

betterplace.org



Crashing and uncrashing a social startup

RailsWayCon Berlin
June 1st, 2010

Till Behnke, co-founder, CEO
Phillip Oertel, CTO

Audience survey!

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1. What's your Rails version?

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2. Do you look into the Rails source?

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3. What's your team size?

Audience survey!

1. What's your Rails version?
2. Do you look into the Rails source?
3. What's your team size?
4. Why do you attend the talk?

Take-Aways

1. An approach to do Rails updates, and project recoveries in general
2. Typical issues during Rails updates
3. How to prevent history from repeating itself

What we do

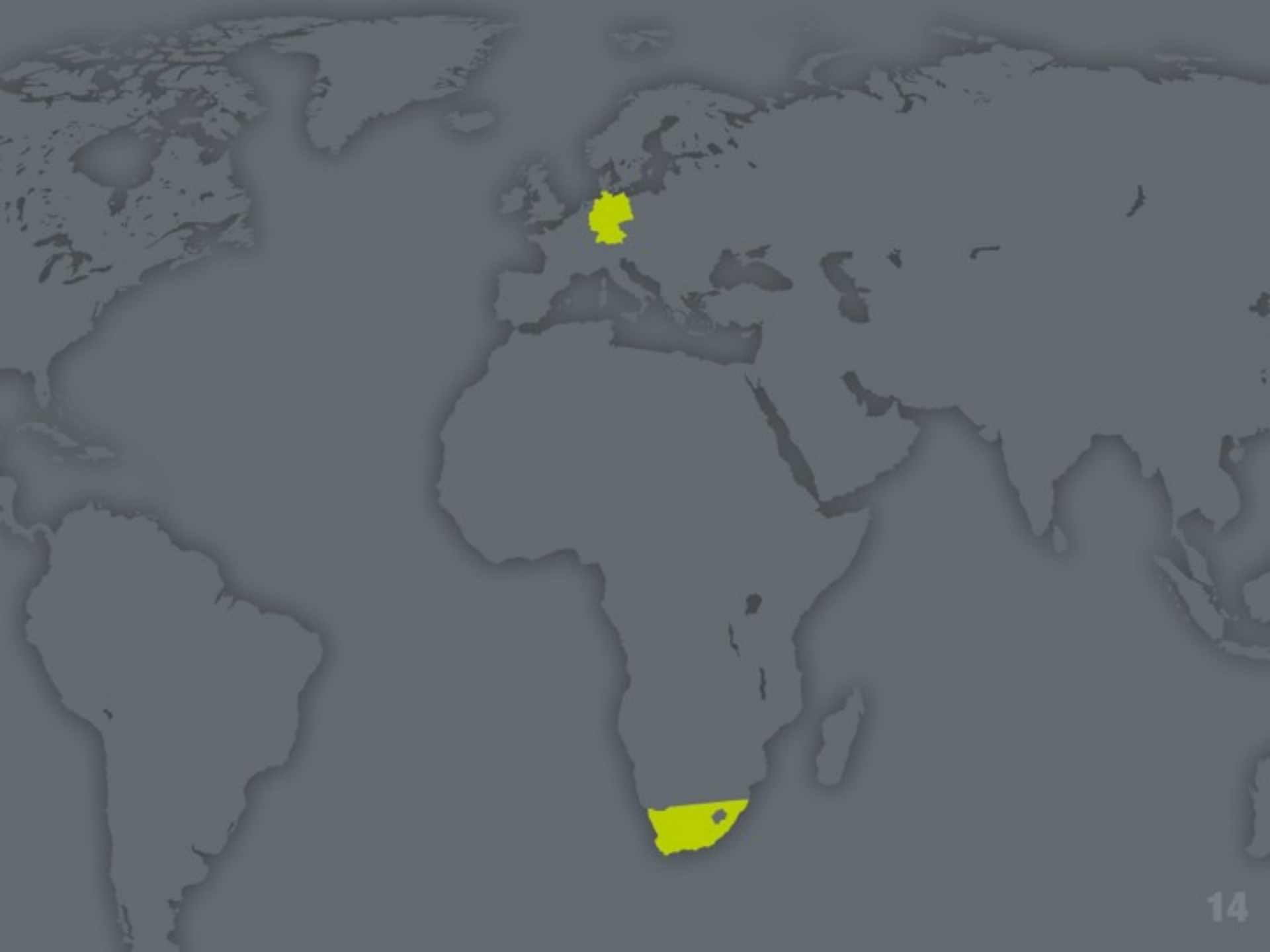
Introducing betterplace.org







Daimler Financial Services





„OPEN IT UP“



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[Browse Projects](#) [Browse Needs](#)

