

JRuby



Monika Mevenkamp

monikam

333C

[J] Ruby

1995 Matz(にっき) -Yukihiro Matsumoto

Ruby interpreter in C

2001 JRuby = Ruby on JVM

Jan Arne Petersen

2006 Ruby takes off

Why [J] Ruby ?

Best of

Perl, Smalltalk, Eiffel, Ada, Lisp

Lots of **Gems** make stuff easy

```
require 'http';      body = HTTP.get(url).to_s
require 'json';      array = JSON.parse(body).each do |doc|
    ....
end
require 'sshkit/dsl'; servers = %w{usr@svr1.edu kunde@svr2.edu}
    on servers do |host|
        puts "#{host} #{capture(:uptime)}"
    end
```

6412 gems at rubygems.org

Gems / Applications

RAILS

Web Framework

Cucumber.io

software testing framework

Capistrano

code deployment

Vagrant

VM manager

Puppet & Chef

IT Infrastructure management

MetaSploit

Penetration Testing

JRuby vs Ruby

JRuby = Ruby + ability to call
Java code from Ruby
Ruby code from Java

Ruby 2.2.2 latest ruby version

JRuby 1.7.20 compatible with Ruby 1.9.3

JRuby vs Java

DSPACE - 201466 Java lines

Java Development Cycle

- edit
- mvn package **119 sec**
- ant update
- run

JRuby Development Cycle

- start interactive interpreter
- load Java classes **2.5 sec**
- type commands

My First Use

Task:

Generate a report of the most downloaded items

Available Data:

Solr index with database ids

Generated Report:

N-DOWNLOADS: 55

BITSTREAM-ID: 17397

ITEM-ID: 9076

ITEM-HANDLE: 88435/dsp0147429929g

ITEM-TITLE: DANGER, JOKING HAZARD: Humor, Norms, ...

COLLECTION-ID: 398

COLLECTION-HANDLE: 88435/dsp01cz30ps722

My First Use

```
jars = Dir[File.join("/dspace/lib", '*.jar')];
jars.each {|j| require j }
java_import 'org.dspace.content.Bitstream'

solr_results.each do |r|
  bit = Bitstream.find(r.id)
  item = bit.getParent()
  title = item.getTitle()
  item_handle = item.getHandle()
  ....
end
```


jirb: start experimenting

```
jirb> require 'irb/completion'
```

```
jirb> Collection.fi<TAB>
```

Collection.field_accessor	Collection.field_reader
Collection.field_writer	Collection.find
Collection.findAll	Collection.findAuthorized
Collection.find_all	Collection.find_authorized

[J] Ruby

Fast Development
Gems make it Easy
Great for Experiments

JRuby lets you script your Java code base