Unique Capability

2

Unique App

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nickdthorne
nickthorne
• The Idea
• Marketing
• Elaborating the UseEx
• Elaborating the System
• Monetization
• Tooling & Method
• Publishing
"From the 1920's upto the 1950's the Liverpool Observatory and Tidal Institute (LOTI) was predicting tides for two-thirds of the world ...."

http://noc.ac.uk/about-us/history/proudman-oceanographic-laboratory
Marketing


£0.69

£6.99

£1.49

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Our USP

- any tide any where any time ... anyTide  **no restriction to tidal gauge locations**
- Unique bathymetry model around North West Atlantic Continental Shelf
- Custom tidal prediction algorithms
- 1.8Km square grid of coefficients available around UK
• The Idea
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Elaborating the UseEx

- Apple Human Interface Guidelines
- App Store Review Guidelines
  - e.g. no more flashlight apps
  - e.g. no misspelt Apple product names
- Wireframes + Flow diagrams (e.g. iMockApp)
  - Overlays + offline mapping ..?

Add Bookmark popover.
Enter a name

Location

If no connectivity

Select bookmark

Time scroll: Scroll days horizontally

Chart View
Controls:
View Detail
Save as bookmark
Select bookmark
Swipe/pinch time-scroll

Tidal prediction engine
Graph drawing

About tab.
Info about the app.

Acquire location from sensors

Display current location on map.
Select new location from map

Settings (via iPHone settings)
Accessed via iOS settings

Connection error popover.

Red Box = A Screen

Lots of discussion

A red box is a screen

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Elaborating the UseEx

- Apple Human Interface Guidelines
- App Store Review Guidelines

<table>
<thead>
<tr>
<th>Screen Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map Screen</td>
<td>This is the first screen seen on start up. Allows the user to pan/zoom around a map somewhere in the UK. Then select a location by tap and hold then pop up dialog with options. If a location fix is available, then the tides can be shown, otherwise the user is prompted to select a bookmark instead. A “My location” button zooms the map to the current location if known, otherwise the a fix is not available. A search bar allows searching by address if a connection is available.</td>
</tr>
<tr>
<td>Bookmarks</td>
<td>List of locations that have been bookmarked. Edit, select, delete, rearrange.</td>
</tr>
<tr>
<td>Edit Bookmarks</td>
<td>In future this will contain an option to view the bookmark on the map. Edit the selected bookmark. Change title, latitude and longitude.</td>
</tr>
<tr>
<td>Add Bookmarks</td>
<td>In future this will include a small map displaying the bookmark location. Add the currently selected location to a bookmark. Enter a name.</td>
</tr>
<tr>
<td>Chart</td>
<td>Displays a chart of a 24 hour period of tide. Can be swiped horizontally to select a different area (Optional: Pinch and zoom can be used to inspect areas of the chart in more detail.) HW and LW are detected by differentiating the graph line, finding points of inflexion (changes in slope), then storing the two lowest and two highest points.</td>
</tr>
<tr>
<td>About</td>
<td>Displays information about the app, how it works, who made it etc. Popover tells the user a connection is needed for a chart to be generated, so give optic area / bookmark. Or display an offline cached map of UK.</td>
</tr>
<tr>
<td>Connection</td>
<td>Popover</td>
</tr>
<tr>
<td>Error</td>
<td>Shows an offline cached map of UK.</td>
</tr>
<tr>
<td>Settings</td>
<td>This is selected via the iPhone “Settings” icons (the gears).</td>
</tr>
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Elaborating the UseEx

- Offline functionality?
  ...big impact on system design
Elaborating the UseEx

• Tab based

Universal app, so common screens
• The Idea
• Marketing
• Elaborating the UseEx
• **Elaborating the System**
• Monetization
• Tooling & Method
• Publishing
Elaborating the System

• Decide on an API choice to facilitate offline operation
  – Impact on client-server functionality
Elaborating the System

- Model-View-Controller-Store
  & client-server functionality

Technologies:

- mySQL (using GIS extensions)
- PHP - JSON
- SSL

- Objective-C
- Cocoa Touch
- Quartz2D
  + C libraries compiled from MATLAB

```sql
SELECT * FROM harmconstants;
SET @bbox = CONCAT('POLYGON(', X(@center) + @radius, ',', X(@center) - @radius, ',', Y(@center) - @radius, ',', Y(@center), ')');
```
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Monetization

- **Sell Time?** (predictions from date X to date Y)
- **Sell Place?** (predictions at locations A, B & C)
- **How much for free?** Freemium + IAP vs. paid for?

"A $5 app isn't expensive: Customers need to help fix the App Store economy"

Monetization: Conclusion

- **Sell Time**
  - anyTide offers each year of predictions UK wide for £1.49

- **How much for free?**
  - Current day for free
  - AND one location near the original tide lab in Liverpool for free for all time
Monetization

• Customers still want free!

Customer Reviews

Very useful for local predictions ★★★★★
by Stifyn

I downloaded this app as it uses a combination of tide gauges and state-of-the-art tidal prediction models to give accurate predictions for any part of the coastline, whereas other apps only let you focus on the ports on their database. For example I can get tide for my local beach Aberavon rather than rely on an approximate reading from...More

AnyTide ★
by Roz de-Layan

This is a swizz. You download what you are led to believe is a free app only to find you can’t use it unless you pay for each annual tide table. There are free ones that are very good, so avoid this con.
• The Idea
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• Publishing
Method

- Fixed Price
- V-model
- Time & Materials
- Agile
- Hybrid

Tech + Spec Confidence

Estimation Confidence
Tooling

• Client Side:
  – MacBook (OSX 10.7.5 - Lion), iPod Touch 5th + 4th Gen, iPad
  – Xcode 4.4, GIT, iOS Simulator, Apple iOS dev account (£60 pa), Powerpoint, Word, iMockApp, Blueprint
Tooling

- Xcode and Interface Builder
Tooling

• Xcode archiver - ready for submission
Tooling

• Server side:
  – Linux. Gcc + Gmake, CLI mysql, Notepad++, CoreFTP, Firefox + Firebug, VisualJSON

• Distribution
  – Ad Hoc vs App Store
  – Agile model + testflightapp

• Help + Info
  – Apple developer forums
  – Stackoverflow
  – Big Nerd Ranch Guide Book
Publishing

• iTunesConnect
  – (lots) images, icons etc
  – IAPs
  – Review process
  – Review guidelines
  – Resolution Centre

Gotcha warning: App Store Search + your app name
App idea

Your location
Back button

6. Touch peak/trough to get pop up of time and elevation.

anyTide predicts tides from a combination of gauge and model data from around the North Western European Shelf, with particular focus on the British Isles.

iPhone and iPad

Tidal predictions anywhere along the UK coast that can also be used offline via the use of bookmarks.
anyTide

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anyQuestions?