

Voice of Consumer

Functional Requirements Specification

Version 4.1 2/1/2013

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1 Introduction

1.1 Objectives

This is the Functional Requirements Specification (FRS) for the U.S. Department of Health and Human Services Voice of Consumer (HHS VOC) web application. The HHS VOC Tool is a Ruby on Rails web application with a MySQL database.

The Functional Requirements Specification for the HHS VOC Tool details the capabilities and functions that the VOC Tool must be capable of performing. These requirements will assure that the HHS VOC Tool will correctly and reliably perform its intended functionality. This specification will provide general and specific requirements to be used in the design, testing, and validation of the application. The focus is on what the HHS VOC Tool must do; details on how the components will be developed and how it will operate will be defined in the Software Design Specification for the HHS VOC Tool.

1.2 Scope

This Functional Requirements Specification applies to the HHS VOC Tool. The FRS will address the functions the HHS VOC Tool must be able to perform to successfully complete primary business functionality. This document also addresses HHS and Communications Training and Analysis Corporation (CTAC) requirements for web applications.

2 Acronyms and References

2.1 Acronyms and Definitions

FRS - Functional Requirements Specification

HHS - Health and Human Services

VOC - Voice of Consumer

2.2 References

3 Application Description

3.1 Application Framework

The HHS VOC Tool is a web application built using the Ruby on Rails web application framework. To function properly the HHS VOC Tool requires:

- 1. All documentation required to operate and maintain the system is present
- 2. Ruby 1.9.3 or higher is installed
- 3. Ruby on Rails 3.0.10 or higher is installed

3.2 System Hardware

The HHS VOC system has been designed to allow for the horizontal scaling of the individual components independent of each other

3.2.1 Web Server

A minimum web server setup consists of Apache with modproxy loadbalancing or Nginx.

- 800 megahertz (MHz) or faster processor
- At least 512 megabytes (MB) of RAM, 1 GB is recommended

3.2.2 Application Server

A minimum Unicorn setup consists of a single Master process and a worker process. It is recommended to use two unicorn worker processes per CPU core for the HHS VOC Tool. Each additional Unicorn worker process will require at least 70 megabytes (MB) of additional RAM (100 MB is recommended).

- At least 2 gigabytes (GB) of RAM, 3 GB is recommended.
- 2.6 gigahertz (GHz) or faster processor, 3.0 GHz is recommended

3.2.3 Background Jobs Server

A minimum DelayedJob setup consists of a single worker process. It is recommended for the HHS VOC tool to use one worker process per CPU core. Each additional DelayedJob worker process will require at least 70 megabytes (MB) of additional RAM (100 MB recommended).

- At least 2 gigabytes (GB) of RAM, 3 GB is recommended.
- 2.6 gigahertz (GHz) or faster processor, 3.0 GHz is recommended.

3.2.4 Database Server

A minimum database server setup consists of a MySQL 5.1 or greater install.

- At least 2 gigabytes (GB) of RAM, 3 GB is recommended.
- 2.0 gigahertz (GHz) or faster processor, 3.0 gigahertz is recommended.

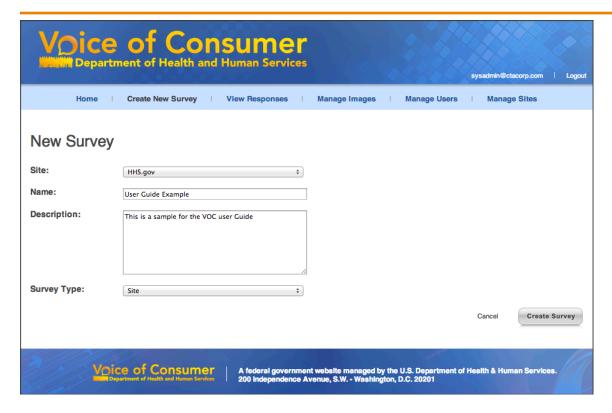
3.3 Process Description



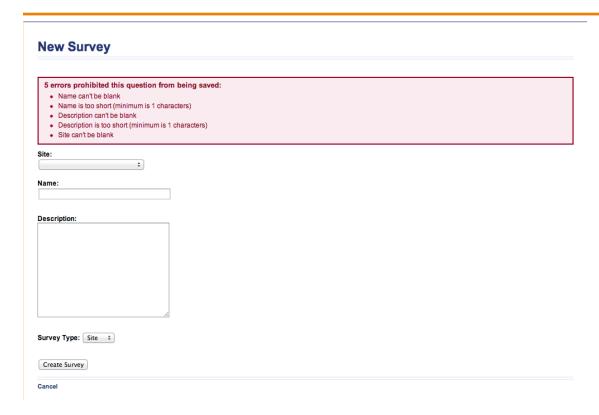
4 System Interfaces

4.1 Creating new a survey

REQ-4.1.1 The System must be able to create a new survey object when provided with a site association, unique name, description, and a survey type.



