

## REFRESH MATERIALIZED VIEW mb\_benoemd\_obj\_adres issue

### 1 De query voor de getoonde statistieken:

```
SELECT
  (row_number() OVER ()):INTEGER AS objectid,
  qry.benoemdobj_identif,
  qry.na_identif,
  qry.na_status,
  qry.begin_geldigheid,
  qry.begin_geldigheid_datum,
  qry.pand_identif,
  qry.soort,
  qry.gemeente,
  qry.woonplaats,
  qry.straatnaam,
  qry.huisnummer::INTEGER,
  qry.huisletter,
  qry.huisnummer_toev,
  qry.postcode,
  qry.status,
  qry.gebruiksdoelen,
  qry.oppervlakte_obj::INTEGER,
  qry.the_geom::geometry(POINT,28992)
FROM
  (
    SELECT
      vvla.vbo_identif as benoemdobj_identif,
      vvla.na_identif,
      vvla.na_status,
      vvla.begin_geldigheid,
      vvla.begin_geldigheid_datum,
      vvla.pand_identif,
      'VBO':CHARACTER VARYING(50) AS soort,
      vvla.gemeente,
      vvla.woonplaats,
      vvla.straatnaam,
      vvla.huisnummer,
      vvla.huisletter,
      vvla.huisnummer_toev,
      vvla.postcode,
      vvla.status,
      vvla.gebruiksdoelen,
      vvla.oppervlakte_obj,
      vvla.the_geom
    FROM
      vb_vbo_adres vvla
    UNION ALL
    SELECT
      vlla.lpl_identif as benoemdobj_identif,
      vlla.na_identif,
      vlla.na_status,
      vlla.begin_geldigheid,
      vlla.begin_geldigheid_datum,
      NULL::CHARACTER VARYING(16) AS pand_identif,
      'LIGPLAATS':CHARACTER VARYING(50) AS soort,
      vlla.gemeente,
      vlla.woonplaats,
      vlla.straatnaam,
      vlla.huisnummer,
      vlla.huisletter,
      vlla.huisnummer_toev,
      vlla.postcode,
      vlla.status,
      NULL::CHARACTER VARYING(500) AS gebruiksdoelen,
      NULL::INTEGER AS oppervlakte_obj,
      vlla.the_geom
    FROM
      vb_ligplaats_adres vlla
    UNION ALL
    SELECT
      vsla.spl_identif as benoemdobj_identif,
      vsla.na_identif,
      vsla.na_status,
      vsla.begin_geldigheid,
      vsla.begin_geldigheid_datum,
```

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```
NULL::CHARACTER VARYING(16)          AS pand_identif,
'STANDPLAATS'::CHARACTER VARYING(50) AS soort,
vsla.gemeente,
vsla.woonplaats,
vsla.straatnaam,
vsla.huisnummer,
vsla.huisletter,
vsla.huisnummer_toev,
vsla.postcode,
vsla.status,
NULL::CHARACTER VARYING(500)        AS gebruiksdoelen,
NULL::INTEGER                        AS oppervlakte_obj,
vsla.the_geom
FROM
  vb_standplaats_adres vsla
) qry
where qry.woonplaats = 'Renkum'
and   qry.straatnaam = 'Reijmerweg'
and   qry.huisnummer = 18
and   qry.postcode   = '6871HD';
```

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### 1.1 Statistieken

HTML	TEXT	STATS	
Per node type stats			
node type	count	sum of times	% of query
Aggregate	1	0.019 ms	0.0 %
Append	1	0.003 ms	0.0 %
Hash	12	971.591 ms	1.2 %
Hash Join	12	24,563.088 ms	29.2 %
Index Only Scan	1	0.047 ms	0.0 %
Index Scan	15	14,911.301 ms	17.7 %
