



# **Aspect Rating Station User's Guide**

**Aspect Rating Station User Guide**  
© **INFOTECH Soft, Inc.**  
1201 Brickell Avenue • Suite 220  
Miami • Florida • 33131  
Phone 305.371.5111 • Fax 305.271.5112  
Email [solutions@infotechsoft.com](mailto:solutions@infotechsoft.com)  
Web <http://www.infotechsoft.com>

Last Updated May 4, 2010

The information of this document may change without notice.  
In case of any problem with this document, please send an email to [solutions@infotechsoft.com](mailto:solutions@infotechsoft.com).

## Table of Contents

ASPECT Rating Station .....	5
Logging into the System .....	6
Clinical Data Visualization .....	7
Buttons .....	8
Menu Bar .....	8
Status Bar .....	8
Selecting forms and subjects .....	9
Working with the Navigation Panel.....	10
Working with Subjects .....	10
Filtering the List of Subjects .....	10
Working with Forms.....	10
Working with Form Data .....	11
Form Data Capture .....	12
Entering Data .....	12
Information Popups .....	14
Tool Tips .....	15
Navigating within the Form.....	16
Keyboard Navigation .....	16
Navigation Buttons .....	16
Navigation Tree .....	17
Read-only Data.....	18
Running Headers.....	18
Highlighted Items.....	18
Multi-Valued Tables .....	19
Entering data on Multi-Valued Tables.....	19
Navigating within a Multi-Valued Table.....	19
Deleting Table Rows .....	20
Inserting and Removing Annotations .....	20
Marked Items .....	21
Undo/Redo .....	21
Automatic Calculations.....	22
Conditional Processing .....	22
Alerts .....	22
Item Enabling/Disabling.....	23
Logic Flow .....	23
Language Selection .....	25
Reports .....	26
Saving Form Data .....	27
Signing Form Data .....	28
Closing Form Data .....	30



## ASPECT Rating Station

---

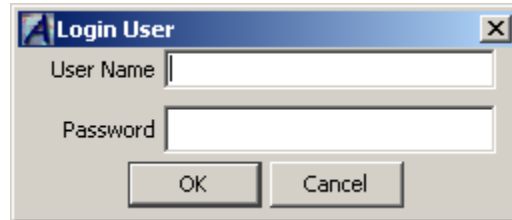
The **ASPECT** Rating Station provides the main user environment for the collection and capture of assessment information. Specifically designed for the Tablet PC, the **ASPECT** Rating Station can be used unobtrusively during the actual interview process in lieu of paper forms, while also excelling for post-facto data entry and evaluation using desktop or laptop workstations in standalone, offline, or networked configurations. It consists of two main interface components:

- Its **clinical data visualization** provides the clinician with the necessary tools to create or modify subject information and form data, showing at a glance the wealth of information stored within the data source and permitting the rapid location of each piece of data required.
- The **form data capture** creates a highly intuitive interaction mechanism, as easy to use as a paper form but with embedded intelligence and functionality. Diverse capture methods permit the capture of different types of information, while alerts and expressions help the user for more effective assessment. Reports are generated for screen display or printing, and data is securely stored and signed by users through the interface.

In reality, however, the **ASPECT** Rating Station has as many “looks” as it has forms configured, since each XML-based form definition specifies not only the data to be acquired, but also the way in which it will be presented on screen. Each form, in fact, can be configured to work in multiple languages, and with multiple layout configurations for different types of devices. In summary, the **ASPECT** Rating Station provides a wealth of tools and technologies designed to ease the assessment and data collection process.

## ***Logging into the System***

When the **ASPECT** system starts up, it will require a user to login. The user must enter a valid username and password to gain access the system.



The username and password are assigned and changed at the **ASPECT** Control Center.

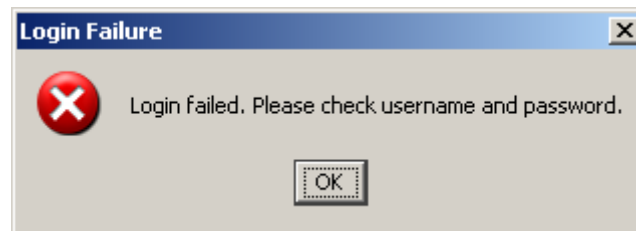


Once the username and password are entered, the user can either click or tap on the OK button or hit the Enter key.



Hitting the Cancel button exits the application.

If the username or password is incorrect, the system displays an error message.



Clicking the OK button allows the user to attempt to log in again.

## **Clinical Data Visualization**

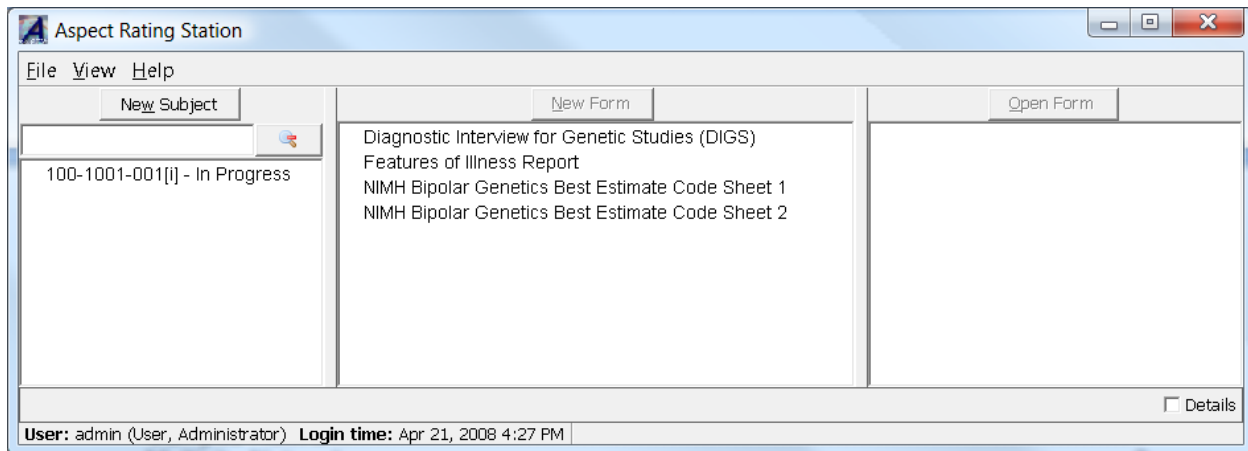
When the **ASPECT** system starts up after the user logs in, the clinical data visualization screen is shown. This screen is designed to facilitate access to the different form data sets existing within the data source.

The clinical data visualization screen is divided into three lists:

- The leftmost list shows the identifiers for all the **subjects** existing in the system. These identifiers are composed of fields extracted from the Subject Information form, and may display the subject name, initials, patient ID, or any other information.
- The center list contains all the **form definitions** existing in the system. Each form definition specifies a “blank” or “empty” form, and permits the selection of a new form to be filled out.
- The rightmost list shows all the **form data** already collected, in essence, it shows all the “filled” forms. From this column, the user chooses forms that need to be modified.



The identifiers to be displayed in the subject column are configured by the system administrator.



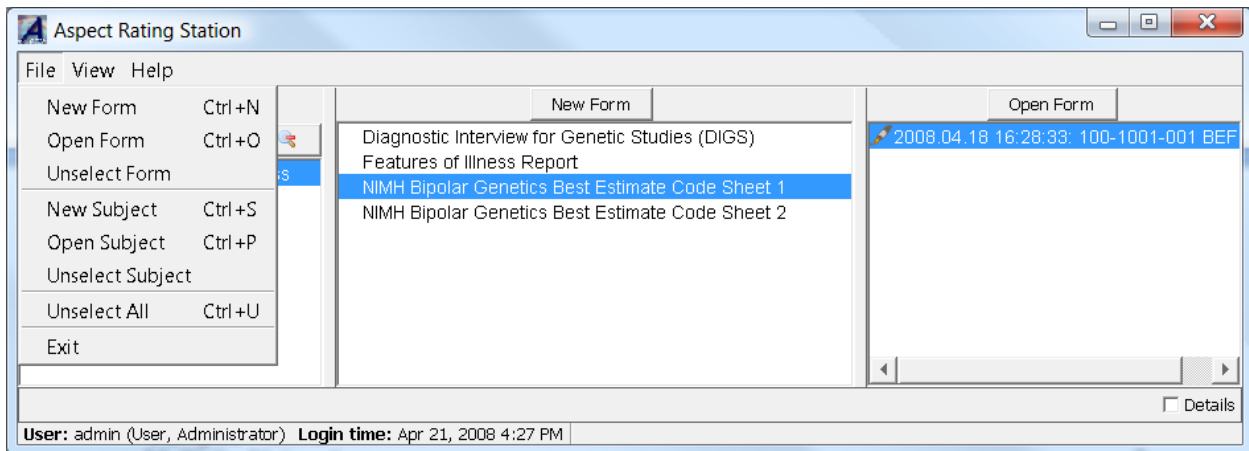
**ASPECT Rating Station Inter-Form Navigation**

## Buttons

At the top part of each column, three buttons provide shortcuts to commonly used functionality. The working of each of these buttons is explained further below, in the section "Working with the Navigation Panel".

