

Alpha Progress Review

Martin Lucas-Smith, 4th November 2011

Overview

The project is proceeding well. No major problems have been encountered, and the developer team are working extremely well together.

Development has been proceeding according to the spec created. The extensive work done on this, and a two-day initial review meeting has meant that very few changes have been needed, with only a few minor points where the spec had not sufficiently defined a particular detail.

Development is slightly behind schedule, but not worryingly so. Fundamental concepts are in place, though there is a lot of UI work to do, which the designer, being appointed, will deal with.

Roles

Martin Lucas-Smith from CycleStreets is managing the overall project and keeping an eye on development progress, and dealing with any non-coding issues (e.g. DNS/domain name issues) that arise.

Andy Allan is focused on providing geospatial-related features including interactive maps that allow users to set and display points, performing calculations with geo data, and working on our server infrastructure. Most of Andy's work so far has been on the issues system and automated deployment.

Andrew France has been developing the overall Rails application and helping with the management of the project. Andrew's focus has been on implementing user management, groups, and the threads and messages system.

Workflow

Actionable items are added to Pivotal Tracker (a third-party service) on an ongoing basis from the specification document and as new work arises. We estimate the complexity of each item on a simple points scale and place it in a list that represents the order of work. On a daily basis the developers pick items off the list to start working on and mark them as such. We create a new branch in the version control software to represent the new feature and when that is complete and passes all automated tests it gets merged back into the main codebase. The main code is automatically deployed to the site every hour.

The code is being developed as open source, using Github as the repository. The main branch is at <https://github.com/cyclestreets> and the branches in play are at <https://github.com/cyclestreets/toolkit/branches> .

Major items implemented

Users and groups

Users can sign up to the system and sign in. Groups can be created by administrators with one committee member receiving the invitation and from then on any committee member can invite new users to their group by entering their e-mail address. This will send an e-mail invitation to the person and ask them to set details for their account.

Message system

A Thread is a collection of Messages and our goal is to have many types of message that can be posted in order to turn threads from conversations to actionable items. Currently a user can post text messages, photos, and web links in a thread. These are displayed alongside the user's details including their profile picture if they have uploaded one.

Issues

New issues can be created by selecting the area on a map they affect and typing in a title and description. A user can see all issues for an area such as a Group on the map and both public and group Threads can be subsequently created from them. As with many areas of the site we need to do more on the user interface for this but the underlying functionality is present.

Automated deployment

Andy has written scripts for a system management application called Chef that completely automates our server environment. It ensures that the correct programs are installed and configured as well as updating the Cyclescape application when code changes are made. This frictionless deployment system in conjunction with a comprehensive test suite ensures that we are confident about updating the production site on a frequent basis. Any new feature or fix is automatically deployed to the production site within the hour.

The deployment system is treated as a separate code repository, also open source on Github, at <https://github.com/cyclestreets/toolkit-chef> .

E-mail integration

Users can subscribe to threads by e-mail and receive new messages posted to the thread.

Development issues

Deployment and Ruby 1.9

Automated and frequent deployment is fast becoming de-facto best practice for web applications with sites such as GitHub and Facebook updating multiple times a day. We chose to use the latest Ruby version, 1.9, as it's better and Ruby 1.8 "has no future" according to its developers. Even though deploying applications to 1.9 is now common Ubuntu Linux handles Ruby versions quite poorly and we experienced a lot of difficulty configuring the system to use 1.9. It meant the deployment system took 2 to 3 days longer than our planned time.

Geospatial Postgresql

We've encountered bugs in various gems (software components) that we've been using, especially regarding the geospatial functions. Since these gems are all open-source, we have supplied both bug reports and in most cases code fixes back to the upstream projects in order that future geospatial applications benefit from our work.

We lost quite some time due to various issues with Postgresql, PostGIS, and the RGeo gem. There was also an error with our test suite that took some time to diagnose due to Andrew's unfamiliarity with Postgres' geo features while Andy was not aware of how some of these changes in turn affected other tests.

