



Data Management System

Users Guide

Version 1.0
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Prepared by the
Collaborative Studies Coordinating Center

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This Users Guide contains instructions pertinent to the operation of version 1.0 of the HCHS/SOL Data Management System [DMS]. When the DMS is updated to later versions, the Coordinating Center will send update memos. Please refer to the update memos and any available addenda to this guide for complete instructions. In the event of significant changes to the DMS, a complete updated Users Guide will accompany the update.

1 HCHS/SOL DMS

The HCHS/SOL DMS is accessible over the World Wide Web. It will run on any computer with a high speed Internet connection with Microsoft Internet Explorer 6 installed.

The DMS will also run in local mode on computers with the DMS installed locally. To operate in local mode, the computer must have a removable device to be used for data backup. The device can be a memory key (thumb drive) or an external hard drive. It cannot be a floppy drive.

To access the system when connected to the internet, click on the icon 'HCHS/SOL DMS – Remote'. The address for the remote system is **<https://dms.csc.unc.edu/HCHS>**.

To access the system in local mode, click on the icon 'HCHS/SOL DMS – Local'. The address for local mode is http://127.0.0.1/hchs_local.

The remote and local system work identically with the exception that in local mode you have to eventually connect to the internet and run the 'Data Upload and Merge' utility described later in this manual.

2 Overview of Data Collection

In the course of performing a study, data for a number of patients must be collected at various times for later analysis. These data items are organized into groups of logically related information called forms or form types. Each form is then assigned a brief mnemonic code for easy reference, i.e. "PAE" for Physical Activity Form, "SBP" for Systolic Blood Pressure Form, etc.

Questionnaire forms have both an English and a Spanish version. The English form mnemonics end in 'E'; the Spanish in 'S'. So, for example, the mnemonic for the English version of the Alcohol Use form is 'ALE'; the mnemonic for the Spanish version is 'ALS'.

It is sometimes necessary to change the content of a form during the course of a study. To allow for such changes, we assign a version letter to each form. The initial version is "A", and subsequent versions follow alphabetically. Thus, "PAEA" refers to "Physical Activity Form, Version A."

Since each form may be collected one or more times for each study occurrence or event, extra information is included to uniquely identify each recorded instance, or record, of a form. These identifiers, or key fields, include Study ID (ID) and Visit #. The ID is a unique code assigned to the participant. The Visit specifies the contact at which the form was collected. If more than one record is collected for an event at a given Visit, a unique Form Sequence number must be assigned to each record.

We refer to all data items on a form as questions and assign a question number to each item. Typical question numbers may include both letters and numbers, e.g. 1, 2, 3a, 3b, etc.

Data items may be initially collected on paper forms and subsequently entered (or keyed) into an electronic database for statistical analysis. Or data may be recorded directly on the screen without being transcribed from a paper form.

A database consists of tables of data, arranged into fields and records. Each table (form) can store many records (instances of a form), each containing a set of values for every field (question) in the table.

Each table in the database must have a unique name for identification, as must each field in a table. We assign each table's name to be the form and version of the source of its data. We assign each field's name to be the name of its table and the question number of the source of its data. Hence, the table containing data for form PAE, version A, is named PAEA and contains fields named PAEA1, PAEA2, PAEA2a, etc.

Each record in a table is uniquely identified by its set of key fields. Thus, no two records in a table may have the same set of key field values (ID, Form, Visit, Form Sequence).

A pictorial illustration of a PAEA data record in the database would look like this:

ID	FORM	VERSION	VISIT	SEQ#	PAEA1	PAEA2	PAEA3	...
B0000013	PAE	A	01	01	Y	N	N	

3 DMS Functions

The HCHS/SOL Data Management System [DMS] is a set of programs which manage data collected in the HCHS/SOL Clinical Centers.

The DMS provides several major functions:

- ♦ Data Entry: Allows data to be keyed, edited and updated.
- ♦ Data Transfer: Allows data entered in local mode to be transferred to the consolidated databases. Also allows laboratory and reading center data to be sent to the HCHS/SOL Coordinating Center for inclusion in a consolidated database
- ♦ Reports: May provide identifying information for cohort members, query reports, form prints, counts of records entered by form type, missing forms reports, etc.
- ♦ Query: Runs cross-form and cross field validation checks and generates error reports. Provides a mechanism for query resolution.

3.1 User Interface Standards

The DMS uses a combination of menus, mouse clicks and a few control keys to control its actions.

3.1.1 Keyboard, Mouse and Menus

The DMS uses the keyboard in a conventional way, i.e. the typewriter keys are used to type numbers, letters and symbols.

Items such as fields, menus and Ids and forms from the hierarchical menu can be selected using the mouse. To select an item, move the pointer to the item and press the left mouse button once.

Menu items can be selected using the mouse. Some menu options have further choices which are displayed in a pull-down list when the option is selected. Use the up and down arrow keys to move the bar to the desired option and click once.

Some submenu options have shortcut keys which are a combination of the ALT key and a letter, or the CTRL key and a letter. To use the shortcut hold down the ALT or CTRL key and simultaneously press the letter. Specific shortcut keys will be described when the menus are discussed.

Under some conditions menu options are unavailable. For example if a user does not have delete privileges, the Delete option is not available. Unavailable options are not highlighted and cannot be selected.

3.1.2 Lists

Some fields, for example the form field on the ID screen, can be selected from master lists. When the cursor is on the form field, put the cursor on the drop down arrow and click the left mouse button once. To select an item, place the highlighted bar on the item and click on the desired option. The item selected will be put in the field. To blank out the selection, setting the field to empty, click on the blank entry in the list. After selecting an item and clicking on it, press <Enter> or <Tab> to proceed to the next field.

3.2 Information and Warning Messages

Messages from the DMS display a message box with the OK button:



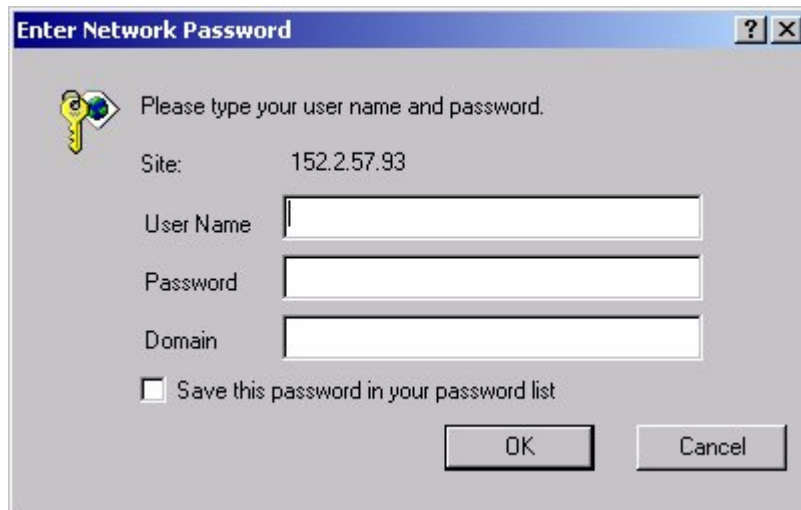
The message remains on screen until you click OK or press Enter.

