SPIRIT Users Group

DFDD Plan

Version 2.0
May 14, 2010

Submitted to:
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1. Contents

Document Information

Document Information	
Document Title	DFDD Plan
Project Name	N/A
Version	2.1
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QA Review	Nancy Harper, Earl Eddings, Stacy Gerson, Patrice Wolfla, Julie Alyea, Mike Owens
Contract Number	SPIRIT Product
Creation Date	May 10, 2010
Date Accepted By Client	N/A
Purpose of Document	This document will be used to outline the plan to update, correct, and maintain the SPIRIT application Detailed Functional Design Document (DFDD). CSC will provide this plan to the SPIRIT Users Group as a basis for process, activities, and timelines required to complete the DFDD plan in full.

Document Revision History

Version	Date	Description	Summary of Changes
1.0	May 10, 2010	Initial draft	Initial draft
1.1	May 12, 2010	TechComm review	Formatting changes
1.2	May 13, 2010	Second Draft	Updates to add narrative after section heading 2, section heading 3 and section heading 4.
2.0	May 14, 2010	Submission Copy	Version submitted to customer
2.1	May 27, 2010	Updated with state comments	Added information on version control (section 2.2.1, last bullet, pg 10) Access to updated DFDD (pg 7, last bullet)

1. Detailed Functional Design Document (DFDD) Purpose

- The intent of the DFDD is to provide a document describing the functional requirements, controls, and processes of the system. Additionally, the DFDD will provide applicable screen shots within the body of the DFDD.
- DFDD chapters are provided on all application modules.
- The DFDD includes an appendix of application business rules and an appendix of the risk factor matrix.
- The DFDD must be maintained and kept current during the SPIRIT application life cycle.
- Updates are required to support any and all changes introduced during releases and/or system implementations.
- There is one DFDD for the application.

1.1. Project Goal

Update and revitalize the existing DFDD into a one-source, user-friendly document. The project will convert the DFDD from a paper document into an on-line resource that is accessible through a URL. Additionally, the existing content of the DFDD as of 5/28/10 will be validated and updated appropriately. During this project DFDD content will be frozen. Updates to the DFDD will be made post conversion for any items that are delivered and/or corrected during the conversion process. Changes during the freeze period will be captured and distributed in a modified DFDD.

1.2. Terms and Definitions

- ***RoboHELP*** – RoboHELP is the software application used by the Technical Writers to create and maintain help content. RoboHELP is a type of help authoring software that allows content to be created in HTML. HTML help is designed to be single sourced, meaning that it can be written once and then deployed or delivered in multiple formats, including HTML help files (.chm), WinHelp, WebHELP, Microsoft Word, and PDF.
- ***TechComm*** – TechComm is the abbreviation for the Technical Communications department (the Technical Writers).
- ***WebHELP*** – WebHELP is the recommended format for deploying HTML help files. This format allows help content to be hosted on an internet website (either public or private) using any web browser. It allows users to view all content online. Several useful features are present in WebHELP, like the ability to search all content quickly, use hyperlinks to navigate between topics both within the main topic content and the Table of Contents, and organize and display content in a visually pleasing manner.
- ***Snippets*** – Reusable text in HTML.

2. DFDD Recommendation Analysis

CSC recommends to the SPIRIT Users Group that the existing paper based DFDD be converted into a “modernized” HTML single source format. The following sections will detail the features, benefits, pros, cons and risks associated with the conversion of the existing paper based DFDD into a HTML single source format.