Major development items outstanding

Graphic design

A graphic designer is currently being sought but at this stage of the project it means that Andrew has had to take time away from backend coding to do basic design work, which was not originally taken into account.

Dashboards

The system currently lacks a coherent navigation infrastructure or any at-a-glance pages that display relevant information for users and groups. These should start appearing quickly now that issues and messages are implemented.

Library

We had hoped to implement the InfoBlock library by this time.

E-mail integration

Currently users cannot respond to messages or create new thread by e-mail only.

Server hardware

A new server has been specced and obtained. This has been ordered from Mythic Beasts, a Cambridge-based colo company who have excellent Unix knowledge and excellent support.

A Virtual Machine with Ubuntu installed on it, and the chef deployment is installed so that rollout is automated.

Project name and domain names

Obtaining a domain name proved to be unexpectedly time-consuming and expensive.

Stakeholders (and the public) were consulted on domain names via our blog. We had over 70 suggestions (including some humorous ones), many of which were excellent ideas.

Cyclescape was chosen. This was in our top three possible names.

We also thought it was particularly important to emphasise the geographical aspect of cycle campaigning. We thought that inventing a new word, Cyclescape would be a catchy and unique brand that emphasises the idea of improving the landscape for cycling across our towns and cities. We also felt that Cycles<something> was good in terms of co-branding with CycleStreets.

We decided from the outset that, for brand protection reasons, it was essential that .com/.net/.org names were all registered.

Communications

A blog has been set up, at <http://blog.cyclescape.net/> and earlier posts on the CycleStreets blog have been transferred over to it, by way of maintaining a complete archive of the project's development right from its pre-bid idea stage.

A twitter account, [@cyclescape](https://twitter.com/cyclescape) has been registered, and is reporting on progress. In due course this might be used for tweeting about key cycling issues that users register.

A stakeholder e-mail list has been set up to inform stakeholders of progress in more detail.


Latest screenshots

Cyclescape

My Dashboard Issues Threads Andrew France Sign out

All Issues


[New Issue](#)



Recent Issues

Test issue 3 is a bit longer (Car Parking)
Created By [Andrew France](#) 7 days ago


Fusce sed diam urna. Vivamus tempus arcu eget nisi rhoncus luctus...



2 public threads, 0 private threads

Test issue 2 (Enforcement)
Created By [Andrew France](#) 7 days ago


Fusce sed diam urna. Vivamus tempus arcu eget nisi rhoncus luctus...



1 public thread, 0 private threads

A1 (Obstruction)
Created By [Andrew France](#) 8 days ago

Blah blah



1 public thread, 0 private threads

Cyclescape

My Dashboard Issues Threads Andrew France Sign out


Test issue 3 is a bit longer

Added by [Andrew France](#) on 20/10/2011
Category: Car Parking


Fusce sed diam urna. Vivamus tempus arcu eget... Integer scelerisque sapien non orci auctor eget... ut blandit laoreet, iaculis orci euismod libero... eu praesent... lorum. Praesent ornare condimentum massa nec... pharetra consectetur sem ac ultrices.

Test issue 3 is a bit longer

Public, 3 messages, 1 participant



[Andrew France](#) 20/10/2011 10:55 AM
Yep I completely agree



[Andrew France](#) 20/10/2011 11:05 AM
We should work on this.

New Thread on Test issue 3

Title*

Privacy* Group
Select if this thread should be visible to members of the group only or everyone.

Message*

[New Facebook Cycling Campaign Thread](#)


CycleKit
 My Dashboard
 Andrew A1
 Sign out

New Issue

Title*

Category*

Description*



Map showing a route on a road network. A 'Create Issue' button is located below the map.

Cyclescape

My Dashboard Issues Threads Andrew France Sign out

Back


One

Public: Everyone can view this thread and post messages.

