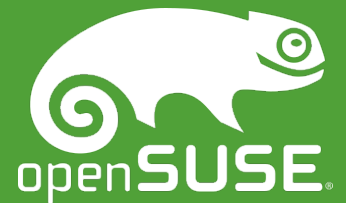
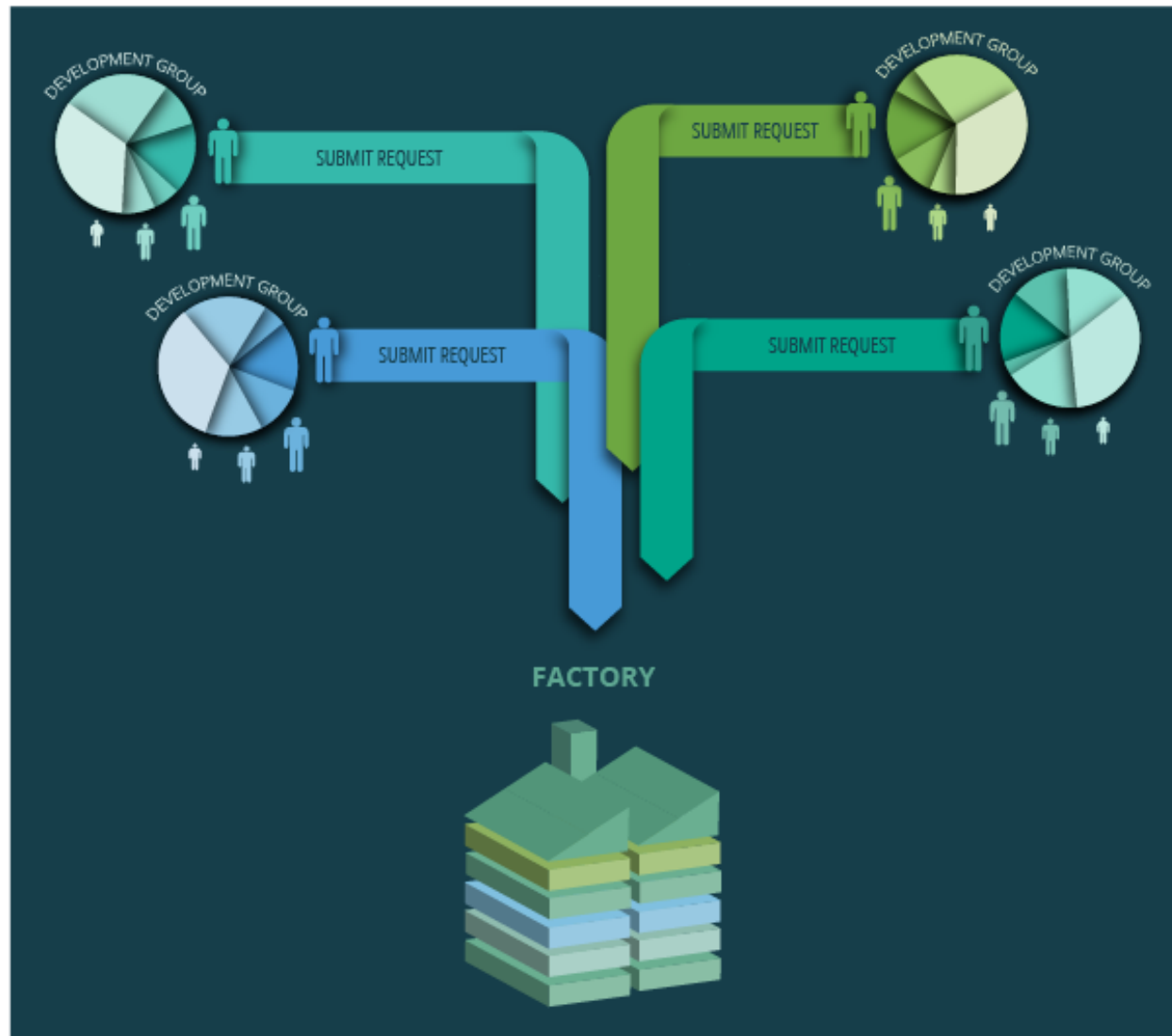


