

***The Examiner*[®]**

Item Bank Manager

User's Guide



The Examiner®

User's Guide – Item Bank Manager

Release 3.3.40 – 24 January 2019

Introduction

The Examiner is an integrated system for the development of tests and examinations. The Bank Manager is used for the entry of test items and the designing of tests.

This document, like the software, is subject to change and revision. It is intended as an evolving guide for users. Recommendations for changes and additions are welcome.

A list of software changes and additions is found at the end of this document in the "What's New" section.

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

The Examiner V2 to V3 conversion software has been removed from the package. If for some very odd reason you still need this...contact The Examiner Corporation. We'll understand. Really.

Structure of the Item Bank

The item bank contains two main elements: items and profiles.

Items

Items are the formal name for test questions. Items are contained within an index. Both items and indexes are identified by a series of numbers separated by periods. Most users link the index and item structure to a series of objectives. For example, a four-level item bank covering living organisms could be split and numbered in the following fashion:

1. Animals
 - 1.1. Mammals
 - 1.1.1. Dogs
 - 1.1.1.1. Dog item
 - 1.1.1.2. Dog item
 - 1.1.2. Cats
 - 1.1.2.1. Cat item
 - 1.1.2.2. Cat item
 - 1.2. Reptiles
 - 1.2.1. Snakes
 - 1.2.1.1. Snake item
 - 1.2.1.2. Snake item
2. Plants
 - 2.1. Trees
 - 2.1.1. Conifers
 - 2.1.1.1. Conifer item
 - 2.1.1.2. Conifer item
 - 2.1.2. Deciduous
 - 2.1.2.1. Deciduous item
 - 2.1.2.2. Deciduous item

The first three levels are indexes. The bottom levels are items. Items can occur only at the bottom level.

Profiles

Profiles are the designs for tests. They can be thought of as the template for a test. There are two main parts to a profile:

- Structure – This part of the profile tells the Examiner's test generator how to "pull" items out of the bank when generating a test. This can range from "must do" items to random selection from an index.
- Method – This part of the profile tells the test generator how the test is to be shown. Elements such as randomization and mastery are specified in this section.

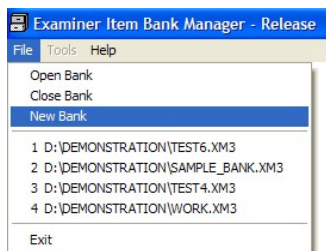
The part of this document dealing with profile design will treat these sections in more detail.

Multi-Lingual Testing

By default multi-lingual testing is not active in an item bank. It is activated in the "General Information" section of the bank. When activated a multi-lingual form of an item will be automatically created when an item is edited. This will be an exact copy of the existing item. This is not automatic translation! You will need to edit the alternate language form to the target language. Refer to the "General Information" section for directions on creating a multi-lingual item bank. Refer to the "Item Editing" section for information of creating and editing a multi-lingual item.

Creating Your Item Bank

Before you can use the Bank Manager, you must create an empty item bank.



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

This will launch the Add Bank Wizard.

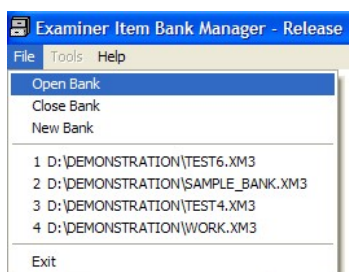
- Click on Continue to start the wizard.
- Click on the white bar to browse to the location where you want to create your item bank. Enter the name of the bank at the prompt and click Open to create it. Confirm the creation in the dialog box. Click on Continue.
- Use the dropdown to select the number of levels in your new item bank. *Once created, you cannot change the number of levels in your bank!* Click on Next to continue.
- Enter a title for the bank and click on Finish to continue.
- Click on Done to leave the wizard.

The file you have created will have the extension “.xm3”.

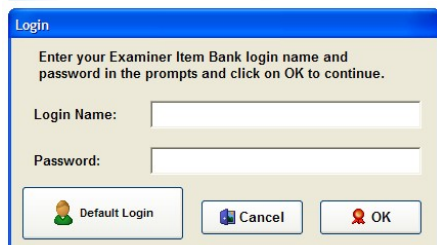
When an item bank is created it is encrypted and protected with a database password. However, it is not protected by Examiner user-level access rights. Any user of The Examiner can open the file with The Examiner. To protect your item bank you need to use the General Information option of the item bank to access the security features. Refer to the General Information section of this document for instructions.

Accessing an Existing Item Bank

Once you have created a bank you can access after you have launched the software. Examiner item banks carry the extension “.xm3”. Whilst viewing files in Windows Explorer you can double-click on an XM3 file to open it with The Examiner.



Click on “File” and then “Open” to access an existing bank. Your most recent banks are numbered at the bottom of the box. You can click on a number to directly open the bank.



If the item bank's security features have been activated you will need to log in to the bank. The “Default User” button will be shown if the bank's “Any User” access feature has access to at least one section of the bank.

These fields are not case sensitive.

If security is active you will be given access only to those portions of the item bank for which you have been granted access. If you attempt to enter a section of the item bank that is restricted you will be shown an appropriate message. Right-click menus will have unavailable sections deactivated.

Adding Indexes and Items

Before you can create a test you need to create the items that will make up the test. There are two steps to this:

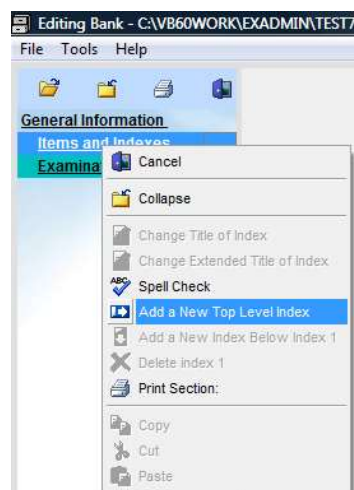
- First create the index structure that holds the items.
- Next create the items inside the structure.

There are two approaches to handling this task:

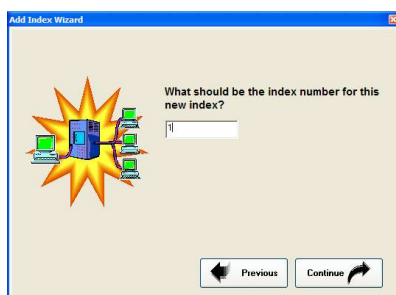
- Create all the indexes and then add the items.
- Create an index only when you add the item.

Both approaches have their strong points. One very important thing to remember is that you should take the time to pre plan your item bank structure. The structure that you enter whilst building the bank is the structure that you will use for creating your tests, and the structure that will be used for viewing reports. The time that is spent designing the bank will pay itself back many times over when you come to use the bank.

Adding an Index



A new bank won't contain any indexes, items, or profiles. To create the first index, RIGHT click on the "Items and Indexes" line. Next, click on the "Add a new top level index" option. This will launch the "Add Index Wizard". Click on Continue.

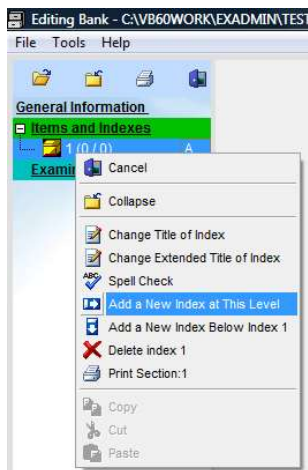


At the prompt, enter the index number for the new index. Note that this is not the “full” index. If you are adding an index “under” an existing index this is the member number. Click on Continue.



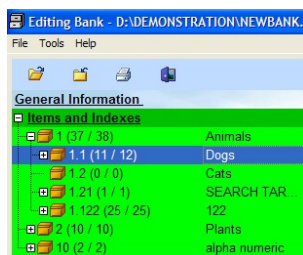
Enter a title for the index and click on Next. On the next screen click on “Done” to return to the main display.

