PEV2

PGSession - 21 Novembre 2019

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DALIBO
L'expertise PostgreSQL

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Il était une fois…

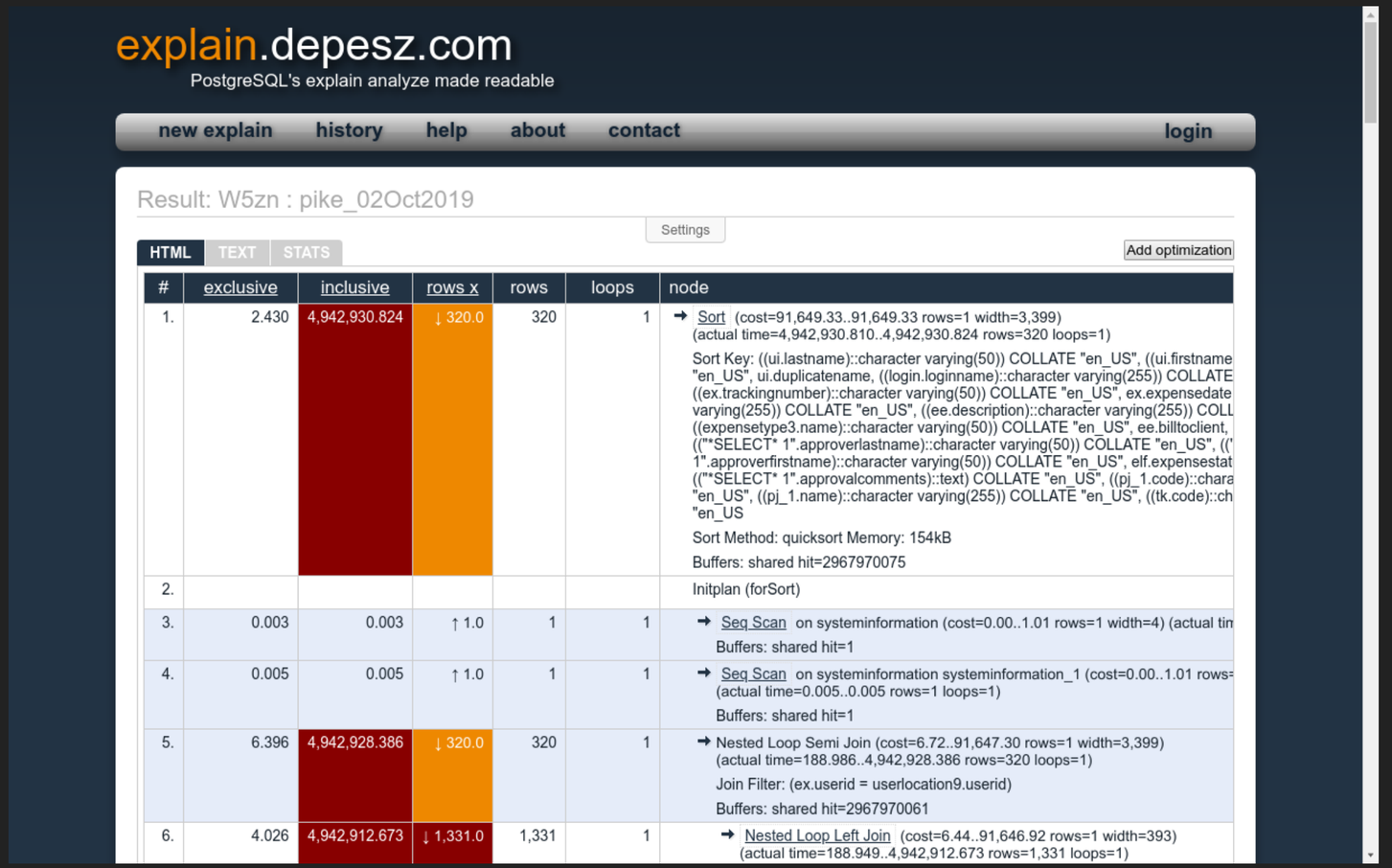
EXPLAIN

Et ses plans d’exécution…

```
 Limit  (cost=1.27..3878.21 rows=5 width=172) (actual time=0.245..2.544 rows=5 loops=1)
 ->  Nested Loop  (cost=1.27..48075.41 rows=62 width=172) (actual time=0.244..2.539 rows=5 l…
       ->  Nested Loop  (cost=0.84..2420.02 rows=65 width=85) (actual time=0.137..0.151 rows…
             ->  Nested Loop  (cost=0.42..2356.20 rows=5 width=85) (actual time=0.118..0.119…
                   ->  Seq Scan on top_challenge_list  (cost=0.00..30.26 rows=58 width=57) (…
                         Filter: (is_active AND ((template_challenge)::text = 'top_turnover'…
                         Rows Removed by Filter: 26
                   ->  Index Scan using ref_people_xperf1 on ref_people  (cost=0.42..40.09 r…
                         Index Cond: (id_int = top_challenge_list.id_int_manager)
                         Filter: (is_active AND (id_statut <> 2) AND (COALESCE(id_qualificat…
                         Rows Removed by Filter: 4
             ->  Index Scan using ref_genealogy_xperf5 on ref_genealogy  (cost=0.42..12.56 r…
                   Index Cond: (id_int = ref_people.id_int)
                   Filter: is_active
       ->  Index Scan using ref_people_xperf1 on ref_people filleuls  (cost=0.42..0.82 rows=…
             Index Cond: (id_int = ref_genealogy.id_int_level)
             Filter: (is_active AND (id_type = ANY ('{5,14}'::integer[])))
             Rows Removed by Filter: 7
       SubPlan 1
         ->  Aggregate  (cost=361.46..361.47 rows=1 width=8) (actual time=0.233..0.233 rows=…
               ->  Index Scan using ref_transaction_xperf4 on ref_transaction  (cost=0.42..3…
                     Index Cond: (id_int_agent_out = filleuls.id_int)
                     Filter: (is_active AND (date_acte IS NOT NULL) AND (date_acte >= top_ch…
                     Rows Removed by Filter: 100
       SubPlan 2