How to Factory Staging Project work

Max Lin
mlin@suse.com



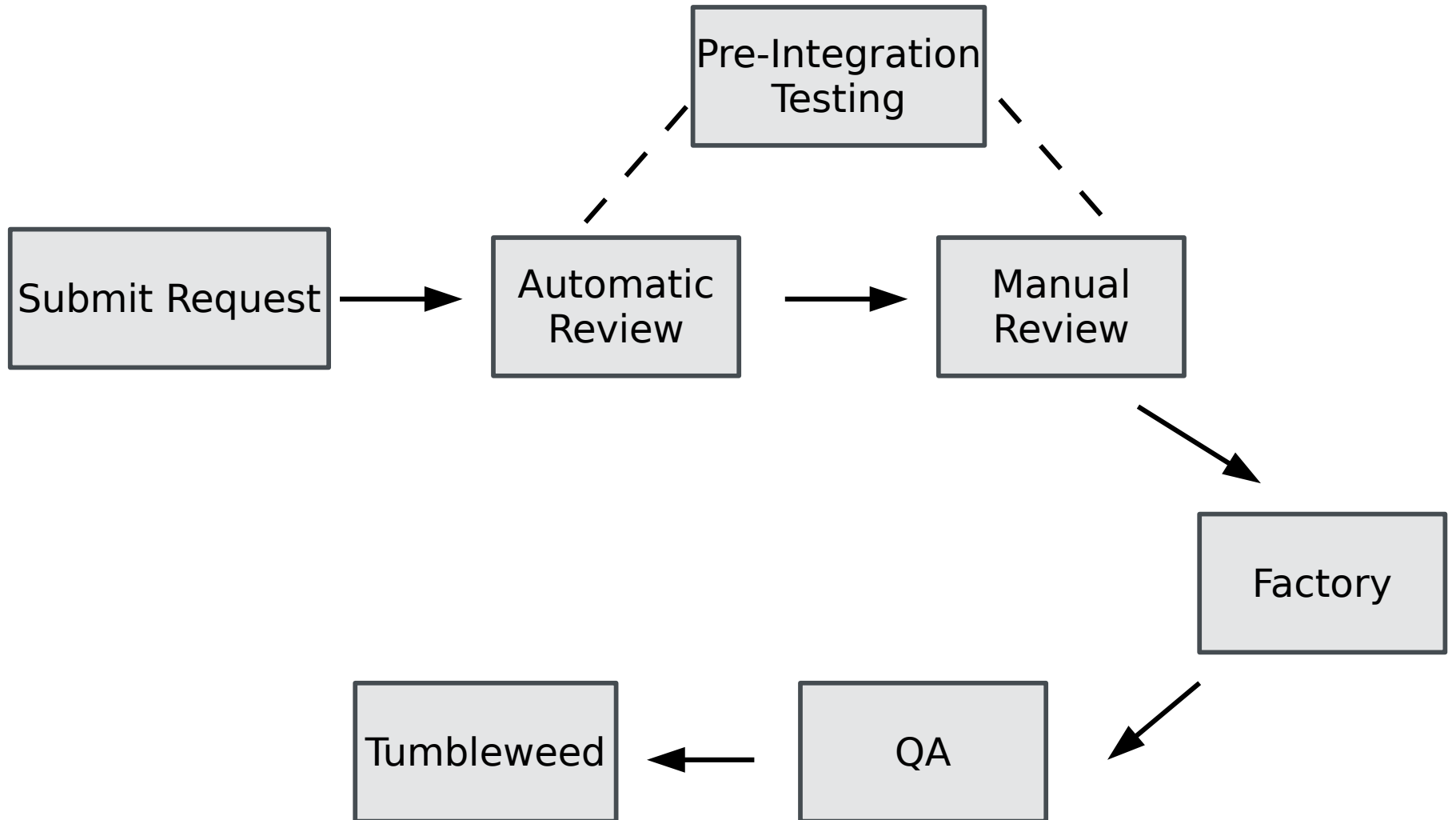
Factory development