2.1. Features and Benefits

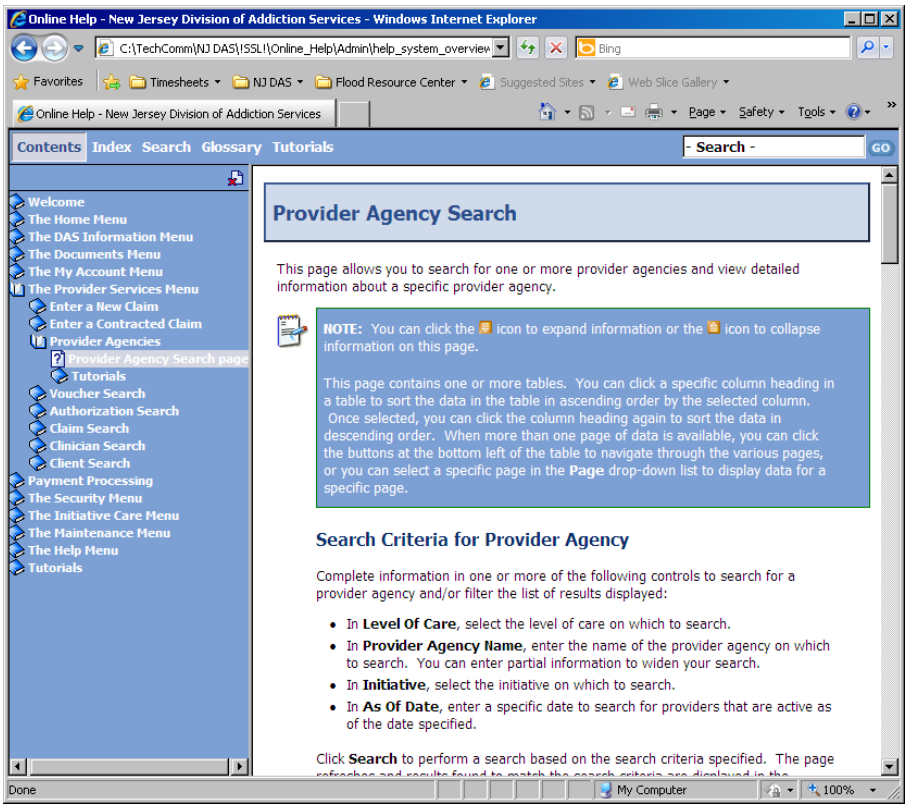
- Fully searchable content
- Table of Contents with hyperlinks for quick navigation
- Hyperlinks within topic text to related topics or content
- The use of indexes to locate content
- Glossaries to help define general terms
- Visually pleasing, modernized appearance and organization
- "Tagged" content for specific audiences. When content is single sourced, "tags" can be applied to topics or specific content within topics that determine who sees that content. For example, content can be tagged for Clinic, State Office, and CAS so that clinic users would only see Clinic content (and not State Office or CAS). Content can also be tagged at a client-specific level. For example, WebHELP can be deployed in a manner that Minnesota's WebHELP project looks different from Missouri's, and includes different content.
- Single sourced content makes it easy to deploy via the web or print on-demand
- Smaller overall help files that can be deployed via the web or as a .chm file (a compressed file format) that would no longer require posting multiple documents to the FTP site.
- DFDD content will be merged with existing HTML help content, allowing images, structure, and some content to be reused

2.2. Pros and Cons

2.2.1. Pros

- DFDD, help, and training source content will be merged and contained completely within RoboHELP projects and maintained by TechComm. A RoboHELP project currently exists for each module of the application (Reference Utility, Vendor, Client Management, etc.).

- The DFDD will be "modernized". Following is an example of how the DFDD could look in Internet Explorer 8.0 when generated in WebHELP format via RoboHELP.



- Content can be single-sourced. CSC will write content once and reuse that content throughout the DFDD, help, and training. There are many benefits to single-sourcing, including (but not limited to) the following:

  - Control-level definitions are currently documented in help for each dialog (definitions of each field on each screen). Control-level definitions are also documented in the DFDD. This content for help and the DFDD is written differently and as a result requires additional maintenance whenever changes to the application are required. This content can be easily merged into a single control-level definition that is maintained once when changes are required.

  - CSC can develop RoboHELP "snippets" containing content that is reusable throughout the DFDD, help, and training. For example, CSC will develop a single RoboHELP "snippet" for the OK Command Button that is generic and can be reused on every topic (dialog) containing the OK Command Button within the application. If the content for the OK Command Button ever needs a change, CSC can make the change one time in the snippet and the OK Command Button content updates globally throughout all topics (dialogs) in the RoboHELP project.

- The Participant Folder tabs in Central Administrative Site, Clinic, and State Office are currently documented in four different locations in the DFDD (Central Administrative Site,

Clinic, Common Interface Panels, and State Office). CSC will merge all of the content for a tab into a single topic and tag the content conditionally for output generation specific to each application module. For example, content can be tagged and built specifically for Clinic, State Office, etc.

