

^P.\*

# The future of dynamic languages

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# Dynamic Languages

- PHP
- Python
- Perl
- Ruby
- Tcl
- ...

# PHP

- First version in 1995
- Web development
  - Low end – virtually everything
  - Mid-range
  - High-end (e.g. Lufthansa)
- Serious competitor of JSP and ASP
- ...



# Tcl

- Since 1988
- Mostly know as Tcl/Tk
- Controlling external devices
  - Networking devices
  - Electronic devices
  - Satellites
- GUI Applications (through Tk)
- AOL server – America Online



# Python

- Web application programming
- GUI based applications
- “A dynamic version of Java”
- Some very large applications built on Python
- Google uses it...



# Ruby

- New (first release in 1995)
- Object Oriented in every aspect (even data)
- Small (footprint, community)
- Very attractive



# Perl

- v1.0 in 1987
- v 5.8 in 2005



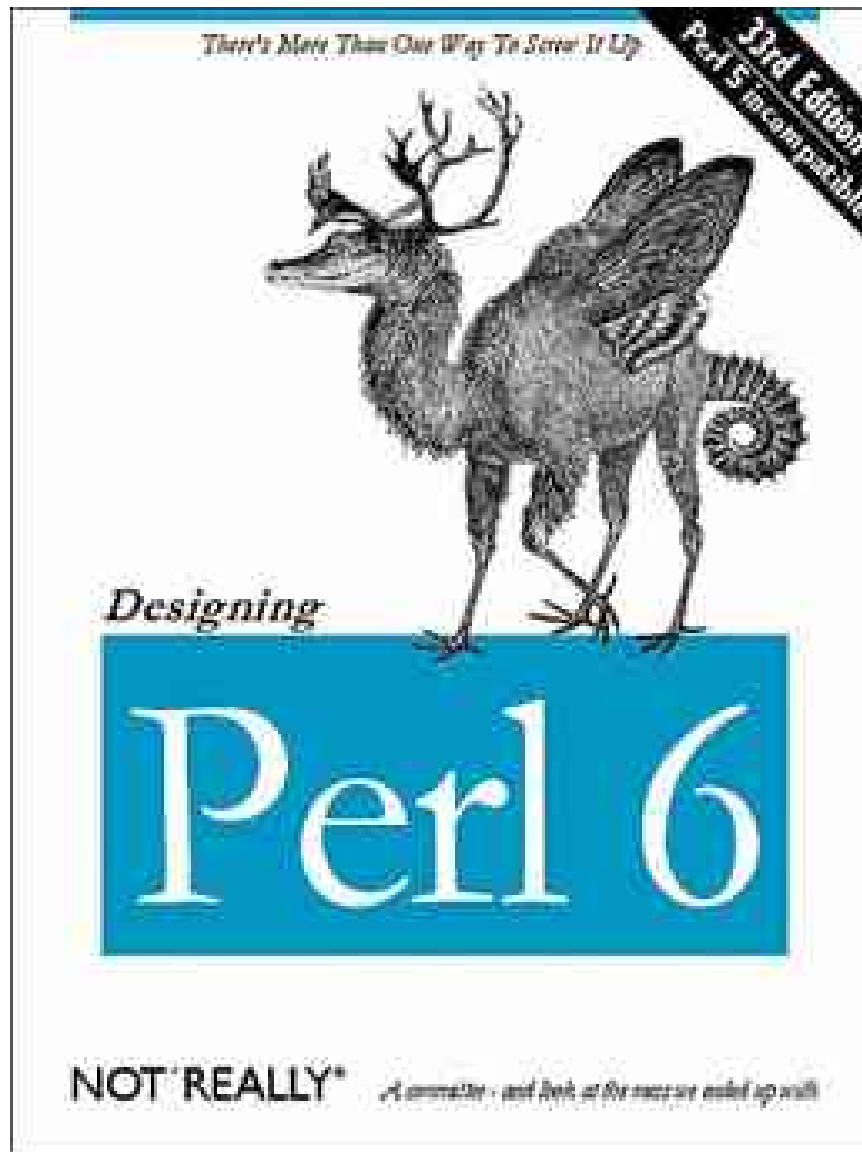
# Perl





# Perl 6

- It is the best thing after sliced bread...
- It unites all the features of the other languages...
- ... and more !
- It even has a new maskot...



# Challenge #1

- Perl 6 is not compatible with Perl 5
- Will we lose all the code base and CPAN?



# Challenge #2

- Many languages
- Lots of overlapping problems
- Perl5 has drivers for nearly every database
- Why rewrite in PHP or Ruby ?
- Perl has over 8500 free extension (libraries)
- Let others use them from Python or Ruby...



# Parrot is Virtual Machine

- Comparable to
  - JVM
    - A number of platforms
    - But Java focused
  - .NET CLR
    - A number of languages
    - But Windows only



# Parrot VM

- Open Source
- Platform Independent
- Multi-language





**open source**



# Parrot VM - Platforms

- Linux
- Free/Net/OpenBSD
- Unix: Solaris, AIX, HP-UX
- Novell Netware
- OS X
- MS Windows
- OS400, OS390
- Apple Classic
- BeOS
- VMS
- Symbian

# Parrot VM – Multi-language

- Perl 6
- Perl 5
  - Ponie
- Python
  - Pirate
- Ruby
- PHP
- Tcl...
- Code for JVM
  - Java
- Code for .NET CLR
  - C#
  - VB.NET
  - ...

# Pugs

- Perl 6 compiler
- Written in Haskell
- It is already working
- Fun
- Can use embedded Perl 5



# Pugs backend

- So Pugs can run Perl 6 code now on its own
- Or compile it to Haskell
- Or to Parrot
- Or to Perl 5
- Or even to JavaScript  
and run in your browser



# Pugs frontend

- Currently only Perl 6
- But Guido can write a Python front-end
- And Matz a Ruby front-end



# Get involved in Parrot

- Learn C
- Learn Assembly (PASM and PIR)
- Join the mailing list
- Start hacking



# Get involved in Pugs

- Talk to us in the break
- Read the web sites
- Join us on IRC
- Start coding in ^P.\*



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Thank You

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# References

- Parrot: <http://www.parrotcode.org/>
- Parrot in Detail: <http://www.parrotcode.org/talks/ParrotInDetail2.pdf>
- Perl: <http://www.perl.org/>
- Ruby: <http://www.ruby-lang.org/en/>
- Python: <http://www.python.org/>
- PHP: <http://www.php.net/>
- ActiveState White Paper: <http://www.activestate.com/Company/NewsRoom/whitepapers.plex>
- The Parrot Logo: <http://wardley.org/computers/parrot/logo.html>
- Pirate: <http://pirate.tangentcode.com/>
- Ponie <http://www.poniecode.org/>
- Pugs <http://www.pugscode.org/>