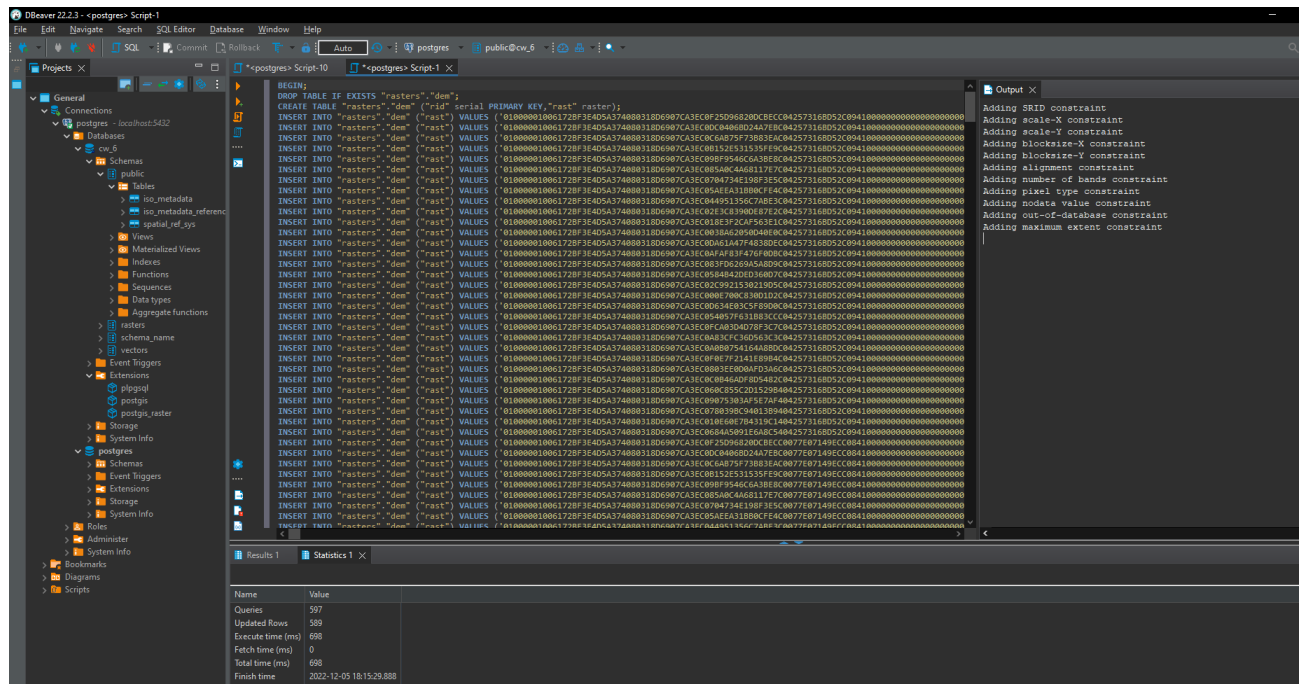
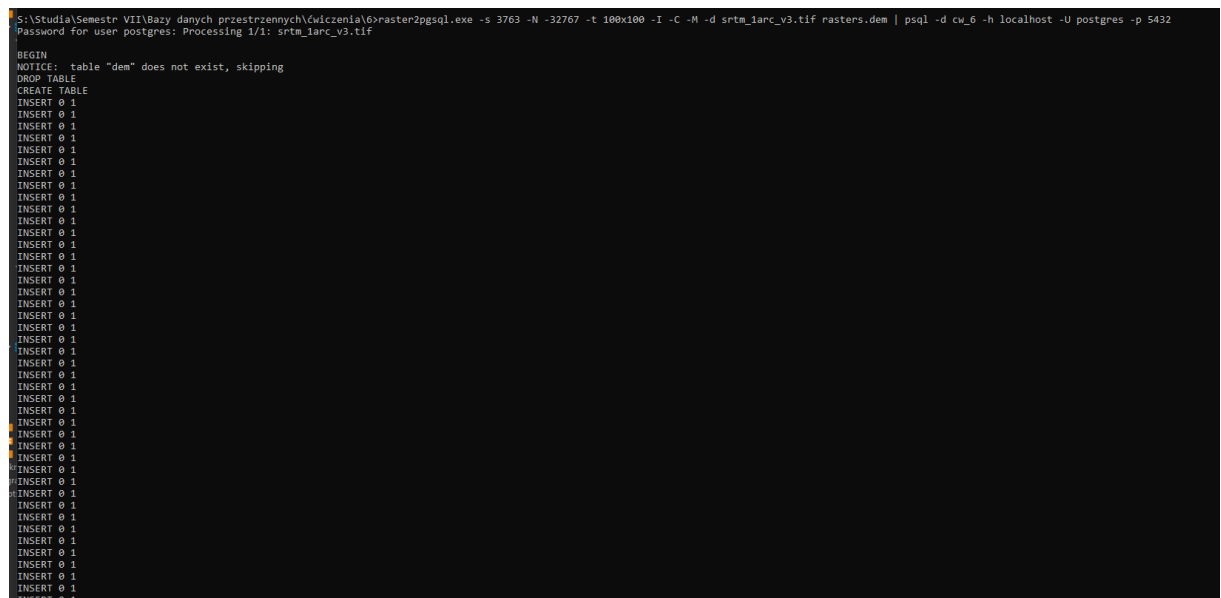


Przykład 1



Przykład 2



Przykład 3

[illegible]

