

A Visual Introduction To Parrot Virtual Machine

Jonathan "Duke" Leto
Community Manager
Parrot Virtual Machine
<http://parrot.org>



What is Parrot, really?

Parrot is many things:

- A culture
- A collection of languages
- A virtual machine to run said languages
- A set of tools to write new languages
- A playground for research
- A second cousin to Perl 6

Parrot is what you want it to be.

The Parrot Onion

ONION diagram

PMC is for Cookie ...

PMC = Parrot Magic Cookie a.k.a. Objects
Serious people prefer to call them
PolyMorphic Containers



PMC is for Cookie ...

All PMCs follow a "meta-recipe"

- _ cups of _ flour
- _ _ eggs
- _ cups of _ chocolate chips
- _ cups of _ sugar
- _ sticks of _ butter
- _ spoons of _ butter

PMC is for Cookie ...

Some people like really sweet, dark chocolate chip, peanut butter cookies.

- 2 cups of white flour
- 2 organic eggs
- 1 cup of dark chocolate chips
- 3 cups of cane sugar
- 2 sticks of unsalted butter
- 3 spoons of peanut butter

PMC is for Cookie ...

OH NOES! Some people are allergic to peanut butter, dislike processed flour and prefer milk chocolate! Almond butter is a delicious replacement for peanut butter.

- 2 cups of wheat flour
- 2 organic eggs
- 1 cup of milk chocolate chips
- 3 cups of cane sugar
- 2 sticks of unsalted butter
- 3 spoons of almond butter

The meta-recipe is actually a VTABLE!

VTABLE = virtual tables

Examples of actual VTABLEs:

- `get_integer` - get integer representation of PMC
- `set_integer` - set integer representation of PMC
- `get_number` - get numeric/float representation
- `set_number` - set numeric/float representation
- `elements` - get the number of elements

Just like no recipe uses every ingredient in your fridge,
each PMCs does not implement every VTABLE.

Continuation Passing Style

No stacks!



Resources

- <http://docs.parrot.org>

Thanks!

- foo