



How to build a multilingual Rails application

~ Katsuyoshi Yabe ~



Multilingual Rails Application

- Rails I18n API
- Database Design
- Image, CSS & Link

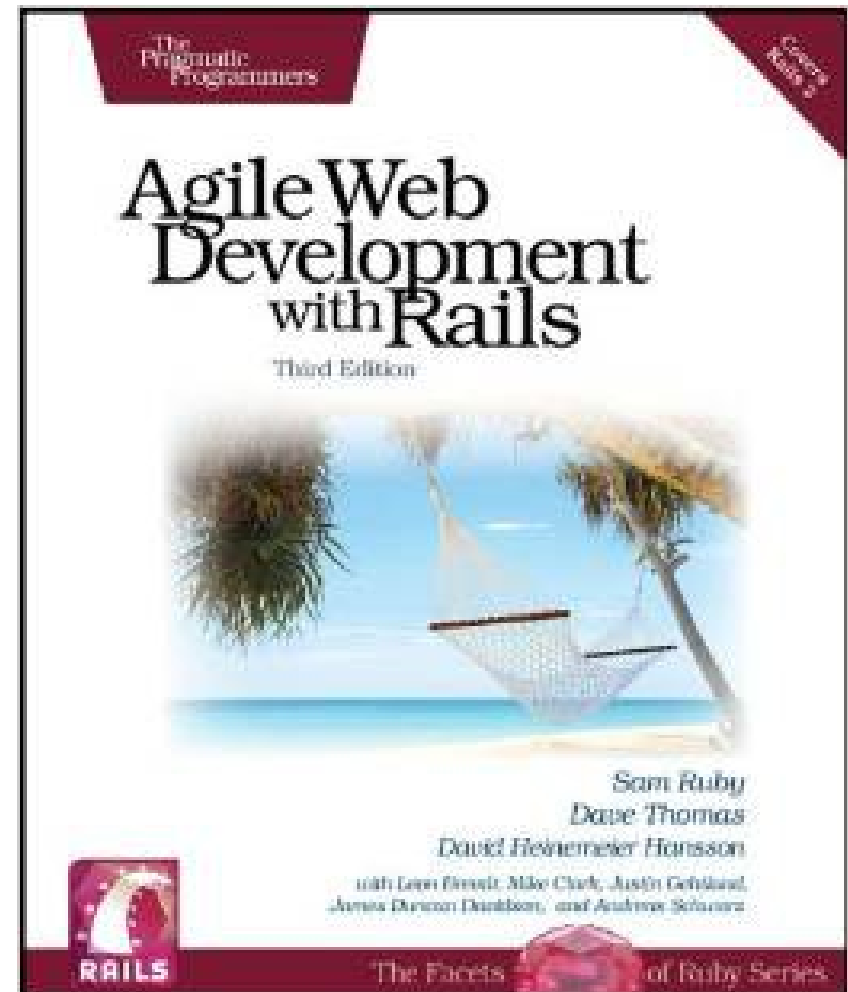


Multilingual Rails Application

- **Rails I18n API**
- Database Design
- Image, CSS & Link

Textbook

- Agile Web Development with Rails (3rd Edition)
- Chapter 15
Internationalization
- Latest
Agile Web Development with Rails 4 (Facets of Ruby)
October 2013
ISBN 978-1937785567





Rails I18n API

- Create `set_language` method
- Set filter for `set_language` (`application_controller`)
- Prepare `config/locales/<%= locale %>.yml` file
- Use `i18n.t`, `i18n.l` helpers in view files

Method “set_language”

lib/wzs/multilang.rb

```
-*- coding: utf-8 -*-  
  
module Wzs  
  
  #*****  
  # include method - setting language  
  #*****  
  def set_language  
    I18n.locale = params[:locale] || I18n.default_locale  
  end  
end
```

Set before_filter for "set_language"

app/controllers/application_controller.rb

```
# -*- coding: utf-8 -*-  
class ApplicationController < ActionController::Base  
  
  protect_from_forgery with: :exception  
  
  require 'wzs/multilang'  
  include Wzs  
  before_filter :set_language  
  
end
```