Drinking Water for the Primary School Ndokbagna



Location: PORT SHEPSTONE, KwaZulu-Natal, South Africa

Category: Health

Published: 03 September 2007

Progress:  28% fundedRating:  16 Ratings

By constructing a well in the school compound one can assure that 260 children will get drinking water during their long school hours. The children come to the school from their neighbouring villages which are within a radius of eight km and stay between eight to nine hours at th [...more](#)

NEEDS

electromagnetic measurement

430 Euro • Still needed: 300 Euro • Published 03 September 2007

Looking for the groundwater layer by doodlebugs gives rarely a viable result, therefore we have to opt for an electromagnetic measurement by a geologist in order to find the right location for the well.

DONATE! 30% funded

construction workers

2000 Euro • Still needed: 1990 Euro • Published 04 September 2007

The excavation work has to be done by qualified workers. How much time it will take depends on the soil and the depth of the well. The members of the G.I.C.s (villagers) will assist the hired workers during their excavation work.

DONATE! 0% funded

cement and sand

1000 Euro • Still needed: 1000 Euro • Published 04 September 2007

Not yet activated

 0% funded

SUPPORTERS

13

VISITORS



2

ADVOCATES

3

BLOG POSTS

2

-  recommend this project
-  become an advocate
-  become a visitor
-  view photos
-  ask a question