4 Data Entry

Start Internet Explorer 6. For remote data entry, enter the URL:

<https://dms.csc.unc.edu/HCHS> or click on desktop icon “Remote Data Entry”.

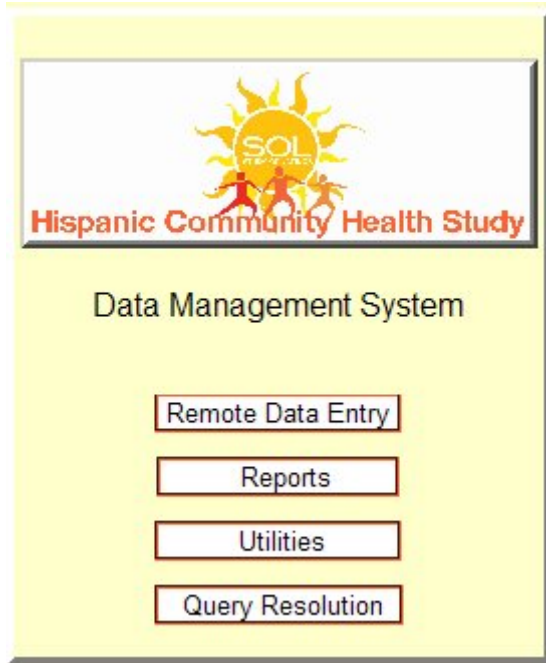
After your browser connects to the site, you will get the following login screen.

A screenshot of a Windows-style dialog box titled "Enter Network Password". The dialog box has a blue header bar with a question mark icon and a close button. Below the header, there is a yellow key icon with a globe on it. To the right of the icon, the text reads "Please type your user name and password." Below this text, there are three input fields: "Site:" with the value "152.2.57.93", "User Name" with an empty text box, "Password" with an empty text box, and "Domain" with an empty text box. Below the input fields, there is a checkbox labeled "Save this password in your password list" which is currently unchecked. At the bottom right of the dialog box, there are two buttons: "OK" and "Cancel".

This web server login provides the first level of security for accessing the HCHS/SOL Data Management System in remote mode. The Coordinating Center will assign your site/field center a user name and password for this security level.

4.1 System Menu

After you successfully log in to the web server, or when you call up the local DMS, the DMS menu is displayed, with the current version of the DMS displayed below the menu:



System Version: 1.0

‘Remote Data Entry’ is available when the computer you are using is connected to the internet. The Remote data entry option writes data directly to the HCHS/SOL study database at the coordinating center.

To remove the IE tools bars and thus have more area on which to display data entry screens, press F11. This toggles the tool bars on and off.

4.2 Login and Timeout

The second level of ID and password security require you to enter another ID and password in order use any. The data coordinator at each site will assign these IDs and passwords.



The login screen features a yellow background with a red border. At the top, there is a logo for the 'Hispanic Community Health Study' (HCHS/SOL) showing a sun and people. Below the logo, the text 'Please enter you user name and password to login to the system.' is displayed. The login fields are labeled 'User Name:' and 'Password:'. The 'User Name' field contains the text 'uccheb'. The 'Password' field contains seven dots. Below the fields are two buttons: 'Login' and 'Reset'.

Hispanic Community Health Study

Please enter you user name and password to login to the system.

User Name: uccheb

Password: ●●●●●●●

Login Reset

Enter your user name and password. Then click the 'Login' button. If the user name or password is invalid you will see the following screen:



The screen shows the same logo and text as the login screen, but with an error message: 'Invalid User Name or Password. Please enter you user name and password to login to the system.' The 'User Name' field now contains 'UCCHEB' and the 'Password' field is empty. The 'Login' and 'Reset' buttons are still present.

Hispanic Community Health Study

Invalid User Name or Password.
Please enter you user name and password to login to the system.

User Name: UCCHEB

Password:

Login Reset

After the DMS is started, leaving it unattended presents a security problem because an unauthorized person could view confidential data. If no contact is made between the browser (running on your computer) and the server (saving a form, requesting an existing form) for 10 minutes, the system will time out. If the system times out, you see the following screen:

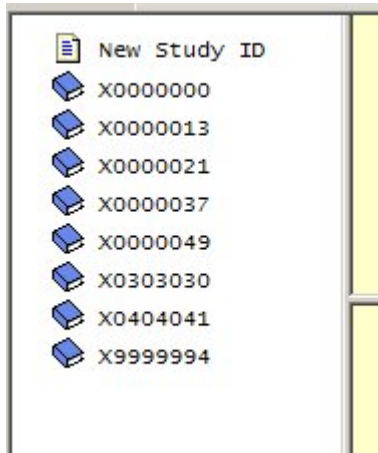
**Your session has timed out, if you were viewing a form,
the form you were viewing has been saved
Please [Login](#) again**

If you were working on a form and had made changes, the changes will be saved. You must log in again to access the system.

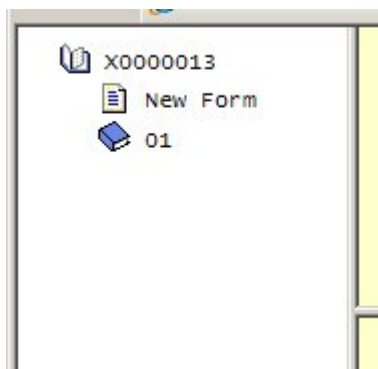
4.3 Entering Data

After you enter a valid user name and password, a screen with 3 panels will be displayed. The panel or frame on the left displays the hierarchical menu of IDs for your center. This menu can be expanded to display all forms entered for an ID. It is the mechanism by which you can move from one form to another or from one ID to another.