Materialize	3	2,807.444 ms	3.3 %
Merge Join	3	35,764.897 ms	42.5 %
Nested Loop	7	917.401 ms	1.1 %
Seq Scan	13	1,586.173 ms	1.9 %
Subquery Scan	5	2,578.253 ms	3.1 %
WindowAgg	1	0.019 ms	0.0 %

### Per table stats

Table name	Scan count	Total time	% of query
scan type	count	sum of times	% of table
<b>adresseerb_obj_aand</b>	3	6,978.849 ms	8.3 %
Index Scan	3	6,978.849 ms	100.0 %
<b>benoemd_terrein</b>	2	0.000 ms	0.0 %
Index Scan	2	0.000 ms	0.0 %
<b>gebouwd_obj</b>	1	0.039 ms	0.0 %
Index Scan	1	0.039 ms	100.0 %
<b>gebouwd_obj_gebruiksdoel</b>	1	1,289.684 ms	1.5 %
Seq Scan	1	1,289.684 ms	100.0 %
<b>gem_openb_rmte</b>	3	168.705 ms	0.2 %
Seq Scan	3	168.705 ms	100.0 %
<b>gemeente</b>	3	1.071 ms	0.0 %
Seq Scan	3	1.071 ms	100.0 %
<b>ligplaats</b>	1	2.901 ms	0.0 %
Index Scan	1	2.901 ms	100.0 %
<b>nummeraand</b>	3	5,913.187 ms	7.0 %
Index Scan	3	5,913.187 ms	100.0 %
<b>openb_rmte_wnplts</b>	3	96.862 ms	0.1 %
Seq Scan	3	96.862 ms	100.0 %
<b>standplaats</b>	1	5.954 ms	0.0 %
Index Scan	1	5.954 ms	100.0 %
<b>verblijfsobj</b>	1	1,979.006 ms	2.4 %
Index Scan	1	1,979.006 ms	100.0 %
<b>verblijfsobj_pand</b>	1	0.047 ms	0.0 %
Index Only Scan	1	0.047 ms	100.0 %
<b>wnplts</b>	6	61.216 ms	0.1 %
Index Scan	3	31.365 ms	51.2 %
Seq Scan	3	29.851 ms	48.8 %

## REFRESH MATERIALIZED VIEW mb\_benoemd\_obj\_adres issue

### 1.2 Executieplan

# REFRESH MATERIALIZED VIEW mb\_benoemd\_obj\_adres issue

#	exclusive	inclusive	rows_x	rows	loops	node
1.	0.019	84,088,500	1.3.0	1	1	WindowAgg (cost=39.553.72.245,808,838.09 rows=3 width=1.252) (actual time=28.390.987.84,088.5 rows=1 loops=1)
2.	0.003	84,088,481	1.3.0	1	1	Append (cost=39.553.72.245,808,838.01 rows=3 width=1.276) (actual time=28.390.973.84,088.481 rows=1 loops=1)
3.	0.040	32,817,644	1.1.0	1	1	Nested Loop (cost=39.553.72.82.464.507.61 rows=1 width=546) (actual time=28.390.973.32,817.644 rows=1 loops=1)
4.	0.010	31,527,854	1.1.0	1	1	Nested Loop (cost=39.553.16.82.267.471.78 rows=1 width=348) (actual time=27.101.187.31,527.854 rows=1 loops=1)
5.	890.135	31,527,805	1.1.0	1	1	Nested Loop (cost=39.552.6.82.267.471.11 rows=1 width=300) (actual time=27.101.141.31,527.805 rows=1 loops=1)
6.	1,979.006	1,979,006	1.1.0	9,552,888	1	Index Scan using verlijfsobj_pk on verlijfsobj_vbo (cost=0.56.452,047.55 rows=9,504,266 width=61) (actual time=0.01.1,979.006 rows=9,552,888 loops=1)
7.	2,807.444	28,658,664	1.1.0	1	9,552,888	Materialize (cost=39.552.04.81.670.859.58 rows=1 width=256) (actual time=0.003.0.003 rows=1 loops=9,552,888)
8.	855.668	25,851,220	1.1.0	1	1	Subquery Scan on bva (cost=39.552.04.81.670.859.57 rows=1 width=256) (actual time=23.804.414.25.851.22 rows=1 loops=1) Filter: ((bva.woonplaats):text = 'Renikum'.text) AND (bva.straatnaam):text = 'Reijnernev'.text AND (bva.huisnummer = 16) AND ((bva.postcode):text = '6871HD'.text)
