

Avances en la integración de GGL2 con gvSIG y QGIS

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Guión

- ¿Qué es GGL2?
- Avances en el lenguaje
 - *Join*
 - Librerías
 - Integración con gvSIG y Quantum GIS
- Trabajo futuro

¿Qué es GGL2?

Gearscape

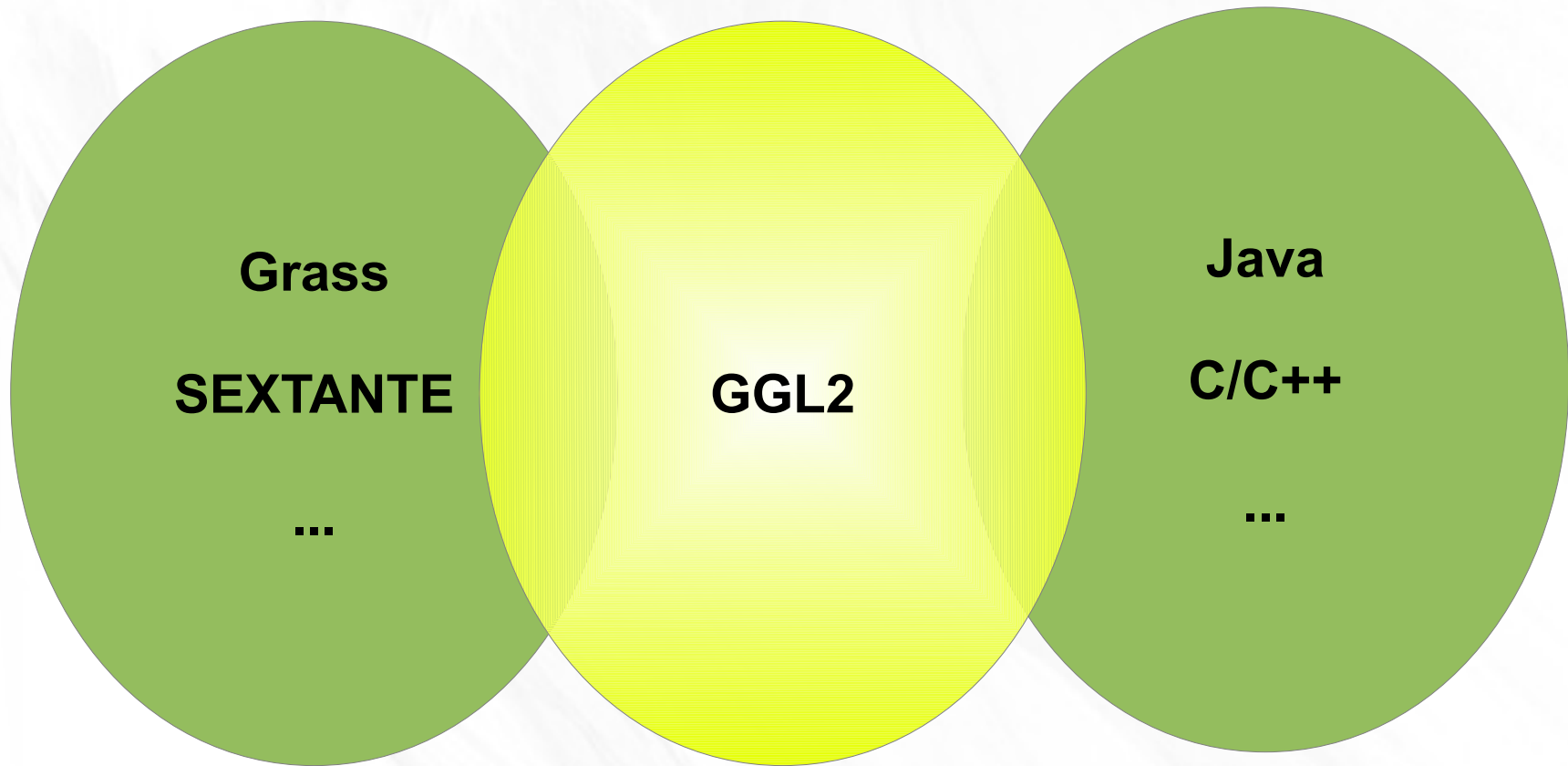
Geoprocessing

Language



2

¿Qué es GGL2?