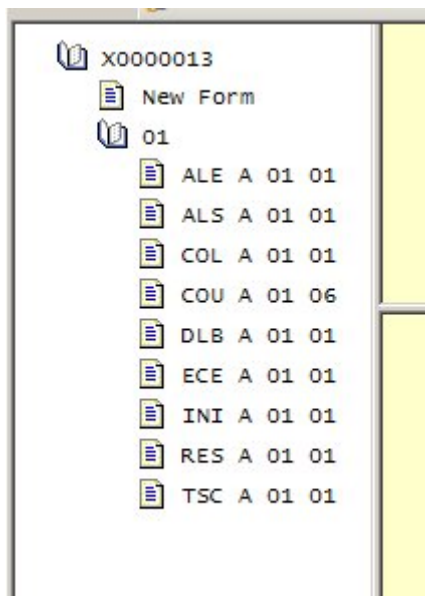
The first selection in the menu is 'New Study ID'. Click 'New Study ID' to add an ID not in the list.



To display all forms for an ID, click on the ID. A list of visits for the ID will be displayed. In the example below, the user clicked on ID X0000013. All visits which have at least one form are listed.



Click on a visit to show all forms entered for that visit/contact. In the example below the user clicked on visit 01. The form mnemonic, version, visit and sequence number are shown in columns. In the example below, Subject X0000013 has 9 forms at visit 01 – ALE, ALS, COL, COU, DLB, ECE, INI, RES and TSC. The form sequence number – 01 – is listed beside visit 01.



Click on 'New Form' to add a form for a visit which currently has no forms, or to add a form not listed yet.

To return to the complete list of IDs, click on the ID at the top of the menu.

4.4 Adding a New Form

When you click New Study ID to add the first form for a Subject or when you click on New Form to add the first form for a visit or a new form to an existing visit, the ID screen will be displayed:

Enter the key fields for the form you are adding. After you enter the last field, a blank form of the type specified will be displayed. (Tab through fields, or press <Enter> repeatedly if necessary to get past the ID screen.) The 'Version' field is automatically filled in by the Form selection list.

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4.5 Changing an Existing Form

To change an existing form, click on the row in the hierarchical menu which gives the form, version, visit and sequence number. The form with data will be displayed.

The screenshot shows the HCHS/SOL DMS interface. On the left is a hierarchical menu with the following items: X0000013, New Form, 01, ALE A 01 01, ALS A 01 01, ANT A 01 01, COL A 01 01, COU A 01 06, DLB A 01 01, ECE A 01 01, INI A 01 01, RES A 01 01, and TSC A 01 01. The main window has a yellow background and a title bar with 'Navigation', 'Changes', 'Problem', and 'Display' tabs. The 'Changes' tab is active. The form data is displayed as follows: Study ID: X0000013, Form: ANT, Version: A, Visit #: 01, Form Seq #: 01. Below this, the text 'CHANGE MODE' is centered. The form content includes: 0a. Date of form completion: 07/12/2007 AEE (with mm/dd/yyyy below it), 0b. Staff ID: 100 AEE. A section titled 'INSTRUCTIONS FOR QUESTIONS: Place a check in the appropriate box for the response. Unless instructed, mark ONLY one response. If a response is unknown or cannot be measured then enter the special missing value, "==", in the item. In order to measure bioimpedence, the participant must be barefoot. Set the Tanita analyzer to report metric units (cm/kg).' follows. Then, a section titled 'A. DETERMINATION OF ABILITY TO STAND' contains a list: 1. Assessment of ability to stand (choose one): 1=Can stand erectly on both feet. 2=Can stand on both feet, but posture not erect. 3=Cannot stand on both feet. To the right of this list is a box containing '1 AEE'.

4.6 Key Field Change on an Existing Form

Occasionally a form has been entered with the wrong ID or the wrong visit/contact #. Instead of deleting the record and re-adding it with the correct key fields, you may do a “Key Field Change”. First bring up the record in Change mode, and select Key Field Change from the Changes menu.

The screenshot shows the HCHS/SOL DMS interface. On the left is a hierarchical menu with the following items: X0000013, New Form, 01, ALE A 01 01, ALS A 01 01, ANT A 01 01, COL A 01 01, COU A 01 06, DLB A 01 01, ECE A 01 01, INI A 01 01, RES A 01 01, and TSC A 01 01. The main window has a yellow background and a title bar with 'Navigation', 'Changes', 'Problem', and 'Display' tabs. The 'Changes' tab is active. The form data is displayed as follows: Study ID: X0000013, Form: ANT, Version: A, Visit #: 01, Form Seq #: 01. Below this, the text 'CHANGE MODE' is centered. The form content includes: 0a. Date of form completion: 07/12/2007 AEE (with mm/dd/yyyy below it), 0b. Staff ID: 100 AEE. A section titled 'INSTRUCTIONS FOR QUESTIONS: Place a check in the appropriate box for the response. Unless instructed, mark ONLY one response. If a response is unknown or cannot be measured then enter the special missing value, "==", in the item. In order to measure bioimpedence, the participant must be barefoot. Set the Tanita analyzer to report metric units (cm/kg).' follows. Then, a section titled 'A. DETERMINATION OF ABILITY TO STAND' contains a list: 1. Assessment of ability to stand (choose one): 1=Can stand erectly on both feet. 2=Can stand on both feet, but posture not erect. 3=Cannot stand on both feet. To the right of this list is a box containing '1 AEE'. The 'Changes' menu is open, showing the following options: Add New Line, Save Form (Alt-S), Delete Form, Cancel Changes (Alt-C), Perm. Missing, Key Field Change, and Key Field Reset.

Fields that may be key field changed will be available, with non-available fields grayed out. In the example below, it is possible to change ID, contact #, or Seq #. The ID field is highlighted. To change the ID, click on the ID field and type in the desired ID.

The cursor will move to the next potentially changeable field, Contact #.

If you do not wish to change contact #, tab past it and seq #, or press <enter> twice, to get off the key field row. The cursor will move to the first data field in the form and change the hierarchical menu on the left, to associate the record with the new ID.

4.7 Form Entry

When a form is displayed, the top frame of the screen shows the key fields for the record. The cursor is on the first data field of the record.

Navigation	Changes	Problem	Display	EXIT
Study ID: X0100002 Form: DEM Version: A Visit: 01 Form Seq #: 000				
SCREENING DEMOGRAPHICS				
A. DEMOGRAPHICS				
1) Age EEE yrs				
2) Sex (M=Male/F=Female) EEE				
3) "What is your race?" Choose one or more of the following: (Read the following options)				
☐ White..... EEE ☐ Black or African American..... EEE ☐ American Indian or Alaska Native..... EEE ☐ Asian..... EEE ☐ Native Hawaiian or other Pacific Islander... EEE				
4) "Are you Spanish/Hispanic/Latino?" (Y=Yes/N=No) EEE				

4.7.1 Entry Fields

There are 3 types of entry fields: text boxes, drop down lists and check boxes.

