Your Postgres DB performance Radar: **pgBadger**

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Agenda

01 What is Pgbadger

02 Installation and execution

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- pgBadger is free software distributed under the PostgreSQL Licence
- Utility to parse and analyze Postgres logs and create easy to understand reports
- Written in Perl and uses JavaScript library (flotr2) to create graphs
- It can parse huge log files as well as compressed files(gzip, bzip2, lz4, xz, zip and zstd)
- Target users: DBA, developer, anyone who uses Postgres
- Monitor DB performance, optimise queries, troubleshoot bottlenecks

- Supported on Multiple OS: Linux, MacOS, Windows
- Package manager

  Eg: (ubuntu): # apt update

  # apt install pgbadger

Github repo: https://github.com/darold/pgbadger

- Postgres parameters required:
- logging_collector = on
- log_min_duration_statement = 0 (or a value of choice)
- log_checkpoints = on
- log_connections = on
- log_disconnections = on
- log_lock_waits = on
- log_temp_files = on
- log_autovacuum_min_duration = 0
- log_error_verbosity = default
- log_line_prefix (must have at least specifies the %t (time) and %p (process))

- Creating a report: pgbadger postgresql.log
- Default output file: generated in current directory as out.html

Available Options: 104

- -b | --begin datetime
- -e | --end datetime
- -d | --dbname database
- -j | --jobs number
- -J | --Jobs number
- -m | --maxlength size
- -o | --outfile filename
- -O | --outdir path

Overview (example report)

Use case 1: query slowness

Where to look for in the report?

- Slowest individual query
- Most frequent query

Use case 2: Temp files

Where to look for in the report

- Overview -> Global stats -> Temporary Files
- Queries generating the most temporary Files

Use case 3: connections

Where to look for in the report

- Overview -> Global stats -> connections
- Connections per database
- Connections per user
- Events : Fatal like “Remaining connection slots are reserved for superuser connections” and/or “Sorry, too many clients already”

Use case 4 : deadlocks

Where to look for in the report

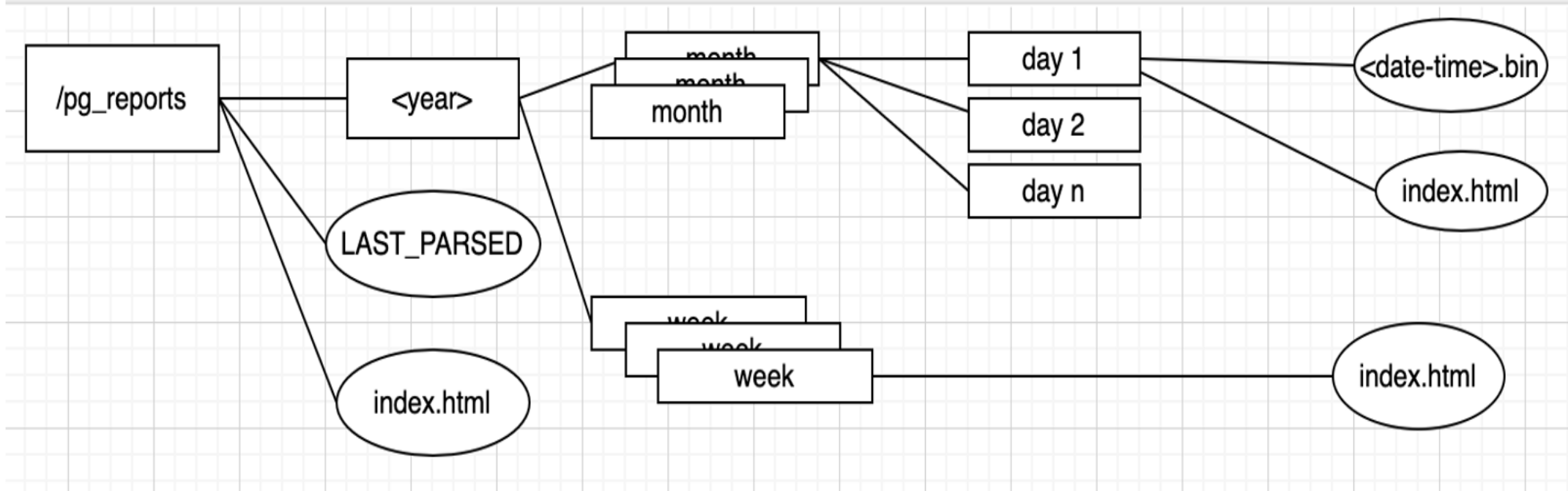
- Events

Incremental and Cumulative Reports

- -O | --outdir path
- -I | --incremental

- 0 1 * * * * /usr/bin/pgbadger -I -q /pg_log/postgresql-*.csv -O /pgbadger_reports

- pgbadger --month-report 2024-11 /pgbadger_reports


/pg_reports
<year>
month
month
month
day 1
day 2
day n
<date-time>.bin
index.html
LAST_PARSED
index.html
week
week
week
index.html

Nuiances

- You need to install perl packages
- The graphs on the report are in accordance to your web browser timezone : -Z | --timezone +/-XX option
- If parallel processing, lot of temp files(tmp_pgbadgerXXXX.bin) are generated in /tmp and cleaned up only on completion