Join



Join

```
result = vias as v join municipios as m on  
    (ST_Intersects(v/the_geom, m/the_geom));
```

```
result = vias as v prefix 'v_' join municipios as m on  
    (ST_Intersects(v/v_the_geom, m/the_geom));
```

```
joined = vias as v prefix 'v_' join municipios as m on  
    (ST_Intersects(v/v_the_geom, m/the_geom));  
result = joined select(...);
```



Buffff!!

Join

```
result = vias join municipios (v,m | on  
    (ST_Intersects(v/the_geom, m/the_geom) include ...);
```

```
result = vias join municipios (v,m | ...);
```

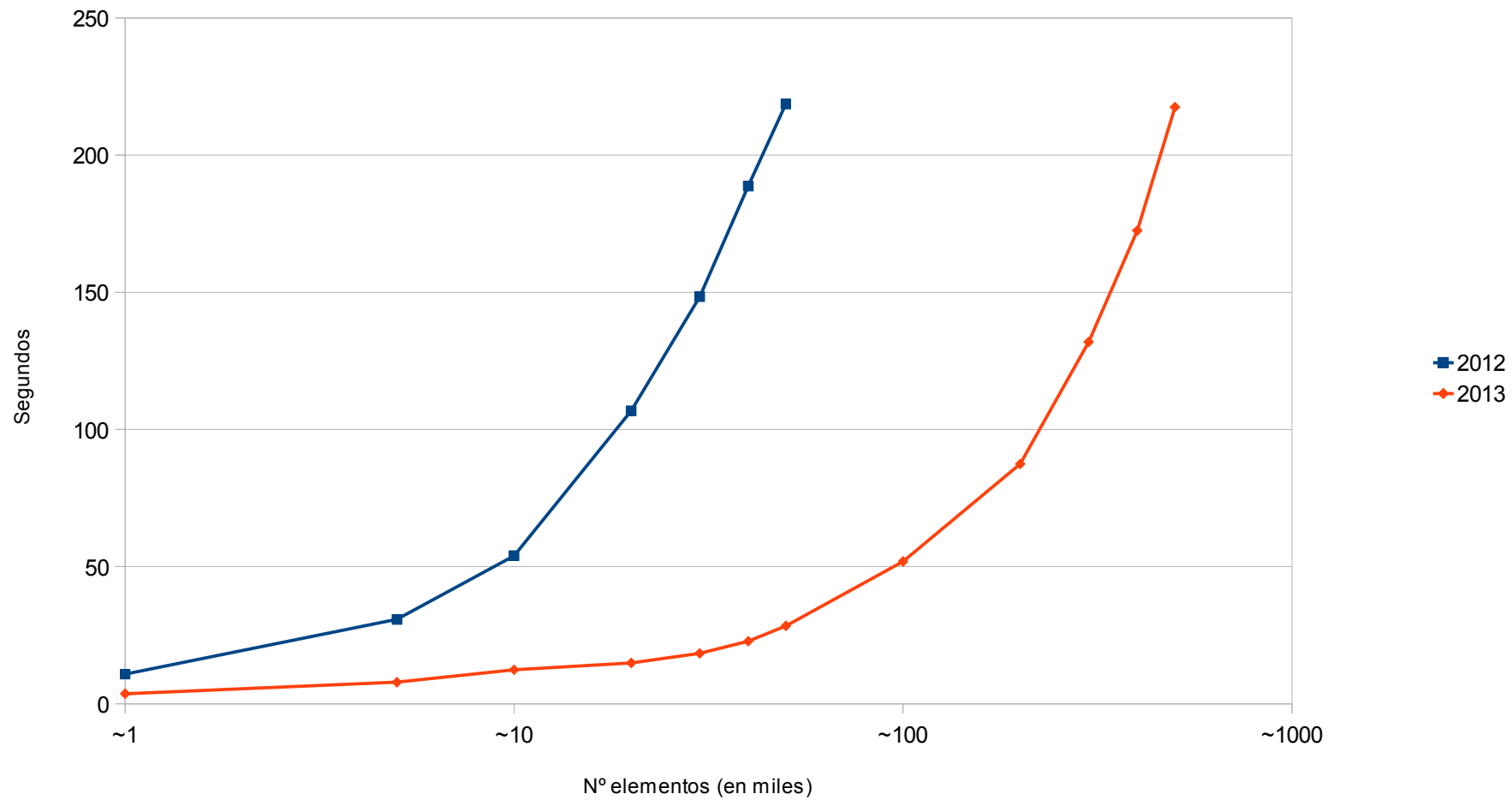
```
result = vias select (v | ...);
```

```
result = vias filter (v | ...);
```