1. Text Boxes: ('Age' and 'Sex' in example above.) When entering data in text fields, the cursor will move to the next field automatically if the response fills the field. If the response does not fill the field, you must press enter to advance the cursor.
2. Select Lists: (not shown in example above.) To select a response from a drop down list, click on the down arrow on the right end of the response box. A list of valid responses will be displayed. Click once on the appropriate choice. Then press <Enter> to move to the next field.
3. Check Boxes: (Question 3 in example above.) To choose a check box, click on the box.

Clicking once checks the box; a '1' will be stored in the database for a checked box. Clicking again, un-selects the box; a '0' will be stored in the box. If a box is not touched, a missing will be stored in the database. (Note: currently there are no check boxes in the HCHS/SOL web DMS.)

4.7.2 Duplication Buffers

For your convenience, some fields in the HCHS/SOL DMS have dup (duplicate) buffers associated with them. This feature allows the user to duplicate the entry from a previous field into a corresponding field by pressing the F2 key while on a field that uses a dup buffer.

With the increased ease of entry comes the responsibility for the user to make sure that each and every field dup-ed in contains correct data. If the user does not double-check the data dup-ed into a field, he or she may introduce incorrect data to the field.

What fields can use dup buffers?

Today's date

Most dup buffers are empty when you begin a session of data entry. They are filled the first time you enter a value into a field on a form. The value is stored in the dup buffer and is used to fill in the same field on another instance of the form when you press F2.

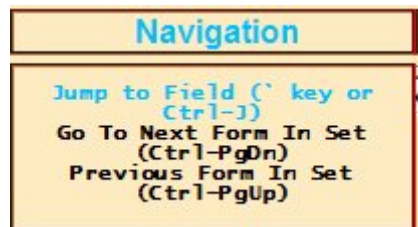
The exception is the “today’s date” field, which always supplies “today’s date”. If you enter a previous date (not “today”) into such a field, and expect to be able to dup it into a corresponding field in the same session, it will plug “today’s date”, not the previous date. This is the one exception to the way dup buffers work. Misunderstanding how the “today’s date” dup buffer operates could cause problems if you are entering data from paper forms that were collected at an earlier date; in that case, you need to enter each date field rather than using the dup-key.

The “today’s date” dup buffer can be used with fields such as “Date Exam”.

4.8 Menu Options

4.8.1 Navigation Option

The options under ‘Navigation’ allow you to ‘Jump to Field’ or move to the previous or next form in a form set.



Jump to Field allows you to move to a specific question on the form. Selecting this option brings up a menu in which you enter the number of the question to which you want to go:



If you enter an invalid question number you will be alerted.

Jump to field will not let you bypass a must enter (mandatory) field. If you enter a question number which falls after a must enter field which is blank, the cursor instead stops at the must enter field.

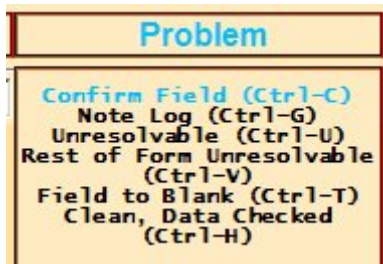
Form sets

Some forms are grouped into 'form sets'. The group is given a form mnemonic and that is the form name entered on the ID screen. Forms in a form set come up in a pre-determined order. When you are entering a form set once you save the first form, you can choose 'Go to Next form in Set' from the Navigation menu or press CTRL+PGDN to move to the next form in the set.

4.8.2 Problem Option

As you enter data values into a record, they are edited. Each data field that you enter has an associated status byte vector which stores editing information about the field, such as whether the field is empty, missing, or contains an out-of-range value. The status byte value for an empty field is 'E'. When a valid value is entered, the status byte becomes 'A'. Other status byte values are determined by the user when selecting choices from the Problem option.

The problem option allows the following choices:

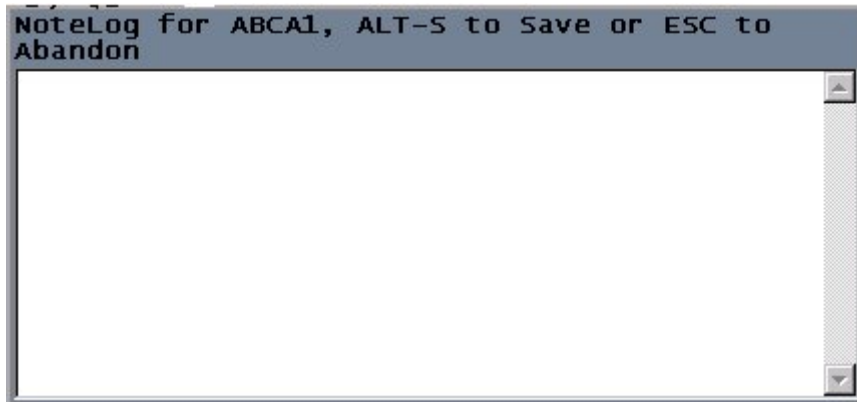


If a value fails an edit, for example if it is out of range or inconsistent with other values, an error window alerts you and gives the valid range or list of valid values:



Press OK to clear the message. Check that what you entered is what was collected on the form. If not, retype the value. If the value is correct but out of range, confirm it. using the first choice of Problem Option. This sets the status byte for the field to 'C'.

Some fields may require additional comments. A note log can hold a value for an 'other' option or a comment on the value of a field. The responses to some fields cause a note log to be displayed automatically. You can also create a note log manually by selecting 'Note Log' from the Problem Menu. The following screen is displayed:



Enter the text for the note. Press ALT+S to save the note log or press ESC to cancel the note log.

If a field has an associated note log the 3rd status byte changes from 'E' to 'N'.

To delete a note log, open the note log and delete all text. Then press ALT+S to save.

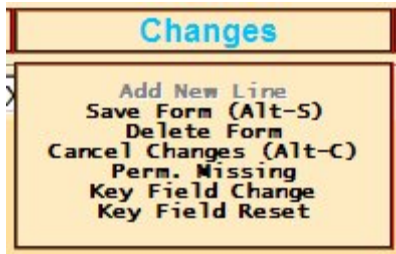
If a value cannot be collected or when the value you did collect is suspicious and should not be used in analysis, you can set the field to Unresolvable. You can also set all remaining fields on a form to Unresolvable.