9.	7,914.669	24,995,552	1.1.0	9,636,688	1	Hash Join (cost=39.552.04.81.478.041.29 rows=9,640,914 width=376) (actual time=803.285.24,995.552 rows=9,636,688 loops=1)
10.	11,911.349	16,307,325	1.1.0	9,636,688	1	Merge Join (cost=965.81.1.039.760.29 rows=9,640,914 width=78) (actual time=0.018.16,307.325 rows=9,636,688 loops=1)
11.	2,007.775	2,007,775	1.1.0	9,636,688	1	Index Scan using nummeraand_pk on nummeraand_na (cost=0.56.426.087.27 rows=9,640,914 width=39) (actual time=0.008.2,007.775 rows=9,636,688 loops=1)
12.	2,388.201	2,388,201	1.1.0	9,636,688	1	Index Scan using adresseerb_obj_aand_pk on adresseerb_obj_aand_adrojb (cost=0.56.473,573.4 rows=9,639,389 width=56) (actual time=0.006.2,388.201 rows=9,636,688 loops=1)
13.	198.167	762,488	1.1.0	282,195	1	Hash (cost=32,303.67.32,303.67 rows=282,125 width=49) (actual time=762.488.762.488 rows=282,195 loops=1)
14.	77.608	584,321	1.1.0	282,195	1	Hash Join (cost=12,383.98.32,303.67 rows=282,125 width=49) (actual time=248.939.584.321 rows=282,195 loops=1)
15.	241.320	469,106	1.1.0	282,195	1	Hash Join (cost=9,802.02.25,842.49 rows=282,125 width=35) (actual time=231.294.469.106 rows=282,195 loops=1)
16.	55.987	55,987	1.1.0	282,195	1	Seq Scan on gem_openb_rme_geor (cost=0.6.6,649.25 rows=282,125 width=30) (actual time=0.007.55.987 rows=282,195 loops=1)
17.	139.253	171,799	1.1.0	282,195	1	Hash (cost=4,620.23.4,620.23 rows=282,223 width=22) (actual time=171.799.171.799 rows=282,195 loops=1)
18.	32.546	32,546	1.1.0	282,195	1	Seq Scan on openb_rme_wmpits_ovp (cost=0.4.6,203.23 rows=282,223 width=22) (actual time=0.006.32.546 rows=282,195 loops=1)
19.	6.224	17,607	1.1.0	2,620	1	Hash (cost=2,549.21.2,549.21 rows=2,620 width=24) (actual time=17.607.17.607 rows=2,620 loops=1)
20.	1.368	11,383	1.1.0	2,620	1	Hash Join (cost=81.99.2,549.21 rows=2,620 width=24) (actual time=0.483.11.383 rows=2,620 loops=1)
21.	9.557	9,557	1.1.0	2,620	1	Seq Scan on wmpits_vp (cost=0.2.4,312.2 rows=2,620 width=19) (actual time=0.007.9.557 rows=2,620 loops=1)
22.	0.089	0.458	1.1.0	355	1	Hash (cost=77.55.77.55 rows=355 width=15) (actual time=0.458.0.458 rows=355 loops=1)
23.	0.369	0.369	1.1.0	355	1	Seq Scan on gemeente gem (cost=0.77.55 rows=355 width=15) (actual time=0.013.0.369 rows=355 loops=1)
24.						SubPlan (forHash Join)
25.	11.070	11,070	1.1.0	1	1,845	Index Scan using wmpits_pk on wmpits_wmpits_2 (cost=0.28.8.3 rows=1 width=9) (actual time=0.005.0.006 rows=1 loops=1,845) Index Cond: ((identif):text = (addrobj_fk_6wpl_identif):text)
26.	0.039	0.039	1.1.0	1	1	Index Scan using gebouwd_obj_pk on gebouwd_obj_gobj (cost=0.56.0.65 rows=1 width=65) (actual time=0.037.0.039 rows=1 loops=1) Index Cond: ((sc_identif):text = (vbo_sc_identif):text)
27.	0.047	0.047	1.1.0	1	1	Index Only Scan using verlijfsobj_pand_pk on verlijfsobj_pand Rpand (cost=0.56.1.05 rows=1 width=34) (actual time=0.045.0.047 rows=1 loops=1) Index Cond: ((fk_nn_hb_vbo_sc_identif = (vbo_sc_identif):text)