Generate controller, then setup

- rails generate controller top index

```
# -*- coding: utf-8 -*-  
Rails.application.routes.draw do
```

```
  root 'top#index'
```

```
  scope "[:locale]" do  
    get '/(index.:format)' => "top#index"  
  end
```

```
end
```

config/routes.rb

app/controllers/
 top_controller.rb

```
# -*- coding: utf-8 -*-  
class TopController < ApplicationController  
  def index  
  end  
end
```


config/locales/en.yml & view file

```
en:
  hello: "Hello world"
  page:
    top:
      lang: "This is English"
      withtag: "<span style='background-color:#d3cfd9;'>Tags of html
can be included</span>"
```

time:

formats:

short: "%d %b %V"

default: "%a, %<%"# -*- coding: utf-8 -*- %>

number:

currency:

format:

separator: "."

delimiter: ","

precision: 2

unit: "\$"

format: "%u%

significant: false

strip_insignific

<%= I18n.locale %>

<%= I18n.t 'hello' %>

<%= t 'hello' %>

<%= t 'page.top.hierarchy' %>

<%= raw t 'page.top.withtag' %>

<%= l Time.now %>

<%= l Time.now, :format => :short %>

<%= number_to_currency 12345 %>

config/locales/ja.yml & view file

```
ja:
  hello: "こんにちは、世界"
  page:
    top:
      lang: "これは日本語です。"
      withtag: "<span style='background-color:#d3cfd9;'>html の タグ  
を含めることができます。</span>"
  time:
```

```
    formats:
      short: "%Y年%m月%d日"
      default: "%Y年%m月%d日 %H時%M分%S秒"
```

```
  number:
```

```
    currency:
```

```
      format:
```

```
        separator: "."
```

```
        delimiter: ","
```

```
        precision: 0
```

```
        unit: "円"
```

```
        format: "%n%u"
```

```
        significant: false
```

```
        strip_insignificant
```

```
<%# -*- coding: utf-8 -*- %>
```

```
<ul>
```

```
<li><%= I18n.locale %></li>
```

```
<li><%= I18n.t 'hello' %></li>
```

```
<li><%= t 'hello' %></li>
```

```
<li><%= t 'page.top.hierarchy' %></li>
```

```
<li><%= raw t 'page.top.withtag' %></li>
```

```
<li><%= I Time.now %></li>
```

```
<li><%= I Time.now, :format => :short %></li>
```

```
<li><%= number_to_currency 12345 %></li>
```

```
</ul>
```

Rendering

/en/

en

Hello world

Hello world

This is English

Tags of html can be included

Sat, 24 Jan 2015 10:29:06

24 Jan 2015

\$12,345.00

/ja/

ja

こんにちは、世界

こんにちは、世界

これは日本語です。

html の タグを含めることができます。

2015年01月24日 10時44分32秒

2015年01月24日

12,345円

Furinkazan



NET	175g
Maker	MultiLang D
Shipping Weight	175g
Size	M,L,XL
Color	Blue, Black

```
en:
  pages: products_en.yml
  common:
    header:
      top: "Top"
      products: "Products"
      howto: "How to order"
      aboutus: "About Us"
      contactus: "Contact Us"

  sidebar:
    search: "search"
    categories: "Categories"
    products: "Products"
    to_top: "To Top ↑"

  products:
    net: "NET"
    maker: "Maker"
    weight: "Shipping Weight"
    size: "Size"
```

