Full Text Searching

with Ruby on Rails

@claytonlz

1 Sphinx
1 ThinkingSphinx
1 ActiveRecord

Full Text Search in Rails

Sphinx

Sphinx

Documents

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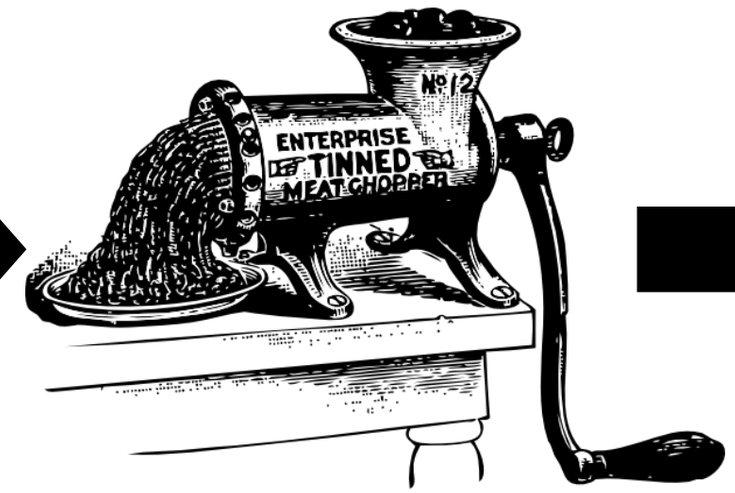
Sphinx



Indexes

PostgreSQL

MySQL®

<? xml ?>

Fields

Attributes

ThinkingSphinx

ThinkingSphinx > Indexing

```
define_index do
  indexes language_id
  indexes address.state, :sortable => true
  indexes address.postal_code, :as => :zip_code
  indexes "LOWER(title)", :as => :title

  has is_private
  has trainers(:id), :as => :trainers

  where "active = 1"
  group_by "course_type_id"

  set_property :delta => true
end
```

ThinkingSphinx > Build Index

```
$> rake ts:configure
$> rake ts:start
$> rake ts:index
```

```
$> rake ts:rebuild
```

TS > Basic Searching

```
Course.search 'sphinx'

Course.search :conditions =>
  {:title => "Sphinx"}

Course.search 'sphinx', :with =>
  {:trainer_id => [5,19]}
```

TS > Fields vs. Attributes

```
Course.search 'rails',
  :conditions => {
    :title =>
      ["sphinx",
       "thinking sphinx"]
  }
```

DO NOT WANT

TS > Fields vs. Attributes

```
Course.search 'rails',
  :with => {
    :created_at =>
      Time.now..1.year.ago,
    :trainer_id => 1
  }
```

TS > Fields vs. Attributes

```
has "CRC32(category)",
   :as => :category,
   :type => :integer
```

```
Course.search 'sphinx',
   :with => {
     :category => 'Ruby'.to_crc32
   }
```

TS > Application Wide Searching

```
ThinkingSphinx.search 'clayton'

ThinkingSphinx.search 'clayton',
  :classes => [User, Article]
```

TS > Pagination

```
Course.search 'sphinx',
   :per_page => 10,
   :page => 3
```

```
Course.search 'code camp',
   :per_page => 20,
   :page => params[:page]
```

TS > Match Modes

```
Course.search 'specific',
  :match_mode => :all

Course.search 'this that',
  :match_mode => :any

Course.search 'nosql sucks',
  :match_mode => :phrase

Course.search 'just & kidding',
  :match_mode => :boolean
```

TS > More Match Modes

```
Course.search 'advanced',
  :match_mode => :extended

Course.search 'expert',
  :match_mode => :extended2

Course.search 'sorting',
  :match_mode => :fullscan
```

TS > Sorting

```
Course.search 'sphinx',
  :with => {
    :created_at =>
      Time.now..1.year.from_now
  },
  :order => "created_at DESC,
    @relevance DESC"
```

Deltas

TS > Delta Indexing

Documents

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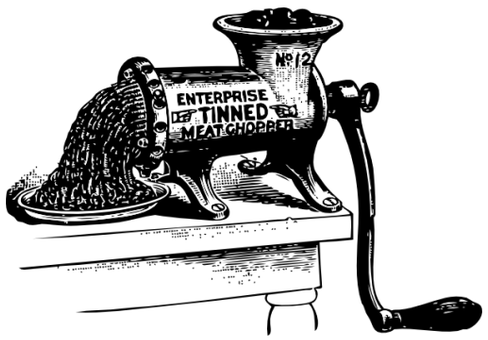
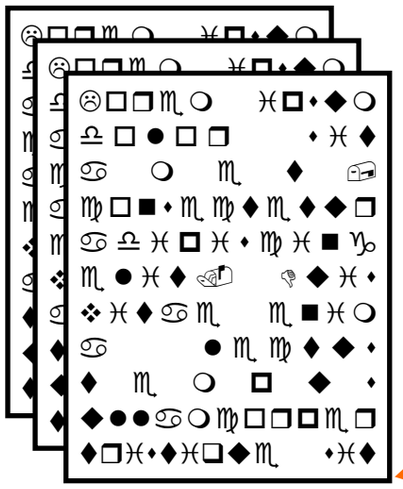
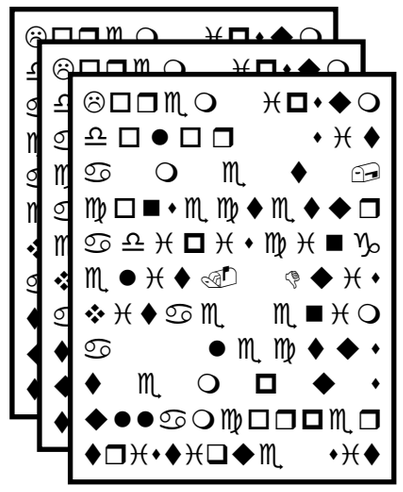
Sphinx