- Content can be tagged conditionally for output generation. CSC can tag content in many different ways based on the needs of the client, the team, the deliverable, etc. Conditionally tagged outputs could include:
  - Single-sourced content output for each application module (Clinic, State Office, etc.).
  - Changes made for a specific release tagged for tracking the changes made within that release and output in various ways (What's New, Release Notes 3.6, etc.).
  - Content can be tagged to not be viewable during code branching for activities such as implementations.
- Single-sourced content can be tagged when content is updated and output for release notes, added to a "What's New" page, etc.
- There are numerous deliverable possibilities that can be explored to meet the client's and team's needs. CSC can generate printed documentation outputs for Microsoft Word and Adobe .pdf formats, and generate web outputs in HTML and .chm formats.
- The DFDD content will be in HTML. That means the content will be easy and fast to access for both internal/external users and potential clients.
- The HTML outputs can be stored in a location that makes the content available to users both inside and outside of the CSC network. The DFDD will be accessible through the SPIRIT product share point site upon launch of the site and the completion of the conversion process.

  A web site will be created for the DFDD (example: http://www.sugconnect.com). DFDD sections can be linked to via hypertext from any location like Microsoft Word, JIRA, Excel, etc. (example: http://www.sugconnect.com/pl_vendor_list.htm). *Note: These URLs are not currently active.* TechComm can quickly publish updates to external locations using RoboHELP's publish feature.

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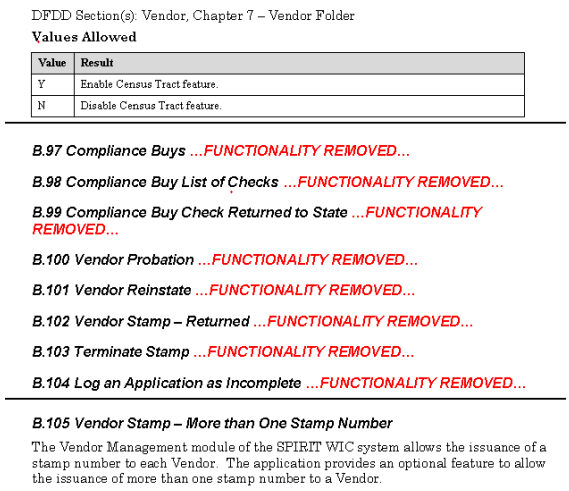
- This conversion will allow CSC to break down the business rule chapter into manageable topics and eliminate the "removed" business rules (see the following image).



DFDD Section(s): Vendor, Chapter 7 – Vendor Folder

Values Allowed

Value	Result
Y	Enable Census Tract feature.
N	Disable Census Tract feature.

B.97 Compliance Buys ***...FUNCTIONALITY REMOVED...***

B.98 Compliance Buy List of Checks ***...FUNCTIONALITY REMOVED...***

B.99 Compliance Buy Check Returned to State ***...FUNCTIONALITY REMOVED...***

B.100 Vendor Probation ***...FUNCTIONALITY REMOVED...***

B.101 Vendor Reinstate ***...FUNCTIONALITY REMOVED...***

B.102 Vendor Stamp – Returned ***...FUNCTIONALITY REMOVED...***

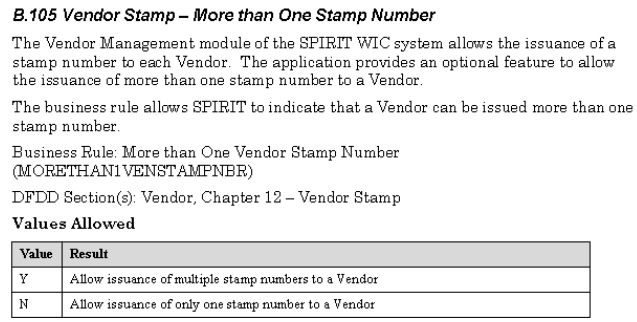
B.103 Terminate Stamp ***...FUNCTIONALITY REMOVED...***

B.104 Log an Application as Incomplete ***...FUNCTIONALITY REMOVED...***

B.105 Vendor Stamp – More than One Stamp Number

The Vendor Management module of the SPIRIT WIC system allows the issuance of a stamp number to each Vendor. The application provides an optional feature to allow the issuance of more than one stamp number to a Vendor.

- Business rules will be restructured to be more user-friendly and accessible. For example, the following image shows how a business rule is currently documented:



B.105 Vendor Stamp – More than One Stamp Number

The Vendor Management module of the SPIRIT WIC system allows the issuance of a stamp number to each Vendor. The application provides an optional feature to allow the issuance of more than one stamp number to a Vendor.

The business rule allows SPIRIT to indicate that a Vendor can be issued more than one stamp number.

