What I Hate Most About Scheme And What I'm Doing About It

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Outline

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Scheme makes my work unbearable

Scheme is so awesome

Scheme is so awesome

that I can't bear to program in anything else

... but Scheme's library support is so awful

... but Scheme's library support is so awful

that I can't bear to program in Scheme either!

Scheme > Foo Scheme

Outline

Here's my chain of reasoning:

Why are there few good libraries?

Because they are hard to create

Why are good libraries hard to create?

Partly because there is no good distribution mechanism

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No common module system

Partly because there is no good distribution mechanism

No common module system

No package manager

Partly because portable code is hard to write

Why is portable code hard to write?

Partly because there are few good libraries

Partly because there are few good libraries

Yes, this is a recursive problem

Partly because different implementations will have different bugs

So, from the bottom up,

A test suite for conformance to R5RS

(Revised^5 Report on the Algorithmic Language Scheme)

The usual unit testing thing

Open a pipe to a Scheme
Send it a form
Check that it prints what I expect
Lather, rinse, repeat

```
(* 4 5 6)          ===>  120
(min 4 8)         ===>  4
((lambda (x) (+ x x))
 4)               ===>  8
```

This is not enough

```
(sqrt 4) ===> 2     ?
(sqrt 4) ===> 2.0   ?
```

This is amazingly common

This is amazingly common

Explicit options in the Report
Varied interpretations
Bugs

So I also catalog implementation choices

```
(sqrt 4) ===>
(choice-cond
 (exact-sqrt 2)
 ((not exact-sqrt) 2.0))
```

Status