

Mulgara - Bug #63

AVLNode being released multiple times

05/17/2007 09:51 PM - Paula Gearon

Status:	Closed	Start date:	
Priority:	High	Due date:	
Assignee:	Paula Gearon	% Done:	0%
Category:	Mulgara	Estimated time:	0.00 hour
Target version:			
Resolution:	fixed		

Description

During backups the following exception may be thrown:

```
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<br/>
Caused by: java.lang.AssertionError
<br/>
    at org.mulgara.store.xa.Block.dispose(Block.java:524)
<br/>
    at org.mulgara.store.xa.Block.release(Block.java:512)
<br/>
    at org.mulgara.store.xa.AVLNode.release(AVLNode.java:1030)
<br/>
    at org.mulgara.store.stringpool.xa.XAStringPoolImpl$Phase$GNodeTuplesImpl.close(XAStringPoolImpl.java:2728)
<br/>
    at org.mulgara.resolver.BackupOperation.backupDatabase(BackupOperation.java:196)
<br/>
    at org.mulgara.resolver.BackupOperation.execute(BackupOperation.java:145)
<br/>
    at org.mulgara.resolver.MulgaraTransaction.execute(MulgaraTransaction.java:547)
<br/>
    ... 15 more
<br/>
```

This is happening as an AVLNode is being released twice. The stack trace here shows the second release.

The AVLNode that is being closed here is a member of XAStringPoolImpl called avlNode. But this class appears to manage the avlNode member correctly. The intermittent nature of the problem is unlikely to come from this class anyway.

An alternative source of the problem could be in the [[ObjectPool]]. The XAStringPoolImpl class uses a member called writerObjectPool for managing all reusable objects for both reading and writing. It may be that a simultaneous read/write could lead the object pool to passing out the same AVLNode to different phases. Access to writerObjectPool is properly synchronized, so this is not a problem. However, it is usually valid (and desirable) to reuse the same AVLNode when reading and writing on the same phase, and this optimization may be leading to re-use between phases. If true, then this would also explain the intermittent nature of the problem.

History

#1 - 10/15/2008 04:12 AM - Paula Gearon

- Status changed from New to Closed

- Resolution set to fixed