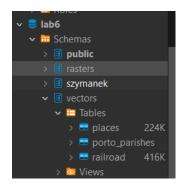
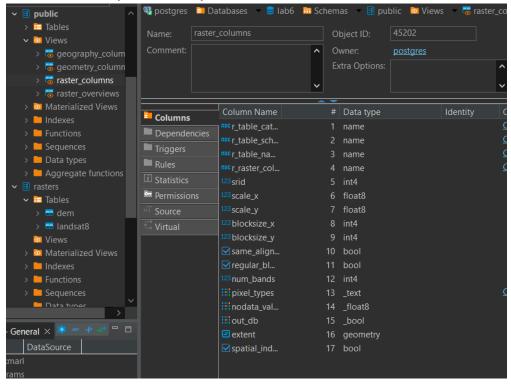
Struktura bazy danych

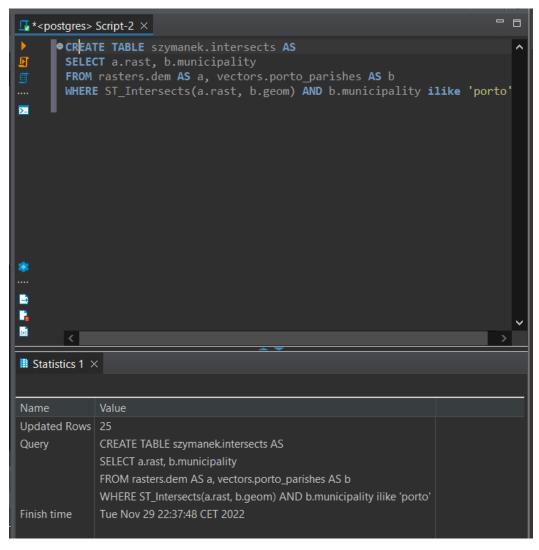


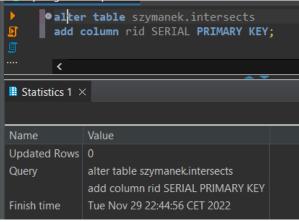
Ładowanie danych rastrowych

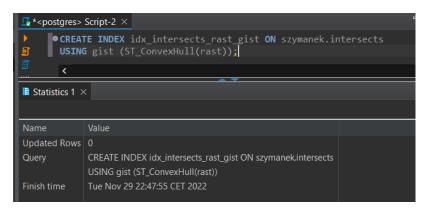


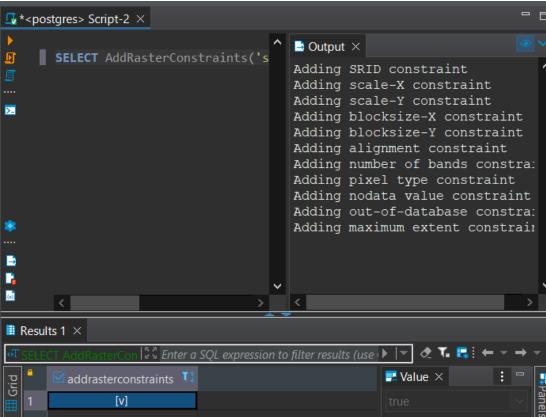
Tworzenie rastrów z istniejących rastrów i interakcja z wektorami

Przykład 1 - ST_Intersects

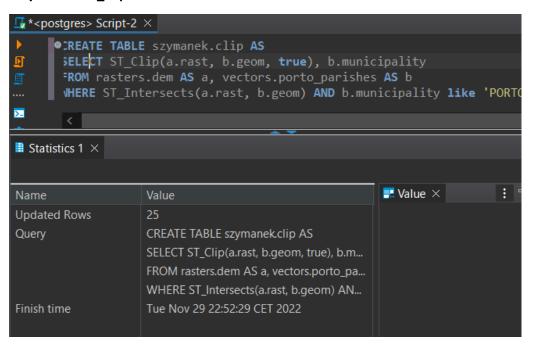




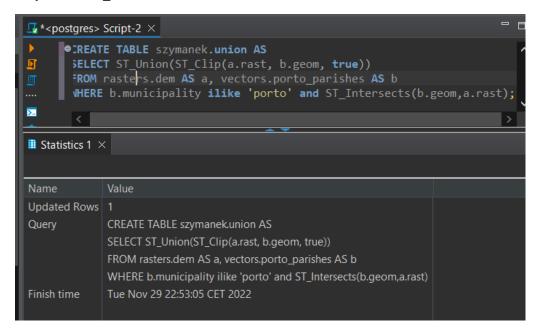




Przykład 2 - ST_Clip



Przykład 3 - ST_Union



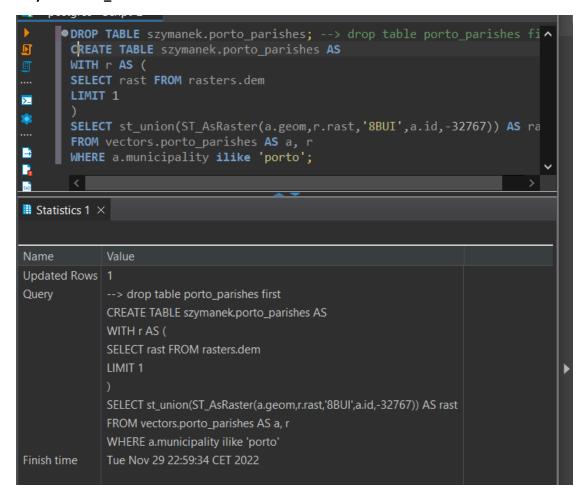
Tworzenie rastrów z wektorów (rastrowanie)