         ->  Aggregate  (cost=373.99..374.00 rows=1 width=8) (actual time=0.177..0.178 rows=…
               ->  Index Scan using ref_transaction_xperf3 on ref_transaction ref_transactio…
                     Index Cond: (id_int_agent_in = filleuls.id_int)
                     Filter: (is_active AND (date_acte IS NOT NULL) AND (date_acte >= top_ch…
                     Rows Removed by Filter: 102
Planning Time: 2.916 ms
Execution Time: 2.900 ms
```

Pas facile à lire, hein ?

explain.depesz.com



#	exclusive	inclusive	rows x	rows	loops	node
1.	2.430	4,942,930.824	↓ 320.0	320	1	→ Sort (cost=91,649.33..91,649.33 rows=1 width=3,399) (actual time=4,942,930.810..4,942,930.824 rows=320 loops=1) Sort Key: ((ui.lastname)::character varying(50)) COLLATE "en_US", ((ui.firstname "en_US", ui.duplicatename, ((login.loginname)::character varying(255)) COLLATE ((ex.trackingnumber)::character varying(50)) COLLATE "en_US", ex.expensedate varying(255)) COLLATE "en_US", ((ee.description)::character varying(255)) COLL ((expensetype3.name)::character varying(50)) COLLATE "en_US", ee.billtoclient, (("*SELECT* 1".approverlastname)::character varying(50)) COLLATE "en_US", ((1".approverfirstname)::character varying(50)) COLLATE "en_US", elf.expensestat (("*SELECT* 1".approvalcomments)::text) COLLATE "en_US", ((pj_1.code)::chara "en_US", ((pj_1.name)::character varying(255)) COLLATE "en_US", ((tk.code)::ch "en_US Sort Method: quicksort Memory: 154kB Buffers: shared hit=2967970075
2.						Initplan (forSort)
3.	0.003	0.003	↑ 1.0	1	1	→ Seq Scan on systeminformation (cost=0.00..1.01 rows=1 width=4) (actual tim Buffers: shared hit=1
4.	0.005	0.005	↑ 1.0	1	1	→ Seq Scan on systeminformation systeminformation_1 (cost=0.00..1.01 rows= (actual time=0.005..0.005 rows=1 loops=1) Buffers: shared hit=1
5.	6.396	4,942,928.386	↓ 320.0	320	1	→ Nested Loop Semi Join (cost=6.72..91,647.30 rows=1 width=3,399) (actual time=188.986..4,942,928.386 rows=320 loops=1) Join Filter: (ex.userid = userlocation9.userid) Buffers: shared hit=2967970061
6.	4.026	4,942,912.673	↓ 1,331.0	1,331	1	→ Nested Loop Left Join (cost=6.44..91,646.92 rows=1 width=393) (actual time=188.949..4,942,912.673 rows=1,331 loops=1)