## Menu Bar

The menu bar on the main screen has one pull down menu entitled 'File'. Under this menu, a more extensive set of selection and action options for the intra-form navigation panel can be found. These options are also explained below under "Working with the Navigation Panel".



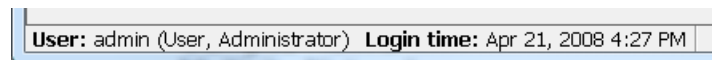
**ASPECT Rating Station Menu**



Buttons and menu options are enabled only when they are applicable.

## Status Bar

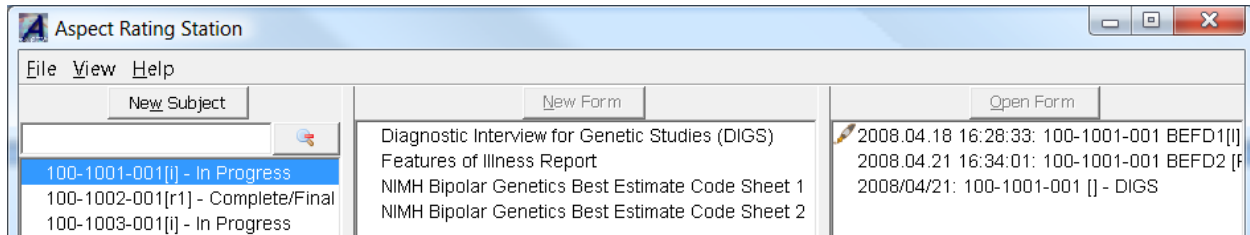
The status bar at the bottom of the every window displays the name of the current user logged into the system, along with the time of login.



**User Name and Login Time**

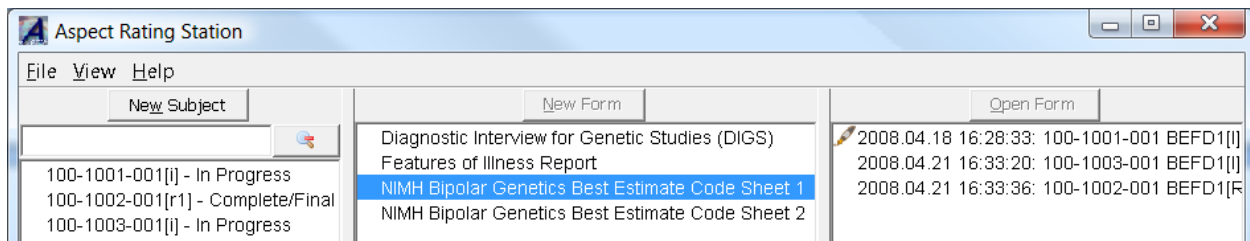
### Selecting forms and subjects

When neither subjects nor forms are selected, no form data instances are displayed. As soon as a subject is selected, all existing data instances of the selected subject are displayed in the right hand column.



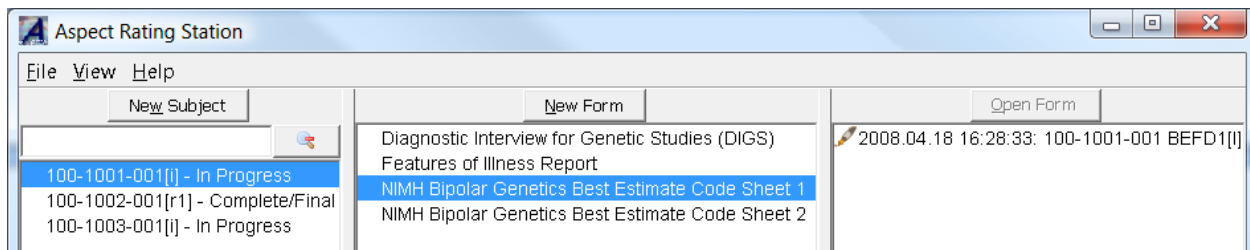
**Subject Selected**

Similarly, when only a form is selected, all data instances of this form type are displayed in the data list.



**Form Selected**

When both a subject and a form are selected, only the data instances for a given subject and form are shown.



**Subject and Form Selected**

## Working with the Navigation Panel

### Working with Subjects


If the user wishes to create a new subject, the 'New Subject' button at the top of the subject column can be pressed. The user can also select the 'New Subject' item from the File menu. This will open up the Subject Information form and allow the user to enter and save information for the new subject. Once the data is saved, the subject will appear on the screen in the subject list.

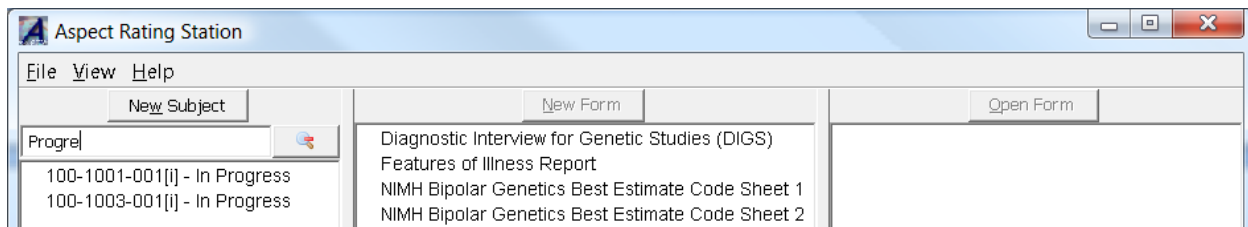
To edit the information on an existing subject, a user can select the subject and click the "Open Subject" item on the File menu. Alternatively, a user can double-click the subject identifier in the navigation panel to open the existing subject's information form.



The Subject Information form is just a special case of a form, and is defined and filled out in the same way as every other form.

### Filtering the List of Subjects

The user can filter the list of subjects by typing text into the entry area above the Subjects column. The list will automatically be filtered to only include subjects that match the text. Click on the 'clear' button (  ) to remove the filter and show all subjects.



**Filtering the list of Subjects**

### Working with Forms

To create a new set of form data for a subject, the user must first select a subject and form definition to use, then either:

- click on the 'New Form' button;
- select the "New Form" menu item on the File menu; or
- double-click on the form definition entry in the list.

The system will open a blank version of the selected form definition, which the user can use to collect new form data for the subject. Once the data has been collected, it can be saved and will be represented in the form data column using the date.

### Working with Form Data

The user may also wish to view, edit, or modify an existing set of form data. To select a previously created set of form data the user must first select either a subject or form definition or a combination of both. The form data column will display any form data sets associated with the current subject and/or form selections. To select the data, the user can then highlight a set of form data and:

- click the 'Open Form' button
- select the "Open Form" menu item on the File menu; or
- double-click on the form data entry on the list.

The selected set of form data will be displayed using the form with which it was originally created. It is noted that form data will always open using the version of the form definition that created it, which may not be the most recent version of the form definition.

## Data Entry

Once either a new or existing form definition (or subject) has been selected, the Form Data Entry interface appears on screen, showing a form as its layout specifies, and if applicable, showing the existing data for the form. A form contains explanatory text for the user or clinician, and answer collection controls, which provide for user interaction to capture data.

## Entering Data

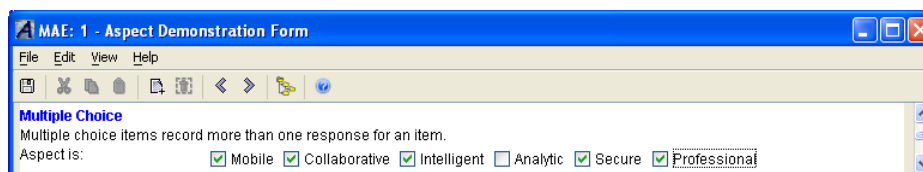
There are five main types of answer collection controls:

- **Radio buttons** are round buttons that (typically) allow only one selection out of a set of possibilities. The selected radio button is shown with a black dot within a circle, while unselected radio buttons are shown as open circles. To select a radio button, simply click on it with the mouse or tap it with the stylus. When using the keyboard, navigate with the up and down arrow keys to the desired selection and either tap the space bar or hit the enter key to select.