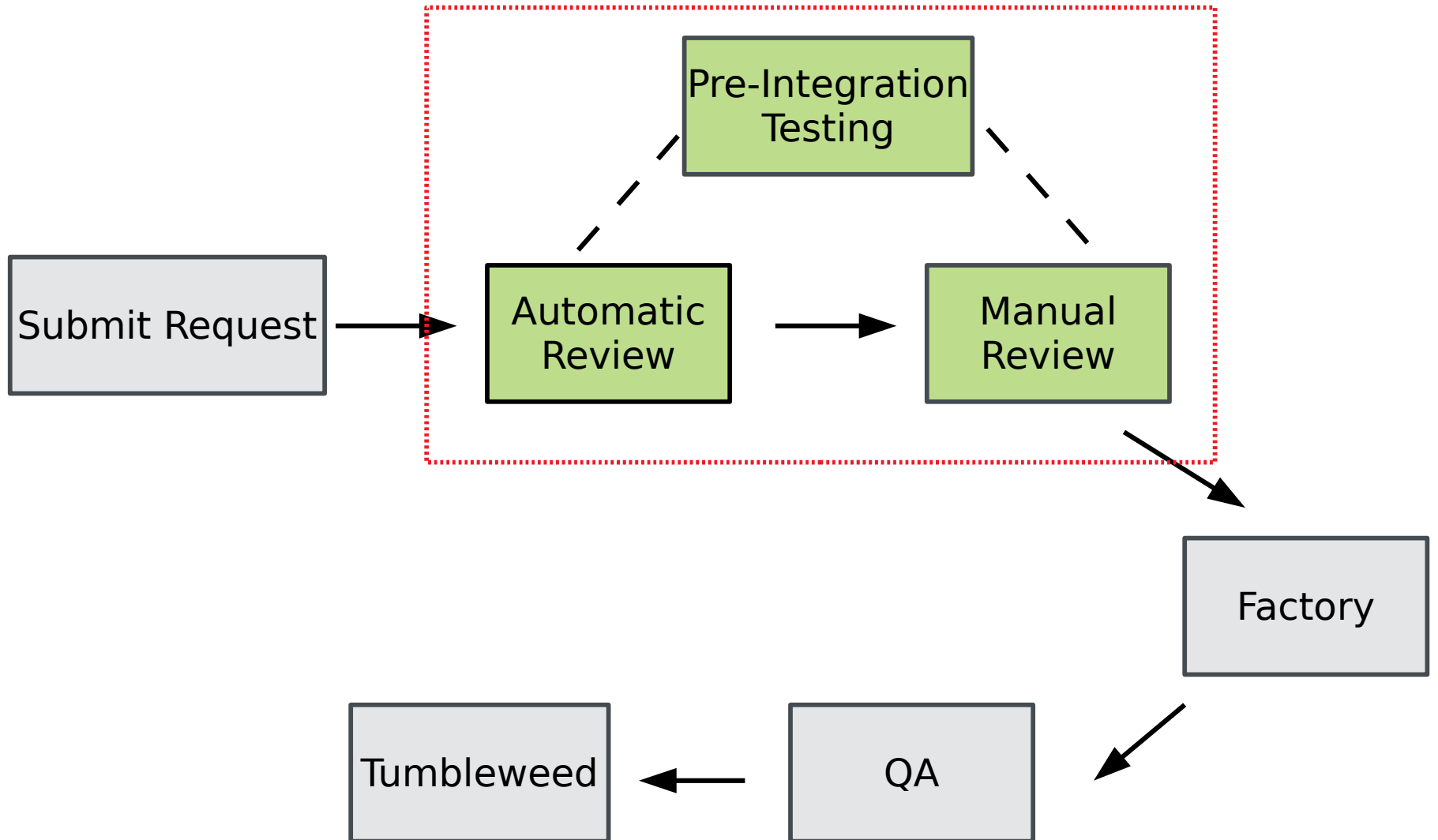
Problem

- Sometimes the package fails to build
- Sometimes it causes 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