Indexes



Merged Index



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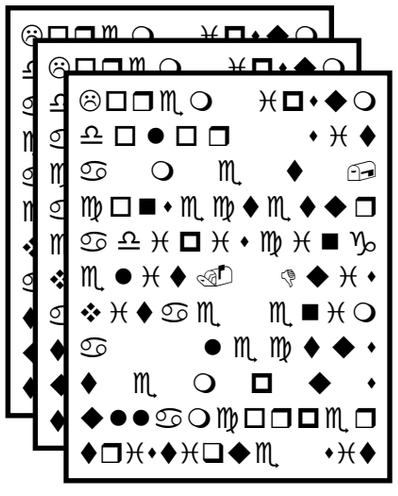
Delta Index



Beta 1.10

Testing

TS > Testing

Documents

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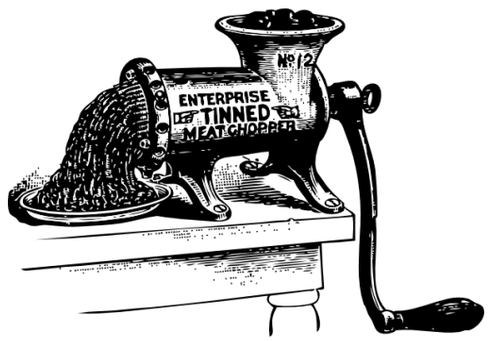
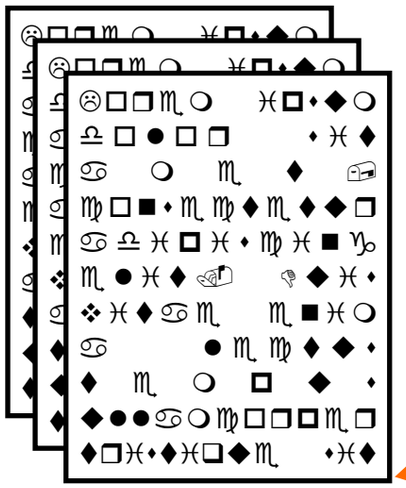
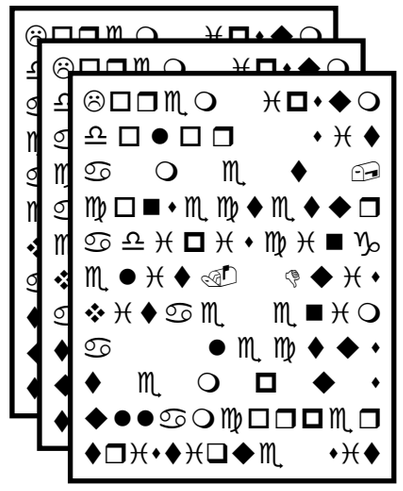
Sphinx



Indexes



Merged Index



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V 2.0

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V 3.0

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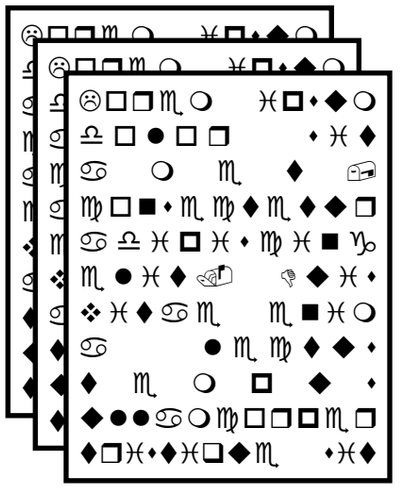
Delta Index



TS > Testing

```
# Setup
require 'cucumber/thinking_sphinx/external_world'
Cucumber::ThinkingSphinx::ExternalWorld.new

# No transactional Fixtures (DB Cleaner)
Cucumber::Rails::World.use_transactional_fixtures
  = false

# Index the test data
ThinkingSphinx::Test.index
```

TS > Testing

```
# SPHINX
Before('@sphinx') do
  require 'cucumber/thinking_sphinx/external_world'
  Cucumber::ThinkingSphinx::ExternalWorld.new
  ThinkingSphinx::Test.start
  ThinkingSphinx.deltas_enabled = true
end

After('@sphinx') do
  ThinkingSphinx.deltas_enabled = false
  ThinkingSphinx::Test.stop
end
```

Extras

TS > Extras

```
[
  "Advanced Sphinx Conf.",
  "Complex Algorithms",
  "Excerpts",
  "Geo-Searching",
  "Sphinx Scopes"
]
```

Deployment

TS > Deployment

1. "Deploy Code"
2. "Symlink (maybe)"
3. "Stop Sphinx"
4. "Generate Configuration File"
5. "Start Sphinx"
6. "Rebuild (maybe)"
7. "Reindex periodically"

TS > Deployment Gotchas

1. "Symbolic Links :("
2. "Slow Rebuilding :("
3. "Permissions :("
4. "Monit :("
5. "Binary paths :("

http://bit.ly/9iVJaC

http://bit.ly/cZYPyW

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