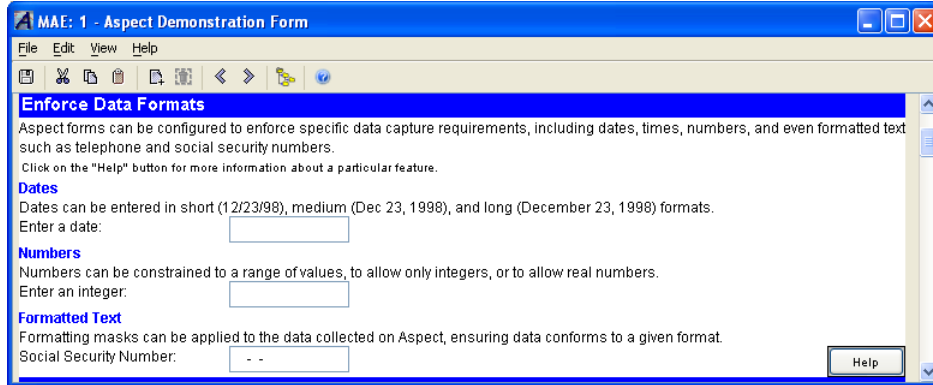
**A Set of Radio Buttons**

- **Checkboxes** allow multiple selections from a set of possibilities. Selected checkboxes are shown with a check mark inside a square box; unselected ones are empty boxes. Similar to a radio button, to select a checkbox, simply click on it with the mouse or tap it with the stylus. When using the keyboard, navigate with the up and down arrow keys to the desired selection and either tap the space bar or hit the enter key to select.



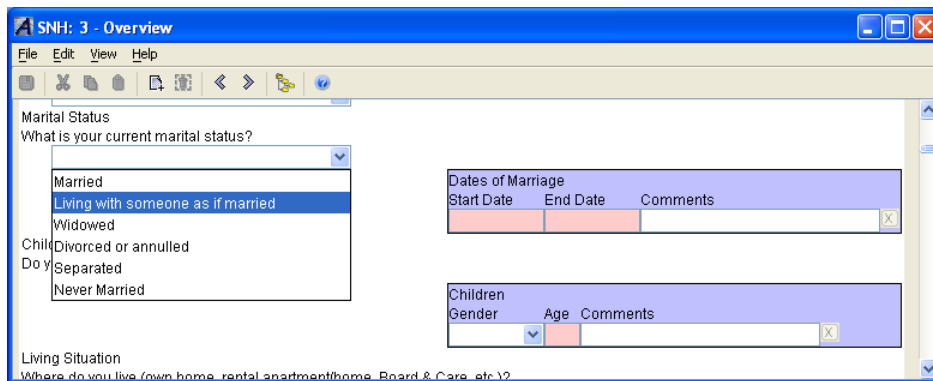
**A Set of Checkboxes**

- **Text boxes** are boxes where text can be entered and/or displayed. To enter data into a text box, either type it with the keyboard or use the Tablet Input Panel and/or virtual keyboard to enter data. Input-type text boxes allow a single line of data, while text areas are a special type of text box that allows multiple lines of data, presenting if necessary a scroll bar to allow text to continue to grow.



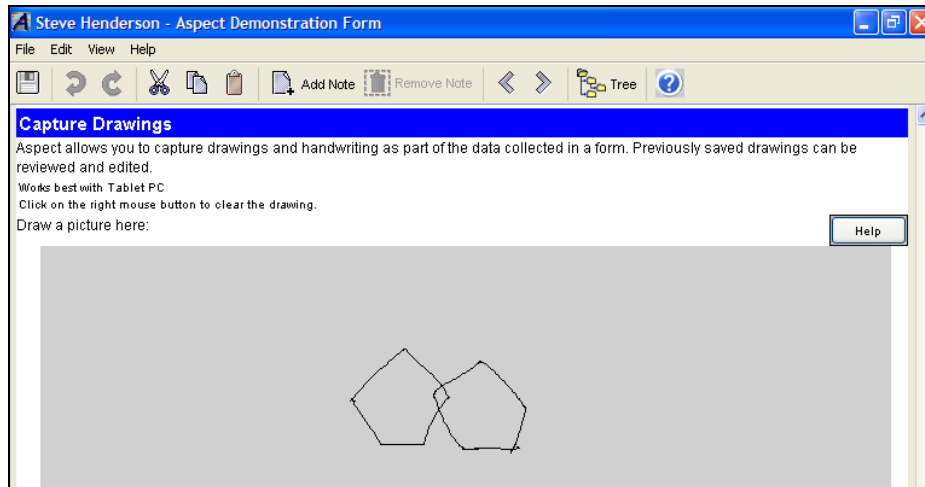
**Different Types of Text Boxes**

- **Drop down lists** (sometimes called combo boxes) look like a text box with an arrow to the right side. When located on this control, clicking on or tapping the arrow displays a list from which a single selection can be made. Using the keyboard, hitting the Enter key displays the list; the up and down arrows permit the selection of one of the items in the list, which is then selected using either the space bar or the Enter key.



**A Drop Down List**

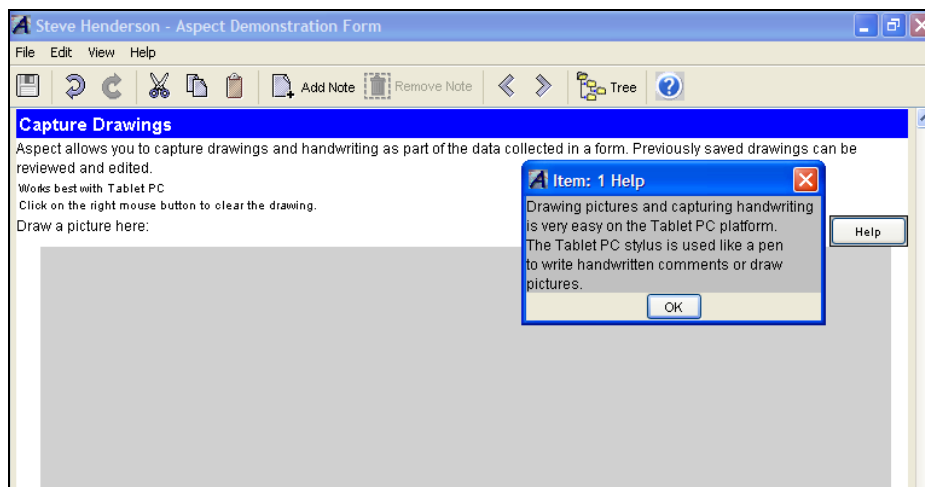
- **Drawing** panels allow the user to sketch a picture based on the question in the form, or to leave a handwritten note. In either case, the drawing is done directly on the screen with the mouse or stylus at certain areas of the form. All drawings are viewed as images, which can then be saved and will be redisplayed when the form is subsequently opened.



**Drawing Intersecting Pentagons**

## Information Popups

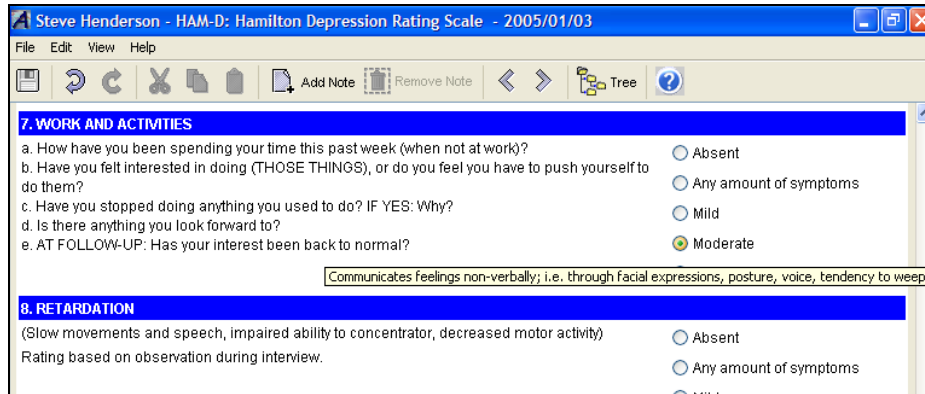
Popups provide the user with additional information relative to an item. The user can click a corresponding button and the information, question, or other data space will be displayed in a window separate from the main form.