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explain.depesz.com

- Existe depuis longtemps,
- Largement reconnu et utilisé,
- Maintenu (développement actif),
- Pratique et simple.

explain.depesz.com

Seulement voilà…

- Pas très sexy,
- Affichage limité,
- Pas intégrable,
- Sur le web.

PEV

POSTGRES EXPLAIN VISUALIZER

tatiyants.com/pev

tatiyants.com/pev

- Plébicité (github 2.3k ★),
- Sexy, moderne,
- Mise en évidence des informations,
- Pas de stockage.

tatiyants.com/pev

Seulement voilà…

- Abandonné,
- Pas intégrable.

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Les besoins

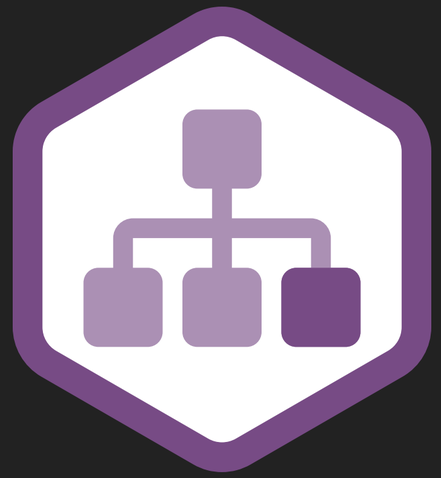
- Intégration dans d’autres outils (*TemBoard*, *DebugToolbar*)
- Mise à jour (versions de PostgreSQL)
- Ajout fonctionnalités