Tworzenie rastrów z istniejących rastrów i interakcja z wektorami

Przykład 1 - ST_Intersects

The screenshot shows the PostgreSQL GUI with two tabs: "<postgres> Script-10" and "<postgres> Script-1 X". The SQL script in the editor is as follows:

```
CREATE TABLE schema_name.intersects AS
SELECT a.rast, b.municipality
FROM rasters.dem AS a, vectors.porto_parishes AS b
WHERE ST_Intersects(a.rast, b.geom) AND b.municipality ilike 'porto';

--1
alter table schema_name.intersects
add column rid SERIAL PRIMARY KEY;

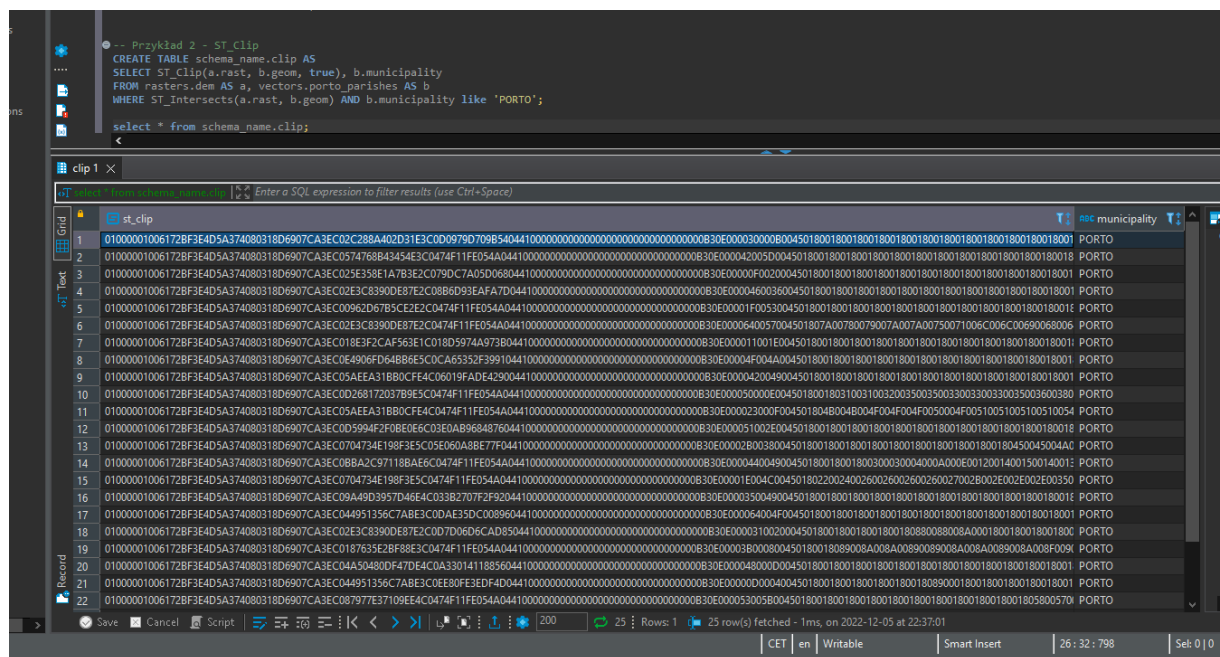
--2
CREATE INDEX idx_intersects_rast_gist ON schema_name.intersects
USING gist (ST_ConvexHull(rast));

--3
-- schema::name table name::name raster_column::name
SELECT AddRasterConstraints('schema_name'::name,
'intersects'::name, 'rast'::name);
```

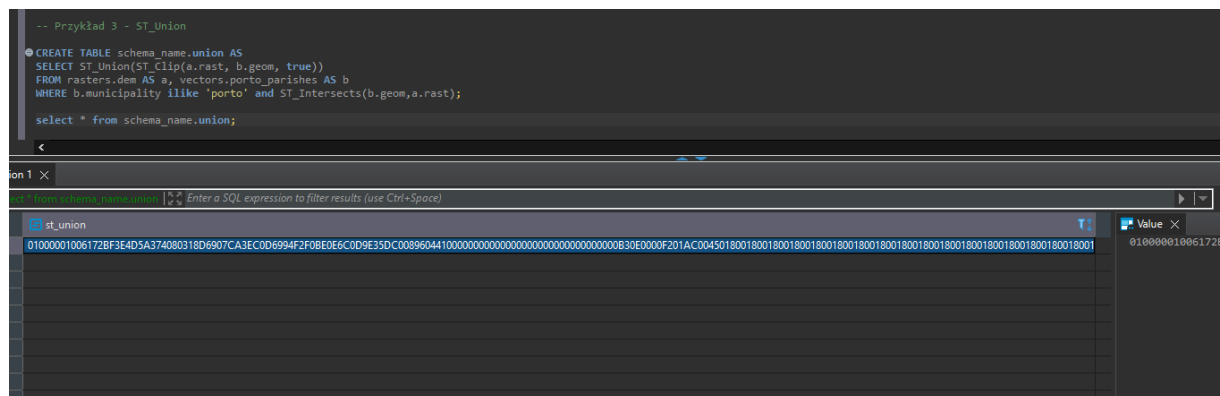
The "Results 1 X" pane shows the execution of the third query. The results are displayed in a grid view with the following data:

	addrasterconstraints
1	[v]

Przykład 2 - ST_Clip

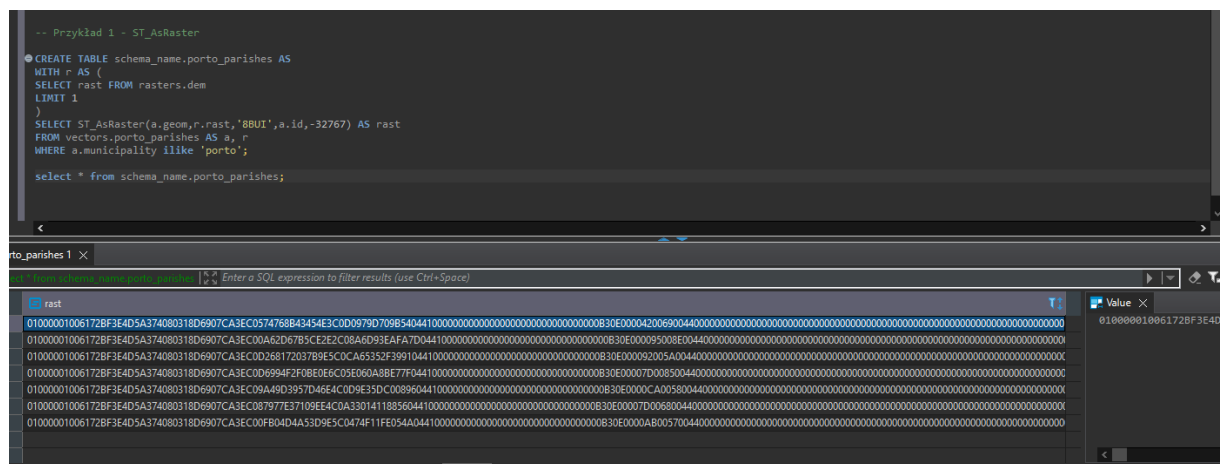


Przykład 3 - ST_Union



Tworzenie rastrów z wektorów (rastrowanie)

Przykład 1 - ST AsRaster



Przykład 2 - ST_Union

```
-- Przykład 2 - ST_Union
DROP TABLE schema_name.porto_parishes; --> drop table porto_parishes first
CREATE TABLE schema_name.porto_parishes AS
WITH r AS (
  SELECT rast FROM rasters.dem
  LIMIT 1
)
SELECT st_union(ST_AsRaster(a.geom,r.rast,'8BUI',a.id,-32767)) AS rast
FROM vectors.porto_parishes AS a, r
WHERE a.municipality ilike 'porto';

select * from schema_name.porto_parishes;
```

The screenshot shows the SQL console with the query executed. Below the console, the 'porto_parishes 1' table is displayed with a single row of raster data. The raster data is a long string of hexadecimal values representing the union of the input rasters.