English
日本語

Categories

- T-shirt
- Outerwear
- Jeans
- Belt
- Shoes
- Accessories
- Others

Products

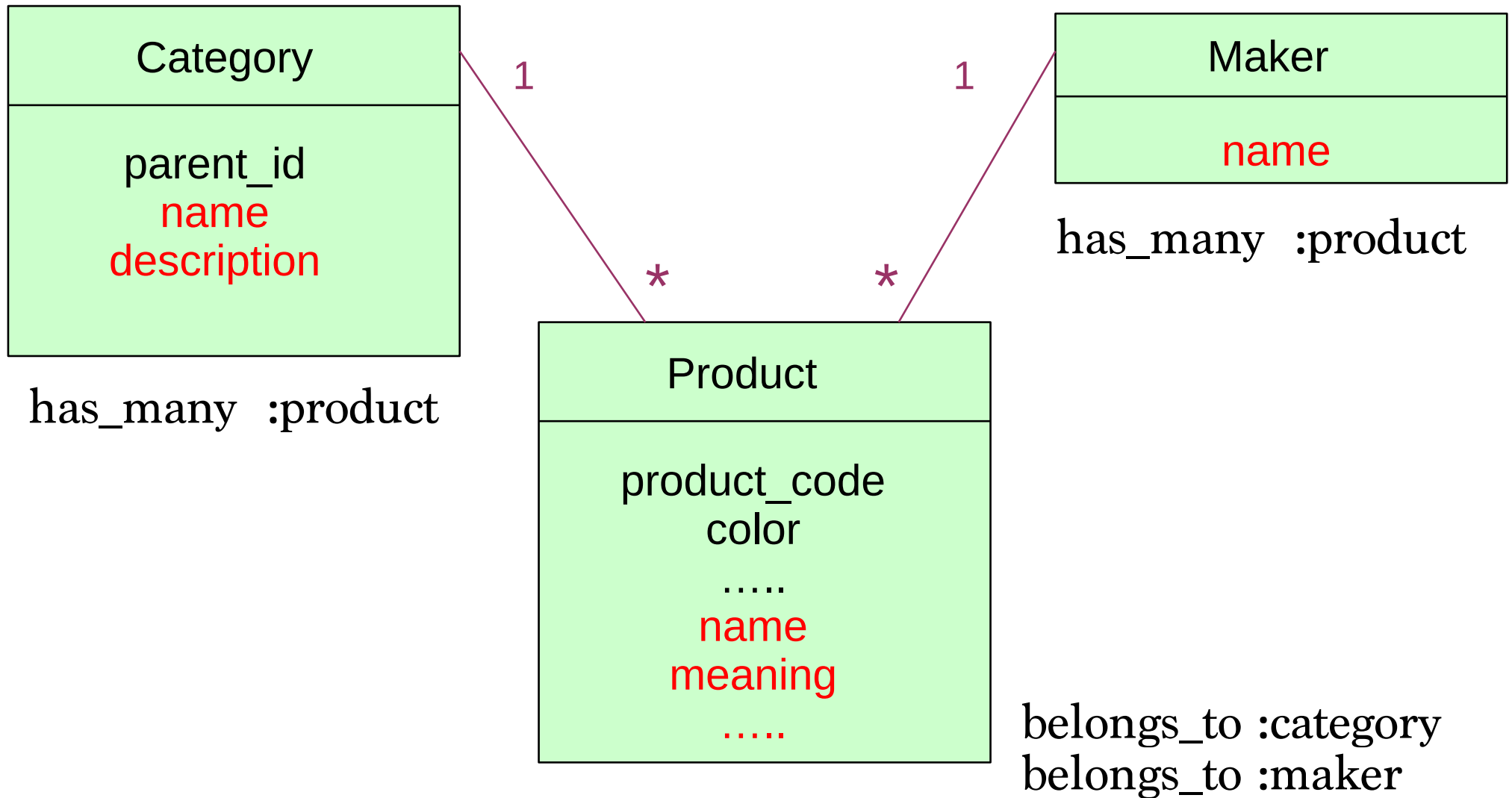
- Taco
- Horyuji
- Furinkazan
- Ninja
- Koi



