Ruby on What?

A brief introduction to Rails

Christopher Hoskin

Faculty of History

12th Annual IT Support Staff Conference
21st June 2007, St. Catherine's College

Ruby on Rails

- Overview
  - What is Ruby? What is Rails?
  - Who's backing it?
- Demo 1
  - Simple seminar application
- How does it work?
- Demo 2
  - Customised seminar application

Ruby

- Created by Yukihiro “matz” Matsumoto
- Dual GPL / Ruby licence
- Dynamic, reflective, object-oriented scripting language

Rails

- Open-source (MIT) web framework
- By David Heinemeier Hansson (37signals)
- Rails Mantra
  - Opinionated Software
  - Convention over Configuration
  - DRY (Don't Repeat Yourself)

Who's using it?

- 37signals
  - (Basecamp, Highrise, Campfire, Backpack)
- Joyant
  - (Hosting, Collaboration, Slingshot)
- Relevance
  - (Training, Consultancy, Streamlined)
- Active Reload
  - (Lighthouse, Mephisto)

So no one we've heard of?

- The BBC
  - http://open.bbc.co.uk/catalogue/infax/
- Amazon
  - http://unspun.amazon.com/
- The Leaky Cauldron
  - http://www.the-leaky-cauldron.org/

Ruby on Rails on ...?

YARVM (Ruby 2.0)

Parrot

JVM

CLR

Cardinal

JSR 223

DLR

JRuby

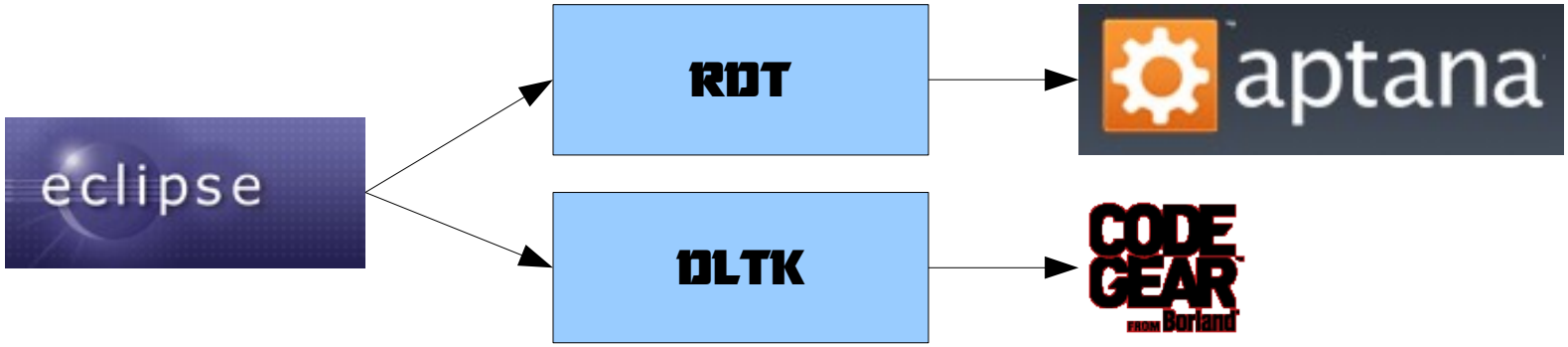
Iron Ruby

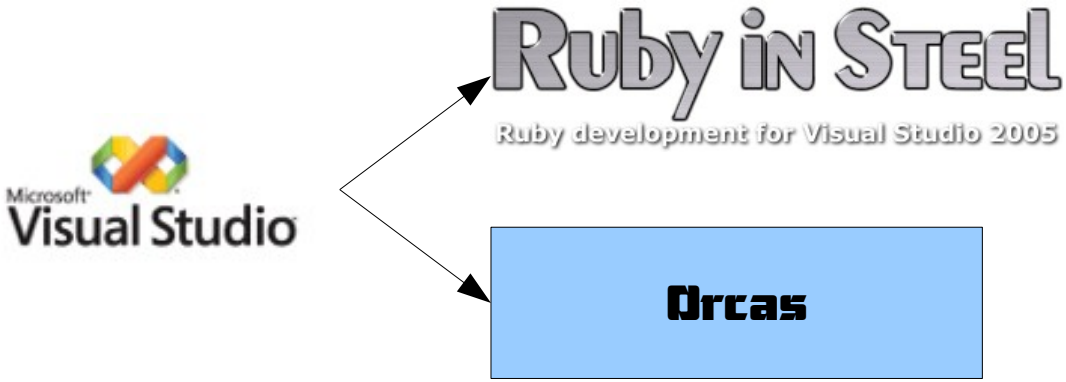
Ruby

Rails

All trademarks and copyrights are the property of their respective owners.