Once you have created an index you can add additional levels.

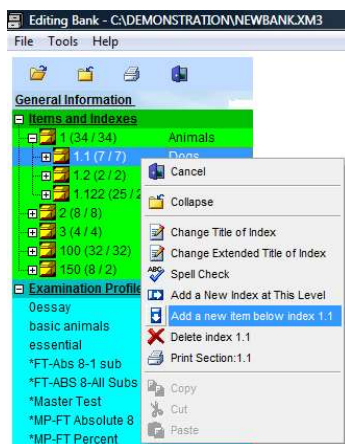


Right-click on the index and you will be able to create an index at the same level or below this index. In either case, a new Add Index Wizard will be launched when you select the option.

After you have edited your bank you will have a structure into which you can place and edit items.



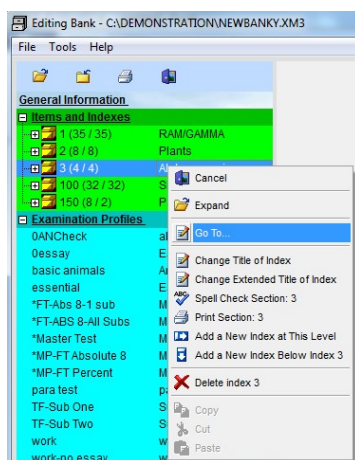
The number of levels will, of course, vary with the number of levels you specified when you created your item bank.



When you right-click on an index and that index is one above the items, you will be prompted to add an item rather than index. To add an item, click on the “Add a new item...” option.

Once you have built an index you can copy and paste it into another location. Refer to the “Copying and Pasting” section of this document.

Index Options



Once you have built an index structure you perform a number of operations on the index.



Go To...

Go to a specific item or index in the bank. Enter an ID at the prompt and click on “Go”.

Change Title

This changes the base title of the index. This title is limited to 50 characters.

Change Extended Title

This title can be of an unlimited length. It isn't shown on the structure, but it can be optionally shown when an index or item is printed.

Spell Check

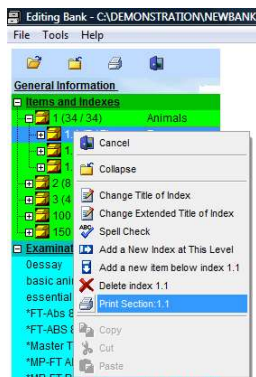
This will spell check the selected section. The item being checked will be shown in the upper-left corner on the main screen. Refer to spell checking in the item editing section for information on how this option works.

Delete Index

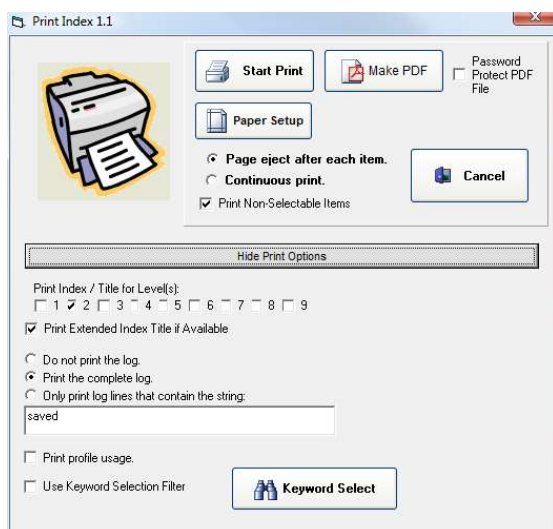
To delete an index and all the items in the index select this option. An index cannot be deleted if that index or items in the

index are directly referenced in a profile.

Printing an Index



To print the items within an index, right-click on the index and then click on the “Print” option. The index that is to be printed will be shown in the menu.



After the print option is selected a screen will be shown that both allows the setting of the print options and the launching of the print job. You will need to click on the “Show Print Options” button in order to make the print options visible.

You can select whether you want each item to appear on a single page or as continuous text.

Click on the “Start Print” button to launch the print job.

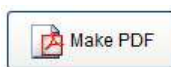
Non-Selectable items will be printed only if you make a check in the “Print Non-Selectable Items” box.



Before you print, click on this box to select a paper size and set margins.



To print to a printer, select this option.



☐ Password
Protect PDF
File

To create an Adobe Acrobat™ file select this option. You will be prompted for a file name. If you make a mark in the “Password” box you can protect the file with a password.

Print Options

Print Index / Title for Levels

A check in a box will add a line of text for that index level. “1” means the top level, “2” means the second level, and so on. Both the index number and the title of the index will be printed.

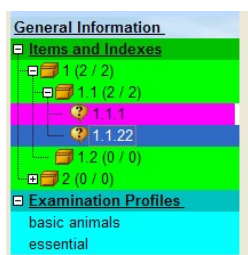
Print Extended Index Title	If selected, the extended title for the index will be printed.
Log Options	<p>The first option inhibits printing of the log.</p> <p>The second option prints all the log entries for an item.</p> <p>The third option only prints those logs in which the search term in the text box is present.</p>
Profile Usage	Selecting this option will print a list of the profiles that reference the item as a “must do” item.
Keyword Selection	If marked, use the keyword selection options specified by clicking on the “Keyword Select” page. Refer to the <i>Keywords/Order/Mix Tab – Keywords</i> section of profile editing on page 44 for details on using the selection page.

If the keyword selection option is used only those items that meet the criteria specified on the keyword selection page will be printed. It is possible to set the keyword selection such that no items will be printed. The keyword selections will be saved between sessions, but the “Use Keyword” check box will be cleared between sessions.

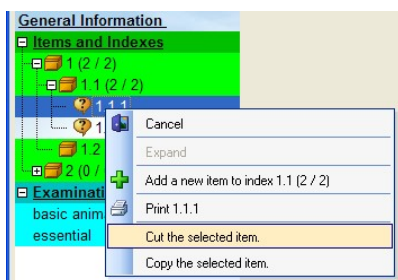
Copying and Moving Items and Indexes Within an Item Bank

Sometimes it is necessary to move items from one part of a bank to another. To use these options you follow a few steps:

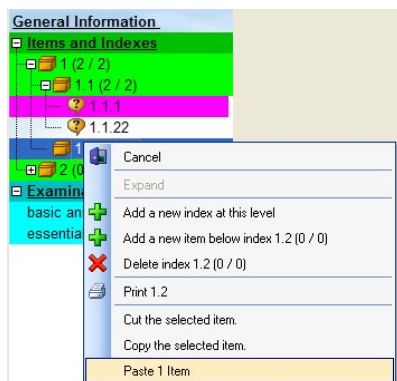
- First you mark one or more items or an index for the operation.
- Next you tell the system what you want to do with the marked entries: cut or copy.
- Finally you paste the item.



To mark an item or an index hold the control key down and click the item or index with a left-button click. The item or index will be colored magenta. You can click as many items as you want for copying, but you can only click on one index.



After you are done marking, right-click the index structure. A menu box will be shown. Click on the appropriate option.

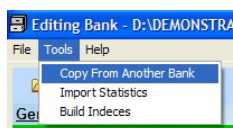


Next, right click on the structure where you want to paste the item. You can only paste an item into the bottom level. An index can only be pasted at the level from which it was copied.

If you have selected “cut” in the second step the original item or index will be removed after it has been pasted. All the items that are used by an index will be moved. You can cut an item or index that is referenced in a profile. If you try to do this you will be shown a warning box listing all the profiles that use the item or index. You can choose to proceed with the cut, but you must be aware that the referenced profiles will fail to generate a test.

