

Functional Design Specification

Harvesters Community Food Bank

Website Redesign

August 12, 2013 Version 1.3

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Document History

Version	Date	Description	Author
1.0	August 7, 2013	Initial Draft	Jeremy Fuksa
1.1	August 8, 2013	Added Section 3	Jeremy Fuksa
1.2	August 9, 2013		

Refined functionality in Section 3

Jeremy Fuksa

1.3

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Completed functionality in Section 3

Jeremy Fuksa

Document Purpose

The Functional Design Specification (FDS) contains all of the business, user, functional and technical requirements for a given project.

At Clickfarm, the FDS is considered the *initial* document of record for all requirements involving substantive functionality. Project developers will build the code and quality assurance will build test cases and test the application based on this FDS.

Agile Development Philosophy

The working software we collaboratively develop is likely to diverge in certain ways from the description of features in this document during the iterative build and review process. This is inevitable, expected and ultimately critical to the success of the project.

This approach to software development is called Agile, and its fundamentals are outlined in the *Manifesto for Agile Software Development*:

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

1. Individuals and interactions over processes and tools
2. Working software over comprehensive documentation
3. Customer collaboration over contract negotiation
4. Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

When functionality appreciably changes during the Agile process, this document will be revised and copies will be distributed to all appropriate stakeholders.

Section 1: Business Requirements

1.1: Background

Harvesters Community Food Bank is requesting a Website Redesign (project *or* website). This website is part two of a multi-part effort to update and streamline the digital properties that Harvesters owns. Clickfarm is designing and developing each part of the effort.

1.2: Project Success Factors

The overarching goal for the project is to bring organization and simplification to the large amounts of content Harvesters owns.

The project will be successful if a User can easily find the information they seek and then convert that knowledge into action that benefits Harvesters initiatives.

1.3: Value Provided

The project will provide the following value to Harvesters Community Food Bank:

1. A reorganization and simplification of a currently wide hierarchy of information
2. Ability to easily prioritize content so that a User can be made aware of timely initiatives
3. Ability to give a User access to a deep catalog of information without bogging down the overall information architecture
4. A modern platform on which to build future marketing initiatives
5. A responsive website that functions equally well across all manner of Internet-connected devices
6. A refreshed look and feel

1.4: Project Scope

1.4.1: In Scope

The requirements described in this document will focus strictly on the functionality and content associated to the project as defined by the approved Scope of Work (SOW).

1.4.2: Out of Scope

Any functionality not previously defined in the SOW is considered out of scope.

1.5: Roles and Responsibilities

1. Clickfarm will be handling the design and development of the project and all associated functionality.
2. Harvesters Community Food Bank will provide feedback on design decisions and assist in beta testing the project before launch.

Section 2: User Requirements

2.1: User Roles and Tasks

The following UML Use Case Diagram represents the user classes and tasks of the Users that will interact with the system:

[UML USE CASE DIAGRAM]

Section 3: Functional Requirements

3.1: Home Page

The **Home Page** will be the first thing a User sees when visiting from the domain root (<http://harvesters.org>). The purpose of this page is to give a reasonable overview of Harvesters' initiatives and invite the User to explore deeper or begin the task of giving.

3.1.1: Functional Rules

1. The **Home Page** will contain a **Carousel** module that will display multiple **Slides** at a pre-set interval. A **Slide** will contain:
 - An image
 - A caption
 - A destination URL
2. **Carousel Slides** will be able to be administered via the CMS

3. The **Home Page** will contain a **Latest News** module that features a maximum of ten **Blog Posts** written by the Editorial Team
4. By default, the ten most recent **Blog Posts** will be displayed in the **Latest News** module. If a **Blog Post** has been designated as “sticky”, that **Blog Post** will display at the top of the list stack.
5. Sticky **Blog Posts** will also be sorted by post date
6. If more than one **Blog Post** is sticky, the CMS will fill the remaining slots with the most recent **Blog Posts** until ten **Blog Posts** are displayed
7. The **Give Money**, **Give Time**, **Give Food** and **Give Voice** modules will all feature Call To Action (CTA) buttons that direct the User to the **Universal Giving Form**. Each button will be given its own unique event ID for tracking and reporting purposes within Google Analytics.
8. Each CTA button will also determine what values are pre-checked on the **Universal Giving Form** when the User arrives
9. Only Administrators can edit content on this **Page**

3.1.2: Wireframe

Please refer to the Diagrams document, *2.1a: Home Page*, *2.1b: Home Page - Learn Dropdown*, *2.1c: Home Page - Get Help Dropdown* and *2.1d: Home Page - Email Dropdown* for the wireframe diagrams.