1 subscriber to this thread
 Andrew France
 You are subscribed to this thread.
[Unsubscribe](#)

Andrew France posted 6 days ago
 Message one

Andrew France posted 7 days ago
 Another message here with some more text about random stuff to make the box longer. I should probably add some lorem ipsum really. In fact a lipsum generator would be handy. I wonder if there is a plug-in for Chrome for that. If there isn't I should really write one.

Andrew France posted 7 days ago

 Upside down countryside
 What do you think of this?

New Message

Text Message **Photo Message** Link Message

Photo* No file chosen

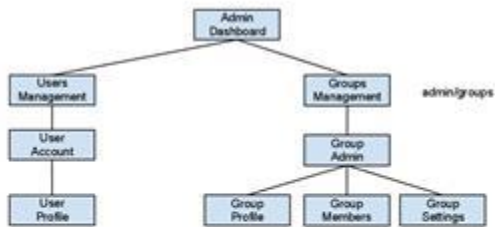
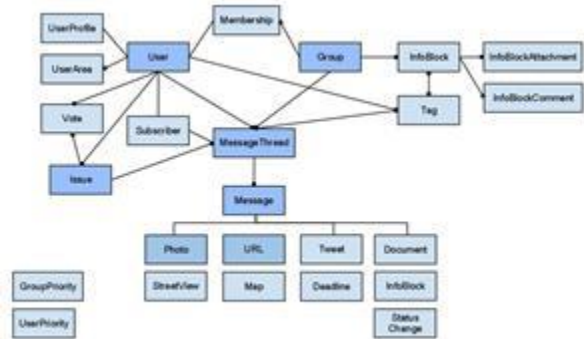
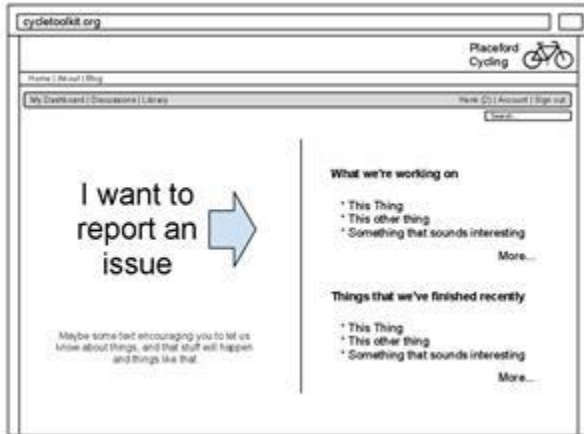
Caption

Message*

Spec development and confirmation



Wireframes



Automated testing

Coverage is approaching 200 tests now.

```
File Edit View Search Terminal Help
16 bash 1 1 bash 17 bash 23 bash 45 bash 51 bash 65 bash

Group threads
as a group committee member
index page
  should list threads belonging to the group
new thread
  should create a new public thread
  should create a new private thread (PENDING: Not Yet Implemented)
showing a thread
  should show the thread title
  should have fields to create a new message
  should display all the messages in chronological order (PENDING: Not Yet Implemented)
  should show who started the thread (PENDING: Not Yet Implemented)

Message threads
as a public user
index
  should list public message threads
  should not show private message threads (PENDING: Not Yet Implemented)
  should list threads by latest first (PENDING: Not Yet Implemented)
show
  should show the thread title
  should show messages on a public thread
  should not allow access to a private thread (PENDING: Not Yet Implemented)
as a site user
index
  should list all public message threads
  should list threads the user has created (PENDING: Not Yet Implemented)
  should list all threads the user has been invited to (PENDING: Not Yet Implemented)
as an admin user
index
  should list all message threads (PENDING: Not Yet Implemented)

Authentication and authorization
when not logged in
  should allow access to the home page
  should not allow access to groups and redirect to sign-in

Groups admin
index
  should list all the groups
new
  should let you create a new group
edit
  should show the current group details
  should update the group

Issues
new
  as site member
    should create a new issue
  show
    as a public user
      should show the issue title
      should show the description
      should show the location (PENDING: Not Yet Implemented)
```