Copying and Moving Items and Indexes Between Item Banks

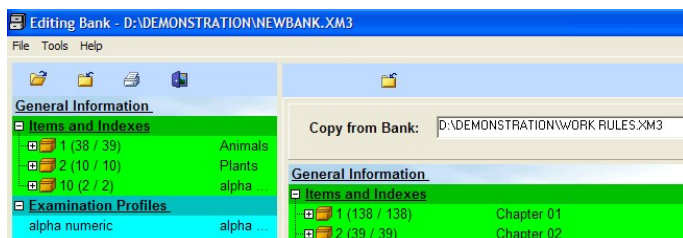
It is possible to copy items and complete indexes between item bank.



Open the item bank you want to copy INTO and click on “Tools” in the menu bar and then “Copy From Another Bank”

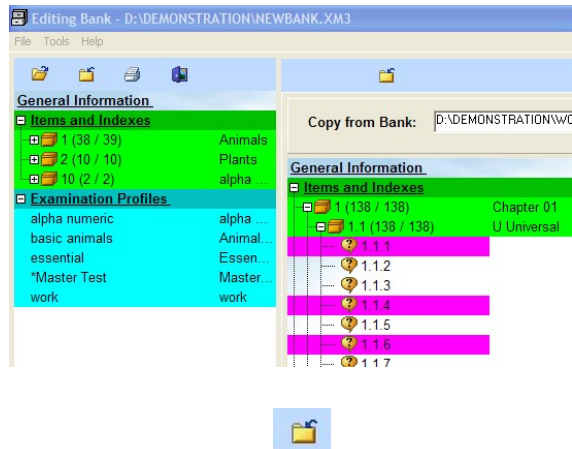


A panel will be displayed on the right. Click on the white field to the left of the “Copy from Bank” prompt. A browse box will appear. Browse and select the item bank you want to copy from.



A tree structure will be shown. To copy an index click on the source index in the right panel and drag it to the left panel. Release the mouse button when the cursor is pointing at the destination index.

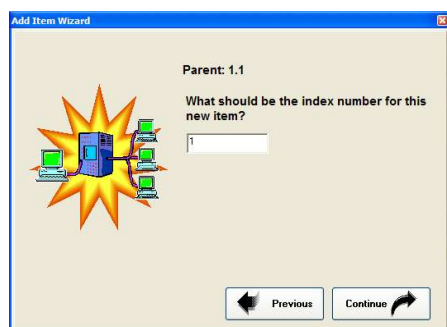
When you are copying an index from one bank to another the destination index must be the same distance above the “bottom” of a bank as the index directly above the index you are copying. If you try to copy an index into the wrong level you will see an error message. To copy an index into the root index of the destination bank, drag the index into the “Items and Indexes” line in the destination bank.



To copy a single index into the destination bank drag and drop the single index into the destination index. To copy multiple items use the Control-Left-Click method described above to mark the indexes and then drag and drop them into the destination. Remember that you can only drag items into the lowest index of the destination item bank.

When you are done copying click on the folder icon to close the source item bank.

Adding an Item



The first screen of the 'Add Item Wizard' window. It has a title bar 'Add Item Wizard'. On the left is an icon of a computer monitor with a starburst. The text says 'Parent: 1.1' and 'What should be the index number for this new item?'. Below this is a text box containing the number '1'. At the bottom are two buttons: 'Previous' (disabled) and 'Continue' (active).

After you have clicked on the “Add item...” option the “Add Item Wizard” will be launched. Click on Continue on the first page. On the second page enter the index number for the item. You can see the index that “owns” this item at the top of the frame.

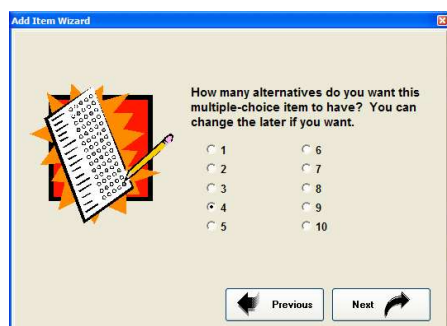
Click on Continue to select the item type.



The second screen of the 'Add Item Wizard' window. It has a title bar 'Add Item Wizard'. On the left is an icon of a notepad with a pencil. The text says 'What type of item do you want to create?'. Below this are several radio button options: 'Multiple Choice', 'True / False', 'Short Answer (Alpha)', 'Numeric', 'Essay/Sample Answer' (which is selected), 'Parallel', and 'CaseStudy'. At the bottom are two buttons: 'Previous' (disabled) and 'Next' (active).

All the item types are straightforward except for parallel and case study items. They create an additional level of indexing. Refer to the item editing section of this manual for information on parallel and case study items. Remember that not all item types are usable in a computer-delivered test.

Click on Next to continue.



The third screen of the 'Add Item Wizard' window. It has a title bar 'Add Item Wizard'. On the left is an icon of a notepad with a pencil. The text says 'How many alternatives do you want this multiple-choice item to have? You can change the later if you want.'. Below this are two columns of radio button options: 1, 2, 3, 4, 5 on the left and 6, 7, 8, 9, 10 on the right. The option '4' is selected. At the bottom are two buttons: 'Previous' (disabled) and 'Next' (active).

If you have selected a multiple-choice item you will need to select the number of alternatives. After you have done this, click on Next.

On the final screen, click on Done to leave the wizard.

The item has now been created. A new item won't have any content. You must edit it. If you have enabled the multi-lingual features, a copy of the item in the alternate language will also be created.

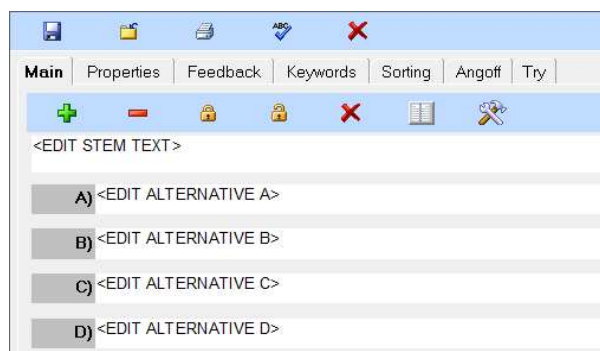
Editing an Item

This section refers to all items *except* parallel and case study items. Refer to appropriate section of this manual for information on those items.

An item contains three or four main parts:

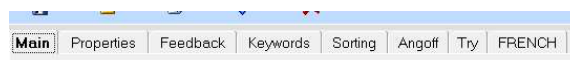
- The item itself. This is the:
 - The stem. This is the “question” part of the item.
 - The alternatives. These are the choices for the examinee.
 - Note that with a true / false item the “true/false” text will have been auto-entered.
- The properties of the item. This includes such things as:
 - The item weight.
 - Judging and mastery criteria.
- The feedback to the item. This is information that can be show to the examinee after an item has been answered.
- If you have activated the multi-lingual features the multi-lingual version of the item will be contained within the main item.

A new multiple choice item looks like this:



The screenshot shows the 'Main' tab of the Item Bank Manager interface. The top toolbar includes icons for file operations (save, open, print, undo, redo) and a red 'X' icon. Below the toolbar is a horizontal menu with tabs: Main, Properties, Feedback, Keywords, Sorting, Angoff, and Try. The 'Main' tab is active. Below the menu is a toolbar with icons for adding (+), deleting (-), locking (lock), unlocking (unlock), and a red 'X' icon. The main editing area contains a text field for the stem, labeled '<EDIT STEM TEXT>', and four text fields for alternatives, labeled 'A) <EDIT ALTERNATIVE A>', 'B) <EDIT ALTERNATIVE B>', 'C) <EDIT ALTERNATIVE C>', and 'D) <EDIT ALTERNATIVE D>'.