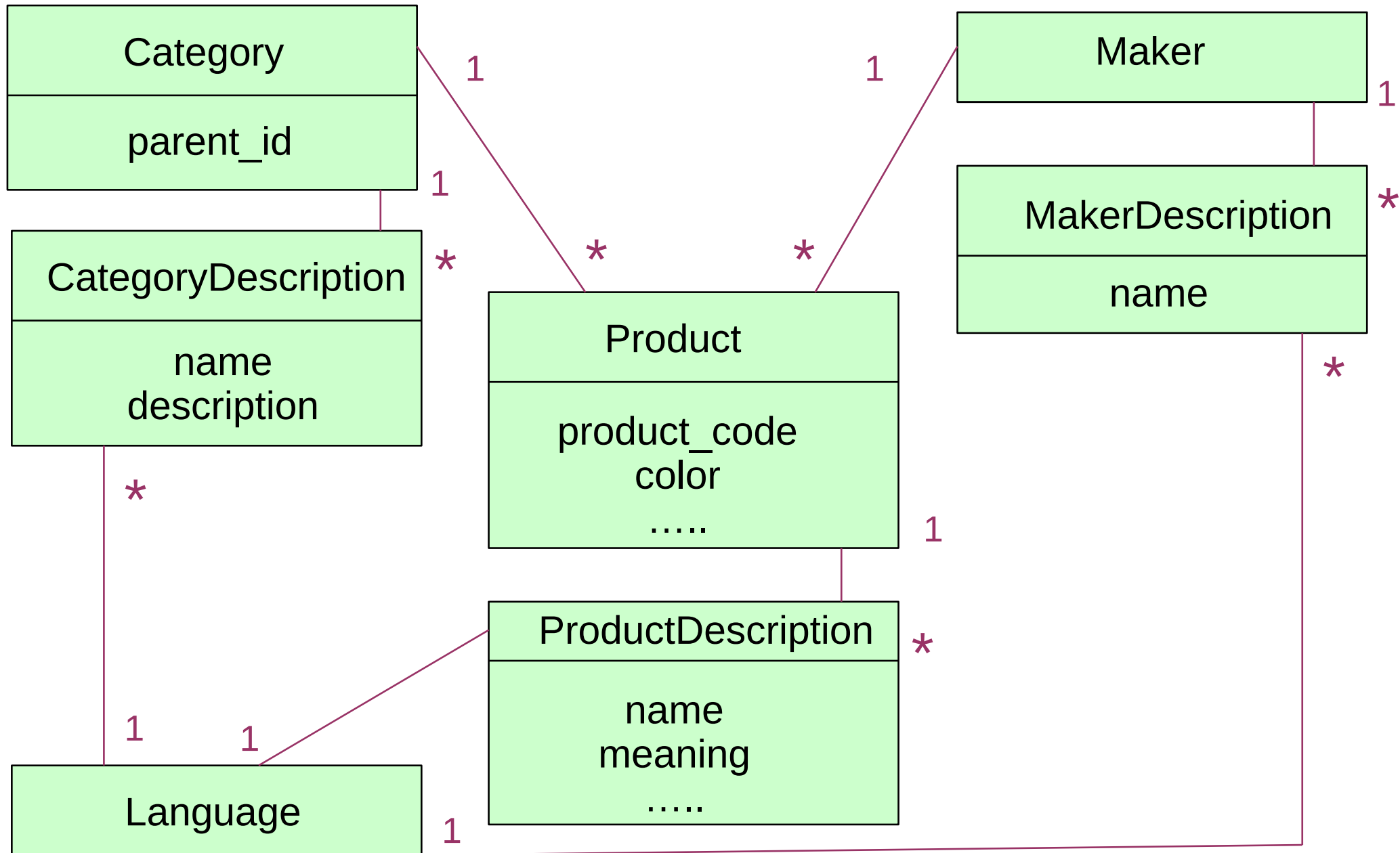
Multilingual Rails Application

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Relation of Table



Canonicalization






id	name	locale	isdefault	created_at	updated_at
1	English	en	1	2015-01-01 00:00:00	2015-01-01 00:00:00
2	日本語	ja	0	2015-01-01 00:00:00	2015-01-01 00:00:00

← languages

products

id	product_code	maker_id	category_id	status	ordering	net_amount	net_unit	weight	size	price
1	taco	1000	100	0	1	175	g	175	M,L,XL	50.0
2	horyuji	1000	100	0	2	175	g	175	S,M,L,XL	50.0
3	furinkazan	1000	100	0	3	175	g	175	M,L,XL	60.0
4	ninja	1000	100	0	4	175	g	175	S,M,L,XL	60.0
5	koi	1000	100	0	5	175	g	175	S,M,L	50.0

