

Meta-Ruby



Introduction



- 👁 Description
- 👁 Reasons
- 👁 Strategy
- 👁 Milestones
- 👁 Current Status

Description



- ① Metaruby is an implementation of ruby, written in ruby.
- ① It will be ruby as it currently stands, nothing (much) more.
- ① It will include a ruby to C translator to bootstrap the runtime.

Reasons



- ① Reduction of complexity
 - ① Library, parser, interpreter become much more readable
- ① Faster Development
- ① Single Mode of Thinking

Strategy



- 👁 Library
- 👁 Interpreter
- 👁 Translator

Strategy - Library



- ⑥ Adapt and extend rubicon
- ⑥ Get all/most-of the tests to fail
- ⑥ Write lots of code
- ⑥ Make the tests pass

Strategy - Interpreter



- ⑥ Use `coco/r`.
- ⑥ Switch LR to LL to increase readability.
- ⑥ Clean clean clean

Strategy - Translator



- 👁 Start with Robert Feldt's sruby paper (and finish it)
- 👁 Have an open backend in case we decide to translate to parrot

Milestones



- 👁 Basics & Infrastructure
- 👁 Library
- 👁 Parser
- 👁 Interpreter
- 👁 Translator

Milestones – Basics & Infrastructure



- 👁 Basic Porting – Generate full class/method/globals skeleton
- 👁 Parser Engine (coco/r) – Bootstraps itself
- 👁 Rubicon Tests converted and 90+% failing

Milestones - Library



- rubicon ported to metaruby (renamings mainly).
- ZArray passes all of it's rubicon tests using ruby interpreter (3 tests pass!)
- ZHash, ZFile, ZIO, ZDictionary pass all their tests
- the rest pass their tests

Milestones – Parser



- ⑥ parse.c stripped & converted to EBNF
- ⑥ Parses entire skeleton
- ⑥ Generates ASTs

Milestones - Interpreter



- 👁 Run simple ASTs
- 👁 Tests run under Interpreter

Milestones – Translator



- ⑥ Finish translation specification per sruby.
- ⑥ Walk ASTs.
- ⑥ Generate C code.
- ⑥ Library tests run and pass.

Current Status



- 👁 Infrastructure
- 👁 Tests
- 👁 Library
- 👁 Interpreter
- 👁 Translator

