

# Neue Sprachkonzepte?



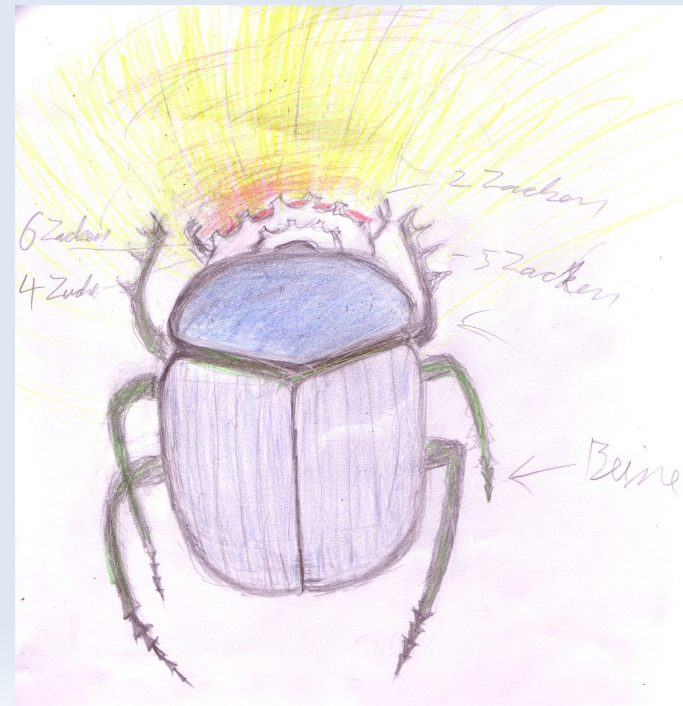
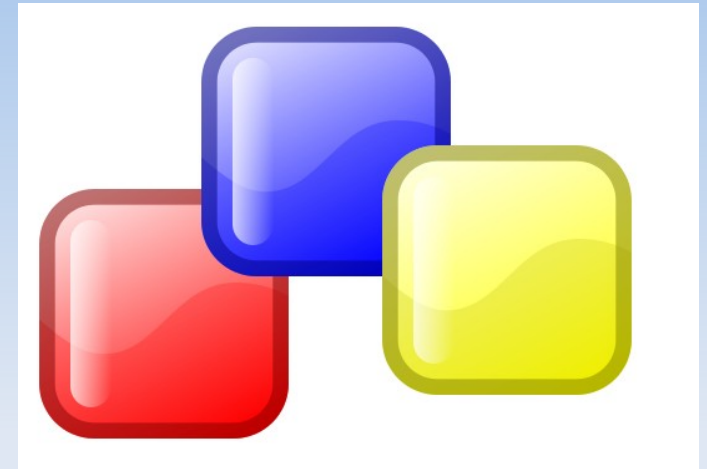
# Herbert Breunung

Kephra

WxPerl

Perl 6

# Meine Themen



# Perl 6

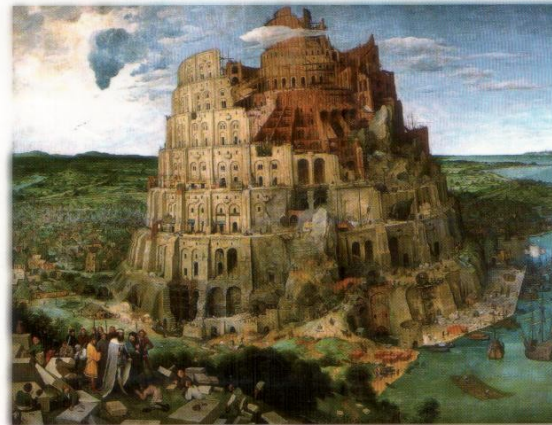


# Anstoßstein

The  
Pragmatic  
Programmers

## Sieben Wochen, sieben Sprachen

Verstehen Sie die  
modernen Sprachkonzepte



Deutsche Übersetzung von  
**O'REILLY®**

*Bruce A. Tate*  
Übersetzt von Peter Klicman

# 4 der 7 Sprachen

Ruby Prolog  
Erlang Haskell

# 4 andere Sprachen

Ruby Prolog  
Erlang Haskell

Rebol Factor  
Go Pig

# 4 gewählten Sprachen

Ruby Prolog  
Erlang Haskell

Rebol Factor  
Go Pig



# Konzepte

Mixins

Makros

Aktoren

DSL

# Danke Renee & Rolf

Mixins

Makros

Aktoren

DSL

# Konzepte

Aktoren

DSL

# 2 Probleme

Parallelität

Komplexität

# Aktoren

{ ... }  $\Rightarrow$  { ... }

# Aktoren

@c = @a >>+<< @b

# DSL

SQL, awk, LINQ, hg,

# DSL

SQL, awk, LINQ, hg, Perl 1.0



# DSL

SQL, awk, LINQ, hg, Perl 1.0

GCL

# DSL

interne

externe

# DSL

interne (pflegeleichter)

externe (ausdrucksstärker)

# Martin Fowler

For me the fundamental issue in language oriented programming is the benefit of using DSL's versus the cost of building the necessary tools to support them effectively. Using internal DSLs reduces the tool cost - but the resulting constraints on the DSL itself can also greatly reduce the benefits, particularly if you are limited to C-based languages. An external DSL gives you the most potential to realize benefits, but comes at a greater cost to design the language, build the translator, and consider tools to support programming.

# DSL

neue Schlüsselworte (LISP)

# DSL

neue Schlüsselworte (LISP)

Operatoren

# DSL

neue Schlüsselworte (LISP)

Operatoren

syntaktische Regeln

# Grammars

grammar {  
 TOP {  
 rule {  
 token {

...



# Grammars

\$~MAIN

\$~Regex

\$~Q

# DSL

\$~MAIN

\$~Regex

\$~Q

# Lösung für

# Expressiven Code

# Lösung für

## Expressiven Code

## schnelle Entwicklung

# Lösung für

Expressiven Code

schnelle Entwicklung

heterogene Umgebungen