Przykład 3 - ST_Tile

```
-- Przykład 3 - ST_Tile
DROP TABLE schema_name.porto_parishes; --> drop table porto_parishes first
CREATE TABLE schema_name.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)),128,128,true,-32767) AS rast
FROM vectors.porto_parishes AS a, r
WHERE a.municipality ilike 'porto';

select * from schema_name.porto_parishes;
```

The screenshot shows the SQL console with the query executed. Below the console, the 'porto_parishes 1' table is displayed with a single row of raster data. The raster data is a long string of hexadecimal values representing the tiled union of the input rasters.

Konwertowanie rastrow na wektory (wektoryzowanie)

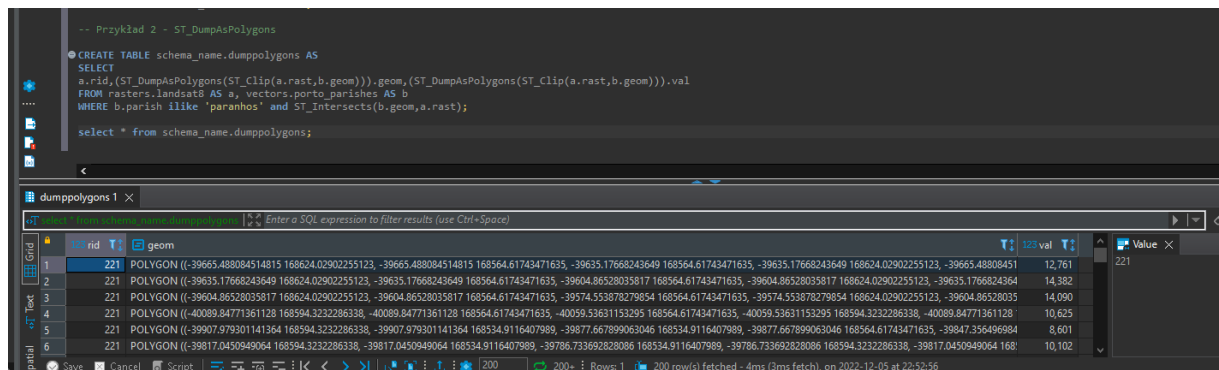
Przykład 1 - ST_Intersection

```
-- Przykład 1 - ST_Intersection
create table schema_name.intersection as
SELECT
  a.id,(ST_Intersection(b.geom,a.rast)).geom,(ST_Intersection(b.geom,a.rast)
).val
FROM rasters.landsat8 AS a, vectors.porto_parishes AS b
WHERE b.parish ilike 'paranhos' and ST_Intersects(b.geom,a.rast);

select * from schema_name.intersection;
```

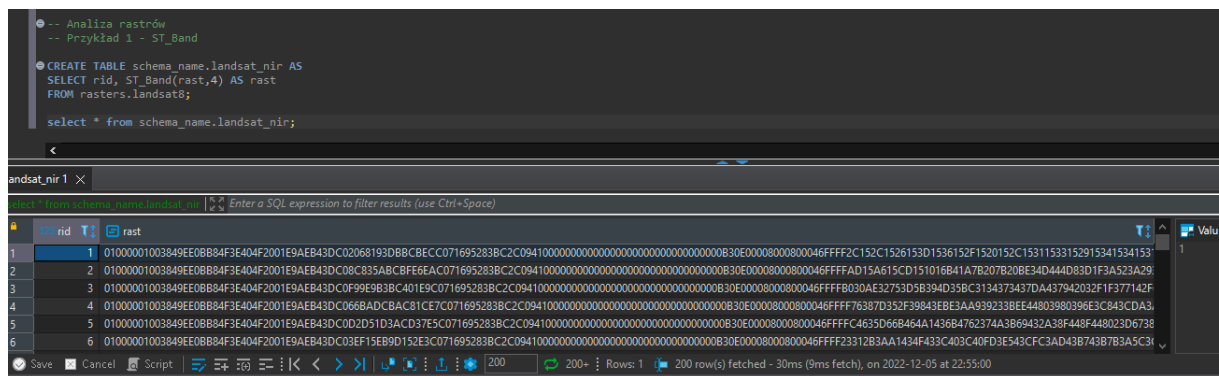
The screenshot shows the SQL console with the query executed. Below the console, the 'intersection 1' table is displayed with a single row of vector data. The vector data is a long string of hexadecimal values representing the intersection of the input rasters.

