



First steps in code contribution to Postgres

Andrey Borodin, Postgres Contributor

Open Source



Some recent features authored by our team

- › transaction_timeout

- › UUID v7

- › Sorted GiST index build (e.g. for PostGIS)



And fixes, fixes, fixes...

Parts that we opensources

- › Odyssey

- › WAL-G

- › SPQR

- › pgconsul

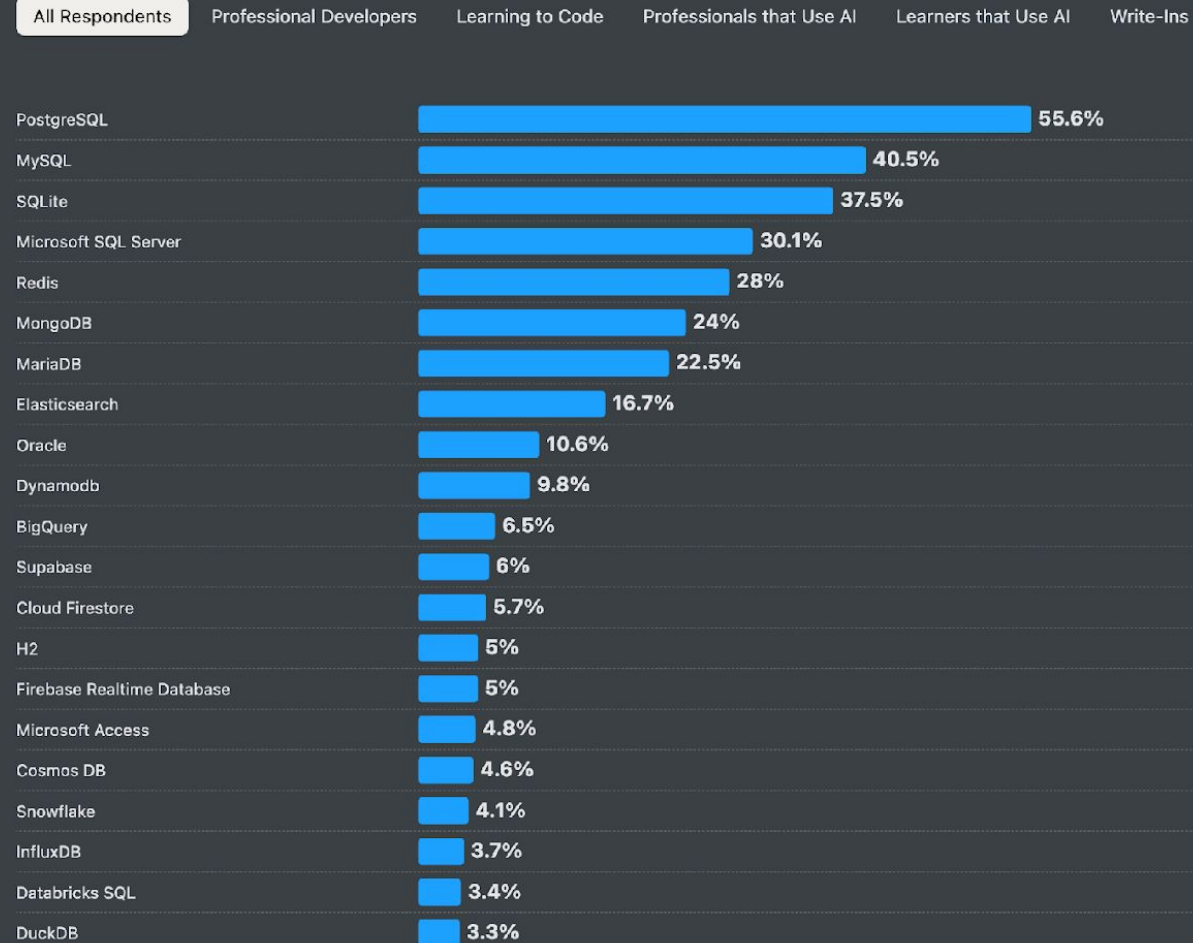
- › Lots of extensions

Why work on Postgres?

Databases

The significant growth in usage for Redis (+8%) highlights its growing importance. As applications become more complex, the need for high-speed, in-memory caching and data structures has made Redis an essential part of the modern tech stack.











? Which **database environments** have you done extensive development work in over the past year, and which do you want to work in over the next year? (If you both worked with the database and want to continue to do so, please check both boxes in that row.)



<https://survey.stackoverflow.co/2025/technology#1-databases>

Mailing lists

pgsql-admin

- **Pär & Holger** 00:59
Use AD-account as login into Postgres.  5 
Hi! Is it only to config in hba.conf the connection info, to use AD-accounts to login in postgres. This is a windows/postgres intallation 🙋🏻✌️ Mvh Pär +46706...
- **Ed, David, Laurenz, Ron, Holger, Matthew & Scott** 00:49
upgrade questions  10 
I'm going to be doing an upgrade from version 11 to version 15 sometime in the near future. I'm a bit nervous about it and I'm hoping I can get some questions...
- **Magnus, Ron & Stephen** Yesterday
pg_basebackup --wal-method=fetch  8 
(PG 14, if it matters.) What's the purpose of fetch mode, as opposed to streaming mode? Is it a legacy of bygone days that just hasn't been deprecate...
- **Tom, Laurenz, Ron & Gambhir** Yesterday
DDL - TYPES  5 
Hi, I was trying to generate DDL of functions and procedures and generated it successfully using the below query. \psql --no-align -t --host=xxxxxx --port=...
- **Holger, Thomas & Gambhir** 08.02.2024
Need help to implement Primary Key.  3 
Hi, I have a table with a record count of ~500 million (496,098,390). There is no primary key in this table. Now I need to set up a primary key on this table. I can...

