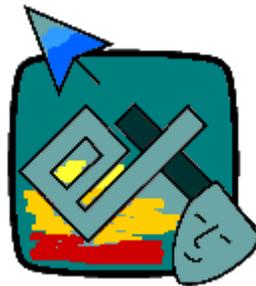


# ***The Examiner***<sup>®</sup>

## ***Records System User's Guide***



# ***The Examiner***®

## ***Examination Records System User's Guide***

*Revision 3.0.227 – 17 September 2009*

This manual is now available from within the program by clicking on "Help" and then "Show Manual" on the menu bar.

### **Introduction**

The Examiner is a sophisticated, yet easy-to-use, system for the design, development, and deployment of both computer-delivered and paper-and-pencil examinations. The record keeping system used by The Examiner will provide you with the information to both track examinee progress and mastery, and to view consolidated examination and item analysis information. This "Quick Start" user's guide will show you how to:

- Create a new Examiner history file. Refer to page 2.
- Read in computer-based tests. Refer to page 72.
- Read in and score paper-and-pencil tests. Refer to page 4.
- View examinee records. Refer to page 21.
- View exam records. Refer to page 32.
- View rosters. Refer to page 54.
- Editing index titles. Refer to page 58.
- Merge and Extract records. Refer to page 69.
- The structure of the database system. Refer to page 37.

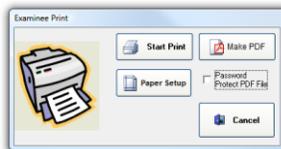
**Please refer to the change history at the end of this user's guide for information on new and changed features.**

The appearance of the buttons in this manual differ dramatically from the buttons in the program. With release 3.0.215 the program's buttons have been changed to reflect current Windows standards.

It is anticipated that the roster subsystem will be removed from the records system in the third quarter of 2009. The functionality of rosters has been replaced with the exam field-stamping feature.

### ***Printing Reports – General Information***

**Most sections of the Records System will allow you to print a report. In most cases you will be given the choice of either printing directly to the printer or printing to a PDF file:**

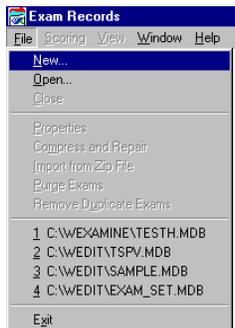


- Click on "Start Print" to print to your printer. You will see the usual "Select Printer" dialog.
- Click on "Make PDF" to create a PDF file. You will be asked to specify the name and location of the PDF file. To protect the PDF file with a password, make a check mark in the box.
- To specify paper sizes and margins, click on the "Paper Setup" button.

## **Creating your Records Database**

Before you can use the records system, you must create an empty records database or access an existing database. Often, the existing database will have been created by a secondary Examiner product such as the Proctor System.

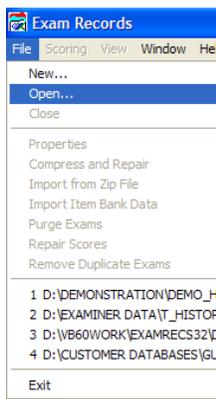
### **Creating a New Records Database**



Click on “File” and then “New” to create a new records database. At the prompt, enter the name you want to give your records database and click on “save”.

You will see a message indicating success.

### **Accessing an Existing Records Database**



Click on “File” and then “Open” to access an existing Examiner history database. You can also select from the numbered “most recent” database list at the bottom of the File menu options.

Note that when you see the file-selection dialog box you will see all the Microsoft Access databases in your current folder. If you attempt to open an Access database that is not an Examiner history file you will see a warning message.

### **Automatically Accessing an Existing Records Database**

Using a “command line argument” you can automatically attach a records database when the program is launched. Right-click on the shortcut to the Records System Program and then left-click on “Properties”. Change the “Target” line in the Properties display to look like this (changing the information where appropriate):

```
"C:\Program Files\The Examiner\examrecs32.exe" "-hD:\Examiner Data\ExamHistory.MDB"
```

After the close-quote after the “.exe” enter a new open quote and text beginning with a “-h” the information after the “-h” is the location of the history file you want opened. The file must exist.

## **Reading Exams into your Records Database**

Before you can view records you must read in completed tests. These can be tests that are delivered via computer or paper and pencil tests. A number of Examiner add-on products such as the Proctor System automatically read in completed exams.

*In previous versions of The Examiner computer-based tests were separate files that could be read into the system. This is not the case with Version 3 of The Examiner. Users of Version 2 that need to read in completed exams can refer to the description on page 72 of this document.*

### **Reading Paper and Pencil Tests**

Paper and pencil tests scoring can be accomplished in three ways:

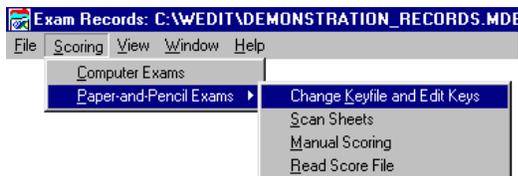
- Scanning the tests into the database via an Optical Mark Reader (OMR) scanner.
- Manually scoring the tests via the keyboard.
- Reading a specially formatted file.

In all these cases, you must follow a number of steps before you can score the tests:

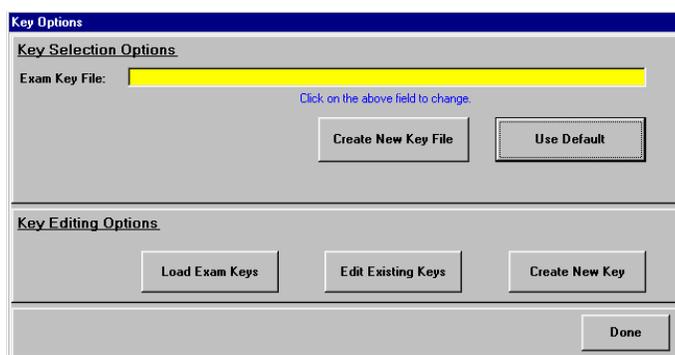
- Creating of paper and pencil test and associated key file.
- Consolidation of test keys into a single database.
- Selection of test key for scoring.

#### Creating the Exam Records Key File

Before you can perform any paper-and-pencil scoring you must create a special Access database to contain the keys. You can do this in either the Exam Test Printing Utility or in the Records System. These are the steps to create a file in the records system. After creating this file, and before printing a test, you must enter this file name in the appropriate spot in the Exam Test Print Utility.



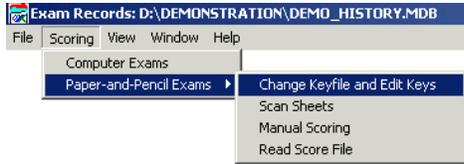
In the menu bar, click on “Scoring”, then “Paper-and-Pencil Exams”, and finally “Change Keyfile and Edit Keys”.



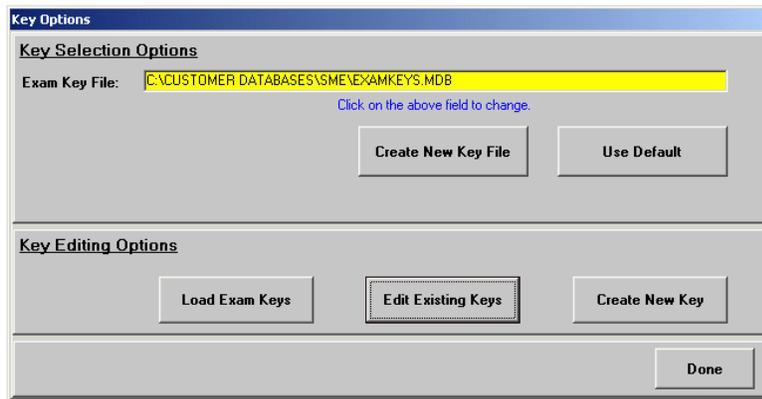
The first time you use paper-and-pencil scoring you will see a message that tells you that you haven't created a key file. You can either use the “default” button to create a key file in the same folder that your current records file is in, or you can use “Create New Key File” to explicitly enter a file name. You can search for a key file by clicking in the yellow field at the top of the window.

### Editing / Creating a Paper-and-Pencil Answer Key

The easiest way to create an answer key is to generate it automatically when the test is printed. Sometimes you may want to manually create a key from an existing paper-and-pencil test or you may need to edit or delete an existing key.



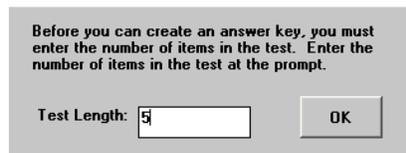
Enter the key options by clicking on “Scoring”, “Paper-and-Pencil Exams”, and “Change Keyfile and Edit Keys” from the main records page.



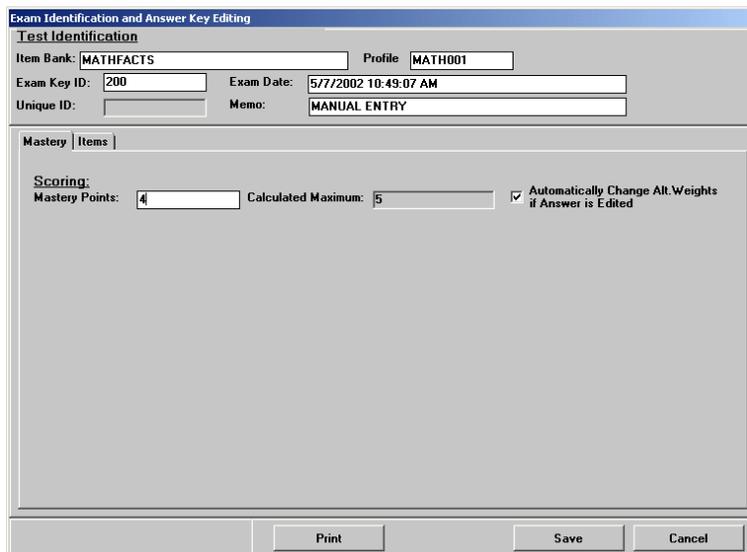
On the Key Options page:

- Click on the “Create New Key” button to create a new key.
- Click on the “Edit Existing Key” button to edit an existing key. See page 10.

### Creating a New Key / Editing an Existing Key



After clicking on “Create New Key” you will be asked how many items will be in your test. Enter a number from 1 to 500 and click on “OK”.



Enter information into all the white fields. Even though the key you are creating may not have been made using The Examiner, you need to add information as if it was. This information will be recorded when an exam is scored using this key. Remember that the item bank name and the exam key ID must be unique for the current key file.

The “Mastery Points” field is not the number of items necessary for mastery. It is the number of points, the sum of the mastered item weights, that are necessary for exam mastery to be awarded.

Mastery		Items									
No.	ID	Weight	Type	Alts	Answer	Alt. Order	Alt. Weights	Mastery	Pr. Answer	Pr. Weights	
1		1	Multiple Choi	5	A	ABCDE	1,-1,-1,-1,-1	1	A	1,-1,-1,-1,-1	
2		1	Multiple Choi	5	A	ABCDE	1,-1,-1,-1,-1	1	A	1,-1,-1,-1,-1	
3		1	Multiple Choi	5	A	ABCDE	1,-1,-1,-1,-1	1	A	1,-1,-1,-1,-1	
4		1	Multiple Choi	5	A	ABCDE	1,-1,-1,-1,-1	1	A	1,-1,-1,-1,-1	
5		1	Multiple Choi	5	A	ABCDE	1,-1,-1,-1,-1	1	A	1,-1,-1,-1,-1	

Next, click on the “Items” tab. A table will be shown ready for you to enter information about your test. The system will enter as a default multiple-choice items with “A” marked as the correct alternative. Click on the “ID” field in the first item to start the editing process.

Mastery		Items	
No.	ID	Wei	
1	3.2.3	1	
2		1	
3		1	
4		1	
5		1	

Enter the ID number of the item in the ID column. Even if you are not using a “real” Examiner item bank, you must enter an ID. ID’s can be from two to ten “levels” deep. An ID may exist on once in any key. All ID’s must be at the same level (you can’t have an ID of 3.2.1 and 42.33.23.12.3 in the same key). Digits can run from 1 to 250.

Weight	Typ
1	Mult

Enter the weight of the item. This is the number of points that will be awarded for the item if the examinee masters it. Weights can run from 0 (no points are awarded for mastery) to 100. If you want the item to be given a mastery weight of the sum of the answered alternatives, click on the yellow button at the bottom of the display.

ht	Type	Alts
	Multiple Choice	5
	Multiple Choice	5
	True/False	5
	Short Answer	5
	Multiple Choice	5

Select the item type from the drop-down list. You cannot create “essay” type items. Keys for these items can only be created by the Exam Print Utility.

### Multiple Choice

Alts	Answer
5	A
5	A
5	A
5	A
5	A

Enter the number of alternatives at the prompt. This is a number from 2 to 10.

<input checked="" type="checkbox"/>	<input type="checkbox"/>	Done				
A	B	C	D	E		

When you click on the “Answer” column a series of check boxes will be shown, one of each of the alternatives. Click on the alternatives you want to consider correct.

Alt. Order	Alt.
DCABE	-1,1
ABCDE	1,-1

If the alternatives are randomized, enter the randomization at the prompt. You must first press the Delete key, and then enter the new randomization. In the example shown at left, “DCABE”, the “real” D alternative has been shuffled in “A” slot, the C alternative into the “B” slot, and so on. After you leave this field, the grey fields on the right of the table will change to reflect what you have entered.

1	1	1	1	1	Done
A	B	C	D	E	

Enter the weight that will be awarded if the alternative is selected. This can run from -99 to +99. As a default, the letter that was selected in the previous step will have an alternative weight of 1 and the incorrect letters will have weights of -1.

Mastery	Pr.
1	
1	
1	
1	
1	

Enter the number of points required from the answered alternatives to achieve item mastery. This is not the weight of the item unless you have selected that the sum of the answered alternatives is to be the item weight.

Alts	Answer	Alt. Order	Alt. Weights	Mastery	Pr. Answer	Pr. Weights
5	B	DCABE	-1,-1,-1,-1,-1	1	D	1,-1,-1,-1,-1
5	A	ABCDE	1,-1,-1,-1,-1	1	A	1,-1,-1,-1,-1

The two right-most columns show the answers and weights for the item as they appear in the printed test. You cannot enter these fields, they are automatically created from what you have already entered. If the “Alt.Order” column has no scrambling, the two columns will repeat the information to their left. However, as with the example shown, scrambling has occurred the columns will reflect what the examinee has to answer to master the item. The correct answer for the item is “B”. However, this has been “shuffled” into the “D” position, and that’s what is shown in the “Pr. Answer” column. The weights change accordingly.

### True False

Identification and Answer Key Editing

Item Identification

Bank: MATHFACTS

Item Key ID: 200 Exam Date: 5/7/2002 2:24:01 PM

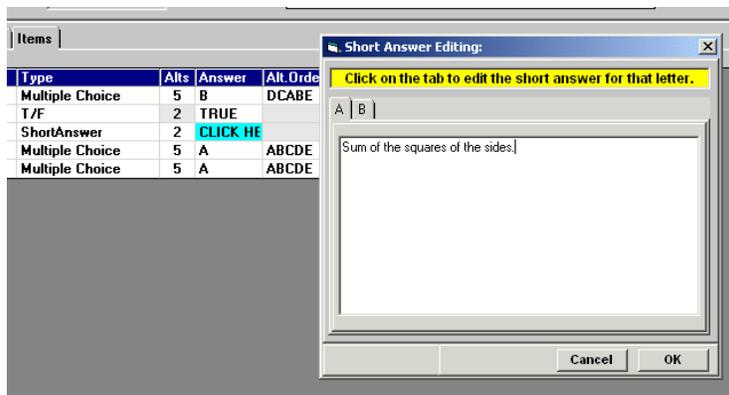
Question ID: Memo: MANUAL ENTRY

Mastery Items

Weight	Type	Alts	Answer	Alt. Order	Alt. Weights	Mastery	Pr. Answer	Pr. Weights
	Multiple Choice	5	B	DCABE	-1,-1,-1,-1,-1	1	D	1,-1,-1,-1,-1
	T/F	2	True		1,-1	1	True	1,-1
	Multiple Choice	5	A	ABCDE	1,-1,-1,-1,-1	1	A	1,-1,-1,-1,-1

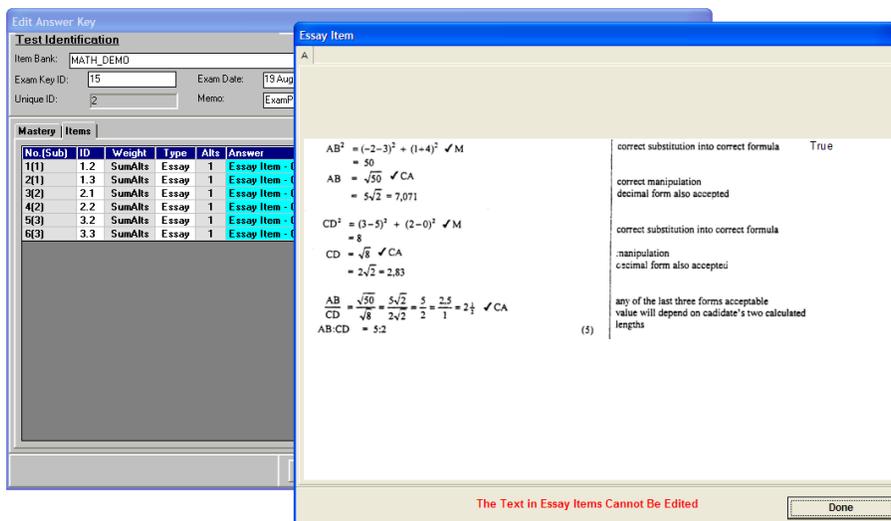
If you have selected “T/F” (true/false) as the item type the “Alts” column will default to true and mastery will automatically be set to “1”. You cannot edit the “Alt. Order” column. When you click on the “Answer” column a box will appear where you can check “T” or “F” for the correct answer.

### Short Answer and Numeric



If you have selected “Short Answer” or “Numeric” change the “Alts” column to reflect the number of answers that you want to score. Next, click on the “Click Here” in the “Answer” column. An editing screen will appear. Click on the appropriate lettered tab and enter the answer that you want. Remember that the system will not be automatically scoring with this answer. You will use this when manually scoring a test.

### Essay



Essay items cannot be created or edited in the Records System, they can only be automatically created by the Exam Print Utility when an exam is printed. You cannot edit an essay item. However, you can view an essay answer. To view the answer click on the cyan “Essay Item – Click for Details” entry in the table. A pop-up screen will show the answer with a tab for each of the answers. Remember, this is the answer that was in the item bank at the time the exam was printed. If the item bank has been edited and the item changed after the exam was printed the answer shown in the records system will not match the answer contained in the item bank.

### ***The “Pr.” Columns***

The two right-most columns both start with the abbreviation “Pr.”. That stands for “Printed”. These columns are built based on the columns to the left and cannot be edited. If the “Alt.Order” column is not randomized (ie. “ABCDE”) the “Pr.” columns will be exactly the same as the “Answer” and “Weights” columns. However, if you have randomized the alternatives (ie. “DCABE”) then the “Pr.” columns will change to reflect the new order. The “Pr.” columns show what the examinee would have to answer on the answer sheet in order to master the item. For example, if the correct answer to the item as entered in the “Answer” column is “B”, and the randomization is “DCABE”, the “Pr.Answer” column will list “D” as the correct answer since the “B” has been shuffled into the “D” position. To pass the item, the examinee must answer “D”, not “B”. The “Pr.” columns will allow you to quickly score a test without having to work out the de-randomization of each item.

### ***Storing the Key***

To store the key, click on the “Save” button.

**Editing an Existing Key**

Database	Profile	Key ID	Date	Memo
demonstr	General	18	5/30/2003 3:45:52 PM	C:\WEDIT\demonstration
MATHFACTS	MATH001	200	5/7/2002 2:24:01 PM	MANUAL ENTRY
MATHFACTS	MATH001	201	5/7/2002 3:59:17 PM	MANUAL ENTRY
MATHFACTS	MATH001	202	5/7/2002 4:50:37 PM	MANUAL ENTRY
Mfgeng	CMFGE107	24	7/7/1999 12:32:10 PM	i:\certexam\data\mfgeng
Mfgeng	CMFGE207	22	7/7/1999 4:58:30 AM	i:\certexam\data\mfgeng
Mfgeng	CMFGE307	27	7/7/1999 1:57:58 PM	i:\certexam\data\mfgeng
Mfgeng	CMFGE407	29	7/8/1999 6:40:30 AM	i:\certexam\data\mfgeng
MFGENGRG	CMFGE105	Z13	5/8/1997 8:40:10 AM	i:\certexam\data\mfgengr
MFGENGRG	CMFGE205	Z14	6/5/1997 2:20:42 AM	i:\certexam\data\mfgengr
MFGENGRG	CMFGE205	Z15	6/10/1997 3:22:20 AM	i:\certexam\data\mfgengr
MFGENGRG	CMFGE212	Z23	11/22/1996 2:15:14 PM	MANUAL ENTRY
MFGENGRG	CMFGE305	Z25	11/25/1996 2:24:41 PM	MANUAL ENTRY
MFGENGRG	CMFGE305	Z10	3/26/1997 8:03:42 AM	i:\certexam\data\mfgengr
Mfgeng	CMFGE404	Z16	1/22/1998 1:29:24 PM	i:\certexam\data\mfgengr
MFGENGRG	core0597	Z8	3/25/1997 5:52:10 AM	i:\certexam\data\mfgengr
MFGFUND	deleteme	Z137	2/24/1997 5:51:18 AM	i:\certexam\data\mfgfund
MFGFUND	FUND	Z100	9/25/1998 10:36:17 AM	MANUAL ENTRY
Mfgfund	FUND 079	Z52	8/25/1999 11:17:04 AM	i:\certexam\data\mfgfund
MFGFUND	FUND 109	Z39	9/25/1998 1:07:34 PM	MANUAL ENTRY

After clicking on “Edit Existing Key” you will be shown a list of keys currently in your key file. Double-click on a key to edit it. You can sort the columns by left-clicking once on the column heading of the column you want to sort.