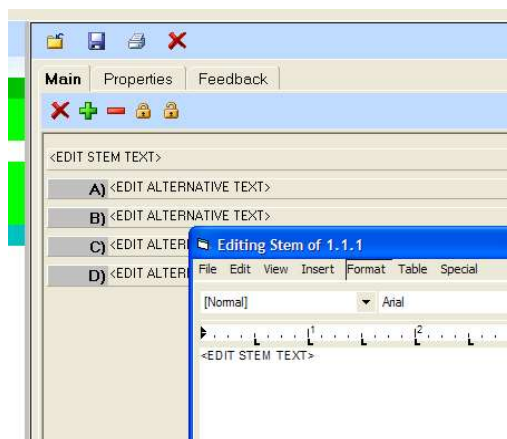
If the multi-lingual options have been activated an additional tab with the name of the language will be shown:



The screenshot shows the 'Main' tab of the Item Bank Manager interface. The top toolbar includes icons for file operations (save, open, print, undo, redo) and a red 'X' icon. Below the toolbar is a horizontal menu with tabs: Main, Properties, Feedback, Keywords, Sorting, Angoff, Try, and FRENCH. The 'Main' tab is active. Below the menu is a toolbar with icons for adding (+), deleting (-), locking (lock), unlocking (unlock), and a red 'X' icon. The main editing area contains a text field for the stem, labeled '<EDIT STEM TEXT>', and four text fields for alternatives, labeled 'A) <EDIT ALTERNATIVE A>', 'B) <EDIT ALTERNATIVE B>', 'C) <EDIT ALTERNATIVE C>', and 'D) <EDIT ALTERNATIVE D>'.

Editing the Text of an Item

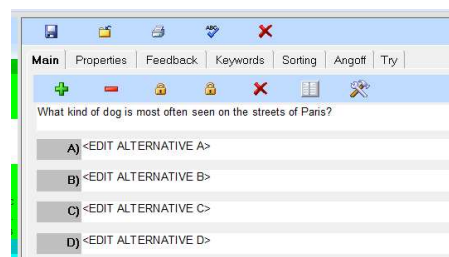
To edit a part of the item, click on it. If, for example, you clicked on “<EDIT STEM TEXT>” a new window would pop up:



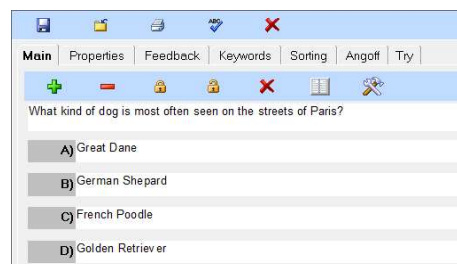
The new window is a text editor. All the usual features such as bold, font, and color control are available. Type in the window to edit the part of the item you selected.



When you done editing, click on “File” and then “Save” in the menu options *within the editing box*.

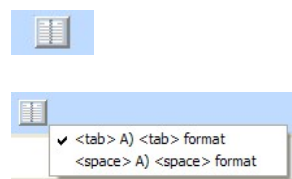


The text will appear on the item editing main screen.



Repeat this process with the alternatives. You can re-edit a part of the item by clicking on that part. When you are done, your item will look like this.

Refer to the Alpha and Numeric item type sections for information on editing those items.



A special paste button is provided for the quick import of text from another application such as Microsoft Word.

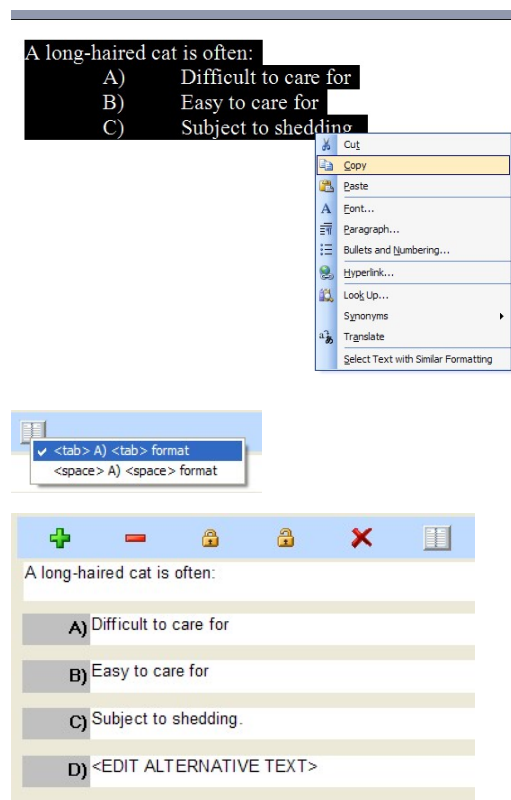
Right click on the button to show a menu of available options. Click on the option that matches the text you are importing. It is expected that additional options will be added.

A typical item in word might appear in this fashion:

A long-haired cat is often:

- A) Difficult to care for
- B) Easy to care for
- C) Subject to shedding.

To copy the text into The Examiner follow these steps:

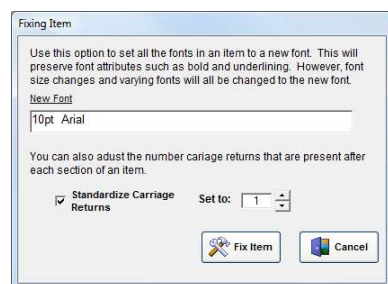


Highlight the text in your source document and place it in the copy buffer. The example to the left is from Word.

Right-Click on the paste button and select the text's format. You only have to do this once...the system will remember what you have selected between consecutive pastes.

Left-click the button and the your text will be analyzed and pasted into the appropriate parts of the item. Note that this item was originally specified as having four alternatives. The fourth alternative will need to be manually deleted. If your text is not in the correct format you will be shown an error display reminding you of the required format.

If your source document is in one font and your item bank is in another it is recommended that you change the font in your source document to match that in The Examiner. In Word this can be accomplished by using the "Select All" option in the edit menu and applying the correct font to the highlighted text.



The "Tool" button is used to fix the fonts and carriage returns in an item. It is often used when item has been imported. Click on the button to use the option.

Click on the font to change it. You can also standardize the number of carriage returns in the item by using the "Standardize" check box and setting the number of returns. Click on "Fix Item" to perform the operation.

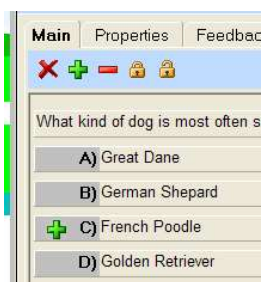
The text will be changed to your requested format. Highlighting such as **bold**, *italic*, and underline will be preserved. However, if the item contained multiple font sizes the size differences will be removed and the font size will be changed to that of the selected font.

If after you have run the tool and the item's fonts have not changed you should make sure that the text of the item is not in the form of an "object". This usually happens if the item bank was converted from an Examiner Release 2 item bank. Improperly imported items in the old bank will have been converted to an object-containing format in the new bank. You can search your bank for these items using the "tools/find items with objects" option in the menu bar.

You next need to specify the judging criteria.



To mark an alternative as correct, Right Click on the alternative and click on Correct.



A green plus sign will appear next to the alternative.



To "lock" an alternative in place, as with the typical "None of the above.", right click on the alternative and click on "Locked".



A small lock will appear to indicate that if the alternatives of the item are randomized, the "locked" alternative will not shift.



When you are done editing, click on the icon of the disk to store your item. The item will be saved and the item will be closed.



To leave without saving, click on the closed folder. You will be warned if you are going to lose your changes.



Clicking on the printer button will launch a print of the current item. Refer to the index printing section for details.



Click on this icon to spell-check the item. Refer to the spell checking section later in this document.



