

# Системные таблицы PostgreSQL

--Список всех таблиц

```
SELECT * FROM pg_tables WHERE tableowner != 'postgres';
```

--Список всех таблиц имеющих записи, но не имеющих индексы

```
SELECT c.relname, c.reltuples
FROM pg_class c
LEFT JOIN pg_namespace n ON n.oid = c.relnamespace
LEFT JOIN pg_tablespace t ON t.oid = c.reltablespace
WHERE c.relkind = 'r'
AND pg_get_userbyid(c.relowner) != 'postgres'
AND c.relhasindex IS FALSE
AND c.reltuples != 0
ORDER BY c.reltuples DESC;
```

--Список представлений с исходниками

```
SELECT table_name,view_definition
FROM information_schema.views
WHERE table_schema NOT IN ('pg_catalog', 'information_schema');
```

--Все поля всех таблиц с типами

```
SELECT
table_name,column_name,column_default,is_nullable,udt_name||COALESCE('('||character_maxi
ximum_length||')','') AS type
FROM information_schema.columns
WHERE table_schema NOT IN ('pg_catalog', 'information_schema')
ORDER BY table_name,ordinal_position;
```

#### --Ограничения

```
SELECT tc.constraint_name,  
tc.constraint_type,  
tc.table_name,  
kcu.column_name,  
tc.is_deferrable,  
tc.initially_deferred,  
rc.match_option AS match_type,  
rc.update_rule AS on_update,  
rc.delete_rule AS on_delete,  
ccu.table_name AS references_table,  
ccu.column_name AS references_field  
FROM information_schema.table_constraints tc  
LEFT JOIN information_schema.key_column_usage kcu ON tc.constraint_catalog =  
kcu.constraint_catalog AND tc.constraint_schema = kcu.constraint_schema AND  
tc.constraint_name = kcu.constraint_name  
LEFT JOIN information_schema.referential_constraints rc ON tc.constraint_catalog =  
rc.constraint_catalog AND tc.constraint_schema = rc.constraint_schema AND  
tc.constraint_name = rc.constraint_name  
LEFT JOIN information_schema.constraint_column_usage ccu ON  
rc.unique_constraint_catalog = ccu.constraint_catalog AND rc.unique_constraint_schema  
= ccu.constraint_schema AND rc.unique_constraint_name = ccu.constraint_name  
ORDER BY table_name;
```

#### --Список всех функций

```
SELECT routine_name  
FROM information_schema.routines  
WHERE specific_schema NOT IN ('pg_catalog', 'information_schema')  
AND type_udt_name != 'trigger';
```

#### --Исходный код всех функций

```
--Исходный код всех функций  
SELECT p.proname AS procedure_name,  
p.pronargs AS num_args,  
t1.typname AS return_type,  
l.lanname AS language_type,  
p.proargtypes AS argument_types_oids,  
prosrc AS body  
FROM pg_proc p  
LEFT JOIN pg_type t1 ON p.prorettype=t1.oid  
LEFT JOIN pg_authid a ON p.proowner=a.oid  
LEFT JOIN pg_language l ON p.prolang=l.oid  
WHERE a.rolname != 'postgres';
```

--Вывести параметры конфигурации отличающиеся от дефолтных

```
SELECT p.name, p.source, p.setting,p.short_desc FROM pg_settings p WHERE p.source !=  
'default';
```

--Вывести индексы которые не используются

```
SELECT relname, indexrelname  
FROM pg_stat_user_indexes  
WHERE idx_scan = 0;
```

--Где лежат файлы?

```
SELECT current_setting('data_directory') UNION  
SELECT current_setting('hba_file') UNION  
SELECT current_setting('ident_file') UNION  
SELECT current_setting('config_file') UNION  
SELECT current_setting('krb_server_keyfile');
```

--Сколько места на HDD занимает база?

```
SELECT pg_size_pretty(pg_database_size(current_database()));
```

--Сколько места на HDD занимает таблица?

```
SELECT pg_size_pretty(pg_relation_size('as_database_state_list'));
```

--10 самых больших таблиц

```
SELECT table_name,pg_size_pretty(pg_relation_size(table_name)) as size  
FROM information_schema.tables  
WHERE table_schema NOT IN ('information_schema','pg_catalog')  
ORDER BY pg_relation_size(table_name) DESC  
LIMIT 10;
```

--Перечень полей содержащих более 99 процентов значений NULL

```
SELECT pgs.tablename,pgs.attname,pgc.reltuples AS "rows",pgs.null_frac * 100 as "% of  
NULLs"  
FROM pg_catalog.pg_stats pgs  
JOIN (SELECT c.relname, c.reltuples,n.nspname  
FROM pg_class c  
LEFT JOIN pg_namespace n ON n.oid = c.relnamespace  
LEFT JOIN pg_tablespace t ON t.oid = c.reltablespace  
WHERE c.relkind = 'r'  
AND pg_get_userbyid(c.relowner) != 'postgres'  
AND c.reltuples != 0) pgc ON pgc.relname = pgs.tablename AND pgs.schemaname =  
pgc.nspname  
WHERE pgs.null_frac > 0.99  
ORDER BY 3 DESC,1;
```

--Объем всех баз сервера (например для бэкапа)

```
SELECT pg_size_pretty(sum(pg_database_size(datname))) FROM pg_database;
```