3.2: Take Action Landing Page

If the User selects *Take Action* from the main menu, she will arrive at the **Take Action Landing Page**.

3.2.1: Functional Rules

1. The **Landing Page** will contain a hero image and introductory copy that inspires the User to continue to the **Universal Giving Form**
2. The **Give Money**, **Give Time**, **Give Food** and **Give Voice** modules will all feature CTA buttons that direct the User to the **Universal Giving Form**. Each button will be given its own unique event ID for tracking and reporting purposes within Google Analytics.
3. Each CTA button will also determine what values are pre-checked on the **Universal Giving Form** when the User arrives

4. The CTA button at the bottom will be tied to a generic event ID within Google Analytics and will not pre-check any values on the **Universal Giving Form**
5. Only Administrators can edit content on this **Page**

3.2.2: Wireframe

Please refer to the Diagrams document, *2.2: Take Action Landing* for the wireframe diagram.

3.3: Learn Landing Page

If the User selects *Learn* from the main menu, she will arrive at the **Learn Landing Page**.

3.3.1: Functional Rules

1. The **Landing Page** will contain a hero image and introductory copy that inspires the User to explore the subpages of the *Learn* section in greater detail
2. The **About Harvesters**, **Hunger In Our Region** and **Harvesters Feeds Hungry People** modules will direct the User to those respective pages within the website.
3. Only Administrators can edit content on this **Page**

3.3.2: Wireframe

Please refer to the Diagrams document, *2.3: Learn Landing* for the wireframe diagram.

3.4: Get Help Landing Page

If the User selects *Get Help* from the main menu, she will arrive at the **Get Help Landing Page**.

3.4.1: Functional Rules

1. The **Landing Page** will contain a hero image and introductory copy that assist the User in finding a food pantry or learning more about SNAP assistance
2. The **Food Pantry Locator** module contains a form that will act as the arguments for a search that populates the **Locator Results Page**
3. Only Administrators can edit content on this **Page**

3.4.2: Wireframe

Please refer to the Diagrams document, *2.4: Get Help Landing* for the wireframe diagram.

3.5: Inner Content Pages

Any page that contains long-form content will be displayed as an **Inner Content Page**.

3.5.1: Functional Rules

1. The **Page** will contain a hero image that is unique to that given **Page's** CMS entry
2. The **Page** will contain a flexible content module that can accommodate HTML, inline images and inline audio/video embeds
3. The Administrator will have the ability to choose a one- or two-column layout for the flexible content module
4. The **Page** will contain a **Related Content** module that is mostly identical in function to the **Latest News** module on the **Home Page**
5. The difference in function between **Related Content** and **Latest News** is that **Related Content** will only pull **Blog Posts** that are tagged to be displayed on that specific **Inner Content Page**. Details of this taxonomy are found in [3.9: Latest News](#)
6. The **Page** will contain a *Take Action* CTA that is identical in function to the generic CTA on the **Take Action Landing Page**
7. The **Page** will contain a **Receive News via Email** module that contains a form that will add to Harvesters' email marketing database via the Exact Target API
8. The email address given in the **Receive News via Email** module will be validated for correct formatting
9. Only Administrators can edit content on this **Page**

3.5.2: UML Diagram

Please refer to the Diagrams document, *4.2: Receive News via Email* for UML Class definition.

3.5.3: Wireframe

Please refer to the Diagrams document, *2.5a: Inner Page - Single Column* and *2.5b: Inner Page - Dual Column* for the wireframe diagrams.

