



# Full Text Searching

*with Ruby on Rails*

**1 Sphinx**

**1 ThinkingSphinx**

**1 ActiveRecord**

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**Full Text Search in Rails**

# Sphinx

# Sphinx

## Documents

Lorem ipsum dolor sit amet.  
Lorem ipsum dolor sit amet.  
Lorem ipsum dolor sit amet,  
consectetur adipiscing elit. Duis  
vitae enim a lectus tempus  
ullamcorper tristique sit amet dui.  
Maecenas bibendum, nisi adipiscing  
vehicula eleifend, mi leo aliquam  
dui, et rhoncus erat eros a orci. Sed  
nibh lorem, porttitor et scelerisque  
eget, euismod eu lacus. Integer  
mollis leo sed quam euismod porta.  
Praesent convallis, nulla ac sodales  
lacinia, ante ipsum convallis turpis,  
in scelerisque eros tortor sit amet  
sapien. Ut sed sem risus. Praesent  
orci erat, consectetur non rhoncus  
eu, condimentum sed turpis.

## Sphinx



## Indexes

Index structure diagram showing various symbols and characters representing indexed data.



PostgreSQL



<? xml ?>

# Fields

# Attributes

# Thinking Sphinx

# 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
```

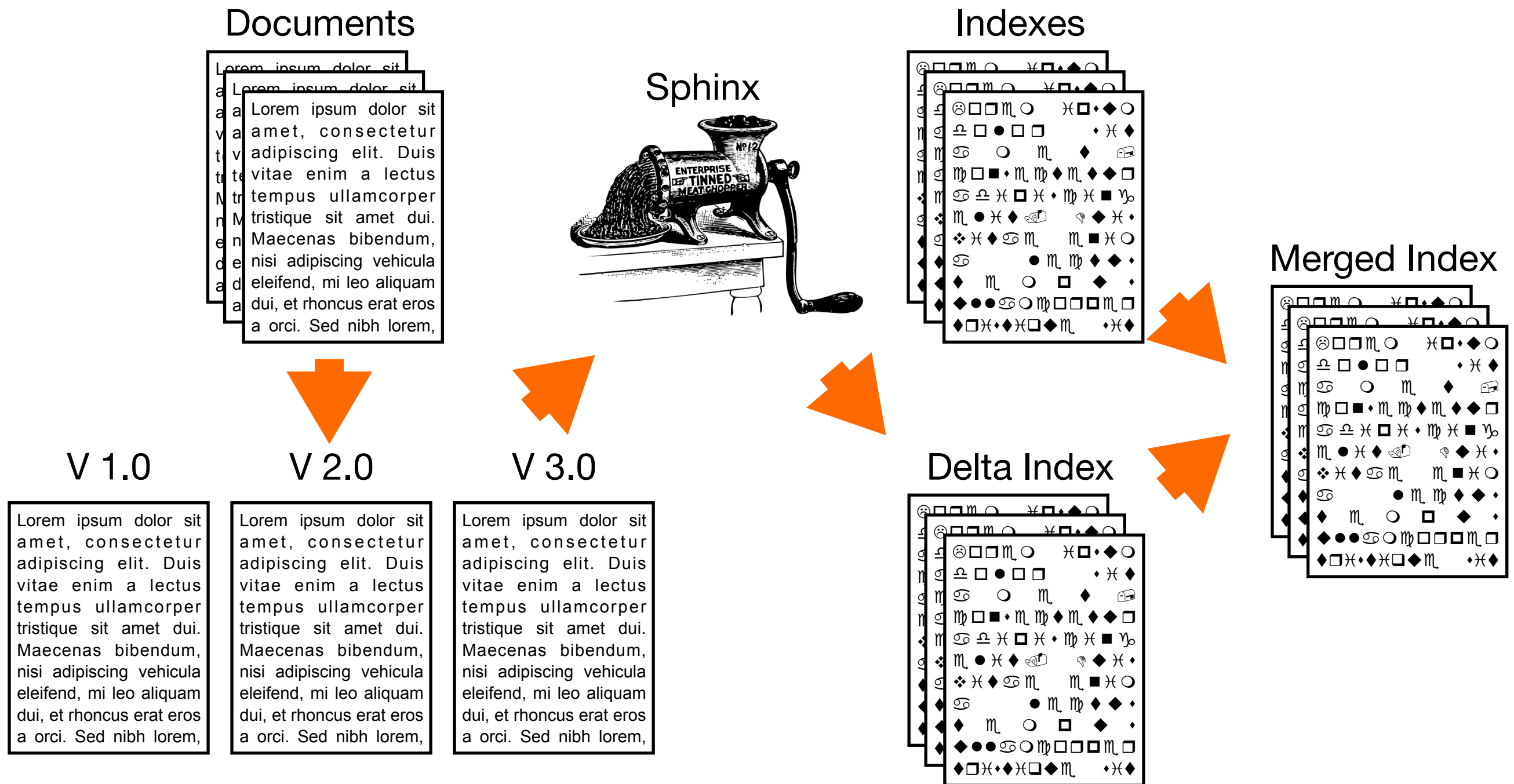


# TS > Sorting

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

# Deltas

# TS > Delta Indexing



# Beta 1.10

# Testing

# TS > Testing



# 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>