チェックしたものを:
  変更
  削除
  エクスポート

product_descriptions

id	product_id	language_id	name	meaning	description	color	material
1	1	1	Taco	Octopus	Octopus is a common ingredient in Japanese cuisine...	Red	Bamboo Viscose 70% Cotton 30%
2	1	2	タコ	蛸	タコは日本の食生活に深く根付いている。加熱調理されることが多く、多くの種は茹でると鮮紅色を呈する。...	赤	ビスコース・レーヨン 70% 綿 30%
3	2	1	Horyuji	Horyu Temple	The grounds of Horyuji (Horyu Temple) house the wo...	Gray, Blue	Bamboo Viscose 70% Cotton 30%
4	2	2	ハウリュウジ	法隆寺	法隆寺は飛鳥時代の姿を現在に伝える世界最古の木造建築として広く知られています。その創建の由来は、「金...	グレー、青	ビスコース・レーヨン 70% 綿 30%
5	3	1	Furinkazan	Wind, Forest, Fire and Mountain	Let your rapidity be that of the wind, your compac...	Blue, Black	Cotton 100%
6	3	2	フウリンカザン	風林火山	風林火山（ふうりんかざん）は、甲斐の戦国大名・武田信玄の旗指物（軍旗）に記されたとされている「疾如風...	青、黒	綿 100%
7	4	1	Ninja	A covert agent or mercenary in feudal Japan	A ninja or shinobi was a covert agent or mercenary...	Black,Blue,Gray,Graphite	Cotton 100%
8	4	2	ニンジャ	忍者	忍者（にんじゃ）とは、鎌倉時	黒、青、グレー、グラファ	綿 100%

Generate controller, then setup

- rails generate controller products show

```
scope "[:locale]" do
  get '/(index.:format)' => "top#index"
  get '/products/:product_code.:format' => 'products#show'
end
```

```
class ProductsController < ApplicationController
  def show
    @product = Product.
      where(:product_code => params[:product_code],
        :status => 0).first
    raise ActiveRecord::RecordNotFound
      if @product.nil? || @product.category.status != 0
    end
  end
end
```

lib/wzs/multilang.rb

```
-*- coding: utf-8 -*-

module Wzs
  module Multilang
    #-----
    # get Language model from locale
    #-----
    def self.get_language(locale)
      Language.where(:locale => locale).first
    end
  end

  #*****
  # include method - setting language
  #*****
  def set_language
    I18n.locale = params[:locale] || I18n.default_locale
    @lang = Wzs::Multilang::get_language(I18n.locale)
  end
end

end
```

app/models/products.rb

```
# -*- coding: utf-8 -*-  
class Product < ActiveRecord::Base  
  
  belongs_to :category  
  belongs_to :maker  
  has_many :product_descriptions  
  
  # description model  
  def desc_model(lang_id)  
    product_descriptions.where(:language_id => lang_id).first  
  end  
  
  # name  
  def name(lang_id)  
    (desc = desc_model(lang_id)) ? desc.name : ""  
  end  
end
```

Furinkazan



Wind, Forest, Fire and Mountain

Let your rapidity be that of the wind, your compactness that of the forest. In raiding and plundering be like fire, is immovability like a mountain. Sentences from 'SUN TZU ON THE ART OF WAR' - the oldest military treatise in the world.

```
<%= @product.name @lang.id %>
<%= @product.meaning @lang.id %>
<%= @product.description @lang.id %>
```

show.html.erb

NET 175g

Maker MultiLang Design

Shipping Weight 175g

Size M,L,XL

Color Blue, Black

\$50.00

```
<%= number_to_currency @product.price %>
<%= @product.maker.name @lang.id %>
<%= @product.material @lang.id %>
```