Unresolvable sets the first status byte to 'U' and, if the field is blank, fills the field with equal signs (==) or for a select list field, sets the value to '= unresolvable'. Note that you can set a field to Unresolvable by keying the equal signs into the field rather than using the Problem menu.

Set rest of form to Unresolvable fills all remaining fields on a form with equal signs and sets their first status bytes to 'U'.

4.8.3 Changes Option

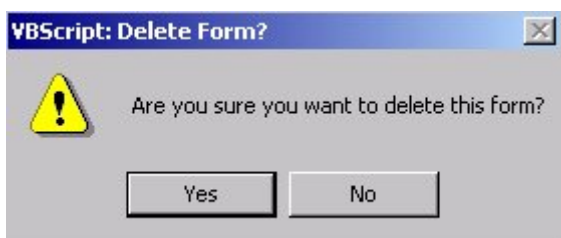
The Changes Menu provides options that allow you to save a new form, save changes to an existing form, cancel changes or delete a form or set a form to Permanently Missing.



Select **Save** to save the current state of the record to the database.

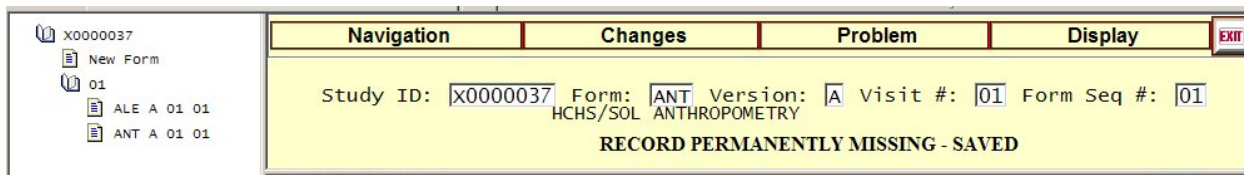
Select **Cancel** to cancel all changes to an existing record or to cancel the addition of a new record.

Select **Delete** to delete an existing form from the database. You will be prompted:



If a form is expected at a visit but cannot, for some reason be collected, set the form to **'Permanently Missing'** using the 'Perm. Missing' option on the Changes menu. This alerts the coordinating center that you are not able to collect these data. The coordinating center will know not to query you about the record. A record can be set to permanently missing only in Add mode.

When a record is set to permanently missing, the first status bytes for all fields are set to 'P'. When displaying a permanently missing record, the header frame indicates the record is permanently missing.



You cannot save changes to any field.

4.8.4 Display Option

The display option allows the user to turn off display of the status vectors. The display is turned off only while the current form is displayed. When you display a new form, the status vectors reappear.

4.8.5 Print Form

To print a paper copy of a DMS form, display the form on the screen. With the cursor in the body of the form, right click. The following message will be shown:



Choose "Yes" to print. When the Print window comes up, select "landscape" as the orientation, instead of the default "portrait", to make the print results more readable.

Print form should be used only when a printer is attached to the DMS computer or laptop, either directly or through a network.

4.9 Skips

Some fields are answered conditionally. That is, a certain response to one field can cause subsequent fields to be unnecessary or irrelevant. In the DMS these fields are skipped. After a response is entered into the trigger field, the cursor skips ahead to the next relevant field. Since the cursor is sometimes hard to find after a long skip, the currently active field is identified by a ">" symbol.

You cannot move to a skipped field.

The status bytes of skipped fields are changed to indicate the fields were skipped. The status byte values remain the same but are changed from upper to lower case.

4.10 Saving a Form

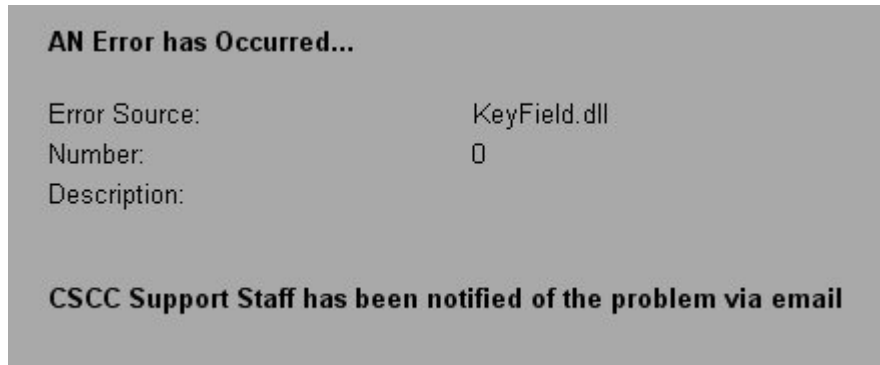
There are several ways to save a new form or to save changes made to an existing form.

1. Select 'Save Form' from the Changes Menu.
2. Press ALT+S when the cursor is in the data frame section of the screen.
3. Click another item in the Hierarchical Menu.
4. Close the browser by clicking on the "X" in the right corner.
5. Click the 'Exit' button on the menu bar.

Please note: if you have called up a form in Add by mistake, the form is empty, and you do not plan to enter it at this time, be sure to "Cancel changes" or "Delete" the record from the Changes menu, so that you do not place an empty record in the system. Make sure the empty record does not appear on the hierarchical ID menu for the ID.

4.11 Fatal Errors

Occasionally the system might experience a fatal error. When this happens you will see the following screen:



When a fatal error occurs, an email is automatically sent to the DMS staff at the coordinating center. They will work on a solution as soon as possible. You can also call to verify that they received an email. It will not damage the system to go back in and try another task.

4.12 Multi-Line Forms

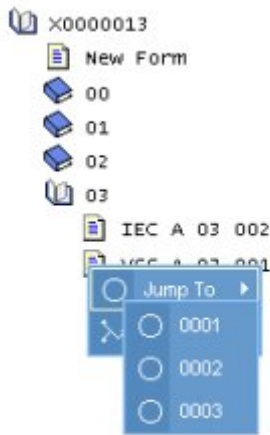
Some forms are arranged with many lines of values for a small set of data items. These **Multi-Line** forms are keyed in much the same way as other forms. To add a new form, enter the key fields on the ID screen. Once the record is displayed, you will notice that only the values of a single line appear on the screen. The line number of the current line is displayed in the **Header Window**. Once you have keyed all values for the line, the line is saved.

To add another line for the same form, **right** click on the **icon of the page** beside the form name in the hierarchical menu. (If you click anywhere else in the hierarchical menu, you will be asked whether you want to print the ID list.)



Click on "Add New" from this pop-up. A new set of blank fields will appear for entry and the cursor will move to the first field of the screen. Continue adding new lines until you have added all lines which appear on the form.

