QGIS Application - Feature request #1555
A more efficient SQL query for uniqueness

2009-02-19 02:03 PM - gjm -

Status:	Open		
Priority:	Low		
Assignee:	nobody -		
Category:	Data Provider		
Pull Request or Patch supplied:	No	**Resolution:**	
Easy fix?:	No	**Copied to github as #:**	11615

Description

The postgres provider, at times, runs a query on a table to see if a particular column contains unique values. This is done as part of choosing a suitable column to use as an index for that table. The SQL that does this uniqueness check is in the uniqueData() function in the qgspostgresprovider.cpp file. The SQL is:

select count(distinct %1)=count(%1) from %2.%3

where %1 is the column in question, %2 the schema name and %3 the table name.

This counts the number of rows in that row almost twice. A potentially more efficient way to achieve the same outcome is with an SQL like this:

select count**() from (select %1 from %2.%3 group by %1 having count(**) > 1 limit 1) as foo;

This would return 0 or 1, depending if there were unique (or not) data in row %1.

This needs a little bit of testing first to check that it does reduce the query time (I don't have the time at the moment).

History

#1 - 2009-02-19 02:23 PM - jcs -

It's still not clear to me that trying to guess the index column is the best approach. I contend that the user will always know more about the database than the application, so let the user say what column to use. I have a patch for this feature, see ticket #1535 if interested.

#2 - 2009-02-19 02:55 PM - Jürgen Fischer

another candidate:

```
SELECT NOT EXISTS (SELECT %1 FROM %2.%3 GROUP BY %1 HAVING COUNT(*)>1) as isunique;
```

#3 - 2011-12-16 01:58 PM - Giovanni Manghi

- Target version changed from Version 1.7.0 to Version 1.7.4

#4 - 2012-04-15 10:13 AM - Giovanni Manghi

- Target version changed from Version 1.7.4 to Version 2.0.0

#5 - 2012-10-06 02:28 AM - Pirmin Kalberer

- Target version changed from Version 2.0.0 to Future Release - Nice to have

#6 - 2017-05-01 12:42 AM - Giovanni Manghi

- Easy fix? set to No

- Pull Request or Patch supplied set to No