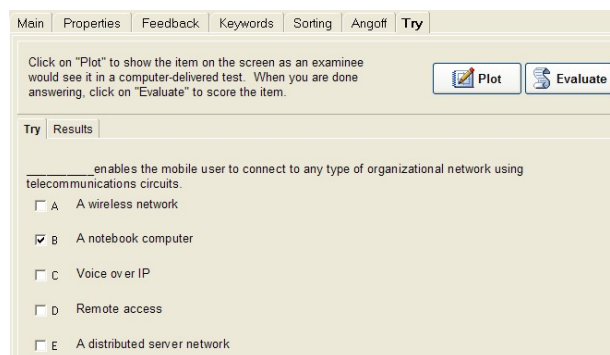
Click on this icon to delete the item. You cannot delete an item that is referenced as a “must do” item within a profile. Refer to the properties tab for the sub-tab showing item usage.



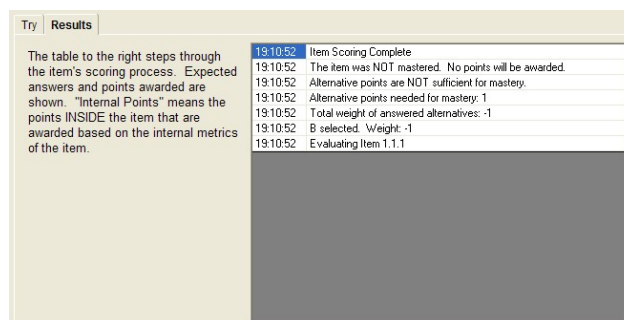
Note how the item is indicated with a question mark in the index structure. To edit an existing item, DOUBLE click on it. To add a new item, RIGHT click on it and follow the directions.

Trying Out the Item

Clicking on the “Try” tab will let you try out the item as an examinee. When you first click on the tab the screen will be blank. Click on the “Plot” button to show the item. If you have edited the item you will need to store your changes before proceeding.



After you have entered your responses click on the “Evaluate” button.

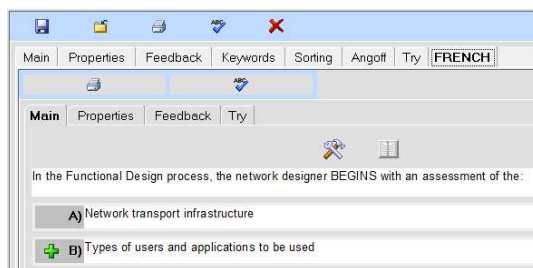


The table on the page will show the details of the scoring process. Using the “try” option will allow you to evaluate complex scoring methods before you try them in a test.

Alternate Language Editing

As of this release, multi-lingual testing is available only in paper-and-pencil tests.

If the multi-lingual language options have been activated an additional tab will be present in the item. On this tab will be shown the alternate language form of the item. An existing item will have its content copied into the new alternate language item:



All the text fields that are present in the base item are present in the alternate language form. Notice, however, that all of the “control” options such as locking alternatives, marking the correct alternative, and the like are not present in the alternate language form. Those options can be set only in the “owning” item. If you click “Mark Correct” in the base item the Correct mark will appear in the alternate language form. This is done so that the alternate language form is exactly in synch with the main item. Edit the alternate language form exactly as with the base form. You cannot save the alternate form separately from the main item...they are always treated as a single entity.

Before the alternate form of an item can be used in a test it must be “enabled” for usage. By default, the alternate form of the item is not enabled. Clicking on the “Language Enabled” box will mark the item so that it can be used. This “Language Enabled” box is only available in the alternate language form of the item. The “Approved for Use” message will be shown in both the main item and the alternate form.

Main Properties Feedback Try

This item is NOT approved for multi-lingual tests.

Title:

Item Type: Multiple Choice ☐ Language Enabled

Created On: 29 May 2009 13:41

Main Properties Feedback Try

This item is approved for multi-lingual tests.

Title:

Item Type: Multiple Choice ☒ Language Enabled

Created On: 29 May 2009 13:41

Alpha – Short Answer Items

As of the current release, alpha items can not be used in a computer-delivered test.

	Exact	Misspell OK	Ignore Order	Ignore Case	Extra OK	Answer
A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	poodle

The alpha or “short answer” item type lets you specify an item where the examinee is to respond with a word or a short phrase. With computer-based testing the answer is analyzed by the computer. With paper-and-pencil testing the item must be manually graded.

The stem of the item is edited as described for multiple choice items.

Up to ten answers can be handled in a single item. Each answer is graded separately within the item. Answer fields are:

Exact	If the “exact” box is checked the examinee must enter <u>exactly</u> what is in the answer field. When selected this option will disable the other checkboxes.
Misspell OK	Simple misspellings of the word are acceptable. Use this option cautiously as the spell checker can be easily fooled!
Ignore Order	If your answer has more than one word in it this option allows the words to be entered in any order. If the above answer had been “french poodle” then both “french poodle” and “poodle french” would have been acceptable.
Ignore Case	Upper and lower letters are ignored. In the above example “Poodle” or “poodle” would be deemed acceptable.
Extra OK	If checked additional words can be entered. In the above example “french poodle” would be considered an acceptable answer.
Answer	Enter your correct answer.

If you are using multi-lingual testing you need to provide the alternate-language translations of the answers in the alternate language page. Do not make them synonyms on the main page.

Numeric Items

The numeric item type lets you specify an item where the examinee is to respond with a number. In addition, you can optionally require units to be entered with the answer. With computer-based testing the answer is analyzed by the computer. With paper-and-pencil testing the item must be manually graded.

The stem of the item is edited as described for multiple choice items.

Two different methods of grading are used. In the first case each answer is judged independently. In the following example two blanks have been created in the stem. The two answers for (A) and (B) are entered in the table. The blanks in the stem are manually entered.

The distance from Saint Paul to Duluth is 151 miles. This distance is (A) kilometres. If you are travelling at 100 km/h, it will take (B) hours to travel this distance.

	Integer Only	Positive Only	+/- Range	Answer	Units
A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2	243	
B	<input type="checkbox"/>	<input checked="" type="checkbox"/>	.1	2.43	

Up to ten answers can be handled in a single item. Each answer is graded separately within the item. Answer fields are:

Integer Only	Decimal numbers are not allowed. In a computer-delivered test the decimal point character, ".", will be inhibited.
Positive Only	Negative numbers are not allowed. In a computer-delivered test the minus sign, "-", will be inhibited.
+/- Range	An examinee answer that is within this range of the correct answer will be accepted as correct.
Answer	The expected answer.
Units	If entered, the user will be required to enter units. Synonyms can be entered by separating each one with a semicolon. For example, "ml;mL;millileter;milliletre" will allow the user to enter any of the four units. Misspellings are not allowed. The units must match exactly.

Scoring is specified on the properties page in much the same fashion as specified in a multiple-choice item. In this example the user must match both answers. One point is awarded for each alternative. Two points are needed for item mastery.

Points awarded for mastery: ☐ Weight of Answered Alternatives

Alternative points needed for mastery: ☐ Automatic Mastery Awarded

Alternative Weights:

Alternatives:	A	B
Weights:	1	1

In this case, only one point is needed for mastery. If (A) or (B) is matched then the item will be mastered.

Points awarded for mastery:	1
Alternative points needed for mastery::	1
Alternative Weights:	
Alternatives:	A B
Weights:	1 1

In the second case only one prompt is presented to the examinee. What the examinee enters is compared to each of the possible answers. This option is turned on by making a tic mark in the following option shown on the properties page.

☒ Give only one prompt for ALL responses. Sweep through possible responses when scoring.

In the following example any of the three answers will be judged as correct. To be judged, though, the examinee must match both the answer and the units. In this example unit synonyms are shown. Correct answers could include:

- 1 liter
- 1000 milliliter
- 33.8 ounces

What volume of water weighs 1 kg?

	Integer Only	Positive Only	+/- Range	Answer	Units
A	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0	1	l;litre;liter
B	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0	1000	mL;ml;milliliter,millilitre
C	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0.05	33.8	ounces

Trying Out the Item

Clicking on the “Try” tab will let you try out the item as an examinee. When you first click on the tab the screen will be blank. Click on the “Plot” button to show the item. If you have edited the item you will need to store your changes before proceeding. The example on the left shows an item with two blanks. The example on the right has one blank whose answer is compared to a set of possible answers.

