Chatbots 3.3

Chatbots in Web Applications with **RiveScript**

Presented by
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Agenda

- What's new since last year?

- The Pandorabots of RiveScript

- RiveScript::HTTPd

- Aires Bot

- Let's talk Android

- Summary

What's New Since Last Year

What's New?

- At Chatbots 3.2 (2012):

  – RiveScript is available in the Perl and Java languages.

  – I gave an introduction to RiveScript and some comparisons to AIML

(Quick Refresh)

- ## What RiveScript looks like
  (for those who weren't here last year)

```
+ my (name|alias) is *
- <set name=<formal>>Nice to meet you, <get name>!

+ what [is] my name
* <get name> == undefined => I don't know!
- Your name is <get name>, seeker!
- Aren't you <get name>?

! array colors = red blue green yellow cyan magenta

+ what color is my (@colors) *
- Your <star2> is <star1>, silly!
```
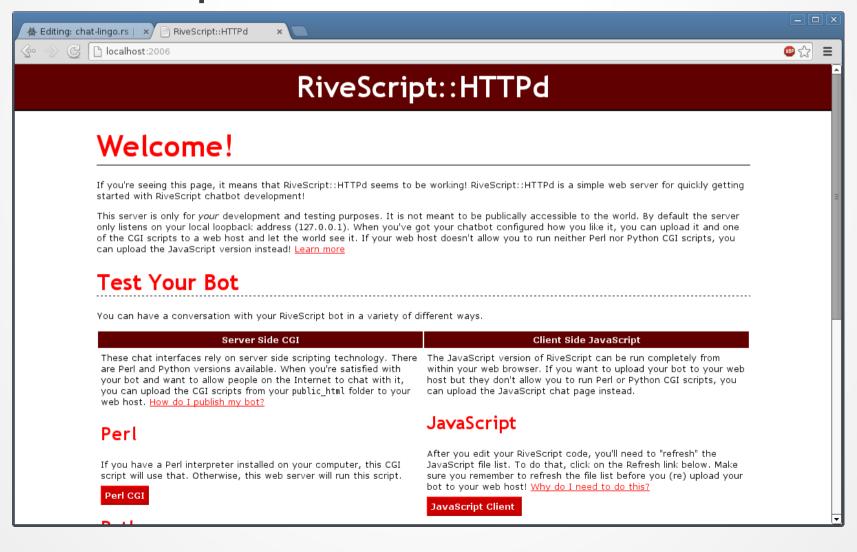
What's New?

RiveScript is now available for...

python™

JavaScript

(for jQuery and Node.js)

What's New?

- RiveScript Bot Hosting

What's New?

- RiveScript::HTTPd

What's New?

- Aires Bot (XMPP/AIM/YMSG)

The Pandorabots of RiveScript

Chatbot Hosting

- In October, I started a public beta for my RiveScript bot hosting service

- Draws inspiration from RunABot:

  - "Base brains" are Alice or Eliza

  - Users only need to provide their own replies; the base brains handle replies to everything else

Chatbot Hosting

- Features:

  - Web interface for editing, uploading and downloading custom replies.

  - An included web page for chatting with your bot (coming soon: custom chat pages, like Pandorabots)

Chatbot Hosting

- Features:

  - An API for developers to interact with their bot using HTTP/JSON

  - The "base brains" mean you don't need to create an *entire* bot; anything you didn't program a reply for comes from the base brain instead.

Chatbot Hosting

- Caveats:

  - I currently don't recommend uploading a bot the size of Alice.

Chatbot Hosting

- How "Alice" Works

  - A persistent daemon that runs the RS Alice brain runs 24/7 on the server

  - When your bot doesn't have a reply, the site connects to the Alice daemon to get a reply. If Alice is down, Eliza's base brain is used instead.

Chatbot Hosting

- I'm researching ways to handle the hosting of Alice-sized RiveScript bots

  - Likely will involve running persistent daemons like Alice for the larger bots

  - Probably not free; *but* free bots will easily have a several thousand custom reply limit which should work for most small to medium size bots

Aires Bot

Aires Bot

- Perl chatterbot

- Runs from your own computer or server (not hosted)

- Supports XMPP, AIM, and Yahoo Messenger

Aires Bot

- Supports adding new brains and connections by writing "plugins"

- Comes with RiveScript and Eliza brains (that's Chatbot::Eliza, not to be confused with the Eliza-like default RiveScript brain)

Aires Bot

- Can be thought of as the "Alicebot Program D" of RiveScript

- Primarily an Instant Messenger type of bot, not a web-based one

- So, let's talk more about the web-based kind of bot instead :)

RiveScript::HTTPd
For Developers

RS::HTTPd

🗋 localhost:2006

RiveScript::HTTPd

Welcome!

If you're seeing this page, it means that RiveScript::HTTPd seems to be working! RiveScript::HTTPd is a simple web server for quickly getting started with RiveScript chatbot development!

This server is only for *your* development and testing purposes. It is not meant to be publically accessible to the world. By default the server only listens on your local loopback address (127.0.0.1). When you've got your chatbot configured how you like it, you can upload it and one of the CGI scripts to a web host and let the world see it. If your web host doesn't allow you to run neither Perl nor Python CGI scripts, you can upload the JavaScript version instead! Learn more

Test Your Bot

You can have a conversation with your RiveScript bot in a variety of different ways.