**Exam Identification and Answer Key Editing**

**Test Identification**

Item Bank:  Profile:

Exam Key ID:  Exam Date:

Unique ID:  Memo:

---

Mastery | Items

**Scoring:**

Mastery Points:  Calculated Maximum:   Automatically Change Alt. Weights if Answer is Edited

You will be able to edit the key using the same options as described under “Entering a New Key” with the addition of two additional options:

**Export** – You can save an image of the key as an ASCII file that can be read by Microsoft’s Excel program.

**Delete** – You can delete the key from the key file.

You will be able to edit the key using the same options as described under “Entering a New Key”.

**Exam Identification and Answer Key Editing**

**Test Identification**

Item Bank:  Profile:

Exam Key ID:  Exam Date:

Unique ID:  Memo:

---

Mastery | Items

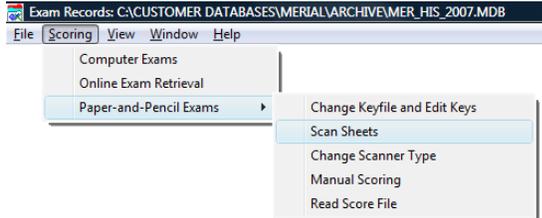
Key Number Changed

You have changed the key number. If you want to store this key as a NEW key, click on YES. If you want to replace the current key with this new key number, click on NO.

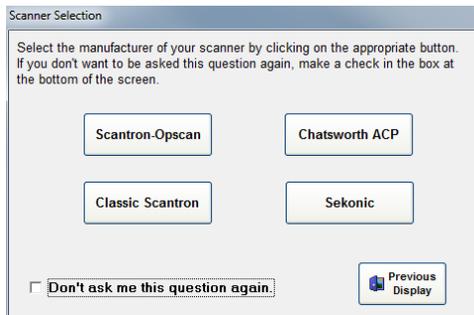
If you have changed the key number you will be asked if you want to store this as a new key, or if you want to delete the old key and replace it with the revised key.

Scanning Tests Using an OMR Scanner

Optical Mark Reader (OMR) scanners read “bubble sheets”. A number of common scanners are supported by The Examiner. The controls used by most scanners are similar. For this document, the interface used for Scantron scanners will be shown as an example. Interfaces for Sekonic and NCS scanners are similar. Detailed instructions for operating these scanners are covered in separate documents.



To begin the scanning process click on “Scoring”, then “Paper-and-Pencil Exams”, and finally “Scan Sheets” in the menu bar.



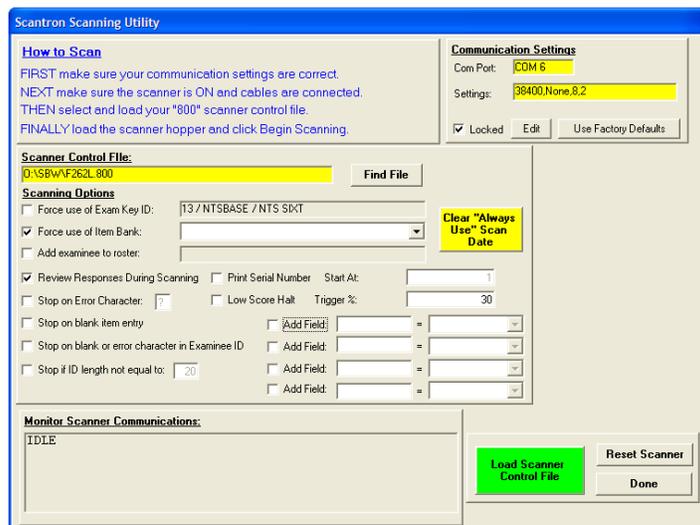
Click the button that corresponds to your scanner.

Mark the “Don’t ask..” box to automatically go to your selected scanner when you choose to scan sheets. You can change scanner types by selecting “Change Scanner Type” on the previous screen.

Scantron-Opscan	Use this option if you use an “Opscan” scanner. Prior to 2009, Opscan scanners were made by NCS. In 2009 Scantron Corporation acquired the NCS optical scanner division. If you use an NCS scanner you should select this option.
Classic Scantron	If you use an older Scantron scanner such as a “Scanmark” you should use this option.  If you are using the Windows Vista operating system or Windows systems newer than Vista you must use the Examiner Scantron Scanner Utility that was installed with the records system.
Chatsworth ACP	Use this option for the Chatsworth Data Corporation ACP 2200 narrow-card scanner. For information on creating a form definition for the scanner and details on setting up the scanner refer to the “Examiner Chatsworth Scanning” document that was installed with the software.
Sekonic	Use this option for Sekonic scanners. In the past, Sekonic scanners were sold under the “Scanning System” label.

### The Scanner Interface

The interface used by all the supported Examiner scanners is very similar to this one. Most of the differences lie in the control boxes on the right edge of the screen. This document will not deal with the setup of these options.



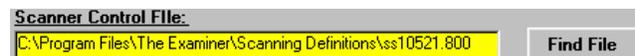
The Examiner directly controls all the supported scanners. The system does not use any intermediate files. In all cases in order to scan, you must:

- Specify where that scanner is connected, and how the scanner is configured.
  - Note that if you are using newer USB-based scanners you will need to use the Com-port utility supplied with the scanner. In the above example the USB scanner connection has been “mapped” to the COM 6 serial port. You may need to contact The Examiner for help in configuring your scanner and Examiner software.
- Specify the scanner control file that is used to control the scanner.
- Configure the options for storing the results from the “bubble” sheets in the Examiner’s history files.

If you are using a USB port utility and your scanner no longer recognizes the port, your computer may have shifted the port it is using. This action has been noted with Windows 7 and may occur with other release. Use the control panel device manager to determine what Com port the USB utility is using.

### Specify the Scanner Control File

After the scanner has been configured you need to tell the Examiner what control file is to be used. This control file has information that translates the “bubbles” on the OMR sheet into information that can be used for scoring by The Examiner. Contact The Examiner for information on how to set up a scanner control file. Support for a number of common bubble sheets are included in the basic Examiner installation.



Click on the yellow field to specify a scanner file. If you do not know where your scanner files are located, click on the “Find File” button to access a file search utility that will assist you in

locating the scanner files.

The scanner control file must produce a data stream that is compatible with The Examiner’s scanner interface. Refer to page 19 for the field definitions used in the scanning process.

*Configure the Examiner’s Data Storage Options*

Before data can be stored in The Examiner’s history files, the system needs to know what answer key to use when scoring the OMR form. In many cases, that information is read directly off the form. In other cases, some of the information needed is on the form, but some must be specified. If neither of these cases is true, you must explicitly tell the system what key to use. The top options of this section let you specify key information.

After the system knows what key to use, it can scan the sheet. The Examiner can just pass data through from the sheets to the history system “as is”, or it can perform a number of error checks. The bottom options of this section let you specify how the Examiner is to interact with the scanned data.

In the following section, the check box next to the section must be marked before that option is active. In some cases, you won’t be able to edit the option’s features until you make a mark in the check box. If an option doesn’t appear to be working while you are running the scanner, make sure that the check box for the option is marked.

- Force Use of Exam Key ID      Use this option to explicitly select the key to be used for scoring. Clicking on this option will display a list of all the keys that are currently available in the attached key file. Even if key information is entered into the OMR form, it will be ignored.
- Force use of Item Bank      If the Scanner Definition only has a key number, and not an Item Bank, specified you must use this option to select the bank that the test you are scoring is from. All answer keys are defined as a combination of a unique Exam Key ID contained in a specific Item Bank. The Key ID scanned from the form will be combined with the selected item bank to derive the key used for scoring.
- Add Examinee to Roster      If specified, each scanned examinee’s ID will be added to the named roster.
- Review Responses during Scanning      If selected, an editable image of each scanned sheet will be displayed after each sheet is scanned. At this point, you decide if you want to score the sheet or continue without scoring. Refer to the section on Manual Scanning for information on editing the scan sheet image.

Stop on Error Character	If the character at the right is detected in the scanned data, an editable image of the sheet will be displayed with the error highlighted. This error is usually caused when more than one mark is detected in a scanned zone. For example, both “A” and “B” are selected with a multiple-choice item.
Stop on blank or error character in Examinee ID	If selected, the system will give an error message if these conditions are detected. Since all exams are referenced by the Examinee ID, this option will lower the chance of having bad data in the history file from a miss-entered ID.
Stop if ID length not equal to N	Again, this option assures that a “good” ID has been scanned. If IDs are supposed to be of a fixed length, use this option to make sure they are.
Printer Serial Number Starting at N	If equipped with a printer, this will cause the scanner to print an incremented serial number on each sheet as it is scanned.
Low Score halt at NN%	If a sheet is scanned with an incorrect key, the score for this sheet will usually be low. This option can be used to detect this condition. For example, in a test that uses four-alternative multiple choice questions, random answers will give a score of 25%. Setting the Low Score Halt at or near 25% will detect the error.
Add Field XXX = YYYY	You can “stamp” each exam as it is read with up to four values. What this option will do is to add the field named in the left column to the exam table. The value in the right column will be added to that field. This option can be used to stamp exam records with information such as a class identifier.

### *The Scanning Process*

First click on the “Load Scanner File” button to transfer the form definition information into the scanner. After that process has been completed, the button will change to “Begin Scanning”. Load your sheets into the scanner and click on the button. Scanning will commence under the control of the options you have selected.

- Scanning System and NCS - The caption on the button will change to “Halt Scanning”. If you want to stop scanning before all the sheets are read, click on the “Halt Scanning” button. Any sheet that is feeding through the scanner will be stored.
- Scantron - If you want to stop scanning before all the sheets are read, click on the “END” button on the scanner. This button may be marked “END” or it may simply be a big green button! If you have any questions about what button to push, please contact The Examiner. Any sheet that is feeding through the scanner will be stored.

As the sheets are scanned you will see a number of messages. Most of these messages are controlled by the options described in the previous section. Some errors will cause an image of the answer sheet to display on the screen with the error lines highlighted. Other errors will display a message box with the error noted.

**ID / Name Mismatch**

**Name Mismatch**

The ID of the record you are attempting to score is already in the history file. However, the name associated with it is different from the one you attempting to score. You can either store the record as is, but with the existing name, enter a new ID, or assign this exam to a different ID. Select one of these options.

ID From Test:

Name From Test:

Existing Name using this ID:

Store with NEW ID:    
Type in the new ID you want to use.

Click on the button to select an ID from the list of existing examinees.

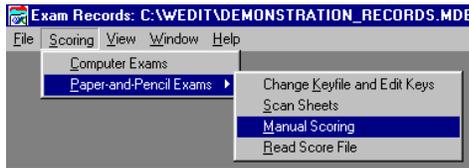
When an exam is stored, the ID on the exam is the unique “indexing” key in the database. The scanned name is associated with this key. When a sheet is scanned the system checks to see if there already is a record associated with the scanned ID. If so, it uses it. This screen will appear if the name in the scanned test does not match the name associated with the scanned ID in the history file.

This usually happens if either the test being read or the test that created the original history record, had the wrong examinee ID on it.

Four possible actions can be taken:

- Click on the “Store With Existing Name in History File” button if you want to store this test with the name currently associated with the ID in the history file. For the sample shown, the test will be associated with “Gary Brown” and not “Mary Smith”.
- Enter a new ID at the prompt and click on the “Store with this NEW ID”. The system will check to see if this ID already exists in the history file. If not, the record will be stored with the ID you have entered. If the ID exists, you will be warned and told to either enter a different ID or click on the “Pick ID From List” button to select an existing ID.
- Click on the “Pick ID From List” to store the record under an existing ID. When you click on the button, you will be shown a list of existing examinees. Double-click on the ID you want to use.
- Click on the “Skip Test Do Not Store” button to not store the record at all.

## Scoring Tests Manually



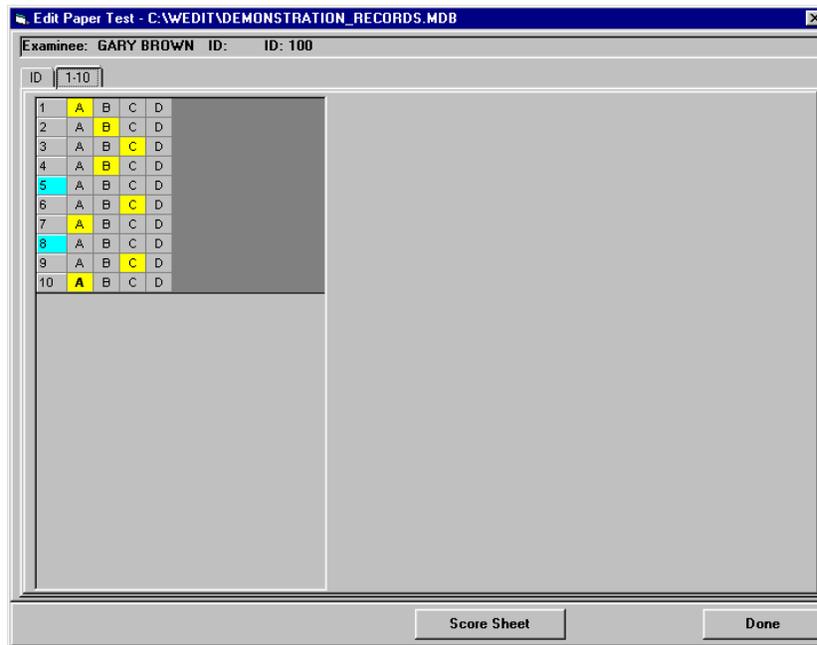
To begin the scoring process click on “Scoring”, then “Paper-and-Pencil Exams”, and finally “Manual Scoring” in the menu bar.

Enter the dates that you want to use for scoring. To use today’s date click on the “Set to Today” button. You can avoid being asked this question a second time by making a mark in the option box in the lower left corner of the display. Click on “Save” to continue.

## Scoring a Test

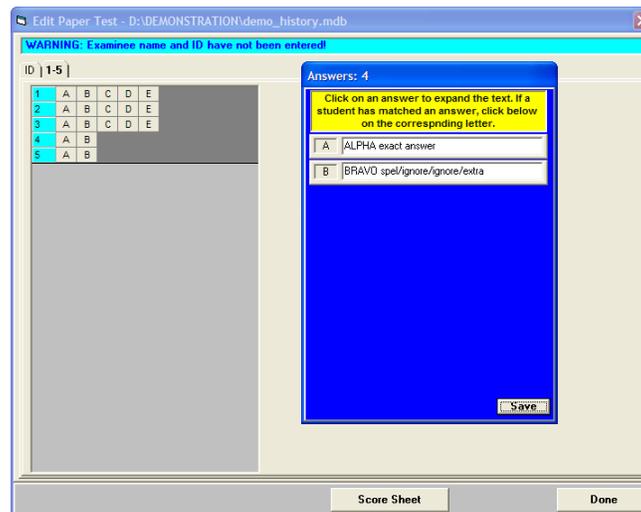
Follow these steps to score a test.

1. Click on the “Exam Key ID” bar to select an exam key from the keys that you loaded into the system. You cannot score a test until the key has been loaded!
2. Enter the examinee’s name at the prompts. If you already have names in your history file, you can select them from the drop-down list at the right.
3. Enter the examinee’s ID at the prompt. Remember that the ID is the identifier used by the Examiner to link an examinee’s record to their tests.
4. Use the “add fields” section to stamp information on the exam records. Refer to the earlier section for information on using these fields.
5. Once you entered in a key, additional tabs will appear. Click on the tab to the right of the “ID” tab to enter the examinee’s answers in an image of an answer sheet.



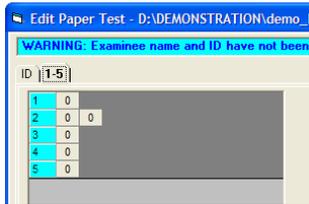
6. Click on a letter to select and deselect the examinee’s answer.
  - a. If there are more than one answer tabs, make sure you go to all the tabs.
7. Click on “Score Sheet” when you are done entering the examinee’s answers.
8. When you are done with all the examinees, click on “Done”.

### Scoring Alpha and Numeric Items

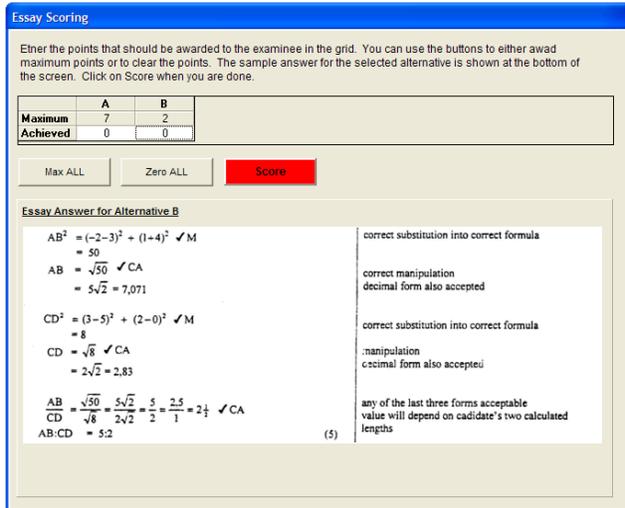


If you click on an item and the item is an alpha or numeric item a second screen will pop up. This screen will show the answers to the item. If you want to give an examinee credit for one or more of the alternatives click on the letter of the alternative in the pop-up. When “Save” is clicked the marked letters in the secondary screen will be transferred to the main screen and used for scoring.

Scoring Essay Items

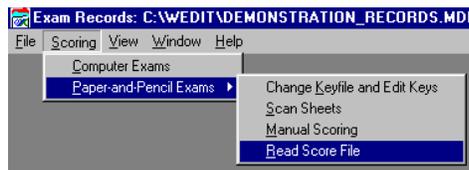


When you view the answer-sheet image for a test that contains essay items you will see one or more “0’s” in the column to the right of the item number. There will be one “0” for each model answer in the test item. To score an essay item click on one of the “0’s”.

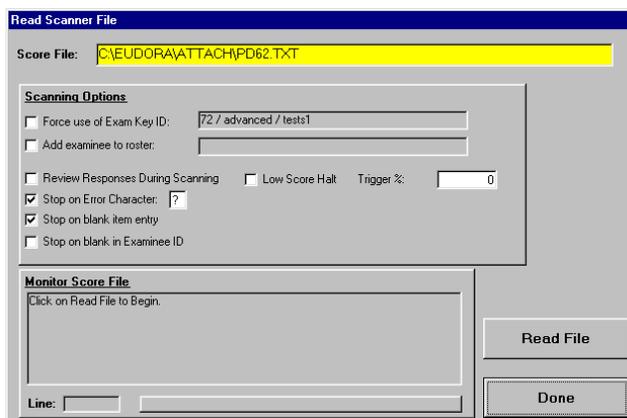


A secondary screen will appear. The “model” essay answers will be shown on the bottom of the screen. If is more than one answer you can see the model answer by clicking on the column at the top of the display. To score the item enter the number of points that should be awarded for each answer in the “achieved” slot of the table. You can enter a number from 0 to the “Maximum” value for the column. You can give full or zero credit by clicking on the “Max ALL” or “Zero ALL” button. Click on “Score” to score the item. This does not score the test...just the item.

Scoring Tests Manually from a Score File



To begin the scoring process click on “Scoring”, then “Paper-and-Pencil Exams”, and finally “Read Score File” in the menu bar.



Follow these steps to use a scoring file:

1. At the top prompt, enter the name of the file that is to be read.
2. Set the scoring options. Refer to the previous sections for information on these options.
3. Click on “Read File”.
4. The file will be processed much the same as OMR scanned sheets are processed.
5. When you are finished scoring, click on “Done”.

Note that the data must be in the format specified in the following section.

Scoring Data Format

Whether the scoring data comes from an OMR scanner or a scanner file, The Examiner expects the data to be in a standard format. The following table defines the “tags” that control the file. When designing an OMR control file such as the Scantron-standard “800” file these tags must precede the scanned data. A sample input file might appear as:

```

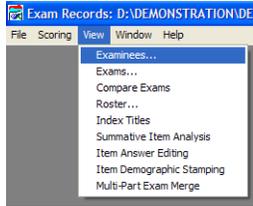
$$ID:123121234$$LNAME:BROWN$$FNAME:JEFF$$MI:C$$CD:10023$$DB:AGBANK$$FLEXAMS:L
OCATION:MN$$FLEXAMINEES:GENDER:M$$MONTH:09$$DAY:26$$YEAR:2002$$IT:ABCCABABCCD
CABAB$$##
    
```

- \$\$ID: ID. In the sample this is “123121234”. This is a required field and is used as the primary key in the history file.
- \$\$LNAME: Last Name. In the sample file this is “BROWN”.
- \$\$FNAME: First Name. In the sample file this is “JEFF”.
- \$\$MI: Middle Initial. In the sample file this is “C”.

\$\$CD:	The exam key number that will be used for scoring. Combined with the “\$\$DB:” value or a forced item bank this uniquely identifies the key. In the sample file this is “10023”.
\$\$DB:	The item bank the key was generated from. This must <u>exactly</u> match the bank stored in the examkey file. If the key references the bank with an “.XAM” extension then the \$\$DB tag must too.
\$\$FLEXAMS:aaaaa:	Add exam field. This is a two-part tag. The second part, labeled to the left as “aaaaa” and in the sample as “LOCATION” is the name of the field in the exam table that the data is to be loaded in. In the example, the value “MN” will be loaded into field “LOCATION” in the exams table.
\$\$FLEXAMINEES:aaaaa:	Add examinee field. This is a two-part tag. The second part, labeled to the left as “aaaaa” and in the sample as “GENDER” is the name of the field in the examinee table that the data is to be loaded in. In the example, the value “M” will be loaded into field “GENDER” in the examinees table.
\$\$MONTH:	The tags of these commands will be the exam date that is to be stored with the exam record. In the above example, the date stored will be 26 September 2002.
\$\$DAY:	
\$\$YEAR:	
\$\$IT:	The examinee’s responses. These are what the examinee has answered on an answer sheet. A skipped answer on the sheet must be a single blank. If the examinee made a “multi-mark” a “?” should be entered. In our example, the examinee entered: “ABCCABABCCDCABAB”.
\$\$##	This is the end-of-record identifier. It must be followed by a carriage-return and line feed.