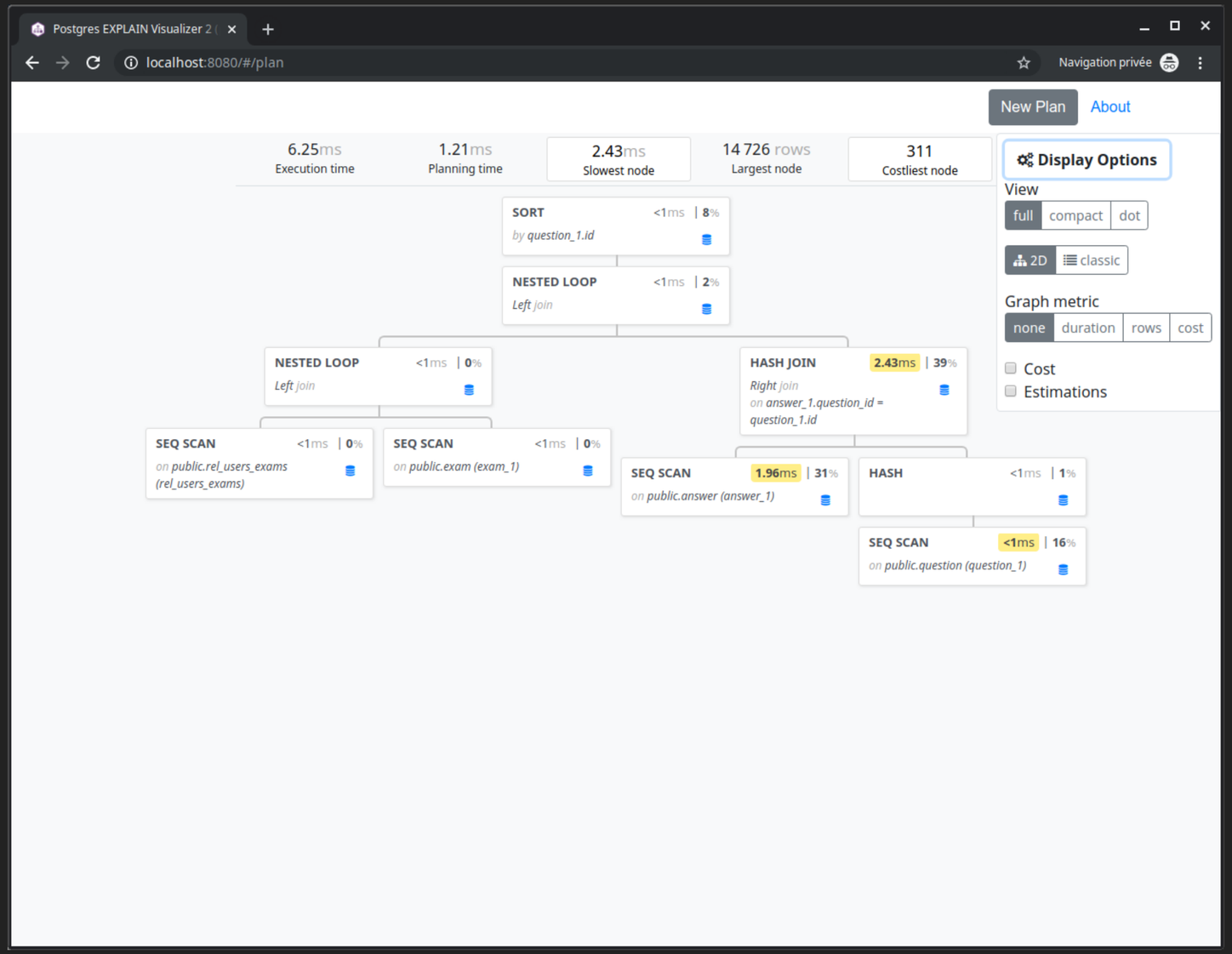
Décision

POC réécriture de PEV

➜ très rapide car code bien écrit

Please Welcome PEV2!