Przykład 2 - ST_DumpAsPolygons

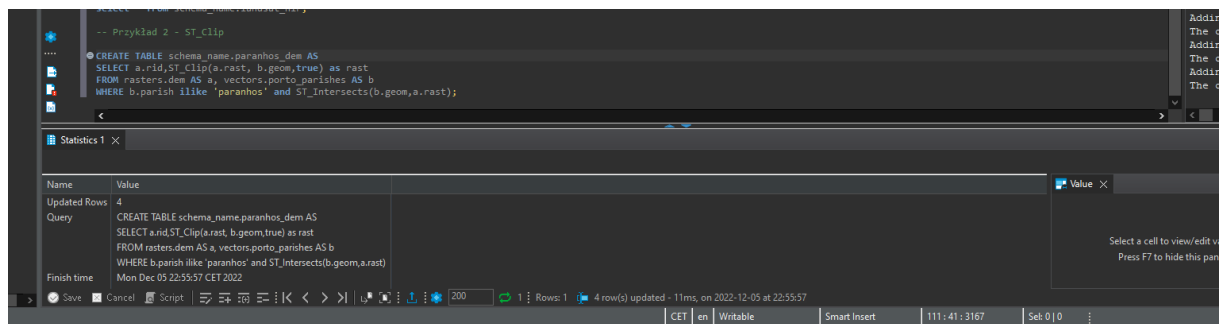


Analiza rastrów

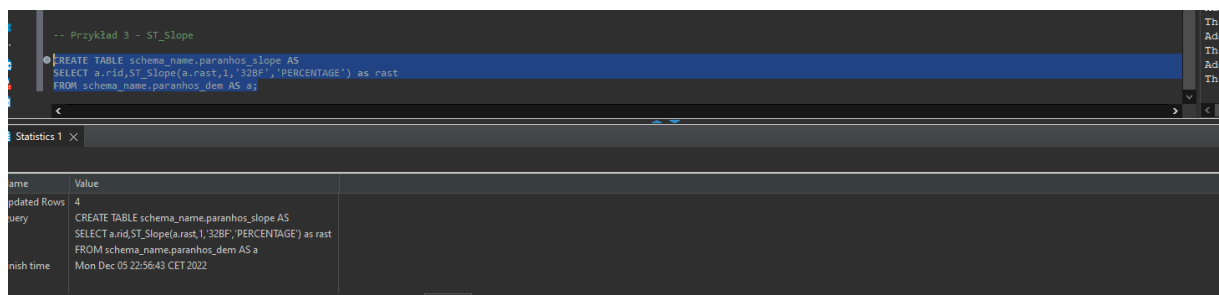
Przykład 1 - ST_Band



Przykład 2 - ST_Clip



Przykład 3 - ST_Slope



Przykład 4 - ST_Reclass

```
CREATE TABLE schema_name.paranhos_dem AS
SELECT a.rid, ST_Clip(a.rast, b.geom, true) as rast
FROM rasters_dem AS a, vectors.porto_parishes AS b
WHERE b.parish ilike 'paranhos' and ST_Intersects(b.geom, a.rast);

-- Przykład 3 - ST_Slope

CREATE TABLE schema_name.paranhos_slope AS
SELECT a.rid, ST_Slope(a.rast, 1, '32BF', 'PERCENTAGE') as rast
FROM schema_name.paranhos_dem AS a;

-- Przykład 4 - ST_Reclass

CREATE TABLE schema_name.paranhos_slope_reclass AS
SELECT a.rid, ST_Reclass(a.rast, 1, '[0-15]:1, (15-30]:2, (30-9999]:3',
'32BF', 0)
FROM schema_name.paranhos_slope AS a;
```

Statistics 1

Name	Value
Updated Rows	4
Query	CREATE TABLE schema_name.paranhos_slope_reclass AS SELECT a.rid, ST_Reclass(a.rast, 1, '[0-15]:1, (15-30]:2, (30-9999]:3', '32BF', 0) FROM schema_name.paranhos_slope AS a
Finish time	Mon Dec 05 22:57:24 CET 2022

Przykład 5 - ST_SummaryStats

```
CREATE TABLE schema_name.paranhos_slope_reclass AS
SELECT a.rid, ST_Reclass(a.rast, 1, '[0-15]:1, (15-30]:2, (30-9999]:3',
'32BF', 0)
FROM schema_name.paranhos_slope AS a;

-- Przykład 5 - ST_SummaryStats

SELECT st_summarystats(a.rast) AS stats
FROM schema_name.paranhos_dem AS a;
```

Results 1

	stats
1	count sum mean stddev min max
2	2,616 278,385 106.4162844037 11.6226287622 87 143
3	6,463 816,615 126.3523131673 14.0438229209 94 158
4	682 95,581 140.1480938416 12.0780721866 103 158
5	216 31,874 147.5648148148 4.2628306283 137 158

Przykład 6 - ST_SummaryStats oraz Union Przy użyciu UNION

```
FROM schema_name.paranhos_dem AS a;

-- Przykład 6 - ST_SummaryStats oraz Union

SELECT st_summarystats(ST_Union(a.rast))
FROM schema_name.paranhos_dem AS a;
```

Results 1

	st_summarystats
1	count sum mean stddev min max
2	9,977 1,222,455 122.5273128195 16.9080042027 87 158

Przykład 7 - ST_SummaryStats z lepszą kontrolą złożonego typu danych

```
-- Przykład 7 - ST_SummaryStats z lepszą kontrolą złożonego typu danych

WITH t AS (
SELECT st_summarystats(ST_Union(a.rast)) AS stats
FROM schema_name.paranhos_dem AS a
)
SELECT (stats).min, (stats).max, (stats).mean FROM t;
```

Results 1

	min	max	mean
1	87	158	122.5273128195

Przykład 8 - ST_SummaryStats w połączeniu z GROUP BY

```
--Przykład 8 - ST_SummaryStats w połączeniu z GROUP BY
WITH t AS (
  SELECT b.parish AS parish, st_summarystats(ST_Union(ST_Clip(a.rast,
    b.geom,true))) AS stats
  FROM rasters.dem AS a, vectors.porto_parishes AS b
  WHERE b.municipality ilike 'porto' and ST_Intersects(b.geom,a.rast)
  group by b.parish
)
SELECT parish,(stats).min,(stats).max,(stats).mean FROM t;
```

parish	min	max	mean
Bonfim	1	159	107.5658842668
Campanhã	0	178	74.6673221309
Paranhos	87	158	122.5273128195
Ramalde	48	108	77.5844444444
União das freguesias de Aldoar, Foz do Douro e Nevogilde	-4	83	34.6673548979
União das freguesias de Cedofeita, Santo Ildefonso, Sé, Miragaia, São Nicolau e Vitória	1	157	95.0027774104

Przykład 9 - ST_Value

```
group by b.parish
)
SELECT parish,(stats).min,(stats).max,(stats).mean FROM t;

-- Przykład 9 - ST_Value
SELECT b.name,st_value(a.rast,(ST_Dump(b.geom)).geom)
FROM
  rasters.dem a, vectors.places AS b
WHERE ST_Intersects(a.rast,b.geom)
ORDER BY b.name;
```

name	st_value
Aldéia São Miguel	96
Alpendurada e Matos	145
Amarante	71
Baio	581
Cabeceiras de Basto	[NULL]
Castelo de Paiva	384

Przykład 10 - ST_TPI

```
-- Przykład 10 - ST_TP
create table schema_name.tpi30 as
select ST_TPI(a.rast,1) as rast
from rasters.dem a;

CREATE INDEX idx_tpi30_rast_gist ON schema_name.tpi30
USING gist (ST_ConvexHull(rast));

SELECT AddRasterConstraints('schema_name'::name,
'tpi30'::name,'rast'::name);
```

Results 1

addrasterconstraints
[v]