**An Informational Popup to Use with Drawing Areas**

## Tool Tips

Tool Tips provide additional information to the user specific to an answer collection control. By hovering the mouse over an answer, the tool tip will pop up.



**A Tool Tip is Displayed for the Answer Option 'Moderate'**

## Navigating within the Form

In order to enter the collected information into the form, the user must be able to navigate from one control to another. Navigation also needs to occur to and from the buttons that represent the popups. To perform this navigation, three different mechanisms are available: keyboard navigation, navigation buttons, and a navigation tree.

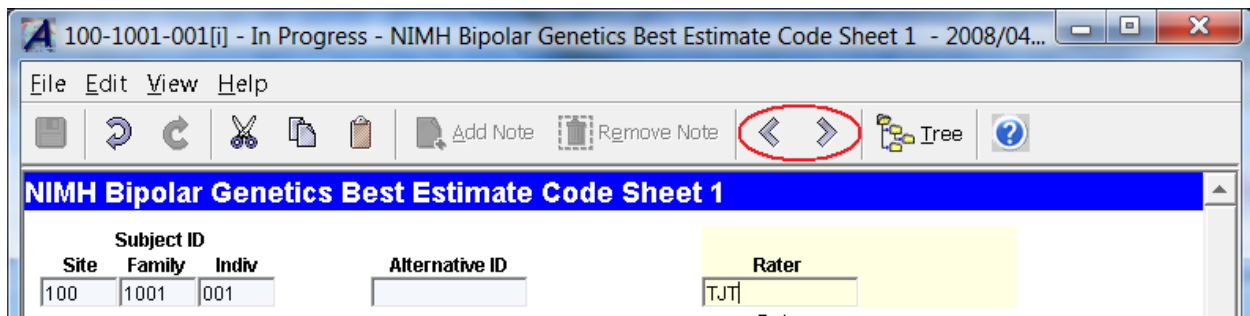
### Keyboard Navigation

To go from one control or popup button to another, the Tab and Shift-Tab keys are used. Tab proceeds forward in the direction of the form (usually, left-to-right, top-to-bottom), while Shift-Tab proceeds in the reverse direction. The active control or popup can be easily distinguished by a conspicuous dotted border or by an editing cursor.

The Page Up and Page Down keys permit more accelerated navigation, by displacing the active control marker roughly one screen down or up, respectively.

### Navigation Buttons

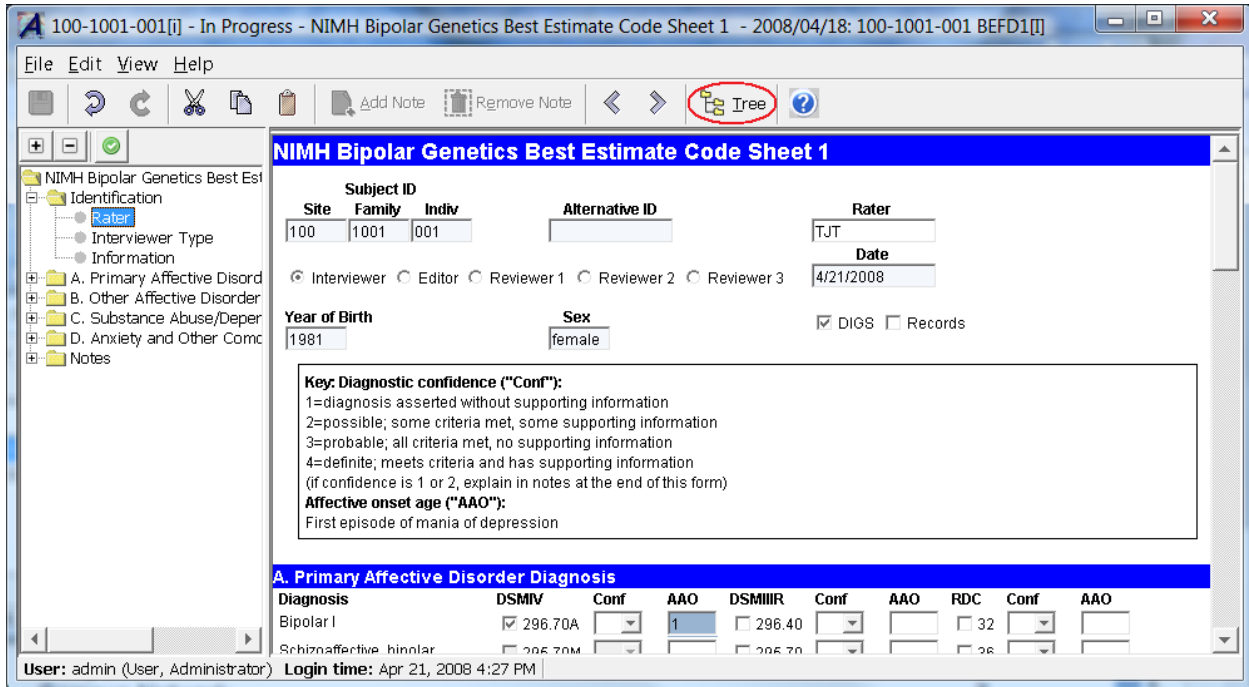
The **Previous** and **Next** navigation buttons provide the user with the same functionality as the Shift-Tab and Tab keys, respectively, and are better suited for use with a mouse or stylus. The navigation buttons are located on the tool bar of the form, and also on the Edit menu.



**Previous and Next Navigation Buttons**

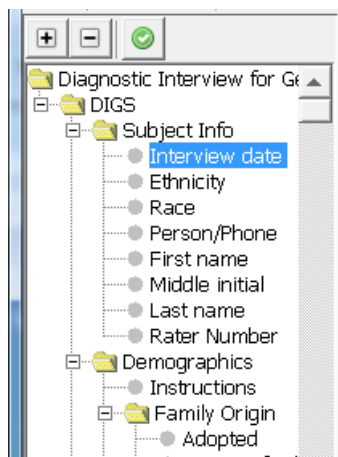
Navigation Tree

The Navigation Tree shows the complete form layout within a tree view. The user can switch to the Navigation view of the form by selecting the "Tree" button on the toolbar, or by using the "Show Navigation Tree" menu item on the "View" menu. Item groups within the tree can be expanded to view the items and subgroups within the group. By selecting an item or group, the focus of the form will jump to the selected area. The Navigation Tree can also be hidden by again choosing "Tree" from the toolbar or by using the "Hide Navigation Tree" menu item on the "View" menu.

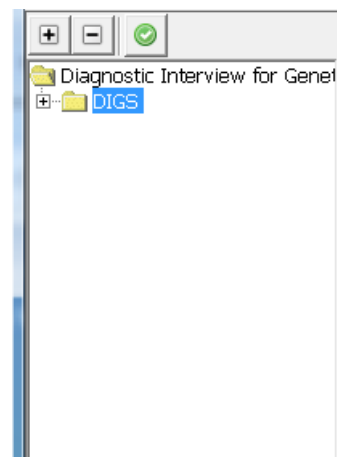


Navigation Tree View

The Navigation Tree can be expanded by clicking (+) or collapsed by clicking (-).



Navigation Tree Expanded



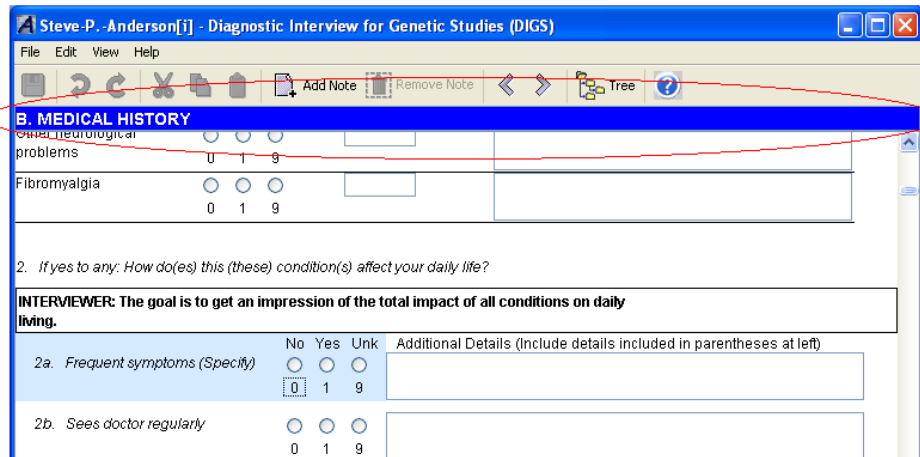
Navigation Tree Collapsed

Read-only Data

In some cases, users will have permission to read and review a piece of data, but not be able to modify the data. When viewing read-only data, the user can only traverse between items in the form by using the navigation tree or the scrollbar.

