

## QGIS Application - Feature request #14356

### Improve postgis topology loading performance

2016-02-22 01:37 PM - Sandro Santilli

<b>Status:</b>	Closed	
<b>Priority:</b>	Normal	
<b>Assignee:</b>	Sandro Santilli	
<b>Category:</b>	DB Manager	
<b>Pull Request or Patch supplied:</b>	No	<b>Resolution:</b> fixed/implemented
<b>Easy fix?:</b>	No	<b>Copied to github as #:</b> 22340
<b>Description</b>		
<p>The face layers are currently triggering creation of all face geometries upfront, which is very very expensive. GDB found qgis busy in this query:</p> <pre>SELECT DISTINCT upper(geometrytype("geom")),st_srid("geom"),st_ndims("geom") FROM (SELECT face_id, ST_PointOnSurface(topology.ST_GetFaceGeometry('rt09_wgs84_topo', face_id)) as geom FROM "rt09_wgs84_topo".face WHERE face_id &gt; 0) AS "subQuery_0"</pre> <p>The query seem so be aiming at figuring geometry type, srid and number of dimensions from the query.</p> <p>The provider URI already contained geometry type and srid information (but no dimension, if that matters):</p> <pre>URI: dbname='rt' port=5493 sslmode=disable key='face_id' srid=3003 type=Polygon table="(SELECT face_id, topology.ST_GetFaceGeometry('rt09_wgs84_topo', face_id) as geom FROM \"rt09_wgs84_topo\".face WHERE face_id &gt; 0</pre> <p>This ticket is to find a way to avoid the upfront full scan, as the layer is intentionally started invisible specifically to avoid the full scan.</p> <p>BTW, another scan might be needed to compute extent but that also could be passed by the layer creator (dbmanager).</p>		

#### History

##### #1 - 2016-02-22 02:00 PM - Sandro Santilli

- Assignee changed from Jürgen Fischer to Sandro Santilli
- Status changed from Open to In Progress

Jürgen Fischer suggested to look at 'setUseEstimatedMetadata':

<http://qgis.org/api/classQgsDataSourceURI.html#aa93f799954aee0467b7ed9fa41daecff>

##### #2 - 2016-02-22 02:18 PM - Sandro Santilli

- Resolution set to fixed/implemented
- Status changed from In Progress to Closed

Much much better with commit:d8a768f0a0b1926ead3b42c0fa9e12d35f8905f0

**#3 - 2016-02-22 02:27 PM - Sandro Santilli**

Just a note: all the commit does is setting a type-mod based constraint on the geometry column of the query to specify a type and a srid. As the URI already contained both the type and the srid information, I'm wondering if a regression is really hiding here (why should the provider NOT TRUST the uri info?)

**#4 - 2016-02-22 02:31 PM - Sandro Santilli**

Could the problem be related to the deprecation of setWkbType (QGis::WkbType type) ?

**#5 - 2016-02-22 10:42 PM - Sandro Santilli**

commit:976015a38dedb22c16a84cf8c741d052905f20b9 fixes the previous.

While the performances are better, there's still a full primary key column scan.  
I'll file a separate ticket for that.