## Viewing Examinee Records

Once you have added exam records you can view their scores. To look at aggregate data, use the “View Exams” menu option.



To begin viewing examinee data, click on “View” and then “Examinees” in the menu bar.

### The Examinee Table

Two views of the examinees are available. The first, and default, view shows additional information about each examinee such as how many exams, the dates of the first and last exam. If you have a large number of examinees this table may take some time to plot.

Name	ID	Exams	Passed All	First Exam	Last Exam
DUPLIN, MICHAEL	111554557	1	Yes	16 Aug 2000	16 Aug 2000
LARGIER, HALLAL	112361668	5	Yes	28 Aug 1998	17 May 1999
PANCORBO, HEINRICH	112439768	3	No	04 Jun 1999	12 Nov 1999
PAI, BENEDICTE	112476849	2	Yes	20 Feb 1998	27 May 1999
DERRY, ANN-MARGARET	113685812	8	No	22 May 1998	16 Apr 1999
PYE, ANA	114221636	1	Yes	09 Aug 1999	09 Aug 1999
LIVENGOOD, GAIL	114328856	2	Yes	05 Jan 2000	05 Jan 2000
STROBEL, KAREN	114574522	4	Yes	28 Aug 1998	07 May 1999
LARGIER, TOMIO	114656944	2	No	03 Mar 1999	19 Jun 1999
TARTARIS, POH-YIN	114856237	7	Yes	06 Jul 1999	24 Jul 2000

Buttons: Clear Marked, Clear Search, 2288 Examinees, Select Rosters, View Examinee, Done



To switch between the full and abbreviated display, click on “Tools” in the menu bar, and then “Show Exam Info”. This will toggle the exam information on and off.

Name	ID
DUPLIN, MICHAEL	111554557
LARGIER, HALLAL	112361668
PANCORBO, HEINRICH	112439768
PAI, BENEDICTE	112476849
DERRY, ANN-MARGARET	113685812
PYE, ANA	114221636
LIVENGOOD, GAIL	114328856
STROBEL, KAREN	114574522
LARGIER, TOMIO	114656944
TARTARIS, POH-YIN	114856237

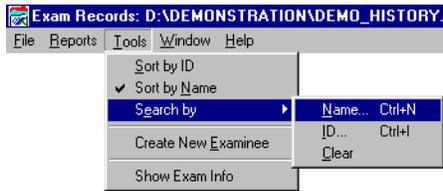
Buttons: Clear Marked, Clear Search, 2288 Examinees, Select Rosters, View Examinee, Done

### Options

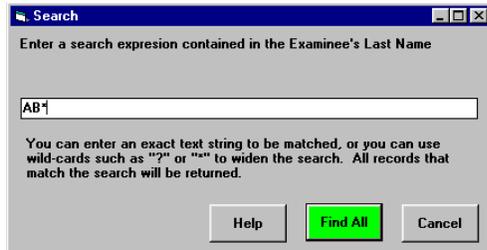
#### Sorting

To sort the display, click once on the Name or ID column. The display will be sorted on that column. Alternatively, you can click on “Tools” in the menu bar and then “Sort by ID” or “Sort by Name”.

## Searching



To search for an examinee, click on “Tools” in the menu bar, then “Search by”, and finally “Name” or “ID”.



At the prompt, enter your search string. You can use wild-card characters such as “\*” and “?” to look for a series of names or ID’s. Click on Help for information on searching whilst viewing the display.

After you are done searching, you restore your screen to a “full” view by clicking on the “Clear Search” button at the bottom left of the table.

## Creating a New Examinee

An examinee’s record is automatically created when a test is read into the records database. Sometimes you may want to manually create an “empty” examinee record. This is often done when an examinee’s test has been assigned to an incorrect ID.



Click on “Tools” in the menu bar, and then select “Create New Examinee”.



At the prompts enter the name and ID of the examinee. Click on “Save” to create the examinee.

## Viewing an Examinee's Data

To view the data on a single examinee, double-click on that examinee’s line, or highlight the line and click on the “View Examinee” button.

**An Examinee’s Exams**

**EXAMINEE: ABE / 95555998**

Examinee Name:

Examinee ID:

Database	Profile	Key	Date	Score	Perct	Max	Pass	P/F	Elapsed
Math	Math003	108	11 Sep 1998	20	95	21	17	PASS	00:26:31
Math	AlgebraIntro	324	25 Mar 1999	9	100	9	8	PASS	00:10:01
Math	Algebra020	336	25 Mar 1999	10	91	11	9	PASS	00:19:25
Math	Algebra113	358	25 Mar 1999	13	72	18	15	FAIL	00:29:23
Math	Algebra113	454	26 Mar 1999	17	94	18	15	PASS	00:31:15
Math	MathFinal	1	13 Aug 1998	21	95	22	18	PASS	00:47:17
Chemistry	ChemSafety	1258	04 Jun 1999	34	94	36	29	PASS	00:39:25

At the top of the display is shown the examinee’s name and ID. You can change any of these entries by typing in a new value. When you change any value, the “Save Changes” button will appear. You must click on this button if you want your changes saved!

The columns in the table give information about each test the examinee has seen.

Database	This is the name of the item bank that generated the test.
Profile	This is the name of the profile that generated the test. Note that only the leftmost 10 characters of the profile name are stored in the database. If you have two profiles that differ only <u>after</u> the 10 <sup>th</sup> character, they can not be differentiated in the history database.
Key	This is the unique exam number. For paper and pencil tests, this is the number of the exam key that was used to score the test.
Date	This is the date the test was scored.
Score	This is the raw score for the test.
Perct	This is the score as a percentage.
Max	This is the maximum score for the test.
Pass	This is the mastery point, in terms of raw score, for the test.
P/F	“Pass” if the examinee mastered the test, “Fail” if they did not.
Elapsed	The time in HH:MM:SS that the examinee took to complete the test. If this was a paper-and-pencil test, this will be blank.

**Printing Records**

First, click on “Reports” and then “Options” in the menu bar to select the information that is to be printed.

Standard Report	Click on an option to select the lines that are to be printed.												
Use Custom Header	Click on this option to display a custom header. You must click on “Edit Header” to define the custom header. Refer to page 25 where editing the custom header is discussed.												
Mastery Word	You can replace the word “mastered” on the reports with one of your own choosing.												
Sub-Exam Information	Click on this option to display sub-exam information.												
Performance Report Information	Click on the “Show Performance Report” option to show a performance report. <table border="1" style="width: 100%; margin-top: 10px;"> <tr> <td>Levels</td> <td>Selects the amount of detail that will be shown. The “levels” refers to the number of levels in the index structure of the source item bank.</td> </tr> <tr> <td>Show Item Level</td> <td>If selected, shows the index number of the level.</td> </tr> <tr> <td>Show Title</td> <td>If selected, shows the title of the level.</td> </tr> <tr> <td>Show Seen / Passed</td> <td>If selected, shows the number of items that were seen and passed from the level.</td> </tr> <tr> <td>Show Percent</td> <td>If selected, shows a percentage of items passed.</td> </tr> <tr> <td>Show Performance Bar</td> <td>If selected, shows a bar representing the number of items that were passed in the section.</td> </tr> </table>	Levels	Selects the amount of detail that will be shown. The “levels” refers to the number of levels in the index structure of the source item bank.	Show Item Level	If selected, shows the index number of the level.	Show Title	If selected, shows the title of the level.	Show Seen / Passed	If selected, shows the number of items that were seen and passed from the level.	Show Percent	If selected, shows a percentage of items passed.	Show Performance Bar	If selected, shows a bar representing the number of items that were passed in the section.
Levels	Selects the amount of detail that will be shown. The “levels” refers to the number of levels in the index structure of the source item bank.												
Show Item Level	If selected, shows the index number of the level.												
Show Title	If selected, shows the title of the level.												
Show Seen / Passed	If selected, shows the number of items that were seen and passed from the level.												
Show Percent	If selected, shows a percentage of items passed.												
Show Performance Bar	If selected, shows a bar representing the number of items that were passed in the section.												

Item Information	If selected, shows details about the items that were in the test.	
	Show All / Passed / Failed	Determines which items will be shown in the report.
	Show Pass/Fail	Indicate if the item was passed or failed.
	Show Point	Indicate how many points the item was worth.
	Show Response	Shows the examinee’s response to the item.
Printing the response	Select how the examinee’s response is to be displayed.	
	Item Bank Order	Shows the items in the order in which they occurred in the item bank. If the alternatives within the items were randomized, remove the randomization and display the examinee responses as if randomization had not occurred.
	Printed Test Order	Shows the items in the order in which they appeared in the test. Retain the randomization of alternatives. <i>For this option to work. The key file that was used to score the test must be attached to the records system. Refer to the scoring options for information on attaching a key file.</i>

The system will perform a page eject after each test is printed.

**Custom Header**

*New in Examiner Records Release 2.1.01*

Instead of using the “standard” header for an examinee report, you can create a customized report. The following settings:

**Custom Examinee Report Setup**

Enter a title in the top window. Next, enter the column headings, table names, field names, and formatting strings that you want printed. You can “drag” the grey column headings left and right to re-order the columns. Click on “Fields” for embedding information.

**Title:** Examinee status printed on \$\$TODAY. When you took this test you were in \$\$FL(USERSITE). **Fields**

	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6	Row 7	Row 8
Heading:	Examinee ID:	Name:	Test:	Date:	Status:	<blank>	<blank>	<blank>
Table:	Examinees	Examinees	Exams	Exams	Exams			
Field:	ExamineeID	First Last Na	ExamProfile	ExamDate	ExamPF			
Format:				dd Mmmm yyyy				

**Data**

Title: Data

Examinee ID: 446632625

Name: ANDERS AALBERG

Test: ChemPre01

Date: 30 August 1998

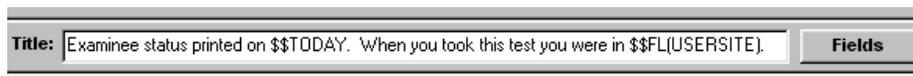
Status: FAIL

**Update View** **Quit** **Save**

Created this heading:

<u>Examination Analysis</u>	
Examinee status printed on 9 May 2001. When you took this test you were in SAF.	
Examinee ID:	114221636
Name:	ANA PYE
Test:	ChemSafety
Date:	09 August 1999
Status:	Pass

*Editing the Title Line*



The title line will be printed above the test information. You can embed fields in the line that will be replaced with calculated text when the page is printed. The available fields are:

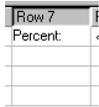
\$\$ID	Examinee ID
\$\$LN	Examinee Last Name
\$\$FN	Examinee First Name
\$\$FNLN	Examinee First and Last Name (ie. "JOHN DOE")
\$\$LNFN	Examinee Last and First Name (ie. "DOE, JOHN")
\$\$TODAY	Today’s Date
\$\$EXDATE	The Exam’s Date
\$\$MAXSCR	The maximum score achievable on the test.
\$\$SCR	The score achieved on the test.
\$\$PCTSCR	The score achieved, as a percentage.
\$\$PF	Pass or Fail
\$\$FL(FieldName)	Contents of a field. The system will look in the Exams and Examinee table and display the contents of the field named "FieldName". For example, if there was a field named "Site" in the "Exams" table you would enter: \$\$FL(SITE).

*Editing a Table Line*

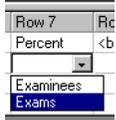
You can have up to 15 lines of annotation at the top of the report. To edit a line, follow these steps:



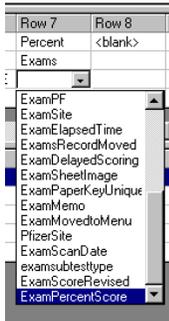
Select the row you want to edit and click on the "<blank>" at the top. If you already have an entry, click on that. To disable the printing of a column, enter "<blank>" in the field.



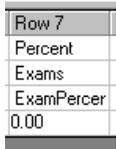
Type your entry. The backspace key isn’t active in this display...just start typing.



Move to the table section and select the source table from the drop-down list.



Move to the fields section. The drop-down list will contain all the fields that are available from the table you selected in the previous step. Select the field you want printed.



Date and numeric entries can be formatted. Enter a formatting string at the prompt. Some sample formats are:

<b>Numeric Formatting:</b>	
0.00	Float-point number to two decimal places: 1.234 prints “1.23”
0	Float-point number with no decimals: 1.234 prints “1”
00.0	Float with leading zeros: 1.234 prints “01.2”
<b>Date Formatting: (sample based on the 30<sup>th</sup> of August 1998)</b>	
dd	Day of the month. “30”
ddd	Named day of the week, short. “Mon”
dddd	Named day of the week, long. “Monday”
m	Number of the month. “8”
mm	Number of the month with leading zero. “08”
mmm	Short form of the month. “Aug”
mmmm	Long form of the month. “August”
yy	Short form of the year. “98”
yyyy	Long form of the year. “1998”
hh:mm	Time in HH:MM format.

Note that with dates, you can combine the different options. For example, “dd mm yyyy” will produce “30 Aug 1998” while “dddd, mmmm dd yyyy” will produce “Sunday, August 30 1998”.

If you enter a format string that the Examiner can’t understand, it will default to the system method for displaying that type of field.

If you want to change the order of your rows, you can do that by moving the mouse over the row you want to move, holding down the Left mouse button, and dragging the column to the new location.

**Drag**



	Row 1	Row 2	Row 3	Row 4	Row 5	Row 6	Row 7	Row 8
Heading:	Examinee ID	Name:	Test:	Date:	Status:	Site	<blank>	<blank>
Table:	Examinees	Examinees	Exams	Exams	Exams	Exams		
Field:	ExamineeID	First Last Na	ExamProfile	ExamDate	ExamPF	USERSITE		
Format:				dd Mmmm y				

When you are done entering information, click on the “Update View” button. The bottom of the window will show how your text will be formatted. Click on “Save” to store your changes. You can leave without storing changes by clicking on the “Quit” button.

### ***Printing the Reports for the Exams***

To print reports, click on “Reports” in the menu bar and then “Print”.

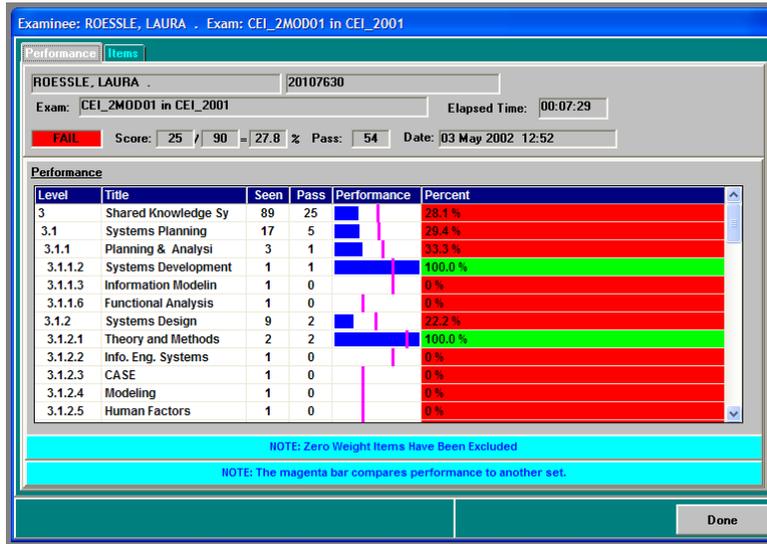
- To print an exact copy of the table that is on the screen, click on “Summary Table”.
  - If you want to hide certain columns, or change their width, move your mouse over the column dividers on the screen and drag the column divider to where you want it. To hide a column, drag the divider all the way over to the left or right.
- To print a report under the control of the “Options”, click on “Print Detail Sheets”.

### ***Viewing an Exam***

To view an individual exam, double-click on the test you want to view. Or, you can highlight the test and click on “View Exams”. See page 29.

**A Single Exam**

*Performance Tab*



At the top of the display is shown the examinee’s name and ID. The next line shows the source item bank and profile for the test. If the test was delivered via computer, the elapsed time for the test is shown.

The final line shows mastery information for the test followed by the date the test was scored.

The performance chart is one of the most valuable charts in The Examiner. In it, you can see those areas in which the examinee excelled, and those areas that need work. The chart is directly tied back to the index structure in the item bank that created the test.

Level	This is the numeric identifier of the section in the item bank.
Title	This is the name of the section in the item bank.
Seen	This is the number of items that were in the test from this specific section.
Pass	This is the number of items that were passed in the test from this section.
Performance	The bar chart shows the percentage of items that were mastered.
Percent	This is the percentage of items that were mastered.

If you use “zero weight” items in your item bank you can choose to omit those items from the performance chart report. This is usually done if you have an item that is being evaluated and is not being included in an examinee’s score. To exclude zero weight items click on “Reports” and then “Exclude Zero Weight Items from Performance” to exclude those items from the report. On re-analyzing the data you will see a warning message at the bottom of the performance chart. Sections that no longer contain data due to excluded items will also carry a warning message.

If you are viewing this examinee record as a member of a group of analyzed exams you will see a vertical line on the chart showing the performance information for the owning group. A message indicating this will be shown below the chart. Note that if you enter this display via the “View Examinees” route this comparative information will not be shown.

When you view the consolidated exam records, rather than examinee records, you will be able to see this same information across a group of examinees. Using these two displays you will be able to compare an examinee’s performance in any given section to all examinees.

Items Tab

No.	Item Identifier	P/F	Points	Possible	Response
1	6.1.3.1	Pass	1	1	A,B
2	6.4.3.2	Pass	1	1	B
3	6.2.1.2	Fail	0	1	A,B,C,D
4	6.3.3.3	Pass	1	1	A
5	6.1.4.1	Fail	0	1	C
6	6.2.1.3	Pass	1	1	A
7	6.3.3.6	Fail	0	1	B
8	6.1.2.1	Fail	0	1	D
9	6.5.2.2	Pass	1	1	B,C,D
10	6.1.1.1	Pass	1	1	A
11	6.2.2.1	Fail	0	1	C
12	6.3.4.2	Pass	1	1	A
13	6.3.5.2	Pass	1	1	A,B,C,D
14	6.4.2.2	Pass	1	1	A
15	6.5.1.2	Pass	1	1	C
16	6.3.2.1	Pass	1	1	A
17	6.3.1.1	Pass	1	1	B
18	6.4.1.2	Pass	1	1	C

The items tab shows the examinee’s responses to each item in the test. The page keeps the orders that the items were shown in during the test.

No.	This is the order of the item in the test.
Item Identifier	This is the item identifier within the source item bank.
P/F	Pass or Fail
Point	How many points were awarded for the item.
Possible	The maximum number of points achievable for the item.
Response	The examinee’s response.

The examinee’s response has been “de-randomized”. This means that if the profile used to generate the test was set to randomize the multiple-choice alternatives, that randomization was removed before the examinee’s response was stored. The result of this is that if you look at the source document, for example a paper-and-pencil answer sheet, the examinee’s response on the sheet may not match that shown on the screen. If the answer key used to score the exam is attached to the records system a third tab will be shown giving the original examinee’s response with the randomization intact.

Case Study Items

No.	Item Identifier	P/F	Points/Possible	Correct	Examinee Response
5	1.1.13	Pass	1 / 1	A	A
6	1.1.14	Fail	0 / 1	A	B
Case Study 2.1.1 Next 3 items are part of a case study. Mastery is the default. Points are passed through.					
7	2.1.1.1	Pass	1 / 1	A	A
8	2.1.1.2	Fail	0 / 1	A	B
9	2.1.1.3	Pass	1 / 1	A	A
Case Study 2.1.2 Next 3 items are part of a case study. Mastery is based on achieving 50% of the points. Points are passed through. The examinee mastered the item.					
10	2.1.2.1	Pass	1 / 1	A	A
11	2.1.2.2	Fail	0 / 1	A	B
12	2.1.2.3	Pass	1 / 1	A	A
Case Study 2.1.3 Next 3 items are part of a case study. Mastery is based on achieving 2 points. Points are passed through. The examinee mastered the item.					
13	2.1.3.1	Fail	0 / 1	A	B

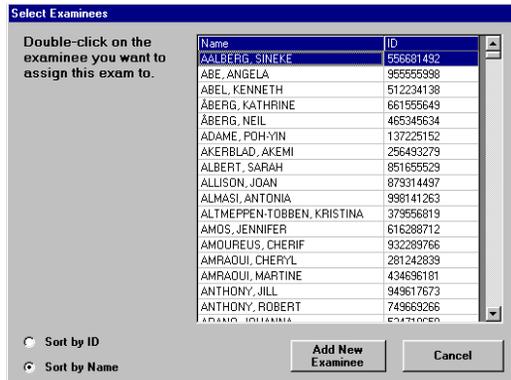
Case study items will have extra lines telling how many items are in the case study, what the mastery criteria of the item is, and how the item’s points are handled. For case study items that have a mastery criteria the examinee’s mastery results for the case study item are shown.

*Reassign ID*

Sometimes a test is assigned to an incorrect ID. This often happens when an examinee fills out the wrong “bubble” on an OMR answer sheet. To assign an examinee to a different, correct, ID, click on the “Reassign ID” button.

