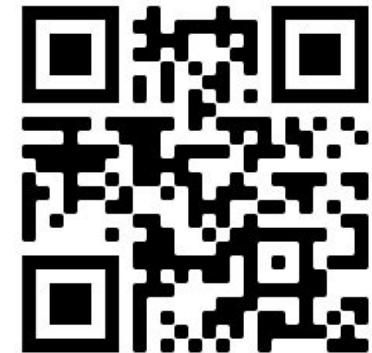


PostgreSQL for the SQL Server
DBA
By Pat Wright

About Me: Pat Wright

- 15+ years working with data
- Database consultant for MS-SQL, PostgreSQL
- Avid Volunteer
- Twitter: @SQLAsylum
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- Blog: www.wrightdbconsulting.com



Accidental DBA

Who Are you?

- Managed other RDBMS systems
- Devops/Software Engineer
- Inherited
- Greenhorn



First Day (Getting to know PG)

Greetings fellow RDBMS!

- SQL OS Vs Linux FS
- Connecting
- Gui tools
- Linux/Windows



Register - Server



General Connection SSL SSH Tunnel Advanced

Host name/address

Port

5432

Maintenance
database

postgres

Username

postgres


Kerberos
authentication?

Password


Save password?

Role

Service

 'Name' cannot be empty.



 Close

 Reset

 Save

Second Day (Backups)

Always test your Backups!

- You want me to dump what?
- Base what?
- 3rd party?
- Scheduling?



Third Day (Exploration)

Who moved my Schema?

- Schema/Database
- Tables - are still tables
- Procedures - Functions
Backwards



- ▼ Databases (2)
 - ▼ customers
 - > Casts
 - > Catalogs
 - > Event Triggers
 - > Extensions
 - > Foreign Data Wrappers
 - > Languages
 - > Publications
 - ▼ Schemas (1)
 - ▼ public

- > Aggregates
- > Collations
- > Domains
- > FTS Configurations
- > FTS Dictionaries
- > Aa FTS Parsers
- > FTS Templates
- > Foreign Tables
- > Functions
- > Materialized Views
- > Operators
- > Procedures
- > 1.3 Sequences

- ▼ Tables (1)
 - ▼ users
 - > Columns
 - > Constraints
 - > Indexes
 - > RLS Policies

- + Database Snapshots
- + customer_application
- customers
 - + Database Diagrams
 - Tables
 - + System Tables
 - + FileTables
 - + External Tables
 - + Graph Tables
 - dbo.users
 - Columns
 - id (PK, int, not null)
 - name (varchar(25), null)
 - emailaddress (varchar(255), null)
 - + Keys
 - + Constraints
 - + Triggers
 - + Indexes
 - + Statistics
 - + Views
 - + External Resources
 - + Synonyms
 - Programmability
 - Stored Procedures
 - + System Stored Procedures
 - Functions
 - + Table-valued Functions
 - + Scalar-valued Functions
 - + Aggregate Functions
 - + System Functions
 - + Database Triggers
 - + Assemblies
 - + Types
 - + Rules
 - + Defaults
 - + Plan Guides

Fourth Day

(What's that burning smell?)

Production is on fire!!

- Current activity
- Locks
- Connection count
- Wal log



Database sessions

Total Active Idle



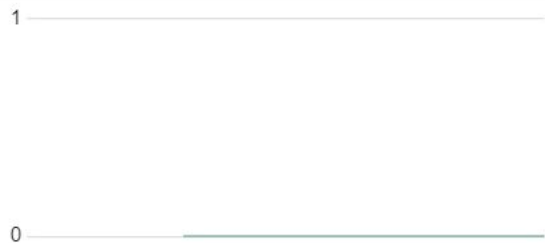
Transactions per second

Transactions Commits Rollbacks



Tuples in

Inserts Updates Delete



Tuples out

Fetches Returned



Block I/O

Reads Hits



Database activity

Sessions Locks Prepared Transactions



			PID	User	Application	Client	Backend start	Transaction start	State	Wait event	Blocking
⊗	■	▶	13040	postgr...	pgAdmin 4 - DB:post...	::1	2022-09-22 15:32:13...		idle	Client: ClientRead	
⊗	■	▶	14540	postgr...	pgAdmin 4 - DB:cust...	::1	2022-09-22 15:33:38...	2022-09-22 15:40:03...	act...		

Fifth Day

(Make it Go Faster)

Performance!

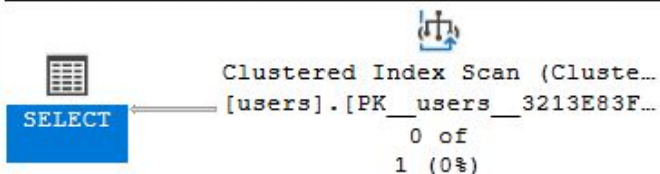
- Explain / Explain Analyze (<https://explain.depesz.com/>)
- Explain.dalibo.com
- Plan Explorer
- Indexes



100 %

Results Messages Live Query Statistics

Estimated query progress:100% Query 1: Query cost (relative to the batch): 100%
Select * from users



```
customers=# explain (select * from users);
```

```
QUERY PLAN
```

```
-----  
Seq Scan on users (cost=0.00..11.30 rows=130 width=588)  
(1 row)
```

```
customers=#
```

Sixth Day (Should I quit?)

Config/Settings

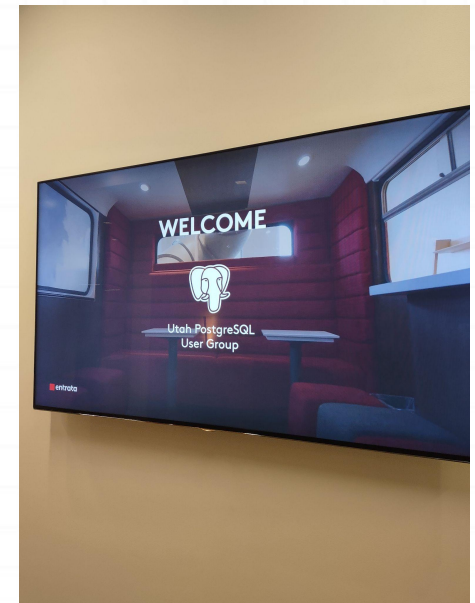
- Where to find it?
- Drive Differences
- What's linux again?



Seventh Day (The community!)

Join the Community!

- Slack (<https://postgresteam.slack.com/signup#/domain-signup>)
- Discord (<https://discord.gg/bW2hsax8We>)
- Docs
- <https://www.wrightdbconsulting.com/>



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