



October 1st - 4th, 2013
Case Western Reserve University
Cleveland, Ohio

Course Goals

The goal of HydraCamp is to introduce new developers to the skills and tools they will need to successfully build Hydra based digital repository solutions. There's a lot of ground to cover and you won't walk out at the end of the week a complete expert, but we hope we'll have provided you enough of a scaffolding to jumpstart your own work and keep learning like the rest of us. We hope that the topics covered at HydraCamp provide enough breadcrumbs that you'll have a good idea where to start looking once you get home and start digging into problems on your own!

Supplies

- Laptop & Power Supply
- Headphones/Earbuds
- Water bottle/Travel Mug

Prerequisites

- If you have never used Ruby, visit <http://tryruby.org> for an interactive tutorial.
- Set up your develop environment - RailsBridge Installfest has nice instructions for getting your system setup: <http://installfest.railsbridge.org/installfest/> - follow the manual install instructions which will lead you through the following tasks:
 - If you're using a Mac, install/update XCode & homebrew.
 - Install Git (on Mac, we recommend using homebrew to install git)
 - Install RVM + Ruby 2.0.0 **using RVM**
 - Install Java 7 runtime (if you already have 6 installed, that also works)
 - Install a Text Editor of your choice. KomodoEdit is a popular free option. Many people use TextMate (not free). VIM is hardcore but some of us do it.
 - Create a (free) Github Account if you don't already have one:
<https://github.com/signup/free>
 - Create Github SSH Keys and set them up for your development machine
- BONUS: Set yourself up to use irc. You can find helpful information at <http://code4lib.org/irc> & <https://wiki.duraspace.org/display/hydra/Connect#Connect-IRC>

- NOTE: We'll have help available in class if you run into any troubles getting your system set up. We'll also have a VirtualBox image configured with Ubuntu and the necessary tools to complete class exercises.

Syllabus

Day 1: Tuesday, October 1st

- MORNING - start 9:30am
 - Welcome - Housekeeping - Introductions
 - Your name, institution, something unique about yourself
 - Course goals
 - Rails for Zombies - Levels 1 - 5 - at your own pace
- LUNCH - on your own
 - Intro to git, Collaborative Development, & TDD
 - RSpec testing for devise
 - Red Green Clean
 - <https://github.com/jeremyf/hydra-camp-devise-testing>
 - Rails for Zombies | TDD - at your own pace
 - Dive into Hydra: <https://github.com/projecthydra/hydra/wiki/Dive-into-Hydra>
 - Individual help available for install questions
- DINNER - on your own: [suggestions](#)

Day 2: Wednesday, October 2nd

- MORNING - start 9:00am
 - Wrap-Up Dive into Hydra
 - Collaborative development exercise using github
 - Also see:
 - <https://github.com/projecthydra/hydra/blob/master/CONTRIBUTING.md>
 - <https://help.github.com/articles/using-pull-requests>
 - Hydra Framework Technical Overview
<https://wiki.duraspace.org/display/hydra/Technical+Framework+and+its+Parts>
 - Managing descriptive Metadata in XML:
<https://github.com/projecthydra/om/wiki/Tame-your-XML-with-OM>
- LUNCH - group lunch at [The Jolly Scholar](#) - followed by campus tour at 1:15pm
 - Wrap-up OM tutorial
 - Solrizer walkthrough
 - additional references:
 - <https://github.com/projecthydra/solrizer> (see Readme)
 - <https://github.com/projecthydra/hydra-head/wiki/Solr-Schema>
 - [Optional] Start modelling your own metadata
 - [Optional] Create some additional content (books) to search
 - [Optional] <http://vim-adventures.com>
 - [Optional] Solr Tutorial: <http://lucene.apache.org/solr/tutorial.html>
 - [Optional] Setup a repo for collaborative development
- DINNER - on your own
- EVENING - optional - visit [Cleveland Museum of Art](#)

Day 3: Thursday, October 3rd

- MORNING - start 9:00am
 - Hydra Access Controls: <https://github.com/projecthydra/hydra-head/wiki/Access-Controls-with-Hydra>
 - Hydras in the Wild - examples of live Hydra heads
- LUNCH - on your own
 - Blacklight & Blacklight customization - at your own pace
READ: <https://github.com/projectblacklight/blacklight>
DO: <https://github.com/projectblacklight/blacklight/wiki/Quickstart>
OPTIONAL: <https://github.com/projectblacklight/blacklight/wiki/Configuring-and-Customizing-Blacklight>
 - Hydra Hacking - OM, customized views, search and facet customization, testing, access restrictions, etc.
- DINNER - on your own

Day 4: Friday, October 4th

- MORNING - start 9:00am
 - The Hydra developer toolkit
see: <http://ndlib.github.io/practices/ruby-and-rails-developer-tools/>
 - Bundler & gems
 - Fedora Admin
 - DRY
 - Debugger
 - Better Errors
 - hydra-tech@googlegroups.com
 - irc
 - The Hydra Community
<https://wiki.duraspace.org/display/hydra/Hydra+Community+Framework>
 - Production Deployment
<http://curationexperts.com/2013/10/07/the-hydra-production-stack/>
- LUNCH - on your own
- AFTERNOON - Students depart as necessary for transit
 - Q&A
 - Development process - feature branches, forks, pull requests
 - Operations & Production Deployment
 - Production Stack Overview Slide
<https://wiki.duraspace.org/download/attachments/11502264/Hydra+Production+Stack.pdf>
 - Avalon deployment - see especially Virtual Machine install #2:
<http://www.avalonmediasystem.org/download>
 - BETA HydraDam Install instructions
<https://github.com/curationexperts/bawstun/wiki>
 - Rails engines - see <http://edgeguides.rubyonrails.org/engines.html>