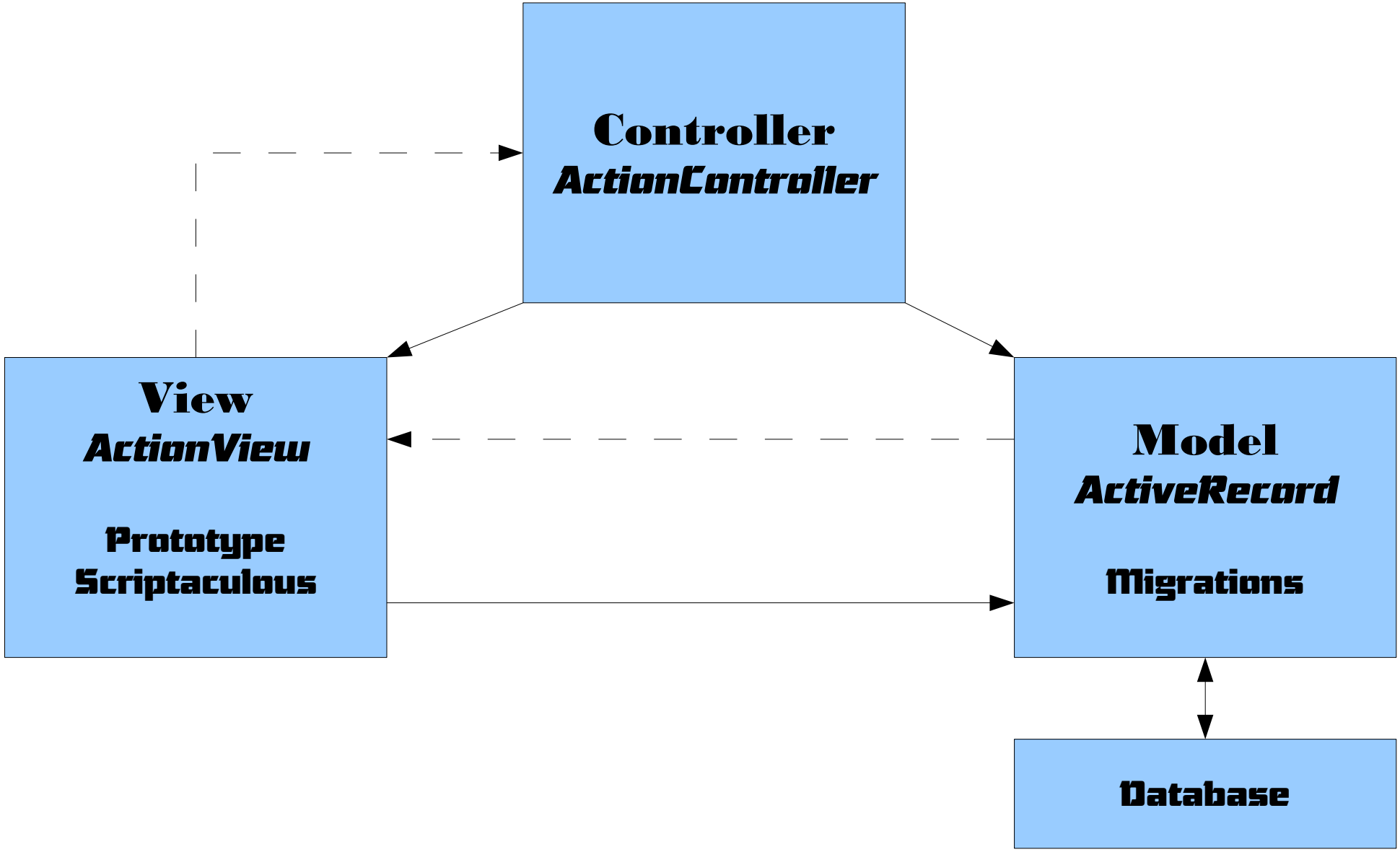
Vendor Tools





All trademarks and copyrights are the property of their respective owners.

mvc


Controller
ActionController
View
ActionView
Prototype
Scriptaculous
Model
ActiveRecord
Migrations
Database