Server Side CGI	Client Side JavaScript
These chat interfaces rely on server side scripting technology. There are Perl and Python versions available. When you're satisfied with your bot and want to allow people on the Internet to chat with it, you can upload the CGI scripts from your public_html folder to your web host. How do I publish my bot?	The JavaScript version of RiveScript can be run completely from within your web browser. If you want to upload your bot to your web host but they don't allow you to run Perl or Python CGI scripts, you can upload the JavaScript chat page instead.

Perl

If you have a Perl interpreter installed on your computer, this CGI script will use that. Otherwise, this web server will run this script.

Perl CGI

JavaScript

After you edit your RiveScript code, you'll need to "refresh" the JavaScript file list. To do that, click on the Refresh link below. Make sure you remember to refresh the file list before you (re) upload your bot to your web host! Why do I need to do this?

JavaScript Client

RS::HTTPd

- Will likely become "the" download for RiveScript

  – Similar to "the" download for ChatScript

  – Except RS::HTTPd has a GUI ;)

RS::HTTPd

- Development tool for quickly testing, prototyping and developing RiveScript bots

- It's a mini HTTP server!

  – Similar to the built-in web server in PHP and other languages

RS::HTTPd

- For Windows users, it comes as a stand-alone .exe file

  - Can get up and running instantly

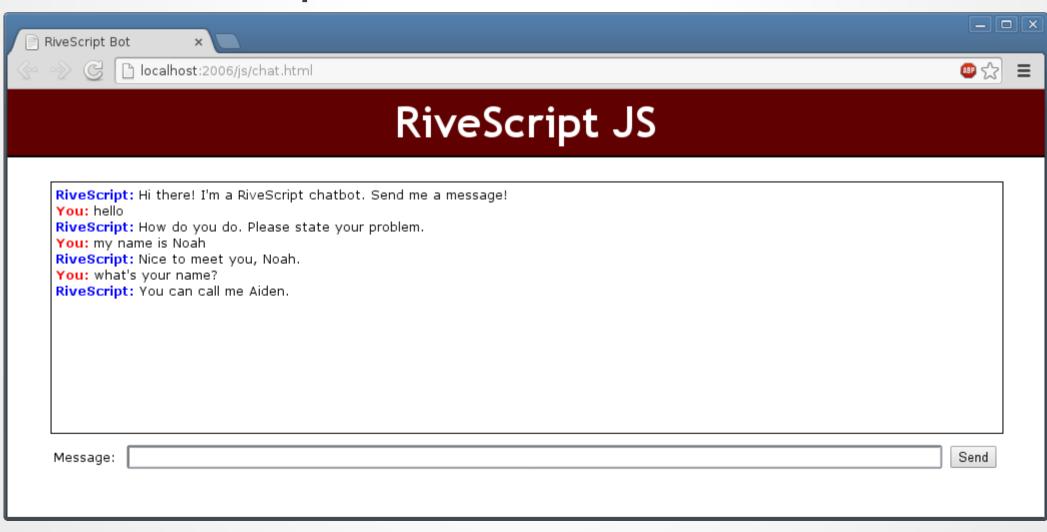 - No need to mess around with installing a Perl or Python interpreter

RS::HTTPd

- The mini web server includes multiple interfaces for testing bots:

    – Perl CGI (and a FastCGI version is included)

    – Python CGI

    – JavaScript (runs in the web browser, no CGI needed)

RS::HTTPd

- If you have Perl or Python installed, RS::HTTPd will use them to execute the CGI scripts.

- Otherwise, the daemon can run the Perl CGI scripts by itself with no need to install Perl separately

RS::HTTPd

- JavaScript Front-end:

RS::HTTPd

- The Perl, Python and JS interfaces are self-contained

    - Ready to just be uploaded to an Apache web server

    - Use RS::HTTPd for local dev/testing, then simply upload to your web host for easy deployment

Let's Talk Android

Android

- Disclaimer: I'm not an Android developer

- These are only ideas for RiveScript bots on Android

Android

- Option 1: Go Native

  - Use the Java version of RiveScript

  - I did some poking with this idea a while back

  - File access needs to support Android's APIs (extend RiveScript)

Android

- Option 2: PhoneGap

  – Allows you to create apps using HTML, CSS and JavaScript

  – For Android, iOS, BB, Windows Phone

  – Gives you a "native" app that runs a full screen web browser window

  – Use RiveScript.js with no modifications needed!

Summary

- Lots of options for running RiveScript on the web!

    – CGI scripts in Perl or Python

    – JavaScript version that runs entirely in the browser – no server side scripting!

    – PhoneGap + RiveScript.js to build cross platform mobile apps

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RiveScript Bot Hosting
http://www.rivescript.com/chatterbots

RiveScript::HTTPd
http://github.com/kirsle/rivescript-httpd

Aires Bot
http://github.com/kirsle/aires-bot

PhoneGap
http://www.phonegap.com/

RiveScript.js
http://github.com/kirsle/rivescript-js

RiveScript.py
http://github.com/kirsle/rivescript-python

RiveScript.pm
http://github.com/kirsle/rivescript-perl

RiveScript.java
http://github.com/kirsle/rivescript-java