pgsql-announce



PostgreSQL Global Development Group

Inbox - Yandex-Team

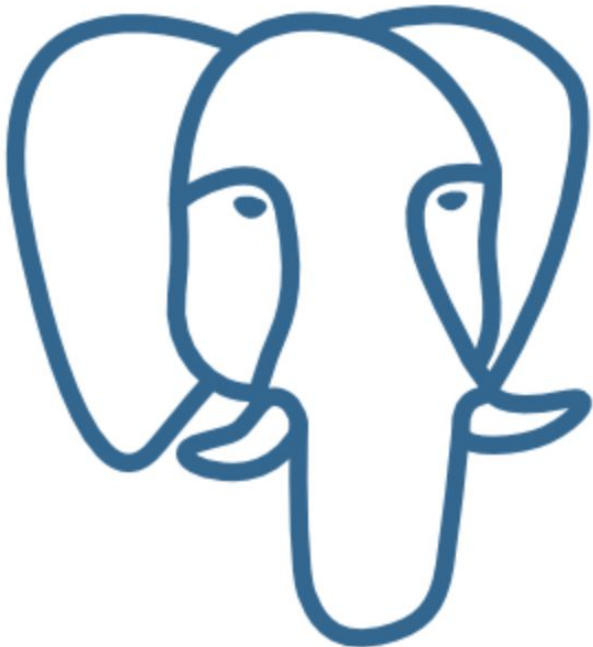
8 February 2024, 19:10

PostgreSQL 16.2, 15.6, 14.11, 13.14, and 12.18 Released!



To: PostgreSQL Announce,

Reply-To: announce@postgresql.org



PostgreSQL 16.2,
15.6, 14.11, 13.14,
and 12.18
Released!

The PostgreSQL Global Development Group has released an update to all supported versions of PostgreSQL, including 16.2, 15.6, 14.11, 13.14, and 12.18. This release fixes one

pgsql-bugs

pgsql-bugs – Yandex-Team

15 260 messages, 13 591 unread



- **Etsuro, Tom, Andres, Thomas, Alexander & PG Bug repo...** Yesterday
BUG #17828: postgres_fdw leaks file descriptors on error and aborts... 15
The following bug has been logged on the website: Bug reference: 17828
Logged by: Alexander Lakhin Email address: exclusion@gmail.com PostgreSQL...
- **jian, Tender & PG Bug reporting form** 08.02.2024
BUG #18314: PARALLEL UNSAFE function does not prevent parallel in... 5
The following bug has been logged on the website: Bug reference: 18314
Logged by: Alexander Lakhin Email address: exclusion@gmail.com PostgreSQL...
- **Masahiko, vignesh & Drew** 08.02.2024
Potential data loss due to race condition during logical replication slot... 7
Hello, We discovered a race condition during logical replication slot creation that can result in the changes for transactions running at the time of the slot creati...
- **Andrei Lepikhov, Alexander Korotkov, David G. Johnst...** 08.02.2024
v17 Possible Union All Bug 13
Hey, The attached pg_dumpall file creates some test roles and some views, two of which show the expected and problem behaviors. There is a lot going on be...

pgsql-committers



Heikki Linnakangas

pgsql-committers 29 January 2024, 16:52

pgsql: Fix locking when fixing an incomplete split of a GIN internal pa

To: pgsql-committers@lists.postgresql.org

Fix locking when fixing an incomplete split of a GIN internal page

ginFinishSplit() expects the caller to hold an exclusive lock on the buffer, but when finishing an earlier "leftover" incomplete split of an internal page, the caller held a shared lock. That caused an assertion failure in MarkBufferDirty(). Without assertions, it could lead to corruption if two backends tried to complete the split at the same time.

On master, add a test case using the new injection point facility.

Report and analysis by Fei Changhong. Backpatch the fix to all supported versions.

Reviewed-by: Fei Changhong, Michael Paquier

Discussion: https://www.postgresql.org/message-id/tencent_A3CE810F59132D8E230475A5F0F7A08C8307@qq.com

Branch

REL_13_STABLE

Details

<https://git.postgresql.org/pg/commitdiff/e74c916657b56e062e244be97ea17c57c178ade0>

Modified Files

src/backend/access/gin/ginbtree.c | 68 ++++++-----
1 file changed, 50 insertions(+), 18 deletions(-)

pgsql-committers



Andrey Borodin

12 February 2021, 10:22

Re: pgsql: Add functions to 'pageinspect' to inspect GiST indexes.



To: Peter Geoghegan, Cc: Heikki Linnakangas, pgsql-committers

[Details](#)

12 февр. 2021 г., в 01:53, Peter Geoghegan <pg@bowt.ie> написал(а):

On Wed, Jan 13, 2021 at 12:36 AM Heikki Linnakangas
<heikki.linnakangas@iki.fi> wrote:

| [Add functions to 'pageinspect' to inspect GiST indexes.](#)

Is gist_page_items() robust with deleted pages? I think that it's unsafe to assume that deleted pages will have index tuples, since the page contents will actually be a GISTDeletedPageContents.

Simplest fix would be to assume maxoff is 0 for the page, perhaps. Right now we just use PageGetMaxOffsetNumber(), which implicitly assumes that the page uses slotted tuples with an array of line pointers (actually it can also deal with a zeroed page, but that's not relevant here).

Thanks, Peter! I agree that taking PageGetMaxOffsetNumber() seems incorrect for deleted page, because we set pd_lower for the deleted page. Also, there was an idea to add a column for LP_DEAD. As long as we are dealing with deleted data anyway, maybe let's add this column? PFW both patches.

Thanks!

Best regards, Andrey Borodin.



0001-Prevent-
pagein...l.patch



0002-Add-bool-
column...t.patch

pgsql-hackers

pgsql-hackers – Yandex-Team

167 396 messages, 150 653 unread



- **Zhijie Hou (Fujitsu), Amit Kapila, Peter Smith, Masahiko Saw...** 14:19

Synchronizing slots from primary to standby

655

Thanks for the feedback. 1. ===== src/backend/utils/misc/
postgresql.conf.sample +#enable_syncslot = on # enables slot synchronization...