Categories

- T-shirt
- Outerwear
- Jeans
- Belt
- Shoes
- Accessories
- Others

Products

- Taco
- Horyuji
- Furinkazan
- Ninja
- Koi

app/models/products.rb

```
def name(lang_id)
  (desc = desc_model(lang_id)) ? desc.name : ""
end

def meaning(lang_id)
  (desc = desc_model(lang_id)) ? desc.meaning : ""
end

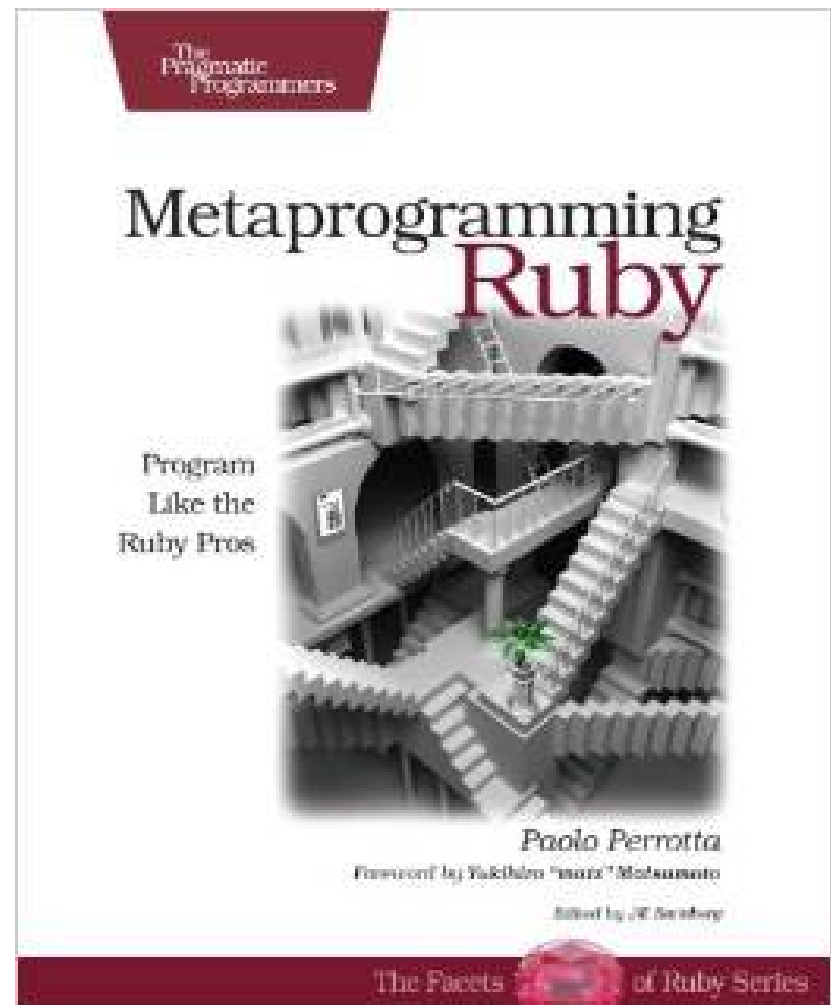
def description(lang_id)
  (desc = desc_model(lang_id)) ? desc.description : ""
end

def color(lang_id)
  (desc = desc_model(lang_id)) ? desc.color : ""
End

def material(lang_id)
  (desc = desc_model(lang_id)) ? desc.material : ""
end
```

Make DRY

- Metaprogramming **Ruby**
- Latest
Metaprogramming Ruby 2:
Program Like the Ruby Pros
(Facets of Ruby)
August 2014
ISBN 978-1941222126



Make DRY – (1st stage)

- app/models/products.rb

```
class Product < ActiveRecord::Base
```

```
  belongs_to :category
```

```
  belongs_to :maker
```

```
  has_many :product_descriptions
```

```
  # description model
```

```
  def desc_model(lang_id)
```

```
    product_descriptions.where(:language
```

```
  end
```

```
  [:name, :meaning, :description, :color, :material].each do |func|
```

```
    define_method func do |lang_id|
```

```
      (desc = desc_model(lang_id)) ? desc.__send__(func) : ""
```

```
    end
```

```
  end
```

Spell:

Dynamic Methods P.45

Dynamic Dispatch P.41

Make DRY - (2nd stage)

- lib/wzs/model/multilang.rb

```
module Wzs
  module Model
    module Multilang
```

```
      ### Hook Method for include
      def self.included(includee)
        includee.extend ClassMethods
      end
```

```
      module ClassMethods
```

```
        ### attribute by lang
        def attr_by_lang(attr)
          define_method attr do |lang_id|
            (desc = desc_model(lang_id)) ? desc.__send__(attr) : ""
          end
        end
      end
```

```
    end
```

```
  end
```

```
end
```

```
end
```