28.						SubPlan (forNestLoop)
29.	0.019	1,289,703	1.1.0	1	1	Aggregate (cost=197,034.73.197,034.74 rows=1 width=32) (actual time=1,289.703.1,289.703 rows=1 loops=1)
30.	1,289.684	1,289,684	1.1.0	1	1	Seq Scan on gebouwd_obj_gebruiksdoel_gobj (cost=0.197,034.73 rows=1 width=13) (actual time=1,079.691.1,289.684 rows=1 loops=1) Filter: ((fk_gbo_sc_identif):text = (vbo_sc_identif):text)
31.	0.002	25,547,275	1.0.0	0	1	Subquery Scan on "SELECT"2 (cost=39.552.74.81.671.850.29 rows=1 width=597) (actual time=25,547.275.25,547.275 rows=0 loops=1)
32.	0.000	25,547,273	1.0.0	0	1	Nested Loop (cost=39.552.74.81.671.850.27 rows=1 width=1,053) (actual time=25,547.273.25,547.273 rows=0 loops=1)
33.	7.833	25,547,273	1.0.0	0	1	Nested Loop (cost=39.552.32.81.671.849.06 rows=1 width=291) (actual time=25,547.273.25,547.273 rows=0 loops=1)
34.	2,901	2,901	1.1.0	12,943	1	Index Scan using ligplaats_pk on ligplaats lpl (cost=0.29.595.38 rows=12,940 width=52) (actual time=0.023.2,901 rows=12,943 loops=1)
35.	0.000	25,538,538	1.1.0	1	12,943	Materialize (cost=39.552.04.81.670.859.58 rows=1 width=256) (actual time=1.82.1,973 rows=1 loops=12,943)
36.	857.903	25,538,574	1.1.0	1	1	Subquery Scan on bva_1 (cost=39.552.04.81.670.859.57 rows=1 width=256) (actual time=23,556.14.25,538,574 rows=1 loops=1) Filter: ((bva_1.woonplaats):text = 'Renikum'.text) AND (bva_1.straatnaam):text = 'Reijnernev'.text AND (bva_1.huisnummer = 16) AND ((bva_1.postcode):text = '6871HD'.text))
37.	7,756.726	24,681,671	1.1.0	9,636,688	1	Hash Join (cost=39.552.04.81.478.041.29 rows=9,640,914 width=376) (actual time=845.846.24,681.671 rows=9,636,688 loops=1)
38.	11,835.478	16,098,047	1.1.0	9,636,688	1	Merge Join (cost=965.81.1.039.760.29 rows=9,640,914 width=78) (actual time=0.061.16,098.047 rows=9,636,688 loops=1)
39.	1,952.157	1,952,157	1.1.0	9,636,688	1	Index Scan using nummeraand_pk on nummeraand_na_1 (cost=0.56.426.087.27 rows=9,640,914 width=39) (actual time=0.029.1,952.157 rows=9,636,688 loops=1)
40.	2,310.412	2,310,412	1.1.0	9,636,688	1	Index Scan using adresseerb_obj_aand_pk on adresseerb_obj_aand_adrojb_1 (cost=0.56.473,573.4 rows=9,639,389 width=56) (actual time=0.027.2,310.412 rows=9,636,688 loops=1)
41.	177.858	815,828	1.1.0	282,195	1	Hash (cost=32,303.67.32,303.67 rows=282,125 width=49) (actual time=815.828.815.828 rows=282,195 loops=1)
42.	78.966	637,970	1.1.0	282,195	1	Hash Join (cost=12,383.98.32,303.67 rows=282,125 width=49) (actual time=312.365.637.970 rows=282,195 loops=1)
43.	310,951	545,357	1.1.0	282,195	1	Hash Join (cost=9,802.02.25,842.49 rows=282,125 width=35) (actual time=298.833.545.357 rows=282,195 loops=1)
44.	59.093	59,093	1.1.0	282,195	1	Seq Scan on gem_openb_rme_geor_1 (cost=0.6.6,649.25 rows=282,125 width=30) (actual time=0.011.59.093 rows=282,195 loops=1)