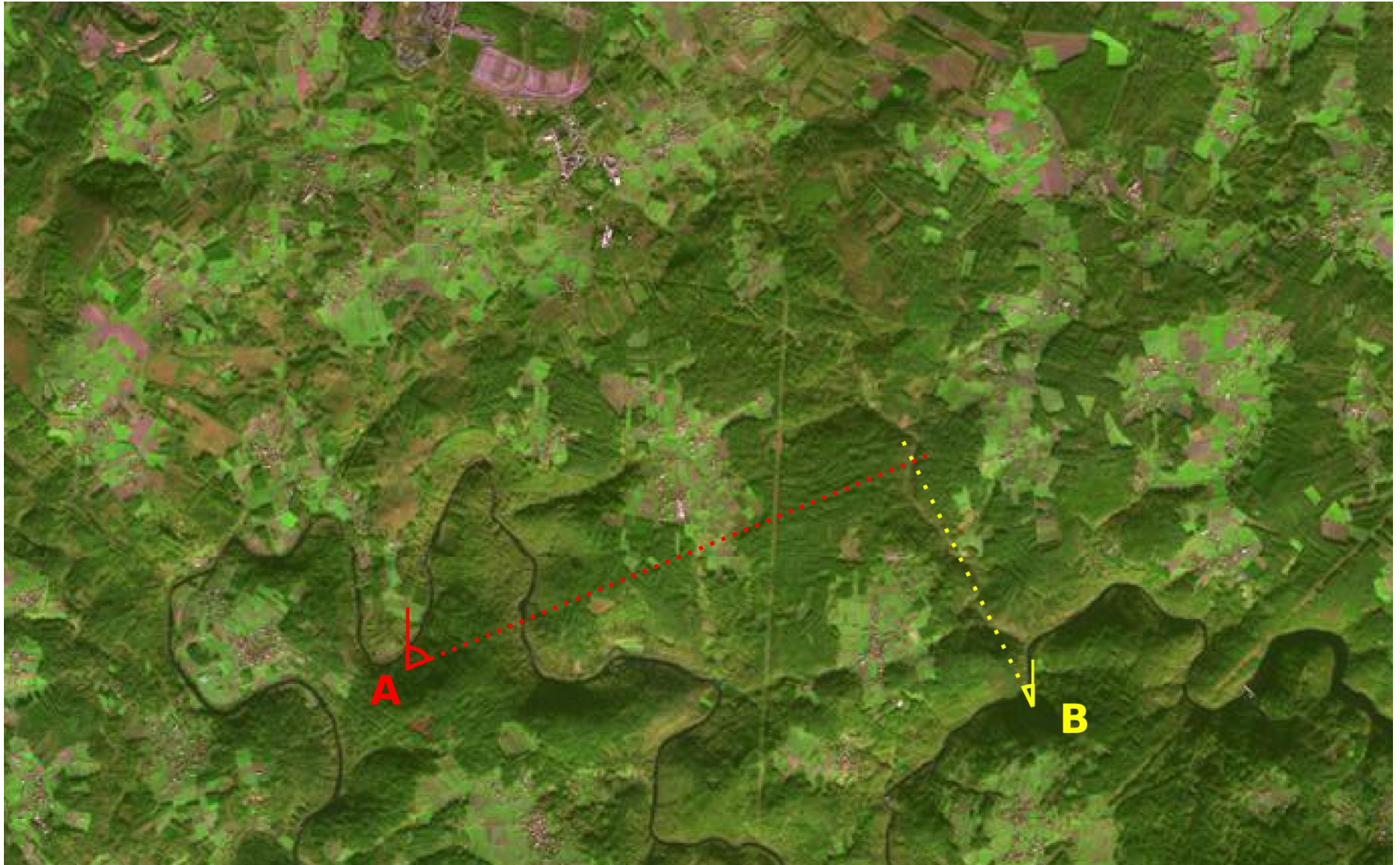


Buff!

