

Writing VMs using PyPy

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What is PyPy?

- a fast Python interpreter with a JIT
- **a framework to write dynamic language interpreters**
- an open source project on the BSD license
- an agile project with contributors from all over the world

A bit about the architecture

- describe your VM in a **high level language**
- implement your object model, types etc.
- you get a **GC** and **JIT** for free
- with a few hints for the JIT

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PyPy's architecture

- RPython program, imported and initialized
- transformed to control flow graphs
- compiled to C -OR- JVM -OR- graphs for JIT
- this is a very high-level overview

JIT architecture

- works on the level of the **interpreter**
- by design complete
- from a single source code of the **interpreter**

Links

- morepypy.blogspot.com
- pypy.org
- #pypy on freenode