Spell:
Class Extension Mixin
P.164



Spell:
Dynamic Methods P.45
Dynamic Dispatch P.41



Make DRY - (2nd stage)

- app/models/products.rb

```
require 'wzs/model/multilang'
```

```
class Product < ActiveRecord::Base
```

```
  include ::Wzs::Model::Multilang
```

```
  # description model
```

```
  def desc_model(lang_id)
```

```
    product_descriptions.where(:language_id => lang_id).first  
  end
```

```
  attr_by_lang :name
```

```
  attr_by_lang :meaning
```

```
  attr_by_lang :description
```

```
  attr_by_lang :color
```

```
  attr_by_lang :material
```



Multilingual Rails Application

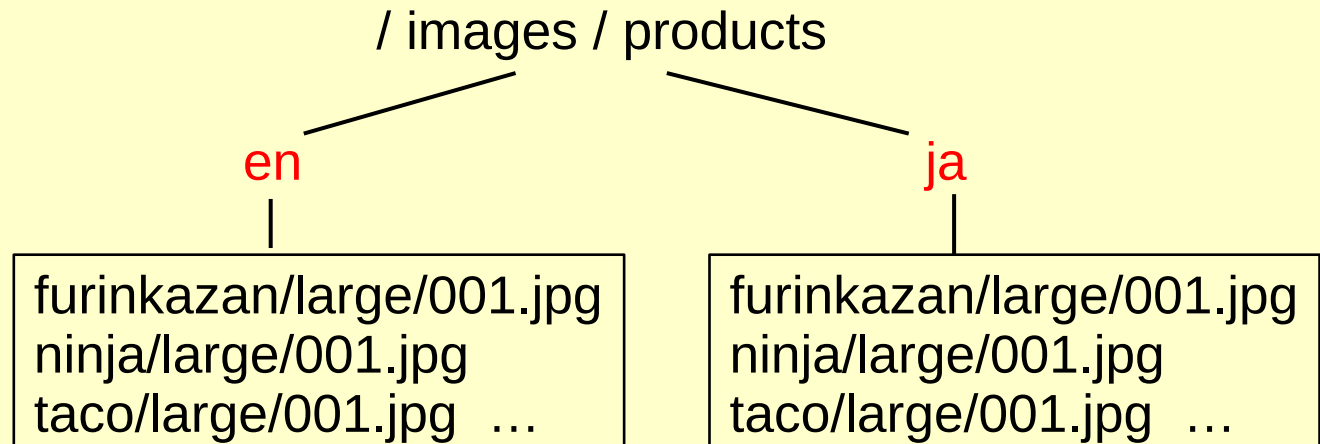
- Rails I18n API
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- Image, CSS & Link

Furinkazan



```

```

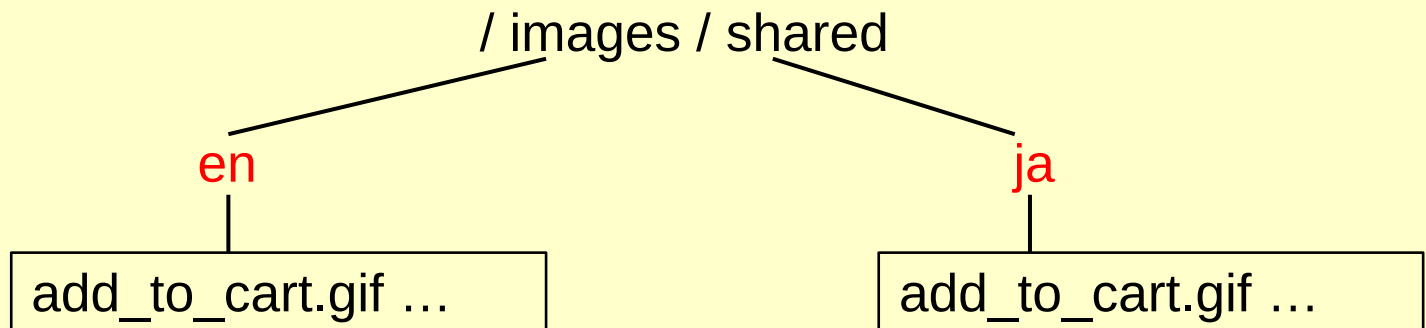


Immovability like a mountain. Sentences from 'SUN Tzu ON THE ART OF WAR' - the oldest military treatise in the world.