*Print Exam*

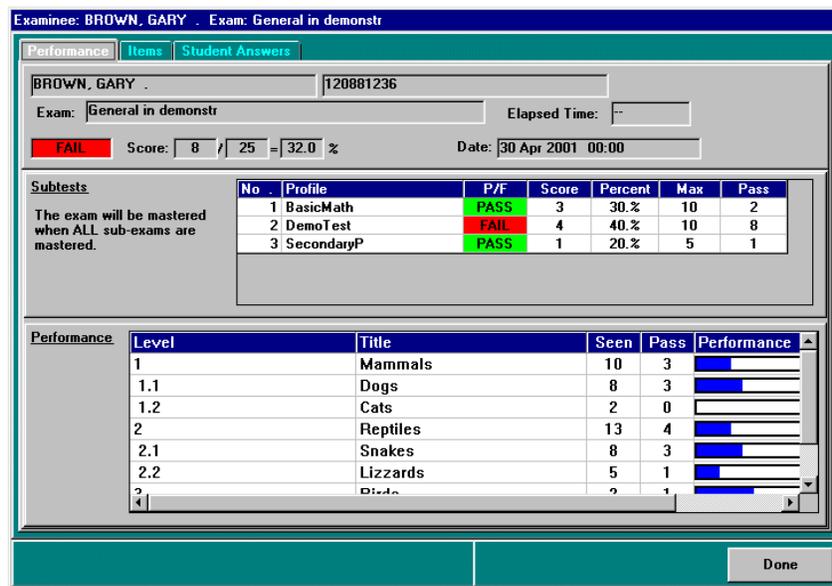
If the exam name used as a source for this test was stored with the exam record, and if the exam is still on the system, a “Print Exam” button will be displayed. From this button you will be taken to a “stripped down” version of the Exam Print utility and will be able to print the exam. Refer to the Exam Print Utility documentation for details.



Double click on the examinee you want to assign the test to. You will see a confirmation screen before the change is accepted.

If you want to create a new examinee entry to assign this test to, first click on the “Add Examinee” button and follow the directions. Then search the list to find the examinee you just added.

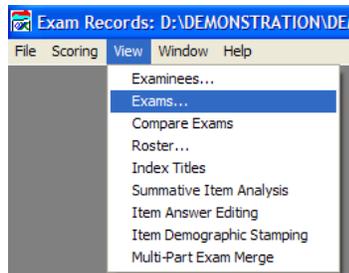
*Sub Exams*



If sub-tests are present, the screen will be split and the mastery information for each sub-test will be shown in the table.

## Viewing Exam Records

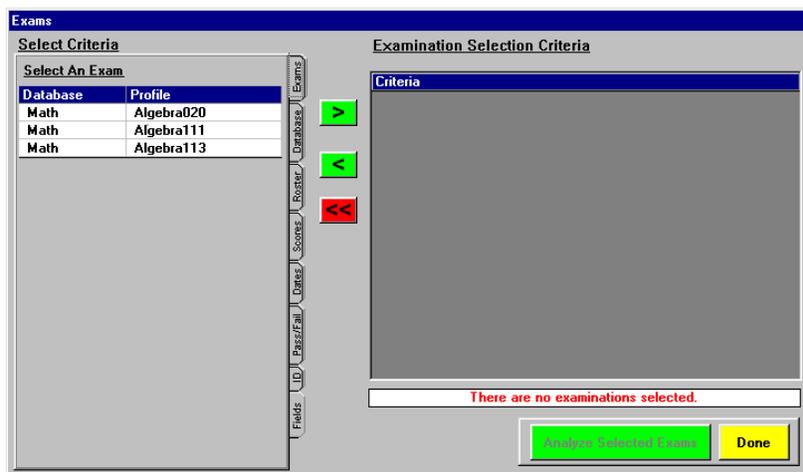
Once you have added exam records you can calculate statistics across those exams. To look at the results for individual examinees, use the “View Examinees” option.



To begin viewing exam data, click on “View” and then “Exams” in the menu bar.

### The Exam Selection Screen

Exam data is obtained by analyzing groups of exams. This display will let you specify the selection criteria for this analysis. The search criteria is constructed by selecting the criteria on the left part of the screen and moving it to the right. The number of exams that match the criteria will be shown below the criteria table. When you have made all your selections, click on the “Analyze Selected Exams” button to generate reports.

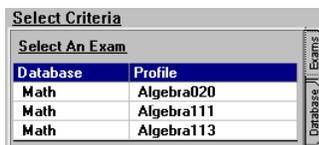


#### *Making Selections*

-  Click on this button to move your selection from the left to the right.
-  Click on this button to remove the criteria from the right.
-  Click on this button to remove all the criteria from the right.

#### *Exams Tab*

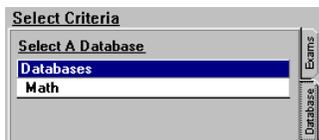
Click on the “Exams” tab to make this selection. This section shows the Item Bank / Profile combinations that were used to generate tests stored in this history file. Note that only the leftmost 10 characters of the profile name are stored in the database. If you have two profiles that differ only after the 10<sup>th</sup> character, they cannot be differentiated in the history database. If an exam with sub-tests is present, it will be highlighted in yellow on the screen.



Either double-click on the selection, or highlight the selection and click the right-arrow button to move the selection to the right.

### Database Tab

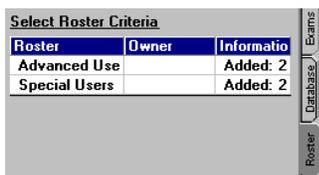
Click on the “Database” tab to make this selection. This section shows the Item Banks that were used to generate tests stored in this history file.



Either double-click on the selection, or highlight the selection and click the right-arrow button to move the selection to the right.

### Roster Tab

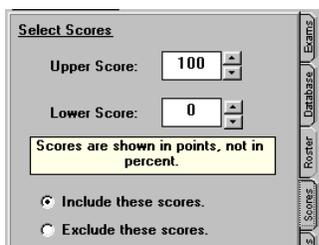
Click on the “Roster” tab to make this selection. This section shows the Rosters that are active in this history file. Refer to the “Roster” section of this document for information on rosters. One thing you should remember is that rosters are at the *Examinee* level of the item bank. When you select a roster you will get all the exams owned by all the examinees in that roster. You should almost always refine your selection further. As an alternative, create fields in your history file that are at the exam level. That way you can create a more precise search.



Either double-click on the selection, or highlight the selection and click the right-arrow button to move the selection to the right.

### Scores Tab

Click on the “Scores” tab to make this selection. Scores shown are the raw scores for the test, not a percentage.



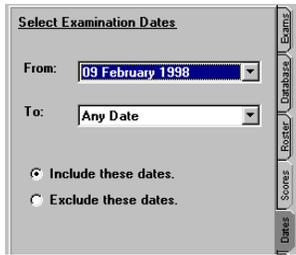
Use the two “spinner” boxes to select an upper and lower bounds for the exams you want.

Next, click the option to include or exclude these scores.

Finally, click the right-arrow button to move the selection to the right.

### Dates Tab

Click on the “Dates” tab to make this selection. This selects from all the dates in the history file.



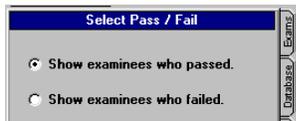
Use the two drop-down boxes to select an upper and lower date limit for the exams you want.

Next, click the option to include or exclude these dates.

Finally, click the right-arrow button to move the selection to the right.

*Pass/Fail Tab*

Click on the “Pass/Fail” tab to make this selection.

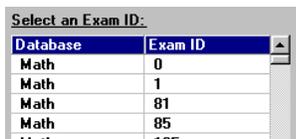


Click on the option to include passed or failed tests.

Then, click the right-arrow button to move the selection to the right.

*Exam ID Tab*

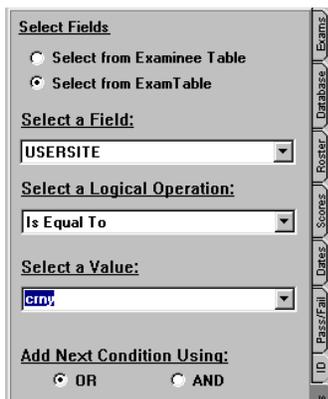
This table lists the exam id’s of all the tests in the history file. The exam id can also be thought of as the answer key code.



Either double-click on the selection, or highlight the selection and click the right-arrow button to move the selection to the right.

*Fields Tab*

This option is probably the most powerful one in the exam selection criteria set. The Examiner defines a number of fields in each of the tables that make up the history file. You can create a “Boolean” search on combinations of these fields.



First select the table that you want to use.

Next select the field from the drop-down list.

Then select a logical operation from the next list.

Finally, select the value as the target for the Boolean operation.

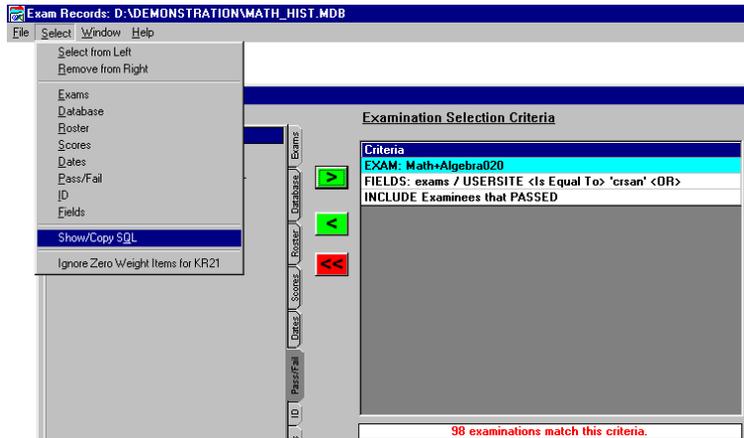
If you will be joining one or more operations together, select the “OR” or “AND” button.

Finally click the right-arrow button to add to the criteria list.

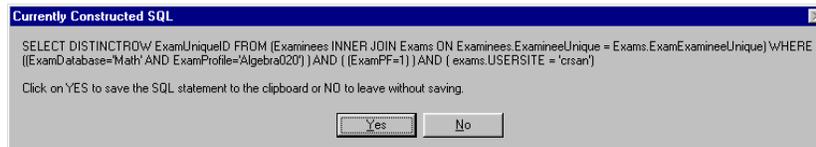
While the fields tab is very powerful, it is also possible to create search criteria that does not work. If you run into problems, try clearing the criteria and entering the search strings in a different order.

*Viewing the SQL Statement*

As you are adding search criteria what you are really doing is creating an “SQL” statement that is applied to the history file. This statement is used internally by the Microsoft Access “engine” to find matching records. You can view this SQL statement and copy it for use directly in Access. Click on “Select” in the menu bar, and then “Show/Copy SQL”.



To copy the statement to the copy buffer, click on “Yes”. You can then paste the statement into the Query Builder in Microsoft Access.



### The Exams Data Screen

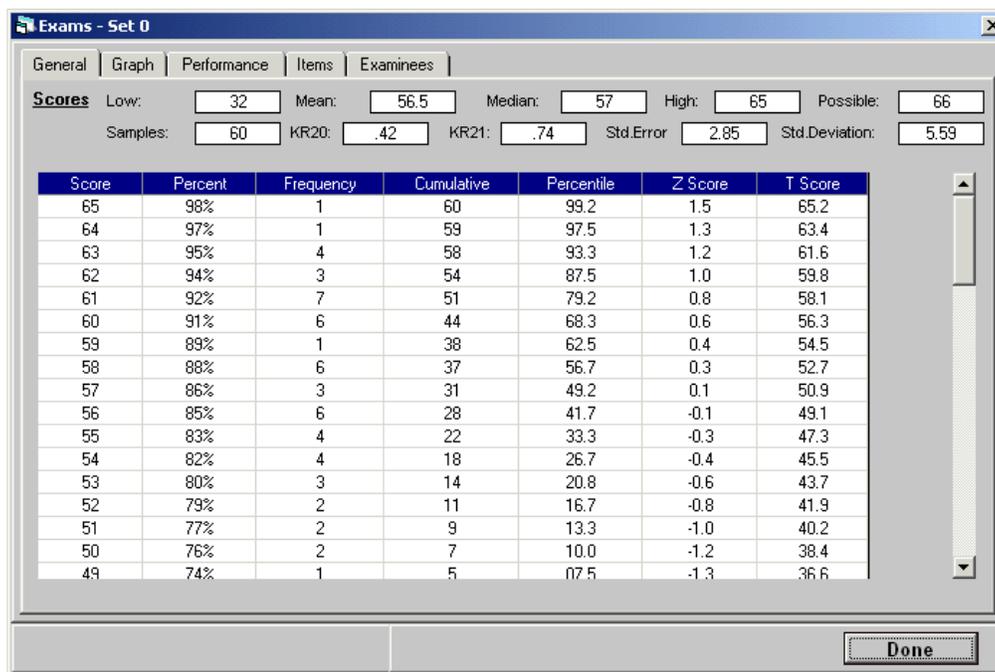
After clicking on “Analyze Selected Exams” the system will sweep through all the tests in the history file that match your selection criteria. As the tests are being analyzed, two progress bars will show you the status of the analysis. As with all computer operations, the faster your machine, the quicker the analysis will take place. You may see a number of warning messages after the analysis, but before the display of data.

#### Invalid Data Warning



This display is letting you know that a number of the statistical measures are probably not valid: KR20, KR21 and Standard Error, along with Item Point Biserial data depends on samples for a single exam. The sample set you have selected does not meet this criteria. Values may be shown, but should not be trusted. **There are a number of other conditions that can make the statistical measures displayed in the records system invalid or misleading. In general, if you are combining data from exams that differ in any way, your statistics are probably questionable. If your data set contains exams that were generated from profiles that use random item selection the statistics are most certainly debatable. If you have fewer than 50 data points your data is questionable. If you have fewer than 20 data points almost all of your summative data is of little use.**

#### General Tab



The first tab in the exam data set shows general information about the test. At the top of the screen is shown summative information.

Samples	Number of examinations that are analyzed in this report.
Low	Lowest score achieved by the examinees.
Mean	Average overall score of the analyzed scores.  <div style="border: 1px solid black; width: 40px; height: 40px; display: inline-block; vertical-align: middle;"></div> where X = test score, N = Number of examinees
Median	The middle score, or the score one half of the examinees scored above and one half scored below.
High	Highest score achieved in the group of scores analyzed.
Possible	Highest score possible to achieve in the set of tests analyzed.
Standard Deviation	A type of average of how much scores differ from the mean score. If the standard deviation is near zero, then all of the test scores are very near to the mean. If the standard deviation is larger than one then scores will be spread out around the mean on either side.  <div style="border: 1px solid black; width: 150px; height: 25px; display: inline-block; vertical-align: middle;"></div> where X = examinee score, N = number of examinees, M = Mean score
KR20	A measure of reliability or internal consistency. This measure tells you how consistent test item scores are over different parts of the test. 0 indicates a total lack of consistency of how examinees score on different parts of the test. 1 indicates perfect positive consistency. KR20 measures in the range of .6 to .8 are typical.  $KR20 = \left[ \frac{K}{K-1} \right] \left[ 1 - \frac{\sum pq}{s^2} \right]$ where K = Number of items in test, s = standard deviation of the test scores, p = proportion of test scores that mastered test, q = 1 – p. <b>Note that if you are looking at anything other than data from a set of <u>identical</u> exams this measure will probably be meaningless.</b>
KR21	A measure of reliability or internal consistency. This measure tells you how consistent test item scores are over different parts of the test. 0 indicates a total lack of consistency of how examinees score on different parts of the test. 1 indicates perfect positive consistency. KR21 measures in the range of .6 to .8 are typical.  <div style="border: 1px solid black; width: 150px; height: 40px; display: inline-block; vertical-align: middle;"></div> where M = Mean, K = Number of items in test, s = standard deviation of the test scores. <b>Note that if you are looking at anything other than data from a set of <u>identical</u> exams this measure will probably be meaningless.</b>
<b>When analyzing data from identical tests, KR20 and KR21 will be very similar. The more the tests in the sample set differ from each other, the wider will be the difference between KR20 and KR21.</b>	
Standard Error	A measure of how much reliance you can place on the examinee’s scores, or how much error to allow when interpreting individual test scores. A standard error near 0 indicates examinee scores that are very reliable.  Standard Error of Measurement = <div style="border: 1px solid black; width: 60px; height: 20px; display: inline-block; vertical-align: middle;"></div>

where  $\sigma$  = Standard deviation,  $\mu$  = KR21

The table on the screen gives ranking information about the scores.

Score	Raw score the examinee received.
Percent	Percent correct the examinee received.
Cumulative	The number of examinees that have scored at or below this score.
Percentile	The percent of examinees that have scored at or below this score.
Z-Score	How far the raw score of the examinee is above or below the mean, in standard deviations.  $Z\text{-score} = (\text{Raw Score} - \text{Mean}) / \text{Standard Deviation}$
T-Score	A standardized version of the Z-score with a mean of 50 and a standard deviation of 10.  $T\text{-score} = 50 + 10 (Z\text{-score})$

*Sub Exams*



If a test with sub-tests is present, an extra “Sub Exams” button will be shown at the bottom of the display. Click on the button for information on the sub-tests.

Sub Exams

View exam details by clicking on the sub exam line.

No	Profile	Samples	Low	Mean	Median	High	Possible	Std.Dev.
1	Basicmath	4	3	5.5	4	10	10	2.69
2	Demotest	4	2	3.8	4	5	10	1.09
3	Secondaryp	4	1	2.5	2	4	5	1.12

Scores | Graph

Sub Exam 1: basicmath

Score	Percent	Frequency	Cumulative	Percentile	Z Score	T Score
10	100%	1	4	87.5	1.7	66.7
9	90%	0	3	75.0	1.3	63
8	80%	0	3	75.0	0.9	59.3
7	70%	0	3	75.0	0.6	55.6
6	60%	0	3	75.0	0.2	51.9
5	50%	1	3	62.5	-0.2	48.1
4	40%	1	2	37.5	-0.6	44.4
3	30%	1	1	12.5	-0.9	40.7
2	20%	0	0	00.0	-1.3	37
1	10%	0	0	00.0	-1.7	33.3
0	0%	0	0	00.0	-2.0	29.6

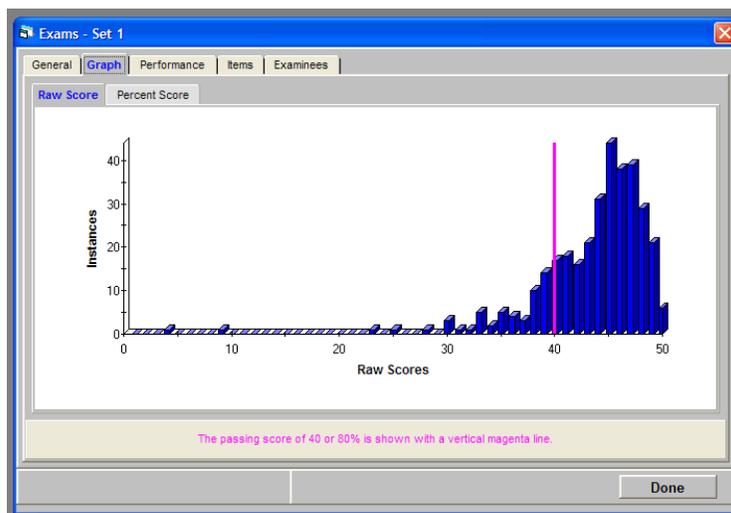
Done

A display showing the included sub-tests will be displayed. The information in the top table duplicates for each sub-test the information described for the owning test.

There are two tabs that will show information for the selected sub-tests. Click on each sub-test to change the bottom tabs contents.

Refer to the following section for information on the Scores and Graph tabs.

### Graph Tab

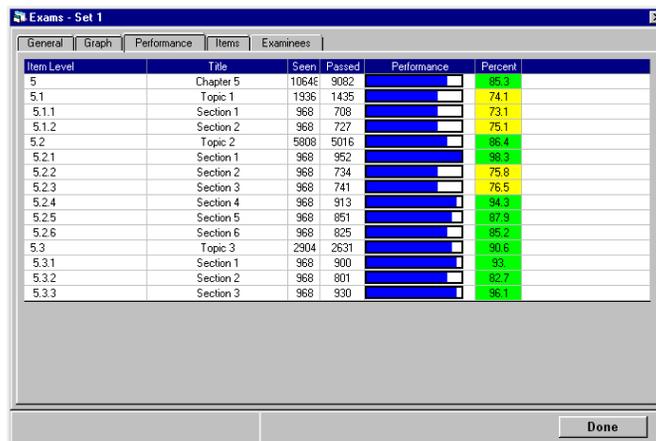


Two graphs are shown. Click on the tab to select the graph you want to view.

- Raw Score – This graph shows the raw scores obtained by the set of examinees. The lower value on the graph is the lowest score obtained by any examinee. The upper value is the highest score obtained by any examinee. The vertical axis is the number of exams that achieved the score.
- Percentage Score – This graph shows the number of exams that achieved each percentage. The values on the graph run from 0 to 100 percent.

Note that on the example shown there is a vertical line at a raw score of 40. This is the pass mark for this exam that the records system derived by looking at the first test that matched it's analysis criteria. If you have changed the pass mark in your profile and are viewing exams that have differing pass marks the pass mark for the first test the system read will be shown. This feature is turned off by default. You can activate the score line by clicking on Reports in the menu bar and then Display Pass Mark. You will need to re-analyze the data to make the mark visible.

Performance Tab



The performance chart is one of the most valuable charts in The Examiner. In it, you can see those areas in which a group of examinees excelled, and those areas that need work. The chart is directly tied back to the index structure in the item bank that created the test. The number of levels that are displayed is set by clicking on “Reports” in the menu bar and then “Performance Report Levels”. Note that this is a global setting and will be in effect whenever you view any exam report. This also affects the number of levels that are shown when the report is being printed. If you change the setting, the change will only take effect when you plot a new set of data.