Algebra map

Przykład 1 - Wyrażenie Algebry Map

```
-- Przykład 1 - Wyrażenie Algebry Map
CREATE TABLE schema_name.porto_ndvi AS
WITH r AS (
SELECT a.rid,ST_Clip(a.rast, b.geom,true) AS rast
FROM rasters.landsat8 AS a, vectors.porto_parishes AS b
WHERE b.municipality ilike 'porto' and ST_Intersects(b.geom,a.rast)
)
SELECT
r.rid,ST_MapAlgebra(
r.rast, 1,
r.rast, 4,
'([rast2.val] - [rast1.val]) / ([rast2.val] +
[rast1.val])::float','32BF'
) AS rast
FROM r;
```

```
CREATE INDEX idx_porto_ndvi_rast_gist ON schema_name.porto_ndvi
USING gist (ST_ConvexHull(rast));
```

```
SELECT AddRasterConstraints('schema_name::name,
'porto_ndvi::name','rast::name');
```

Results 1 ×

SELECT AddRasterConstraints('schema_name::name, 'porto_ndvi::name', 'rast::name')

addrasterconstraints

	[v]
1	

Przykład 2 – Funkcja zwrotna

```
-- Przykład 2 - Funkcja zwrotna

-- create or replace function schema_name.ndvi(
value double precision [] [] [],
pos integer [],
VARIADIC userargs text []
)
RETURNS double precision AS
$$
BEGIN
--RAISE NOTICE 'Pixel Value: %', value [1][1][1];-->For debug purposes
RETURN (value [2][1][1] - value [1][1][1])/(value [2][1][1]+value
[1][1][1]); --> NDVI calculation!
END;
$$
LANGUAGE 'plpgsql' IMMUTABLE COST 1000;

-- CREATE TABLE schema_name.porto_ndvi2 AS
WITH r AS (
SELECT a.rid,ST_Clip(a.rast, b.geom,true) AS rast
FROM rasters.landstat8 AS a, vectors.porto_parishes AS b
WHERE b.municipality ilike 'porto' and ST_Intersects(b.geom,a.rast)
)
SELECT
r.rid,ST_MapAlgebra(
r.rast, ARRAY[1,4],
'schema_name.ndvi(double precision[],
integer[],text[])::regprocedure, --> This is the function!
'32BF'::text
) AS rast
FROM r;

-- CREATE INDEX idx_porto_ndvi2_rast_gist ON schema_name.porto_ndvi2
USING gist (ST_ConvexHull(rast));

-- SELECT AddRasterConstraints('schema_name'::name,
'porto_ndvi2'::name,'rast'::name);
```

Results 1

addrasterconstraints

	[v]
1	

PostgreSQL - Information Schema

- Databases
 - cw_6
 - Schemas
 - public
 - rasters
 - schema_name
 - Tables
 - clip 88K
 - dumppolygons 1.1M
 - intersection 1.1M
 - intersects 264K
 - landstat_nir 12M
 - paranhos_dem 32K
 - paranhos_slope 56K
 - paranhos_slope_reclass 16K
 - porto_ndvi 224K
 - porto_ndvi2 224K
 - porto_parishes 16K
 - tpi30 7.4M
 - union 80K
 - Views
 - Materialized Views
 - Indexes
 - Functions
 - ndvi(in_float8, in_int4, variadic_text)
 - Sequences
 - Data types
 - Aggregate functions
 - vectors
 - Event Triggers
 - Extensions

```
-- Porto_Ndvi2 - Function (Function)
```

```
-- Przykład 2 - Funkcja zwrotna

-- create or replace function schema_name.ndvi(
value double precision [] [] [],
pos integer [],
VARIADIC userargs text []
)
RETURNS double precision AS
$$
BEGIN
--RAISE NOTICE 'Pixel Value: %', value [1][1][1];-->For debug purposes
RETURN (value [2][1][1] - value [1][1][1])/(value [2][1][1]+value
[1][1][1]); --> NDVI calculation!
END;
$$
LANGUAGE 'plpgsql' IMMUTABLE COST 1000;

-- CREATE TABLE schema_name.porto_ndvi2 AS
WITH r AS (
SELECT a.rid,ST_Clip(a.rast, b.geom,true) AS rast
FROM rasters.landstat8 AS a, vectors.porto_parishes AS b
WHERE b.municipality ilike 'porto' and ST_Intersects(b.geom,a.rast)
)
SELECT
r.rid,ST_MapAlgebra(
r.rast, ARRAY[1,4],
'schema_name.ndvi(double precision[],
integer[],text[])::regprocedure, --> This is the function!
'32BF'::text
) AS rast
FROM r;

-- CREATE INDEX idx_porto_ndvi2_rast_gist ON schema_name.porto_ndvi2
USING gist (ST_ConvexHull(rast));

-- SELECT AddRasterConstraints('schema_name'::name,
```

Eksport danych

Przykład 1 - ST_AsTiff

The screenshot shows a SQL query in a database interface. The query is:

```
-- Przykład 1 - ST_AsTiff
SELECT ST_AsTiff(ST_Union(rast))
FROM schema_name.porto_ndvi;
```

The results are displayed in a grid view. The first row is highlighted, showing a large grid of data. The grid has 16 columns (00 to 1D) and 16 rows (0000 to 001E). The data is a 256x256 pixel TIFF image of a port area, with values ranging from 0 to 255.

Przykład 2 - ST_AsGDALRaster

The screenshot shows a SQL query in a database interface. The query is:

```
-- Przykład 2 - ST_AsGDALRaster
SELECT ST_AsGDALRaster(ST_Union(rast), 'GTiff', ARRAY['COMPRESS=DEFLATE',
'PREDICTOR=2', 'PZLEVEL=9'])
FROM schema_name.porto_ndvi;
```

The results are displayed in a grid view. The first row is highlighted, showing a large grid of data. The grid has 16 columns (00 to 1D) and 16 rows (0000 to 001E). The data is a 256x256 pixel TIFF image of a port area, with values ranging from 0 to 255.

