

Arvados - Story #7832

[FUSE] [SDKs] Define __slots__ to improve memory utilization

11/20/2015 02:34 PM - Brett Smith

Status:	Resolved	Start date:	11/20/2015
Priority:	Normal	Due date:	
Assigned To:	Peter Amstutz	% Done:	100%
Category:	SDKs	Estimated time:	0.00 hour
Target version:	2015-12-02 sprint		
Description			
Both arv-get and FUSE use a lot of memory. Idea: define __slots__ for classes where it will noticeably improve memory utilization .			
First class candidates: objects that are both instantiated commonly and long-lived. The Collection classes, File classes, Range, and LocatorAndRange in the SDK. The Directory and File classes in FUSE.			
Second class candidates: objects that are instantiated commonly but with shorter lives. KeepService, ThreadLimiter, RetryLoop.			
Subtasks:			
Task # 7867: Review 7832-pysdk-use-slots			Resolved

Associated revisions

Revision f486405f - 11/26/2015 02:14 AM - Peter Amstutz

Merge branch '7832-pysdk-use-slots' refs #7832

History

#1 - 11/20/2015 02:41 PM - Brett Smith

- Target version set to Arvados Future Sprints

#2 - 11/25/2015 10:11 PM - Peter Amstutz

7832-pysdk-use-slots

Adds *slots* to Range, LocatorAndRange, and CacheSlot. These are the obvious low hanging fruit, and together they reduce memory usage by half on a very complex manifest (215dd32873bfa002aa0387c6794e4b2c+54081534)

master:

```
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
peter    21943  10.4   9.3 1312088 1139036 pts/3  S1+   16:58   0:36 python get.py
```

7832-pysdk-use-slots

```
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
peter    26853  16.5   4.9  781648 608492 pts/3  S1+   17:04   0:37 python get.py
```

#3 - 11/25/2015 10:13 PM - Peter Amstutz

- Target version changed from Arvados Future Sprints to 2015-12-02 sprint

#4 - 11/25/2015 10:14 PM - Peter Amstutz

- Status changed from New to In Progress

- Story points set to 0.5

#5 - 11/25/2015 10:14 PM - Peter Amstutz

- Assigned To set to Peter Amstutz

#6 - 11/25/2015 10:35 PM - Tom Clegg

LGTM @ [9045a08](#)

#7 - 11/30/2015 08:55 PM - Peter Amstutz

- Status changed from In Progress to Resolved