Item Level	This is the numeric identifier of the section in the item bank.
Title	This is the name of the section in the item bank.
Seen	This is the number of items that were in the tests from this specific section.
Pass	This is the number of items that were passed in the test from this section.
Performance	The bar chart shows the percentage of items that were mastered.
Percent	This is the percentage of items that were mastered.

The “seen” and “passed” columns represent the total number of items seen across all the tests in the current sample.

When you view a detailed examinee record, you will be able to see this same information for a single examinee. Using these two displays you will be able to compare an examinee’s performance in any given section to all examinees. Starting with release 2.1.381 the information on the aggregate performance chart will be passed on to the examinee displays that are accessed from the report. This information will be shown as a vertical line on the examinee’s display.

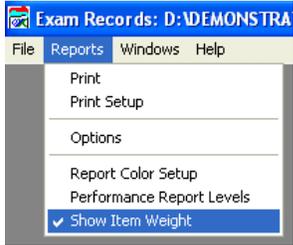
If you use “zero weight” items in your item bank you can choose to omit those items from the performance chart report. This is usually done if you have an item that is being evaluated and is not being included in an examinees score. To exclude zero weight items click on “Reports” and then “Exclude Zero Weight Items from Performance” to exclude those items from the report. On re-analyzing the data you will see a warning message at the bottom of the performance chart. Sections that no longer contain data due to excluded items will also carry a warning message.

Items Tab

Item ID	Seen	Passed	Skipped	Difficulty	Efec	PBis	Weight	A	B	C	D
5.1.1.1	29	25	0	.86	.15	.61	0	29	0	25	0
5.1.1.2	44	34	0	.77	.15	.59	1	43	2	44	8
5.1.1.3	45	33	0	.73	-.05	.28	1	41	42	41	2
5.1.2.1	28	17	0	.61	.15	.55	1	28	27	28	10
5.1.2.2	45	37	0	.82	.14	.42	0	45	43	6	45
5.1.2.3	18	8	0	.44	-.02	.35	1	9	18	17	4
5.1.2.4	27	27	0	1.	-.05	.	1	27	27	3	27
5.2.1.1	53	53	0	1.	-.17	.	1	53	0	53	53
5.2.1.2	65	65	0	1.	.17	.	1	0	65	0	0
5.2.2.1	31	26	0	.84	.19	.62	1	30	0	27	31
5.2.2.2	42	34	0	.81	.14	.69	1	41	41	4	39
5.2.2.3	45	24	0	.53	.05	.41	1	45	21	45	2
5.2.3.1	56	29	0	.52	.02	.29	1	12	52	14	52
5.2.3.2	6	2	0	.33	.03	.65	1	5	4	4	6
5.2.3.3	56	56	0	1.	.19	.	1	54	4	48	54
5.2.4.1	28	28	0	1.	.17	.	1	28	0	28	0
5.2.4.2	42	41	0	.98	.03	.04	1	42	41	0	42
5.2.4.3	48	44	0	.92	-.15	.16	1	48	48	1	4
5.2.5.1	26	24	0	.92	.19	.24	1	26	26	26	2
5.2.5.2	42	34	0	.81	.07	.51	1	1	0	34	7

The items tab gives summary information on the items in the sample set. Note that even though you may have a sample size of 1000, you may only see 300 samples on a particular item. This usually indicates that the profile used to generate the tests in the sample selected randomly selected items. The two fields to the table show the average item difficulty and point biserial across the sample set.

Item ID	The item bank classification number for an item.
Seen	The number of times this item was seen by all examinees in this sample.
Passed	The number of times this item was passed in this sample.
Skipped	The number of times this item was skipped in this sample
Difficulty	How hard the item is for this group of examinees. The difficulty is equal to the number of times the item was passed divided by the number of times the item was seen.

<p>Effectiveness</p>	<p>A measure of item discrimination. It compares the number of examinees in the upper and lower third of the score distribution who answered the item correctly. A positive point biserial larger than .5 tells you that examinees who answered the item correctly also generally did well on the entire test. A negative point biserial tells you that examinees who answered the item correctly were people who generally did poorly on the entire exam. The content of negatively discriminating items should be examined carefully to determine if the items are misleading or “trick” questions.</p> <div style="border: 1px solid black; width: 150px; height: 60px; margin: 10px auto;"></div> <p>where <math>\square</math> = number in the upper 1/3 of test population who answered the item correctly. The upper 1/3 is identified by looking at the exam scores, rank ordering the exam scores, and identifying the top 1/3 of the exam scores.</p> <p><math>\square</math> = number in the lower 1/3 of the test population who answered the item correctly.</p> <p><math>\square</math> = the total number of students included in the analysis.</p>
<p>Point Biserial</p>	<p>Another important property of any test question is item discrimination. Item discrimination involves the strength of the relationship between a test item and the underlying (and unobservable) attribute being measured, e.g., knowledge or learning. Since the latent variable, Y, cannot be measured directly, we turn to a set of observable variables whose elements are related to Y. In most applications, this set turns out to be the set of item variables <math>\{s_i\}</math>. While it seems somewhat circular, the total score, X, is often taken as a measure of the underlying attribute, Y.</p> <p>The stronger the relationship between the item score, <math>s_i</math>, and the total score, X, the greater the differentiation among examinees on Y due to the i-th item. The item score/total score point-biserial correlation, <math>\rho_{s_i, X}</math>, is a measure of item discrimination. In a sample of size N, the point-biserial correlation coefficient is</p> $r_{s_i, X} = \frac{\bar{X}_i - \bar{X}}{s_X} \sqrt{\frac{p_i}{1 - p_i}}$
<p>Weight</p>	<p>The weight of the item as defined in the item bank. If the weight is zero the row will be highlighted in yellow. If the weight is unknown, a question mark will be shown in the column. This is an <i>optional column</i> and is made visible by clicking on “Reports” in the menu bar. Click on the “Show Item Weight” entry to change the selection. You will need to replot the data to see your changes.</p> <div data-bbox="1024 1451 1317 1696" style="border: 1px solid black; padding: 5px;">  </div>
<p>ABC columns</p>	<p>The numbers under each of these columns tells you how many examinees gave each of these four options as their answer to the question. The correct answer is indicated by a green box.</p>

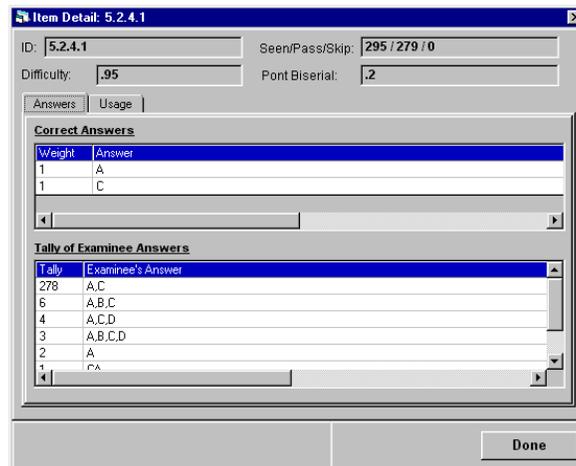
### Case Study Items

ID	Seen	Passed	Skipped	Difficulty	Effec	PtBis	Weight	A	B
1.1.12	3	3	0	1.00	0.00	0.00	1	3	0
1.1.13	3	2	0	0.67	.67	0.97	1	2	1
1.1.14	3	1	0	0.33	.67	0.70	1	1	2
Case Study 2.1.1 Next 3 items are part of a case study. Mastery is the default. Points are passed through.									
2.1.1.1	3	2	0	0.67	.67	0.97	1	2	1
2.1.1.2	3	1	0	0.33	.67	0.70	1	1	2
2.1.1.3	3	3	0	1.00	0.00	0.00	1	3	0
Case Study 2.1.2 Next 3 items are part of a case study. Mastery is based on achieving 50% of the points. Points are passed through. 2 out of 3 examinees mastered the item.									
2.1.2.1	3	2	0	0.67	.67	0.97	1	2	1
2.1.2.2	3	1	0	0.33	.67	0.70	1	1	2
2.1.2.3	3	3	0	1.00	0.00	0.00	1	3	0
Case Study 2.1.3 Next 3 items are part of a case study. Mastery is based on achieving 2 points. Points are passed through. 2 out of 3 examinees mastered the item.									
2.1.3.1	3	1	0	0.33	.67	0.70	1	1	2
2.1.3.2	3	3	0	1.00	0.00	0.00	1	3	0
2.1.3.3	3	2	0	0.67	.67	0.97	1	2	1

Case study items will have extra lines telling how many items are in the case study, what the mastery criteria of the item is, and how the item’s points are handled. For case study items that have a mastery criteria the summative mastery results for the case study items are shown.

### Details Button

Highlighting an item and clicking on the “Details” button will show you information about how the item was answered and when it has appeared in tests.



### General Information

The top of the display repeats the information already seen on the previous table.

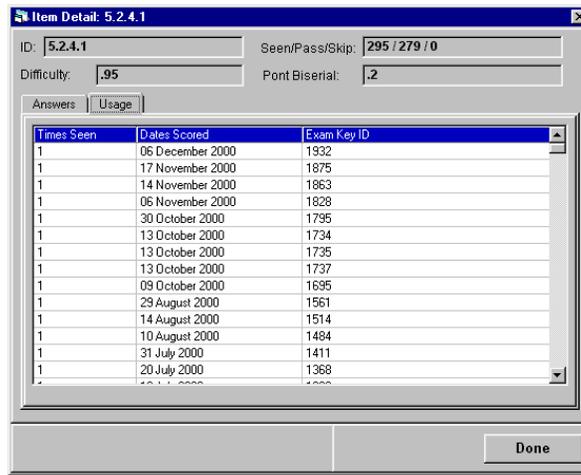
### Correct Answers

The Correct Answer table shows you the alternatives that have been marked as “correct” in the source item bank, and the weights associated with the correct alternatives.

### Tally of Examinee Answers

This shows the many different ways in which people responded to the item. In the case of a “simple” single-alternative correct multiple-choice item, this will show how many people answered each alternative.

In the case of a multiple-choice item with multiple correct answers, this shows the different sets of alternatives that people selected. If this is a short-answer item, the tally will show all the different responses that were encountered.



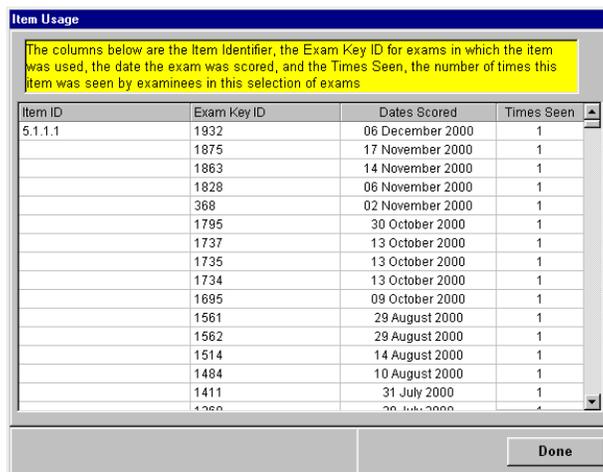
Usage Tab

This table shows the exams that were the source of data for the item statistics you are viewing.

Times Seen	How many tests from this exam date and exam key were seen.
Dates Scored	What date this test was scored on.
Exam Key ID	The specific exam that was the source of data. In the case of paper-and-pencil tests this is the answer key number.

Details Button

Clicking on the “Usage” button will show you usage information for all the items in the current exam sample set.



Item ID	The identifier of the item in the source item bank.
---------	---

Exam Key ID	The specific exam that was the source of data. In the case of paper-and-pencil tests this is the answer key number.
Dates Scored	What date this test was scored on.
Times Seen	How many times this item was seen from the specific exam key and date pair.

*Export Table Button*

**Export Item Table**

Right-click on a column heading to select or de-select a column for export. When you are done selecting columns, click on the "Export" button to continue.

Export  
Done

Clicking on the Export Table button will place the system in a mode where item table columns can be marked for export. To mark a column for export, right click on the column heading. The color of the header will change to red. To un-mark a column, click on the heading a second time. When you are done selecting, click on the Export button. On the next screen select the name of the export text file. A tab-delimited file will be created. The first row of the exported file will contain the column headings. The remaining rows will contain the data from the table. This file can be directly imported into Excel or other similar programs. Click on Done to return to normal mode.

*Viewing Items*

*New in release 2.1.252*

To view the item that was the source of the data, make a single right-click with your mouse on the item you want to view. If the following conditions are met, you will be able to view the item:

- The item bank that generated the exam you are viewing must be reachable from your current computer.
- If the bank is protected by a password, you need to know the password.
- The data set you are currently viewing was generated by a single item bank. If you got a warning that multiple banks were detected during the loading of the exam data, then you will not be able to view the item information.

**Select Bank Type**

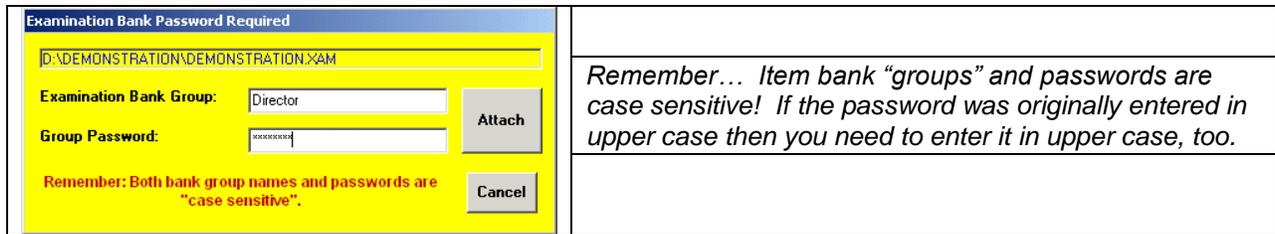
Bank Name: RCDD 11TH EDITION

Is this a version 2 ("XAM") or version 3 ("XM3") Examiner Item Bank?

Version 2 - "XAM"  
Version 3 - "XM3"  
Cancel

The first time you attempt to view an item from a specific bank you will be asked to locate the item bank. With release 3.0.100 you will need to specify if the item bank is an Examiner Version 2 bank with an "XAM" file extension or an Examiner Version 3 bank with a "XM3" extension.

After you select the bank type use the browse box to navigate to the appropriate folder. If the bank is protected by a password you will need to enter it. Users of Examiner Version 3 may be asked to specify an access level. The following discussion pertains to older Examiner Version 3 item banks.

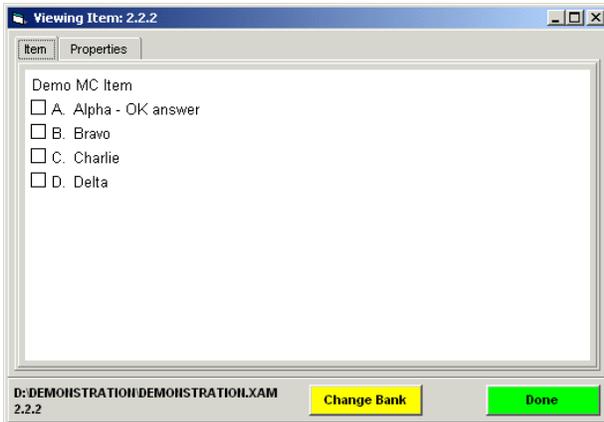


*Remember... Item bank “groups” and passwords are case sensitive! If the password was originally entered in upper case then you need to enter it in upper case, too.*

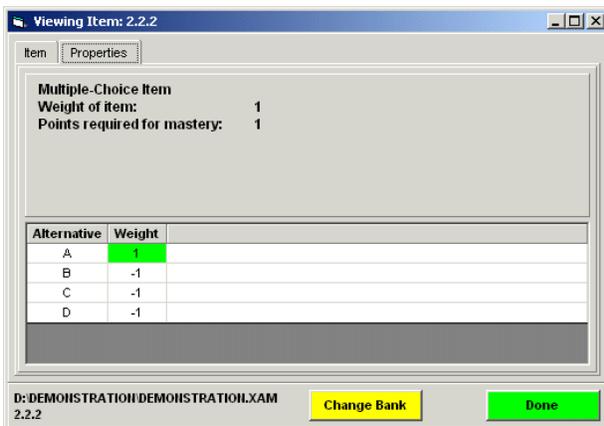
Once you have associated a bank name in the history file with a specific item bank on your computer or network the history system will remember that association and you will not have to re-enter it. The system will also remember what group and password you have most recently used and, if needed, will use them in attempting to attach an item bank.

When viewing an item you need to remember a few important conditions:

- The item you are viewing is the item as it exists now, not as it may have existed at the time the exam was generated. If the item has been edited to any significant extent you really aren’t viewing the item that generated the statistics in the history file.
- If multiple copies of your item bank exist, the item does not carry any information as to what specific bank created it. It is up to you to match the items you are viewing with the bank it came from.



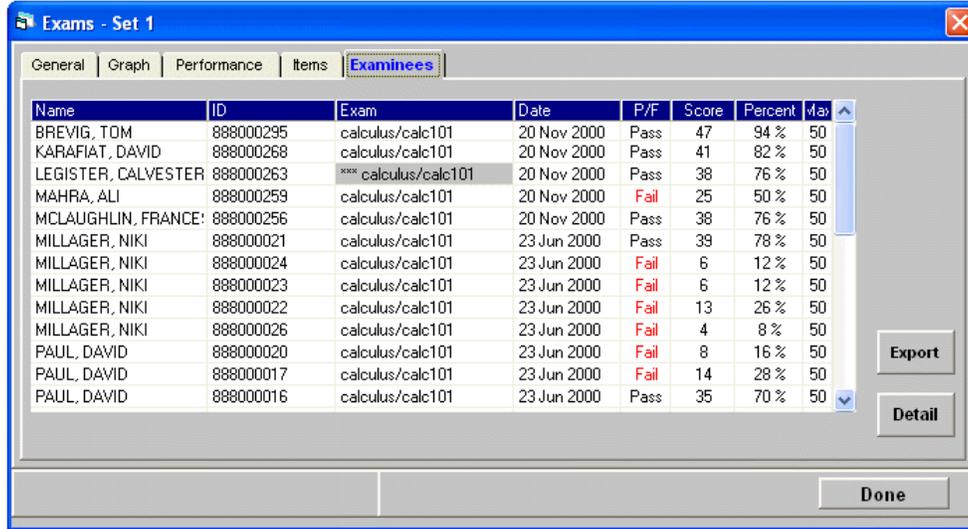
There are two tabs. The first tab shows the item. This is not an “interactive” item. The bank you are viewing is shown at the lower left. If you want to use a different bank, click on the “Change Bank” button. This is a sizeable window. You can drag the edges and corners to resize it. The system will remember the size and location of this window so that the next time you view an item you will see it at the same size and location.



The second tab shows the properties of the item. At the top is the item type, the weight of the item, and the points required for mastery of the item. The table at the bottom shows the alternatives and the weight for each alternative. If you are viewing a short-answer item the third column will show you the correct alpha-numeric response.

Click on the “Done” button when you have finished viewing the item.

Examinees Tab



The Examinees tab lists all the exams that went into this sample set. To view details on a test, highlight the line and click on “Detail” or double-click on the test.

Name	The name of the examinee that took the test.
ID	The ID of the examinee that took the test.
Exam	The name of the item bank and profile that generated the test. If the field is highlighted in grey and is preceded by “***”, the test name has been stored and is available for viewing in the examinee detail page. See page 29.
Date	The date the test was presented.
P/F	Pass or Fail
Score	The raw score for the test.
Percent	The percentage score for the test.
Max	The maximum achievable score for the test.

*Export Button*

**Export Table**

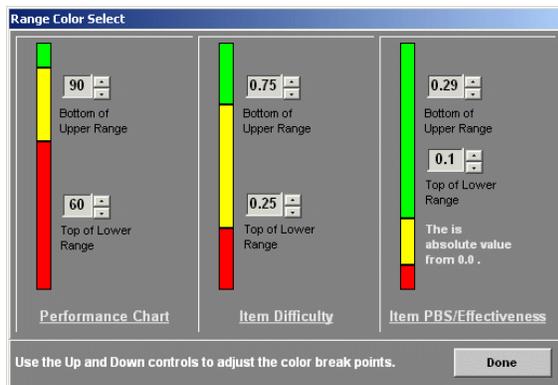
Right-click on a column heading to select or de-select a column for export. When you are done selecting columns, click on the "Export" button to continue.

Export Table
Done

Clicking on the Export button will place the system in a mode where examinee table columns can be marked for export. To mark a column for export, right click on the column heading. The color of the header will change to red. To un-mark a column, click on the heading a second time. When you are done selecting, click on the Export button. On the next screen select the name of the export text file. A tab-delimited file will be created. The first row of the exported file will contain the column headings. The remaining rows will contain the data from the table. This file can be directly imported into Excel or other similar programs. Click on Done to return to normal mode.

*Chart Color Range Section*

*New in Examiner Records Release 2.1.247*



To access the range controls click on "Reports" in the menu bar and then "Report Color Setup". Use the "spinner" controls to change the color-change points. These changes will affect all exam reports and will take effect when the next exam is replotted. It will have no effect on the current report.

*Rescoring Options*

*New in Examiner Records Release 2.1.234*



To access the rescoring options, click on "File" and then "Rescore Test". Note that you will be able to rescore a multi-part test, but that the rescoring will be performed on a single-part test. The multi-part test scoring options will not be available.

It is important to note that the rescoring is accomplished by creating a simulated or "pseudo" test in the records database. This will appear as an additional test assigned to the examinee, but with the name of the profile set to the one entered during the creation of the rescored test. The original, source, record for the test is not affected in any way. All information from the source test is copied into the pseudo test with the exception of the new profile name and the new mastery score.

**Test Rescoring Options**

What is the "simulated" name of your new profile. It must be unique.