- ◀ **Mats Kindahl, Nathan Bossart, Andres Freund, Andrey Boro...** 12:59

glibc qsort() vulnerability

46

Hi all, Split the code into two patches: one that just adds the functions
(including the new pg_cmp_size()) to common/int.h and one that starts using t...

- **Peter Eisentraut** 12:41

backend *.c #include cleanup (IWYU)



I played with include-what-you-use (IWYU), "a tool for use with clang to analyze
#includes in C and C++ source files".[0] I came across this via clangd (the lang...

- **jian he, Andrei Lepikhov, Alena Rybakina, vignesh C, Robert...** 10:01

POC, WIP: OR-clause support for indexes

114

I support such a cunning approach. But this specific case, you demonstrated
above, could be optimized independently at an earlier stage. If to convert: (F(A...

Picking a patch idea

- Don't use TODO list from wiki
- “Scratch your own itch”
- Ask something on hackers discord server

Roles

Core Team

For more information on the purpose of the core team, please click [here](#).

Contributor	Contribution
Peter Eisentraut (peter.eisentraut at enterprisedb.com) EDB Dresden, Germany	Works on the build system, porting, documentation, and the internationalization effort, and codes many other improvements.
Andres Freund (andres at anarazel.de) Microsoft San Francisco, USA	Pluggable table access methods, JIT, logical decoding, replication, performance, scalability, bug fixing and patch review.
Magnus Hagander (magnus at hagander.net) Redpill Linpro Stockholm, Sweden	Has done major work on the Win32 port, authentication system and more, and helps maintain the PostgreSQL websites and project infrastructure.
Jonathan Katz (jonathan.katz at excoventures.com) Amazon Web Services New York, NY	General project advocacy, including press releases & @postgresql, contributions to and moderation of PostgreSQL websites. Various committee participation and board membership. Miscellaneous patches & review.
Tom Lane (tgl at sss.pgh.pa.us) Crunchy Data Pittsburgh, Pennsylvania, USA	Involved in all aspects of PostgreSQL, including bug evaluation and fixes, performance improvements, and major new features, such as schemas. He is also responsible for the optimizer.
Bruce Momjian (bruce at momjian.us) EDB Philadelphia, Pennsylvania, USA	Maintains the TODO list, codes, applies patches, and speaks at conferences.
Dave Page (dpage at pgadmin.org) EDB Oxfordshire, United Kingdom	Created and maintains pgAdmin, helps manage the postgresql.org websites and project infrastructure, and maintains the PostgreSQL installers.

Contributors

- Major contributors
- Contributors

Contributors committee

Contributor Profiles

These are the fine people that make PostgreSQL what it is today!

To suggest additions to the list, please email contributors@postgresql.org. Existing contributors can update their information in their [user profile](#).

Sponsor

	Kontur	United States
	Zalando	Germany
	Yandex	Russia
	Oriole	United States
	Adjust	Germany
	Rackspace	United States
	HighGo	Canada
	Aiven	Finland

<https://www.postgresql.org/about/contributing/>

Committers

This is the current list of people with access to push to the git repository with their user names. For technical details on how committing works, see [Committing with Git](#). Note: This is just a list of people who currently have access to the repository and previous contributors, see the [contributor profiles](#) section of the web site. Note: The names are listed here in order of first commit or when added as a committer, oldest first; this isn't intended to imply anything about depth of contribution.

- Bruce Momjian (momjian)
- Tom Lane (tgl)
- Michael Meskes (meskes)
- Tatsuo Ishii (ishii)
- Peter Eisentraut (petere)
- Joe Conway (joe)
- Alvaro Herrera (alvherre)
- Andrew Dunstan (adunstan)
- Magnus Hagander (mha)
- Heikki Linnakangas (heikki)
- Robert Haas (rhaas)
- Jeff Davis (jdavis)
- Stephen Frost (sfrost)
- Fujii Masao (fujii)
- Noah Misch (noah)
- Andres Freund (andres)
- Dean Rasheed (deanr)
- Andrew Gierth (rhodiumtoad)
- Alexander Korotkov (smagen)
- Amit Kapila (amitkapila)
- Tomas Vondra (fuzzycz)
- Michael Paquier (michael-kun)
- Thomas Munro (macdice)
- Peter Geoghegan (pgeoghegan)
- Etsuro Fujita (efujita)
- David Rowley (drowley)
- Daniel Gustafsson (d_gustafsson)
- John Naylor (john.naylor)
- Nathan Bossart (nathan)
- Amit Langote (amitlan)
- Masahiko Sawada (msawada)



Alvaro Herrera

pgsql: Use atomic access for SlruShared->latest_page_number

To: [pgsql-committers](#)

Use atomic access for SlruShared->latest_page_number

The new concurrency model proposed for slru.c to improve performance does not include any single lock that would coordinate processes doing concurrent reads/writes on SlruShared->latest_page_number. We can instead use atomic reads and writes for that variable.

Author: Dilip Kumar <dilipbalaut@gmail.com>

Reviewed-by: Andrey M. Borodin <x4mmm@yandex-team.ru>

Discussion: <https://postgr.es/m/CAFiTN-vzDvNz=ExGXz6gdyjtzGixKSqs0mKHMmaQ8sOSEFZ33A@mail.gmail.com>

Branch

master

Details

<https://git.postgresql.org/pg/commitdiff/d172b717c6f436738cc8383a4e9f611ae227fd93>

Modified Files

```
src/backend/access/transam/clog.c    | 6 +-----
src/backend/access/transam/commit_ts.c | 7 +++---
src/backend/access/transam/multixact.c | 28 ++++++++-----
src/backend/access/transam/slru.c     | 39 ++++++++-----
src/include/access/slru.h              | 5 ++++-
5 files changed, 53 insertions(+), 32 deletions(-)
```



Alexander Korotkov

pgsql: Use larger segment file names for pg_notify

To: [pgsql-committers](#)

Use larger segment file names for pg_notify

This avoids the wraparound in `async.c` and removes the corresponding code complexity. The maximum amount of allocated SLRU pages for NOTIFY / LISTEN queue is now determined by the `max_notify_queue_pages` GUC. The default value is 1048576. It allows to consume up to 8 GB of disk space which is exactly the limit we had previously.