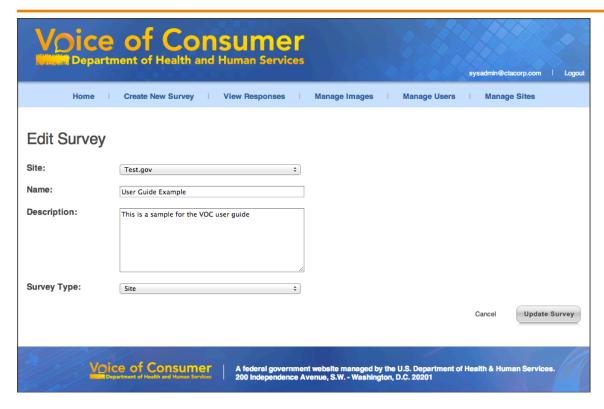
- REQ-4.1.2 On a successful creation, the user will be taken to edit the initial survey version.
- REQ-4.1.3 A notification message will be displayed at the top of the page informing the user of a successful survey creation.
- REQ-4.1.4 The newly created Survey Version should have a version string of "1.0"
- REQ-4.1.5 In the case of an error, the user will be presented with the survey creation form page with the errors displayed at the top of the page for the user to review. Possible errors are:
 - Name Can't be blank
 - Name is too short (minimum is 1 characters)
 - Description can't be blank
 - Description is too short (minimum is 1 characters)
 - Site can't be blank



REQ-4.1.6 Clicking the cancel button will take the user back to the surveys index page.

4.2 Updating an existing survey's details

REQ-4.2.1 The system must be able to update a survey object's site association, name, description, and survey type when provided a new site association, unique name, unique description, and/or survey type .



- REQ-4.2.2 On a successful update, the user will be taken to the surveys index page and the updated survey should be seen in the survey list.
- REQ-4.2.3 A notification message will be displayed at the top of the page informing the user that the survey was successfully updated.
- REQ-4.2.4 In the case of an error updating the survey, the user will be presented with the survey edit form with the errors preventing the updating of the survey displayed at the top of the page.

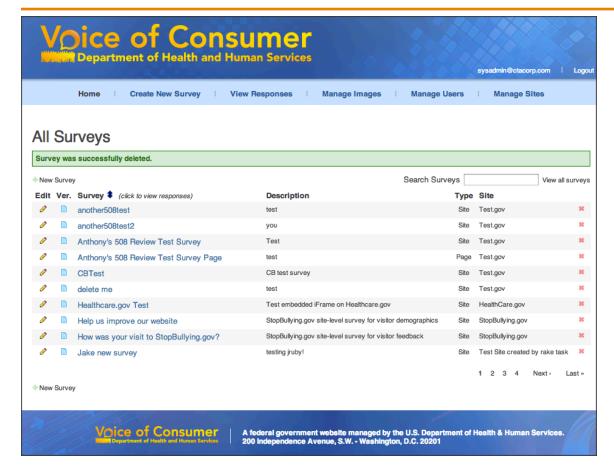
New Survey



REQ-4.2.5 Clicking on the cancel link will take the user back to the surveys index page.

4.3 Deleting a survey

- REQ-4.3.1 The system must be able to delete a survey object when an authorized user clicks on the delete link.
- REQ-4.3.2 On a successful deletion, the user will be taken to the surveys index page and the deleted survey should no longer be visible in the survey list.
- REQ-4.3.3 A notification will be displayed at the top of the page informing the user that the survey has been successfully deleted.



REQ-4.3.4 In the case of an error, the user will be taken to the surveys index page.

REQ-4.3.5 An error message will be displayed at the top of the page notifying the user that the deletion failed.

4.4 Create a new survey version

REQ-4.4.1 The system must be able to create a new major survey version.

REQ-4.4.2 The system must be able to create a new minor survey version.

4.4.1 Major Version

REQ-4.4.1a Creating a new major survey version must increment the major version number of the version string.

