Foreman - Feature #9949

deep merge broken when using facts in hash

03/30/2015 10:57 AM - Brice Sauvajon

Status:	New		
Priority:	Normal		
Assignee:			
Category:	Parameters		
Target version:			
Difficulty:		**Fixed in Releases:**	
Triaged:	No	**Found in Releases:**	
Bugzilla link:	1582272	**Red Hat JIRA:**	
Pull request:			

Description

Since upgrade to 1.7.4, when I use facts as values in hashes, if hashes are merged the yaml generation for the node fails and I can't edit the node in Foreman.
In foreman logs (debug mode), I have the message :

```
Failed to generate external nodes for XXXXX.XXXXXX.XXXXX.XXXXX.fr with undefined method `each_pair
' for #<String:0x00000001fdfdd0>
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/core_ext/hash/de
ep_merge.rb:15:in `deep_merge!'
/usr/share/foreman/app/services/classification/base.rb:199:in `block in update_hash_matcher'
/usr/share/foreman/app/services/classification/base.rb:194:in `each'
/usr/share/foreman/app/services/classification/base.rb:194:in `update_hash_matcher'
/usr/share/foreman/app/services/classification/base.rb:54:in `block in values_hash'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activerecord-3.2.21/lib/active_record/relation/delegatio
n.rb:6:in `each'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activerecord-3.2.21/lib/active_record/relation/delegatio
n.rb:6:in `each'
/usr/share/foreman/app/services/classification/base.rb:40:in `values_hash'
/usr/share/foreman/app/services/classification/class_param.rb:6:in `enc'
/usr/share/foreman/app/models/host/managed.rb:845:in `lookup_keys_class_params'
/usr/share/foreman/app/models/host/managed.rb:386:in `info'
/usr/share/foreman/app/controllers/hosts_controller.rb:172:in `block (2 levels) in externalNodes'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_controller/metal/mime_respo
nds.rb:196:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_controller/metal/mime_respo
nds.rb:196:in `respond_to'
/usr/share/foreman/app/controllers/hosts_controller.rb:170:in `externalNodes'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_controller/metal/implicit_r
ender.rb:4:in `send_action'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/abstract_controller/base.rb:167:in
 `process_action'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_controller/metal/rendering.
rb:10:in `process_action'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/abstract_controller/callbacks.rb:1
8:in `block in process_action'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:549
:in `block (3 levels) in _run__1662959498352087448__process_action__946288385558330859__callbacks'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:215
:in `block in _conditional_callback_around_7294'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:326
:in `around'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:310
:in `_callback_around_1843'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:214
:in `_conditional_callback_around_7294'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:526
:in `block (2 levels) in _run__1662959498352087448__process_action__946288385558330859__callbacks'
```

```
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:215
:in `block in _conditional_callback_around_7293'
/usr/share/foreman/app/models/concerns/foreman/thread_session.rb:33:in `clear_thread'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:214
:in `_conditional_callback_around_7293'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:415
:in `block in _run__1662959498352087448__process_action__946288385558330859__callbacks'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:215
:in `block in _conditional_callback_around_7292'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:326
:in `around'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:310
:in `_callback_around_13'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:214
:in `_conditional_callback_around_7292'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:403
:in `_run__1662959498352087448__process_action__946288385558330859__callbacks'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:405
:in `__run_callback'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:385
:in `_run_process_action_callbacks'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:81:
in `run_callbacks'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/abstract_controller/callbacks.rb:1
7:in `process_action'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_controller/metal/rescue.rb:
29:in `process_action'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_controller/metal/instrument
ation.rb:30:in `block in process_action'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/notifications.rb
:123:in `block in instrument'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/notifications/in
strumenter.rb:20:in `instrument'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/notifications.rb
:123:in `instrument'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_controller/metal/instrument
ation.rb:29:in `process_action'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_controller/metal/params_wra
pper.rb:207:in `process_action'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activerecord-3.2.21/lib/active_record/railties/controlle
r_runtime.rb:18:in `process_action'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/abstract_controller/base.rb:121:in
 `process'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/abstract_controller/rendering.rb:4
5:in `process'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_controller/metal.rb:203:in
`dispatch'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_controller/metal/rack_deleg
ation.rb:14:in `dispatch'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_controller/metal.rb:246:in
`block in action'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/routing/route_set.
rb:73:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/routing/route_set.
rb:73:in `dispatch'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/routing/route_set.
rb:36:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/journey-1.0.4/lib/journey/router.rb:68:in `block in call
'
/usr/share/foreman/vendor/ruby/1.9.1/gems/journey-1.0.4/lib/journey/router.rb:56:in `each'
/usr/share/foreman/vendor/ruby/1.9.1/gems/journey-1.0.4/lib/journey/router.rb:56:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/routing/route_set.