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PEV2

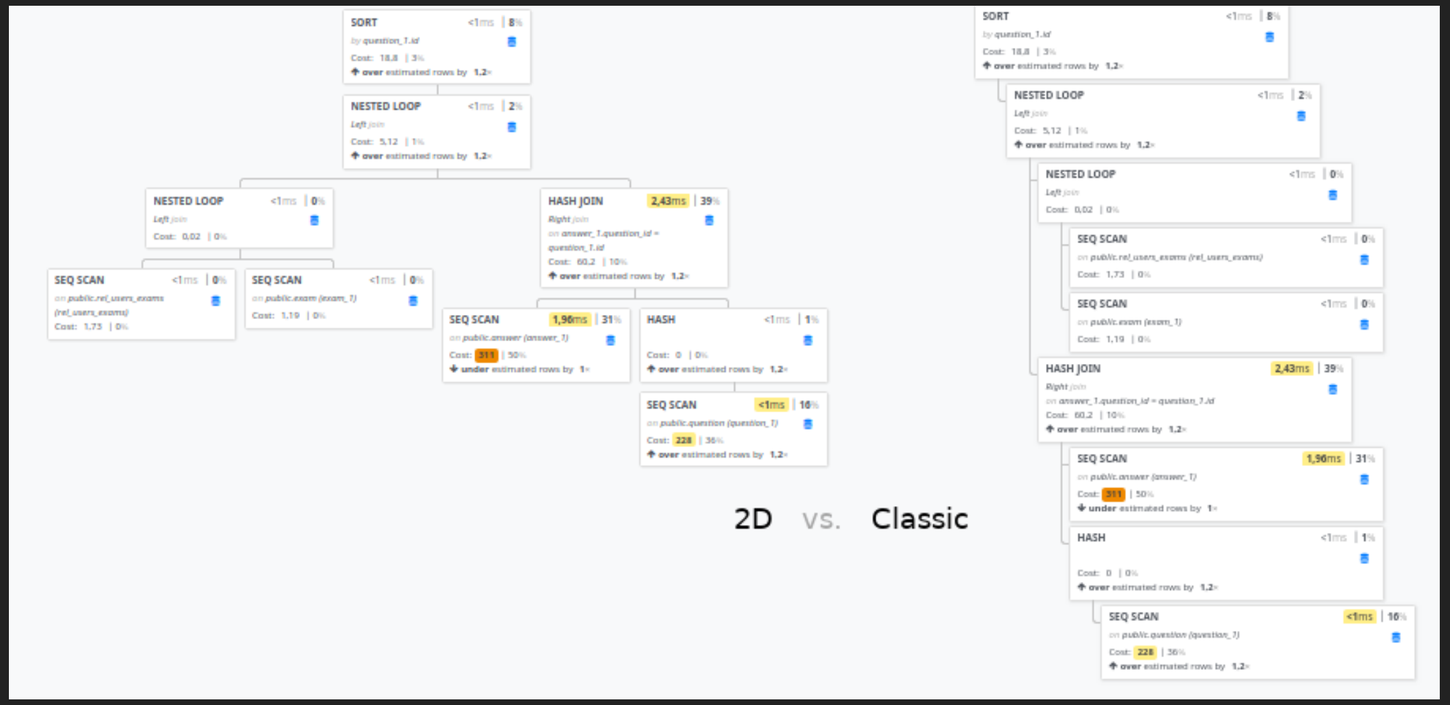
NOUVELLES FONCTIONNALITÉS & DIFFÉRENCES

TEXT PARSING

“ Si c’est pas capable de lire un plan au format TEXT, j’m’en servirai pas. ”

Guillaume L.

VIEW OPTIONS



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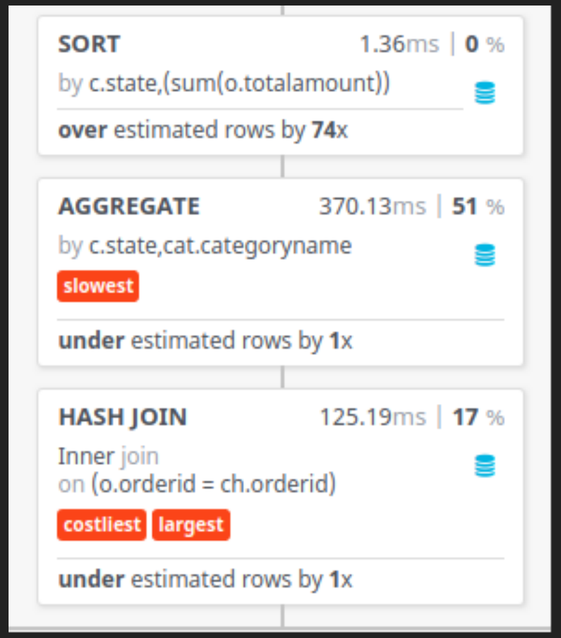
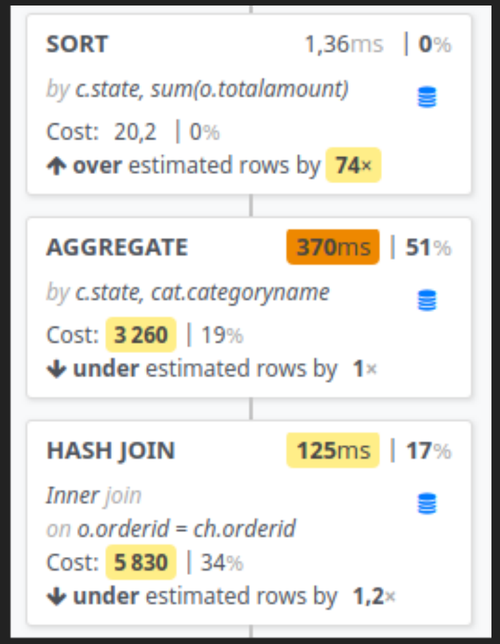
PARALLELISM

