

# Perl and PostgreSQL

David Fetter <http://fetter.org/>

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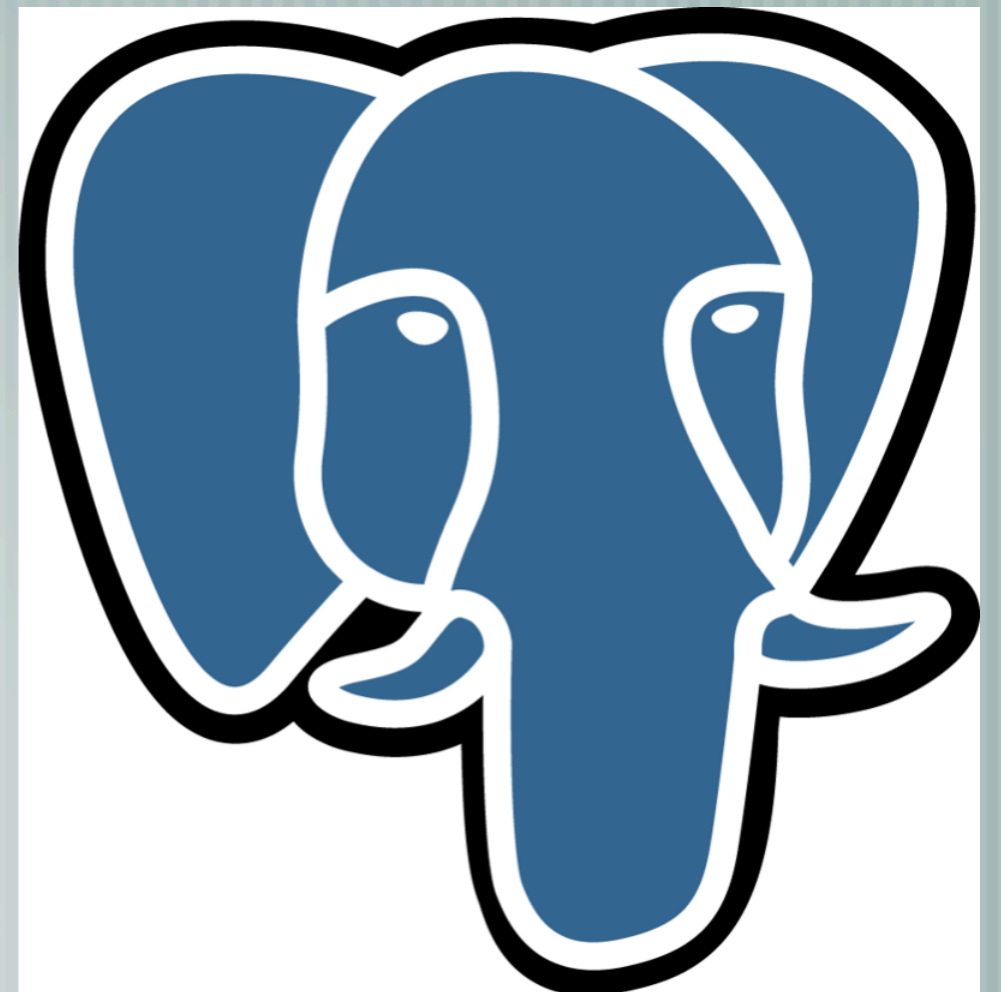
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# Perl

The Camel We Know and Love



# PostgreSQL



# Procedural Languages

- [ PL/PgSQL
- [ PL/Perl(U)
- [ PL/Ruby(U)
- [ PL/Java(U)
- [ PL/Haskell(U)?

# The Trust Issue

- [ **Untrusted**

- Can open pipes, filehandles

- Superuser

- [ **Trusted**

- Can't

- Regular user

# Perl and Postgres: The Usual

```
#!/usr/bin/env perl
```

```
use strict;
```

```
use warnings;
```

```
use DBI;
```

```
my $dbh = DBI->connect('dbi:Pg:dbname=wow','user','secret',  
    {RaiseError => 1, AutoCommit => 0});
```

```
# Fun stuff follows...
```

# Still Usual (1/3)

```
use Proc::ProcessTable;
my $t = new Proc::ProcessTable;
my $p = shift ( @{ $t->table } );
my @fields = ( );
```

# Still Usual (2/3)

```
foreach my $f ($t->fields) {  
    if ($p->{$f} =~ m/-?\d*\.\?\d+/) {  
        push @fields, "$f FLOAT8";  
    } elsif ($p->{$f} =~ m/^-?\d+$/ ) {  
        push @fields, "$f INT8";  
    } else {  
        push @fields, "$f TEXT";  
    }  
}
```

# Still Usual (3/3)

```
print <<CREATE_TYPE;
CREATE TYPE process_table_type AS (
    @ {[ join( ", \n          ", @fields) ] }
);
CREATE_TYPE
```

# Down the Rabbit Hole

```
$ psql yapc
```

```
Welcome to psql 8.1.3, the PostgreSQL  
interactive terminal.
```

```
...
```

```
yapc=> \set mptt `./make_process_table_type.pl`
```

```
yapc=> :mptt
```

```
CREATE TYPE
```

# The PL/PerlU Function

```
CREATE OR REPLACE FUNCTION get_ps ()  
RETURNS SETOF process_table_type  
LANGUAGE plperl AS  
$PERL$  
    use Proc::ProcessTable;  
    my $proctab = new Proc::ProcessTable;  
    return $proctab->table;  
$PERL$;
```

# A Query

```
SELECT *  
FROM  
    pg_class "c1",  
    pg_class "c2",  
    pg_class "c3";
```

# What is happening?!?

```
SELECT a.current_query, MAX(p.time)
FROM
    pg_stat_activity AS "a"
JOIN
    get_ps() AS "p"
    ON (a.procpid = p.pid)
GROUP BY a.current_query;
```

# Aha!

current_query	time
SELECT *	
FROM	
pg_class "c1",	
pg_class "c2",	
pg_class "c3";	195290000

(1 row)

# Obrigado!

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