Enter the new mastery score. Do not use a percent, use an absolute score:

1.1.1	1.1.2	1.2.1	1.2.2	1.3.1
1.3.2	1.3.3	1.4.1	1.4.2	1.4.3
2.1.1	2.1.2	2.1.3	2.2.1	2.2.2
2.3.1	2.3.2	2.3.3	2.4.1	2.4.2
2.5.1	2.5.2	2.5.3	2.6.1	2.6.2
2.6.3	2.7.1	2.8.1	2.8.2	2.8.3
2.9.1	2.9.2	2.10.1	2.10.2	2.10.3
2.11.1	2.11.2	4.1.1	4.1.2	4.2.1
4.2.2	4.2.3	4.3.1	4.3.2	4.3.3
4.4.1	4.4.2	4.4.3	4.5.1	4.5.2
4.5.3	4.6.1	4.6.2	4.7.1	4.7.2
4.7.3	4.8.1	4.8.2	4.8.3	4.9.1
4.9.2	4.10.1	4.10.2	4.10.3	4.11.1
4.11.2	4.11.3	4.12.1	4.12.2	5.1.1
5.1.2	5.1.3	5.2.1	5.2.2	5.3.1
5.3.2	5.4.1	5.4.2	5.4.3	5.5.1

Select ALL      Rescore Test      Cancel

Select NONE

A table will be displayed showing the item id's of all the items in the exam data you just viewing. You can perform two operations on this data:

- You can change the mastery point for the test.
- You can choose to omit items from the rescored test.

The following steps should be followed to rescore the test:

**Exams**

Select Criteria

Select An Exam

Database	Profile
CE1_2001	CE1_1MDD01
CE1_2001	CE1_2MDD01
CE1_2001	CE1_3MDD01
CE1_2001	CE11_0901
CE1_2001	CE12_0901
Chemistry	<b>\$ReOne</b>
Chemistry	ChemFinal
Chemistry	ChemPre

Enter the name that you want to score this test under. A "\$" will be inserted in front of the name you have entered. The rescored test will be stored in the history database with this name appearing as a *profile* name. You will then be able to view this by selecting the profile on the exams selection page as shown to the left. In this case, the above exam was rescored as "\$ReOne".

If you want to change the mastery point, enter the new mastery point at the prompt. Note that you can enter any valid integer at the prompt. No check for "reasonableness" is made. Scoring of individual sub-tests is not supported. Sub-tests will be ignored during the rescoring and mastery will be determined only by achieving the new mastery point.

Next, if you want to remove certain items from the rescored test you can do it by de-selecting them from the table of item id's. To select all the items, click on the "Select ALL" button. To de-select all the items, click on the "Select NONE" button. You must have at least one item in your rescored test. If random selection was involved in creating the test data, de-selecting items may have some odd effects on the final scores of the rescored tests. Since omitted items may appear on only some of the rescored tests you can end up with tests with differing numbers of items. It is not recommended that you rescore tests that used random selection.

When you are done setting the rescoring options, click on the "Rescore Test" button. An hourglass icon will be shown and a progress bar will be displayed at the bottom of the Exam panel. After the rescoring has finished you can view the rescored test by returning to the exam selection list (See Page 32.) and selecting the rescored exam from the list. Remember that it will appear with the name you have entered preceded by a dollar sign.

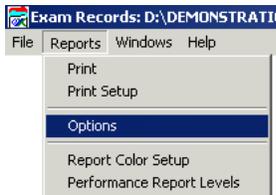
**Exam Comparison Save**

*New in Examiner Records Release 2.1.247*

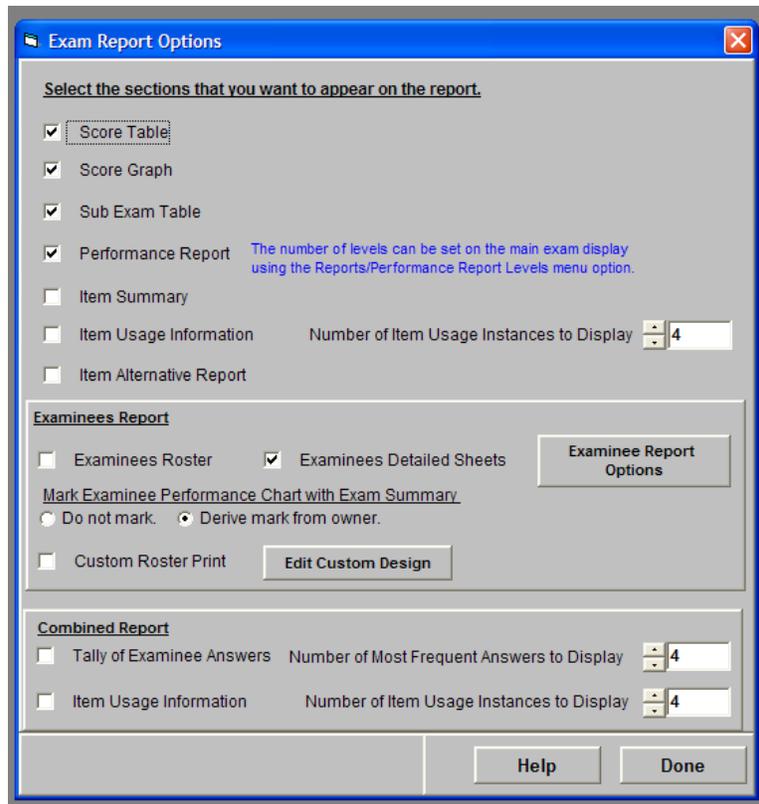


To save the data for comparison click on “File” and then “Save for Compare” in the menu bar. You will be prompted to enter a name for the saved set. This must be a unique name. To see how to compare two sets of data refer to page 54.

**Printing Options**



To set the print options, click on the menu bar, then “Reports”, and finally, “Options.”



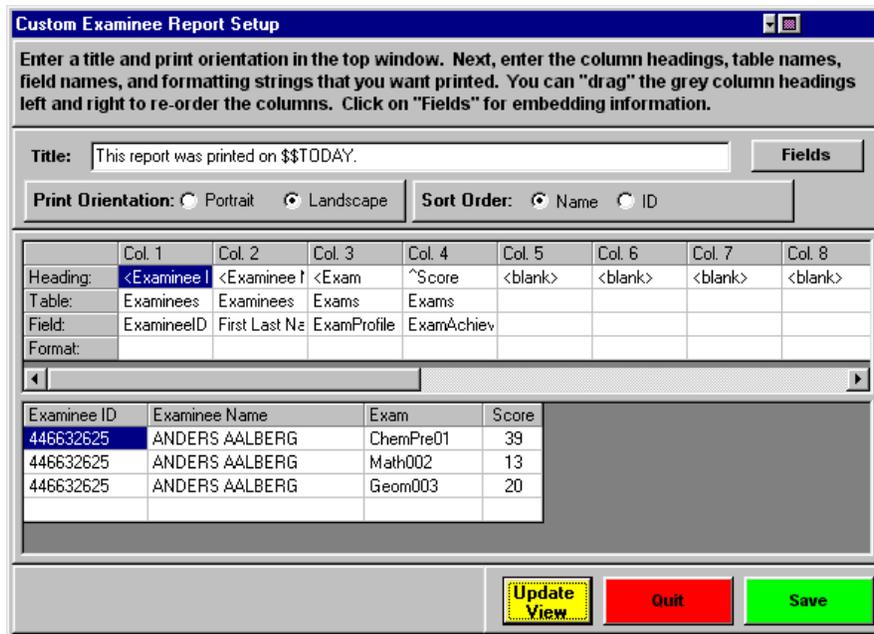
Score Table	If set, prints the score table.
Score Graph	If set, prints the score graph.
Sub Exam Table	If sub exams are present, prints that information.

Performance Report	If set, prints the performance report. The number of levels that are shown in the print is controlled with the “Levels to Show” spin box.	
Item Summary	If set, prints the item information table.	
Item Usage Information	For each item, show when the item was used in the test. Use the spinner box to the right to control how much information is to be shown.	
Examinees Report	Examinees Roster	Print the “standard” list of examinees.
	Examinees Detail Sheet	For each examinee, print a single test-summary sheet. Refer to page 24 for information on formatting.
	Mark Examinee Performance Chart with Exam Summary	If set, pass performance chart information to the individual examinee reports and plot that information on the examinee’s report.
	Custom Roster Print	Print a custom roster. Refer to page 51.
Combined Report	Tally of Examinee Answers	Set and use the spinner to show the most common examinee answers to the items.
	Item Usage Information	Set and use the spinner to show when the item appeared on a test.

**Custom Roster**

*New in Examiner Records Release 2.1.01*

In addition to printing the “standard” exam roster, you can create a customized report. For example, the following settings:



created this custom roster print:

Examinees in D:\DEMONSTRATION\DEMO_HISTORY.MDB			
This report was printed on 10 May 2001.			
Examinee ID	Examinee Name	Exam	Score
917598948	MARIA AKERBLAD	ChemPre	63
834287647	BIRGIT ALBERT	ChemPre	49
834287647	BIRGIT ALBERT	ChemPre	64
327346824	VICKY ALEX	ChemPre	64
268631071	DAVA ARCHER	ChemPre	64

*Editing a Table Column*

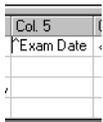
You can have up to 15 columns in the report. To edit a line, follow these steps:



Select the row you want to edit and click on the “<blank>” at the top. If you already have an entry, click on that.

Type your entry. The backspace key won’t work...just start typing.

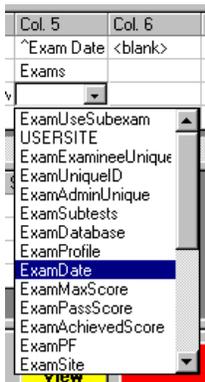
If it turns out your column is too narrow when you print the report, add extra spaces after the title. This will widen the column. You can also add three special characters before the title to adjust formatting:



^	This will center the text in the column.
<	This will left-justify the text in the column.
>	This will right-justify the text in the column.



Move to the table section and select the source table from the drop-down list.



Move to the fields section. The drop-down list will contain all the fields that are available from the table you selected in the previous step. Select the field you want printed.

Col. 5	
^Exam Date	<
Exams	
ExamDate	
dd mmm yyyy	

Date and numeric entries can be formatted. Enter a formatting string at the prompt. Refer to the examinee header formatting on page 27 for a list of formats.

If you enter a format string that the Examiner can’t understand, it will default to the system method for displaying that type of field.

If you want to change the order of your columns, you can do that by moving the mouse over the column you want to move, holding down the Left mouse button, and dragging the column to the new location.

**Drag**



	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Heading:	<Examinee I	<Examinee I	<Exam	^Score	^Exam Date	<blank>	<blank>	<blank>
Table:	Examinees	Examinees	Exams	Exams	Exams			
Field:	ExamineeID	First Last Na	ExamProfile	ExamAchiev	ExamDate			
Format:					dd mmm yyyy			

When you are done entering information, click on the “Update View” button. The bottom of the window will show how your text will be formatted. Click on “Save” to store your changes. You can leave without storing changes by clicking on the “Quit” button.

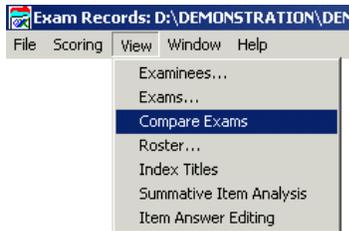
## Comparing Exams

New in Examiner Records Release 2.1.247

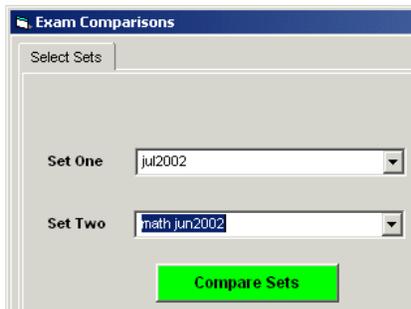
One of the most important questions an educator or trainer can ask is “Did my instruction work?”. The Comparing Exams feature of the record system will help you in answering that question. Follow these steps to compare two sets of exam data.



First, you must have saved your exam data for viewing. To do this use the “View/Exams” option to view a set of exam data (see page 32). Next, while viewing the exam data, click on “File” and then “Save for Compare” in the menu bar (see page 50). You will be prompted to enter a name for the saved set. This must be a unique name. You will be referencing this name in the next step.



Next, launch the exam comparison functions. Click on “View” in the menu bar and then “Compare Exams”. If you have never saved any data for comparison you will be shown an error message and will be returned to the main records page.



Using the drop-down lists select two sets for comparison. When you have selected the sets the “Compare Sets” button will be enabled. Click on the button to perform the comparison. An hourglass will appear while the data are analyzed.

*Note: If no data is common between the two sets you will see an error message and will be directed to select another set of data.*

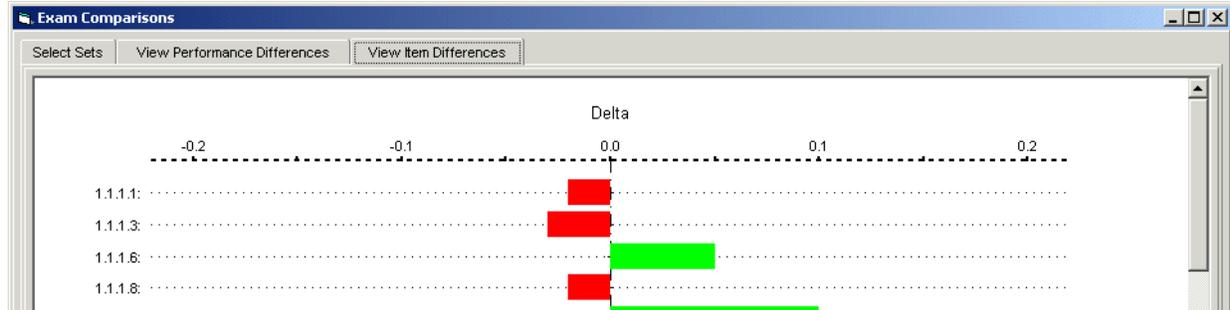
After a few moments the comparison graphs will be generated. Click on the tabs to see the graphs. To print the data click on the “Print” button at the bottom of the display.

**View Performance Differences**



The first tab shows a comparison of the item bank performance for the two sets. The difference shown is the performance change from the first set to the second set. The chart is scaled to the maximum difference between the sets. Remember that only if a section appears in both sets will a comparison be shown.

**View Item Differences**



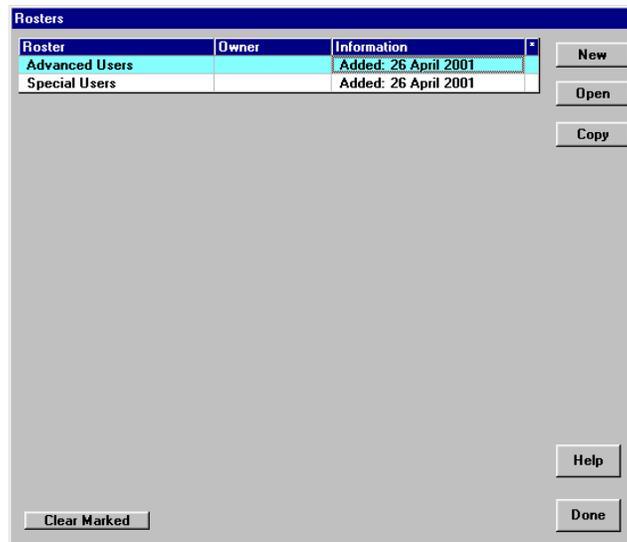
The second tab shows a comparison of the item difficulties between the two sets. The difference shown is the difficulty change from the first set to the second set. The chart is scaled to the maximum difference between the sets. Remember that only if an item appears in both sets will a comparison be shown.

## **Viewing Rosters**

Once you have added examinees, you can group them into rosters. Rosters can then be used to generate specialized reports in both the Exams and Examinees View sections of the program.



To begin viewing rosters, click on “View” and then “Roster” in the menu bar.



To create a new roster, click on the “New” button. To view or edit an existing roster, either double-click on the roster you want to view, or highlight it and click on “Open”. To make a copy of an existing roster, click once on the source roster, and then click on “Copy”. The table shows:

Roster	The name of the roster.
Owner	If set, the person listed in the “owner” field of the roster table.
Information	Extra information about the roster.

### *A Caveat Relating to Rosters...*

If you are going to use rosters to generate reports, you need to remember that an examinee is connected to a roster *at the examinee level*. Usually, an examinee’s membership in a “real” roster changes over time. The examinee may be in “Roster 1” in June, and transfers to “Roster 39” in August. Let’s say you want to see all the exams taken by people in Roster 39. You can use the View Exams option to select “Roster 39” and create a report. However, your report will also include tests from Roster 1, as that is where the examinee was back in June. In short, an exam that may have been taken when an examinee was in one roster will appear to have been taken by another roster. An exam is “owned” by whatever roster the examinee that took it belongs to. To make sure that you get the report you really want you should create a field at the exam level and use that.

## Editing a Roster

**Roster: Advanced Users**

File Report Roster Search Help

Roster Name:        Sort by ID        
Roster Owner:        Sort by Name  
Roster Location:   
Roster Memo:

All Examinees			This Roster	
Name	ID		Examinee Name	Examinee ID
BROWN, GARY	111231234		PYRROS, INGRID	187473584
DERRY, ANN-MARGARET	113685812		HORI, JOELLE	187868582
TARTARIS, POH-YIN	114856237		COSTA, CHERYL	188816771
CHMURA, EMIKO	116413861		RESAU, TAMAE	189112375
OVERAA, GEZA	116795949		SETO, MARTHA	189147986
KOSAR, SATHYA	116858529		SZE, EUN	189411382
GROENEVELD, AMY	117113743		CLARK, STEVE	189425623
KIRAKOSIAN, JEAN-CHARLES	117597553		DURHAM, PATRICK	189712749
DE, MANFRED	121418611		GRAY, AKIO	189984157
THERRIEN, LINDA	123849916			
REEVES, NIKKI	124775337			
JIRKU, GUNILLA	127175582			
WERTH, JUN	127678342			
RICAFRENTE, FUMIYA	129617574			
KONG, KATARZYNA	129741328			
DIDRIKSEN, CYNTHIA	131196965			
DYMKOWSUA, YOSHIKO	132367277			
ROULIER, WENDY	133541543			
SKINNER, CRAIG	134258868			
ARENA, PEDRO	134933924			

The left table shows all the examinees in the records database. The right table shows the examinees that have been selected. The top of the page contains fields that you can fill out to uniquely identify the roster.



Highlight an entry in the examine list and click on the arrow to move the examinee to the roster list. You can also double-click on an entry to move it.



Highlight an entry in the roster list and click on the arrow to remove the examinee from the roster list. You can also double-click on an entry to remove it.

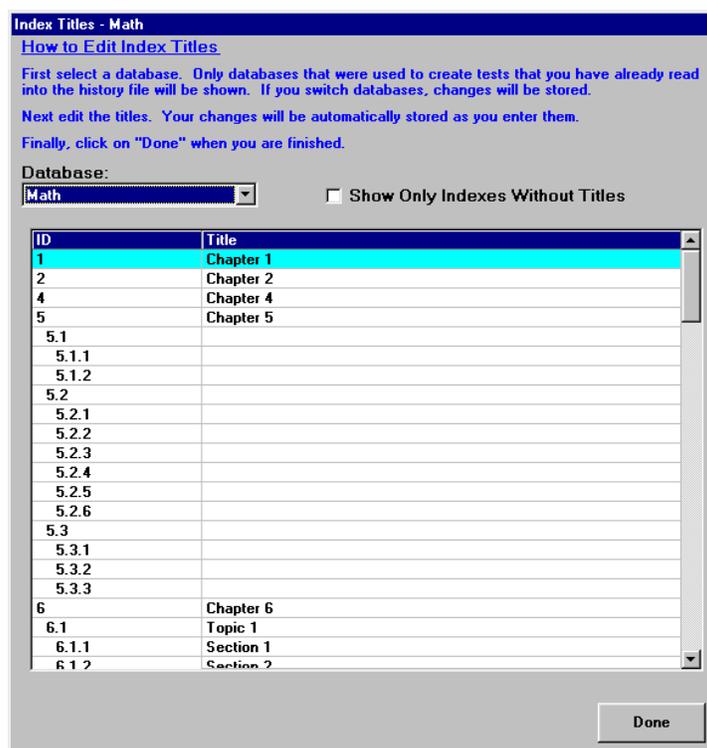
When you are done editing, click on the “Done” button.

## **Editing Index Titles**

When a test is read into the history file, the index structure from the source item bank is also read in. However, the transferred titles are limited to only 20 characters. You can, however, enter an expanded title directly into the records database.



To edit titles, click on “View” and then “Index Titles” in the menu bar.



The drop-down list will show all the item banks that have records in the history file. Click on a database name to see and edit the titles from that item bank. To see only those indexes without titles, click on the “Show Only Indexes Without Titles” box.

### *A Quick Way to Update the List*

To quickly add titles, create a test in your item bank that “touches” each of the indexes in the bank. You may need to make more than one test. Don’t bother to take the test...simply read it into the history file. Any blank index title will be updated with the titles carried in the test file.

