

PL/Parrot and PL/Perl6

Parrots and Butterflies in your Database

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Parrot Virtual Machine

- Process (Application) Virtual Machine
- Register-based
- Continuation Passing Style
- Design Goals
 - Pluggable
 - Interoperable
 - Dynamic

Rakudo Perl 6

- Most active implementation of Perl 6
- Implements $\sim 80\%$ of the spec
- Currently uses Parrot as a backend, but plans to support others
- Stable release series is Rakudo Star, dev release every month

Why Embed Parrot VM in PostgreSQL?

- PL's are (very) hard to write and maintain
- Framework for DSL's
- Platform independent, fast, stored procedures
- Allow various PL's to communicate
- Freeze/thaw subtransaction-level states

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@dukeleto

History of PL/Parrot

Current Features

- PL/PIR and PL/Perl6
- Pass and return basic datatypes
- Basic security model (Don't do that)
- Growing Test Suite
- Enthusiastic and friendly community
- Coolest Feature: Use Perl 6 grammars in PostgreSQL!

Bugs

- Documentation
- SPI
- Triggers
- Parrot Bugs
 - IMCC Syntax Errors
 - Security API

PL/PIR Example 1

```
CREATE FUNCTION test_float_add(float) RETURNS float AS $$  
    .param num x  
    x += 5  
    .return(x)  
$$ LANGUAGE plparrot;
```


Installing PL/Parrot: Method 1

- Install Rakudo or Parrot
- `# parrot_config` needs to be in your `$PATH`
- One of:
 - `git clone git://github.com/leto/plparrot.git`
 - `wget http://icanhaz.com/plparrot0.20`
 - `cd plparrot`
 - `export PGPORT=5555 # if necessary`
 - `make install installcheck # might need sudo`
 - `make test_plperl6 # Run PL/Perl6 tests`

Future Goals

- Tools to help create a new DSL with PL/Parrot
- Easy onramps to add new languages to PL/Parrot

Get involved!

- Try PL/Parrot on your system and submit detailed bug reports
- Fork on github and hack on stuff!
- Help with GitHub Issues
- #plparrot on freenode
- <http://pl.parrot.org>

Thanks

- PL/Parrot team:
 - David Fetter, David E. Wheeler, Joshua Tolley, Daniel Arbelo Arrocha, Dave Olszewski
 - AKA davidfetter++, theory++, eggyknap++, darbelo++, cxreg++
- Everyone working on Parrot Virtual Machine, Perl 6 and PostgreSQL
- Especially (Moritz Lenz) moritz++, (Peter Lobsinger) plobsing++ and (Stephen O'Rear) sorear++, for great advice and help

Resources

- <http://pl.parrot.org>
- <http://parrot.org>
- @parrotvm / !parrot on twitter/identi.ca
- @dukeleto / @leto on twitter/identi.ca