3.6: Sign In/Sign Up

When the User selects any CTA that leads to the **Universal Giving Form**, she is first directed to the **Sign In/Sign Up Page**. The purpose of this page is two-fold:

1. To give the User a convenient way to return to the **Universal Giving Form** in the future and have their information pre-populated
2. To give Harvesters an additional avenue of gathering User data for potential marketing efforts in the future

3.6.1: Functional Rules

1. The Page will contain one form that allows a User to create a giving account, and another form that allows a User to log in with previously created credentials
2. The **Sign Up** form will require:
 - The User's name
 - The User's email address
 - A desired password of no less than ten characters in length
 - A password verification field
3. The email address given in the **Sign Up** form will be validated for correct formatting
4. The passwords entered in the **Sign Up** form will be compared for matching. If the passwords do not match, the User will receive an alert prompting her to re-enter the passwords to ensure that they match
5. The "Sign Up" button of the **Sign Up** form will be disabled until all fields are populated and validated
6. If the User does not give proper credentials in the **Sign In** form, she will receive an alert prompting her to re-enter her email address and password. She will also receive a link that will allow her to retrieve her password if it has been forgotten.
7. Upon submission, the User's data will be added to the giving account database for future use

8. The Server will send the User a confirmation email that contains her giving account credentials
9. Upon successful data capture, the User will be directed to the **Universal Giving Form**

3.6.2: Interaction Flow

Please refer to the Diagrams document, *3.1: Sign/InSign Up* for flow progression.

3.6.3: UML Diagram

Please refer to the Diagrams document, *4.3: Sign Up* for UML Class definition.

3.6.4: Wireframe

Please refer to the Diagrams document, *2.6: Sign In/Sign Up* for the wireframe diagram.

3.7: Universal Giving Form

The Universal Giving Form is the sole form that the User will use to perform any sort of giving task. All *Take Action* CTAs lead to this form.

3.7.1: Functional Rules

1. The User must have successfully signed in via the **Sign In** form on the **Sign In/Sign Up** page to use this form
2. If the User has not successfully signed in, she will automatically be redirected to the **Sign In/Sign Up** page
3. The initial view of the form contains the *Contact Information* section and the *I want to give* checkbox array
4. If the User has previously given via this form, all fields in the *Contact Information* section will be pre-populated with the previous transaction's data
5. The *Contact Information* section additionally contains a checkbox that allows the User to opt-in to future marketing messages via email
6. The *I want to give* checkbox array offers the following choices:
 - Money (Single Donation)

- Money (Recurring Monthly Donation)
 - Time
 - Food
7. Checking or unchecking any of the choices in the checkbox array will toggle the appearance of subsequent sections of the form
 8. If the *Money (Single Donation)* box is checked, the *Donation Amount*, *Payment Information*, *Billing Information* and *Memorial* sections of the form will appear
 9. If the *Money (Recurring Monthly Donation)* box is checked previously to checking the *Money (Single Donation)* box, it will be unchecked
 10. The *Donation Amount* section of the form will contain:
 - Four radio buttons with pre-defined suggested donation amounts
 - One radio button that allows for a custom amount to be entered
 - An input field that allows the User to enter her own custom amount
 11. If any of the suggested amounts are selected, the custom amount field is disabled
 12. The *Payment Information* section of the form will contain the following input fields:
 - Name on credit card
 - Card Number
 - Expiration Date
 - CVV Number
 13. The *Billing Information* section of the form will contain:
 - A checkbox to specify that the User's billing information is the same as her contact information
 - Input fields for:
 - Name
 - Address
 - City
 - State
 - Zip Code

