

## RPM Support - Issue #3339

### Missing docs on how to import RPM package which has rich dependencies in Requires

02/01/2018 12:15 PM - ttereshc

<b>Status:</b>	CLOSED - CURRENTRELEASE	<b>Start date:</b>	
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	milan	<b>Estimated time:</b>	0:00 hour
<b>Category:</b>			
<b>Sprint/Milestone:</b>			
<b>Severity:</b>	2. Medium	<b>Sprint Candidate:</b>	Yes
<b>Version:</b>		<b>Tags:</b>	Pulp 2
<b>Platform Release:</b>	2.15.3	<b>QA Contact:</b>	
<b>Blocks Release:</b>		<b>Complexity:</b>	
<b>OS:</b>		<b>Smash Test:</b>	901
<b>Backwards Incompatible:</b>	No	<b>Verified:</b>	No
<b>Triaged:</b>	No	<b>Verification Required:</b>	No
<b>Groomed:</b>	Yes	<b>Sprint:</b>	Sprint 33

#### Description

Rich dependencies are also called boolean dependencies.

Docs to get familiar with the syntax: [http://rpm.org/user\\_doc/boolean\\_dependencies.html](http://rpm.org/user_doc/boolean_dependencies.html)

At the moment Pulp supports only strong dependencies (aka Requires), [weak dependencies](#) are not supported yet.

For testing purposes create at least one rpm with rich dependencies and a repo. Consider contributing to the [pulp-fixtures](#) to create a repo.

Example of creating a simple RPM: <https://www.redhat.com/archives/rpm-list/2006-April/msg00015.html>

Make sure sync, upload, publish of such package works, information about rich dependencies is listed correctly as other simple dependencies, depsolving for simple dependencies works as before and rich dependencies are just ignored in that case (depsolving for rich dependencies will be implemented later in a separate RFE).

Use rpm module to read all the dependencies. There is no need to parse them or process somehow for this RFE.

#### Associated revisions

##### Revision db4cb456 - 03/06/2018 09:22 PM - milan

Document boolean dependencies support

Pulp has some limited boolean dependencies support.  
This patch updates the documentation to reflect it.

Fixes: #3339

<https://pulp.plan.io/issues/3339>

##### Revision 3fa048dc - 03/12/2018 06:05 PM - milan

Document boolean dependencies support

Pulp has some limited boolean dependencies support.  
This patch updates the documentation to reflect it.

Fixes: #3339

## History

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### #1 - 02/01/2018 12:17 PM - ttereshc

- Description updated

### #3 - 02/13/2018 09:30 PM - milan

- Sprint/Milestone set to 54

- Groomed changed from No to Yes

- Sprint Candidate changed from No to Yes

### #4 - 02/13/2018 09:31 PM - milan

- Sprint/Milestone deleted (54)

### #5 - 02/16/2018 06:35 PM - rchan

- Sprint/Milestone set to 56

### #6 - 02/19/2018 03:23 PM - ttereshc

Please, implement/merge it during sprint 33 so it will go into 2.16.0 release (aka by mid-March)

### #7 - 02/20/2018 01:12 PM - milan

- Status changed from NEW to ASSIGNED

- Assignee set to milan

### #8 - 03/05/2018 10:39 PM - milan

## Findings

My set up was as follows:

- Fedora26 hosting a development deployment of Pulp 2.15.1 & Pulp\_rpm 2.15, installed as development environment
- Fedora28 consumer node, SSL validation switched off
- an RPM repository containing custom rpms with rich dependencies

Those rpms can be built based on a [pulp-fixtures PR](#) with e.g `rpmbuild -bb <spec_file>` and later turned into a repository using e.g `createrepo_c <directory_with_rpms>`

## Content upload

Uploading the custom repository content to an RPM repository works as expected.  
The repository id used for this purpose was rich-deps

## Content sync&publish

I created a repo rich-deps-synced that I was able to feed from the successfully published rich-deps repo

## Content copy

Content copy works as expected, rich dependencies are currently ignored when processing the Requires rpm field during a recursive content copy.

There was a custom PanAmerican rpm in the rich-deps repo, that had both rich and classic dependencies specified in the Requires attribute.

This rpm required directly (bourbon = 5.10 and tablespoon-sugar = 1.0), lemon-juice = 5.10-0, soda and transitively the lemon rpm.

I created the rich-deps-copy-pan-american and copied the rich-deps repo PanAmerican rpm into rich-deps-copy-pan-american repo, using following command line:

```
[vagrant@pulp2 rich-deps]$ pulp-admin rpm repo copy rpm --from-repo-id rich-deps --to-repo-id rich-deps-copy-p-an-american --str-eq='name=PanAmerican' --recursive
```

This command may be exited via `ctrl+c` without affecting the request.