Shoes

```

```



NET

Maker

Shipping Weight

Size

M,L,XL

Color

Blue, Black

 ADD TO CART

Furinkazan



Wind, Forest, Fire and Mountain

 English

 日本語

Categories

- [T-shirt](#)
- [Outerwear](#)
- [Jeans](#)
- [Belt](#)
- [Shoes](#)
- [Accessories](#)
- [Others](#)

Products

- [Taco](#)
- [Horyuji](#)
- [Furinkazan](#)
- [Ninja](#)
- [Koi](#)

```
<h1 id="product-title_<%= @lang.locale %>" ...
```

```
h1#product-title_en, h1#product-title_ja {margin-top:0;.....
```

```
h1#product-title_en {background-color: #195da4;}
```

```
h1#product-title_ja {background-color: #b90101;}
```

helper

```
ret += "<ul class=\"sidelist_#{ @lang.locale }\">\n"
```

```
ul.sidelist_en, ul.sidelist_ja {margin:0 0 1em 0;}
```

```
ul.sidelist_en li {margin-left:1.6em;
```

```
list-style:url("/assets/images/lib/list/li_ball_bl.gif") disc;}
```

```
ul.sidelist_ja li {margin-left:1.6em;
```

```
list-style:url("/assets/images/lib/list/li_ball_red.gif") disc;}
```

Link

```
<div id="global-navigator">
  <ul class="nav navbar-nav">
    <% if @lang.locale == I18n.default_locale.to_s %>
      <li><a href="/"><%= t 'pages.common.header.top'
%></a></li>
    <% else %>
      <li><a href="/<%= @lang.locale %>/"><%= t
'pages.common.header.top' %></a></li>
    <% end %>
    <li><a href="/<%= @lang.locale %>/products/"><%= t
'pages.common.header.products' %></a></li>
    <li><a href="/<%= @lang.locale %>/howto.html"><%= t
'pages.common.header.howto' %></a></li>
    <li><a href="/<%= @lang.locale %>/aboutus.html"><%= t
'pages.common.header.aboutus' %></a></li>
    <li><a href="/<%= @lang.locale %>/contactus.html"><%= t
'pages.common.header.contactus' %></a></li>
  </ul>
</div>
```

Furinkazan




Wind, Forest, Fire and Mountain

Let your rapidity be that of the wind, your compactness that of the forest. In raiding and plundering be like fire, is immovability like a mountain. Sentences from 'SUN TZU ON THE ART OF WAR' - the oldest military treatise in the world.

NET	175g
Maker	MultiLang Design
Shipping Weight	175g
Size	M,L,XL
Color	Blue, Black

\$50.00

 **ADD TO CART**

 **English**

 日本語

Categories

- [T-shirt](#)
- [Outerwear](#)
- [Jeans](#)
- [Belt](#)
- [Shoes](#)
- [Accessories](#)
- [Others](#)

Products

- [Taco](#)
- [Horyuji](#)
- [Furinkazan](#)
- [Ninja](#)
- [Koi](#)

フウリンカザン



風林火山

風林火山（ふうりんかざん）は、甲斐の戦国大名・武田信玄の旗指物（軍旗）に記されたとされている「疾如風、徐如林、侵掠如火、不動如山」（疾（と）きこと風の如く、徐（しず）かなること林の如し、侵掠（しんりゃく：おかしかずめる）すること火の如く、動かざること山の如し）の通称である。

内容量 175g


製造元 [マルチラング デザイン](#)

重量 175g

サイズ M,L,XL

色 青、黒

50.00ドル

 [カートに入れる](#)

カテゴリー

- [Tシャツ](#)
- [上着](#)
- [ジーンズ](#)
- [ベルト](#)
- [靴](#)
- [アクセサリー](#)
- [その他](#)

商品

- [タコ](#)
- [ハウリュウジ](#)
- [フウリンカザン](#)
- [ニンジャ](#)
- [コイ](#)