rb:608:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/apipie-rails-0.2.6/lib/apipie/static_dispatcher.rb:65:in
 `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/apipie-rails-0.2.6/lib/apipie/extractor/recorder.rb:97:i
n `call'
```

```
/usr/share/foreman/vendor/ruby/1.9.1/gems/apipie-rails-0.2.6/lib/apipie/middleware/checksum_in_hea
ders.rb:27:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/middleware/best_st
andards_support.rb:17:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-1.4.5/lib/rack/etag.rb:23:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-1.4.5/lib/rack/conditionalget.rb:25:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/middleware/head.rb
:14:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/middleware/params_
parser.rb:21:in `call'
/usr/share/foreman/lib/middleware/catch_json_parse_errors.rb:9:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/middleware/flash.r
b:242:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-1.4.5/lib/rack/session/abstract/id.rb:210:in `conte
xt'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-1.4.5/lib/rack/session/abstract/id.rb:205:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/middleware/cookies
.rb:341:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activerecord-3.2.21/lib/active_record/query_cache.rb:64:
in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activerecord-3.2.21/lib/active_record/connection_adapter
s/abstract/connection_pool.rb:479:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/middleware/callbac
ks.rb:28:in `block in call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:405
:in `_run__2006362726624907426__call__2506133319130815461__callbacks'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:405
:in `__run_callback'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:385
:in `_run_call_callbacks'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/callbacks.rb:81:
in `run_callbacks'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/middleware/callbac
ks.rb:27:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/middleware/remote_
ip.rb:31:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/middleware/debug_e
xceptions.rb:16:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/middleware/show_ex
ceptions.rb:56:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/railties-3.2.21/lib/rails/rack/logger.rb:32:in `call_app
'
/usr/share/foreman/vendor/ruby/1.9.1/gems/railties-3.2.21/lib/rails/rack/logger.rb:16:in `block in
 call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/tagged_logging.r
b:22:in `tagged'
/usr/share/foreman/vendor/ruby/1.9.1/gems/railties-3.2.21/lib/rails/rack/logger.rb:16:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/middleware/request
_id.rb:22:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-1.4.5/lib/rack/methodoverride.rb:21:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-1.4.5/lib/rack/runtime.rb:17:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/activesupport-3.2.21/lib/active_support/cache/strategy/l
ocal_cache.rb:72:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/actionpack-3.2.21/lib/action_dispatch/middleware/static.
rb:83:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-cache-1.2/lib/rack/cache/context.rb:136:in `forward
'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-cache-1.2/lib/rack/cache/context.rb:245:in `fetch'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-cache-1.2/lib/rack/cache/context.rb:185:in `lookup'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-cache-1.2/lib/rack/cache/context.rb:66:in `call!'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-cache-1.2/lib/rack/cache/context.rb:51:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/railties-3.2.21/lib/rails/engine.rb:484:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/railties-3.2.21/lib/rails/application.rb:231:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/railties-3.2.21/lib/rails/railtie/configurable.rb:30:in
`method_missing'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-1.4.5/lib/rack/builder.rb:134:in `call'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-1.4.5/lib/rack/urlmap.rb:64:in `block in call'
```

```
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-1.4.5/lib/rack/urlmap.rb:49:in `each'
/usr/share/foreman/vendor/ruby/1.9.1/gems/rack-1.4.5/lib/rack/urlmap.rb:49:in `call'
/usr/lib/ruby/vendor_ruby/phusion_passenger/rack/request_handler.rb:96:in `process_request'
/usr/lib/ruby/vendor_ruby/phusion_passenger/abstract_request_handler.rb:516:in `accept_and_process
_next_request'
/usr/lib/ruby/vendor_ruby/phusion_passenger/abstract_request_handler.rb:274:in `main_loop'
/usr/lib/ruby/vendor_ruby/phusion_passenger/rack/application_spawner.rb:206:in `start_request_hand
ler'
/usr/lib/ruby/vendor_ruby/phusion_passenger/rack/application_spawner.rb:171:in `block in handle_sp
awn_application'
/usr/lib/ruby/vendor_ruby/phusion_passenger/utils.rb:479:in `safe_fork'
/usr/lib/ruby/vendor_ruby/phusion_passenger/rack/application_spawner.rb:166:in `handle_spawn_appli
cation'
/usr/lib/ruby/vendor_ruby/phusion_passenger/abstract_server.rb:357:in `server_main_loop'
/usr/lib/ruby/vendor_ruby/phusion_passenger/abstract_server.rb:206:in `start_synchronously'
/usr/lib/ruby/vendor_ruby/phusion_passenger/abstract_server.rb:180:in `start'
/usr/lib/ruby/vendor_ruby/phusion_passenger/rack/application_spawner.rb:129:in `start'
/usr/lib/ruby/vendor_ruby/phusion_passenger/spawn_manager.rb:253:in `block (2 levels) in spawn_rac
k_application'
/usr/lib/ruby/vendor_ruby/phusion_passenger/abstract_server_collection.rb:132:in `lookup_or_add'
/usr/lib/ruby/vendor_ruby/phusion_passenger/spawn_manager.rb:246:in `block in spawn_rack_applicati
on'
/usr/lib/ruby/vendor_ruby/phusion_passenger/abstract_server_collection.rb:82:in `block in synchron
ize'
<internal:prelude>:10:in `synchronize'
/usr/lib/ruby/vendor_ruby/phusion_passenger/abstract_server_collection.rb:79:in `synchronize'
/usr/lib/ruby/vendor_ruby/phusion_passenger/spawn_manager.rb:244:in `spawn_rack_application'
/usr/lib/ruby/vendor_ruby/phusion_passenger/spawn_manager.rb:137:in `spawn_application'
/usr/lib/ruby/vendor_ruby/phusion_passenger/spawn_manager.rb:275:in `handle_spawn_application'
/usr/lib/ruby/vendor_ruby/phusion_passenger/abstract_server.rb:357:in `server_main_loop'
/usr/lib/ruby/vendor_ruby/phusion_passenger/abstract_server.rb:206:in `start_synchronously'
/usr/share/phusion-passenger/helper-scripts/passenger-spawn-server:99:in `<main>'
```

