

Kepler - Bug #2328

Memory use problems with multiple EML Datasources

01/11/2006 11:41 AM - Dan Higgins

Status:	Resolved	Start date:	01/11/2006
Priority:	Normal	Due date:	
Assignee:	Kevin Ruland	% Done:	0%
Category:	actors	Estimated time:	0.00 hour
Target version:	1.0.0beta1	Spent time:	0.00 hour
Bugzilla-Id:	2328		
Description			
<p>The workflow 'IPCC_Base_Layers.xml' contains 10 eml2 datasource actors. It is thus a severe test of multiple datasources. [#16 in ENM_Workflows.html] In Alpha8, the workflow will open and eventually download all the datasources (although slowly) with the java heap set to 512M (i.e. the java command line switch is '-Xmx512m') on a Windows machine with 2G of ram.</p> <p>However, when using the head of CVS (on 1/11/2006), java 'out of memory' errors occur when running on the same machine. Out of memeory errors sometimes also occur when the java memory request is increased to '-Xmx1024m'. [Loading of some of the data souces appears much faster with the head of CVS; out of memory problem appears to be a thread problem because not exactly repeatable.]</p> <p>Dan Higgins</p>			

History

#1 - 01/11/2006 12:27 PM - Kevin Ruland

In r1.26 of org.ecoinformatics.seek.datasource.EcogridDataCacheItem, I added a simple mutex mechanism which only allows a single download to proceed at a time. This is functionally similar to the exclusion mechanism in the Alpha8 code base. This mutex needs to be replaced with a more flexible thread pool and analyzed for thread-safety.

#2 - 01/13/2006 02:01 PM - Dan Higgins

The change referred to by Kevin (single download at a time) does indeed fix the memory problems referred to. (Dan Higgins)

#3 - 01/27/2006 11:07 AM - Kevin Ruland

Committed change to ecogrid seek repository adding EcogridGetToStreamClient class which greatly reduces memory requirements during downloads. This client is used in Kepler for all ecogrid get operations.

#4 - 03/27/2013 02:19 PM - Redmine Admin

Original Bugzilla ID was 2328