Business Rule: More than One Vendor Stamp Number (MORETHAN1VENSTAMPNBR)

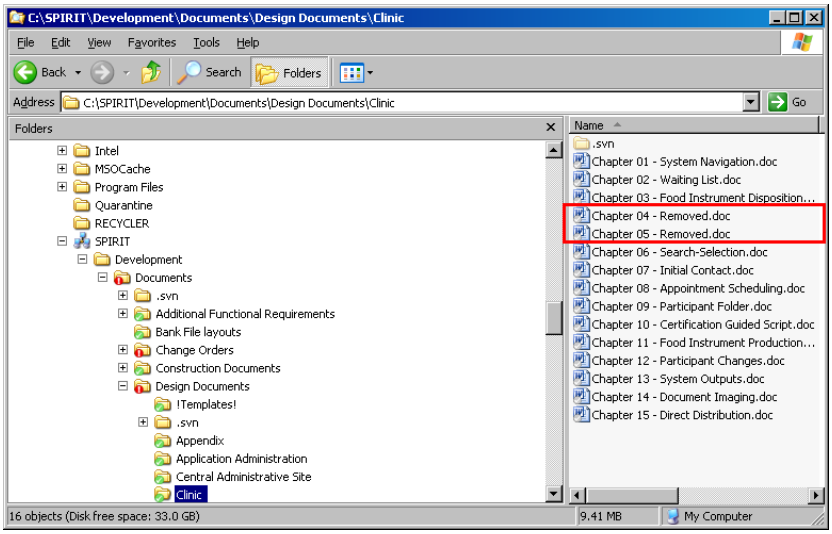
DFDD Section(s): Vendor, Chapter 12 – Vendor Stamp

Values Allowed

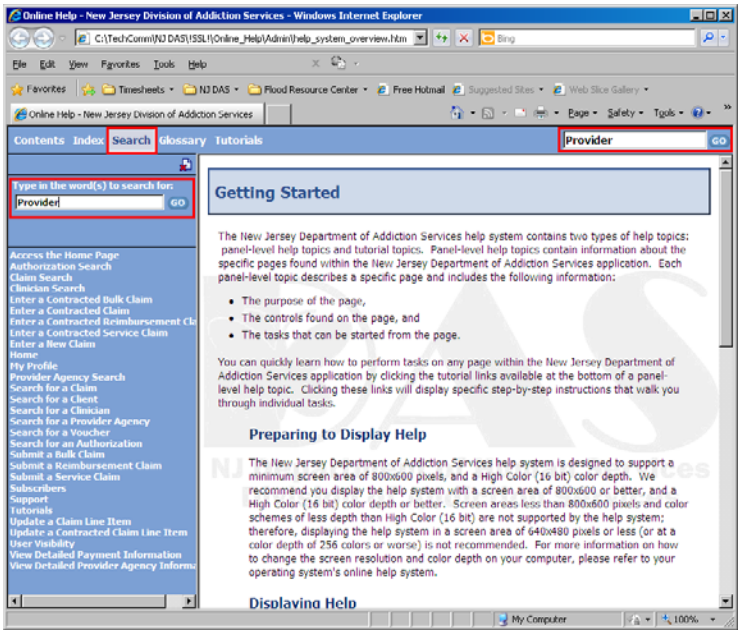
Value	Result
Y	Allow issuance of multiple stamp numbers to a Vendor
N	Allow issuance of only one stamp number to a Vendor

- The existing DFDD Appendix B will be archived to maintain history of business rules that have been removed from the application.

- Complete chapters have been removed from the DFDD throughout the application life cycle. Because of the current DFDD format, CSC could not entirely remove those chapters and were forced to leave placeholder documents (see the following image). Converting to HTML will resolve this problem.



- The new DFDD can be searched using the built-in RoboHELP search function (see the following image):



The image above shows the various search features in a WebHELP project generated from RoboHELP. In this example, the user entered the word "provider" in the search text box, and all topics that contain the word are displayed in the left-hand navigation pane.

- DFDD changes can be initiated by the development staff and imported into RoboHELP. This creates a complete 360° documentation cycle which allows others outside of TechComm to become content providers.