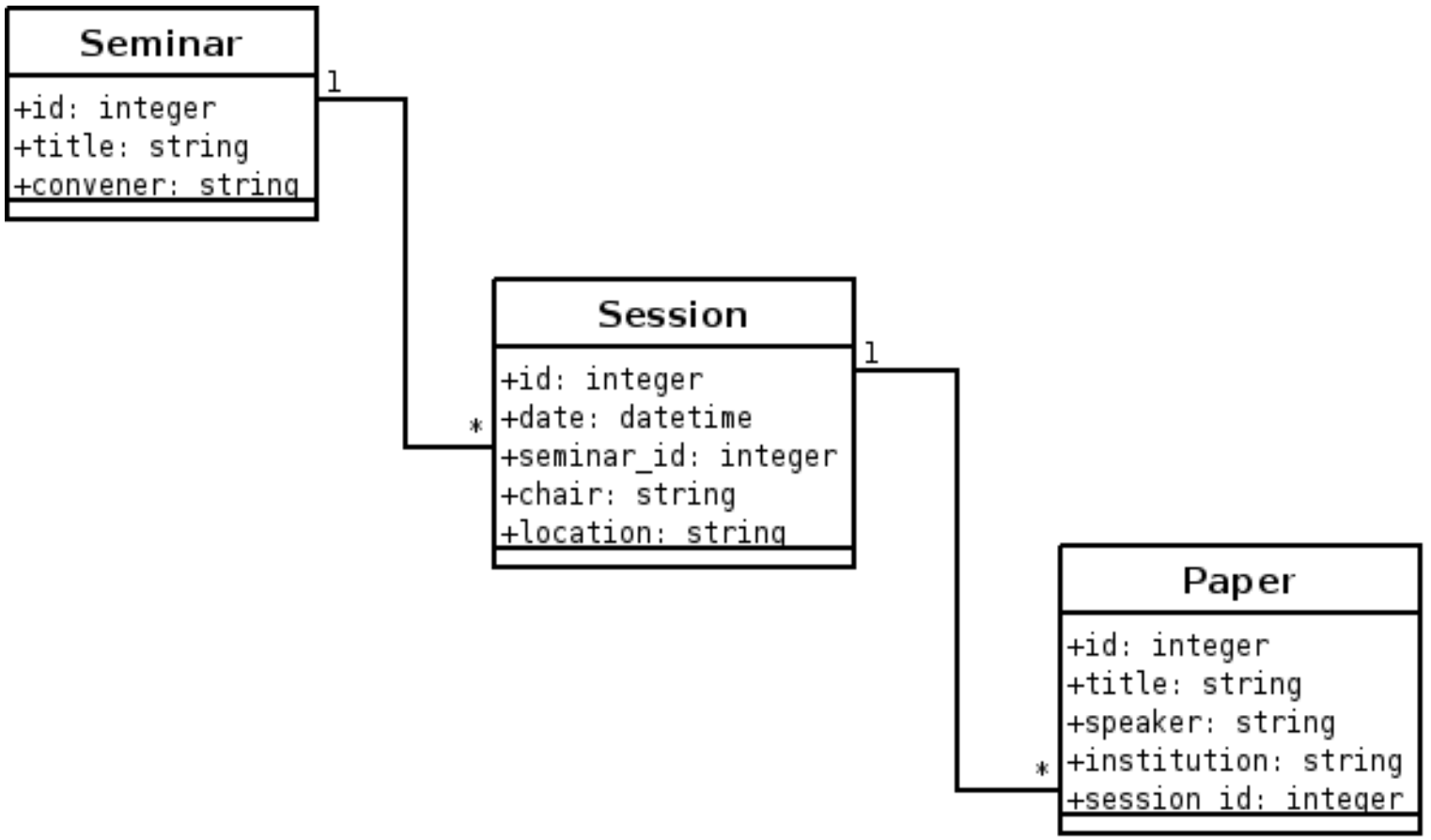
Databases

- MySql (default)
- PostgreSQL
- SQLite
- Microsoft SQL Server
  - Native on Windows, via FreeTDS on *nix
- IBM DB2
- Oracle
- Several others

Demo 1 - Aims

- Create a new rails project - seminars
- Set up models, controllers
- Set up database with migrations
- Install and use Active_Scaffold plugin

Seminar – Class Diagram



What did we do?