45.	143.764	175,313	1.1.0	282,195	1	Hash (cost=4,620.23.4,620.23 rows=282,223 width=22) (actual time=175.313.175.313 rows=282,195 loops=1)
46.	31.549	31,549	1.1.0	282,195	1	Seq Scan on openb_rme_wmpits_ovp_1 (cost=0.4.6,203.23 rows=282,223 width=22) (actual time=0.015.31.549 rows=282,195 loops=1)
47.	0.713	13,707	1.1.0	2,620	1	Hash (cost=2,549.21.2,549.21 rows=2,620 width=24) (actual time=13.707.13.707 rows=2,620 loops=1)
48.	1.391	12,994	1.1.0	2,620	1	Hash Join (cost=81.99.2,549.21 rows=2,620 width=24) (actual time=0.485.12,994 rows=2,620 loops=1)

48.	1.391	12,994	1.1.0	2,620	1	Hash Join (cost=81.99.2,549.21 rows=2,620 width=24) (actual time=0.485.12,994 rows=2,620 loops=1)
49.	11.148	11,148	1.1.0	2,620	1	Seq Scan on wmpits_vp_1 (cost=0.2.4,312.2 rows=2,620 width=19) (actual time=0.016.11.148 rows=2,620 loops=1)
50.	0.098	0.455	1.1.0	355	1	Hash (cost=77.55.77.55 rows=355 width=15) (actual time=0.455.0.455 rows=355 loops=1)
51.	0.357	0.357	1.1.0	355	1	Seq Scan on gemeente gem_1 (cost=0.77.55 rows=355 width=15) (actual time=0.008.0.357 rows=355 loops=1)
52.						SubPlan (forHash Join)
53.	11.070	11,070	1.1.0	1	1,845	Index Scan using wmpits_pk on wmpits_wmpits_1 (cost=0.28.8.3 rows=1 width=9) (actual time=0.005.0.006 rows=1 loops=1,845) Index Cond: ((identif):text = (addrobj_fk_6wpl_identif):text)
54.	0.000	0.000	1.0.0	0	0	Index Scan using benoemd_terrein_pk on benoemd_terrein benter (cost=0.41.0.92 rows=1 width=195) (never executed) Index Cond: ((sc_identif):text = (lpl_sc_identif):text)
55.	0.000	25,723,559	1.0.0	0	1	Subquery Scan on "SELECT"3 (cost=39.552.74.81.672.680.1 rows=1 width=597) (actual time=25,723.559.25,723.559 rows=0 loops=1)
56.	0.001	25,723,559	1.0.0	0	1	Nested Loop (cost=39.552.74.81.672.680.08 rows=1 width=1,053) (actual time=25,723.559.25,723.559 rows=0 loops=1)
57.	19.382	25,723,558	1.0.0	0	1	Nested Loop (cost=39.552.32.81.672.679.14 rows=1 width=281) (actual time=25,723.558.25,723.558 rows=0 loops=1)
58.	5.954	5,954	1.1.0	29,403	1	Index Scan using standplaats_pk on standplaats spl (cost=0.29.1,375.93 rows=29,576 width=52) (actual time=0.023.5.954 rows=29,403 loops=1)
59.	0.000	25,688,222	1.1.0	1	29,403	Materialize (cost=39.552.04.81.670.859.58 rows=1 width=256) (actual time=0.807.0.874 rows=1 loops=29,403)
60.	864.680	25,706,923	1.1.0	1	1	Subquery Scan on bva_2 (cost=39.552.04.81.670.859.57 rows=1 width=256) (actual time=23,729.407.25,706,923 rows=1 loops=1) Filter: ((bva_2.woonplaats):text = 'Renikum'.text) AND (bva_2.straatnaam):text = 'Reijnernev'.text AND (bva_2.huisnummer = 16) AND ((bva_2.postcode):text = '6871HD'.text))
61.	7,822.047	24,842,243	1.1.0	9,636,688	1	Hash Join (cost=39.552.04.81.478.041.29 rows=9,640,914 width=376) (actual time=801.091.24,842,243 rows=9,636,688 loops=1)