WEB OF TRUST

Project Responsible and Carrier



A. Kon



Project Supporters



G. Mueller



H. Knott



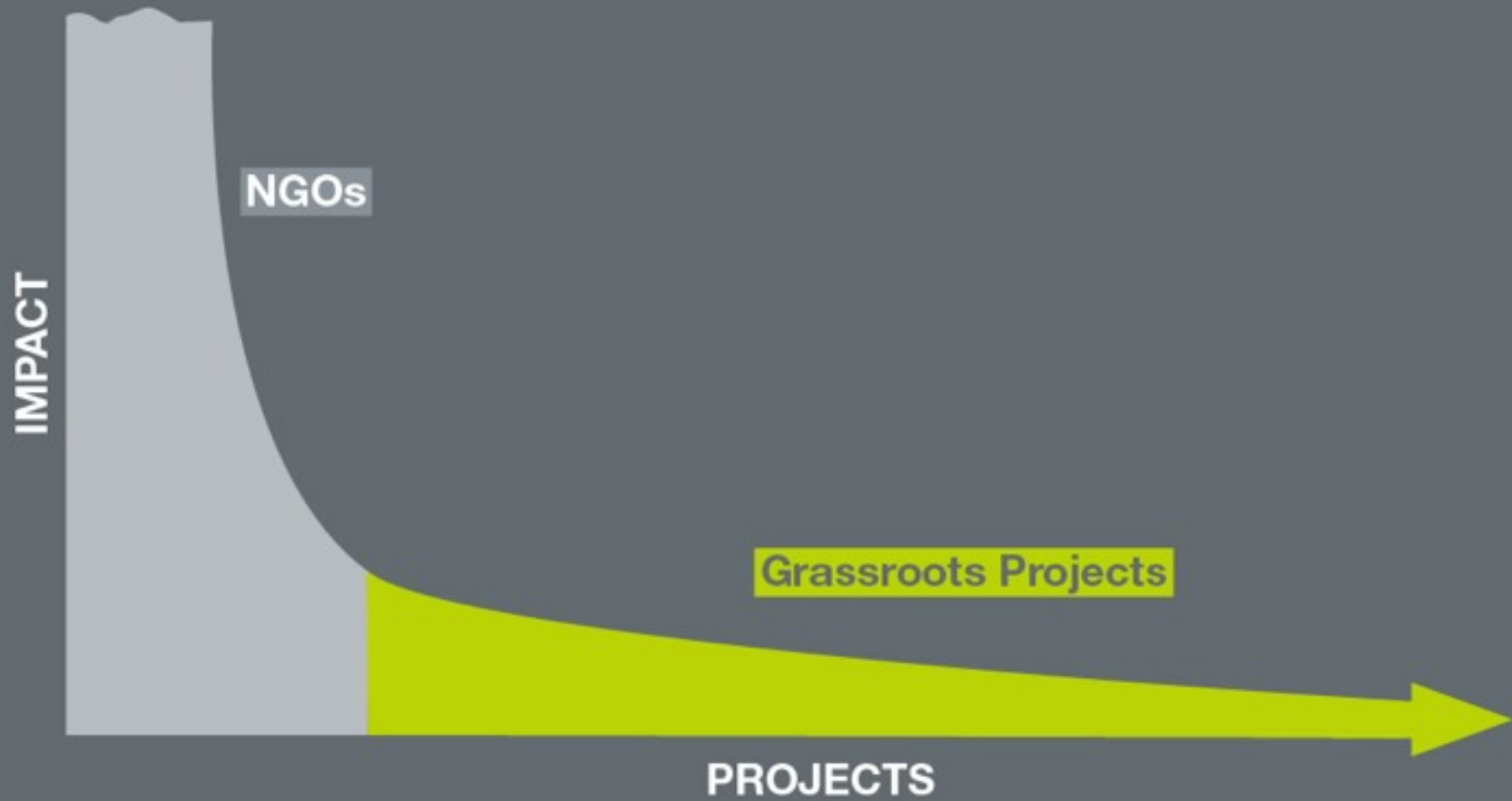
Z. Pecur-Medinger

[more »](#)

Project Advocates



LONG TAIL CHART



WEB OF TRUST



How we got there.

The beginning: Business & IT



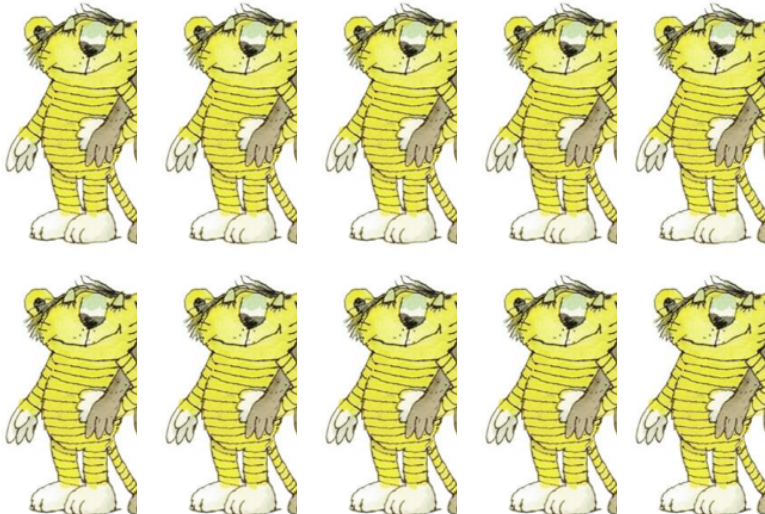
A growing organisation...

...without funding.

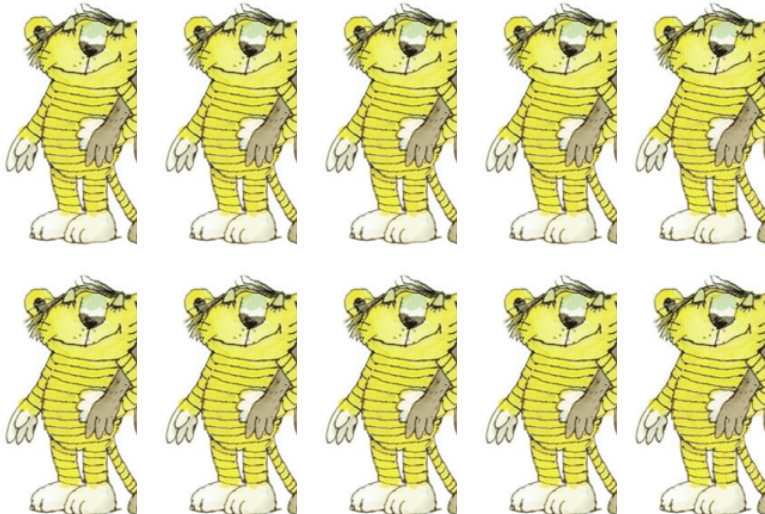


A growing organisation...