Running Headers

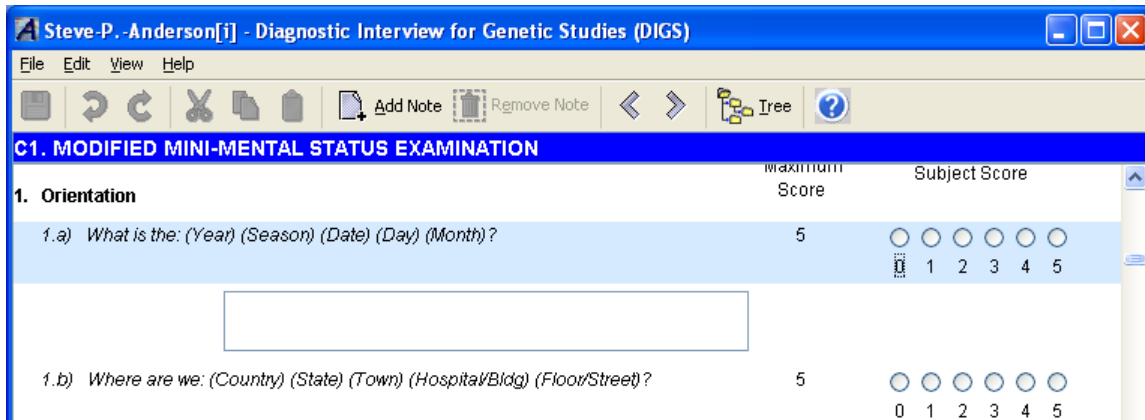
A running header is an information bar that updates the user as to their current position within the form. As a user traverses the form, the running header will display the name of the form section where the cursor is focused. The running header provides a quick reference for the user as to the section of the form for which the item they are working with is located. The running header is situated between the toolbar and the form.



**Running Header**

Highlighted Items

Highlighted items alert the user as to the current focus of the cursor within a form. These items appear with a background color that is different to the color of the other items within the form. The highlighted item should be the item with which the user is presently working.



**Highlighted Item in Light Blue**

## Multi-Valued Tables

### Entering data on Multi-Valued Tables

Tables can be constructed to collect multiple sets of data with the same general structure. When a table is empty, a single row of empty data is shown on screen; when new data is entered into any field within this empty row, the table automatically expands, always showing an empty row at the end of the table.



Not all tables are multi-valued. Some tables are simply a group of answer control mechanisms aligned in a tabular manner. These non-multi-valued tables do not grow, and do not have delete buttons.

The screenshot shows a software window titled "SNH: 3 - Overview". It contains a form with the following elements:
 

- A "Children" section with a question "Do you have any children?" and radio buttons for "Yes" and "No".
- A table with the following structure:
 

Children	Gender	Age	Comments
- A "Living Situation" section with a text input field and a label "Where do you live (own home, rental apartment/home, Board & Care, etc.)?".

**The Multi-Valued Table Always Shows an Empty Row**

The screenshot shows the same software window as above, but the table now contains data:
 

Children	Gender	Age	Comments
	Male	12	John
	Female		

**The Multi-Valued Table Adds New Rows Automatically**

### Navigating within a Multi-Valued Table

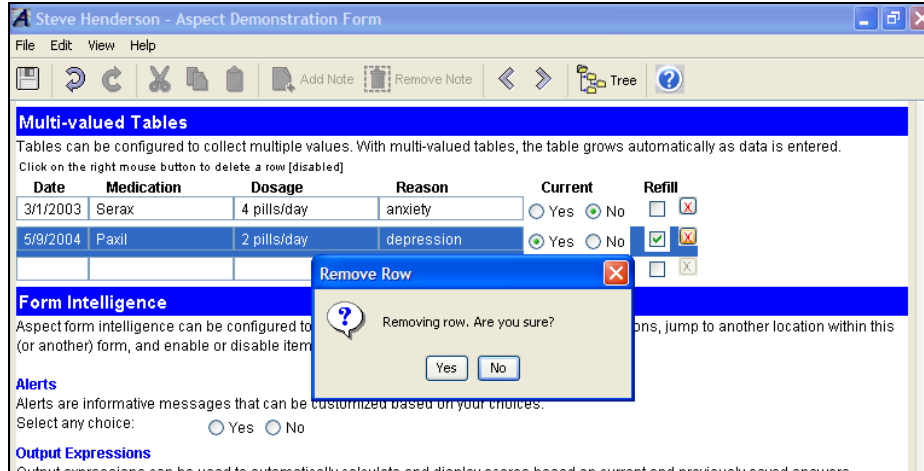
Each cell within a table contains an answer collection control. To navigate among these, the usual navigation methods (keyboard, buttons) are used. When navigation reaches the last cell of the empty last row of the table, selection proceeds to the next item within the form.



Unlike other interfaces, using the *Tab* key at the last cell on the last row does not insert a new empty row. Insertion of an empty row is achieved by entering data in any field within the last row of the table.

Deleting Table Rows

All table rows have a delete button at the right side of the row; all but the last button are enabled. Clicking on this delete button displays a confirmation message; accepting the message by selecting OK removes the entire row from the table.



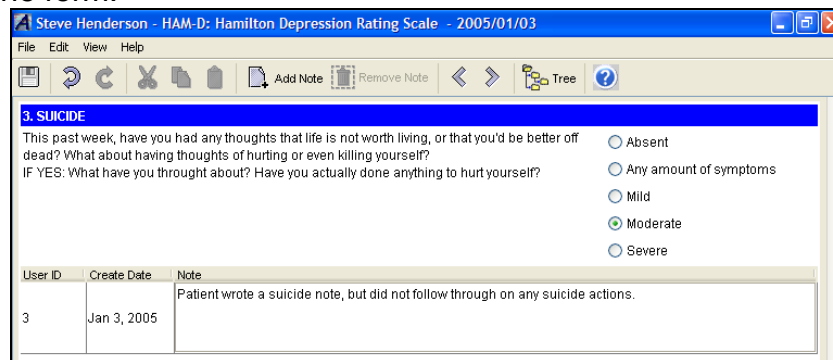
**Removing a Row from a Multi-Valued Table**

**Inserting and Removing Annotations**

An annotation allows the user to enter additional information relative to the item. Included can be comments, descriptions, or other data the user may desire to provide. Annotations are inserted by clicking on the Add Note button on the toolbar, or by selecting the Add Note menu item on the Edit menu; insertion of an annotation is done at the item whose answer collection control is selected.

Annotations can only be inserted if the design of the form allows it; otherwise, the Add Note toolbar and menu item are disabled. Multiple annotations can be inserted at the same item; each annotation is displayed with a user ID and a creation date.

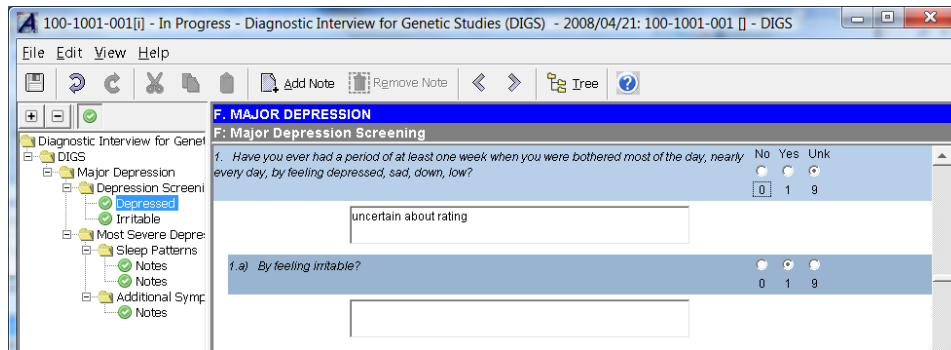
To remove an inserted annotation, the annotation itself must be currently selected (by having the text cursor, i.e., an I-shaped cursor, showing on the annotation body). When the Remove Note toolbar button, or the Remove Note menu item in the Edit menu, is selected, a dialog requesting confirmation appears; if the user confirms, the note is deleted from the form.