Main Properties Feedback Keywords Sorting Angoff Try

Click on "Plot" to show the item on the screen as an examinee would see it in a computer-delivered test. When you are done answering, click on "Evaluate" to score the item.

Plot Evaluate

Try Results

The distance from Saint Paul to Duluth is 151 miles. This distance is (A) kilometres. If you are travelling at 100 km/h, it will take (B) hours to travel this distance.

A)

B)

Main Properties Feedback Keywords Sorting Angoff Try

Click on "Plot" to show the item on the screen as an examinee would see it in a computer-delivered test. When you are done answering, click on "Evaluate" to score the item.

Plot Evaluate

Try

What volume of water weighs 1 kg?

After you have entered your responses click on the “Evaluate” button.

Try	Results
The table to the right steps through the item's scoring process. Expected answers and points awarded are shown. "Internal Points" means the points INSIDE the item that are awarded based on the internal metrics of the item.	
18:55:33	Item Scoring Complete
18:55:33	1 point(s) will be awarded for mastery.
18:55:33	The item weight is set to: 1
18:55:33	The item was mastered.
18:55:33	Internal points are sufficient for mastery.
18:55:33	Internal points needed for mastery: 2
18:55:33	A total of 2 internal point(s) were awarded.
18:55:33	(2) Passed on entry 2. 1 internal points awarded.
18:55:33	(2) Number In Range
18:55:33	(2) User: 243 Want: 243 +/- 0.1
18:55:33	(1) Passed on entry 1. 1 internal points awarded.
18:55:33	(1) Number In Range
18:55:33	(1) User: 243 Want: 243 +/- 2
18:55:33	Evaluating Item 3.3.2

Try	Results
The table to the right steps through the item's scoring process. Expected answers and points awarded are shown. "Internal Points" means the points INSIDE the item that are awarded based on the internal metrics of the item.	
18:53:45	Item Scoring Complete
18:53:45	1 point(s) will be awarded for mastery.
18:53:45	The item weight is set to: 1
18:53:45	The item was mastered.
18:53:45	Internal points are sufficient for mastery.
18:53:45	Internal points needed for mastery: 1
18:53:45	A total of 1 internal point(s) were awarded.
18:53:45	(1) Passed on entry 2. 1 internal points awarded.
18:53:45	(2) Units matched.
18:53:45	(2) Number In Range
18:53:45	(2) User: 1000 ml Want: 1000 ml, ml, milliliter, millilitre +/- 0
18:53:45	(1) Units not matched.
18:53:45	(1) Number not in range
18:53:45	(1) User: 1000 ml Want: 1 litre, liter +/- 0
18:53:45	One examinee response being checked against ALL answers.
18:53:45	Evaluating Item 3.3.1

The table on the page will show the details of the scoring process. In the example on the right both a number and units are required. Using the “try” option will allow you to evaluate complex scoring methods before you try them in a test.

Essay Items

As of the current release, essay items can not be used in a computer-delivered test.

In many ways an essay item looks quite similar to a multiple choice item. The difference is that the alternatives contains information that is used to grade the item. You can include graphics in both the stem and the alternatives. The alternatives do not print when the test is printed. Only the stem is shown. However, the alternatives are printed with the answer key and are stored in the key file after the test is printed. It is important to note that the alternatives stored with the key *contain the text that existed at the time the exam was printed*. Thus, if you edit an item after a test was printed the alternatives in the answer key may not match what is in the item bank.

Scoring

Scoring works a bit differently with essay items since they are always graded “by hand”. The grading is still stored automatically in the record system, however the records system software does not determine the grade. Click on the “Properties” and then “Mastery” tab to set the scoring information:

Answers:	A	B
Weights:	2	4

The settings shown above are probably those that are most commonly used. The “Maximum Answer Weights” show the maximum point value that will be awarded if the grader determines that the examinee has met the criteria of the model answer. The points are then passed through to the final test score. You can, however, use any of the other scoring options. Refer to the multiple choice scoring section for information.

Editing the Item Properties

Click on the Properties tab to edit the item's properties.

At the top of the properties tab you can edit the item's title.

There is a box labeled “Non Selectable if checked”. Making a mark in this box will leave the item in the bank but will prevent it from being used in a test. It is recommended that if you make any substantial changes to an item you should copy the item and paste it into the index as a new item. You should then

mark the original item as “non selectable”. This is done so that there is an historical record of the item linked to the item number in the history file. If you edit the item and do not change the identification number the data in the history file will refer to the content and grading feature of an item that is different from the one that generated the data in the first place. If an item that you are attempting to make non selectable is a “must do” item in any profile you will be warned that making the item non selectable will prevent those profiles from being able to generate a test.

There are three sub-tabs under the properties tab.

Mastery Tab

Mastery Must do Profiles Antagonistic Log Memo/Information Refs/Notes					
Points awarded for mastery:		<input type="text" value="1"/>	<input type="checkbox"/> Weight of Answered Alternatives		
Alternative points needed for mastery:		<input type="text" value="1"/>	<input type="checkbox"/> Automatic Mastery Awarded		
Alternative Weights:					
Alternatives:	A	B	C	D	E
Weights:	-1	1	-1	-1	-1

The mastery tab is used to tell the system how to grade an item when it appears on a test.

- Points awarded for mastery. Enter a number from 0 to 99. These are the number of points that will be awarded to an examinee when they correctly answer this item in a test. “0” points is useful when you want to gather statistical information but do not want to have this item affect the final score of the test. “0” points are useful during item validation. By default, this is set to 1.
- Weight of Answered Alternatives. When marked the sum of the weights of the answered alternatives will be used for the item weight. This will be awarded only if the item has been mastered.
- Alternative points needed for mastery. The sum of the weights of the answered alternatives must be greater than or equal to this number for item mastery to be awarded. If you want to award mastery if only one of two possible answers is made set this to one. If you want both alternatives to be answered, set this to two. If you set this to 0, everyone will master this item. If you set this to a number greater than the sum of the correct alternative weights, no one will master the item.
- Automatic Mastery Awarded. If you want to ignore the internal scoring mechanism for this item, make a check mark in the box. Mastery will be awarded to everyone.
- Alternative weights. This shows the number of points that will be awarded to a user when the select an alternative. When an alternative is marked correct on the main item page the weight will be set to 1 (unless a greater positive weight was already set). When an alternative is marked incorrect on the main item page the weight will be set to -1 (unless a greater negative weight was already set). Click on an alternative weight to edit the field. You can enter a number from -99 to 99. If a positive value is entered a correct answer mark will be shown on the main item display. Likewise, if a negative number is entered any correct marking for the alternative will be removed.

Must do Profiles Tab

Mastery | **Must do Profiles** | Antagonistic | Log

Shown below is a list of the profile(s), if any, that this item is included in as a "must do" item. You cannot delete this item until all references to it are removed.

Item	Profile
1.1.1	Essay
	work-no essay
	essential
	work

Print the List

This tab shows the profiles that have specified this item as a "must do" item.

Profiles can specify that an item must be in a test. These are called "must do" items. You cannot delete an item if it is specified in one or more profiles as a "must do" item. If you want to delete or move the item use this list to find profiles that use the item. You must remove the reference to the item before deleting the item. Click on the "Print the List" button to print a copy of the list.

Antagonistic Tab

Mastery | Must do Profiles | **Antagonistic** | Log

Antagonistic items and indexes are those which can not be used with will prevent items and indexes on this list from being selected. Likewise antagonistic list, then this item will not be selected. To remove an entry "Remove".

Item	Title
1.1.2	
2.1.3	French Poodle
INDEX: 3	Alphanumeric

This tab shows the items and indexes that can not appear with this item on a test.

