Pugs
Perl 6 For Real
http://pugscode.org/
Autrijus Tang
CUFP 2005, Tallinn
Perl is ergonomic
P is for Practical
Manipulexity & Whipuptitude
Abstraction → Sexy
Closures
Bless / Tie
BEGIN block
Shorthand → Natural
Regex Contexts
$_ as Topic
Stepping sideways
CPAN is versatile
No coding = Best coding
Smoke Testing
Issue Tracking
Rating & Discussion
Package Management
Vocabulary > Syntax
Addictive

Super glue
Jenga Syndrome
Perl 6 is powerful
Lazy Evaluation
Rebindable Grammar
Dependent
Constrained
Soft Typing
Traits

Metamodel
MMD on Type & Value
Syntactic Aspartame without Bloat
use perl5:DBI;
use jsan:DOM;
...but it stayed Imaginary for 5 years
Perl6::Rules
P6C/PIR
PGE/PAST
Deadlocked: Insufficient Manipulexity
Haskell is fantastic
Powered by Ph.D.
SVK steals from the best: Darcs
“The Dream that stuff are made of”

“An alien language”
work in C
Terabytes of AFP
Evil Binary Format
Old AIX machine
Parse::AFP
Prototype in perl5
Leaks horribly
Hard to refactor
OpenAFP.hs
30 days
3000 lines
Highly efficient
touchForeignPtr
unsafeInterleaveIO
WriterT ReaderT IO
3-arg class with Fundeps
DSL, TH, Generics
(Kudos to #haskell)
Feb 1st
TaPL arrived as an exercise...
Pugs is expansive
Feb 6th

Primitive Interpreter

\[(1|2) + (3|4) \rightarrow (4|5|6)\]

Parsec.Expr
Feb 16th
Imperative runtime
say "Hello, world"
ContT ReaderT
Feb 23rd
Test.pm runs
is (1+1, 2, 'add')
10,000 tests today
Mar 19th
PCRE Regex
s:p5:g/x/Y/; hsreregex
Apr 26th
BEGIN blocks

use fp;

unsafePerformIO
May 25\textsuperscript{th}
Embedded Perl5/Parrot
AddHandler mod\_pugs
FFI & hsc2hs
Jun 24th
Perl6→PIL→Parrot make smoke-pir
GADT & Fundeps
Jul 14th

PIL → Perl5

make smoke-perl5

DrIFT
Jul 17th
PIL → Javascript
make smoke-js
Passes 90% tests now
Aug 1st
Self-hosting Object Model
class Class is Object;
Ported to JS, P5, P6
Sep 21\textsuperscript{st}
Blondie
Type inferencer
Codegen to native C
People are alive
Anarchistic Development
Arrow length

$7000^+ \text{ commits}$

$120^+ \text{ committers}$
@Larry
λcamels
Poetry
Obfuscation
JAPH
Hackathons
Taipei Vienna
Toronto Tel-Aviv
...and more
Plans are for real
Perl 6 – (Imaginary) Timeline

- Incomprehension
- Wild enthusiasm
- Despair
- Hey, what was the big deal?
- Hack, hack, hack...
- Perl 6 compiled to perl5
- First Apocalypse
- Implementation begins

Timeline:
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
6.0  Initial Release
6.2  Functions
6.28  Objects
6.283  Grammars
use pugs;
import Pugs

JSAN().use(‘pugs’)

#include <pugs.h>
CLR?
JVM?
YARV?
Visiolize
Formalize
Erdösing Wanderdekade

Feb 1st, 2006
Thank you!