REQ-4.4.1b The new major survey version must be a new blank survey.

4.4.2 Minor Version

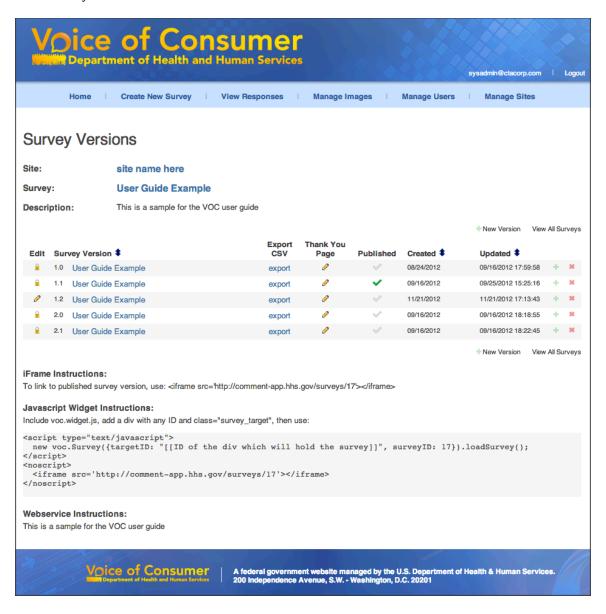
REQ-4.4.2a Creating a new minor survey version must increment the minor version number of the version string

REQ-4.4.2b The new minor survey version must be an exact duplicate of the previous minor version.

4.5 Edit a survey version

REQ-4.5.1 The system must be able to edit unpublished versions of a survey. If a version of the survey is already published, users cannot edit the survey unless they clone it (which makes it a new version).

REQ-4.5.2 Choosing "View Versions" of a survey must give the user access to choose a specific version of the survey to edit.



REQ-4.5.3 A user must then have the following options to edit: add an open-ended question, add a multiple-choice question, add a matrix question (Only for site-level survey types), add a snippet, add a new page, move a page up or down, and delete a page.

REQ-4.5.3a Adding a new matrix question, open-ended question, or multiple-choice question must create a new unedited display field for that question.

REQ-4.5.3.b Adding a new matrix question, open-ended question, or multiple-choice question must create a new rule for the display field created in REQ-4.5.3a.

REQ-4.5.4 The system must give the user the option to preview the survey with the edits made.

REQ-4.5.5 The system must have the option for the user to publish the edits made.

REQ-4.5.6 When a user attempts to publish the newly edited survey, the system must prompt them with an option to move forward or cancel.

REQ-4.5.7 After publication the system will go back to displaying the versions of the chosen survey with a notification at the top of the page letting the user know that the survey version was successfully published.

REQ-4.57a The newly published version will no longer have the option to edit, it will be locked.

REQ-4.57b The newly published version will have an option changed from "Publish" to "Unpublish".

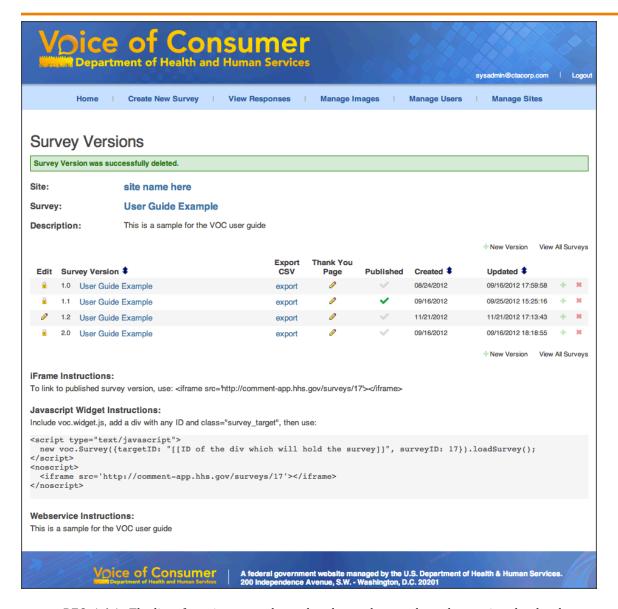
4.6 Delete a survey version

REQ-4.6.1 The system must be able to delete the different versions of a survey.

REQ-4.6.2 Choosing "View Versions" of a survey must give the user access to delete any and all versions.

