HANDS OFF!

Best Practices for Code Handoffs

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Code Handoffs Aren’t Like This
Code Handoffs
Code Handoffs
I’m supposed to take over WHAT???
Sources


**Refactoring: Improving the Design of Existing Code** – Martin Fowler, ..., Addison-Wesley Professional, 1999
“The ratio of time spent reading vs. writing is well over 10:1.”

– Clean Code
The Truck Test

“What if I were run over by a truck?”
Write code as if a stranger will need to understand it.
My code doesn’t have to age long for me to be a stranger.
The Boy Scout Rule

“Leave the code cleaner than you found it”

paraphrased from Clean Code
“The code needs to be kept clean over time”

- Clean Code
It’s More Than Code

• Servers
• Configurations
• ...

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Servers

Consider Naming By Purpose

- bacon-dev: development
- bacon-test: testing
- bacon-prod: production
Config Files

1. Inline documentation on what config file expects
   1. purpose/use of value
   2. syntax expected (examples!)

2. Try to group settings likely to vary
   1. e.g. server name, web service url, ...
# Settings for BnF Images
# You will want to copy this file and change the following settings:
# 1. coll_fld_val
# 2. log_name
# 3. default_set (in OAI harvesting params section)
# 4. blacklist or whitelist if you are using them

# the value of the "collection" field in the Solr document
# (a way to query this OAI harvest only); default is the default_set
coll_fld_val: bnf_images1

# log_dir: directory for log file
# (default is logs, relative to harvestdor gem path)
log_dir: logs
...
production config files should not point to boxes named "dev" or "test"
It’s More Than Code

• ...

• Tools Chosen
  – Deployment
  – Automated Monitoring
  – Issue Tracking
  – User Feedback

• ...

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It’s the Tools You Choose

“I’m probably not the first person to ...”

- ... Parse XML
- ... work with jpeg2000
- ... Write deployment scripts
- ... Parse MARC
When NOT to Roll Your Own

- Is there already local expertise?
- What solutions have your colleagues adopted?
- Are there existing tools for this work in this context?
- Which solutions are widely adopted?
- Which solutions are under active development?
It’s More Than Code

• ...
• Scripts
• ...
Scripts

• Named Well
  – “harvest_set” vs. “get”

• Begin With Comments Explaining Purpose, Arguments Expected, Results
#!/bin/bash
# pullThenIndexSirsilIncr.sh
# Pull over the latest incremental update files from Sirsi, then
# Remove deleted records (per file of ids) from index and update index (with marc records in file)
#
# updated for Naomi's FORK of solrmarc 2011-01-23
# Naomi Dushay 2010-04-09
...

It’s More Than Code

• ...
• Documentation
• ...

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Documentation isn’t cheating.
Comments and Other Documentation

• Inform
• Explain
• Clarify
• Warn
• Need Maintenance!

Use a comment to explain non-obvious, or tricky, or warnings
README

• What is this?
• How do I install it?
• How do I get it running?
• How do I use it?
  – Examples for most common cases
• How do I deploy it?
• Where should I look for more info?
To set up:
1. create a yml config file for your collection going to a Solr index.

See config/bnf-images.yml for an example.
You will want to copy that file and change the following settings:
1. coll fld val
2. log name
3. default_set
4. blacklist or whitelist if you are using them

To run:
./bin/indexer config/(your coll).yml
It’s More Than Code

• ...  
• TESTS  
• ...
Tests Should

- demonstrate how code should work
- be fast
- contain their test data (or have it in the test file, as close to test code as is practical)
- ...
- be viewed as code: readable, maintained ...
Tests Should

• ... 

• be viewed as code: readable, maintained ...
It’s More Than Code

- ...
- Continuous Integration
- ...

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Continuous Integration

• Builds Should
  – Run tests
  – Run test coverage
  – Be triggered by new code

• Failures Should
  – Be addressed ASAP
KISS
Keep It Simple Stupid

http://www.flickr.com/photos/alexdram/3368983298/
DRY
Don’t Repeat Yourself

http://www.flickr.com/photos/deeanna/20357091/
Readable Code

• Follow Conventions
• Meaningful Names
  – Variable
  – Method
  – Class
  – File
• Small, single purpose methods
Cleverness that reduces readability isn’t clever.
Sources


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Errors and Corner Cases

- Exceptions, not Error Codes
- Test exception expectations

```ruby
it "should log a warning when it finds direct non-whitespace text content" do
  x = stuff
  @logger.should_receive(:warn).with("Found direct text content: 'mistake' in page geeby-deeby")
  @rsolr_client.should_receive(:add)
  @parser.parse(x)
end
```
Thank You!