The screenshot shows a SQL query in a database interface. The query is:

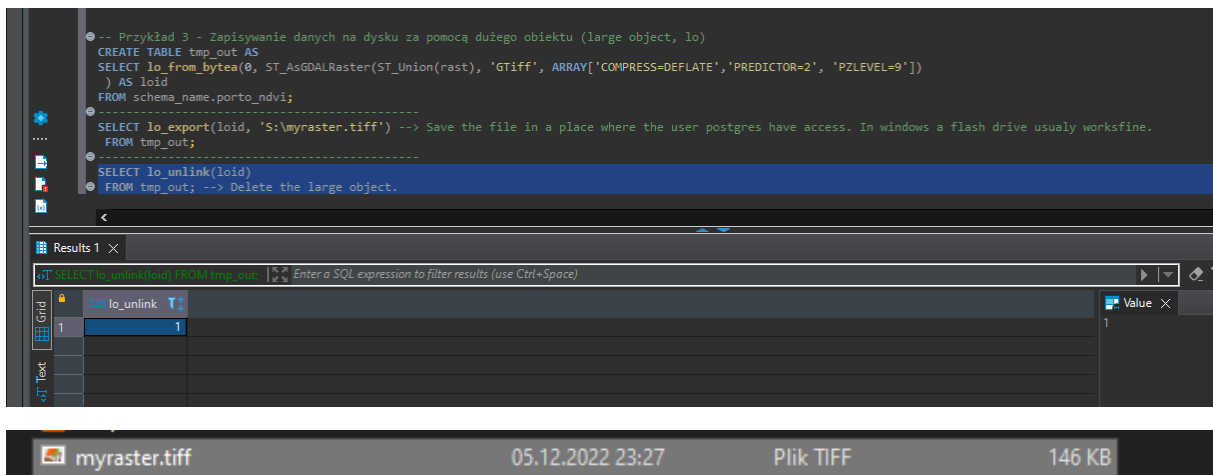
```
-- Przykład 2 - ST_AsGDALRaster
SELECT ST_AsGDALRaster(ST_Union(rast), 'GTiff', ARRAY['COMPRESS=DEFLATE',
'PREDICTOR=2', 'PZLEVEL=9'])
FROM schema_name.porto_ndvi;

SELECT ST_GDALDrivers();
```

The results are displayed in a grid view. The first row is highlighted, showing a list of GDAL drivers. The grid has 8 columns (0 to 7) and 8 rows (0 to 7). The data is a list of GDAL drivers, including:

- (0)GTiff,GeoTIFF,t,t,<CreationOptionList> <Option names='COMPRESS' type='string-select'> <Value>NONE</Value> <Value>LZW</Value> <Value>PACKBITS</Value>
- (1)AAIGrid,"Arc/INFO ASCII Grid",t,t,<CreationOptionList> <Option names='FORCE_CELLSIZE' type='boolean' description='Force use of CELLSIZE, default is FALSE'> <Option name=
- (2)DTED,"DTED Elevation Raster",t,t,""
- (3)PNG,"Portable Network Graphics",t,t,<CreationOptionList> <Option name='WORLDFILE' type='boolean' description='Create world file' default='FALSE'> <Option name='ZLEVE
- (4)JPEG,"JPEG JFIF",t,t,<CreationOptionList> <Option name='PROGRESSIVE' type='boolean' description='whether to generate a progressive JPEG' default='NO'> <Option name='C
- (5)GIF,"Graphics Interchange Format (.gif)",t,t,<CreationOptionList> <Option name='INTERLACING' type='boolean'> <Option name='WORLDFILE' type='boolean'> <CreationO
- (6)USGSDEM,"USGS Optional ASCII DEM (and CDED)",t,t,<CreationOptionList> <Option name='PRODUCT' type='string-select' description='Specific Product Type'> <Value>DEFAU
- (7)XYZ,"ASCII Gridded XYZ",t,t,<CreationOptionList> <Option name='COLUMN_SEPARATOR' type='string' default=' ' description='Separator between fields'> <Option name='ADD,

Przykład 3 - Zapisywanie danych na dysku za pomocą dużego obiektu (large object, lo)

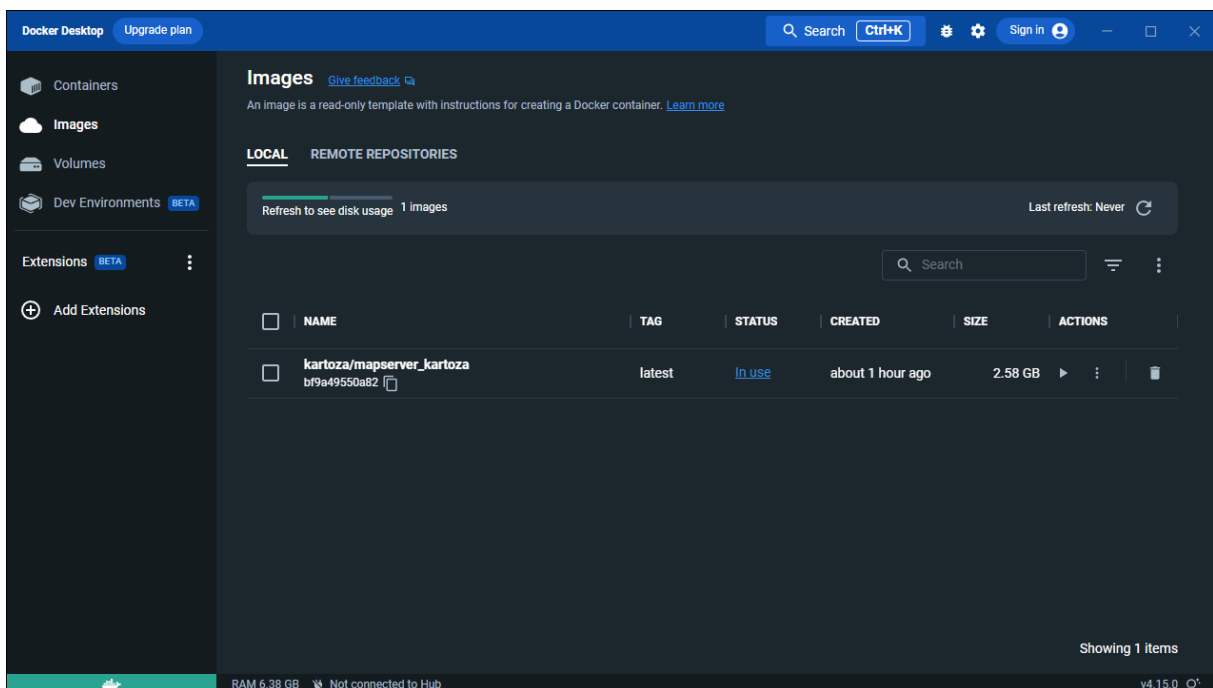


```
-- Przykład 3 - Zapisywanie danych na dysku za pomocą dużego obiektu (large object, lo)
CREATE TABLE tmp_out AS
SELECT lo_from_bytea(0, ST_AsGDALRaster(ST_Union(rast), 'GTiff', ARRAY['COMPRESS=DEFLATE', 'PREDICTOR=2', 'PZLEVEL=9'])) AS lo_id
FROM schema_name.porto_ndvi;
-----
SELECT lo_export(lo_id, 'S:\myraster.tiff') --> Save the file in a place where the user postgres have access. In windows a flash drive usually worksfine.
FROM tmp_out;
-----
SELECT lo_unlink(lo_id)
FROM tmp_out; --> Delete the large object.
```