**Adding an Annotation to the Item**

## Marked Items

Marked items allow a user to highlight an item to be reviewed. Marked items appear highlighted within the form and a marked (✔) icon appears in the Navigation Tree. Items can be marked or unmarked by selecting the item either in the Navigation Tree or within the form and typing CTRL+M or by selecting "Toggle Mark" from the Edit menu. The Navigation Tree also includes a button (✔) to filter the tree by marked items. Clicking on the filter button toggles the tree view between showing only marked items or all items.



**Marked Items Highlighted in Blue**

## Undo/Redo

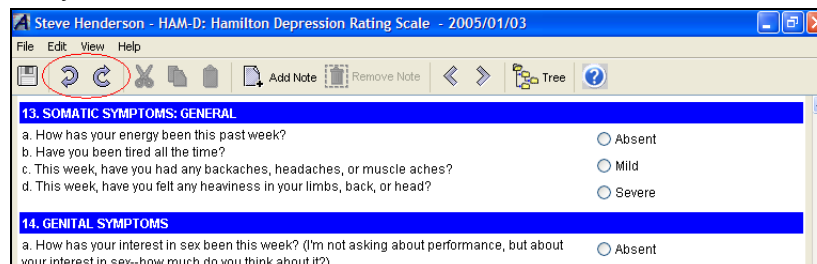
The **ASPECT** system allows the user to cycle backwards or forwards through the changes made to a form by using the **Undo** and **Redo** buttons, or the "Undo" and "Redo" menu items in the "Edit" menu. By selecting Undo, the most recently changed data will revert to its pre-changed value. The user may continue to select the Undo button and the old data will be restored, one change at a time. If the user decides to reestablish the changes made to the data, the Redo button can replace the data change made by using the most recent Undo action. Continuing to select the Redo button allows the user to cycle forward through each of the Undo actions selected, progressively replacing the data.

Most actions are undoable, including the entry or selection of data, and the insertion or removal of annotations and table rows.

In most answer collection controls, including single line input text boxes, the undo and redo actions switch between values set after the control loses its selection. In text areas, however, undo and redo work at the character insertion level.



Undo and Redo have an *accelerator* key, that is, a key stroke that has the same functionality as the toolbar button. For Undo it is Ctrl-Z, for Redo it is Ctrl-Y.

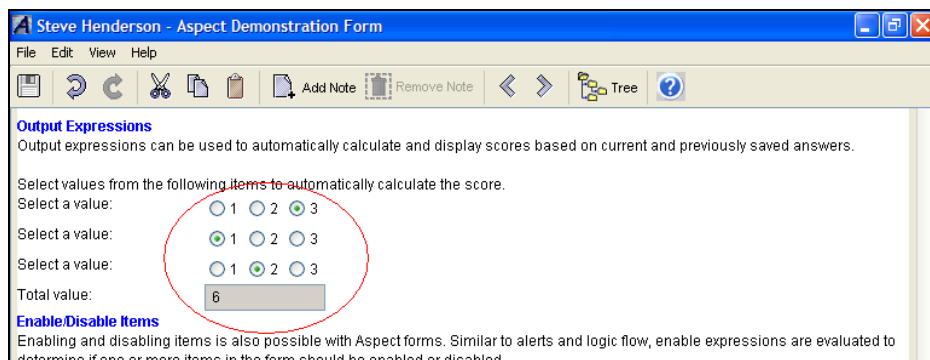


**The Undo and Redo Buttons**

## Automatic Calculations

An output expression is an automatically calculated result, based on data within the form or from other forms within the system. Output expression examples are a total score based on the sum of a users answers, a calculation of an age or range of years based on provided dates, or a determination of truth or falsehood for a determined condition. These output expressions are usually displayed within the form on output boxes, which are similar to input text boxes, except that they do not allow entry of data, and are shown in a different, system-specific coloring (gray on Windows systems).

A calculated field is updated automatically whenever data that affects its result is changed.



Output Expression Calculates the Sum of Selected Values

## Conditional Processing

The **ASPECT** Rating Station has a comprehensive system for processing of conditions within the form. These conditions are generally dependent on the data within the form itself, and could also depend on data within other forms. They can be triggered by one or more of the following events:

- Upon form opening
- Upon selection (focus) reaching an answer collection control
- Upon selection (focus) leaving an answer collection control
- Upon a change in value in the answer collection control.

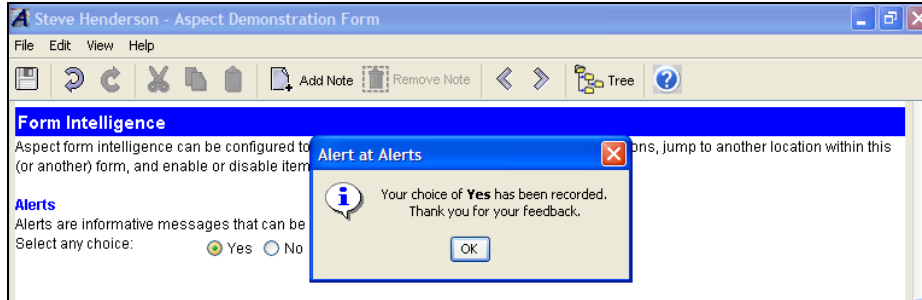


The event that triggers processing of a condition, as well as the nature of the condition itself, are determined by the design of the form.

There are three types of conditional processing results: **alerts**, **enabling / disabling of items**, and **logic flow**.

### Alerts

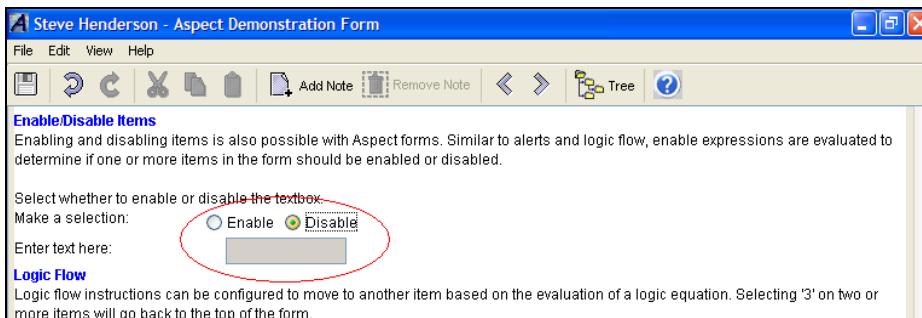
An alert is an informative message displayed to the user, triggered by a condition. Alerts are used to warn the user or clinician about potentially ambiguous or contradictory responses, or in general to provide help and guidance.



**Customized Alert Message**

**Item Enabling/Disabling**

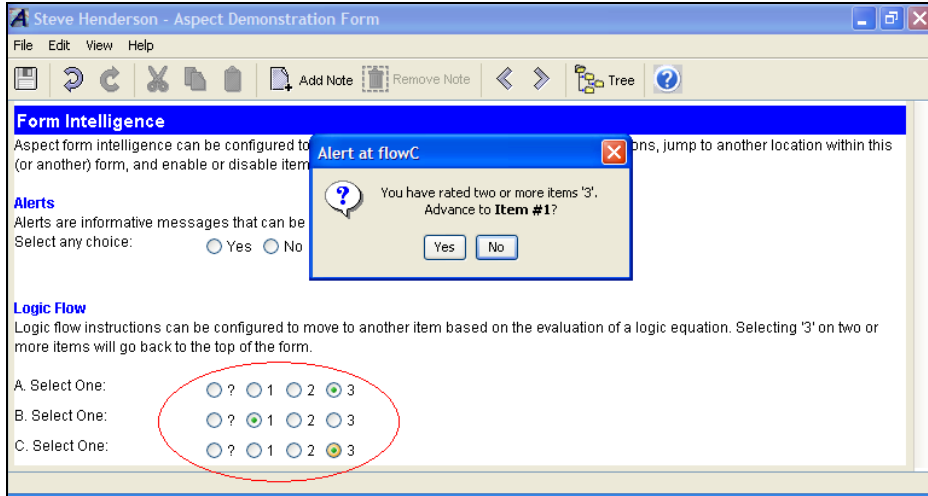
Individual questions or entire sections within a form may be automatically enabled for answering or disabled to prevent answering by the user. Among reasons of disabling questions are if the questions are gender specific, if they are age or time related, or are otherwise determined to be disregarded or unnecessary based on the user's answers to other questions. Enabling questions may occur if the age or gender is applicable, if the questions are determined to be relevant based on previous answers, or if answer(s) causing a question to become disabled have been changed, therefore re-enabling the question.



