## **Pointfrip Documentation**

2022-08-29

"PF guides the programmer in a way so that the constructed functions are always pure."

### **Design Goals**

- Infix-combinator mechanism
- with object orientation using arrays and index types (object classes)
- Vocabulary is built on a system of emergence + specialization
- FP as a nestable language strict form of structured programming
- no gotos only calls, tail recursion support
- Function level ,Type level
- Aligned with APL's right-before-left rule
- Separation into pure functions and monad effects
- Pattern Matching for Dict
- dynamic scope because only instance variables
- (out-of-the-box)

### **Precompiler + FP Interpreter**

- Type-oriented automaton (higher-order)
- Infix-combinator mechanism (infix meta combination)

# **Extensibility of the Language**

Extensibility based on the ideas of Guy Steel's "Growing a Language". the FP project is equipped with an object mechanism, so that one can define and inherit objects and classes and can address them in four different ways.

So you

- complex classes,
- fraction classes,
- interval classes,
- matrix classes

etc. can add.

There is also the possibility of meta-programming for the FP language in order to extend the scope of the language (unlike Java) in the direction that you can add your own loops and control structures.

#### **Last Changes:**

hex function implemented, pointersize function implemented, reference.rtf/.tmdx extended LGPL license, Optimized interpreter (eval) of the VM, cosmetic work on the source code Documents translated into English, outerprod implemented in matrix.txt

// (CCO)