Results 1 x

Grid	Value
1	1

myraster.tiff 05.12.2022 23:27 Plik TIFF 146 KB



Docker Desktop Upgrade plan

Search Ctrl+K Sign in

Images

An image is a read-only template with instructions for creating a Docker container. [Learn more](#)

LOCAL REMOTE REPOSITORIES

Refresh to see disk usage 1 images Last refresh: Never

NAME	TAG	STATUS	CREATED	SIZE	ACTIONS
kartoza/mapserver_kartoza bf9a49550a82	latest	In use	about 1 hour ago	2.58 GB	

Showing 1 items

RAM 6.38 GB Not connected to Hub v4.15.0

```

(wiktor@ DESKTOP-LHSFLGB) ~$ sudo apt-get update
[sudo] password for wiktor:
Get:1 http://kali.koyanet.lv/kali kali-rolling InRelease [30.6 kB]
Get:2 http://kali.koyanet.lv/kali kali-rolling/main amd64 Packages [18.8 MB]
Get:3 http://kali.koyanet.lv/kali kali-rolling/non-free amd64 Packages [237 kB]
Get:4 http://kali.koyanet.lv/kali kali-rolling/contrib amd64 Packages [114 kB]
Fetched 19.2 MB in 7s (2,858 kB/s)
Reading package lists... Done

(wiktor@ DESKTOP-LHSFLGB) ~$ sudo apt-get install git-all
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils bzip2 curl cvs cvsps file fontconfig-config fonts-dejavu-core git
  git-cvs git-doc git-email git-gui git-man git-mediawiki git-svn gitk gitweb libalgorithm-c3-perl libapr1 libaprutil1
  libaprutil1-dbd-sqlite3 libaprutil1-ldap libauthen-sasl-perl libb-hooks-endofscope-perl libb-hooks-op-check-perl
  libbz2-1.0 libc-bin libc-110n libc6 libc600.8 libcgi-fast-perl libcgi-pm-perl libclass-c3-perl libclass-c3-xs-perl
  libclass-data-inheritable-perl libclass-inspector-perl libclass-method-modifiers-perl libclass-singleton-perl
  libclass-xsaccessor-perl libclone-perl libcommon-sense-perl libcurl3-gnutls libcurl4 libdata-dump-perl
  libdata-optlist-perl libdatetime-format-builder-perl libdatetime-format-iso8601-perl
  libdatetime-format-strptime-perl libdatetime-locale-perl libdatetime-timezone-perl
  libdbd-sqlite3-perl libdbi-perl libdevel-callchecker-perl libdevel-caller-perl libdevel-lexalias-perl
  libdevel-stacktrace-perl libdigest-bubblebabble-perl libdigest-hmac-perl libdynaloader-functions-perl
  libemail-valid-perl libencode-locale-perl liberror-perl libeval-closure-perl libexception-class-perl libexpat1
  libfcgi-bin libfcgi-perl libfcgi1db1 libfido2-1 libfile-listing-perl libfile-sharedir-perl libfont-afm-perl
  libfontconfig1 libfreetype6 libgdbm-compat4 libgdbm6 libhtml-form-perl libhtml-format-perl libhtml-parser-perl
  libhtml-tagset-perl libhtml-tree-perl libhttp-cookies-perl libhttp-daemon-perl libhttp-date-perl
  libhttp-message-perl libhttp-negotiate-perl libice6 libio-html-perl libio-socket-ssl-perl libjson-perl
  libjson-xs-perl liblocale-gettext-perl liblua5.3-0 liblwp-mediatypes-perl liblwp-protocol-https-perl liblzma5
  libmagic-mgc libmagic1 libmailtools-perl libmediawiki-api-perl libmodule-implementation-perl libmodule-runtime-perl
  libmro-compat-perl libnamespace-autoclean-perl libnamespace-clean-perl libnet-dns-perl libnet-dns-sec-perl
  libnet-domain-tld-perl libnet-http-perl libnet-libidn2-perl libnet-smtp-ssl-perl libnet-ssleay-perl
  libpackage-stash-perl libpackage-stash-xs-perl libpadwalker-perl libparams-classify-perl libparams-util-perl
  libparams-validate-perl libparams-validationcompiler-perl libperl4-corelibs-perl libperl5.36 libpng16-16
  libreadonly-perl libref-util-perl libref-util-xs-perl libregexp-ipv6-perl librole-tiny-perl libserf-1.1 libsm6
  libspecio-perl libsqlite3-0 libssl3 libsub-exporter-perl libsub-exporter-progressive-perl libsub-identify-perl
  libsub-install-perl libsub-name-perl libsub-quote-perl libsvn-perl libsvn1 libtcl8.6 libterm-readkey-perl
  libtext-charwidth-perl libtext-iconv-perl libtimedate-perl libtk8.6 libtry-tiny-perl libtypes-serialiser-perl
  liburi-perl libutempter0 libutf8proc2 libvariable-magic-perl libwww-perl libwww-robotrules-perl libx11-6 libx11-data

