



pgCluu

PostgreSQL Cluster utilization

1.

Introducing

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PostgreSQL Expert and Contributor

- ▷ Essentially a Perl and C developer
- ▷ Open Source projects at:
 - <https://github.com/darold/>
 - <https://github.com/MigOpsRepos/>
 - <https://github.com/lzlabs/>
- ▷ Contact : gilles@darold.net

Others Perl Tools

- **pgBadger** : PostgreSQL log analyzer
- **Ora2Pg** : Oracle/Mysql/SQL server migration to PostgreSQL
- **pgFormatter** : SQL and PLPGSQL code beautifier
- **pg_dumpbinary** : tool to dump PostgreSQL data in binary mode

- **ModProxyPerlHtml** : Apache module for reverse proxy advanced use.
- **Sysusage** : System utilization reports based on sar
- **SquidAnalyzer** : Squid proxy utilization
- **SendmailAnalyzer** : Sendmail / Postfix log analyzer

pgCluu

<https://pgcluu.darold.net/>

History

- ▷ The need : Auditing PostgreSQL and system performances on customers host
- ▷ pgCluu was created in 2012, Perl 100%, first public release October 2013.
- ▷ Objective : standalone / all-in-one program to audit a PostgreSQL server
- ▷ Nothing to install on the host (outside psql and sysstat - sar / pidstat)
- ▷ Collect all information locally or remotely whatever is the PostgreSQL version

pgCluu is simple

PgCluu consist on 2 pieces

- ▷ A collector (pgcluu_collectd)
- ▷ A report builder (pgcluu)

The report is a standalone / transportable HTML “application”

Optionally a CGI is available for “real time” and incremental reports

Pgcluu is available as binary package from the PGDG debian repository.

The collector 1/4

The collector is an interactive or daemon program that is responsible to collect all statistics at a certain interval

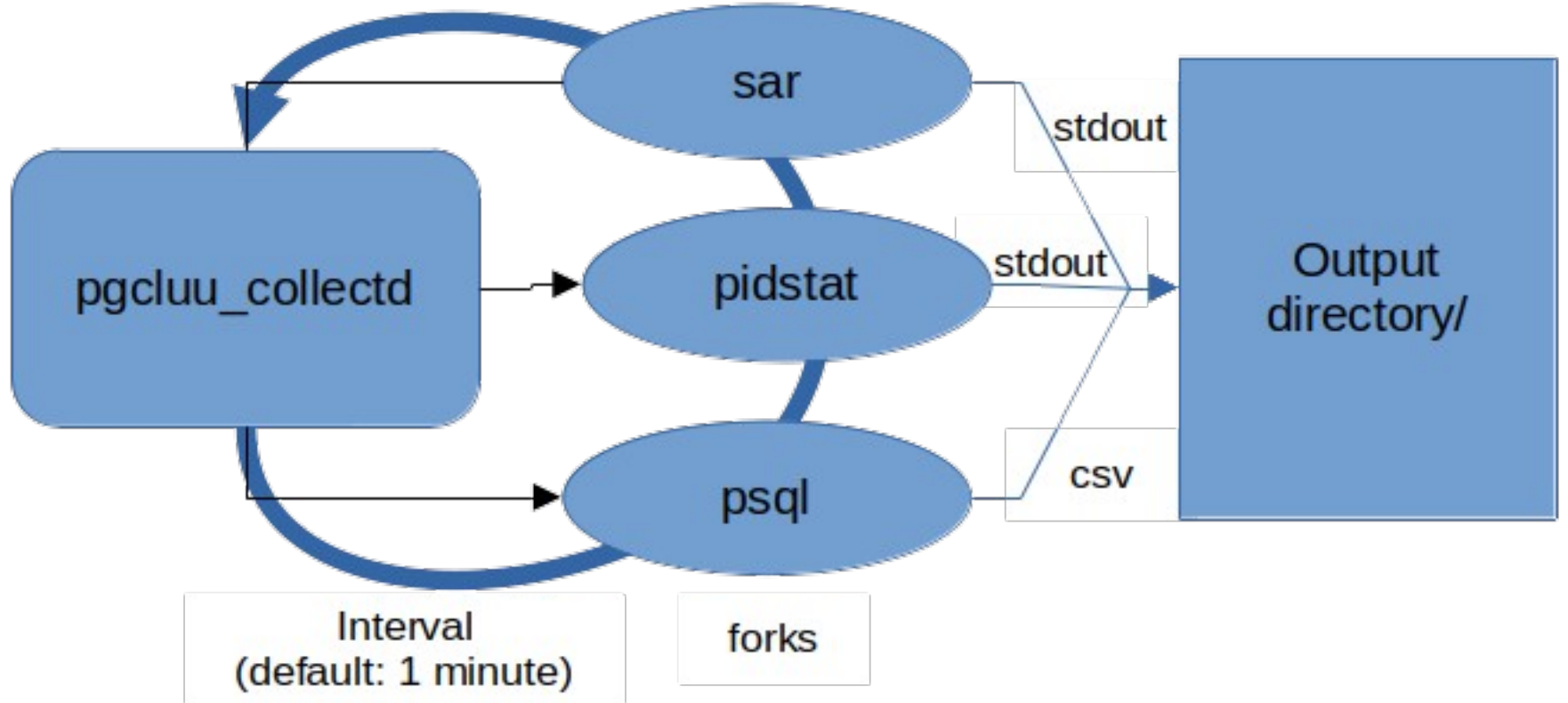
```
pgcluu_collectd -i 10 /var/lib/pgcluu/data
```

Daemon mode is enabled using the -D option

```
pgcluu_collectd -i 10 -D /var/lib/pgcluu/data
```

Stopped using Ctrl+C in interactive mode or in daemon mode:

```
pgcluu_collectd -k
```

The collector 3/4

- ▷ Gather all PostgreSQL statistics from `pg_stat_*` tables
 - Using an auto-generated SQL script and the `psql` command
- ▷ All system statistics are collected using
 - the `sysstat sar` and `pidstat` commands
 - Some kernel information using command `sysctl`
- ▷ Remote statistics are collected using
 - `psql -h hostname`
 - `ssh hostname sar -A` (requires passwordless ssh connection)

The collector 4/4

- ▷ Auto limit the collect:
 - -E, --end-after=NUM : self terminate the program after a given number of second.
 - -M, --max-size=SIZE : self terminate program when the size of the output directory exceed a given size.
- ▷ Can collect pgbouncer stats (using --pgbouncer-args)

The report builder

Reports can be built using a very simple command

```
pgcluu -o reports /var/lib/pgcluu/data
```

It reads the statistics from the pgcluu_collectd output directory and generates the report into the output directory specified.

You can also generate a report for system stats only by providing a sadc binary data file or the output of the sar -A command.

```
pgcluu -I /var/log/sysstat/sa01
```

2.

PostgreSQL useful extensions

PostgreSQL extensions

- ▶ **pg_buffercache**
 - Statistics on shared buffers utilization
- ▶ **pg_stat_statements**
 - Statistics on top queries executed
- ▶ **pg_wait_sampling**
 - Statistics on wait event
 - WIP: reporting

2.

Statistics Report

PgCluu report

▶ <https://pgcluu.darold.net/example/>

Thanks !

Any questions?

<http://pgcluu.darold.net/>

Post your bug reports, feature requests, contribution to

<https://github.com/darold/pgcluu>

or send a mail to **gilles@darold.net**