...without funding.



Fluctuation of staff.



>20 thousand lines
of code...

First time funding...

...and a team.

Rewrite?



Starting point:

betterplace in January

- Original developers were long gone
- 15.000 LOC, 16.000 LOT, 72 controllers, 160 models
- Running Rails 2.0.2, released December 2007
- Running mongrels, beanstalk 0.7, hyperestraier
- Code sometimes over-engineered, hard to understand, or hackish
- Lots of leftover code from one-time campaigns and features that never went live
- ~3 developers, 3 months time

Before you start

Some precautions

Convince

- there's no point in arguing if your organisation doesn't feel the pain itself
- don't just complain; developers complain all the time
- instead, show how the technical improvements will help your organisation to reach its goals

Manage expectations:

You certainly won't fix everything.

- Your own
- Your team's
- Your organisation's

For the team:

make a list of tech debt

Betterplace Technical Debt

 Bearbeiten  Sperren  Umbenennen  Löschen  Historie

this is an unprioritized, non-exhaustive list of everything that should and could be improved

- Rails 2.0.2 (2 Years old)
- missing tests:
 - donation UNIT **DONE**
 - INTEGRATION show (fulfilled) project needs
 - UNIT routing
 - **DONE** lots of integration tests
- deployment
 - to live only from staging server
- remove no more used features
 - Mozilla Day **DONE**
 - Ballon Day (?) **DONE**
 - Daimler **DONE**
 - crazy egg **DONE**
 - duplicate tiny_mce editor **DONE**
 - teaming_campaigns **DONE**
 - facebook api stuff **DONE** ** redirect all facebook app requests to a page which says "FB App is sleeping, why don't you try the real thing(link to bp.org)".
 - iphone api stuff **DONE**
 - kicktipps **DONE**

Watch team morale

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Watch team morale

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<http://www.flickr.com/photos/e-ality>

Watch team morale

- Work in pairs, extensively
- Remove the uncertainty of what you will need to do
- Show progress and remaining time on big visible charts
- Do retrospectives

The approach

A lot more than coding

The approach

The approach

4. Do the actual update

The approach

4. **Do the actual update**

6. Release

The approach

1. Reduce app to the min

4. **Do the actual update**

6. Release

The approach

1. Reduce app to the min
2. Bring test coverage up
- 3.
4. **Do the actual update**
- 5.
6. Release

The approach

1. Reduce app to the min
2. Bring test coverage up
3. Do a spike
4. **Do the actual update**
5. Rollback
6. Release

The approach

1. Reduce app to the min
2. Bring test coverage up
3. Do a spike
4. **Do the actual update**
5. Throw a test party
6. Release

The approach

1. Reduce app to the min
2. Bring test coverage up
3. Do a spike
4. **Do the actual update**
5. Throw a test party
6. Release
7. Fix missed bugs

1. Reduce app to the minimum

- throw out non- or hardly used features
- throw out commented out code
- get rid of unused plugins, gems, other files

2. Bring test coverage up

Make a list of all features

Liste der Features

Funktion	Priorität	Testen	Kommentar
Registrierung			
Besucher legt User-Account an	2	2	2 Mails
User registriert Organisation	3	2	Mail
User registriert Projekt	1	1	Mail
User registriert Unternehmen	3	3	Mail
User registriert Team	1	1	Mail

Cucumber is your friend.

Feature: Login and out to betterplace-

In order to see personalized content on betterplace and access some prote

As a betterplace website visitor-

I want to be able to login to betterplace-

Scenario: Normal user login at betterplace-

Given user "Fritz" exists-

And I am logged in as this user-

Then I should see "Fritz's betterplace"-

Scenario: Normal user logout at betterplace-

Given user "Fritz" exists-

And I am logged in as this user-

When I follow "Log Out"-

And I should see "Already a User? Login here:"-

3. Do a spike



When spiking, you have the
license to make a mess.