- Rails created initial application
- We defined tables with migrations
- We set up the model
  - joins specified with has_many & belongs_to
  - DRY: No need to specify the fields
- Active Scaffold provided controller & view

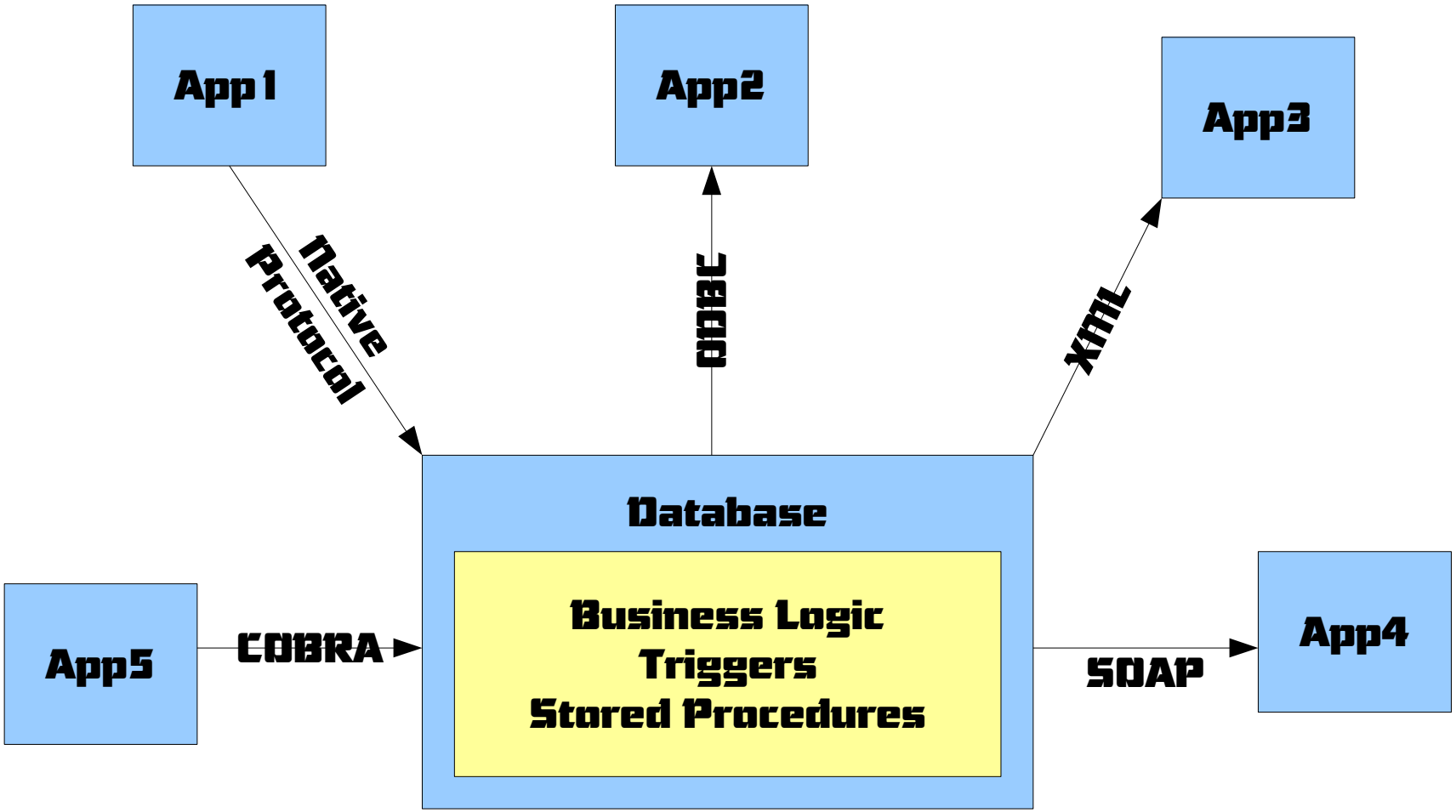
has_many ... belongs_to

- Seminar has_many :sessions e.g.
  - sem.sessions.create(:date => '2007-06-21')
  - next = sem.sessions.find(:first, :conditions => ["date > ?", today])
- Session belongs_to :seminar e.g.
  - sem_title = sess.seminar.title
  - sess.seminar = sem;

has_many :sessions

- Configuration over convention
  - assumes foreign key in seminar_id in session table
- Can be customised
  - has_many :sessions, :order => :date, :dependent => :delete_all
- Or write your own
  - has_many :sessions, :finder_sql => 'select *from sessions where seminar_id=#{id}

Demo 2 - Aims

- Session view with paper panel
  - Simple custom view
  - Simple demonstration of use of AJAX
- Order papers in session
  - Drag and drop papers in browser
  - Still very simple

Integration Database