REQ-4.6.3 When a user attempts to delete a version, the system must give them a prompt with the option to cancel or go ahead with deletion.

REQ-4.6.4 When a user goes forward with deletion, the system must have a notification at the top of the page letting the user know that the version was successfully deleted.

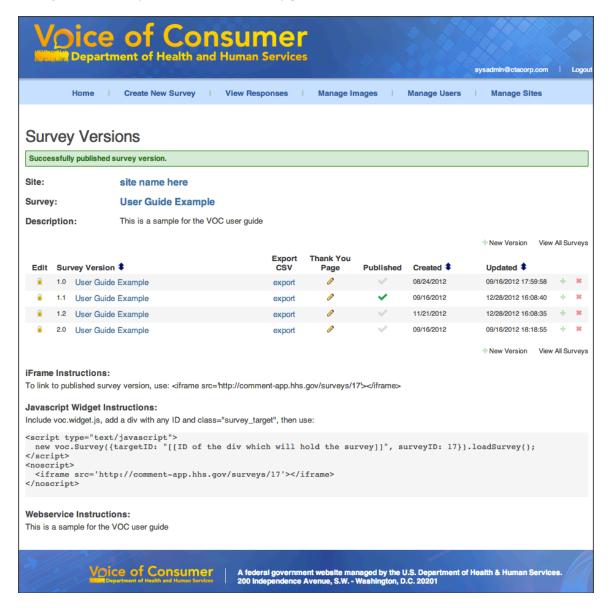


REQ-4.6.4a The list of versions must be updated to no longer show the version that has been deleted.

4.7 Publish survey version

- REQ-4.7.1 The system must be able to publish the different versions of a survey.
- REQ-4.7.2 Choosing "View Versions" of a survey must give the user access to publish any and all versions.
- REQ-4.7.3 When a user attempts to publish a version, the system must give them a prompt with the option to cancel or go ahead with publication.
- REQ-4.7.4 If the survey version is empty, the system can not publish it, and must notify the user with a message stating that it cannot publish an empty survey.

REQ-4.7.5 If the survey is published successfully, the system must notify the user with a message stating that the survey version was successfully published.



REQ-4.7.5a The option to publish for the newly published version must change to having the option to "Unpublish".

REQ-4.7.5b The option to edit the newly published version must change as published versions cannot be edited. The system must instead indicate that the version is locked for editing.

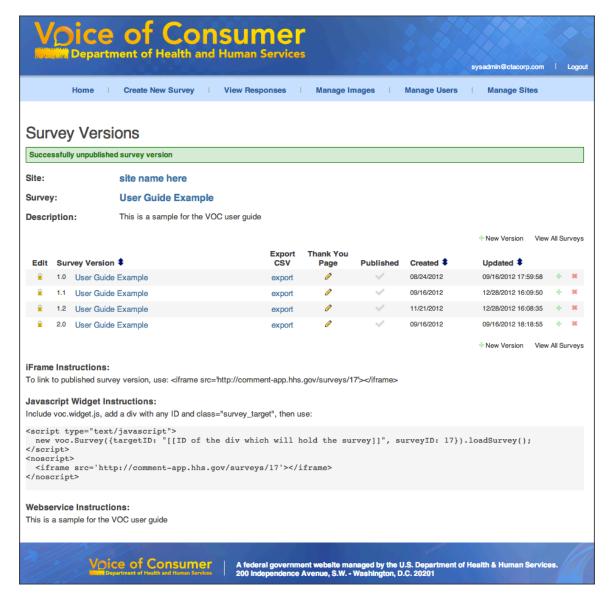
4.8 Unpublish survey version

REQ-4.8.1 The system must be able to unpublish (remove the survey from the public site) the different versions of a survey.

REQ-4.8.2 Choosing "View Versions" of a survey must give the user access to unpublish any and all versions.

REQ-4.8.3 When a user attempts to unpublish a version, the system must give them a prompt with the option to cancel or go ahead with removing the survey version from the public site.

REQ-4.8.4 When the survey is unpublished successfully, the system must notify the user with a message stating that the survey version was successfully unpublished.