MISE EN ÉVIDENCE

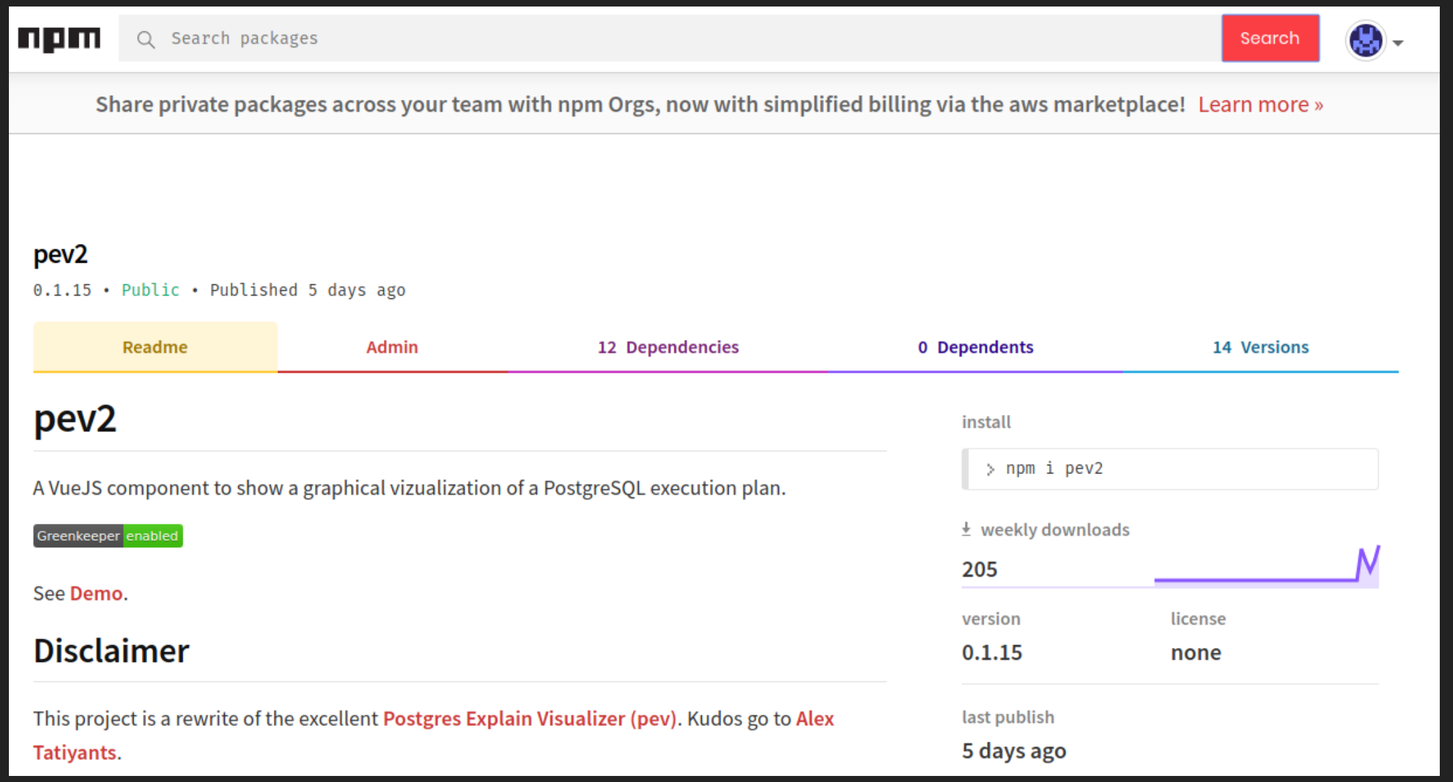




(PEV était limité aux superlatifs)