```

```

(wiktor@ DESKTOP-LHSFLGB) ~$ git clone https://github.com/kartoza/docker-mapserver
Cloning into 'docker-mapserver'...
remote: Enumerating objects: 231, done.
remote: Counting objects: 100% (35/35), done.
remote: Compressing objects: 100% (7/7), done.
remote: Total 231 (delta 28), reused 28 (delta 28), pack-reused 196
Receiving objects: 100% (231/231), 39.95 MiB | 4.97 MiB/s, done.
Resolving deltas: 100% (104/104), done.

(wiktor@ DESKTOP-LHSFLGB) ~$ ls
docker-mapserver

(wiktor@ DESKTOP-LHSFLGB) ~$ cd docker-mapserver/

(wiktor@ DESKTOP-LHSFLGB) ~/docker-mapserver$ docker build -t kartoza/mapserver_kartoza .
[+] Building 0.8s (2/3)
-> [internal] load build definition from Dockerfile
[+] Building 0.9s (2/3)
-> [internal] load build definition from Dockerfile
[+] Building 845.2s (27/27) FINISHED
-> [internal] load build definition from Dockerfile
-> => transferring dockerfile: 3.43kB
-> [internal] load .dockerignore
-> => transferring context: 2B
-> [internal] load metadata for docker.io/library/ubuntu:focal
-> [internal] load build context
-> => transferring context: 3.97kB
-> [ 1/22] FROM docker.io/library/ubuntu:focal@sha256:450e066588f42ebe1551f3b1a535034b6aa46cd936fe7f2c6b0d72997ec61dbd
-> => resolve docker.io/library/ubuntu:focal@sha256:450e066588f42ebe1551f3b1a535034b6aa46cd936fe7f2c6b0d72997ec61dbd
-> => sha256:450e066588f42ebe1551f3b1a535034b6aa46cd936fe7f2c6b0d72997ec61dbd 1.42kB / 1.42kB
-> => sha256:b25ef49a40b7797937d0d23eca3b0a41701af6757afca23d504d50826f0b37ce 529B / 529B
-> => sha256:680e5dfb52c74a1fbc99c2922c8e25b5736e6cd1a309430890d52a4f8f44087a 1.46kB / 1.46kB
-> => sha256:eaeed16dc43bb8811d4ff450935d607f9ba4baffda4fc110cc402fa43f601d83 28.58MB / 28.58MB
-> => extracting sha256:eaeed16dc43bb8811d4ff450935d607f9ba4baffda4fc110cc402fa43f601d83
-> [ 2/22] RUN apt-get --qq update --fix-missing && apt-get --qq --yes upgrade
-> [ 3/22] RUN DEBIAN_FRONTEND=noninteractive apt-get install -y software-properties-common g++ make cmake wget git bzip2 apache2 curl apache2
-> [ 4/22] RUN apt-get install -y --fix-missing --no-install-recommends libxml2-dev libxslt1-dev libfribidi-dev libcairo2-dev
-> [ 5/22] RUN apt-get install -y libgdal-dev
-> [ 6/22] RUN apt-get install -y php7.4-fpm libapache2-mod-php7.4 php7.4-common php7.4-cgi php7.4 php7.4 php7.4-opcache php7.4-gd php7.4-cu
-> [ 7/22] ADD resources /tmp/resources
-> [ 8/22] ADD setup.sh /setup.sh
-> [ 9/22] RUN chmod 0755 /setup.sh
-> [10/22] RUN /setup.sh
-> [11/22] RUN cp /tmp/resources/000-default.conf /etc/apache2/sites-available/

```

```

(wiktor@DESKTOP-LHSFLGB)~/docker-mapserver
$ sudo docker run -d -p 8182:80 --name mapserver2 kartoza/mapserver_kartoza
[sudo] password for wiktor:
a3c49e81ea498d23924ace593a8e390c3fe1cd93a9466ae38d101c0583670ef9

(wiktor@DESKTOP-LHSFLGB)~/docker-mapserver
$ sudo docker exec -it mapserver2 /bin/bash
root@a3c49e81ea49:/# mkdir /map && touch /map/dem.map && chown -R root /map && chmod -R 777 /map
root@a3c49e81ea49:/# ls -la
.  ..  .dockerenv  bin  boot  dev  etc  home  lib  lib32  lib64  libx32  media  mnt  opt  proc  root  run  sbin  setup.sh  srv  sys  usr  var
root@a3c49e81ea49:/# ls -la
total 80
drwxr-xr-x  1 root root 4096 Dec  6 13:13 .
drwxr-xr-x  1 root root 4096 Dec  6 13:13 ..
-rwxr-xr-x  1 root root   0 Dec  6 13:08 .dockerenv
lrwxrwxrwx  1 root root   7 Oct 19 16:47 bin -> usr/bin
drwxr-xr-x  2 root root 4096 Apr 15 2020 boot
drwxr-xr-x  5 root root 340 Dec  6 13:08 dev
drwxr-xr-x  1 root root 4096 Dec  6 13:08 etc
drwxr-xr-x  2 root root 4096 Apr 15 2020 home
lrwxrwxrwx  1 root root   7 Oct 19 16:47 lib -> usr/lib
lrwxrwxrwx  1 root root   9 Oct 19 16:47 lib32 -> usr/lib32
lrwxrwxrwx  1 root root   9 Oct 19 16:47 lib64 -> usr/lib64
lrwxrwxrwx  1 root root  10 Oct 19 16:47 libx32 -> usr/libx32
drwxrwxrwx  2 root root 4096 Dec  6 13:13 media
drwxr-xr-x  2 root root 4096 Oct 19 16:47 media
drwxr-xr-x  2 root root 4096 Oct 19 16:47 mnt
drwxr-xr-x  2 root root 4096 Oct 19 16:47 opt
dr-xr-xr-x 308 root root   0 Dec  6 13:08 proc
drwx----- 1 root root 4096 Dec  6 11:56 root
drwxr-xr-x  1 root root 4096 Dec  6 11:52 run
lrwxrwxrwx  1 root root   8 Oct 19 16:47 sbin -> usr/sbin
-rwxr-xr-x  1 root root 2407 Dec  6 10:43 setup.sh
drwxr-xr-x  2 root root 4096 Oct 19 16:47 srv
dr-xr-xr-x 11 root root   0 Dec  6 13:08 sys
drwxrwxrwt  1 root root 4096 Dec  6 13:08 tmp
drwxr-xr-x  1 root root 4096 Dec  6 11:47 usr
drwxr-xr-x  1 root root 4096 Dec  6 11:47 var
root@a3c49e81ea49:/# apt-get map
E: Invalid operation map
root@a3c49e81ea49:/# apt-get update
Get:1 http://archive.ubuntu.com/ubuntu focal InRelease [265 kB]
Get:2 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:3 http://archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:4 http://archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Get:5 http://archive.ubuntu.com/ubuntu focal/universe amd64 Packages [11.3 MB]
Get:6 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [2350 kB]
Get:7 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [972 kB]

```

```

root@a3c49e81ea49:/map# psql postgresql://postgres:postgres@host.docker.internal/cw_6
psql (12.12 (Ubuntu 12.12-0ubuntu0.20.04.1), server 14.5)
WARNING: psql major version 12, server major version 14.
         Some psql features might not work.
Type "help" for help.

cw_6=# \dn
          List of schemas
   Name   | Owner
-----+-----
 public   | postgres
 rasters   | postgres
 schema_name | postgres
 vectors   | postgres
(4 rows)

cw_6=#

```