Przykład 1 - ST_AsRaster

```
↓ *<postgres> Script-2 ×

      ● CREATE TABLE szymanek.porto_parishes AS
        WITH r AS (
        SELECT rast FROM rasters.dem
        LIMIT 1
>_
        SELECT ST_AsRaster(a.geom,r.rast,'8BUI',a.id,-32767) AS rast
        FROM vectors.porto_parishes AS a, r
        WHERE a.municipality ilike 'porto';
G
■ Statistics 1 ×
Name
              Value
Updated Rows 7
Query
              CREATE TABLE szymanek.porto_parishes AS
              SELECT rast FROM rasters.dem
              LIMIT 1
              SELECT ST_AsRaster(a.geom,r.rast,'8BUI',a.id,-32767) AS rast
              FROM vectors.porto_parishes AS a, r
              WHERE a.municipality ilike 'porto'
              Tue Nov 29 22:58:30 CET 2022
Finish time
```

Przykład 2 - ST_Union

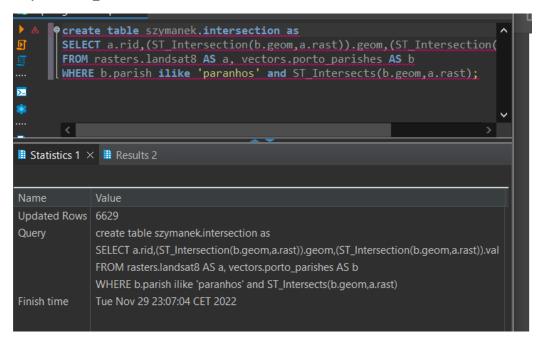


Przykład 3 - ST_Tile

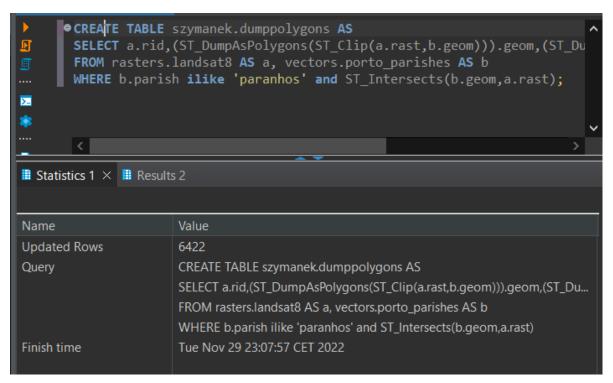
```
CREATE TABLE szymanek.porto_parishes AS
     WITH r AS (
     SELECT rast FROM rasters.dem
     LIMIT 1 )
     SELECT st_tile(st_union(ST_AsRaster(a.geom,r.rast,'8BUI',a.id,-32767
     FROM vectors.porto_parishes AS a, r
     WHERE a.municipality ilike 'porto';
     κI
Statistics 1 ×
                         Value
me
dated Rows
                         --> drop table porto_parishes first
ery
                         CREATE TABLE szymanek.porto_parishes AS
                         WITH r AS (
                         SELECT rast FROM rasters.dem
                        LIMIT 1)
                        SELECT st_tile(st_union(ST_AsRaster(a.geom,r.rast,'8BUI',a.id,-32767)),1...
                        FROM vectors.porto_parishes AS a, r
                        WHERE a.municipality ilike 'porto'
                         Tue Nov 29 23:05:22 CET 2022
ish time
```

Konwertowanie rastrów na wektory (wektoryzowanie)