[ \ ]

Running...

Copied:

```
PanAmerican-1-0-noarch  
soda-0-1-noarch
```

[vagrant@pulp2 rich-deps]\$

Having investigated why the lemon-juice wasn't copied, I found out I made a naming mistake in the Requires field of PanAmerican that should have read ..., lemon-juice5 = 5.10, soda instead. The soda dependency having been copied OK I thought that was a proof of the copy feature working OK so I didn't fix the PanAmerican rpm.

## Content details

The custom RPM details were shown OK including both the rich and simple dependencies in the Requires field e.g:

```
[vagrant@pulp2 rich-deps]$ pulp-admin rpm repo content rpm --repo-id rich-deps-copy-pan-american
```

```
Arch:          noarch  
Buildhost:     pulp3.dev  
Checksum:      348696c0cee098a5382d152ff684fead8cfd8627fd92aed1848efadc191b5a9b  
Checksumtype: sha256  
Description:   Soda... Sort of a sparkling water.  
Epoch:        0  
Filename:      soda-0-1.noarch.rpm  
License:       No Age Limitation  
Name:          soda  
Provides:      fizzy, soda, soda = 0-1-0  
Release:       1  
Requires:      1  
Version:       0
```

```
Arch:          noarch  
Buildhost:     pulp3.dev  
Checksum:      bc9c2ef85cfd7cf937e7745c9975fecb763bf525f8119027ee125166fc2c1c92  
Checksumtype: sha256  
Description:   The amount of soda water controls how dry this cocktail will be.  
                Put in a big tumbler glass with some ice: - 5/10 Lemon juice -  
                5/10 cl. Bourbon - 1 tsp. sugar stir well and top off with Soda  
                Water.  
Epoch:        0  
Filename:      PanAmerican-1-0.noarch.rpm  
License:       21+  
Name:          PanAmerican  
Provides:      PanAmerican = 1-0-0, bourbon, citrusy, fizzy, fruity, lemon,  
                long-drink  
Release:       0  
Requires:      (bourbon = 5.10 and tablespoon-sugar = 1.0), lemon-juice = 5.10-0,  
                soda  
Version:       1
```

[vagrant@pulp2 rich-deps]\$

As can be seen further in the attached log, Pulp didn't track any other field than Requires. Moreover, the Requires field rich dependency items were kept as a single (non-processed) blob of text (bourbon = 5.10 and tablespoon-sugar = 1.0), as expected:

```
[vagrant@pulp2 rich-deps]$ pulp-admin -vv rpm repo content rpm --repo-id rich-deps --str-eq='name=PanAmerican'
```

```
# -----%<-----  
  "requires": [  
    {  
      "release": null,  
      "epoch": null,  
      "version": null,  
      "flags": null,  
      "name": "(bourbon = 5.10 and tablespoon-sugar = 1.0)"  
    },  
    {  
      "release": null,
```

```

    "epoch": "0",
    "version": "5.10",
    "flags": "EQ",
    "name": "lemon-juice"
  },
  {
    "release": null,
    "epoch": null,
    "version": null,
    "flags": null,
    "name": "soda"
  }
],
# -----%<-----

```

## Consumer

A consumer was able to fetch and install custom RPMs from the rich-deps-synced repository:

```

sh-4.3# dnf --best install long-drink scotch fruity
Last metadata expiration check: 0:02:32 ago on Mon Mar  5 21:32:37 2018.
Dependencies resolved.

```

```

=====

```

Package	Repository	Arch	Size	Version
Installing:				
Cobbler		noarch		1-0
fruity	rich_deps_synced	noarch	6.2 k	0-1
scotch	rawhide	x86_64	356 k	6.0.5-1.fc28
Installing dependencies:				
Contireau2		noarch		2-10
icecubes	rich_deps_synced	noarch	5.8 k	2-3
lzma-libs	rawhide	x86_64	39 k	4.32.7-19.fc27
tablespoon-sugar	rich_deps_synced	noarch	5.7 k	1-0
Installing weak dependencies:				
orange-bits	rich_deps_synced	noarch	5.8 k	2-3