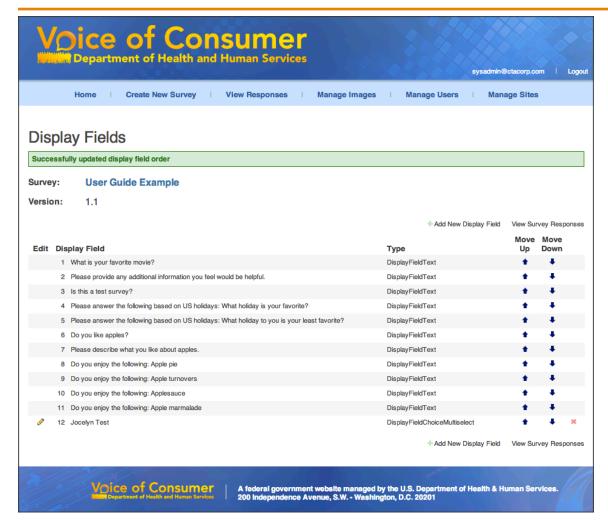


REQ-4.8.4a The option to unpublish for the newly unpublished version must change to having the option to "Publish".

4.9 Manage Display Fields

REQ-4.9.1 When a user chooses to view the survey responses of a particular version of a survey, the system must give the user the option to manage the display fields.

REQ-4.9.2 The system must give the user the option to change the order in which fields are displayed.



REQ-4.9.2a When a user has successfully changed the order of the fields, the system must notify the user with a message stating that the display field order was successfully updated.

REQ-4.9.2a The system must also show the display fields in the new order.

4.10 Add New Display Field

REQ-4.10.1 When a user chooses to view the survey responses of a particular version of a survey, the system must give the user the option to add a new display field.

REQ-4.10.2 The user must be given the option of entering in the following information for a new display field: Name, Type, and Default Value.



REQ-4.10.3 The system must require the user to enter something in the text box for Name, failure to do so must result in failure to create a new display field and a message notifying the user of such failure and the reason why.

REQ-4.10.4 The system will list three options under Type: Text, Dropdown, and Checkboxes.

REQ-4.104a The system will default the type to Text.

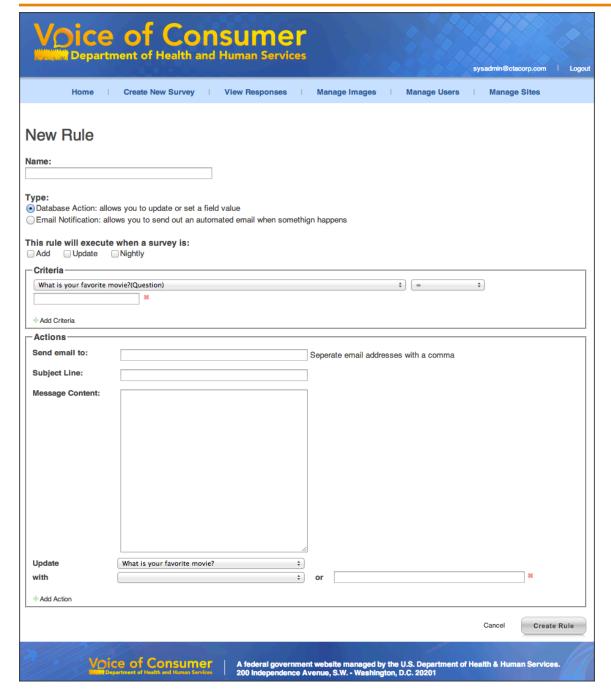
REQ-4.104b When dropdown or checkboxes is chosen, the system must require the user to enter in choices, failure to do so must result in failure to create a new display field and a message notifying the user of such failure and the reason why.

REQ-4.104c The system must give the user the ability to be able to set default values for Text and Dropdown types (but not Checkboxes)

4.11 Add New Rule Page

REQ-4.11.1 The system must give the user the option to add a new rule when managing rules of a survey response.

REQ-4.11.2 The system must give the following options for users to enter/choose information about the new rule: Name, Type, Execution, Criteria, and Actions.



REQ-4.11.3 If a user fails to enter in/choose information for the name, execution, or actions, then that will result in failure to add a new rule and the system must give a message notifying the user of such failure and the reason why.

REQ-4.11.4 The system must give two options for Type: Database Action, or Email Notification.