62.	12,018.070	16,251,561	1.1.0	9,636,688	1	Merge Join (cost=965.81.1.039.760.29 rows=9,640,914 width=78) (actual time=0.06.16,251,561 rows=9,636,688 loops=1)
63.	1,953.255	1,953,255	1.1.0	9,636,688	1	Index Scan using nummeraand_pk on nummeraand_na_2 (cost=0.56.426.087.27 rows=9,640,914 width=39) (actual time=0.029.1,953.255 rows=9,636,688 loops=1)
64.	2,280.236	2,280,236	1.1.0	9,636,688	1	Index Scan using adresseerb_obj_aand_pk on adresseerb_obj_aand_adrojb_2 (cost=0.56.473,573.4 rows=9,639,389 width=56) (actual time=0.025.2,280.236 rows=9,636,688 loops=1)
65.	147.687	759,410	1.1.0	282,195	1	Hash (cost=32,303.67.32,303.67 rows=282,125 width=49) (actual time=759.41.759.41 rows=282,195 loops=1)
66.	78.949	611,723	1.1.0	282,195	1	Hash Join (cost=12,383.98.32,303.67 rows=282,125 width=49) (actual time=296.297.611,723 rows=282,195 loops=1)
67.	277.925	521,222	1.1.0	282,195	1	Hash Join (cost=9,802.02.25,842.49 rows=282,125 width=35) (actual time=284.704.521,222 rows=282,195 loops=1)
68.	53.625	53,625	1.1.0	282,195	1	Seq Scan on gem_openb_rme_geor_2 (cost=0.6.6,649.25 rows=282,125 width=30) (actual time=0.011.53.625 rows=282,195 loops=1)
69.	156.905	189,672	1.1.0	282,195	1	Hash (cost=4,620.23.4,620.23 rows=282,223 width=22) (actual time=189.672.189.672 rows=282,195 loops=1)
70.	32.767	32,767	1.1.0	282,195	1	Seq Scan on openb_rme_wmpits_ovp_2 (cost=0.4.6,203.23 rows=282,223 width=22) (actual time=0.01.32.767 rows=282,195 loops=1)
71.	0.738	11,552	1.1.0	2,620	1	Hash (cost=2,549.21.2,549.21 rows=2,620 width=24) (actual time=11.552.11.552 rows=2,620 loops=1)
72.	1.228	10,814	1.1.0	2,620	1	Hash Join (cost=81.99.2,549.21 rows=2,620 width=24) (actual time=0.463.10,814 rows=2,620 loops=1)
73.	9.146	9,146	1.1.0	2,620	1	Seq Scan on wmpits_vp_2 (cost=0.2.4,312.2 rows=2,620 width=19) (actual time=0.008.9.146 rows=2,620 loops=1)
74.	0.095	0.440	1.1.0	355	1	Hash (cost=77.55.77.55 rows=355 width=15) (actual time=0.44.0.44 rows=355 loops=1)
75.	0.345	0.345	1.1.0	355	1	Seq Scan on gemeente gem_2 (cost=0.77.55 rows=355 width=15) (actual time=0.011.0.345 rows=355 loops=1)
76.						SubPlan (forHash Join)
77.	9.225	9,225	1.1.0	1	1,845	Index Scan using wmpits_pk on wmpits_wmpits (cost=0.28.8.3 rows=1 width=9) (actual time=0.005.0.005 rows=1 loops=1,845) Index Cond: ((identif):text = (addrobj_fk_6wpl_identif):text)
78.	0.000	0.000	1.0.0	0	0	Index Scan using benoemd_terrein_pk on benoemd_terrein benter_1 (cost=0.41.0.65 rows=1 width=195) (never executed) Index Cond: ((sc_identif):text = (spl_sc_identif):text)

## REFRESH MATERIALIZED VIEW mb\_benoemd\_obj\_adres issue

### 2 Refresh informatie

De huidige *refresh* job loopt inmiddels ruim 43 uur. Periodiek heb ik bekeken wat het hoofdproces aan het doen is. Onderstaand is een deel van de output van

```
strace -C -t -f -p 16441
```

```
10 minuten op woensdag 09:00 09:10
```

```
...