For example, for my apt configuration, the "sources" smart variable is :

```
Matcher : osfamily=debian
Value :
puppetlabs:
  location: http://apt.puppetlabs.com/
  release: <%= @host.facts['lsbdistcodename'] %>
  repos: main dependencies
  include_src: false
Matcher : lsbdistcodename=wheezy
Value :
wheezy-updates:
  location: http://ftp.fr.debian.org/debian/
  release: wheezy-updates
  repos: main
  include_src: false
wheezy:
  location: http://ftp.fr.debian.org/debian/
  release: wheezy
  repos: main contrib non-free
wheezy-security:
  location: http://security.debian.org/
  release: wheezy/updates
  repos: main contrib non-free
  include_src: false
```

Related issues:

Related to Foreman - Feature #3309: Support deep merging of hash structures i...	**Closed**	**10/17/2013**
Related to Foreman - Tracker #4470: Usability of parameters and overrides	**New**	
Has duplicate Foreman - Bug #12122: Enabling deep merge causes NoMethodError:...	**Duplicate**	**10/09/2015**

History

#1 - 03/30/2015 11:51 AM - Dominic Cleal

- Related to Feature #3309: Support deep merging of hash structures in smart class parameters added

#2 - 03/30/2015 11:53 AM - Marek Hulán

Thanks for the report. Could you share more information please? How do you use these facts as values? From which version did you upgrade?