Przykład 1 - ST_Intersection

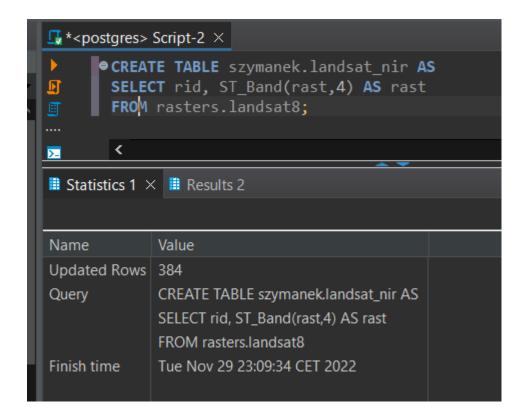


Przykład 2 - ST_DumpAsPolygons

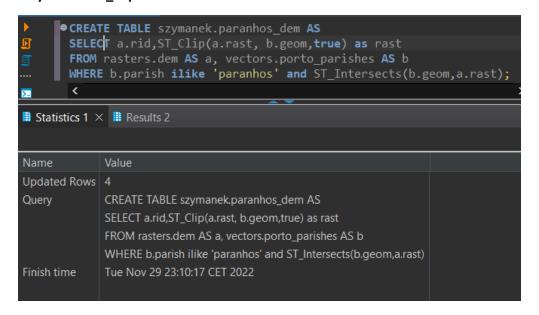


Analiza rastrów

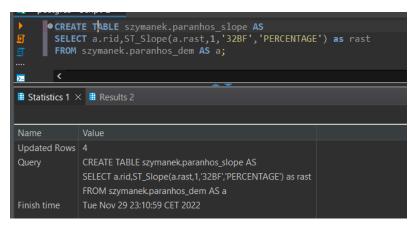
Przykład 1 - ST_Band



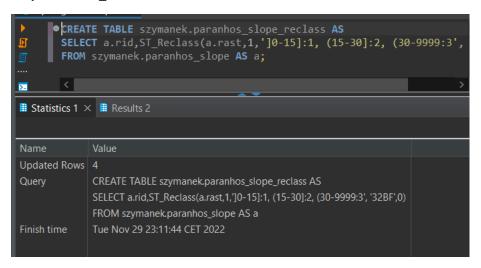
Przykład 2 - ST_Clip



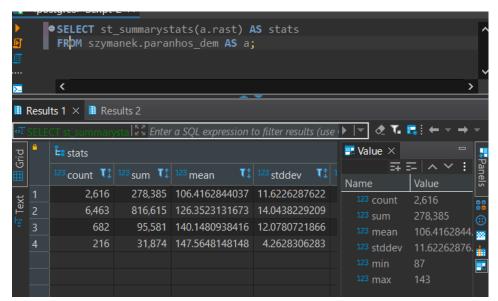
Przykład 3 - ST_Slope



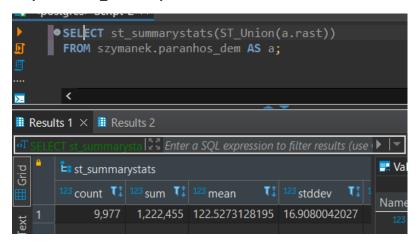
Przykład 4 - ST_Reclass



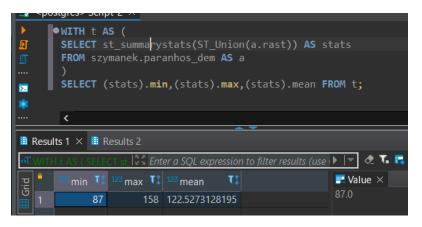
Przykład 5 - ST_SummaryStats



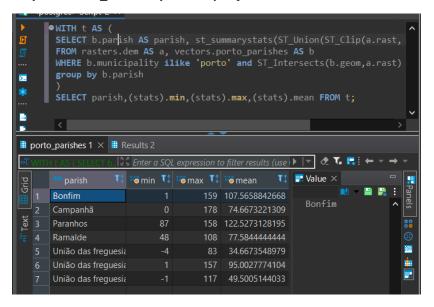
Przykład 6 - ST_SummaryStats oraz Union



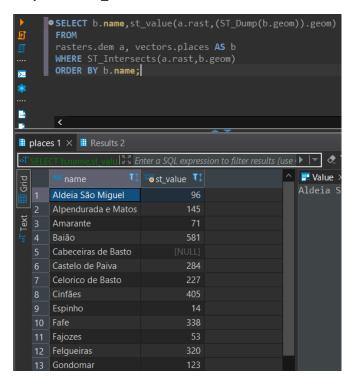
Przykład 7 - ST_SummaryStats z lepszą kontrolą złożonego typu danych



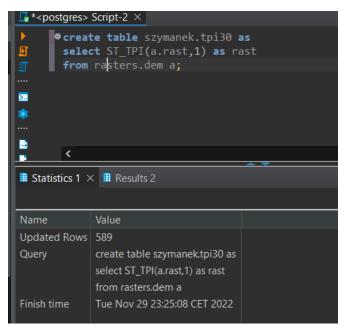
Przykład 8 - ST_SummaryStats w połączeniu z GROUP BY

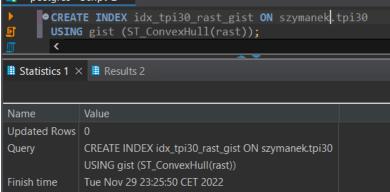


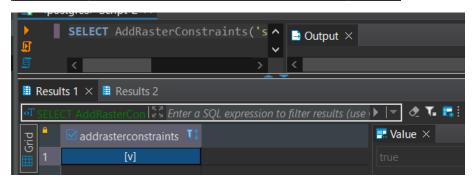
Przykład 9 - ST_Value



Przykład 10 - ST_TPI











Problem do samodzielnego rozwiązania