**Disabling the Textbox**

**Logic Flow**

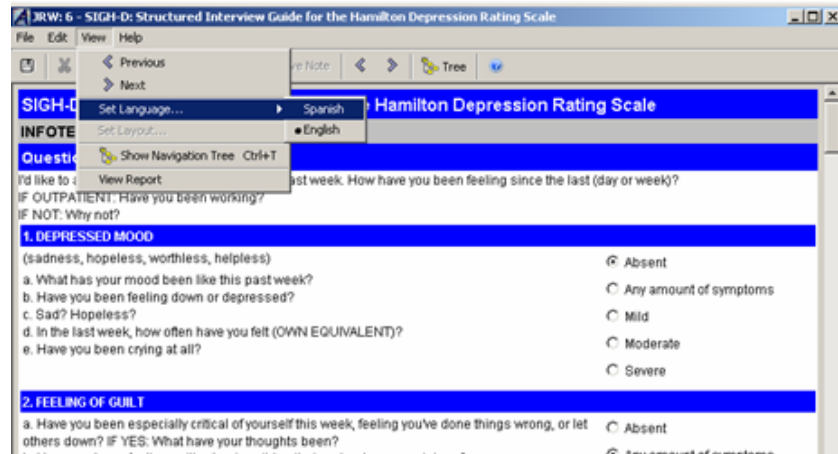
Logic flow is used to guide the user through the form based on the form's logic structure. As the user answers questions, any associated logic conditions are calculated. As conditions are met, a message is displayed notifying the user of the condition and the next question or section to complete. If the user accepts, the form will automatically jump to the next question for the user to answer.



**Logic Flow Alert Displayed Based on Selected Answers**

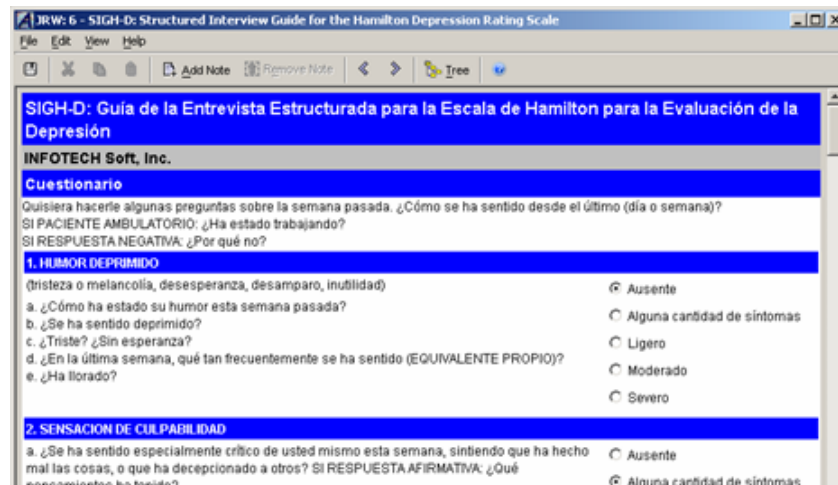
## Language Selection

A form may be defined in multiple languages. If more than one language is available, the “Set Language” menu item within the View menu presents the user with all possible choices.



Language selection menu

Upon selection, the form is immediately presented in the selected language.



Hamilton Scale in Spanish



The configuration of a form in multiple languages is done at the **ASPECT** Control Center.



When languages are switched, entered answers remain in the form. Any text entered in a form is not translated, however.

## Reports

The **ASPECT** system can automatically create a report for a set of form data. The user must have a chosen form and data set open to view the corresponding report. The user can select to create and view a report by choosing the 'View Report' option under the 'View' area of the form menu.

**SIGH-D: Structured Interview Guide for the Hamilton Depression Rating Scale**  
**INFOTECH Soft, Inc.**  
 Form: SIGHD v0      Data Id: TEST.1.1102467372663      Subject Id: TEST.1.1102461853026      Created on: 2004.10.01 20:56:12.663 -0400

**Questionnaire**  
 I'd like to ask you some questions about the past week. How have you been feeling since the last (day or week)? IF OUTPATIENT: Have you been working? IF NOT: Why not?

**1. DEPRESSED MOOD**  
 (sadness, hopeless, worthless, helpless)  
 a. What has your mood been like this past week? b. Have you been feeling down or depressed? c. Sad? Hopeless? d. In the last week, how often have you felt (OWN EQUIVALENT)? e. Have you been crying at all?  
 (0) Absent  
 (1) Any amount of symptoms  
 (2) Mild  
 (3) Moderate  
 (4) Severe

**2. FEELING OF GUILT**  
 a. Have you been especially critical of yourself this week, feeling you've done things wrong, or let others down? IF YES: What have your thoughts been? b. Have you been feeling guilty about anything that you've done or not done? c. Have you thought that you've brought (THIS DEPRESSION) on yourself in some way? d. Do you feel you're being punished by being sick? e. Do you ever hear voices - what do they say?  
 (0) Absent  
 (1) Any amount of symptoms  
 (2) Mild  
 (3) Moderate  
 (4) Severe

**3. SUICIDE**  
 This past week, have you had any thoughts that life is not worth living, or that you'd be better off dead? What about having thoughts of hurting or even killing yourself? IF YES: What have you thought about? Have you actually done anything to hurt yourself?  
 (0) Absent  
 (1) Any amount of symptoms  
 (2) Mild  
 (3) Moderate  
 (4) Severe

NOTES  
 need immediate treatment

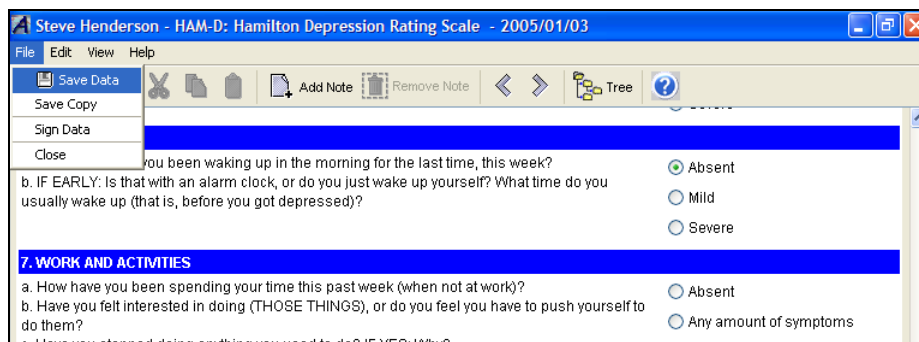
Report Ready      Page 1 of 3

**Report View for a Set of Form Data**

## Saving Form Data

Once the user has completed editing the form, the data may be saved as modified data or as new data. To save as modified data, the user selects 'Save Data' from the menu bar or toolbar. This will override the old data with the updated data, but retain the same form date used in the selection list. To save as new data, the user selects 'Save Copy of Data' from the menu bar. This will create a new set of form data. A new date (the current date) will be used to represent the form data in the selection list.

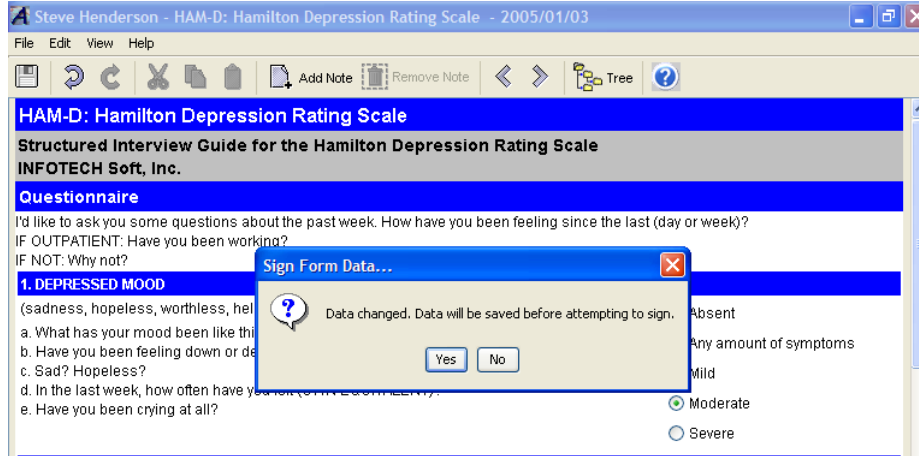
After a form is saved, the "Save Data" button and menu item are disabled. They become re-enabled when any data is modified within the form.



