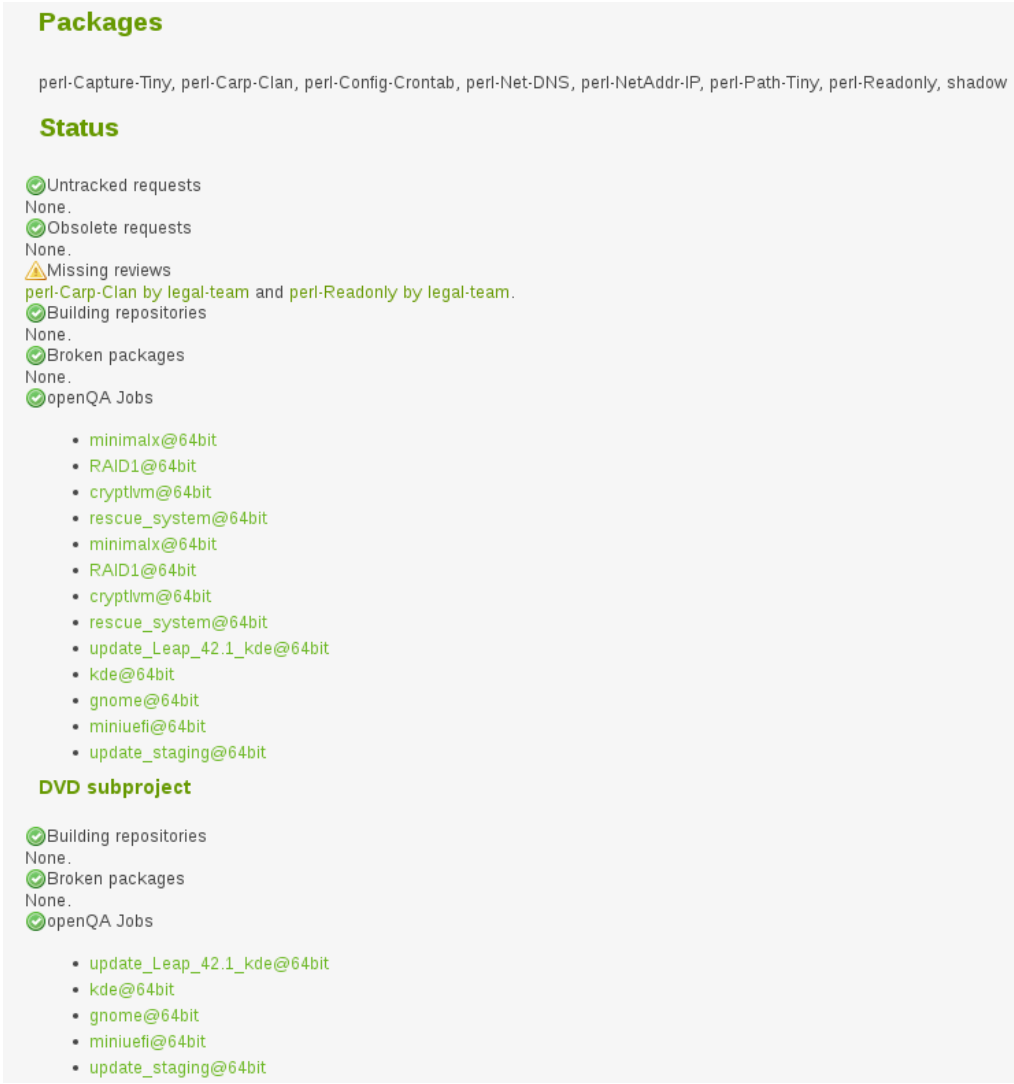
- No build failures
- All reviews were accepted
- Passed openQA testing
- The **current** Tumbleweed snapshot is built and moved to openQA*

Staging Dashboard



* https://build.opensuse.org/project/staging_projects/openSUSE:Factory

Why blocked?