14. If the checkbox in the *Billing Information* section is checked, the values of the corresponding fields of the *Contact Information* section are replicated
15. The *Memorial* section of the form will contain:
 - A checkbox that allows the User to specify this donation as a memorial
 - An input field that allows the User to specify the name for which the donation will be memorialized
16. If all fields in the *Memorial* section are populated, the *Cards* section of the form will appear
17. **[NOTE: THIS RULE MAY NEED FURTHER DEFINITION AND REFINEMENT. WE DID NOT THOROUGHLY DISCUSS HOW THIS NEEDS TO WORK]** The *Cards* section of the form will contain:
 - Checkboxes corresponding to a number of cards that can be chosen to be printed as part of the memorial **[HOW MANY CARDS ARE THERE?]**
 - Images of the cards corresponding to the checkboxes
 - Input fields for the mailing address for the card **[YES? NO?]**
18. If the *Money (Recurring Monthly Donation)* box is checked, the *Donation Amount, Payment Information, Billing Information, Memorial* and *Donation Cycle* sections of the form will appear
19. If the *Money (Single Donation)* box is checked previously to checking the *Money (Recurring Monthly Donation)* box, it will be unchecked
20. The *Donation Cycle* section of the form will contain an input field that allows the User to specify what day of the month she wants her donation to be automatically taken
21. If the *Time* box is checked, the *Time* section of the form will appear
22. The *Time* section of the form will contain:
 - A checkbox array that allows the User to select her availability for:
 - Weekdays
 - Weekends
 - Mornings
 - Afternoons

- An input field that allows the User to specify how many total volunteers she will be bringing
23. If nothing is entered into the volunteer amount input field, it is assumed that only the User will be coming to volunteer
24. If the *Food* box is checked, the *Food* section of the form will appear
25. **[NOTE: THIS RULE MAY NEED FURTHER DEFINITION AND REFINEMENT. WE DID NOT THOROUGHLY DISCUSS HOW THIS NEEDS TO WORK]** The *Food* section of the form contains:
- A checkbox array that allows the User the following choices:
 - The ability to be contacted about setting up a virtual food drive
 - The ability to be contacted about giving their restaurant's leftover food to Food Rescue
 - The ability to be contacted about giving their store's unsellable food to the warehouse
26. When the User submits the form, she will be directed to a confirmation page that gives her one last chance to look at her choices and return to edit them if need be
27. If the User is satisfied with her choices and presses the "Complete Donation" button, the form data is submitted to its various destinations:
- Any data in the *Contact Information* section that is new or has changed will be saved in the User's giving account
 - If the User chose to opt in to marketing messages, the appropriate contact information will be sent to the Exact Target API for addition to Harvesters' marketing database
 - **[NEEDS REFINEMENT]** Data in the *Donation Amount*, *Payment Info*, *Billing Info* and *Donation Cycle* sections will be sent to the credit card pre-processor for completion
 - Any data in the *Time* section will be converted into an email by the Server and will be sent to **[SOMEONE]** for manual follow-up
 - Any data in the *Food* section will be converted into an email by the Server and will be sent to **[SOMEONE]** for manual follow-up
 - **[NEEDS REFINEMENT]** All data will be logged in the User's giving account for potential future analysis and strategy against the User's giving history

28. Once all data operations are successfully completed, the User will be directed to a completion page that thanks her for her donation. The Server will additionally generate an email to the User that serves as a record of her donation

3.7.2: Interaction Flow

Please refer to the Diagrams document, *3.2: Universal Giving Form* for flow progression.

3.7.3: Wireframe

Please refer to the Diagrams document, *2.7a: Universal Giving Form*, *2.7b: Universal Giving Form - Money (Single Donation)*, *2.7c: Universal Giving Form - Money (Recurring Monthly Donation)*, *2.7d: Universal Giving Form - Time*, *2.7e: Universal Giving Form - Food*, *2.7f: Universal Giving Form - All* and *2.7g: Universal Giving Confirmation* for the wireframe diagrams.

3.8: Pantry Locator

The Pantry locator allows the User to perform a geographic search to find the food pantries nearest her.

3.8.1: Functional Rules

1. The various Pages within the Pantry Locator process will contain a **Latest News** module that is identical in function to the **Latest News** module on the Home Page
2. The various Pages within the Pantry Locator process will contain a **Receive News via Email** module that is identical in function to the **Receive News via Email** module on Inner Content Pages
3. The User can enter either a city/state combination or ZIP code as the basis for her search
4. The User can additionally use HTML5 Geolocation to use her device's current location as the basis for her search
5. The User must choose a search radius from a pre-defined drop-down field
6. When the user submits the form, the Server will perform a geographic search against the food pantry database and direct the User to the **Locator Results** Page