Sometimes you have two items that must never appear with each other on a test. The usual case is that one item gives away the answer of the other item. The "antagonistic" option allows you to prevent an item or index from being used if it appears on the list. To add an item or index to the list click on the item in the left-hand item and index list and drag it over the antagonistic table. Release the mouse button to drop the item in the list. It is important to always use the validate test option if antagonistic items are used.

Log Tab

Mastery | Must do Profiles | Antagonistic | **Log**

2008 December 01 16:02:38	SME Reviewed item.
2008 December 01 15:38:57	Saved Item
2008 December 01 15:38:43	Created and Saved Item

This tab records information about operations that were performed on the item.

You can manually add a note to the log by clicking on the "Add an entry to the log" button at the bottom of the screen.

Memo/Information Tab

Mastery | Must do Profiles | Antagonistic | Log | **Memo/Information** | Refs/Notes

[Normal] Arial 12 B I U

This item should always be used in the test.

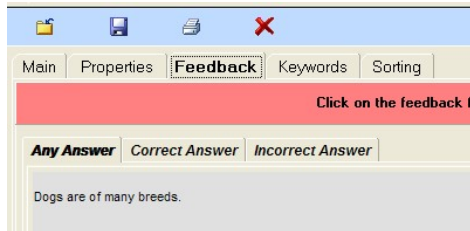
The Memo/Information tab makes a text editing screen available for notes. This field can be used for any information you would like. It is not seen by the examinee.

Refs/Notes

Mastery	Must do Profiles	Antagonistic	Log	Memo/Information	Refs/Notes
2009 April 30 17:49:16	Bob smith reviewed on 4/20				
2009 April 15 14:52:36	Bob Wheeler, Systems Engineering Principles and Strategies, CSM, 2004, P&S-02-003N				

This operates in the same manner as the “log” section, but is not auto-generated. It is filled only by clicking on the “Add Reference or Note” button.

Editing the Item Feedback



While viewing an item, click on the “Feedback” tab to edit the feedback entries.

There are three different kinds of feedback:

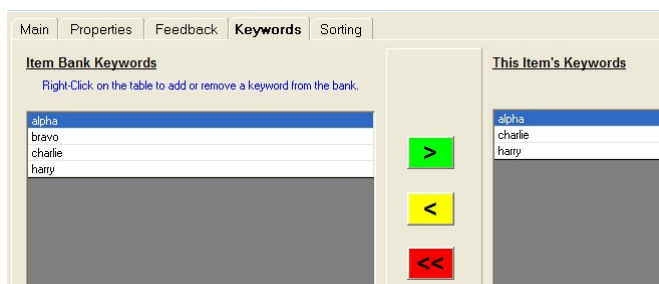
- Any Answer feedback is given regardless of who an examinee answered an item.
- Correct Answer feedback is given if an examinee mastered the item.
- Incorrect Answer feedback is given if an examinee has failed to master the item.

In addition, the Exam Printer can print the feedback for items included in a test. This is can provide a useful instructor's guide or study guide.

To edit the feedback, click on the feedback zone on the tab. An editing screen will appear. When you are done, click on File and then Save.

When you are done editing the item, click on the disk icon to save.

Keywords



Keywords are used to mark an item for inclusion or exclusion in an exam.

Keywords are one of the most powerful features of The Examiner. Exams can specify that items in the test:

- Must contain the keyword.
- May contain the keyword.
- Must not contain the keyword.

When you create a database there will not be any keywords in it. You need to add them.



To add a new keyword right-click the Item Bank Keywords

table and then click on “Add Keyword”. Enter the keyword at the prompt that appears and click on the “Add Keyword” button.

To delete a keyword right-click and then click on the Delete keyword option. You cannot delete a keyword that's in use in any item.

Once keywords have been added to the bank, use the middle buttons to work with them.



Adding a keyword to an item: Click on a keyword in the left-hand column to highlight it. Next, click on the green right-pointing arrow to move it into the Item's Keyword column.



Deleting a keyword from an item: Click on a keyword in the right-hand column to highlight it. Next, click on the yellow left-pointing arrow to remove it from the Item's Keyword column. This does not remove the keyword from the bank.



You can remove all the keywords from an item by clicking on the red left-pointing arrow. This does not remove the keyword from the bank.

You can see how many times each keyword has been used and by what items by going to the Item Bank “General Information” section and looking at the “Keywords” tab.

Sorting

Main	Properties	Feedback	Keywords	Sorting
Items can be categorized by difficulty. This can be a difficulty level derived from actual item histories or manually entered available.				
3 Division Set	<input type="radio"/> Not Set	<input checked="" type="radio"/> Easy	<input type="radio"/> Medium	<input type="radio"/> Difficult
4 Division Set	<input type="radio"/> Not Set	<input type="radio"/> Easy	<input checked="" type="radio"/> Medium	<input type="radio"/> Difficult <input type="radio"/> Hard
5 Division Set	<input type="radio"/> Not Set	<input checked="" type="radio"/> Easy	<input type="radio"/> Medium	<input type="radio"/> Difficult <input type="radio"/> Hard <input type="radio"/> Very Hard

Items can be presented in an exam in an order based on difficulty. This option is used to set the item's difficulty level.

There are many strategies for setting the item order in a test. One of those strategies is based on the difficulty of an item. This option is used to manually set the difficulty for an item. This difficulty can be derived from historical data or from a subject matter expert. Click on an option to set the level. There are three division sets breaking the difficulty into different levels.

It is also possible to create a test with a certain percentage of items of each difficulty.

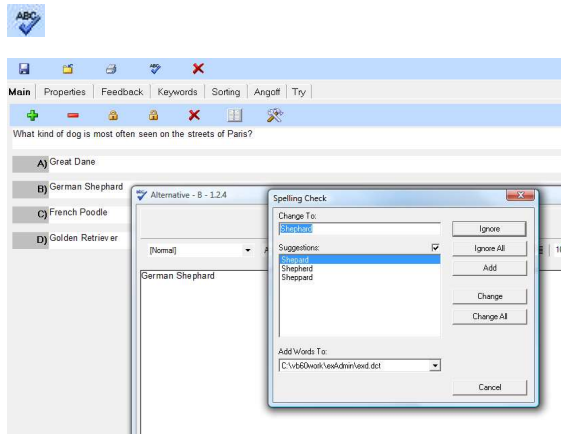
Angoff

Main	Properties	Feedback	Keywords	Sorting	Angoff
You can edit the Angoff difficulty values in the column below. If you want to add a new Angoff set you can do so on the Item Bank general properties page.					
Angoff Set	Difficulty				
ANG101					
ANG1914010702	0.5				
ANGaaa					
ANGcompare1					
ANGdebug	0.57				

The Angoff difficulties for an item can be set or modified using the Angoff tab.

To change the Angoff setting click on the column entry and type in a new value. The value can range from 0.0 (everyone has failed the item) to 1.0 (everyone has mastered the item). The Angoff difficulties can be imported using the item statistics option in the Item Bank properties section.

Spell Checking



Clicking on the icon will spell check the item.

The item parts will be examined and if a possible spelling error is detected a simplified version of the text editor will be shown along with the spell check options box. If you use “Add” the entry won’t be counted as a misspelling in future checks. Selecting “Change” will change to the selected option. When you are done with one section the next will be checked until all parts of the item have been examined.

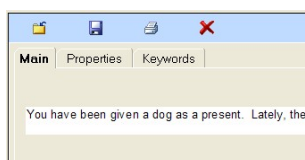
Index Spell Checking

When you are checking an index the phrase “Spell Checking Active” will be shown at the top of the screen. In addition, you won’t be able to click on the index structure until the spell check has been stopped.