### Transaction Summary

```

=====
Install 8 Packages

```

Total download size: 429 k

Installed size: 1.1 M

Is this ok [y/N]: y

Downloading Packages:

```

(1/8): fruity-0-1.noarch.rpm

```

(2/8): Cobbler-1-0.noarch.rpm	163 kB/s   5.8 kB	00:00
(3/8): icecubes-2-3.noarch.rpm	107 kB/s   6.2 kB	00:00
(4/8): tablespoon-sugar-1-0.noarch.rpm	164 kB/s   5.6 kB	00:00
(5/8): Contireau2-2-10.noarch.rpm	387 kB/s   5.7 kB	00:00
(6/8): lzma-libs-4.32.7-19.fc27.x86_64.rpm	401 kB/s   5.8 kB	00:00
(7/8): orange-bits-2-3.noarch.rpm	367 kB/s   39 kB	00:00
(8/8): scotch-6.0.5-1.fc28.x86_64.rpm	326 kB/s   5.8 kB	00:00

1.3 MB/s | 356 kB 00:00

Total

772 kB/s | 429 kB 00:00

Running transaction check  
Transaction check succeeded.  
Running transaction test  
Transaction test succeeded.  
Running transaction

Preparing	:		1/1
Installing	:	Contireau2-2-10.noarch	1/8
Installing	:	tablespoon-sugar-1-0.noarch	2/8
Installing	:	icecubes-2-3.noarch	3/8
Installing	:	lzma-libs-4.32.7-19.fc27.x86_64	4/8
Running scriptlet:		lzma-libs-4.32.7-19.fc27.x86_64	4/8
Installing	:	scotch-6.0.5-1.fc28.x86_64	5/8
Running scriptlet:		scotch-6.0.5-1.fc28.x86_64	5/8
Installing	:	Cobbler-1-0.noarch	6/8
Installing	:	orange-bits-2-3.noarch	7/8
Installing	:	fruity-0-1.noarch	8/8
Running scriptlet:		fruity-0-1.noarch	8/8
Verifying	:	fruity-0-1.noarch	1/8
Verifying	:	scotch-6.0.5-1.fc28.x86_64	2/8
Verifying	:	Cobbler-1-0.noarch	3/8
Verifying	:	lzma-libs-4.32.7-19.fc27.x86_64	4/8
Verifying	:	icecubes-2-3.noarch	5/8
Verifying	:	tablespoon-sugar-1-0.noarch	6/8
Verifying	:	Contireau2-2-10.noarch	7/8
Verifying	:	orange-bits-2-3.noarch	8/8

Installed:

Cobbler.noarch 1-0      fruity.noarch 0-1    scotch.x86\_64 6.0.5-1.fc28    orange-bits.noarch 2-3    Contireau2.n  
oarch 2-10    icecubes.noarch 2-3    lzma-libs.x86\_64 4.32.7-19.fc27  
tablespoon-sugar.noarch 1-0

Complete!

sh-4.3# rpm -q Cobbler  
Cobbler-1-0.noarch  
sh-4.3#

**#9 - 03/05/2018 11:10 PM - milan**

Just created PR: [https://github.com/pulp/pulp\\_rpm/pull/1092](https://github.com/pulp/pulp_rpm/pull/1092)

**#10 - 03/05/2018 11:10 PM - milan**

- Status changed from ASSIGNED to POST

**#11 - 03/06/2018 06:29 PM - milan**

- File *pulp\_admin.log* added

- File *consumer.log* added

**#12 - 03/06/2018 09:30 PM - milan**

- Status changed from POST to MODIFIED

- % Done changed from 0 to 100

Applied in changeset [db4cb456c1a8f7afe97eb339f755dc1b9267de74](#).

**#13 - 03/07/2018 10:25 AM - milan**

- Platform Release set to 2.15.3

**#14 - 03/07/2018 02:48 PM - bmbouter**

- Tracker changed from Story to Issue

- Subject changed from *As a user, I can import RPM package which has rich dependencies in Requires* to *Missing docs on how to import RPM package which has rich dependencies in Requires*

- Severity set to 2. Medium

- Triaged set to No

Switching to issue since code wasn't added and only issues can go into a z-stream release.

**#15 - 03/09/2018 12:34 AM - bmbouter**

- Sprint set to Sprint 33

**#16 - 03/09/2018 12:35 AM - bmbouter**

- Sprint/Milestone deleted (56)

**#17 - 03/09/2018 11:43 AM - milan**

- Smash Test set to 901

**#18 - 03/12/2018 06:05 PM - milan**

Applied in changeset [3fa048dc3a8229335eff30b1e6fa42857fc5d7cc](#).

**#19 - 03/16/2018 12:25 PM - bmbouter**

- Status changed from MODIFIED to ON\_QA

**#20 - 03/20/2018 04:04 PM - bmbouter**

- Status changed from ON\_QA to CLOSED - CURRENTRELEASE

**#21 - 04/15/2019 10:13 PM - bmbouter**

- Tags Pulp 2 added

## Files

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pulp_admin.log	92.7 KB	03/06/2018	milan
consumer.log	22.5 KB	03/06/2018	milan