7. If no results are returned, the **Locator Results** page will provide messaging that states no results were returned and give the User the opportunity to try another search
8. If results are returned, the **Locator Results** Page will display a list of those results. A result contains:
 - Pantry Name
 - Pantry Location
 - Pantry Hours
 - Pantry Image (optional)
9. If no image exists for the pantry, a default thumbnail image will be used
10. When the User selects a pantry, she is directed to the **Pantry Detail** Page.
11. The **Pantry Detail** Page will display:
 - Pantry Name
 - Pantry Location
 - Pantry Hours
 - Pantry Phone
 - Pantry Email (optional)
 - Pantry Description
 - An embedded Google Map showing the pantry's location

3.8.2: Interaction Flow

Please refer to the Diagrams document, *3.3: Pantry Locator* for flow progression.

3.8.3: UML Diagram

Please refer to the Diagrams document, *4.4: Pantry Locator* for UML Class definition.

3.8.4: Wireframe

Please refer to the Diagrams document, *2.8: Pantry Locator*, *2.9: Locator Results* and *2.10: Pantry Detail* for the wireframe diagrams.

3.9: Latest News

The Latest News feature of the website allows all departments within Harvesters to distribute timely information that is not permanently housed within the information architecture of the main site map.

3.9.1: Functional Rules

1. Administrators or Editorial Team members can create, edit or delete content within this section
2. Only Administrators have the ability to approve posts for publishing on the website
3. A post contains:
 - Title
 - Author
 - Timestamp
 - Summary
 - Article
 - Tags
4. If a post does not have a Summary, the first sentence of the Article will be used in its place
5. **[NEED TO DEFINE HOW THE TAGS WORK]**
6. The Latest News Landing Page will contain ten posts based on the same sorting criteria specified for the Home Page
7. The Individual Post Pages will contain the entire Article for that given post
8. The Individual Post Pages will allow commenting via Disqus
9. The Landing Page and Individual Posts Pages will contain a **Categories** module that displays links to the various tags. Selecting a link will refresh the page with all posts designated with that specific tag
10. The Landing Page and Individual Posts Pages will contain an **Archives** module that displays links to month/year combinations within which posts were published. Selecting a link will refresh the page with all posts published within that month/year timeframe

11. The Landing Page and Individual Posts Pages will contain a **Take Action** module that is identical in function to the generic CTA on the **Take Action Landing Page**
12. The Landing Page and Individual Posts Pages will contain a **Receive News via Email** module that is identical in function to the **Receive News via Email** module on Inner Content Pages

3.9.2: UML Diagram

Please refer to the Diagrams document, *4.5: Latest News* for UML Class definition.

3.9.3: Wireframe

Please refer to the Diagrams document, *2.11: Latest News* and *2.12: Individual Post* for the wireframe diagrams.

3.10: Job Opportunities

The Job Opportunities page will host all open job availabilities at Harvesters.

3.10.1: Functional Rules

1. The **Page** will contain a **Latest News** module that is identical in function to the **Latest News** module on an **Inner Content Page**
2. The **Page** will contain a *Take Action* CTA that is identical in function to the generic CTA on an **Take Inner Content Page**
3. The **Page** will contain a **Receive News via Email** module that is identical in function to the **Receive News via Email** module on an **Inner Content Page**
4. If no jobs are available, a default message urging applicants to send in resumes for future consideration will be displayed
5. If a Job is selected, the User will be directed to a **Job Detail Page**, which is identical in form to an **Inner Content Page**

3.10.2: Wireframe

Please refer to the Diagrams document, *2.13: Job Opportunities* for the wireframe diagram.

3.11: Directions

When a User selects *Map/Directions* in the site footer, she will be directed to the **Directions** page.

3.11.1: Functional Rules

1. The **Page** will contain a **Latest News** module that is identical in function to the **Latest News** module on an **Inner Content Page**
2. The **Page** will contain a *Take Action* CTA that is identical in function to the generic CTA on an **Take Inner Content Page**
3. The **Page** will contain a **Receive News via Email** module that is identical in function to the **Receive News via Email** module on an **Inner Content Page**
4. A Google Map corresponding to each location will be embedded in the page

3.11.2: Wireframe

Please refer to the Diagrams document, *2.14: Directions* for the wireframe diagram.

