

Pulp - Refactor #7352

Provide a better abstraction for customizing downloader behavior

08/19/2020 09:08 PM - dalley

Status:	NEW	Start date:	
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:		Estimated time:	0:00 hour
Sprint/Milestone:		Tags:	Wishlist
Platform Release:		Sprint:	
Groomed:	No	Quarter:	
Sprint Candidate:	No		

Description

Customization of downloader behavior is currently achieved by subclassing one of the downloader types from the Plugin API and then modifying the `get_downloader()` method and `downloader_factory` property on the Remote (sub)class.

A limitation of this abstraction is that while the `get_downloader()` method accepts `**kwargs` to pass down to the (possibly customized) downloader, it will pass all `kwargs` to any downloader without discriminating by the type of downloader. Therefore it's difficult to send a `kwargs` to be used on a customized HTTP downloader without it being also sent to other types of downloaders such as `FileDownloader` which are not expecting it.

This could be worked around by additionally modifying the `DownloaderFactory`, but it's currently suboptimal because:

- The methods you'd want to override are underscore-prefixed (private)
- It would create extra coupling and interdependence between the classes; not the end of the world, but kind of messy

We could probably benefit from revisiting the design and incorporate some of our experience with customizing downloader behavior in various plugins.

Related issues:

Related to RPM Support - Issue #7342: file:// repo syncing fails with unexpe...	CLOSED - CURRENTRELEASE
Related to Pulp - Issue #9003: Repo sync fails with ' <code>__init__()</code> ' got an unexpe...	CLOSED - CURRENTRELEASE
Related to Pulp - Task #6965: Remote.get_downloader() needs to include remote...	NEW
Related to Pulp - Story #7464: As a plugin writer, I can subclass and re-use ...	NEW

History

#1 - 08/19/2020 09:08 PM - dalley

- Related to Issue #7342: file:// repo syncing fails with unexpected keyword argument 'silence_errors_for_response_status_codes' added

#2 - 01/14/2021 04:03 PM - dkliban@redhat.com

- Status changed from NEW to CLOSED - WONTFIX

We will not get to this in the near future.

#3 - 01/14/2021 04:27 PM - dalley

- Status changed from CLOSED - WONTFIX to NEW

- Tags Pulp-NEXT added

#4 - 01/26/2021 04:42 PM - dalley

- Tags Wishlist added

- Tags deleted (Pulp-NEXT)

#5 - 07/06/2021 12:11 AM - dalley

- Related to Issue #9003: Repo sync fails with '`__init__()`' got an unexpected keyword argument 'max_retries' added

#6 - 07/23/2021 05:40 AM - dalley

- Related to Task #6965: *Remote.get_downloader()* needs to include remote in kwargs for *Factory.build()* added

#7 - 07/23/2021 05:57 AM - dalley

- Related to Story #7464: *As a plugin writer, I can subclass and re-use ArtifactDownloader* added