[00007f04b18e67f0] read(268, "\235\t\
0\0\330\363\366\235\0\0\0\0008\0028\2\0 \4 \0\0\0\0\310\237j\0\220\237j\
0"... , 8192) = 8192 <0.000020>
[00007f04b18e67f0] read(268, "\235\t\0\0p@\10\236\0\0\0\0008\0028\2\0 \4 \
0\0\0\0\310\237j\0\220\237j\0"... , 8192) = 8192 <0.000020>
[00007f04b18e67f0] read(268, "\235\t\0\0\10\313\31\236\0\0\0\0004\2X\2\0 \4 \
0\0\0\0\310\237j\0\220\237j\0"... , 8192) = 8192 <0.000022>
[00007f04b18e67f0] read(268, "\235\t\0\0\20N+\236\0\0\0\0004\2H\2\0 \4 \
0\0\0\0\310\237j\0\220\237j\0"... , 8192) = 8192 <0.000019>
[00007f04b18e67f0] read(268, "\235\t\0\0\310\277<\236\0\0\0\0,\2X\2\0 \4 \
0\0\0\0\300\237t\0\200\237t\0"... , 8192) = 8192 <0.000020>
^CProcess 16441 detached
% time      seconds  usecs/call   calls   errors syscall
-----
100.00    0.578110      0    7019513         read
   0.00    0.000000      0         3         write
   0.00    0.000000      0         288        lseek
   0.00    0.000000      0         3         kill
   0.00    0.000000      0         37        semop
-----
100.00    0.578110                7019844        total
```

```
donderdag 28-03-2019
```

```
07:52-08:15 proces 16441
```

```
[00007f04b18e67f0] read(268, "\215\t\0\0\260\244\211[\0\0\0\0(\2@\2\0 \4 \
0\0\0\0\270\237\202\0\200\237j\0"... , 8192) = 8192 <0.000010>
[00007f04b18e67f0] read(268, "\215\t\0\0 \1\255[\0\0\0\0,\0020\2\0 \4 \
0\0\0\0\270\237\202\0p\237\202\0"... , 8192) = 8192 <0.000010>
[00007f04b18e67f0] read(268, "\215\t\0\0\260m\316[\0\0\0\0$\2@\2\0 \4 \
0\0\0\0\310\237j\0\220\237j\0"... , 8192) = 8192 <0.000010>
^C[00007f04b18e67f0] read(268, Process 16441 detached
<detached ...>
% time      seconds  usecs/call   calls   errors syscall
-----
100.00    0.362667      0   11310315         read
   0.00    0.000010      0         464        lseek
   0.00    0.000000      0          5         write
   0.00    0.000000      0          55        semop
-----
100.00    0.362677                11310839        total
```

## REFRESH MATERIALIZED VIEW mb\_benoemd\_obj\_adres issue

### 2.1 Actviteiten analyse

Verder zie ik geen IO waits op het systeem. De leesacties zijn voornamelijk buffer reads (memory) en het schrijven vindt plaats naar de postgresql 'Base' directory (**/data/pg-otw-01-01/core-01**) en dat is temp-space. Het hoofdproces is CPU-bound, hetgeen verklaard kan worden door de vele *hash joins* (ca. 12) die worden uitgevoerd.