Submit Request

Factory-Auto — — ➔

Legal-Auto — — ➔

Repo-Checker — — ➔

Manual Review — — ➔

Security/Legal Check — — ➔



openQA Testing



Staging Project

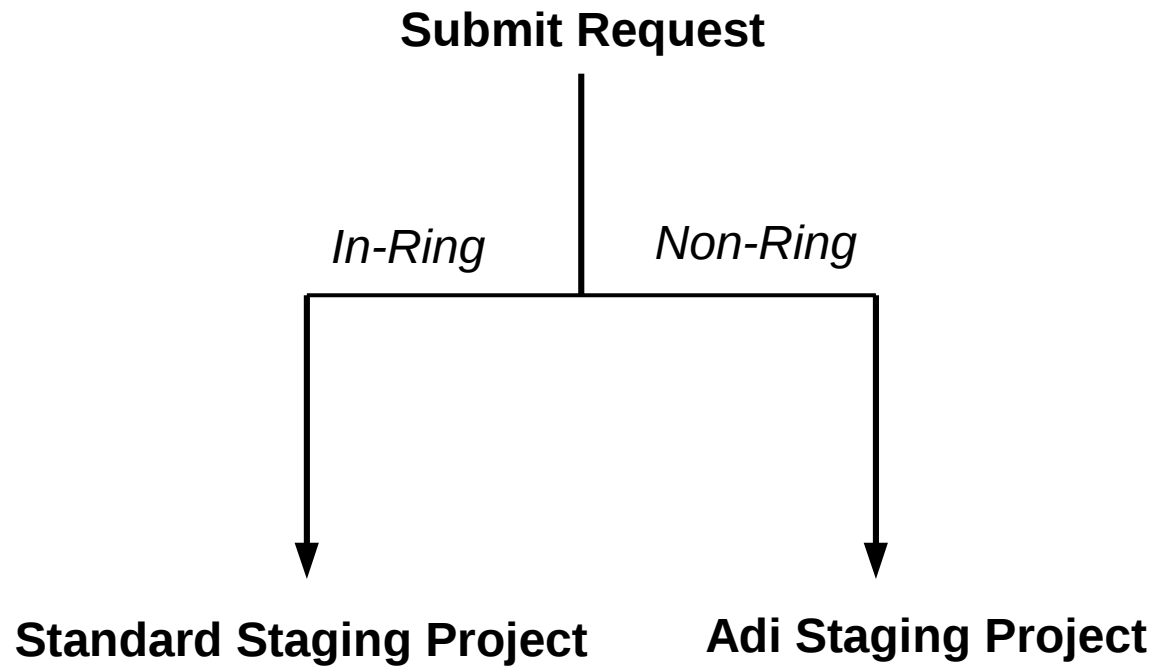


Factory

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 be 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 once found any 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 the basic 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

