#### Not-So-Foreign Functions Calling Ruby from Smalltalk GEMSTONE® Martin McClure 2011 ESUG **mware**<sup>®</sup>

# Why Foreign Functions?

#### Shared library call

#### **Distributed object system**

#### Shared library call

# **Distributed object system** Is there an in-between way? Shared library call

#### **Distributed object system**

#### Multi-language VM

#### Shared library call

#### Multi-language VM

#### MagLev: Ruby and Smalltalk in the same VM

#### How does that work?

## How does that work? An object...

# How does that work? An object... ...is an object...

How does that work? An object... ... is an object... ... is an object...

## How does that work? A class...

## How does that work? A class... ...is a class...

# How does that work? A class... ... is a class... ... is a class...

#### How does that work?

## BUT...

## How does that work? A message...

## How does that work? A message... ...is Smalltalk...

# How does that work? A message... ... is Smalltalk... ...or is Ruby.

## How does that work? A class...

How does that work? A class... ...may define different **Ruby and Smalltalk** methods...

## How does that work? A class...

How does that work? A class... ...may have different **Ruby and Smalltalk** names...

## How does that work? A class...

How does that work? A class... ...may have different **Ruby and Smalltalk** superclasses.

### **Selector Supplements** • Environment ID Number/type of sent arguments

#### Selector Supplements

 Default send environment = compile environment
 Must override this default

# Onward to the Demo

# Thanks to: Peter McLain Tim Felgentreff

# rubygems.org >25000 gems

#### maglev-gem install mailfactory



#### What's Next?

- Name "RubyService"?
- You tell us...

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