- Version control will be accomplished through the use of tagged content. When CSC documents a release, the documentation team will have content tagged for that release (2.03 for example). CSC can then output a DFDD document containing everything in the DFDD and call it DFDD version 2.03. Additionally CSC can output only the information that changed for 2.03 (example: release notes). When CSC begins documenting the next release (2.04 for example), the documentation team will remove the 2.03 tag which will untag everything previously tagged for 2.03 and make the 2.03 release the "most recent" version. Once the 2.03 tag is removed, CSC can then start tagging content for 2.04. CSC will then be able to output a 2.04 version of the DFDD and the states can compare 2.03 and 2.04 side by side. Essentially, CSC can build a 2.03 release, a 2.04 release, a 2.05 release, etc. of the DFDD

  This concept will work with the compiled HTML help files (.chms), Word documents, .pdfs., etc. Basically any format generated from the RoboHELP projects. Release-specific outputs (whether Word, .chm, .pdf, etc.) can be very valuable tools for the client when used alongside a "What's New" topic for an upcoming release.

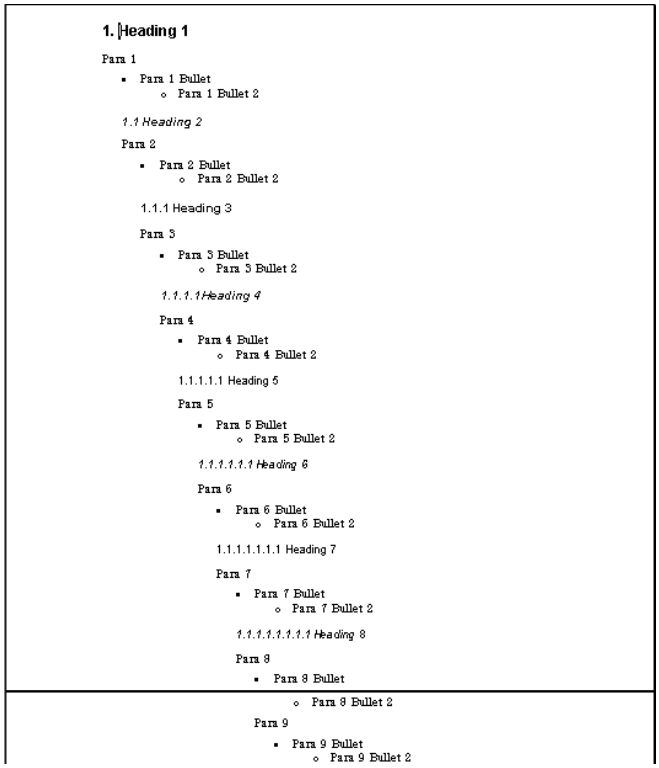
2.2.2. Cons

- Once conversion begins the DFDD will be locked down until CSC has completed the conversion and established the DFDD maintenance process post-conversion. No DFDD updates can be made until TechComm has completed the conversion.

- Everything will change, including (but not limited to) the following:

  - HTML is limited to six heading levels. As a result, there will be no outline numbering in the DFDD (headings 1.2, 1.2.2.4, 27.4.3.2, etc.). However, this is also a benefit because outline numbering has caused numerous problems with restructuring (example: Chapter 4 – Removed documents, "functionality removed" business rules, etc.).

    There will be a limited number of indents in the content. This means that there will be no more sections that are indented to the degree depicted in the following image:



Note: The above picture is the current WIC DFDD document template.

This can be viewed as a benefit because no longer will a user see content indented to the seventh, eighth, ninth, etc. level with large blocks of text that are only an inch or two wide but eight or ten inches long. This is also a detriment because clients/users who are familiar with and like the indented view depicted in the above image will have to adapt to the new HTML format of the DFDD.

- A great number of screen clips currently exist in the RoboHELP projects that were gathered for help purposes. Many of these will need to be re-clipped to accommodate DFDD output generation.

- All of the current file:// links must be re-linked in the new format (see the following image).

These links currently link to individual documents, but not the exact sections within the documents. Therefore, this is also a benefit because the new links will take the users to exact locations in the DFDD instead of the first page of a Word document.

2.3. Risks

- The conversion process will take some time to complete due to the extensive nature of the DFDD. There will be some down-time between the time TechComm begins working on the conversion and the time the project is ready for deployment. For the sake of consistency and accuracy, the DFDD should be locked down from changes for the duration of the conversion process.
- The overall look, structure, and organization of the existing DFDD will change substantially. Thus, there will be a bit of a learning curve for clients who are used to the current structure and comfortable with finding the data that they need.
- HTML is limited to 6 heading levels. The current DFDD has more than 6. TechComm will need to restructure the DFDD in order to accommodate this limitation.
- The DFDD will no longer use the numbered heading styles as this does not translate well into HTML. The entire numbering scheme will be removed.
- The existing screen clips used in the word documents will need to be replaced with ones that are in a lossless format (.bmp). Some of these already exist in the HTML help files; others will need to be recreated.