**Saving Form Data**

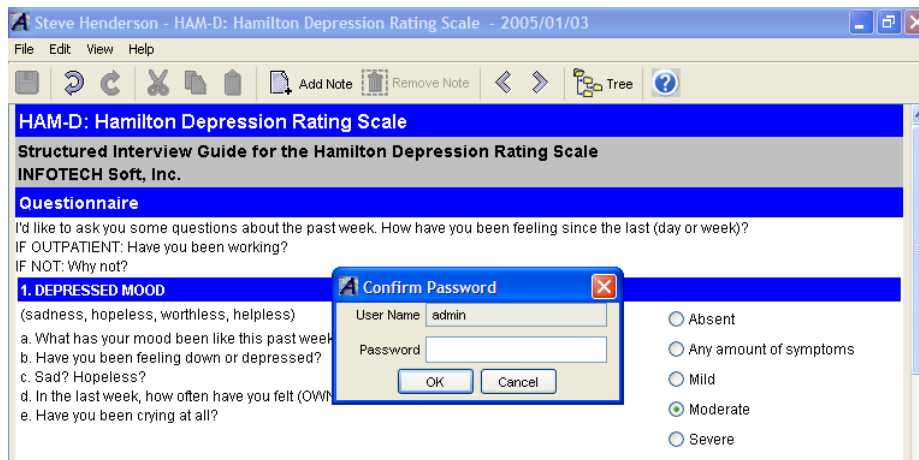
## Signing Form Data

Each set of form data can be signed by a user with an appropriate permission level. By signing the form data, the user validates the authenticity of the collected information. In order to sign the data, the user selects the 'Sign Data' option from the File menu on the form. If the data currently on screen has not been saved yet, the user is prompted to confirm saving the data before signing. *If the user does not elect to save, then the data is not signed.*



**Prompt to Save Data before Signing**

If the data on screen was already saved, or if the user selects to save before signing, then the system requests the user to reconfirm her or his password, to ensure maximum security for the signature.



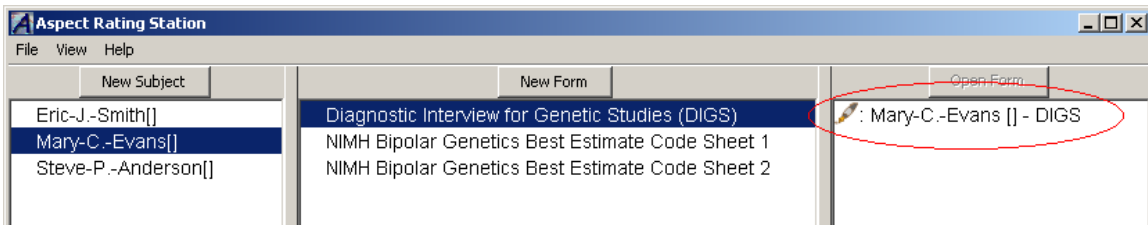
**Request for Password to Sign Data**

If the password is incorrect, the user is informed and the form is not signed; otherwise, the form is signed and the user may continue editing it or may exit the form data capture.



**Password Entry Failed**

Often, users may wish to sign an instance of data to validate its authenticity and accuracy. Once form data has been signed, an icon appears next to the data on the Rating Station screen. Only users with permission to view the signed data will be able to see this icon and open the data.



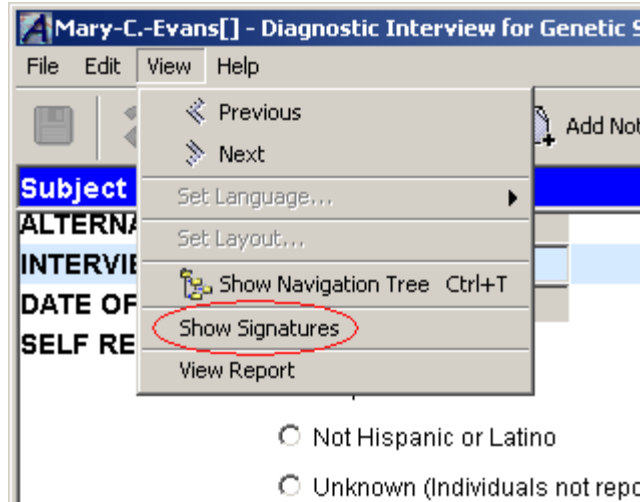
**Signed Data with Icon**

Once signed data has been opened, an entry list is displayed at the bottom of the form to indicate when the data was signed, and by which user.



**Signature List with Users and Dates**

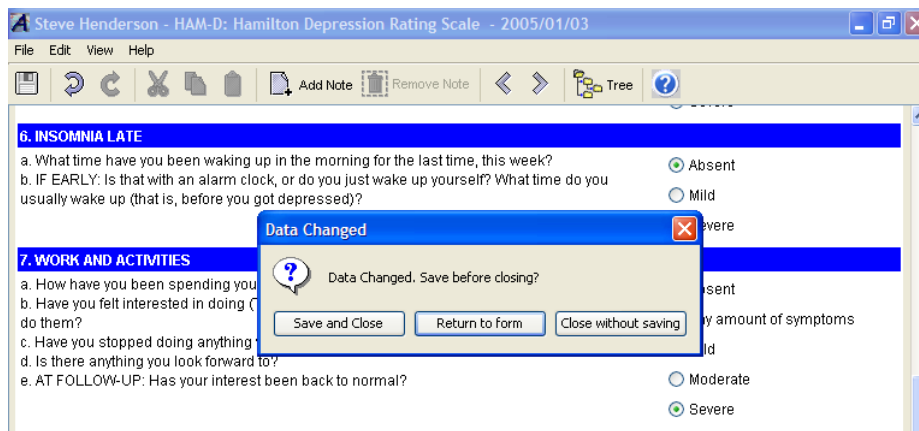
The signatures can be shown or hidden by selecting the *Show Signatures* option from the *View* menu.



**Show Signatures Menu Option**

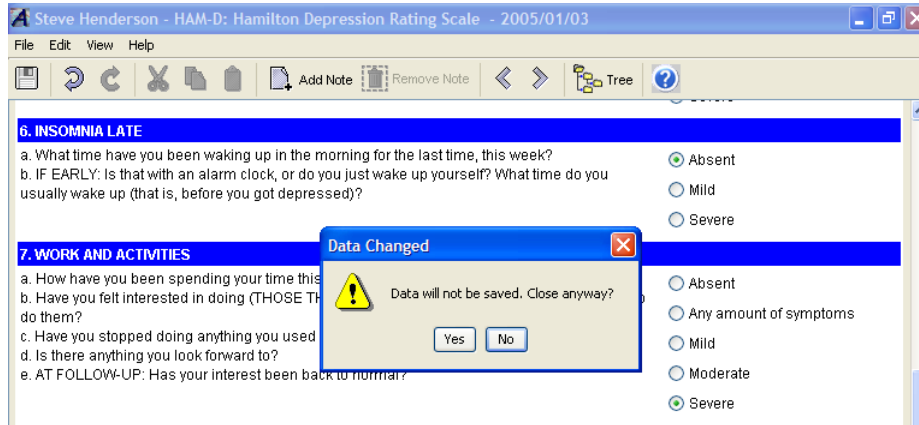
### Closing Form Data

To close a form data, the user selects the Close menu item in the File menu, or the close button on the top right corner of the window. If the current data has not been saved, the system asks the user if he or she wants to save the form, return to the form, or close without saving. By default, the “Return to form” option is selected; the user can click or tap on any of the other buttons, or navigate among them using the Tab key.



**Request to save data before closing a form**

If “Save and Close” is selected, the data is saved and the form is closed. If “Return to form” is selected, then no data is saved but the form continues to show on screen. If “Close without saving” is selected, the form presents an additional confirmation dialog, warning the user that data may be lost.



**Confirmation dialog to close a form without saving**

If the user selects the “Yes” option, data is not saved and the form is closed. If the “No” option is selected, the form is not closed, and data is not saved.