Kepler - Bug #5247

Allow user to set memory allocated to Kepler from within Kepler

11/23/2010 06:18 PM - Derik Barseghian

Status:	Resolved		**Start date:**	11/23/2010
Priority:	Normal		**Due date:**	
Assignee:	Derik Barseghian		**% Done:**	0%
Category:	general		**Estimated time:**	0.00 hour
Target version:	2.4.0		**Spent time:**	0.00 hour
Bugzilla-Id:	5247			

Description

A nice feature for advanced users would be to let them set how much memory kepler is allocated (presumably a restart would be required for the change to take place).

This is in part motivated by some users who have run workflows that pass large chunks of data around as tokens, and execution has stopped with an error because of heap space errors.

History

#1 - 12/22/2010 12:39 PM - David Welker

Added this feature.

#2 - 02/02/2011 11:26 AM - Daniel Crawl

This does not work when using kepler.sh.

Additionally, it appears the settings are saved in build-area/settings/memory.xml, which is not writable on shared Kepler installations; memory.xml should be written to ~/KeplerData/.

#3 - 02/14/2011 02:45 PM - David Welker

Memory.xml will currently be written in KeplerData when appropriate. (i.e. in installations, when use.keplerdata is present in /build-area)

Improvements to kepler.sh for this enhancement will occur in 2.3 or later.

#4 - 06/20/2012 03:38 PM - jianwu jianwu

The current default max memory of Kepler is 512 MB, which is set at build-area/settings/memory.xml. It's not enough for bioKepler suite, which normally needs at least 1 GB (I usually use 2GB).

It might not be a good idea to increase current default memory size just for bioKepler. Ideally, we should be able to set different default memory size for different suites.

#5 - 06/20/2012 03:47 PM - Derik Barseghian

(In reply to comment #4)

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> build-area/settings/memory.xml. It's not enough for bioKepler suite, which
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> bioKepler. Ideally, we should be able to set different default memory size for
> different suites.

This is possible, and we do so for provenance. See provenance Initialize.java. However it would be nice if there were a more general solution.

#6 - 06/20/2012 03:53 PM - Christopher Brooks

Increasing the default memory heap size to 1 Gig.
However, I would not increase the default too much.

32-bit Windows Java implementations are limited to about 1.6 gig:

cxh@newton ~
$ java -version

java version "1.6.0_21"
Java(TM) SE Runtime Environment (build 1.6.0_21-b06)
Java HotSpot(TM) Client VM (build 17.0-b16, mixed mode, sharing)

cxh@newton ~
$ java -Xmx1600M -version
java version "1.6.0_21"
Java(TM) SE Runtime Environment (build 1.6.0_21-b06)
Java HotSpot(TM) Client VM (build 17.0-b16, mixed mode)

cxh@newton ~
$ java -Xmx1800M -version
Error occurred during initialization of VM
Could not reserve enough space for object heap
Could not create the Java virtual machine.

See
http://stackoverflow.com/questions/171205/java-maximum-memory-on-windows-xp

The FMI Interfaces uses a 32-bit JVM because Dymola is 32-bit because it
uses 32-bit solvers.

#7 - 08/06/2012 12:59 PM - Ilkay Altintas

Derik will increase the default memory heap size to 1 Gig.

#8 - 08/06/2012 03:29 PM - Derik Barseghian

I increased max memory to 1gb at r30353. You will have to delete your existing build-area/settings/memory.xml

#9 - 03/27/2013 02:29 PM - Redmine Admin

Original Bugzilla ID was 5247