Utilisation comme composant

DISPONIBLE SUR NPM



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INTÉGRATION

```
<div id="app">
  <pev2 :plan-source="plan" :plan-query="query"></pev2>
</div>
```

(résumé)

INTÉGRATION

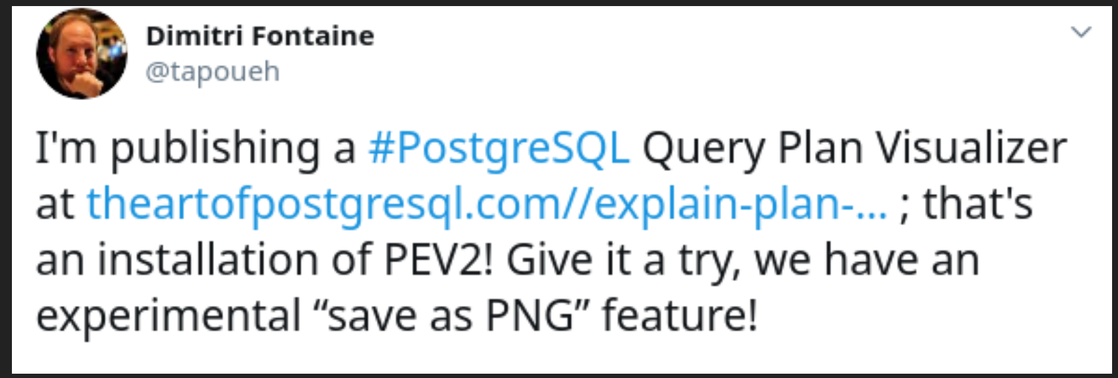
INTÉGRATION

Application de démo dans le dépôt github.