## **Summative Item Analysis**

*New in Examiner Records Release 2.1.234*

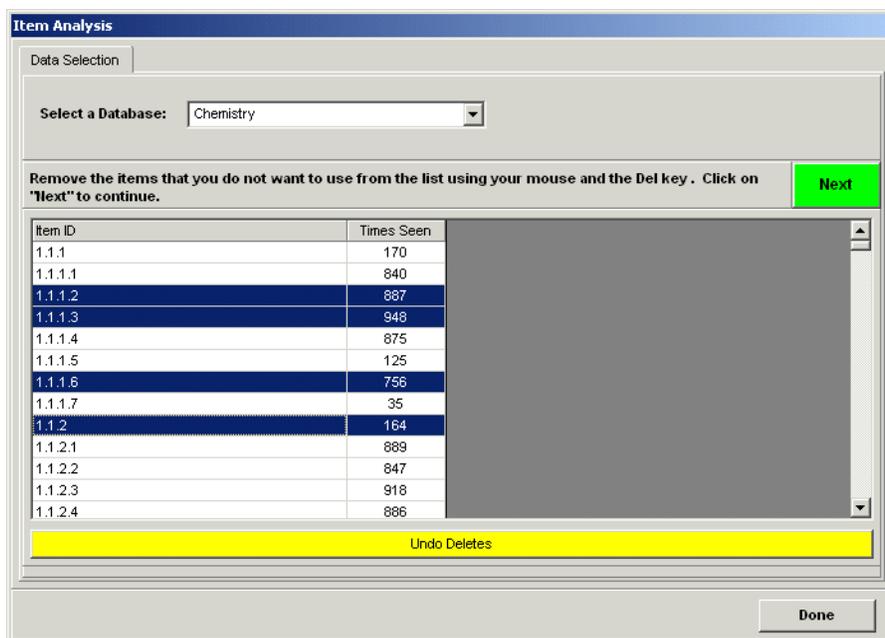
The Exams and Examinees view of items looks at item data from the point of exams. The Summative Item Analysis puts the item at the top of the analytical stack and gives a view of item performance across profiles and exams



To view the summative item analysis, click on “View” and then “Summative Item Analysis” in the menu bar.



The first thing you need to do is select a database. This is the item bank whose items you want to analyze. Click on the dropdown arrow and select an item bank from the list.



All the items in the history file that are in the selected item bank will be shown along with the number of times that item has been used across all exams in the history file. If you want to analyze all the items, just click on “Next”. If you want to look at a subset, use your mouse to highlight the items you want to remove from the list and then click on the “DEL” key. Note that you are not deleting any data from your history file...you are just narrowing the range of items that you are going to look at. To restore the list to its original state, click on “Undo Deletes”.

**Item Analysis**

Exceptions

**Back** All exams from the selected database will be used unless you delete selections from the lists on this page. Click on **Next** to gather the item data and generate reports. **Next**

Exam ID/Key	Exam Profile	ID	Name
1	ChemFinal	111554557	DUPLIN,MICHAEL
9	ChemPre	112361668	LARGIER,HALLAL
10	ChemPre01	112439768	PANCORBO,HEINRICH
13	ChemSafety	112476849	PAI,BENEDICTE
14		113685812	DERRY,ANN-MARGARET
15		114221636	PYE,ANA
16		114328856	LIVENGOOD,GAIL
17		114574522	STROBEL,KAREN
18		114656944	LARGIER,TOMIO
19		114856237	TARTARIS,POH-YIN
20		115174298	BROWN,DONALD
21		115333318	GESSNER,KATHERINE
22		115568663	MUKHERJEE,V
23		115651839	YIM,CARMEN
24		116413861	CHIMURA,EMIKO
25		116795949	OVERAA,GEZA

Undo Deletes      Undo Deletes      Undo Deletes

Done

The next screen you see will let you further restrict the data that are going into your item analysis. All the exam keys, profiles, and examinees associated with the item bank you have selected will be shown. These lists are unaware of any modifications you have made to the item list. As with the previous item table you can use your mouse and the DEL key to remove items from the list. You must have at least one entry in each of the lists. The tables you can edit are:

- Exam ID/Key – This is the “unique” code that identifies each test. For a paper and pencil test it is the answer key identifier.
- Exam Profile – This is the profile that was used to generate tests.
- Examinee ID/Name – These are all the examinees that have seen tests from the selected item bank.

To restore any of the lists to its original state, click on “Undo Deletes” under the list you want to restore.

To analyze the items, click on “Next”. To return to the item selection screen or to change item banks click on the “Back” button.

Item Analysis													
Analysis													
Back		All exams from the selected database will be used unless you delete selections from the lists on this page. Click on Next to gather the item data and generate reports.										Print	
Item ID	Seen	Passed	Difficulty	A	B	C	D	E	F	G	H	I	J
1.1.1	166	134	0.81	14	18	0	134						
1.1.2	162	146	0.90	12	147	1	1						
1.2.1	171	171	1.00	0	171								
1.2.2	157	154	0.98	0	0	154	153						
1.3.1	101	76	0.75	1	9	76	14						
1.3.2	123	118	0.96	118	8	116	2						
1.3.3	104	83	0.80	17	95	44	89						
1.4.1	107	102	0.95	9	103	104	5						
1.4.2	120	115	0.96	112	6								
1.4.3	101	99	0.98	0	0	99							
2.1.1	99	92	0.93	1	92	5							
2.1.2	126	119	0.94	122	117	15	4						
2.1.3	103	101	0.98	101	2	7	95						
2.2.1	167	162	0.97	162	0	2	1						
2.2.2	161	159	0.99	0	0	159							
2.3.1	97	92	0.95	93	25	6	96						
2.3.2	128	126	0.98	3	125	125	1						
2.3.3	103	102	0.99	99	101	102							
2.4.1	170	166	0.98	0	166	3							
2.4.2	158	148	0.94	6	1	148							

Done

After you click on “Next” an hourglass will be shown and a progress bar will show you that the data are being analyzed. This may take some time on a large and complex history file. The data will be plotted showing:

- The ID of the item.
- How many times the item has been seen.
- How many times it was answered correctly.
- The difficulty of the item.
- The distribution of answers across the alternatives.
- The correct alternative, marked in green.

You can print this data by clicking on the “Print” button.

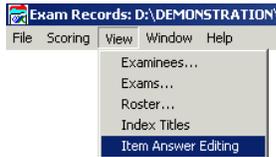
**A note about this data...**

You may be wondering why the columns for Point Biserial and Reasonableness are not shown. These measures are only reliable in the context of a single exam administration. Since this data are drawn across many exams these measures would be meaningless. Thus, they have been omitted.

If the item data has been drawn from many profiles you should view the difficulty data with some skepticism, too.

## Item Answer Editing

When a test is read into the history file, the item answer information from the source item bank is also read in. Over time, you may have edited the answers in your item. Remembering that the bank is not directly linked to the history file, you may on occasion need to synchronize the item bank with the history file.

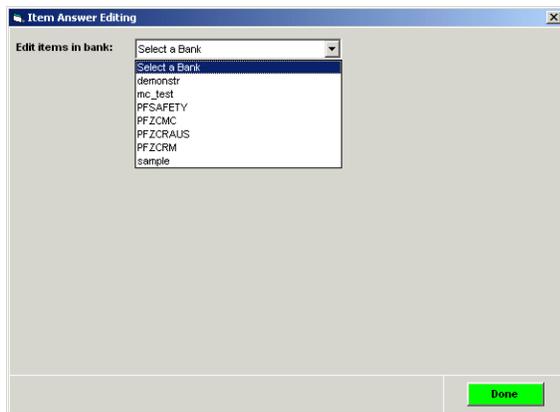


To edit item answers, click on “View” and then “Item Answer Editing” in the menu bar.

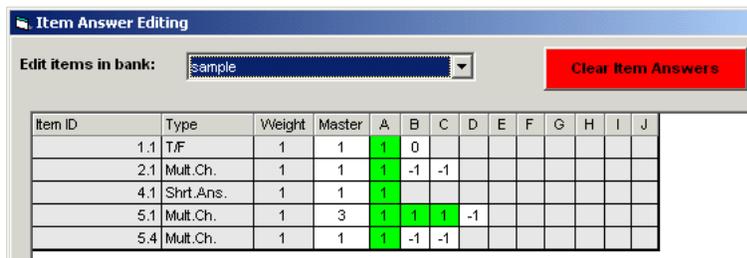
There will be a pause while the system checks your history file, and then a warning will be displayed:

**You are entering the Item Answer Editing section of the records system. Editing the item answers can lead to a misinterpretation of the data in your records. It is suggested that rather than change item answers in the records system that the item in your source item bank be copied into a new item with a new ID and the correction made there. The old item should then be made non-selectable. Changes made cannot be undone!**

You should heed this warning! If you edit the answer table you are compromising the integrity of your data. Make sure you documentation changes to match what you have done! Remember... you are changing the correct answer in the history file not in the item bank!



Use the drop-down menu to select the item bank answers you want to edit. Remember, this only has an effect on the current records system. It does **not** change anything in the item bank!



You can edit any value that is not “grayed” out.

**Data:**

**Item ID** This is the identification number for the item in the source item bank. You cannot edit this field.

Type	The item type. You cannot edit this field.
Weight	How many points will be awarded if this item is mastered. You cannot edit this field.
Master	How many points are needed <u>inside</u> the item for mastery of the item. The sum of the answered alternatives must be this many points or greater for the item to be mastered. This value can run from –99 to +99. This field cannot be editing for true/false items.
A-J	The number of internal points awarded for this item if the alternative is selected. For all but true/false items this value can run from –99 to +99. For true/false, it can be either 0 or 1. With a true/false item, column “A” represents “True” and column “B” represents “False”. If one of the columns is set to a value, the other column will automatically switch to the opposite value.

When you leave a row and move to a different one you will be asked if you want to store your changes. Once stored, the change cannot be undone. You will also be warning if the mastery point within the item cannot be achieved.

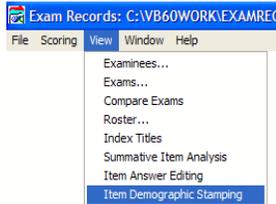
#### *Clear Item Answers:*

Earlier versions of The Examiner did not fully support all the features of the Item Answer tables. This will be evidenced by all the alternative weights being set to “1”. You can edit each item individually. However, you might find it quicker to use the “Clear Item Answers” key and reload the item answers anew. Item answers are created when tests are scored, so in order to fully populate the item answer table you must read in all the items that have data in your history file. To do this you can create one or more “dummy” tests from your original item bank and score them. These “dummy” tests should include all the items in your bank. After you have stored the items, and thus re-populated the item answer table, you can delete the tests from your history system. Note that when you clear the item answers, you do not clear any history records!

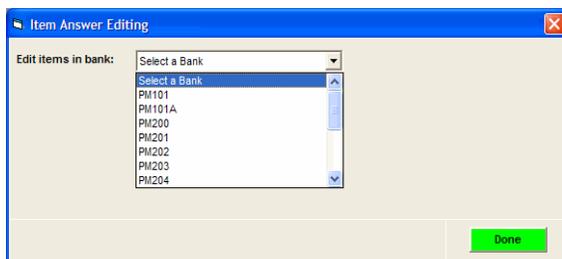
## ***Examination Record Stamping***

New with release 2.1.349 16 February 2005

Items within exams can be used to record demographic data. While it is not possible to search on the item values, it is possible to transfer information based on the item values to the “owning” exam and search on that using the fields options (see page 34).

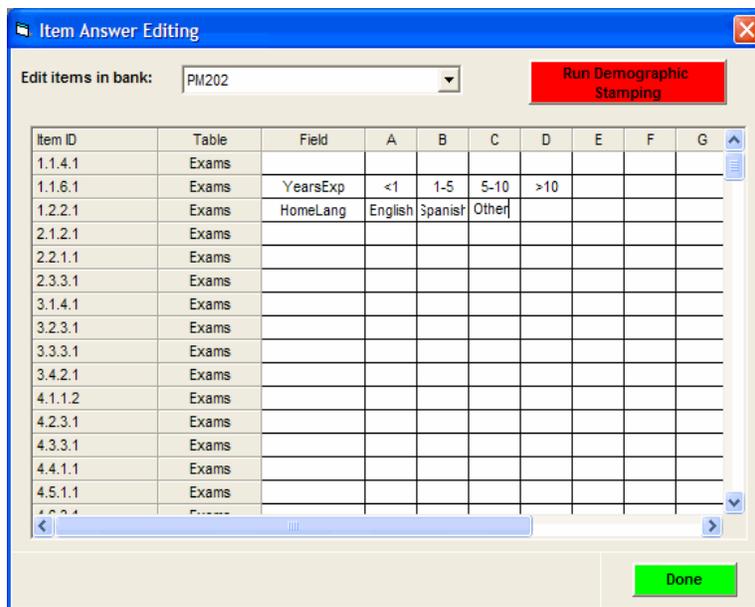


To stamp records, click on “View” and then “Item Demographic Stamping” in the menu bar.



Using the drop-down, click on the item bank that contains the demographic items.

The following table will appear showing the current field stamping values.



The fields in the table are:

- Item ID The item identifier within the selected item bank.
- Table The table that the stamping field will be added to. In release 2.1.349 you can only stamp fields in the “exams” table.
- Field This is the name of the field that will be stamped in the selected table. You should use a field name only one time in each stamping set of a database.

A – J      This is the value that will be stamped in the field if an examinee has selected that letter.

In the above example item 1.2.2.1 will add a field called “HomeLang” to the exams table. If an examinee selects “A”, the value of “English” will be stamped in the field. If they chose “B”, “Spanish” will be stamped, and so on. If you have an item with multiple responses, only the last response will be stamped!

After you have completed editing, you can click on the “Done” to save you changes.

To actually “stamp” the records click on the “Run Demographic Stamping” button. This will sweep through your history file and stamp the exam that “owns” the item with the appropriate stamp values based on examinee answers.

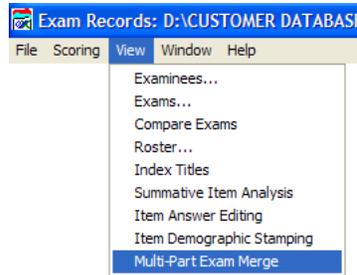
*Note: This does not change any of the values in the item statistics! This simply stamps the exam record with a value based on an examinee response to an item within the exam.*

## Multi-Part Exam Merge

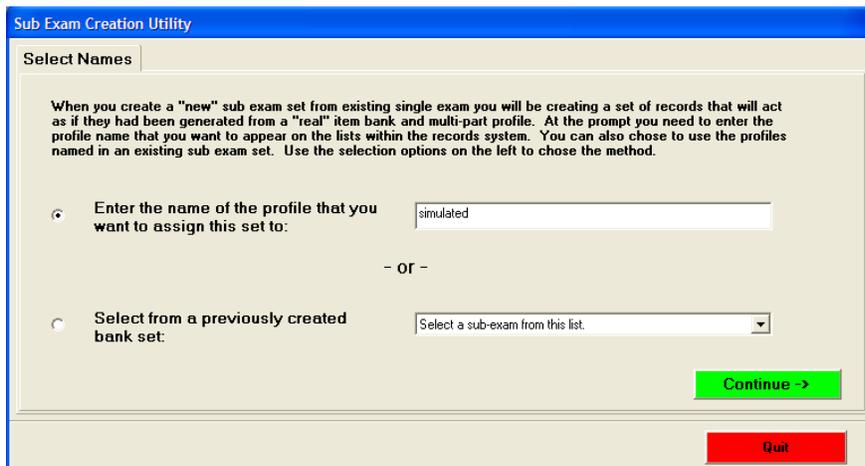
New with release 2.1.352 12 July 2005

In The Examiner you can have “master” exams that contain sub-exams. Normally this is accomplished by designing the structure in the Examiner Item Bank Editor. However, you can create “simulated” multi-part exams after the fact using Multi-Part Exam Merge. Throughout this process a series of “tabs” will be revealed. You can always move back to a previous step by clicking on the tab at the top of the window.

This process could do things to your item bank that you didn’t want to do! It is recommended that you make a backup of your bank before using these options.

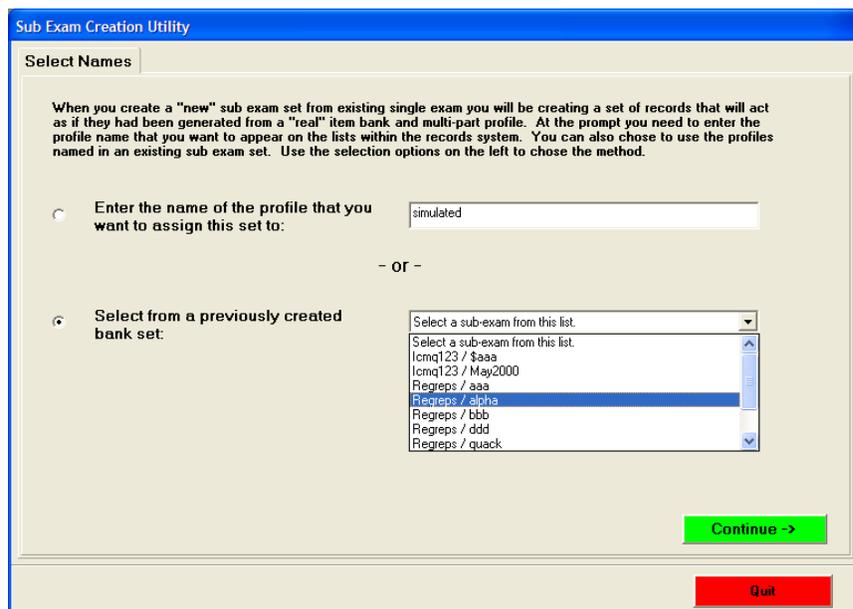


To stamp records, click on “View” and then “Multi-Part Exam Merge” in the menu bar.

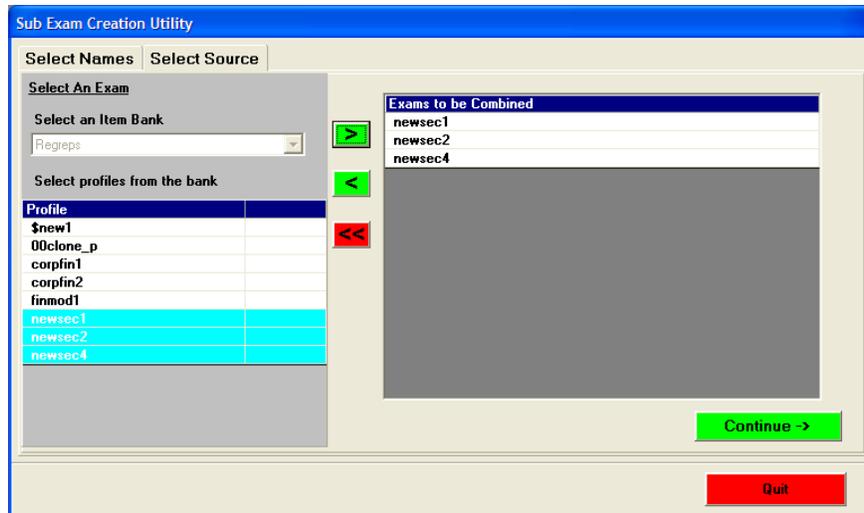


To create a new profile, enter the profile name at the top prompt and click on “Continue”.

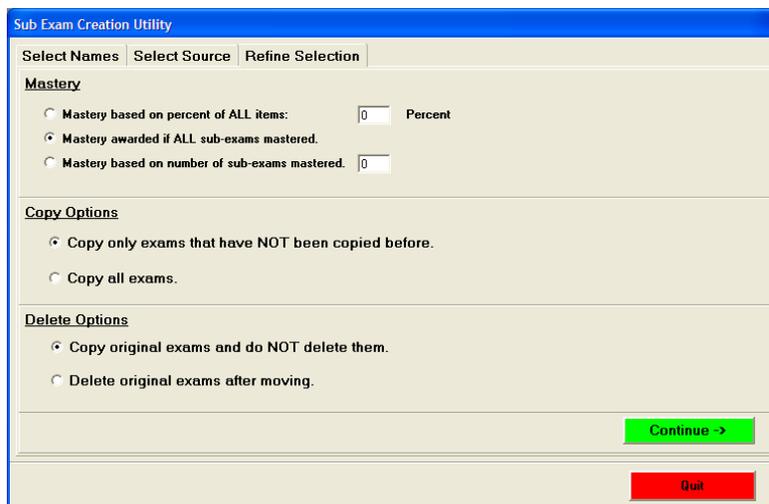
-or-



Use the drop-down at the lower prompt to select a pre-existing multi-part exam set. Show are pairs of item bank names and the multi-part profiles. Click on “Continue”.



If you have used the first option on the previous display you will see this display. First, use the drop-down on the left to select the item bank. The exams that are in the history file in the bank will be shown. Highlight the exams you want to combine and use the arrows in the middle to move them to the right. You can move exams one at a time. The resulting “simulated” multi-part exam will include the exams in the list on the right in the order in which you have specified them. You can only combine exams from the same item bank. As soon as you have added one exam to the list on the right, the item bank drop-down will lock. If you remove all the exams from the right, you can select a different bank. When you have two or more exams on the right click on the “Continue” button.



If you selected the second option on the first page, this is the next tab you will see. The “Select Source” tab will not be shown as the selection of exam to include in the multi-part exam will be created from the existing multi-part exam you selected. This tab is also shown after clicking on “Continue” on the “Select Source” tab.

### *Mastery*

You need to tell the system how to grade the multi-part exam you are creating. These options match those in the profile editing section of the item bank editor.

### Copy Options

These options let you choose whether or not to only include those exams that have been added since the last time you ran the routine or if you want to add all exams, even if they have been previously combined into a multi-part exam.

### Delete options

After you have combined exam into a new multi-part exam you can delete the original exams from the records system. Note that one you have deleted an exam it cannot be recovered!

Click on “Continue” to go the last tab.

### Exam Field Stamping

In the same way you can stamp a record when you score a test, you can stamp the multi-part exam as it is created. The field in the middle column will be stamped with the value in the right column. The check box must be marked for this to function.

Click on “Create Multi-Part Exam” when you are ready to continue. As noted before, you might want to make a backup of your history file before using this option. This is especially true if you are using the “Delete exams” option.