3.12: Contact

When a User selects *Contact* in the site footer, she will be directed to the **Contact** page.

3.12.1: Functional Rules

1. All fields are required.
2. The “Reason for contacting” drop down will give the Server the ability to route contact emails to different recipients based upon the User’s choice
3. Upon successful submission, the Server will send the contact email and direct the User to a confirmation page that allows her to see that the task is complete.

3.12.2: Wireframe

Please refer to the Diagrams document, *2.15: Contact* for the wireframe diagram.

3.13: Press Kit

The **Press Kit** is a gallery of downloadable resources for use in third-party communications on behalf of Harvesters

3.13.1: Functional Rules

1. All assets will be downloadable as .zip files
2. **[DO WE WANT TO ASK FOR EMAIL AND REASON FOR DOWNLOADING OR NOT? WE DIDN'T TRULY DECIDE DURING OUR MEETING]**

3.13.2: Wireframe

Please refer to the Diagrams document, *2.16: Press Kit* for the wireframe diagram.

Section 4: Technical Requirements

4.1: Browser Support

This project will be verified to work properly on the minimally supported versions of the following browsers[\[1\]](#):

4.1.1: Desktop

- Microsoft Internet Explorer 9.0[\[2\]](#)
- Mozilla Firefox 21.0
- Google Chrome 27.0
- Apple Safari 5.1.9

4.1.2: Mobile

- Apple iOS 5.0
- Google Android 2.3 (Gingerbread)
- Google Chrome for Mobile 20.0

4.2: Email Support

The following details the minimally supported versions of each email client:

4.2.1: Desktop

- Microsoft Outlook 2007
- Windows Live Mail 2009 (Wave 3)

- Apple Mail 4.0
- Mozilla Thunderbird 3.0

4.2.2: Mobile

- Apple iOS 5.0
- Google Android 2.3 (Gingerbread)

4.2.3: Web-Based

- Gmail
- Yahoo! Mail
- Outlook.com
- Microsoft Exchange OWA

4.3: Tracking and Reporting

Google Analytics will be utilized for tracking and reporting purposes. During the development phase of this project, Clickfarm will generate a tracking tag for inclusion into the application's source code.

By using Google Analytics, data can be extrapolated to determine if user behaviors support the goal set forth in [1.2: Project Success Factors](#).

4.4: Technical Assumptions

1. The project will be built on a Content Management System (CMS) so that Harvesters can have full editorial control of the website's content. When a decision is made as to the specific CMS to be used, that choice will be reflected here.
2. The project will employ responsive web design (RWD) practices to ensure an optimal experience over the widest range of Internet-connected devices possible
3. The project will employ progressive enhancement practices to ensure that mobile or underpowered devices do not attempt to utilize certain optional features (e.g. complex animations) that would diminish the overall experience on that device

Section 5: Document Conventions, Glossary and Footnotes

5.1: Document Conventions

- **Boldface** words denote references to features or sections within a project
- *Italicized* words denote links or buttons the User might select to perform an action

5.2: Glossary

Business requirements represent high-level, non-functional information about the project at hand. These requirements describe why the project is being done and what objectives the project hopes to achieve.

User requirements describe goals or tasks that Users must perform with the project's final product.

Functional requirements specify the software functionality that the developers must deliver so that the business and user requirements are met.

Technical requirements give guidelines as to what additional systems must support the project's final product.

5.3: Footnotes

1. While Clickfarm will make every reasonable effort to ensure that this project functions and displays properly on the widest possible array of browsers and devices, a User's personal settings and device configurations may sometimes create undesirable results that Clickfarm cannot anticipate. 
2. Microsoft Internet Explorer 8.0 and below do not support many of the features that make up modern web design and development. Clickfarm realizes that many users may still use these outdated browsers for a variety of reasons. Therefore, limited compatibility will be offered these legacy browsers via the installation of [Google Chrome Frame](#). Please note, however, that Google is discontinuing

development of Chrome Frame in January 2014. After that date, limited compatibility cannot be guaranteed. [!\[\]\(24f461efcae636159b416124b42e4bb3_img.jpg\)](#)