dalibo.github.io/pev2

fonctionne dans le navigateur, pas de rétention

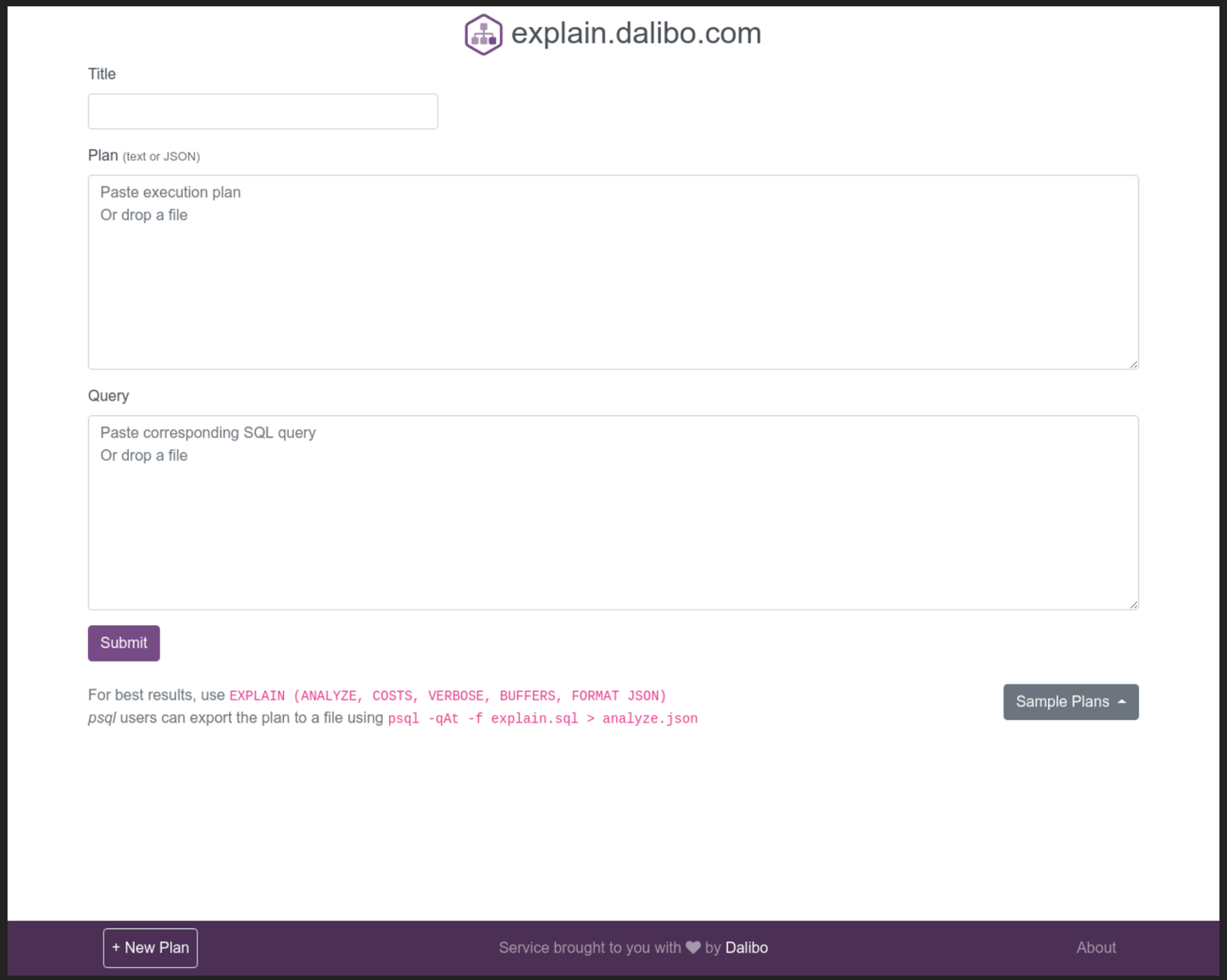
INTÉGRATION



À PARTAGER

explain.dalibo.com

Brought to you with ♥ by Dalibo ;-)



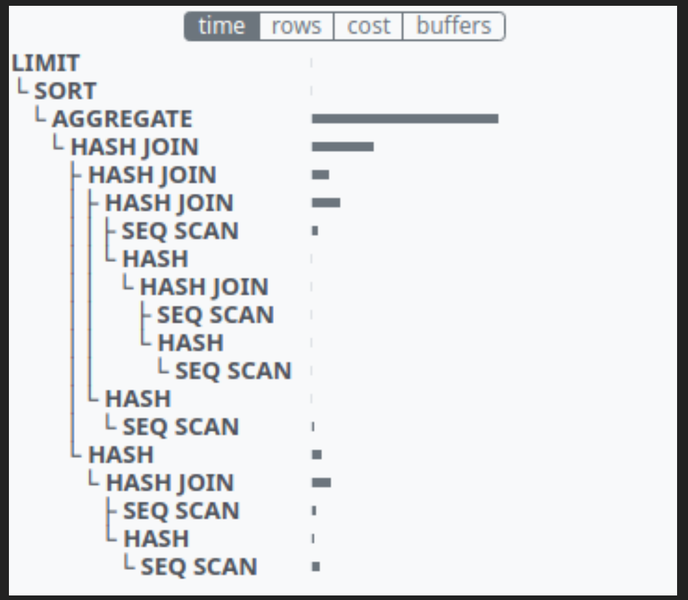
explain.dalibo.com

Vous pouvez envoyer vos plans en POST.

```
$ curl -Ls -w %{url_effective} -d '{"plan":"Result  (cost=0.00..0.01 rows=1 width=32)"}'
-H "Content-Type: application/json" -X POST https://explain.dalibo.com/new
-o /dev/null | xargs xdg-open
```

À VENIR

Diagramme (vue synthétique)



Feedbacks and contributions are welcome!

Pierre Giraud

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 PEV2 on github

 pgira