Join



Librerías



```

alg buildUnitVector2D(double angle) returns sequenceof double {
    return [cos(angle), sin(angle)];
}

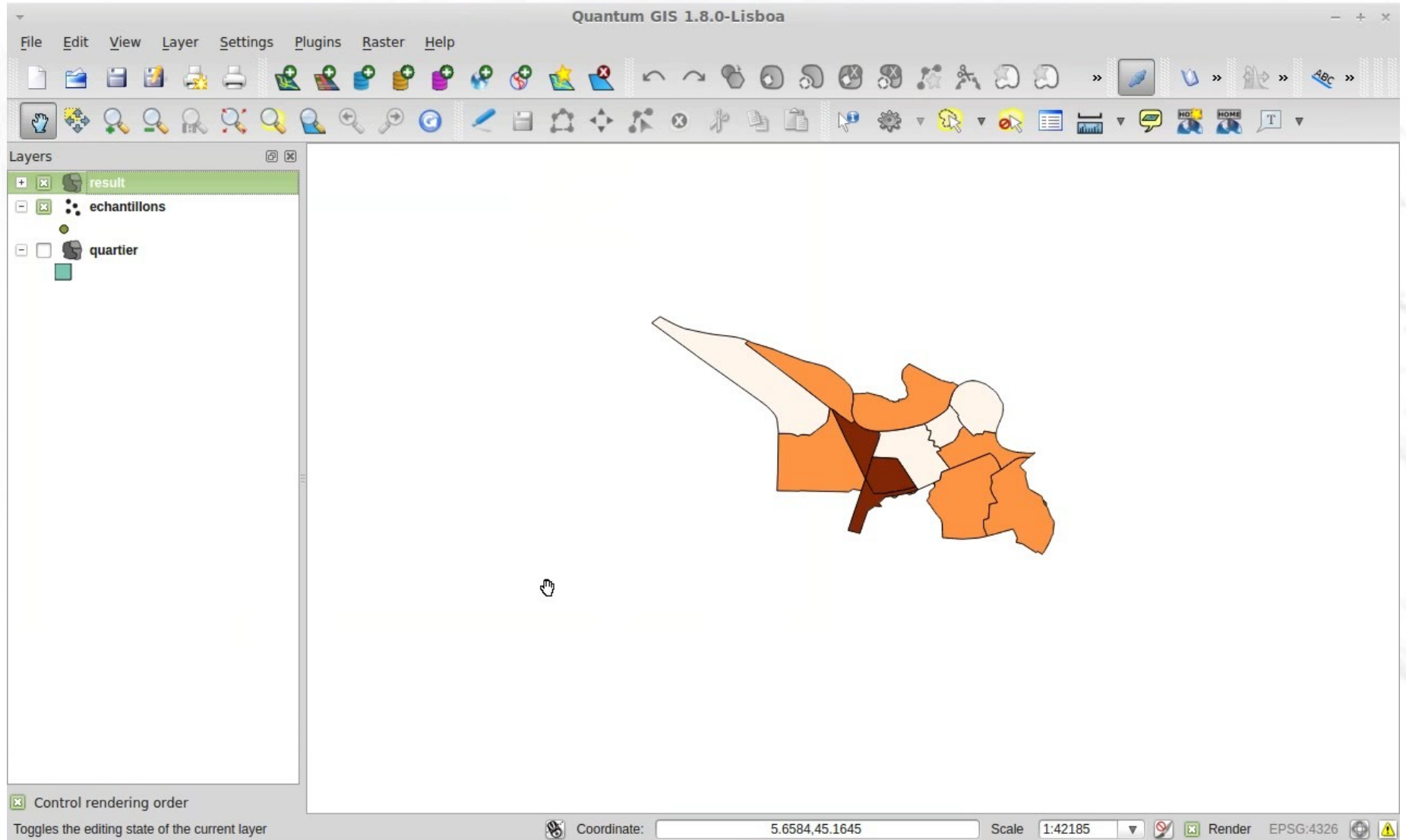
alg buildVector2D(geometry p1, geometry p2) returns sequenceof double {
    return [ST_X(p2) - ST_X(p1), ST_Y(p2) - ST_Y(p1)];
}

alg unitVector(sequenceof double vector) returns sequenceof double {
    module = sqrt(pow(vector[0], 2) + pow(vector[1], 2));
    return [vector[0] : module, vector[1] : module];
}

alg applyVector(sequenceof double unitVector, geometry origin, double distance)
returns geometry {
    x = ST_X(origin) + unitVector[0] * distance;
    y = ST_Y(origin) + unitVector[1] * distance;
    return POINT(x y);
}