You may move from a line to another in a multi-line form by selecting "Jump To" from the pop-up in the hierarchical menu.



Left click on the line number you want to display.

If you wish to delete a line from the record, use the **Delete form** option on the "Change" menu.

5 Reports

The HCHS/SOL DMS includes several reports. A complete list will be kept in an appendix which will be updated as reports are added to the system.

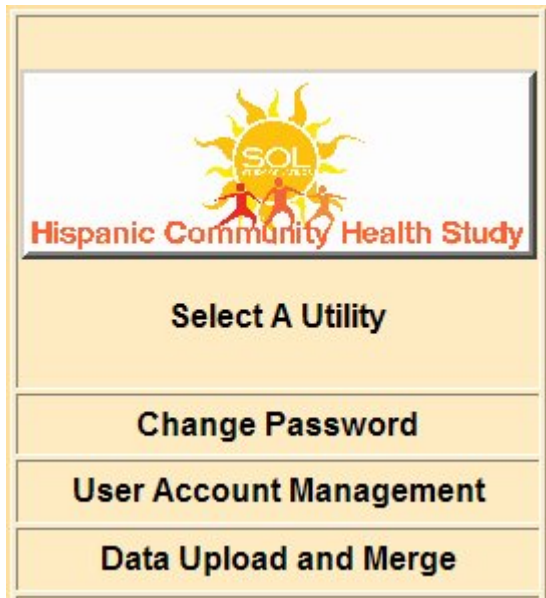
To run reports, choose Reports from the main menu. After you log in with your HCHS/SOL user name and password you get the Report Menu.

 Hispanic Community Health Study
Select A Report
End of Visit Report
Household Screening Status by month
Participant Visits by week
End of Study Availability Report
Forms for Selected ID
Expedited Notifications
Batch Labels

The details of each report are described in Appendix C.

6 Utilities

The Utilities are a set of programs with perform functions outside normal data entry and reporting. To run the Utilities, choose Utilities from the HCHS/SOL main menu. The Utilities menu is displayed:



6.1 Change Password

Each user can change his own password by running the 'Change Password' utility. You are prompted to enter your new password and then re-enter it for confirmation:

Please type you new password, and then click Change Password button
Click Cancel button to cancel your change(close this window)
The length of password should be between 6-10 characters

USERID :

PASSWORD :

RETYPE PASSWORD :

If you enter a valid password and confirm it, you get the message:



6.2 User Account Management

The User Account Management utility is used to create new users, assign them privileges and change the privileges of existing users. This responsibility is assigned to one master user at each site.

Privileges assigned on the remote DMS are good only for the remote DMS, from any computer. Privileges assigned in local mode on a laptop are good only on that particular laptop and only in local mode. The master user will need to assign privileges for each user in remote and local, if that user should have privileges in both contexts.

Privileges are granted or revoked for groups of tasks such as entering forms, running reports and running utilities. Each group of tasks has an associated set of permissions. The default groups are Form_alluser, Report_alluser, and Utility_alluser.

The default permission set for each group is as follows:

Task	Default Permission
Form_Alluser	Add, browse, change, delete all forms
Form_AllBrowse	Browse, print forms
Report_Alluser	View all available reports
Utility_coordinator	Account management, change password, other study utilities such as data upload
Utility_alluser	Change Password, change ID range

A user who has permission for Utility_coordinator can grant or revoke the default permissions for any task for any user using 'User Account Management'. For most users, Utility_alluser is the appropriate utility group. This allows them to change their own passwords but nothing else.

These are the groups and permissions set up by default. If, at your site, you need more finely tuned permissions, please make a request to the coordinating center detailing the tasks to include. For example, you may wish to allow some users full access to a subset of forms

When you select User Account Management from the Utility menu the following screen is shown:



All user names from the current user's site are listed on the left side of the screen.

To add a new user, click the 'New User' item. A screen is displayed:

The image shows a screenshot of a web application interface for adding a new user. At the top, there is a header area with a logo featuring a sun and the text 'SOL'. Below the logo, the text 'Hispanic Community Health Study' is displayed in red, and 'User Account Information' is displayed in black. Below the header, the word 'User' is centered. Underneath, there are three labels: 'USERID:', 'PASSWORD:', and 'CLINID:'. To the right of each label is a text input field. The 'PASSWORD:' field has a small icon of a key in the bottom right corner.

Enter the user name and password in the top panel.

Select the privileges to grant to the user in the second panel. For most abstractors, you will select FORM_ALLUSER, REPORT_ALLUSER, and UTILITY_ALLUSER. After marking the box for each privilege to grant, click the 'Add' button to add the user.

Groups	Permission Granted For Item	Access (Utility/Report) Browse (Form)	Edit (Form)	Add (Form)	Delete (Form)
☐ FORM_ALLUSER					
	ABP	Granted	Granted	Granted	Granted
	ALE	Granted	Granted	Granted	Granted
	ALS	Granted	Granted	Granted	Granted
	ANT	Granted	Granted	Granted	Granted
	COL	Granted	Granted	Granted	Granted
	COT	Granted	Granted	Granted	Granted
	COU	Granted	Granted	Granted	Granted
	DLB	Granted	Granted	Granted	Granted
	DLL	Granted	Granted	Granted	Granted
	DUB	Granted	Granted	Granted	Granted
	DUL	Granted	Granted	Granted	Granted
	ECE	Granted	Granted	Granted	Granted
	FRF	Granted	Granted	Granted	Granted
	HEE	Granted	Granted	Granted	Granted
	HES	Granted	Granted	Granted	Granted
	HHE	Granted	Granted	Granted	Granted
	HSE	Granted	Granted	Granted	Granted
☐ REPORT_ALLUSER					
	Cohort Lookup List	Granted			
	Upload Reports	Granted			
	CDA	Granted	Granted	Granted	Granted
☐ UTILITY_ALLUSER					
	Change Password	Granted			
	Data Upload and Merge	Granted			
	Change ID Range	Granted			
☐ UTILITY_COORDINATOR					
	Change Password	Granted			
	User Account Management	Granted			
	Data Upload and Merge	Granted			
	Change ID Range	Granted			
		Add Cancel			

To change the password or privileges of a user, select the user from the list and make the desired changes. Then, click the 'Update' button to commit the changes.