The following warnings:

- If more than one copy of an exam-to-be-merged exists in a set, only the last exam in the set will be merged into the new multi-part exam.
- Exams will be merged for each examinee that has all the exams in the merge list present. What this means is that if you have chosen to create a new multi-part exam that has three sub exams crated from profiles “alpha”, “bravo”, and “charlie” an examinee that has see only “alpha” and “bravo” will not have a multi-part exam created.

After you have clicked on the “Create” button an hourglass cursor will be displayed and you will see progress information. Note that on a slow machine or over a network the sub-exam creation process may take quite some time. When the process is done a message box will be displayed. Click on “Quit” to leave. The new multi-part exam will now appear in the records system.

## **Extracting From and Merging Records Databases**

Sometimes you may need to extract a sub-section of a records database, or merge two databases together. You can use the export function of the program to perform this operation. The export can be accomplished either from the Examinee or Exams report sections.

### **Exporting From the Examinee Table**

Name	ID
AALBERG, ANDERS	446632625
AALBERG, SINEKE	556681492
ABE, ANGELA	95555998
ABE, BRIGITTE	171147247
ABEL, DEB	828829488
ABEL, KENNETH	512234138
ABEL, ROGER	354926995
ÅBERG, KATHRINE	661955649
ÅBERG, NEIL	485345634
ABILDTRUP, NIELS	149434255
ABRAHAMSEN, HAKAN	677231734
ADAM, B.	182985841
ADAME, POH-YIN	137225152
AGND, ARVID	187828425
AGND, TOSHIYA	189591997
AHLENIUS, ANN	934433162
AHLENIUS, ELIZABETH	369818877
AKBULUT, ANDY	533211613
AKERBLAD, AKEMI	256493279
AKERBLAD, MARIA	917598948
AKERBLAD, YOSHIYUKI	662684244
ALBERT, BIRGIT	834287647
ALBERT, CADAM	851555500

While viewing the examinee table select a group of examinees. You can select individual examinees by holding down the CTRL-key and left-clicking on the examinee. You can select a group by left-clicking on the first examinee and then holding down the SHIFT-key and clicking on the last examinee you want.

This will export all exams owned by all the examinees you have selected.



Next click on “File” in the menu bar, followed by “Export”. If you are going to merge these records with an existing history file, click on “Existing”. If you want to create a new history file containing only the selected examinees, click on “New”.

You will then see a browse box where you can specify the name of the destination file. If you are merging to an existing history file, you will be able to select it. Next, if exporting to a new file, you will be able to select the version of Microsoft Access you want to use. Finally, the system will export the records. An hourglass and progress bar will be shown during the export process.

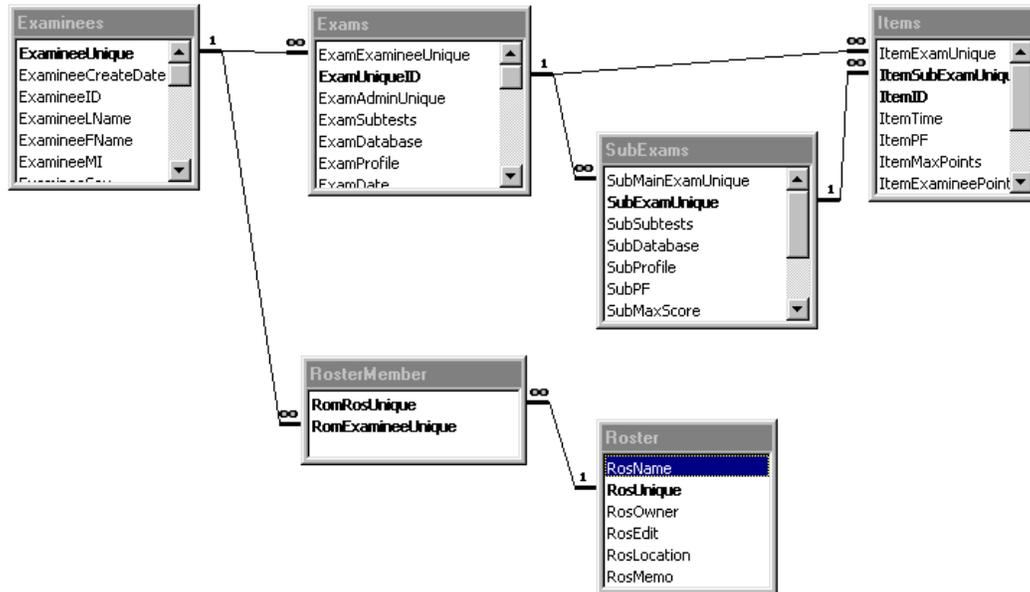
### **Exporting From Other Views**

You can export from virtually any place you have made a selection of one or more examinees:

- From the list of exams seen by a single examinee.
- While viewing a single exam record.
- When viewing a list of exams on the View Exams displays.

## **Structure of the Records Database**

The Examiner utilizes Microsoft Access<sup>®</sup> format databases. You do not have to have a copy of Access to use this system. The software will automatically install all the necessary routines. However, if you do have a copy of Access you will be able to create your own queries and reports based on Examiner data.



While a detailed knowledge of Access is not required for the use of the records system it is important to know how the tables that make up the records database are related. Shown above is view of the relationships between the Access tables.

### *Examinees Table*

This table contains information about the people who have taken tests. The unique field within this table is the “ExamineeID”. There can be only one examinee in each records database with a specific ID. Each examinee record will be linked to one or more records in the exams table. It is possible to have a record in the examinee table that does not own any exams.

### *Exams Table*

Each test read into the records system will create a single record in this table. Each record in this table is directly linked to an “owning” examinee. It is impossible to have a record in the exams table that does not directly link to a record in the examinees table. Each record in the exams table will be linked to one or more items. Also, each exam record will link to at least one sub-exam record. This is true even if the profile that created the record did not use sub-exams.

### *SubExams table*

Each Exam will own at least one sub-exam record. If sub-exams were used in the profile that created the test all the sub-exams that make up a test will be owned by a single exam.

### *Items Table*

Each item in a single test will link back to an “owning” exam and an “owning” sub-exam.

### *Roster Table*

A roster gathers a group of examinees together as a single reporting entity. The roster table lists the different rosters in the item bank. Each record in the roster table will own one or more records in the rostermember table.

### *RosterMember Table*

This table links together a roster from the roster table and examinees from the examinee table. Each record in this table will be owned by a single record in the examinee table, and a single record in the roster table.

## **How the Record System Stores a Record**

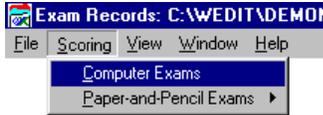
The Examinee ID is the critical piece of information where an examinee’s test, either paper-and-pencil or computer-delivered, is stored. When a test is read, the system will look at the ID and ask “Does this examinee already exist in the Examinees Table”. If not, the system will create a new record in that table and populate it with the information from the test. The test will then be “attached” to that record using the linkage described above.

If the system already finds a record with the Examinee ID the same as on the test being read, it will attach the test to that existing record. However, it will not update that record with any new examinee information.

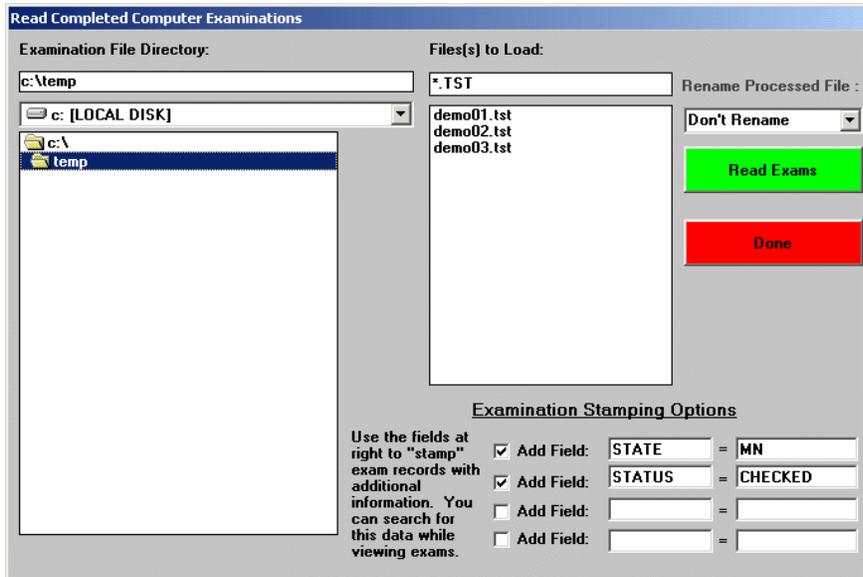
What this means is that if an examinee fills in an incorrect ID, and that ID already exists in the history file, that test will be attached to that existing examinee’s record. A search will show that exam as belonging to the wrong examinee. This problem can be corrected by reassigning the exam to the correct examinee. Refer to page 31 for information on performing this operation.

## Reading Computer-Delivered Tests

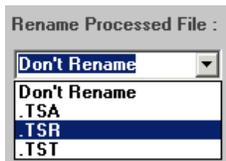
This feature is obsolete with Version 3 of The Examiner. However, it is being retained in the system for users that are still running earlier versions of the software.



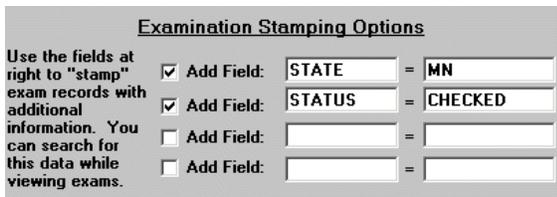
Click on “Scoring” and then “Computer Exams” on the menu bar.



Use the browse options to move to the folder containing your tests. You can specify wild cards to read more than one test at a time. The tests that are to be loaded will be shown in the window on the right.



It’s always a good idea to use the “Rename” option in the upper right corner of the display. Once a test has been read into the history, the “tst” of the file name will be changed to the selected string. While not deleting the file, this will effectively “hide” it from the default search so that only new files will be shown in the list.

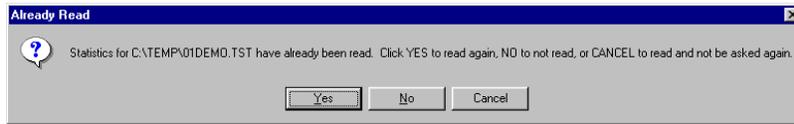


You can “stamp” each exam as it is read with up to four values. What this option will do is to add the field named in the left column to the exam table. The value in the right column will be added to that field. This option can be used to stamp exam records with information such as a class identifier. The check box must be checked to activate a stamping field.

### Common Informational and Error Messages

While you are reading in completed tests you may see a number of messages. Some of these messages indicate a damaged test file, while others are simply warnings.

#### Test Already Read



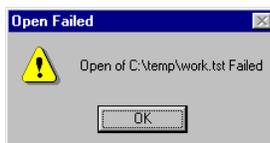
If the file you are attempting to read has already been read into a records database, you will see this message. If you are using an Examiner add-on product such as Menu Maker or the Proctor system the test may have been automatically added to the records database when the examinee completed the test. Sometimes you may be reading the test into a different history file from the one it was originally read into. If you want to read the test a second time, click on “Yes”. If you know you will be reading a number of tests and want to read them all in, click on “Cancel”. This will cause the system to read in the test regardless if it has been read in before or not.

#### Test Has Not Been Completed



When a test is completed, a “flag” internal to the test is set indicating that status. Sometimes that flag is not set correctly. This may occur due to file damage or improper system shut down. To read a test in spite of the “Not Completed” status, click on “Yes”.

#### Corrupted File Messages



If a test file cannot be read at all the message shown at left will be shown. This usually happens if a test file has been severely damaged.



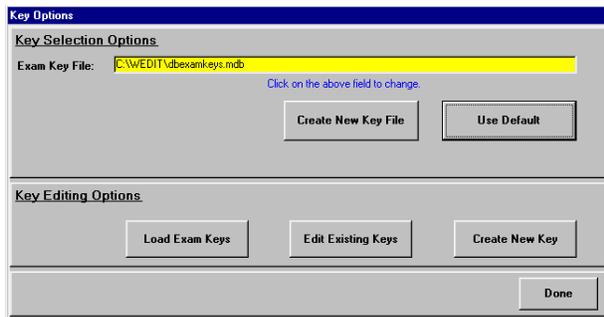
If a test file has been mildly damaged the records system may fail part way through the read with a fatal system error. This may cause the program to “crash”. By examining the test read progress bar the name of the damaged test can be determined.

Reading the Original Key – Using TKY Files (Obsolete as of Release 2.1.331)

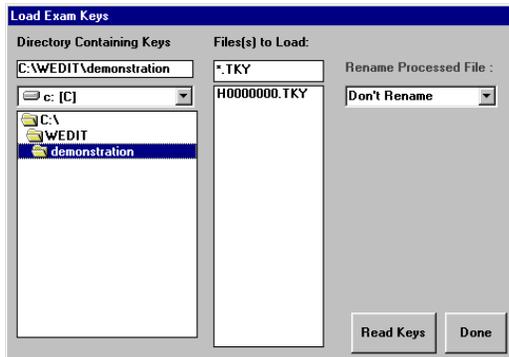
***This feature has been made obsolete with the release of the Examiner Print Utility. TKY files are no longer used by The Examiner. Keys are now directly stored into the main key file. This feature has, however, been retained to maintain backwards compatibility with previous releases of The Examiner.***



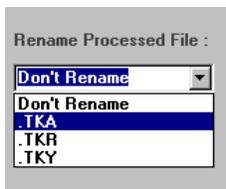
When a paper-and-pencil test is created in the Examiner a special file with the extension “TKY” is created. A message will be shown when the test is printed indicating the folder that the TKY file was written to. Remember this location, as it is where you will have to go to read the file!



Create the key file if you have not already done so. Next, click on the “Load Exam Keys” button.

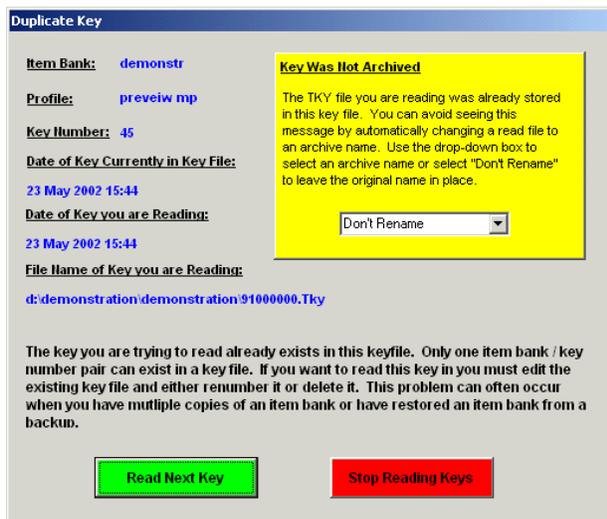


Browse to the folder containing your TKY files. Note that each item bank will have its keys in a separate folder.



It’s always a good idea to use the “Rename” option in the lower right corner of the display. Once a test has been read into the history, the “tky” of the file name will be changed to the selected string. While not deleting the file, this will effectively “hide” it from the default search so that only new files will be shown in the list. If you do not do this will see the “Duplicate Key Warning” on subsequent readings.

## Duplicate Key Warning



A key file can have only one item bank / key number pair in it. For example, in this illustration the key pair “previous mp / 45” has already been read into the file. Both keys are showing the same date and time. The system will not automatically replace an old key with a new, identically identified, key. You must manually go to the existing key and either delete it or give it a different identifier. To read the next key in your file list, click on the “Read Next Key” button. To stop reading keys, click on the “Stop Reading Keys” button. You will be shown a list of duplicate keys that were not read after all the keys in your list have been processed.

There are three common causes of duplicate keys.

- You have already read the exact same TKY file into the system. However, you did not use the “rename after reading” option to change the original file into a “TKA” or other archive name. You can make that selection from the duplicate key screen by selecting a file from the drop-down list. This will rename the files with the selected extension.
- A more serious cause of duplicate keys is when more than one copy of the item bank exists and people are generating tests from each bank. Remembering that the key number is stored internally in the bank it is obvious how duplicate keys can exist. There are two solutions to this:
  - Share the item bank on a network drive.
  - Use the renumber key option within the main item editor to set the key number for one of the banks considerably higher than the other bank. This will reduce the chances of duplicate key numbers.
- Duplicate key numbers can also occur when an item bank is recovered from a backup. The key number in the recovered bank will be set to the value that existed when the backup was created. If this is less than the current key number duplicate keys will be created as the key increments. If you have recovered from a backup it is essential to use the reset key number option within the main system to increment the key number to one beyond that marked on the last generated test.

## What's New

- 3.0.227 (17 August 2009) Added support the Chatsworth Data scanner. Refer to the "Examiner Chatsworth Scanning" document that was installed with the software for directions in setting up and scanning.
- 3.0.219 Changed printing mechanism in reports to add support for direct PDF generation. While somewhat slower than the previous driver, page control is much improved.
- 3.0.215 (25 June 2009)
- Buttons have been changed to match current Window's convention.
  - In-line help has been removed and replaced with access to this manual.
  - Added warnings about 3Q2009 removal of roster sub-system.
  - Added ability to view "summative" information on multiple exams without doing a detailed item analysis.
- 3.0.149 (8 September 2008) Added Essay Question grading to the system.
- 3.0.100 (10 April 2008) This is a major release aligning the records system with the new Examiner Version 3 item banks. A number of minor cosmetic changes were made that are not outlined in this document. Major features added:
- Support for case study grading and reporting added to the system. Changes are present in all sections of the system.
  - Removed support for adding history files in any Microsoft Access version prior to Access 2003.
  - Ability to view items in the history file in either XM3 (new) or XAM (old) format.
  - Removed the data generation method that created sets of temporary Access databases.
- 2.1.382 (23 February 2007) Added the ability to export answer keys as Excel files. See page 10.
- 2.1.380 (7 February 2007)
- Added the ability to show the passing score on the score graph. See page 39.
  - Added the ability to show the average performance of a group of examinees on the detail view of one of the examinees in the group. See page 29.
  - Added the ability to automatically attach a history file to the Exam Records System. See page 3.
  - Added the ability to read item bank titles from keys created using the Exam Printer. Previously this information was not being passed to the records system. This led to performance charts without any titling information.
  - Obsolete TKY documentation moved to end of this document. See page 74.
- 2.1.367 (9 October 2006) Added the ability to exclude zero weight items from the performance chart whilst viewing examinee reports. See page 29.
- 2.1.365 (8 September 2006)
- Added the ability to exclude zero weight items from the performance chart whilst viewing exam reports. See page 40.
  - Consolidate numerous small changes and fixes.
- 2.1.352 (12 July 2005) Added the ability to merge groups of existing exams into a master exam with sub exams. See page 66.

- 2.1.349 (16 February 2005) Added the ability to “stamp” an examination with a field value based on an examinee’s response to an item within that exam. This can be used for recording demographics. See page 64.
- 2.1.338 (18 January 2004) Added the ability to print a test whose file name and password were stored with the examination record, usually by the Proctor System. See page 31.
- 2.1.331 (29 October 2003) TKY “key” files are now obsolete. The Examiner Print Utility directly interacts with the Exam Key File. The TKY feature has not been removed, but users of the Print Utility can ignore this section. Refer to the Examiner Print Utility documentation for details.
- 2.1.325 Added ability to view the item weight in the View/Exams section of the program. See page 42.
- 2.1.318
- Added ability to “stamp” an exam record for a computer-delivered test as it is read in. This works the same way as the existing “stamp” for paper-and-pencil tests does. See page 72.
  - Improved the appearance of many of the exam reports with the addition of color.
- 2.1.254 Added a summary table to the examinee exams display. See page 28
- 2.1.252
- Added the ability to control the number of performance levels shown on the performance tab within the exam report. See page 40.
  - Added the ability to control the color points for the performance and item charts in the “view exams” section. See page 48.
  - Added the ability to view the item that was the source of the records. See page 45. Added color to many of the exam reports. The tables that are seen on-screen are now directly rendered to the printed page.
  - Added the ability to compare two sets of exam data to see the difference in section and item performance. See how to save the data on page 50 and how to use the data on page 54.
- 2.1.243
- Revised the exam score graphs. The old “graphics server” has been replaced with a new, improved control. A percentage graph has also been added. See page 39.
  - The installation package now requires a serial number. This number can be reviewed on the “Help/About” page. Also displayed is the release level and installation time.
- 2.1.234
- Added the ability to rescore a test. You can select a subset of items in an existing test and create a “pseudo” test only containing those items. Mastery criteria can also be changed. See page 48.
  - Added a new Summative Item Analysis feature that allows a user to view item statistics across all exams. See page 59.
  - The problem with the Scantron control has been fixed. Users should not experience any WindowsXP problems.
- 2.1.228 Added detection in paper and pencil scoring for the case where a test is read, but the name on the test does not match the name currently stored in the history file for the just-read ID. See page **Error! Bookmark not defined..**
- 2.1.218 Added the ability to edit the item answer table. See page 62.
- 2.1.216 Added duplicate key warning. This will be shown when a problem is encountered reading new paper-and-pencil key files. See page 75.

- 2.1.214
  - Added KR20 to the exam records display. See page 37.
  - Changed the “old” point biserial in the item analysis to “effectiveness” and added a more accurate point biserial. See page 42.
  - Added the ability to export the calculated item data table (see page 45) and examinee data table (see page 48) under the “View Exams” options.
  
- 2.1.213
  - Owners of Scanning System scanners should now use the “Sekonic” option when accessing the scanner controls.
  - The Scantron-supplied interface control (SCANCOMM.OCX) may exhibit problems and could possibly fail when used under WindowsXP.
  
- 2.1.02

A detailed view of item statistics has been added that shows the distribution of alternative responses in the top and bottom performing scores. The “cut” point for the scores can be adjusted. See the exam records section for details.
  
- 2.1.01

An integrated report formatter has been added to the Examinee and Exams section. This option will allow you to create custom reports. Refer to the sections for details

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