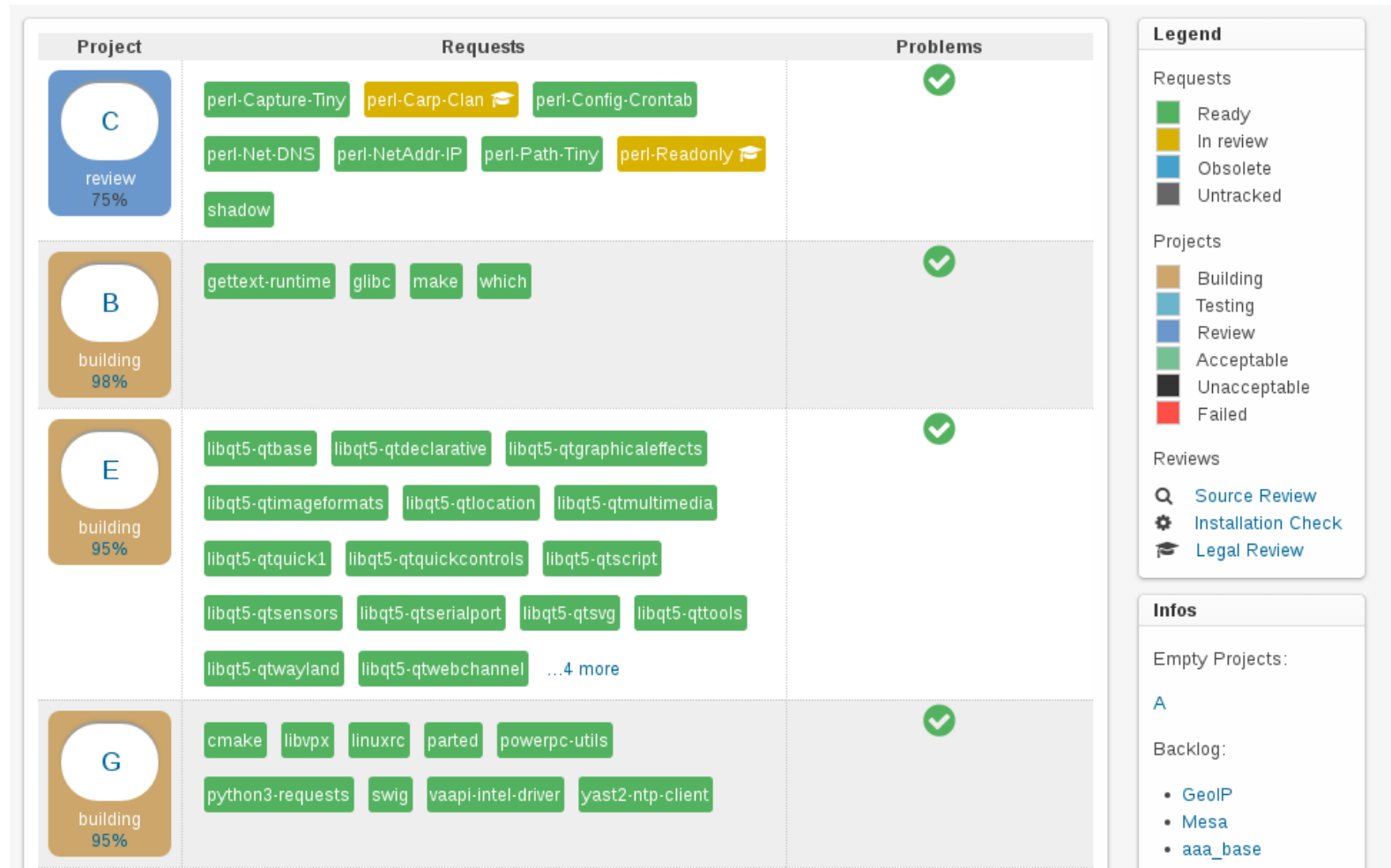
openQA testing

- 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 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](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 rzs-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 rzs-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 rzs-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

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



What is next?

TODO

- A better way to ensure Ring-0 is safe after a merge
- Delete request handling
- Rename package handling, esp. 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 or mail me :)



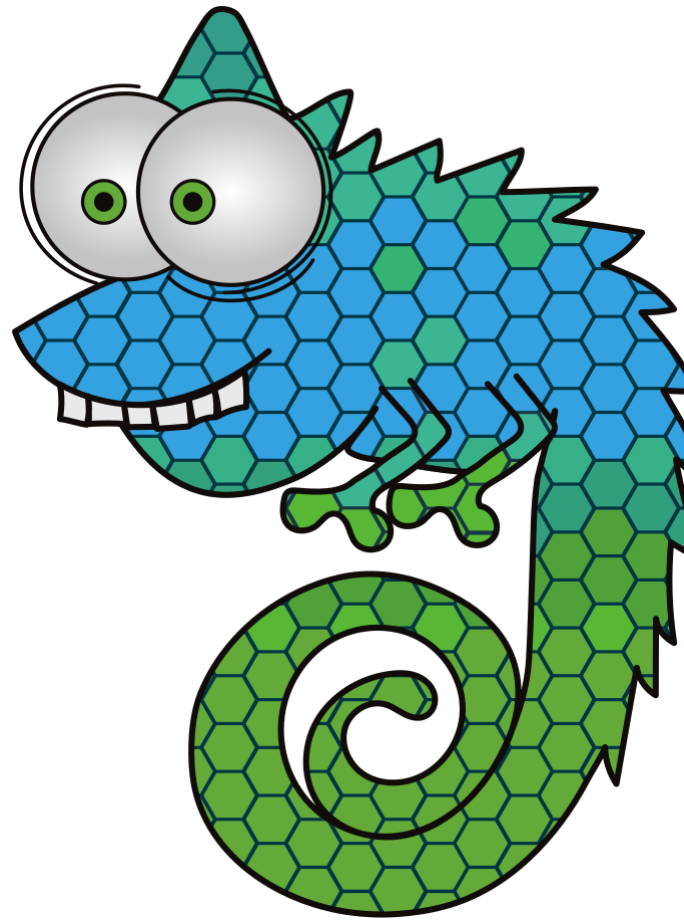
Questions?

Join the conversation,
contribute & have a lot of fun!

www.opensuse.org

Thank you.





Have a Lot of Fun, and Join Us At:

www.opensuse.org



License

This slide deck is licensed under the Creative Commons Attribution-ShareAlike 4.0 International license. It can be shared and adapted for any purpose (even commercially) as long as Attribution is given and any derivative work is distributed under the same license.

Details can be found at <https://creativecommons.org/licenses/by-sa/4.0/>

General Disclaimer

This document is not to be construed as a promise by any participating organisation to develop, deliver, or market a product. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. openSUSE makes no representations or warranties with respect to the contents of this document, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. The development, release, and timing of features or functionality described for openSUSE products remains at the sole discretion of openSUSE. Further, openSUSE reserves the right to revise this document and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes. All openSUSE marks referenced in this presentation are trademarks or registered trademarks of SUSE LLC, in the United States and other countries. All third-party trademarks are the property of their respective owners.

Credits

Template

Richard Brown
rbrown@opensuse.org

Design & Inspiration

openSUSE Design Team
<http://opensuse.github.io/branding-guidelines/>