1 / 2

```
Processing 1/1: TL.tif
Warning 1: The definition of geographic CRS EPSG:4277 got from GeoTIFF keys is not the same as the one from the EPSG registry, which may cause issues during repro
INSERT 0 1
COMMIT
BEGIN
Processing 1/1: TM.tif
Warning 1: The definition of geographic CRS EPSG:4277 got from GeoTIFF keys is not the same as the one from the EPSG registry, which may cause issues during repro
INSERT 0 1
COMMIT
BEGIN
Processing 1/1: TQ.tif
Warning 1: The definition of geographic CRS EPSG:4277 got from GeoTIFF keys is not the same as the one from the EPSG registry, which may cause issues during repro
INSERT 0 1
COMMIT
BEGIN
Processing 1/1: TR.tif
Warning 1: The definition of geographic CRS EPSG:4277 got from GeoTIFF keys is not the same as the one from the EPSG registry, which may cause issues during repro
INSERT 0 1
COMMIT
BEGIN
Processing 1/1: TV.tif
Warning 1: The definition of geographic CRS EPSG:4277 got from GeoTIFF keys is not the same as the one from the EPSG registry, which may cause issues during repro
INSERT 0 1
COMMIT
BEGIN
INSERT 0 1
COMMIT
(base) ls | xargs -I {} raster2pgsql -a {} public.uk_250k | psql -h localhost -p 15432 -U postgres lab9
```

3. Nie mozliwe jest storzenie pojedynczej mozaiki, jako ze wynikowa wartosc jest wieksza niz 1GB, wiec postgres nie jest w stanie przechowac jej w pamieci.

4 / 5

```
 1: PostgreSQL driver failed to create PG:host=localhost user=root password=XXXX dbname=lab9 port=15432
) ogr2ogr -f PostgreSQL PG:"host=localhost user=postgres password=postgres dbname=lab9 port=15432" Downloads/OS_Open_Zoomstack.gpkg
)
```

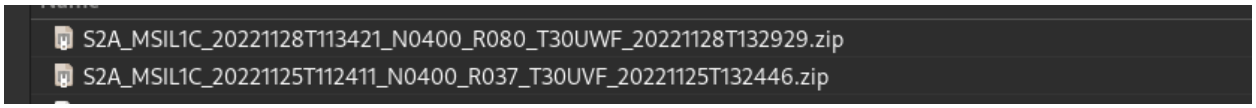
6.

```
create table uk_lake_disctrict as
select st_union(st_clip( rast: u.rast,  geom: n.geom))
from uk_250k u
        inner join national_parks n on st_intersects( geog1: n.geom,  geog2: u.rast)
where n.id = 1;
```

7.

```
-- 7


SET postgis.gdal_enabled_drivers = 'ENABLE_ALL';

CREATE TABLE tmp_out AS
SELECT lo_from_bytea(0,
                     ST_AsGDALRaster( rast: ST_Union(u.st_union),  format: 'GTiff',  options: ARRAY ['COMPRESS=DEFLATE',
                         'PREDICTOR=2', 'PZLEVEL=9'])
           ) AS loid
FROM uk_lake_disctrict u;

SELECT lo_export(loid, '/tmp/out.tiff')
FROM tmp_out;

SELECT lo_unlink(loid)
FROM tmp_out;

drop table tmp_out;
```

8



9.

```
) ls | xargs -I {} raster2pgsql -e {} public.sentinel_2 -t 8192x8192 | psql -h localhost -p 15432 -U postgres lab9
```

10.

```
create table national_parks_transformed as (select id, st_transform(geom, 32630) as geom
                                            from national_parks);
```

```
-- 10
drop table if exists uk_lake_district_NDWI;
CREATE TABLE uk_lake_district_NDWI AS
WITH r AS (SELECT a.rid, ST_Clip( rast: a.rast,  geom: b.geom,  crop: true) AS rast
           from sentinel_2 a
                    inner join national_parks_transformed b on st_intersects( geog1: b.geom,  geog2: a.rast)
           WHERE b.id = 1)
SELECT r.rid,
       ST_MapAlgebra(
               rastbandargset: r.rast,  callbackfunc: 1,
               pixeltype: r.rast,  extenttype: 4,
               customextent: '([rast2.val] - [rast1.val]) / ([rast2.val] +
              [rast1.val])::float',  distancex: '32BF'
           ) AS rast
FROM r;
```

11.

```
-- 11
CREATE TABLE tmp_out AS
SELECT lo_from_bytea(0,
                     ST_AsGDALRaster( rast: ST_Union(u.rast),  format: 'GTiff',  options: ARRAY ['COMPRESS=DEFLATE',
                         'PREDICTOR=2', 'PZLEVEL=9'])
           ) AS loid
FROM uk_lake_district_NDWI u;

SELECT lo_export(loid, '/tmp/out2.tiff')
FROM tmp_out;

SELECT lo_unlink(loid)
FROM tmp_out;

drop table tmp_out;

--
```

Niestety eksport pliku nie dziala ze wzgledow tych samych co wczesniej - wynikowa wartosc przekraczalaby 1GB