Author: Maxim Orlov, Aleksander Alekseev, Alexander Korotkov, Teodor Sigaev

Author: Nikita Glukhov, Pavel Borisov, Yura Sokolov

Reviewed-by: Jacob Champion, Heikki Linnakangas, Alexander Korotkov

Reviewed-by: Japin Li, Pavel Borisov, Tom Lane, Peter Eisentraut, Andres Freund

Reviewed-by: Andrey Borodin, Dilip Kumar, Aleksander Alekseev

Discussion: <https://postgr.es/m/CACG%3DZez1NQSCnfHOr78AtAZxJZeCvxrts0ygrxYwe%3DpyyjVWA%40mail.gmail.com>

Discussion: <https://postgr.es/m/CAJ7c6TPDOYBYrnCAeyndkBktO0WG2xSdYduTF0nxq%2BvfkmTF5Q%40mail.gmail.com>

Branch

master

Details

<https://git.postgresql.org/pg/commitdiff/2cdf131c46e631addfc386f6106e52a1b8cc3a70>

Commitfest

UUID v7

Edit

Comment/Review ▾

Change Status ▾

Title	UUID v7
Topic	Server Features
Created	2023-06-22 17:29:56
Last modified	2024-02-01 18:16:38 (1 week, 1 day ago)
Latest email	2024-01-30 18:37:56 (1 week, 3 days ago)
Status	<div>2024-03: Ready for Committer</div> <div>2024-01: Moved to next CF</div> <div>2023-11: Moved to next CF</div> <div>2023-09: Moved to next CF</div> <div>2023-07: Moved to next CF</div>
Target version	17
Authors	Andrey Borodin (x4m), Kirk Wolak (kirkw)
Reviewers	Aleksander Alekseev (a.alekseev), Chris Travers (einhverfr), Nikolay Samokhvalov (nikolay), Przemysław Sztoch (psztoch)

Become reviewer

CF Manager role

Found in postgresql-hackers Mailbox



Tom Lane

2 February 2024, 10:28

Re: Commitfest 2024-01 is now closed

To: vignesh C, Cc: Pg Hackers

[Details](#)

vignesh C <vignesh21@gmail.com> writes:

| Thanks a lot to all the members who participated in the commitfest.

Thanks for all the work you did running it! CFM is typically a thankless exercise in being a nag, but I thought you put in more than the usual amount of effort to keep things moving.

regards, tom lane



PostgreSQL BuildFarm Status

Shown here is the latest status of each farm member for each branch it has reported on in the last 30 days.

Use the farm member link for history of that member on the relevant branch.

Legend	= cassert	= debug	= gssapi	= krb5	= llvm	= meson	= nls	= openssl
	= pam	= perl	= python	= tap-tests	= tcl	= thread-safety	= vpath	= xml

Branch: HEAD			
Alias	System	Status	Flags
boomslang	Debian 11 Bullseye gcc 10 riscv64	03:05 ago OK [e70abd6] Config	
mantid	CentOS 7.9.2009 gcc 4.8.5 x86_64 (virtualized)	00:39 ago OK [e70abd6] Config	
turbot	Ubuntu 22.04.3 LTS gcc 11.4.0 aarch64	01:08 ago OK [e70abd6] Config	
fairywren	Windows / Msys 12.2.0 gcc 11.2.0 x86_64	02:43 ago OK [e70abd6] Config	
chimaera	Debian GNU/Linux 9 (stretch) gcc 6.3.0 ppc64le (POWER9)	00:38 ago OK [e70abd6] Config	
lorikeet	Cygwin64/Windows 3.4.9/10 gcc 11.4.0 x86_64	01:51 ago OK [e70abd6] Config	
sevengill	macOS 14.3 clang 15.0.0 arm64	01:21 ago OK [e70abd6] Config	
cisticola	Loongnix-Server 8.4.0 GCC 8.3.0 loongarch64	01:26 ago OK [e70abd6] Config	
canebrake	Debian Sid gcc 13 x86-64	03:09 ago OK [e70abd6] Config	

Development cycle

- Feature freeze in April
- Release in September

- Feature freeze in April
- Release in September
- Branches REL_{X}_STABLE supported versions
Like REL_16_STABLE

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- Branches REL_{X}_STABLE supported versions
Like REL_16_STABLE
- Tags for every released version like REL_16_2

- Feature freeze in April
- Release in September
- Branches REL_{X}_STABLE supported versions
Like REL_16_STABLE
- Tags for every released version like REL_16_2
- Some critical bugfixes in a release every quarter

Development

2020-09: **Committed**

2020-07: **Moved to next CF**

2020-03: **Moved to next CF**

2020-01: **Moved to next CF**

2019-11: **Moved to next CF**

git kung-foo

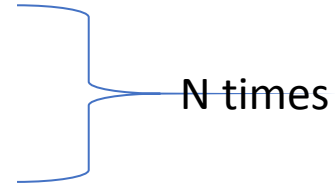
```
git checkout origin/master
```

```
git checkout -b my_feature
```

```
// hack hack hack
```

```
git commit -a
```

```
git patch-format -7 -v 42
```





x4m / postgres_g

Search Type

code Pull requests 6 Actions Projects Security Insights Settings



postgres_g

Public

Pin

Unwatch 2

forked from postgres/postgres

tt_22

286 Branches 395 Tags

Go to file

t

Add file

Code

This branch is 4 commits ahead of, 298 commits behind postgres/postgres:master .

Contribute

Sync fork



zhjwpku and Andrey M. Borodin fix reschedule timeout for each com...



82a2fbe · last month

57,443 Commits

config

Make all Perl warnings fatal

2 months ago

contrib

Revert "pg_stat_statements: Add coverage for entry_deal...

2 months ago

doc

Introduce transaction_timeout

last month

src

fix reschedule timeout for each commmand

last month

.cirrus.star

Remove duplicate words in docs and code comments.