```

Librerías



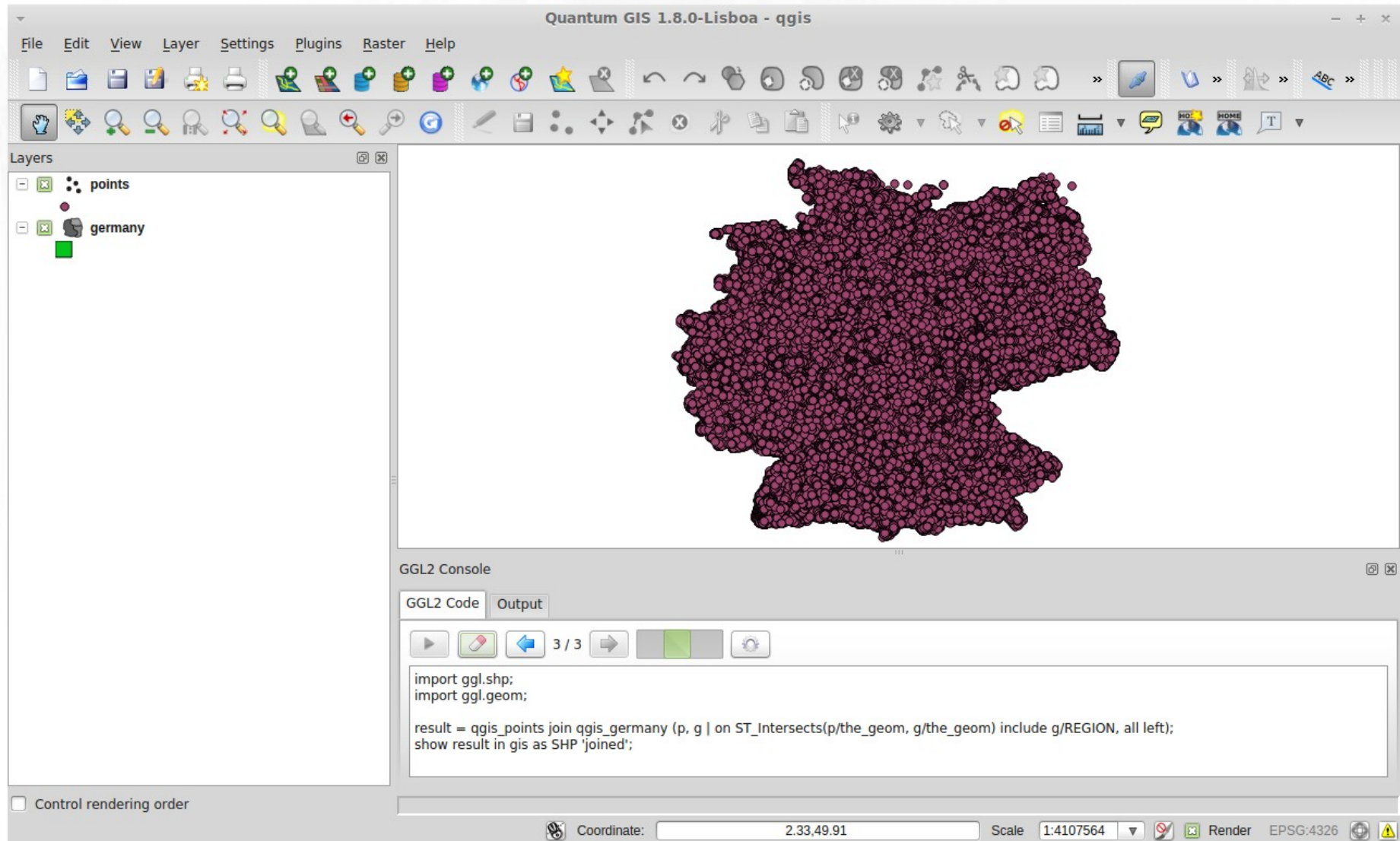
```
alg mean(sequenceof double values) returns double maps to  
    org.gearscape.ggl.Statistics::mean;
```

```
alg variance(sequenceof double values, double expected) returns double {  
    acum = 0.0;  
    foreach value in values {  
        acum = acum + pow(value - expected, 2);  
    }  
    return acum : values/@length;  
}
```

```
alg standardDeviation(sequenceof double values, double expected) returns double {  
    return sqrt(variance(values, expected));  
}
```

```
alg variationCoef(sequenceof double values, double value) returns double {  
    return standardDeviation(values, value) : mean(values);  
}
```

