IronRuby

ironruby.net github.com/ironruby jimmy.schementi.com/blog github.com/jschementi/rubyconf2009

| 5 mins | What's IronRuby and what's it useful for? |
|---------|---|
| 10 mins | Ruby HTML script-tags |
| 15 mins | Embedding Ruby – "Scriptable" apps |
| 10 mins | State of IronRuby |

Ruby 1.8.6 compatible

- Some 1.9 features (like encoding, -19 flag)
- Does not support callcc, ObjectSpace, native extensions
 - Though local callcc is coming ...
 - Considering FFI support for native extensions

CLR 2.0 SP1 | Mono 2.0

- Browser plugin: Silverlight | Moonlight
- Windows, MacOS, major Linux distros

Terminal - bash - 87×9

jimmy-felicia-air:bin jimmy\$ mono ir.exe igem install activerecord --no-ri --no-rdoc Successfully installed activerecord-2.3.4 1 gem installed jimmy-felicia-air:bin jimmy\$



jimmy-felicia-air:bin jimmy\$ mono ir.exe irails Foo create create app/controllers create app/helpers app/models create app/views/layouts create config/environments create config/initializers create config/locales create db create create doc lib create lib/tasks create log create public/images create public/javascripts create public/stylesheets create script/performance create test/fixtures create test/functional create test/integration create test/performance create test/unit create vendor create

IronRuby at OSCON 2009 Mono, Moonlight, and scripting open source apps

What sets IronRuby apart?

A premiere implementation for Windows

- ❖ Win32, .NET, DirectX
- Systems management
- Web deployment on IIS
 - ❖ wiki.rubyonrails.org: 51% of traffic is from Windows

Browser apps

HTML and vector graphics/UI

Embedding and Scripting

Polyglot (using multiple language) and/or extensibility (exposing a language to end-users)

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Demo

<SCRIPT TYPE="TEXT/RUBY">

Silverlight 4

New features:

- Full trust applications (file-system access)
- Webcam and Microphone
- Rich Text
- Notifications
- Clipboard

45% of internet-connected Windows and Mac machines have Silverlight

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Extensibility with scripts

let everyone make your app great too

Ruby is simple enough for non-programmers

writing tiny scripts for themselves

Powerful enough for adding full features

- ecosystem for extensions develops
- deployment of fixes / new features simplified

More choices than Ruby

Python, Scheme, Clojure

Demo

FIXING THE WORST APP EVER

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IronRuby 1.0 RC1

http://ironruby.net/download

Performance

- Goal: faster than MRI
- Goal: within order-of-magnitude of JRuby

Throughput

- ***** Example: ruby-benchmark-suite
- ❖ 2x faster than MRI via RubyInstaller
- **6x** faster than MRI via One-Click Installer
- ❖ -1.5x slower than JRuby
- ❖ Need to improve a bit on this by 1.0

Startup

- Example: require 'activesupport'
- **4x** slower than MRI via RubyInstaller
- **2x** slower than Jruby
- ❖ A must-fix for 1.0 must be on par with JRuby

Compatibility

❖ Goal: > 90% passing

Must have really good reason foreach failing RubySpecs

RubySpec: 92%

♦ Language: 97%

***** Core: 91%

❖ Libraries: 93%

Libraries

❖ RubyGems: 96%

♦ ActionPack: 95%

❖ ActiveSupport: 95%

CLR Integration

❖ Goal: use majority of CLR features from Ruby without needing C# stubs

Only major missing feature

- No support for any CLR feature which depends on a CLR type actually existing (Attributes, property data binding, etc)
- ❖ OK to ship 1.0 without it

Roadmap to 1.0

- **❖** Today: 1.0 RC1
- RC2, 3, etc, will come as needed
- * RC build becomes *final* if no must-fix-for-RC bugs are accepted for a few weeks.

Work still left to do

- Startup perf: largest factor in perceived slowness
- Throughput perf: related to startup, but will focus on library implementations.
- Bugs: 50 open bugs, plus whatever bump the RC gives

Post 1.0

❖ Post 1.0 releases will resume in a 2 month cycle.

Visual Studio Integration

- Colorization, code-completion, project system, cleaner debugger, REPL, etc.
- ➤ Largest requested VS2010 feature!

IronRuby Integration In Visual Studio 2010 by

MLetterle



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ironruby-contrib

cucumber on .NET with IronRuby caricature Mocking static types with IronRuby

ironruby.rack rack-based web apps on IIS

ironruby-dbi port of dbi – enables current ActiveRecord/DataMapper SQLServer/SQLite# to just work with IronRuby

ironmvc IronRuby support for ASP.NET MVC applications

gestalt replacing JavaScript with Ruby (now merged into IronRuby)

magic a UI framework for Ruby

Questions?

ironruby.net

jimmy.schementi.com/blog