4 months ago

.cirrus.tasks.yml

Use "template" data directory in tests

6 months ago


.cirrus.yml

ci: Make compute resources for CI configurable

6 months ago

→ ↺

https://github.com/x4m/postgres_g/tree/tt_22

 x4m / postgres_g

🔍 Type ↵

code

🔗 Pull requests

6


🔄 Actions

📁 Projects

🛡️ Security

📈 Insights

⚙️ Settings

 postgres_g

Public

forked from

[postgres/postgres](#)

🔗 tt_22 ▾

🔗 286 Branches

🔗 395 Tags


🔍 Go to file

t

Add file ▾

<> Code ▾

This branch is 4 commits ahead of, 298 commits behind

 zhjwpku and Andrey M. Borodin

fix

config

contrib

doc

src

.cirrus.star

.cirrus.tasks.yml

.cirrus.yml

All checks have passed

✕

1 neutral and 7 successful checks

■ 📄

Windows - Server 2019, MinGW64 - Meson

Completed in 57s

Details

✓ 📄

CompilerWarnings

Successful in 4m - Task Summary

Details

✓ 📄

FreeBSD - 13 - Meson

Successful in 7m - Task Summary

Details

✓ 📄

Linux - Debian Bullseye - Autoconf

Successful in 5m - Task Summary

Details

✓ 📄

Linux - Debian Bullseye - Meson

Successful in 6m - Task Summary

Details

✓ 📄

SanityCheck

Successful in 34s - Task Summary

Details

✓ 📄

Windows - Server 2019, VS 2019 - Meson & ninja

Successful in 11m - Task Summary

Details

✓ 📄

macOS - Ventura - Meson

Successful in 4m - Task Summary

Details



Andrey M. Borodin

pgsql-hackers

31 August 2023, 00:05

Re: UUID v7



To: Peter Eisentraut, Cc: Tom Lane, Daniel Gustafsson & 9 more

[Details](#)

On 21 Aug 2023, at 13:42, Andrey M. Borodin <x4mmm@yandex-team.ru> wrote:

<[v5-0001-Implement-UUID-v7-as-per-IETF-draft.patch](#)><[v5-0002-Buffer-random-numbers.patch](#)>
<[v5-0003-Use-cached-random-numbers-in-gen_random_uuid-too.patch](#)>

FPA attached next version.

Changes:

- implemented protection from time leap backwards when series is generated on the same backend
- counter overflow is now translated into ms step forward

Best regards, Andrey Borodin.



v6-0001-
Implem...t.patch



v6-0003-Use-
cached....patch



v6-0002-
Buffer-...s.patch

In mailing list

- You are writing for the archive!
- Plain text

Re: UUID v7

From:

"Andrey M(dot) Borodin" <x4mmm(at)yandex-team(dot)ru>

To:

Przemysław Sztoch <przemyslaw(at)sztoch(dot)pl>
Andrey Borodin <amborodin86(at)gmail(dot)com>, Jelte Fennema <postgres(at)jeltef(dot)nl>, Nick Babadzhanian <pgnickb(at)gmail(dot)com>, Mat Arye <mat(at)timescaledb(dot)com>, Peter Eisentraut <peter(dot)eisentraut(at)enterprisedb(dot)com>, Tom Lane <tgl(at)sss(dot)pgh(dot)pa(dot)us>, Daniel Gustafsson <daniel(at)yesql(dot)se>, Matthias van de Meent <boekewurm+postgres(at)gmail(dot)com>, Nikolay Samokhvalov <samokhvalov(at)gmail(dot)com>, "Kyzer Davis (kydavis)" <kydavis(at)cisco(dot)com>, Andres Freund <andres(at)anarazel(dot)de>, PostgreSQL Hackers <pgsql-hackers(at)postgresql(dot)org>, "brad(at)peabody(dot)io" <brad(at)peabody(dot)io>, "wolakk(at)gmail(dot)com" <wolakk(at)gmail(dot)com>, sergeyprokhorenko(at)yahoo(dot)com(dot)au

Cc:

Subject:

Re: UUID v7

Date:

2024-01-04 18:20:11

Message-ID:

CFE482C1-F001-4C51-89A3-084E7FF36157@yandex-team.ru

Views:

[Raw Message](#) | [Whole Thread](#) | [Download mbox](#) | [Resend email](#)

Thread:

2024-01-04 18:20:11 from "Andrey M(dot) Borodin" <x4mmm(at)yandex-team(dot)ru>

Lists:

[pgsql-hackers](#)

Hello Przemysław,

thanks for your interest in this patch!

> On 3 Jan 2024, at 04:37, Przemysław Sztoch <przemyslaw(at)sztoch(dot)pl> wrote:
>
> 1. Is it possible to add a function that returns the version of the generated uuid?
> It will be very useful.
> I don't know if it's possible, but I think there are bits in the UUID that inform about the version.
What do you think if we have functions `get_uuid_v7_ver(uuid)` and `get_uuid_v7_var(uuid)` to extract bit fields according to [0] ? Or, perhaps, this should be one function with two return parameters? It's not in a patch yet, I'm just considering how this functionality should look like.

> 2. If there is any doubt about adding the function to the main sources (standard development in progress), in my opinion you can definitely add this function to the `uuid-oss` extension. From my POV we can just have this function in the core. OSSP support for UUID seems more or less dead [1]: "Newsflash: 04-Jul-2008: Released OSSP uuid 1.6.2". Or do I look into wrong place?

> 3. Wouldn't it be worth including UUID version 6 as well?
The standard in [0] says "Systems that do not involve legacy UUIDv1 SHOULD use UUIDv7 Section 5.7 instead." If there's a point in developing v6 – I'm OK to do so.

> 4. Sometimes you will need to generate a uuid for historical time. There should be an additional function `gen_uuid_v7(timestamp)`.
Done, please see patch attached. But I changed signature to `gen_uuid_v7(int8)`, to avoid messing with bytes from user who knows what they want. Or do you think `gen_uuid_v7(timestamp)` would be more convenient?

