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

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Outline

1 What I Hate Most About Scheme

2 What I’m Doing About It
Outline

1. What I Hate Most About Scheme
2. What I’m Doing About It
What I Hate Most About Scheme
What I'm Doing About It

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!

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Scheme > Foo Scheme
Outline

1. What I Hate Most About Scheme
2. What I’m Doing About It
Here’s my chain of reasoning:
What I Hate Most About Scheme
What I'm Doing About It

Motivation
Action

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
Partly because there is no good distribution mechanism

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
What I Hate Most About Scheme

What I'm Doing About It

Motivation

Action

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

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This is not enough
What I Hate Most About Scheme
What I'm Doing About It

Motivation
Action

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

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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))

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What I Hate Most About Scheme
What I’m Doing About It

Motivation
Action

Status

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