How to test Fedora updates

with your custom CI
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- Build/DevOps/CI Engineer
- Fedora contributor for >10 years
- Former member of FESCo
- Current member of Fedora Council
- Member of Fedora CI SIG

bookwar @ IRC
https://quantum-integration.org
https://telegram.me/bookwar
bookwar@fedoraproject.org
Fedora Rawhide Gating overview
What Fedora CI SIG is doing
How to add your test to the gate
How to add your CI system to the gate
Rawhide Gating
Fedora Rawhide is a shared development space
  - Issues with one package shouldn’t block development of other components

Catching errors at Alpha/Beta/Final checkpoints is too late
  - Short and targeted feedback loops simplify testing and development
The Gate:

- Before it is delivered to Fedora Rawhide, package goes through the additional step.
- Package lands in Rawhide, only if it passes all required gating checks

https://www.flickr.com/photos/dgmckelvey/6935089322 (CC BY 2.0)
Fedora Change

- [https://fedoraproject.org/wiki/Changes/GatingRawhidePackages](https://fedoraproject.org/wiki/Changes/GatingRawhidePackages)
- Implemented last year

Docs: [https://docs.fedoraproject.org/en-US/rawhide-gating/](https://docs.fedoraproject.org/en-US/rawhide-gating/)

- Single package gate
- Or multi-package gate with several packages going through the gate together
But who runs the tests?
Bodhi

CI System A

Cl System B

CI System C

ResultsDB

A.test failed

B.test error

C.test passed

new update
Fedora CI system
see it in bodhi
fedora-ci resources

- **Old:** jenkins-continuous-infra.apps.ci.centos.org
  - Uses Openshift cluster provided by CentOS infrastructure
  - Runs `fedora-ci.koji-build.tier0.functional` test
  - No integration with Fedora Account System

- **New:**osci-jenkins-1.ci.fedoraproject.org
  - Deployed on top of AWS Kubernetes cluster

- **New:**osci-jenkins-2.ci.fedoraproject.org
  - Deployed on top of new Openshift 4 CentOS cluster
fedora-ci tests

- Dist-git test – fedora-ci.koji-build.tier0.functional
  - Runs whatever is described in the tests/ folder of the dist-git repository of a package in x86 virtual machine
- Rpminspect – fedora-ci.koji-build.rpminspect.static-analysis
  - Runs rpminspect tool and compares new package with its previous version
  - https://github.com/rpminspect/rpminspect
- [WIP] Rpmdeplint - fedora-ci.koji-build.rpmdeplint.functional
  - Checks if runtime dependencies are satisfied
- [WIP] Installability – fedora-ci.koji-build.installability.functional
  - Checks if package can be installed, removed, updated and downgraded
- Fedora CI SIG
- #fedora-ci channel on IRC
- ci@lists.fedoraproject.org
How to run your tests
add test to fedora ci

- **If test is specific to a certain package**
  - Talk to the package maintainer
  - Contribute test to the dist-git repository of the package
  - Use pull-request to preview the test run

- **If test is generic and you want to run it for all packages**
  - Talk to Fedora CI
  - If test can be run in a container (Openshift/k8s-compatible), create such a container and the runner script
  - Contribute new Jenkins pipeline to [https://github.com/fedora-ci](https://github.com/fedora-ci) following the docs [https://github.com/fedora-ci/docs/blob/master/docs/how_to_create_pipeline.md](https://github.com/fedora-ci/docs/blob/master/docs/how_to_create_pipeline.md)
  - Or ask for help
add your ci system

- Read events Fedora Messaging events (RabbitMQ)
- Run test on your own environment
- Publish logs somewhere, so that logs can be read by Fedora Community
- Send standartized message to Fedora Messaging with the result

Details: https://docs.fedoraproject.org/en-US/ci/onboarding-of-a-ci-system/
important note

None of the tests will block package from landing in Rawhide unless package maintainer explicitly agreed to it

https://docs.fedoraproject.org/en-US/ci/gating/
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