Thanks!

Best regards, Andrey Borodin.

[0] <https://datatracker.ietf.org/doc/html/draft-ietf-uuidrev-rfc4122bis-14#uuidv7>
[1] <http://www.ossf.org/>

Attachment	Content-Type	Size
v8-0001-Implement-UUID-v7-as-per-IETF-draft.patch	application/octet-stream	9.0 KB
v8-0002-Add-optional-argument-unix_ts_ms-to-gen_uuid_v7.patch	application/octet-stream	5.7 KB

In mailing list

- You are writing for the archive!
- Plain text
- No top posting \ overquoting
- Appreciate feedback

Ecosystem

 **pg_stat_kcache** Public

Edit Pins

Watch 20

Fork 23

Star 171

master

5 Branches















21 Tags

Go to file

t

Add file

<> Code

 rjuju Release 2.2.3 ✓	44f0c7e · 3 weeks ago	🕒 145 Commits
 .github/workflows	Add GitHub regression test	7 months ago
 debian	Release 2.2.3	3 weeks ago
 expected	Avoid regression test failure on a server where OS and pg...	4 years ago
 test/sql	Avoid regression test failure on a server where OS and pg...	4 years ago
 .gitignore	Start working on 2.1.1	6 years ago
 CHANGELOG.md	Release 2.2.3	3 weeks ago
 CONTRIBUTORS.md	Release 2.2.3	3 weeks ago
 LICENSE	Update copyright year.	last year
 META.json	Update copyright and forgotten upstream change	6 years ago
 Makefile	Allow PG_CONFIG value to be found on command-line (#...	6 years ago
 README.rst	Recommend installing from PGDG repositories	last year
 pg_stat_kcache--2.1.0--2.1.1.sql	Update copyright year.	3 weeks ago
 pg_stat_kcache--2.1.0.sql	Update copyright year.	3 weeks ago

About

Gather statistics about physical disk access and CPU consumption done by backends.

c

performance

extension

database

optimization

postgresql

performance-analysis

powa

Readme

View license

Activity

Custom properties

171 stars

20 watching

23 forks

Report repository

Releases 12

Version 2.2.3

Latest

3 weeks ago


+ 11 releases

pgbouncer Public

Edit Pins Watch 56 Fork 414 Star 2.5k

master 5 Branches 67 Tags

Go to file t Add file <> Code

 JelteF v1.22.0 ✓	e6ce619 · 2 weeks ago	🕒 1,526 Commits
doc	Various doc updates (#1012)	2 weeks ago
etc	Improve recommended systemd unit file (#983)	3 months ago
include	Update client varcache with canonical values from server ...	2 months ago
lib @ 46a78d2	Unbreak windows CI (#1009)	3 weeks ago
src	Unbreak windows CI (#1009)	3 weeks ago
test	Unbreak windows CI (#1009)	3 weeks ago
uthash @ eebe196	v1.22.0	2 weeks ago
win32	refactor: Use an enum for shutdown values (#926)	6 months ago
.cirrus.yml	Unbreak windows CI (#1009)	3 weeks ago
.editorconfig	Correct editorconfig rules for C files (#891)	7 months ago
.flake8	Exclude lib and uthash directory for python tooling (#924)	6 months ago
.gitattributes	Fix C code indented with spaces	2 years ago
.gitignore	Add autoformatting for C files (#892)	6 months ago
.gitmodules	Make varcache dynamically configurable. (#867)	8 months ago

About

lightweight connection pooler for PostgreSQL

www.pgouncer.org/

postgresql

- Readme
- Activity
- Custom properties
- 2.5k stars

56 watching
414 forks
Report repository

Releases 17

PgBouncer 1.22.0 Latest
2 weeks ago

+ 16 releases

Contributors 70



wal-gPublic

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👁 Unwatch 57 ▾

🍴 Fork 407 ▾

★ Starred 2.9k ▾

🔗 master ▾🔗 73 Branches🏷 54 Tags

🔍 Go to filet

Add file ▾

<> Code ▾

VGoshev Merge pull request #1641 from ElectricR/mongodb-fix-nonsha... 390c294 · 3 days ago🕒 1,664 Commits

📁 .github	Add --after option support for PostgreSQL delete retain c...	last week
📁 benchmarks	Update Copy composer benchmark (#1073)	3 years ago
📁 cmd	MongoDB binary restore: If shardIdentity document does ...	3 days ago
📁 docker	Add --after option support for PostgreSQL delete retain c...	last week
📁 docs	STORAGES doc using wrong Azure variable name (#1626)	last week
📁 internal	Merge pull request #1641 from ElectricR/mongodb-fix-no...	3 days ago
📁 main	Initial ETCD + WAL-G implementation (#1605)	2 months ago
📁 pkg/storages	Add tests for partitionStrings (#1598)	4 days ago
📁 submodules	Update brotli to v1.0.9 from v1.0.7 (#1179)	3 years ago
📁 test	Pass Context around Folder upload functions, add PG WA...	5 months ago
📁 tests_func	Add MongoDB 7.0 support. Remove MongoDB 4.2 suppor...	4 months ago
📁 testtools	Reuse SSH connections opened once when daemon start...	2 months ago
📁 utility	rename GetRandomizedString to GetRandomizedHexString	10 months ago

About⚙

Archival and Restoration for databases in the Cloud

mysqlgoredisgolangaws

postgrescloudbackupmongodb

azureaws-s3archivingpostgresql

s3mariadbgreenplumsqlserver

azure-storage

- 📖 Readme
- 📄 View license
- 📈 Activity
- 📋 Custom properties
- ★ 2.9k stars
- 👁 57 watching
- 🍴 407 forks
- Report repository