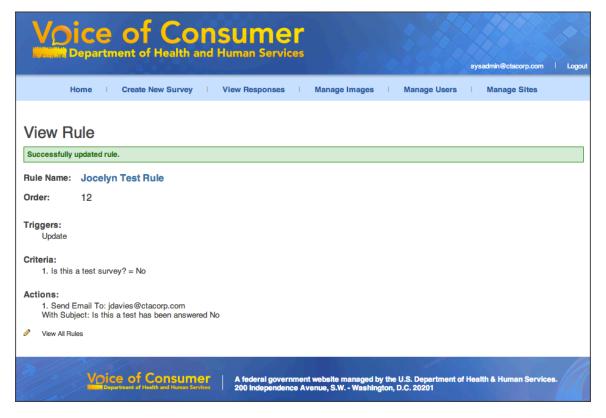
REQ-4.11.4a The system must default to the database action type.

REQ-4.11.5 For execution the system must give the user the option to choose among the following: Add, Update, and Nightly.

- REQ-4.11.6 The system must allow the user to set multiple criteria.
- REQ-4.11.7 The system must allow the user to set multiple actions.
- REQ-4.11.8 When the new rule has successfully been created the system must direct to a screen showing the information for the new rule and give a message stating that it was successfully created.

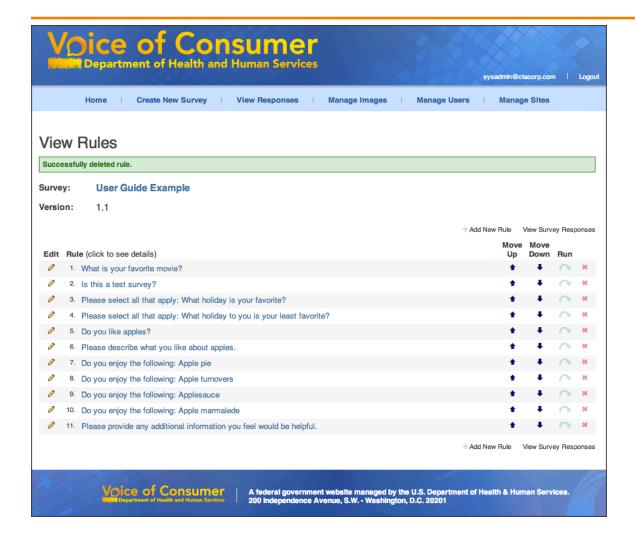
4.12 Edit Rules Page

- REQ-4.12.1 The system must allow users to edit existing rules.
- REQ-4.12.2 When a user is editing a rule, the system must allow the user to change any of the previously entered information. See section 4.11 for the requirements of entering information for a rule.
- REQ-4.12.3 When a rule is successfully updated, the system must notify the user with a message of the success.



4.13 Delete Rules

REQ-4.13.1 When a user is managing rules, the system must give the user the option to delete a rule.



4.14 Exporting Survey Results

REQ-4.14.1 The system must give the user the option to export the results of a survey.

REQ-4.14.2 Once a user has successfully requested an export, the system must notify the user that the request was submitted and that an email has been sent.

REQ-4.14.3 When an export is ready for pick-up, the system must send an email to the user who requested the export (based on the email they have within the system) notifying them that the survey results are ready.

Subject: HHS VOC Tool - Export Download

Your requested export is now ready for pickup.

Click here to download the CSV file.

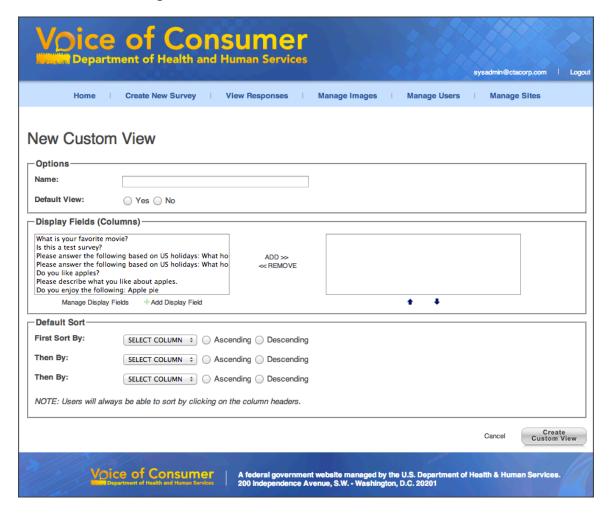
NOTE: The CSV file will be available for 25 hours. After that, you will need to run the export request again

4.15 Custom View

REQ-4.151 When a user is viewing survey responses, the system must give the user the option to set their own custom view of the responses.

REQ-4.152 The system must allow for multiple custom views to be created, giving the user the option to choose from different views.

REQ-4.153 The system must allow a user to set the following information for a custom view: name of the view, option for setting the view as a default, choosing which display fields will show and in what order, and default sorting.



