

RPM Support - Story #2478

Support more conservative dependency solving

12/08/2016 02:49 AM - jsherril@redhat.com

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|--------------------------|-------------------------|------------------------|-----------|
| Status: | CLOSED - CURRENTRELEASE | Start date: | |
| Priority: | Normal | Due date: | |
| Assignee: | milan | % Done: | 100% |
| Category: | | Estimated time: | 0:00 hour |
| Sprint/Milestone: | | Tags: | Pulp 2 |
| Platform Release: | 2.17.0 | Sprint: | Sprint 40 |
| Groomed: | Yes | Quarter: | |
| Sprint Candidate: | Yes | | |

Description

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Given two repositories:

Repository A with packages:
Foo-1.0
Foo-2.0
Foo-3.0
Bar-1.0

Repository B with packages:
Foo-1.0

And assuming Bar-1.0 requires Foo >= 1.0.

As i understand it, if a user performs a unit copy of Bar-1.0 from Repository A into Repository B with dependency resolution turned on (recursive = true), currently it will copy all packages from Repository A into Repository B that satisfies all of Bar-1.0's dependencies. In this example that would mean Foo-2.0, and Foo-3.0 are both copied to Repository B despite the fact that all of Bar-1.0's dependencies are already met in Repository B.

I think (and i think users would agree), that this should behave more like a 'yum install Foo-1.0' or a 'yum update Foo-1.0', in that it should only pull in dependencies that are actually needed by a client to install Bar-1.0 if they are not already in the target repository. So in this example the unit copy would only pull in Bar-1.0 and no additional dependencies.

Implementation

The PR https://github.com/pulp/pulp_rpm/pull/1122 implements the described behavior, having the libsolvr solver consider the target repository content.

An optional, future (Pulp3) behavior of actually upgrading the content in the target repository under the same circumstances i.e the opposite behavior, can be enforced by providing the solver a job constructed with the solv.Job.SOLVER_UPDATE flag in addition to the current solv.Job.SOLVER_INSTALL flag, possibly exposing this thru a REST API post request body field.

Related issues:

Related to RPM Support - Story #3715: Reimplement unit dependency solving wit... **CLOSED - CURRENTRELEASE**

Associated revisions

Revision f85007c0 - 07/16/2018 06:39 PM - milan

Resolve rpm (rich) dependencies via libsolvr

Pulp now uses libsolvr as a dependency solver to address recursive RPM unit dependency solving during e.g unit copy

Fixes: #3715 <https://pulp.plan.io/issues/3715>

Fixes: #2478 <https://pulp.plan.io/issues/2478>

History

#2 - 12/09/2016 05:12 PM - semyers

- *Tracker changed from Issue to Story*
- *% Done set to 0*

I'd like to clarify the expectations for this a little bit, with another example.

Given this setup:

Repository A with packages:

Foo-1.0

Foo-2.0

Foo-3.0

Bar-1.0

Repository B with packages:

Foo-2.0

If Bar-1.0, with its "Foo>=1.0" requirement, is copied to Repository B, would you expect Foo-3.0 to **not** be copied into Repository B along with Bar-1.0, because the "Foo>=1.0" requirement is met by Foo-2.0?

#3 - 12/12/2016 03:05 AM - mhrivnak

semyers wrote:

If Bar-1.0, with its "Foo>=1.0" requirement, is copied to Repository B, would you expect Foo-3.0 to **not** be copied into Repository B along with Bar-1.0, because the "Foo>=1.0" requirement is met by Foo-2.0?

That's my understanding, after jsherril explained it in-person.

#10 - 06/27/2018 02:15 PM - milan

- *Status changed from NEW to POST*
- *Assignee set to milan*
- *Sprint set to Sprint 39*

This is being implemented by the libsolvr refactoring; Issue [#3715](#); PR: https://github.com/pulp/pulp_rpm/pull/1122
Moving to POST.

#11 - 06/27/2018 03:24 PM - milan

- *Description updated*

#12 - 06/27/2018 04:57 PM - milan

- *Description updated*

#13 - 06/27/2018 05:08 PM - ipanova@redhat.com

- *Groomed changed from No to Yes*
- *Sprint Candidate changed from No to Yes*

#14 - 06/27/2018 05:09 PM - ipanova@redhat.com

- *Related to Story #3715: Reimplement unit dependency solving with the libsolvr library added*

#16 - 07/16/2018 01:11 AM - dkliban@redhat.com

- *Sprint changed from Sprint 39 to Sprint 40*

#17 - 07/17/2018 02:08 PM - milan

- *Status changed from POST to MODIFIED*
- *% Done changed from 0 to 100*

Applied in changeset [f85007c0e6cc93e4320f12dfd9c7568707c25759](#).

#18 - 09/18/2018 07:49 PM - dkliban@redhat.com

- *Status changed from MODIFIED to CLOSED - CURRENTRELEASE*
- *Platform Release set to 2.17.0*

#19 - 11/20/2018 02:50 PM - milan

FWIW Related Bugzillas:

- https://bugzilla.redhat.com/show_bug.cgi?id=1508169
- https://bugzilla.redhat.com/show_bug.cgi?id=1152515

#20 - 04/15/2019 10:22 PM - bmbouter

- *Tags Pulp 2 added*