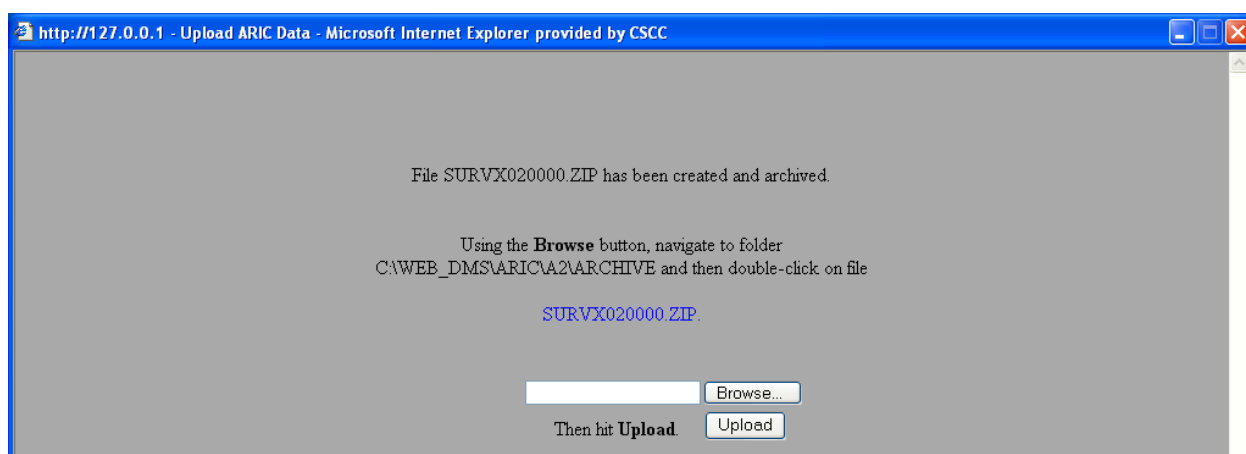
6.3 Data Upload and Merge

The HCHS/SOL data management system is a web-based system that can be run when the computer is connected to the internet or in stand-alone mode. You will use stand-alone "local" mode when the Internet connection is not working. In stand-alone mode, the system is running from a data management system and web server that have been installed on your computer. In

stand-alone mode data which are keyed are stored to the computer's hard drive. Therefore, you must transfer the data to the main HCHS/SOL database.

To transfer data, connect the computer to the internet and select the HCHS/SOL **Remote DMS** icon. (You must be connected to the internet for this step to work.) Log onto the server and select 'Utilities' from the Main Menu. Choose 'Data Upload and Merge'. That is step 1 of a 3-step process.

The system will copy and archive the data you have entered onto the laptop. It will show a screen requesting that you browse to the newly created file, in this example SURVX0200006.zip.



Select 'Browse' and go to c:\web_dms\hchs\h2\archive, locate the file and double click on the file name. The name and path will be inserted into the file name box. **Press 'Upload' to send the file to the server.** That is step 2 of the 3 step process.

You will get a message that the upload was successful and a report of how many records you sent. The next morning, log in to the remote DMS, select Reports, and choose Upload Report to view the processing report, as step 3. The processing report will report the success of the upload and tell you if there are records that need additional handling.

One situation where extra handling will be required is when the next-day upload reports that you attempted to upload a record whose key fields matched a record that already existed in the remote DMS. Duplicate records to resolve are added to the Remote DMS with Contact # 99 (called "visit" below). In most cases in HCHS/SOL, you will need to connect to the Remote DMS, look at these records and determine which one you want to keep, delete the appropriate record(s), and—if it is a visit 99 record you want to keep—do a key field change on it to change its visit back to 01. If there is more than one duplicate record for an ID, the sequence number field may be used also, and there may be more than one record to delete to resolve record discrepancies. (These records show up in the remote DMS hierarchical menu as contact #99/sequence 00, 99/01, 99/02, etc., if multiple.)

If there are numbers higher than 0 in the “Other Errors” column, you will need to contact the Coordinating Center to get additional information about the nature of the error(s).

Report For SURVX020000

Form	Successful	Duplicates to Resolve	Exact Duplicate	Other Errors
CELE	1	0	0	0
CFDC	1	0	0	0
CHIA	0	1	0	0
HFAA	1	0	0	0
HRAF	1	0	0	0
NOFA	2	0	0	0
SXID	1	0	0	0

Subjid	Form	Version	Visit	FSeqno	UserId	Original		Duplicate	
						Date Entered	UserId	Date Entered	UserId
0000000	CHI	A	01/99	00	UCCRG5	04/04/2007	UCCDRW	05/23/2007	

Duplicates to resolve have been added to the database with visit=99

Exact Duplicates have been ignored.

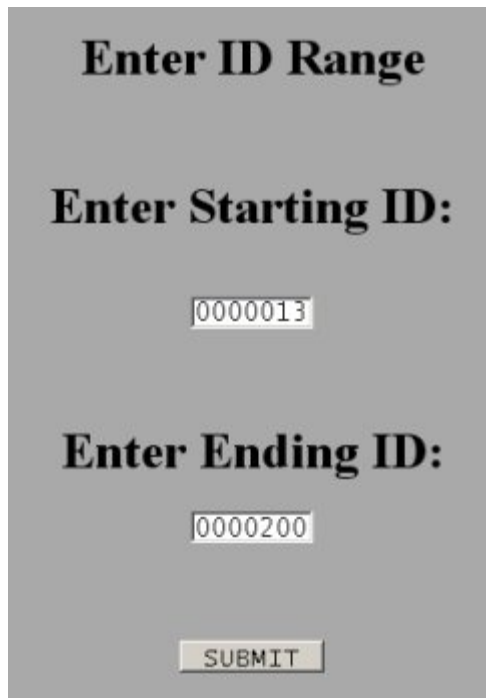
CSCC will have information on Other Errors

We will elaborate on upload instructions in a later addendum.

6.4 Change ID Range

Because the HCHS/SOL data management system is web-based, information displayed on the screen must be downloaded from a server and at a future time in the HCHS/SOL study, that will be a lot of information. The ‘Change ID Range’ utility allows a user to set and change a range of Event IDs that will be displayed during data entry. The range is stored for the user so next time he logs on, the same range is in effect. If you know you are working with only new IDs, you can set the range to display only later IDs. You can always add a new ID, despite the range that is set. (You will not be able to see that ID if you click the upper level of the ID menu. But you can easily change the range to include the new ID if you need to.)

To set the ID range, select ‘Change ID Range’ from the Utilities Menu.



Enter ID Range

Enter Starting ID:

0000013

Enter Ending ID:

0000200

SUBMIT

Enter the fields as requested and submit. The range will be in effect for your User ID until you change it via this utility.

6.5 Unlock from Browse Mode

If you are a user with FORM_ALLBROWSE privileges only, you will see a “BROWSE MODE” message on the top panel of the screen. (You may have to toggle F11 to make it visible.)