Releases49

📦 v2.0.1Latest

on Aug 25, 2022

+ 48 releases

patroni

Public

Watch 127

Fork 800















Star 6k

master 15 Branches 65 Tags

Go to file

Add file

<> Code

 barthisrael	Patroni doesn't filter out some not allowed options from `pg...	7adfc0d · 5 days ago	2,371 Commits
 .github	Release v3.2.2 (#3007)		last month
 docker	update Dockerfiles (#2937)		3 months ago
 docs	Release v3.2.2 (#3007)		last month
 extras	Change master->primary/leader/member (#2541)		last year
 features	Optimize priority failover behave tests (#3004)		last month
 kubernetes	Update PG version in a couple of places (#2986)		2 months ago
 patroni	Patroni doesn't filter out some not allowed options from `...		5 days ago
 tests	Patroni doesn't filter out some not allowed options from `...		5 days ago
 typings	Bump pyright to 1.1.336 (#2952)		3 months ago
 .gitignore	fix typo and add gitignore entries (#2959)		3 months ago
 .readthedocs.yaml	Generate API docs from code with sphinx autodoc (#2699)		6 months ago
 CODEOWNERS	Add Polina to maintainers (#2451)		2 years ago
 Dockerfile	Update PG version in a couple of places (#2986)		2 months ago

About

A template for PostgreSQL High Availability with Etcd, Consul, ZooKeeper, or Kubernetes

kubernetes

consul

raft

postgresql

zookeeper

etcd

haproxy

failover

high-availability

Readme

MIT license

Code of conduct

Activity

Custom properties

6k stars

127 watching

800 forks

Report repository

Releases 58

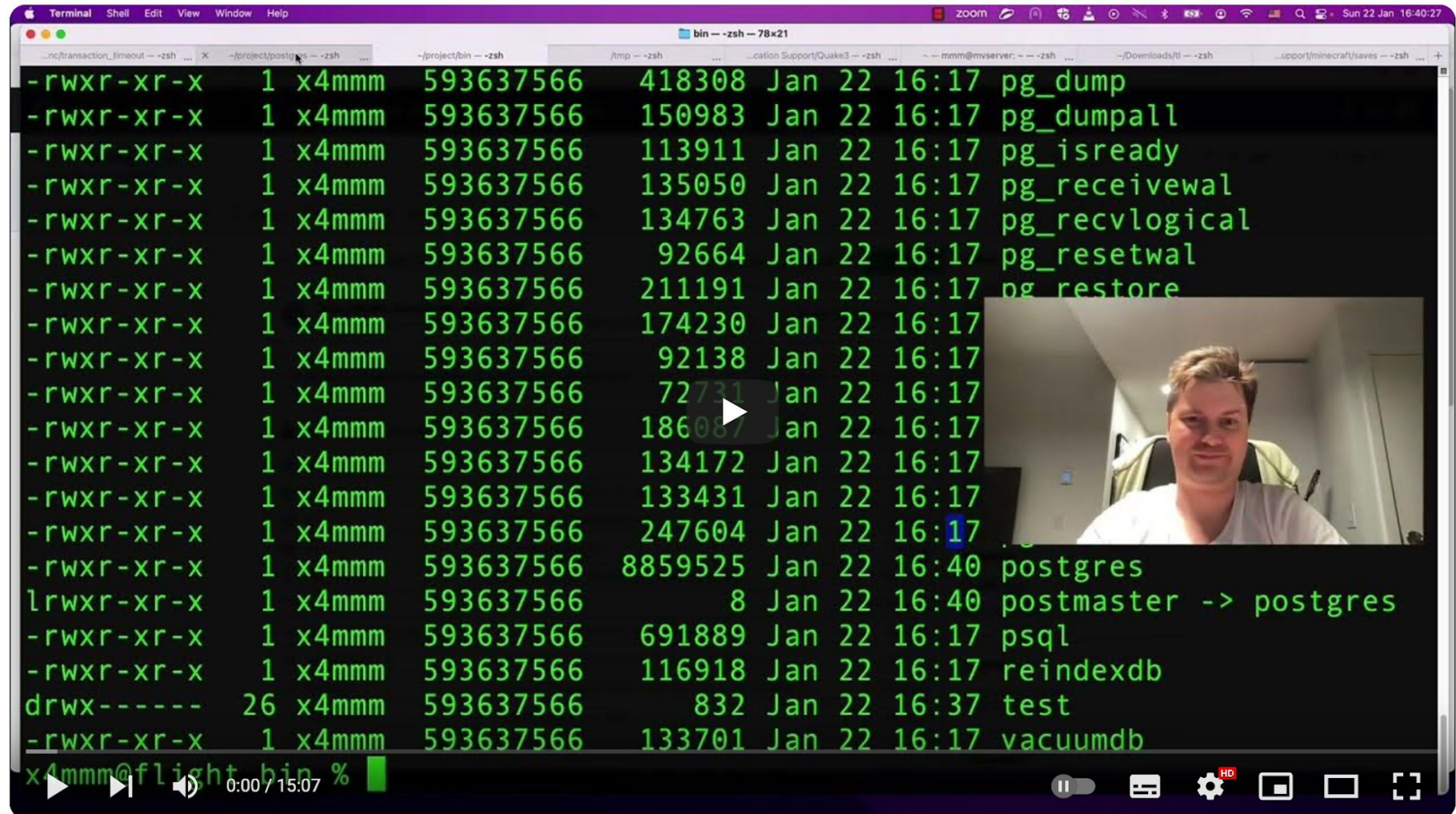
v3.2.2

Latest

last month

+ 57 releases

How to start (light version)



https://www.youtube.com/watch?v=rihfAnd_IeM

Robert Haas

VP, Chief Database Scientist @ EnterpriseDB, PostgreSQL Major Contributor and Committer

Tuesday, July 09, 2024

Mentoring Program Updates

Here are a few updates on the mentoring program that I announced in a [previous blog post](#).

First, I ended up keeping applications open for 12 days. During that time, I got 34 applications. Many of the 9 committer-mentors who initially offered to mentor one person ended up deciding that they would be willing to mentor two people, so I was able to send out 14 acceptances, which I think is a great result, especially considering that this is the first time we've done something like this.