Packages

perl-Capture-Tiny, perl-Carp-Clan, perl-Config-Crontab, perl-Net-DNS, perl-NetAddr-IP, perl-Path-Tiny, perl-Readonly, shadow

Status

Untracked requests
None.
Obsolete requests
None.
Missing reviews
perl-Carp-Clan by legal-team and perl-Readonly by legal-team.
Building repositories
None.
Broken packages
None.
openQA Jobs

- minimalx@64bit
- RAID1@64bit
- cryptlvm@64bit
- rescue_system@64bit
- minimalx@64bit
- RAID1@64bit
- cryptlvm@64bit
- rescue_system@64bit
- update_Leap_42.1_kde@64bit
- kde@64bit
- gnome@64bit
- miniuefi@64bit
- update_staging@64bit

DVD subproject

Building repositories
None.
Broken packages
None.
openQA Jobs

- update_Leap_42.1_kde@64bit
- kde@64bit
- gnome@64bit
- miniuefi@64bit
- update_staging@64bit

* https://build.opensuse.org/project/staging_projects/openSUSE:Factory/$PRJ_LETTER

Not for Intel archs

- Make sure package is built on specific architecture.
- The rest of architecture must be excluded than disabled.
- Repo-Checker can not handle it properly, human review is required!

Repo-Checker log

Example:

```
> Check group [#[401381](lrzip)]
 - Execution plan for ('openSUSE:Factory:Staging:adi:11', 'standard') failed
------------------------------------
found conflict of lrzip-0.630-6.2.x86_64 with rzsz-0.12.20-1002.2.x86_64:
  - /usr/share/man/man1/lrz.1.gz
  - /usr/bin/lrz
------------------------------------
 - Execution plan for ('Archiving', 'openSUSE_Factory') failed
------------------------------------
found conflict of lrzip-0.630-5.1.x86_64 with rzsz-0.12.20-1002.2.x86_64:
  - /usr/share/man/man1/lrz.1.gz
  - /usr/bin/lrz
------------------------------------
found conflict of lrzip-0.630-6.2.x86_64 with rzsz-0.12.20-1002.2.x86_64:
  - /usr/share/man/man1/lrz.1.gz
  - /usr/bin/lrz
```

https://build.opensuse.org/package/view_file/openSUSE:Factory:Staging/dashboard/check_repo?expand=1

Behavior of accepting

- The submissions in standard staging project will merge to Factory directly.
- The submissions in Adi staging project have to wait until any standard staging project is ready and merging together.
- Yes! We have a way force to merge submissions and no needs to wait any standard staging project is acceptable.

TODO

- A better way to ensure Ring-0 is safe after a merge
- Better the *delete request* handling
- Better the renaming submission handling, esp. for non-ring package
- Dashboard for Adi staging or at least a better visual view way
- More tickets in progress.opensuse.org

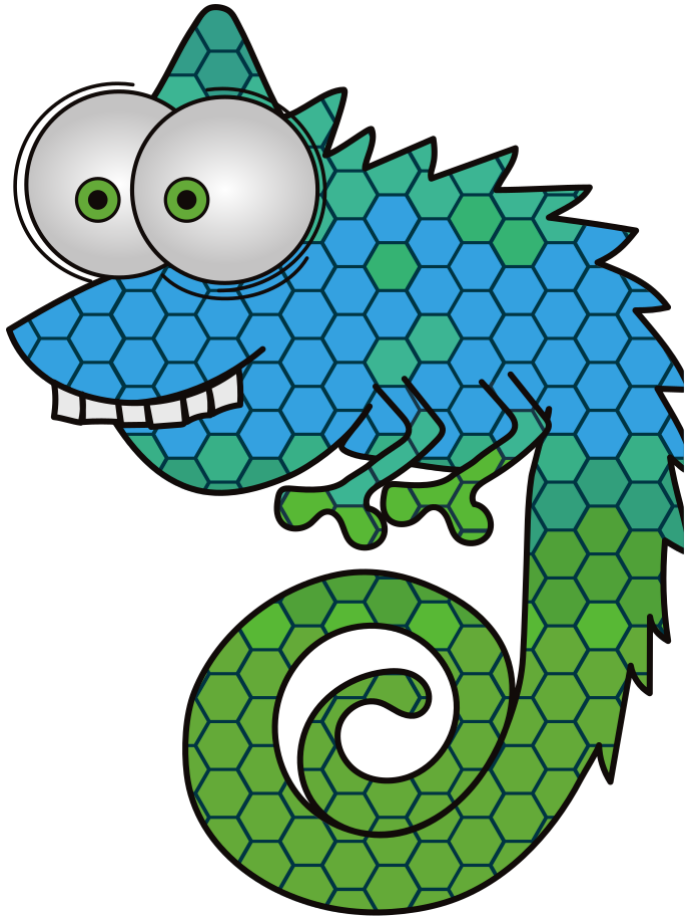
Contact us

- Ask on #opensuse-factory IRC channel
- Leave the comment on the request
- Ping me on IRC or mail me :)

Questions?

Join the conversation,
contribute & have a lot of fun!
www.opensuse.org

Thank you.



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