Onderstaand nog een laatste langere run van *strace*

```
[root@ux60 ~]# date; time strace -c -f -p 16441
Thu Mar 28 11:46:07 CET 2019
Process 16441 attached
^CProcess 16441 detached
% time      seconds  usecs/call     calls   errors syscall
-----
 99.80      1.397325          0    21420410         read
  0.14      0.001999        1000           2         unlink
  0.05      0.000751          0    16269         lseek
  0.01      0.000105          2          60         write
  0.00      0.000000          0           1         open
  0.00      0.000000          0           2         close
  0.00      0.000000          0           2         stat
  0.00      0.000000          0           2         sendto
  0.00      0.000000          0          58         kill
  0.00      0.000000          0          77         semop
-----
100.00      1.400180          0    21436883         total

real    46m24.974s
user    2m13.569s
sys     7m14.595s
```

CPU activiteit blijft rond de 100% voor de sessie

```
      PID USER      PR  NI  VIRT  RES  SHR  S  %CPU  %MEM    TIME+  COMMAND
 16441 postgres  20   0 1309m  903m  866m  R 100.0   3.7   2653:01
postmaster
```

Bij de doorlooptijden die we nu constateren voor het verversen van de mview **md\_benoemd\_obj\_adres** lijkt het alsof er in de query een cartesisch product is geslopen.

# REFRESH MATERIALIZED VIEW mb\_benoemd\_obj\_adres issue

## 2.2 Locking

Tot slot nog een beeld van de locks die worden veroorzaakt door het proces.

datname	relation	transactionid	mode	granted	username
query		query_start	age		pid
rsgb   ligplaats			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   gemeente			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   wnplts			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   openb_rmte_wnplts			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   gem_openb_rmte			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   adresseerb_obj_aand			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   nummeraand			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   gebouwd_obj_gebruiksdoel			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   vb_adres			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   verblijfsobj_pand			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   gebouwd_obj			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   verblijfsobj			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   vb_standplaats_adres			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   vb_ligplaats_adres			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   vb_vbo_adres			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   vb_benoemd_obj_adres			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb			ExclusiveLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   wnplts_pk			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   adresseerb_obj_aand_pk			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   pk_geb_obj_gebr_doel			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   nummeraand_pk			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   gemeente_pk			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   gemeente_geom_idx			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb		109203401	ExclusiveLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					
rsgb   gebouwd_obj_puntgeom_idx			AccessShareLock	t	postgres
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres;		2019-03-26 15:41:16.144865+01		1 day	
21:05:20.02325   40333					



## REFRESH MATERIALIZED VIEW mb\_benoemd\_obj\_adres issue

```

rsgb | wnplts_geom_idx | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | verblijfsobj_pk | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | standplaats | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | adresseerb_obj_aand_fk | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | benoemd_terrein | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | 246324901 | | ExclusiveLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | 246324901 | | AccessExclusiveLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | gebouwd_obj_vlakgeom_idx | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | standplaats_pk | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | benoemd_terrein_geom_idx | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | gem_openb_rmte_pk | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | gebouwd_obj_pk | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | openb_rmte_wnplts_pk | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | ligplaats_pk | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | mb_benoemd_obj_adres | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | mb_benoemd_obj_adres | | ExclusiveLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | mb_benoemd_obj_adres | | AccessExclusiveLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | benoemd_terrein_pk | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | 246324904 | | ShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | 246324906 | | AccessExclusiveLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | verblijfsobj_pand_pk | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
rsgb | gem_openb_rmte_fkl | | AccessShareLock | t | postgres |
REFRESH MATERIALIZED VIEW mb_benoemd_obj_adres; | 2019-03-26 15:41:16.144865+01 | 1 day
21:05:20.02325 | 40333
(47 rows)

```