If you are a user who is allowed to enter, change, and delete records, but you find yourself in Browse Mode instead of Change Mode while on Remote, you are temporarily locked out of changing the record. If you’re locked out because another user has the form open with the potential to change it, that is appropriate; only one user at a time should be capable of changing a record. However, if no one else is attempting to access the record, there could have been a temporary problem with the web DMS. While the “lock” on the record will eventually clear, you may not wish to wait. If that is the case, call the DMS programmer at the Coordinating Center and ask that the record be unlocked. (Be prepared to provide the event ID, record type, and contact number.)

If you are operating in Local mode on your laptop and find yourself unexpectedly in Browse mode, you have the ability to help yourself. Get out of the record, and go from Data Entry to the Utility menu. Select option “Unlock from Browse Mode”, click on it, and follow any instructions. When you go back into Data Entry and call up the record again, it will be in Change Mode.

7 DMS Updates

During the course of the study, the coordinating center will update the Data Management System software. These updates may include new or updated forms for data collection, new features or reports, and corrections for errors which are detected in the system. Each update will include a memorandum detailing the changes to the DMS which are included in the update. Please insert this memorandum at the end of the Users Guide so that it includes the most up-to-date information about the DMS.

8 Appendix A – HCHS/SOL Data Management System Security

Several measures are in place on the HCHS/SOL Web server to ensure the security of study data. The site runs SSL (secure sockets layer) to encrypt data as it is transmitted from the user to the server. The SSL encryption is provided by 128 bit session keys provided by digital certificates. A user must provide a Windows XP user name and password and a DMS server user name and password to access the HCHS/SOL main menu. To use the DMS, the user must also supply a DMS user name and password. Users have differing permissions. Users with full permission can add, change and delete records, and run reports. Other users might be allowed only to browse records and view reports.

The servers hosting the HCHS/SOL DMS Web site have implemented many security measures recommended by security experts such as disabling unused ports and services, applying all operating system and Internet Server patches as they are released and running automated reports on certain access logs.

9 Appendix B – Actical Export

Sending Actical (activity monitor) data to the CSCC is a two step process.

- 1) Run the **Actical Export** program to create a zip file of all files downloaded onto the computer since the last export.
- 2) Run the DMS Utility **Actical Upload** to send the zip file to the coordinating center.

Export

After downloading the Actical monitors to your computer, click on the icon on the Windows Desktop called 'Actical Export'.

If there are files to send, you will see the following screen:



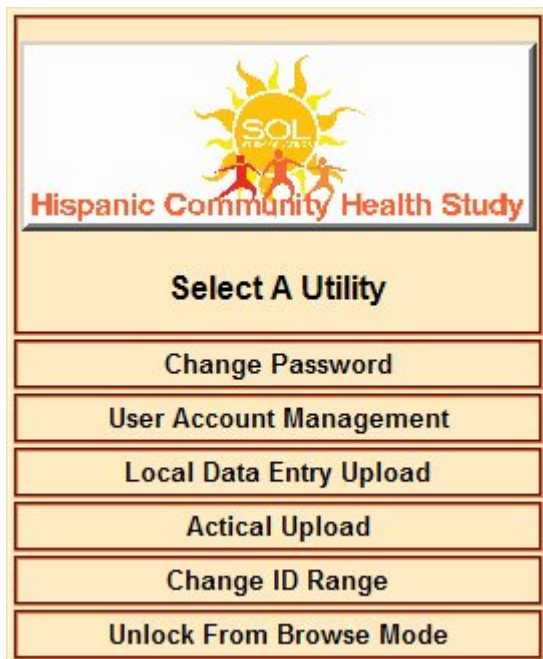
This screen tells you the name of the .zip file that was created – AB010006 – in the above example. The file name means this is Actical export (AB010006) for the Bronx (AB010006) computer number 1 (AB010006) export number 6 (AB010006). This is the file to upload to the coordinating center.

If there are no files to send, you will get the message:

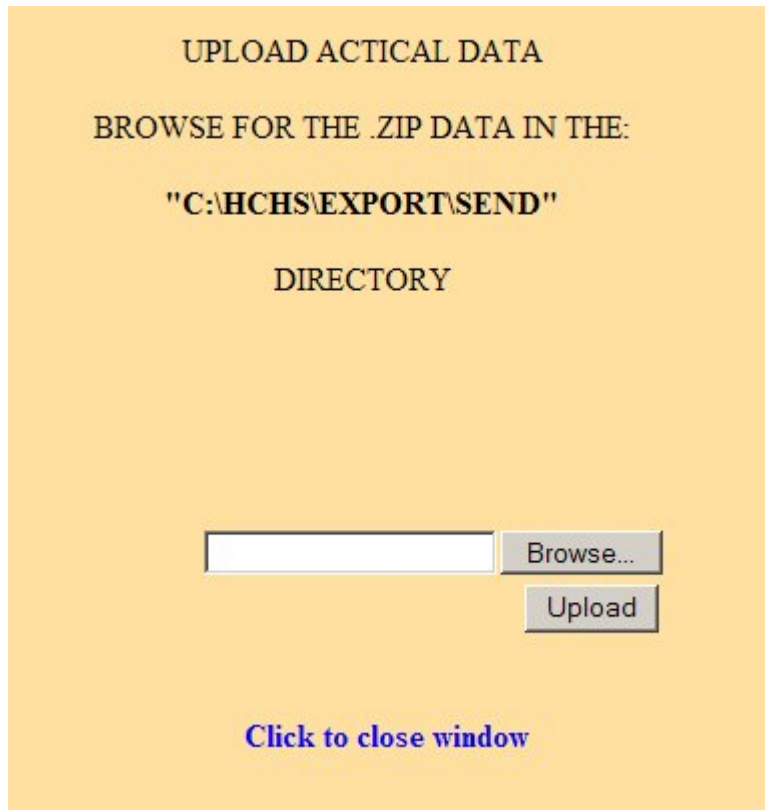
There are no files to export.

Upload

To upload the .zip file, log into the HCHS/SOL Data Management connected to the internet. Select Utilities->Actical Upload.



You will see the following screen:



UPLOAD ACTICAL DATA

BROWSE FOR THE .ZIP DATA IN THE:

"C:\HCHS\EXPORT\SEND"

DIRECTORY

Browse...

Upload

[Click to close window](#)

Use the Browse button to browse to the directory indicated on the screen – c:\hchs\export\send.

Select the .zip file created in the first step and press 'Upload'.

10 Appendix C – HCHS/SOL Reports