Metacat - Bug #2552

Spatial query class to use geotools against the spatial cache

09/11/2006 03:22 PM - Matthew Perry

Status:	Resolved		**Start date:**	09/11/2006
Priority:	Normal		**Due date:**	
Assignee:	Matthew Perry		**% Done:**	0%
Category:	metacat		**Estimated time:**	0.00 hour
Target version:	1.7		**Spent time:**	0.00 hour
Bugzilla-Id:	2552			

Description

Currently the spatial query is run with a standard metacat squery. Besides being inefficient, it is also inaccurate since it doesn't take into account some fundamental quirks in spatial relationships (the international dateline, multiple polygons representing the same feature, odd shaped polygons or holes).

The idea would be to write a class that, given a spatial query (bbox or point) would use geotools to query the actual spatial cache and return a list of matching docids.

History

#1 - 09/13/2006 05:03 PM - Matthew Perry

Added a edu.ucsb.nceas.metacat.spatial.SpatialQuery class to handle this. Given a spatial query (4 bounding cooordinates), it will return a Vector of matching docids. This is accomplished by using geotools to filter the spatial cache (both the polygon and point layers). This process is extremely quick. HOWEVER....

The MetacatServlet (action=spatial) currently takes this list of docids, transforms it into an squery using DocumentIdQuery and passes it to the squery handler. This is painfully slow since it is generating as many queryterms as there are matching docids. The current technique for mapping an squery to a sql query means there will be that many subselects as well.

This performance issue is beyond the scope of this bug, however, so we'll call this one closed.

#2 - 03/27/2013 02:20 PM - Redmine Admin

Original Bugzilla ID was 2552