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4. Do the actual update

- work off your list made during the spike
- run `rake rails:update`

- i18n
- CGI => Rack in 2.3:
review sessions, cookies, uploads, JSON/XML APIs
- review new rails defaults:
`ActiveRecord::Base.include_root_in_json`, ...
- order of observer/callback firing has changed

Plugins

- `attachment_fu`
- `active_merchant`
- `cucumber`
- `find_by_param`
- `haml`
- `rspec`
- `typus`

5. Throw a party with the whole team, and test



6. Release it!

```
po@dev01:/var/apps/betterplace/current
triggering start callbacks for `deploy:migrations'
* executing `multistage:ensure'
* executing `deploy:migrations'
* executing `deploy:update_code'
  updating the cached checkout on all servers
  executing locally: "git ls-remote git@git.dmz.betterplace.org:betterplace.
aster"
  * executing "if [ -d /var/apps/betterplace/shared/cached-copy ]; then cd /va
s/betterplace/shared/cached-copy && git fetch origin && git reset --hard c29
ade88b929b9a1ac5f4e59a5050228130; else git clone --depth 1 git@git.dmz.better
.org:betterplace.git /var/apps/betterplace/shared/cached-copy && cd /var/apps/
rplace/shared/cached-copy && git checkout -b deploy c2947793ade88b929b9a1ac5f
5050228130; fi"
    servers: ["web05.dmz.betterplace.org", "web01.dmz.betterplace.org", "web02
betterplace.org", "web03.dmz.betterplace.org", "web04.dmz.betterplace.org"]
    [web05.dmz.betterplace.org] executing command
    [web02.dmz.betterplace.org] executing command
```

7. Fix the bugs you missed, immediately

All unresolved errors			
	PROJECT	MESSAGE & LOCATION	LATEST
S	betterplace.org	NoMethodError: undefined method `donations' for nil:NilClass rake task: recurring donations#	about 4 hours
P	betterplace.org	NoMethodError: undefined method `donations' for nil:NilClass rake task: recurring donations#	about 4 hours
P	betterplace.org	ActionView::MissingTemplate: Missing template projects/show	about 5 hours
P	betterplace.org	NoMethodError: undefined method `project' for #<ActiveRecord::Base> blogs#index	about 5 hours
P	betterplace.org	ActionView::MissingTemplate: Missing template blogs/show blogs#show	about 13 hours

Declare victory!

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<http://www.flickr.com/photos/annieinbeziers/1504067303/>

Done. Done?

Start using new Rails features

```
class Project < ActiveRecord::Base

  named_scope :completed,
    :conditions => 'projects.completed_at IS NOT NULL',
    :order => 'projects.completed_at DESC'
  named_scope :featured, :conditions => 'projects.featured != 0'
  named_scope :visible, :conditions => { :hidden => 0 }
  named_scope :lang, lambda { |lang| %w(en de).include?(lang) ...

  ...
```

```
# app/views/groups/new_groups/_section_header.html

#amount_donors.fl
%span.label=t(".amount_donors")
%span.amount=@group.members.size

... 
```

But if you just do this,

history will probably repeat itself.

- „Always leave the campsite cleaner than you found it“
- Schedule larger improvements
- Build a team, distribute knowledge: „If you want to go fast, go alone. If you want to go far, go together.“
- Build trust: be transparent, measure.
- Bring in new people.
- Establish a pull-based software development process

Q & A

Work for us!

Here in Berlin, Kreuzberg.

jobs@betterplace.org

Vielen Dank.



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Stub example

```
gettext_stub.rb

1 class ActiveRecord::Base
2   -
3   DEBUG = false
4   -
5   class << self
6     def untranslate(*args)
7       puts "untranslate stub called with #{args.inspect}" if DEBUG
8     end
9     -
10    def bindtextdomain(*args)
11      puts "bindtextdomain stub called with #{args.inspect}" if DEBUG
12    end
13    -
14    def N(*args)
15      puts "N_ stub called with #{args.inspect}" if DEBUG
16    end
17  end
18 end
```