#3 - 03/30/2015 02:03 PM - Brice Sauvajon

There is an example in the report. The apt puppet module, i want to merge hashes to define the apt sources to realize. So for the smart variable apt::sources I have two matchers :

```
Matcher : osfamily=debian
Value :
puppetlabs:
  location: http://apt.puppetlabs.com/
  release: <%= @host.facts['lsbdistcodename'] %>
  repos: main dependencies
  include_src: false
Matcher : lsbdistcodename=wheezy
Value :
wheezy-updates:
  location: http://ftp.fr.debian.org/debian/
  release: wheezy-updates
  repos: main
  include_src: false
wheezy:
  location: http://ftp.fr.debian.org/debian/
  release: wheezy
  repos: main contrib non-free
wheezy-security:
  location: http://security.debian.org/
  release: wheezy/updates
  repos: main contrib non-free
  include_src: false
```

For a debian wheezy the resulting value for that smart variable would be :

```
puppetlabs:
  location: http://apt.puppetlabs.com/
  release: wheezy
  repos: main dependencies
  include_src: false
wheezy-updates:
  location: http://ftp.fr.debian.org/debian/
  release: wheezy-updates
  repos: main
  include_src: false
wheezy:
  location: http://ftp.fr.debian.org/debian/
  release: wheezy
  repos: main contrib non-free
wheezy-security:
  location: http://security.debian.org/
  release: wheezy/updates
  repos: main contrib non-free
  include_src: false
```

If i replace on the first matcher "<%= @host.facts['lsbdistcodename'] %>" with "wheezy" or if I put eveything in one matcher and uncheck "merge overrides" everything works OK.

I upgraded Foreman from 1.7.2 to 1.7.4, using debian package. When I discovered the problem I tried to downgrade to 1.7.2 but it was still there, maybe a problem with ruby gems or database.

#4 - 03/31/2015 02:44 AM - Marek Hulán

- Tracker changed from Bug to Feature

Currently we don't support ERB to be only a part of value. If you want to use ERB it must generate the complete value. Without merging it probably works because the value that contains ERB is not used, since it's overridden by other value (wheezy repos). If you don't mind, I would consider this as a RFE rather than a bug. Also removing Found in release, since it's not specific to any release.

EDIT: this only applies when you merge values that contains ERBs, if you don't merge them, they evaluate fine

#5 - 03/31/2015 04:12 AM - Ori Rabin

- Related to Tracker #4470: Usability of parameters and overrides added

#6 - 03/31/2015 04:44 AM - Brice Sauvajon

OK, thanks for the reply. We have a workaround for our environment so no problem to consider it as an RFE.

#7 - 10/09/2015 07:34 AM - Dominic Cleal

- Has duplicate Bug #12122: Enabling deep merge causes NoMethodError: undefined method `each_pair' added

#8 - 01/26/2016 03:08 AM - Nikolay Miscenkov

Brice Sauvajon wrote:

> OK, thanks for the reply. We have a workaround for our environment so no problem to consider it as an RFE.

Please write, how you solved this problem?

#9 - 01/26/2016 03:10 AM - Nikolay Miscenkov

Can you tell deadlines to solve the problem? For us it is very important.

#10 - 01/27/2016 11:51 AM - Brice Sauvajon

Nikolay Miscenkov wrote:

> Please write, how you solved this problem?

When we need facts we don't use erb but we insert a special string : facts['factname']
Then on the puppet server we have a custom enc script, which calls the foreman enc script to get the host's yaml and replace these strings by their fact values by doing a request on the puppetdb (but you can do it using foreman api too)

#11 - 02/05/2016 07:34 PM - Dave Garbus

We are also hitting this after upgrading from 1.7.2 to 1.10.1. In our environment we use hashes to configure our applications, with overrides that get deep merged from a parent hostgroup all the way down an individual host. Several of these layers were making use of ERB templating and are rendered broken after the upgrade.

It looks like the change that broke this behavior was introduced in [#8052](#), even with safe_rendering set to off. In my limited testing, setting the contains_erb method to always return false gets things working again. Of course, this is horribly dirty, so I would appreciate any input on the best way to solve this.

Are you guys open to adding another option to disable the late validation/typecasting on values containing ERB? At the very least, if safe_rendering is disabled, we should fall back to the old behavior.

#12 - 01/16/2019 08:58 AM - Ondřej Pražák

- Bugzilla link set to 1582272

#13 - 09/15/2020 03:50 PM - Anthony Chevalet

Any update here?

Files

foreman-debug-EBTT5.tar.xz	3.02 MB	03/30/2015	Brice Sauvajon