QGIS Application - Feature request #278
2.5D/3D geometry support

2006-09-20 05:16 AM - holl-gdf-hannover-de -

Status:	Closed			
Priority:	Low			
Assignee:	Marco Hugentobler			
Category:				
Pull Request or Patch supplied:			**Resolution:**	fixed
Easy fix?:	No		**Copied to github as #:**	10337

Description

Hi developers,

currently I am writing a plugin for Oracle-access (similar to the postgres) through OGR. Loading a vector using [[QgisIface]]::addVectorLayer() works partly, the attribute-table gets populated with the correct attributes, but the geometry is unknown to QGIS.

The shell displays the following warning:

```
[...]
UNKNOWN WKBTYPE ENCOUNTERED
[...]
UNKNOWN WKBTYPE ENCOUNTERED
Debug: qgsogrprovider.cpp: 581: (getNextFeature) Feature is null
Debug: qgsvectorlayer.cpp: 948: (draw) Total features processed is 458
Debug: qgsmaprender.cpp: 285: (render) [[QgsMapRender]]::render: Done
[...]
```

Indeed, when I use ogrinfo to query my layers in Oracle it recognizes it at Geometry: Unknown (any).

I discussed this with Marco Off-list and he pointed out that QGIS cannot handle 3d geometry currently.
But OGR supports the following geometries so it could be included in QGIS as well:

```
typedef enum
{
  wkbUnknown = 0,          /* non-standard */
  wkbPoint = 1,            /* rest are standard WKB type codes */
  wkbLineString = 2,
  wkbPolygon = 3,
  wkbMultiPoint = 4,
  wkbMultiLineString = 5,
  wkbMultiPolygon = 6,
  wkbGeometryCollection = 7,
  wkbNone = 100,           /* non-standard, for pure attribute records */
  wkbLinearRing = 101,     /* non-standard, just for createGeometry() */
  wkbPoint25D = 0x80000001,  /* 2.5D extensions as per 99-402 */
  wkbLineString25D = 0x80000002,
  wkbPolygon25D = 0x80000003,
  wkbMultiPoint25D = 0x80000004,
  wkbMultiLineString25D = 0x80000005,
```

```
    wkbMultiPolygon25D = 0x80000006,
    wkbGeometryCollection25D = 0x80000007
} OGRwkbGeometryType;
```

In future Versions it would be nice to have this included in QGIS, so that at least 25d layers could be loaded.

Best regards
    Stephan

History

#1 - 2006-09-21 06:40 AM - holl-gdf-hannover-de -

Hi devs,

some additional hints, I have asked at the gdal-dev-listr1.

> <Frank Warmerdam>
> I am not aware of a dependable way of determining the geometry type of an
> oracle geometry column. So the driver just returns wkbUnknown which means
> any geometry type may appear.
>
> This is not uncommon with different kinds of drivers, so if QGIS can't handle
> it, I think QGIS should be improved.
> </Frank Warmerdam>

So this means QGIS should be extended in that way, that a provider/plugin can pass a geometry-type to [[QgisIface]]::addVectorLayer if possible?

Stephan

r1 http://lists.maptools.org/pipermail/gdal-dev/2006-September/010130.html

#2 - 2006-09-28 12:41 AM - Martin Dobias

Initial support for 2.5D geometries has been added in in order to fix #308. This support is now just basic to allow layers to be displayed. Z vaules are completely ignored.

#3 - 2006-12-03 03:48 AM - Marco Hugentobler

- Resolution set to fixed

- Status changed from Open to Closed

#4 - 2009-08-22 12:45 AM - Anonymous

Milestone Version 0.9 deleted