Integración Quantum GIS



The screenshot displays the Quantum GIS 1.8.0-Lisboa interface. The main map area shows a geographical outline of Germany filled with a dense grid of small red circular points. The interface includes a menu bar (File, Edit, View, Layer, Settings, Plugins, Raster, Help), a toolbar with various GIS tools, and a Layers panel on the left. The Layers panel lists two layers: 'points' (represented by a red dot icon) and 'germany' (represented by a green square icon). Below the map is the GGL2 Console, which contains a code editor with the following Python code:

```
import ggl.shp;
import ggl.geom;

result = qgis_points join qgis_germany (p, g | on ST_Intersects(p/the_geom, g/the_geom) include g/REGION, all left);
show result in gis as SHP 'joined';
```

At the bottom of the interface, there is a status bar showing the current coordinate as 2.33,49.91, a scale of 1:4107564, and the projection set to EPSG:4326. A checkbox labeled 'Control rendering order' is located at the bottom left of the console area.

Integración gvSIG

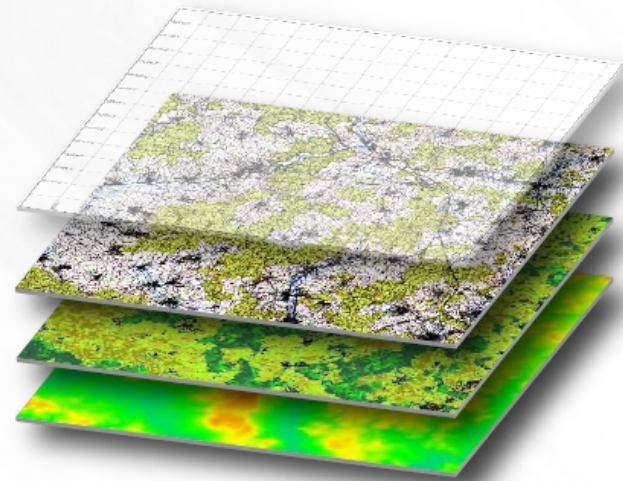
The screenshot displays the gvSIG Community Edition interface. The main window is titled "gvSIG Community Edition:Untitled" and features a menu bar (File, SEXTANTE, Tools, GGL2, Window, Help) and a toolbar. The left sidebar shows a layer list with "points" and "germany" layers. The central map area displays a green point cloud overlaid on a map of Germany. A "GGL2 Console" window is open in the bottom right, showing the following GGL2 code:

```
import ggl.shp;  
import ggl.geom;  
  
result = gvSIG_points join gvSIG_germany (p, g | on ST_Intersects(p/the_geom, g/the_geom) include all left, g/REGION);  
show result in gis as SHP 'joined';
```

The console window also includes a "Layers" dropdown set to "gvSIG_germany" and a "Templates" dropdown. Below the code is an "Output" section with a red cross icon. The status bar at the bottom indicates "Metres", "X = 8.42", "Y = 50.3", and "EPSG:23030".

Trabajo futuro

sextante



Gracias

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