REQ-4.154 The system must give the user the option to cancel out of this screen by clicking on the cancel button. Cancelling the creation of a new custom view must direct the user to the Survey Responses page.

REQ-4.155 Failure to enter a name for the custom view must result in failure to create the view, with a message notify the user of the failure and the reason why.

REQ-4.156 When a user is creating a custom view, the system must give the user the option to manage display fields (see section 4.9) and add display fields (see section 4.10).

REQ-4.157 When a new custom view has successfully been created, the system must show the name of the view in the options listed of views that the user can choose from.

4.16 Manage Images

- Req-4.18.1 The system must have the ability to add new images.
- Req-4.18.2 The system must have the ability to edit images.
- Req-4.18.3 The system must have the ability to delete images.

4.17 Add New Image

Req-4.18.1.a The system must give the user the ability to browse and choose a file to upload.

Req-4.18.1.b Once an image is successfully uploaded the system must show the new image in the list of image files.

4.18.2 Edit Image

4.18 Delete Image

Req-4.18.3.a When a user attempts to delete an image, the system must prompt them with an option to move forward or cancel.

Req-4.18.3.b Once an image is successfully deleted the system must remove it from the list of images.

4.19 Manage Users

- Reg-4.19.1 The system must have the ability to add a new user.
- Req-4.19.2 The system must have the ability to edit a user.
- Req-4.19.3 The system must have the ability to delete a user.

4.20 Add New User

Req-4.20.1 The system must allow the user to add the following information about a new user:

- -first name
- -last name
- -email
- -password
- -password confirmation
- -choose between admin role versus user role
- -choose site
- -option to create user or cancel

Req-4.20.2 The system must require the user to enter in a minimum of 4 characters for a password and password confirmation or give an error stating such.

Req-4.20.3 The system must require the user to enter in the exact same characters for password and password confirmation, if this requirement is not met the system must give an error stating such.

Req-4.20.4 The system must give errors if the fields of First Name, Last Name, Email, Password, and Password Confirmation are left blank.

Req-4.20.5 The system must require a valid email address, if this requirement is not met the system must give an error stating such.

Req-4.20.6 Once a user is successfully created the system must give the user a message stating that the user was created.

Req-4.20.7 The system must list a newly created user alphabetically in the list of users.

4.21 Edit User

Req-4.21.1 The system must allow a user to edit all of the same fields available for creating a new user. The same requirements exist for a successful edit as for a successful creation of a new user. (See section 4.19.1)

Req-4.21.2 Once the user is successfully edited and updated the system must give the user a message stating such.

4.22 Delete User

Req-4.22.1 The system must allow a user to delete any user.

Req-4.22.2 When a user attempts to delete a user the system must prompt them with a message asking if they are sure they want to proceed and give the user the opportunity to cancel.

Req-4.22.3 Once a user is successfully deleted the system must give the user a message notifying them of such.

Reg-4.22.4 A deleted user must no longer be present in the list of users.

4.23 Manage Sites

Req-4.23.1 The system must have the ability to add new sites.

Req-4.23.2 The system must have the ability to edit sites.

Req-4.23.3 The system must have the ability to delete sites.

4.24 Add New Site

Req-4.24.1 The system must give the user the option to enter information for the following fields:

- -Name
- -URL
- -Description

Req-4.24.2 The system must let the user know the accepted format for a url.

Req-4.24.3 The system must require all three fields to be filled out, failure to do so must result in errors.

Req-4.24.4 The system must require the url to be given in the accepted format, failure to do so must result in an error.

Req-4.24.5 Once a user has successfully created a new site the system must give the user a message notifying them.

Req-4.24.6 Newly created sites must show up in the list of sites alphabetically by Name.

4.25 Edit Site

Req-4.25.1 The system must allow a user to edit all of the same fields available for creating a new site. The same requirements exist for a successful edit as for a successful creation of a new site. (See section 4.20.1)

Req-4.25.2 Once the site is successfully edited and updated the system must give the user a message stating such.

4.26 Delete Site

Req-4.26.1 The system must allow a user to delete any site.

Req-4.26.2 When a user attempts to delete a site the system must prompt them with a message asking if they are sure they want to proceed and give the user the opportunity to cancel.

Req-4.26.3 Once a site is successfully deleted the system must give the user a message notifying them of such.

Req-4.26.4 A deleted site must no longer be present in the list of site.