But what about all of the people who were applied and not accepted, or who did not apply but are still interested in learning more about hacking on PostgreSQL? How can we support them and encourage them to get involved and contribute? I'm pleased to be able to announce two additional efforts in that direction.

First, I decided to spin up a Discord server, which anyone is welcome to join. The purpose of this Discord server is for people who are interested in hacking on PostgreSQL to connect with each other and with experienced hackers who can help them learn how to do it better. Initially, I sent out invitations to all of the committers who agreed to mentor, and all of those who applied for a mentor. However, one of my colleagues then tweeted a link to the Discord, and it now has almost 300 people in it!

Maybe you'd like to join, too. If so, this query will give you the invite link:

```
SELECT string_agg(chr(c+46), '') FROM
unnest(array[58,70,70,66,69,12,1,1,54,59,69,53,65,68,54,0,57,57,1,52,74,4,25,11,29,41,
75,68,43]) AS c
```

About Me

 [Robert Haas](#)

[View my complete profile](#)

Blog Archive

- ▼ [2024](#) (10)
 - [August](#) (2)
 - ▼ [July](#) (2)
 - [PostgreSQL Hacking Workshop - August 2024](#)
 - [Mentoring Program Updates](#)
 - [June](#) (2)
 - [May](#) (1)
 - [January](#) (3)
- [2023](#) (7)
- [2022](#) (5)
- [2021](#) (3)
- [2020](#) (5)
- [2019](#) (7)
- [2018](#) (5)
- [2017](#) (6)

Mailing lists

- [pgsql-announce](#)
- [pgsql-admin](#)
- [pgsql-hackers](#)
- [pgsql-bugs](#)
- [pgsql-committers](#)

Commitfest 2024-03

Search/filter

Shortcuts ▾

New patch

Status summary: [Needs review](#): 174. [Waiting on Author](#): 44. [Ready for Committer](#): 27. [Committed](#): 20. [Returned with Feedback](#): 1. [Rejected](#): 1. [Total](#): 267.

Active patches

Patch	↓ Status	Ver	Author	Reviewers	Committer	Num cfs	Latest activity	Latest mail
Bug Fixes								
Add some checks to avoid stack overflow	Needs review	stable	Egor Chindyaskin (egorchin21)	Robert Haas (rhaas)		5	2024-02-01 16:36	2024-01-12 21:00
Allow SIGINT to cancel psq database reconnections	Needs review		Tristan Partin (tristan957)			4	2024-01-12 17:15	2024-01-31 18:34
Postpone reparameterization of paths until when creating plans	Ready for Committer		Richard Guo (richardguo)	Ashutosh Bapat (ashutoshbapat), Andrei Lepikhov (lepihov), Alena Rybakina (a.rybakina)	tgl	4	2024-02-01 18:10	2024-02-02 02:10
pg_ctl start may return 0 even if the postmaster has been already started on Windows	Waiting on Author		Kyotaro Horiguchi (horiguti)	Hayato Kuroda (ha-kun)		3	2024-02-01 18:23	2024-01-15 18:34
Mark expressions nullable by grouping sets	Waiting on Author		Richard Guo (richardguo)	Alena Rybakina (a.rybakina)		3	2024-01-30 06:01	2024-01-11 15:10
[PATCH] LockAcquireExtended improvement	Needs review	17	Jingxian Li (jingxian)			2	2024-02-01 16:37	2024-02-08 10:28
Fix COPY FROM...CSV importing \. on a line by itself	Needs review		Daniel Vérité (danielverite)			2	2024-02-01 16:37	2024-01-24 16:01
"unexpected duplicate for tablespace" problem in logical replication	Waiting on Author	stable	Shenhao Wang (wangshenhao)	Masahiko Sawada (masahikosawada)		2	2024-02-01 18:24	2024-02-02 15:49
Dump-restore losing 'attnotnull' bit for DEFERRABLE PRIMARY KEY column(s)	Needs review	17	Amul Sul (sulamul)			2	2024-02-01 16:37	2024-01-23 12:11

Conferences



**PGConf
.dev**

**POSTGRESQL DEVELOPMENT
CONFERENCE 2024**

May 28-31 - Vancouver, Canada

PostgreSQL Development Conference will be held in Vancouver, Canada, on May 28-31 at the Vancouver Campus of Simon Fraser University.

PostgreSQL Development Conference 2024 is your opportunity to collaborate on the ongoing development of [PostgreSQL](#), the world's most advanced open source database. Meet PostgreSQL contributors, learn about upcoming features, and discuss development problems with PostgreSQL enthusiasts.

Difficulties

- Hard to set a goal for a contributing developer
- Hard to observe path for career growth
- Codebase is complex, there are numerous easier projects
- Instruments needed only for lowlevel system development C, TAP, Perl
- Everything was in Simpsons

Opportunities

Total Cost of Ownership

- Hardware
- Software
- Engineers

Total Cost of Ownership

- ~~Hardware~~
- ~~Software~~
- ~~Engineers~~

$$\frac{(SRE_{cost} + Licences_{cost}) \cdot (Incidents_{cost}) \cdot (ComputePower_{cost})}{\alpha \cdot QPS + \beta \cdot Traffic} \approx const$$

SRE <-> Contributors

- Production incidents are major cost for high profile database
- Incident-driven development

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- It's not about SLA, even at scale

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- Production incidents are major cost for high profile database
- Incident-driven development
- It's not about SLA, even at scale
- But some metrics are needed to build motivation
- Owner of a process for open source contributions

Owners role

- Coordinate with SRE
- Proposes patches for review by the team
- Pitches ideas for the patch
- Or revival of abandoned work
- Reminds to authors about rebases and addressing feedback
- Secures needed resources from host company

Types of code-contributing companies

- Postgres-centric companies like EDB, NTT, PgPro, Tantor
- Contributing teams at hyperscalers like AWS, MS, Google, Yandex
- Startups that build something radically new like Oriole, Neon, Supabase, Timescale
- Big users, that have to deal with issues at scale like Percona, Aiven
- And many many others...

Let's hack something!

Andrey Borodin, Postgres contributor.