3. DFDD Update Process

This section details the specific steps and order of steps required to be taken in order to convert and validate the DFDD into the HTML format.

3.1. Step 1

- Define the version of application, business rule set, and database to be used during validation.
  - Application: Version 2.04 (5/28/10 release)
  - Business rule set: MN WIC SPIRIT Version
  - Database: MN WIC SPIRIT/HuBERT converted data
  - **Note: no MN specific data will be captured in screen shots. All data included will be desensitized and/or generic, i.e. Jane Doe, 123 Anywhere Street.

3.2. Step 2

- CSC will provide states with a copy of the DFDD as of 5/28/10 for use during the freeze period.

3.3. Step 3

- Define the DFDD update template to be employed by document contributors. The template will be used to capture DFDD content updates and will be used as the basis to incorporate the updates into the published DFDD text.

3.4. Step 4

- Prepare the DFDD Word documents for import into HTML.
  - Create a new Import template that uses styles friendly to HTML
  - Apply document style template to all DFDD documents
  - Ensure all content within the documents have applied styles found within the template
  - Change all "smart" quotes to "straight" quotes (this is to prevent weird characters from being imported into HTML), and "smart" apostrophes to "straight" apostrophes
  - Delete images, Table of Contents, Heading Level 1 (these will not be used in the HTML files)
  - Turn off numbering (heading outline levels)
  - Delete the "Removed" sections

3.5. Step 5

- Import the Word documents into HTML.
  - Import heading levels 1 and 2, (sub-heading levels will be manually separated and need to be restructured to comply with the 6 heading level limitation)
  - Create a new import folder for new topics
  - Change existing internal hyperlinks in the Word documents to HTML hyperlinks that link to related content topics, remove the leading text
  - Create new topic IDs

3.6. Step 6

- Clean up DFDD content and merge with existing HTML help content.
  - Combine Controls and Processing text
  - Tag processing text for DFDD or Print only
  - Turn Control text into "snippets" (reusable text in HTML)

- Create variables (client name, version, topic title, menu, application name, interface items)
- Merge content from DFDD with existing HTML Help content
- Apply default CSS (cascading style sheet) to clean up HTML styles

3.7. Order of DFDD Validation Review

- Appendix B – Business Rules
- Clinic/Common Interface Panels
- State Office
- Financial
- Appendix D – Risk Factor Matrix
- Application Administration
- Central Administrative Site
- Vendor – will be updated during the process of application re-write/modifications

3.8. Exceptions

3.8.1. Vendor

Vendor chapters of the current DFDD will not be included in the initial update process. Vendor changes and updates will be included as part of the activities for the vendor change orders currently in process.

3.8.2. Branching of Code

During the process of updating the DFDD there is a need to branch the code in support of Minnesota UAT, Pilot, and Roll-Out activities. While the code is branched all enhancements that are delivered in the source code will be tagged and will not appear in the version of the DFDD used by the teams receiving releases in the branched code.

4. DFDD Maintenance Process

- CSC SPIRIT Project Management team will request resource hours from the documentation team to complete DFDD updates in support of releases and/or system implementations.
- A list of release content including JIRA issue numbers will be provided to the documentation resource(s).

- The development, QA, and BA teams will utilize the DFDD update template provided by the documentation team to capture DFDD required changes.
- The documentation resource(s) will update the DFDD in support of release content. (Language and screen shots). The documentation resource(s) will use the provided design documents, JIRA issues, and DFDD update template as a basis to update the presentation copy of the DFDD.
- The updated DFDD will be validated by the technical analyst as part of release testing. Any required updates will be made.
- The updated and validated DFDD will be provided as part of each release documentation package and delivered to all states.

5. Timeline

Start	Finish	Duration	Activity
05/28/10	5/28/10	0 days	DFDD Content Freeze Implemented
06/01/10	7/31/10	38 days	DFDD Conversion from Existing Format to HTML Format
06/01/10	6/25/10	19 days	Validation of business rule descriptions and values
08/27/10	**8/27/10**	**0 days**	**DFDD Content Freeze Lifted**
06/28/10	**3/11/11**	159 days	DFDD Validation
03/11/11	n/a	SPIRIT Life Cycle	DFDD Maintenance Process Begins

Note: Validation will continue to occur after maintenance process begins.