Case Study Items

Case study items have changed dramatically from Release 2 to Release 3 of The Examiner. Previously case studies were at the index level. They are now at the item level and are created using the regular “add item” options. This is a return to the method that was used in pre-1995 versions of The Examiner. Case studies in Examiner Release 2 must be manually converted to the new method.

A Case Study item is often referred to as a “scenario” item. Usually, but not always, the case study item starts with reading or an illustration. This is then followed by one or more items that refer to the reading. A number of options are available in the “root” item of a case study. These options will affect how the case study is presented and scored. Double-click on the “root” of the case study to edit these properties.

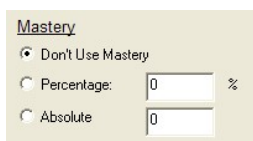


The Main tab will allow you to edit the case study's scenario text. You can use images in the scenario. Click on the text to edit it.



The properties shown at the top of the “Properties” tab are the same as with other items. The “Must do Profiles” and “Log” options are the same as with other items. The mastery options are different:

A case study can almost be considered as a “mini” test within the body of a test. The items in a case study are always grouped together. The mastery and scoring options control how the mastery information within the case study is to be passed on to the complete test.



- “Use All Items” means that when the test is generated all the items in the case study will be included in the test.
- “Items to Use: N” means that “N” items will be randomly selected from the items contained in the case study. You have no control over which items are to be used.
- “Don't Use Mastery” means that mastery information from the items will be passed directly to the complete test. If a point value is specified in the next option the item will always receive this number of point regardless of what the examinee answers.
- If a Percentage or Absolute mastery point is set then the sum of the mastered items in the case study must meet that point before the weight of the item will be awarded for the item.

Case Study Item Weight

☒ Pass Through Points of Included Items

☐ Points

- If “Pass Through” is selected then the sum of the weights of the mastered items in the case study will be awarded.
- If the item is mastered based on the above mastery criteria then this is the number of points that will be awarded for mastery.

Item Order

☒ Use profile order

☐ Use random order.

☐ Use item bank order

This option controls how the items will be grouped within the body of the case study. This will override the general profile properties.

Case Study Text

☒ Don't show

☐ Show before first item

☐ Show with each item

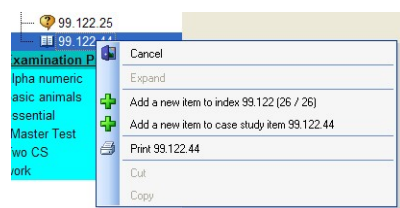
☐ Show with each item with keypress

This option controls how the text that was entered on the main case study item page will be presented.

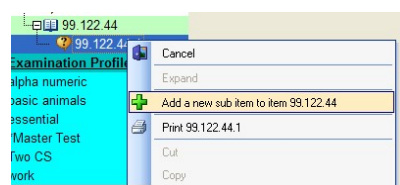
- Don't Show – Inhibit presentation of the text.
- Show before first item – show the text one time and then present the series of items.
- Show with each item – repeat the text before each item in the case study.
- Show with keypress – in online tests, make the case study text available with a keypress. This has no effect on printed tests.

Adding an item to a Case Study

Two methods exist:



Right-click on the case study item icon. Left click the “Add a new item to case study item...” option.



Right click on an existing item within the case study item. Left click the “Add a new sub item...” option.

Parallel Items

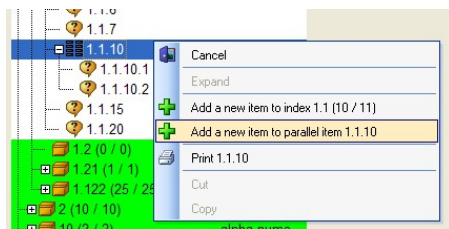
Parallel items are referenced at the item level but are not items in themselves. They are, in essence, another layer in the item bank. They are often used for:

Creating a set of equivalent items where only one of the items can appear in a test.

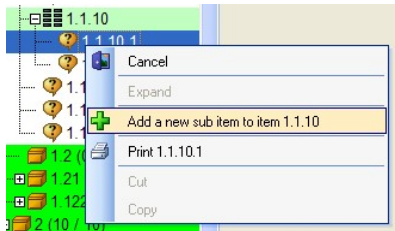
- Creating a set of items that must never appear together on a test. For example, if one item “gives away” the answer to another item.

Adding an Item to a Parallel Item

Two cases exist:



Right-click on the parallel item icon. Left click the “Add a new item to parallel item...” option.



Right click on an existing item within the parallel item. Left click the “Add a new sub item...” option.

You will then see the Add Item Wizard described earlier in this document. You can add any item type to a parallel item *except* another parallel item.

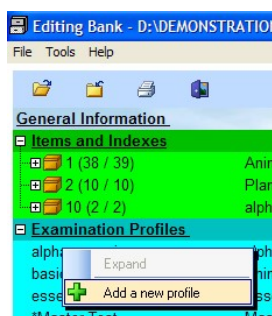
There are limited editing options when you double-click on a parallel item:

Properties	There are no properties per se, but you can view the profile usage for the item and the item log.
Keywords	Keywords work as described in the previous item editing section. Note that these keywords override the keywords in item members of the parallel item.

Adding and Editing Profiles

Once you have created items, you can assemble them into tests. Whether you are giving a test on a computer, printing a test, or delivering a test over the internet, the profile is the template that will be used to create the test.

Adding a Profile



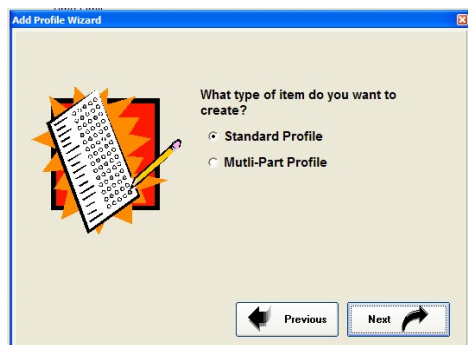
A new bank won't contain any profiles. To create the first profile, RIGHT click on the "Examination Profiles" line. Next, click on the "Add a new profile" option. This will launch the "Add a New Profile Wizard". Click on Continue.



At the prompt, enter the name of the new profile. This is not the title of the profile. This is an "internal" name used by you to identify the profile in the item bank. Click on Continue.



At the prompt, enter the title of the new profile. This will be the name seen by examinees when they interact with tests created by the profile. Click on Next.



Click on the type of profile then click on Next. Then, click on Done to finish the creation process.

- Standard Profiles are built by selecting items and indexes.
- Multi-Part Profiles are built by sequencing existing profiles.

In most cases you'll be working with a "standard" profile.

Editing a Standard Profile

The following screen is shown when editing a profile. Some of the information was inserted when you used the wizard to create the profile. If you are using a multi-part profile refer to that section of the documentation.

The screenshot shows the 'Editing basic animals' window. The title bar contains icons for save, print, delete, copy, spell check, and folder. The 'General' tab is selected, showing the following information:

- Profile Title: Animal Facts
- Created On: 08 August 2006 14:12
- Last Edited: 19 August 2008 13:15
- Number of Items: 11
- Alternative Order: ☒ As entered in bank. ☐ Randomized.
- Test Order: ☒ Bank order. ☐ Randomized.
- Auto-Extend Test for Case Study Items: ☐ Yes ☒ No
- Mastery: ☒ Percentage: 80 % ☐ Absolute: 4
- Use Top N Items: ☐ 0

Additional text on the right side of the Mastery section states: 'A must do test can only contain items. No indexes can be specified.' and 'Must Do Test' is unchecked.

Editing Control Options

Click on an icon at the top of the profile to perform the requested operation:



Click on the disk icon to save the profile. The profile will be closed after it has been saved.



Click on the printer icon to print a "record" copy of the profile. This print will show the contents of the profile and is used for record keeping. This is not a print of the test!



Click on the "X" icon to delete the profile. If a profile is used in a multi-part test it cannot be deleted until it is removed from all the multi-part tests it appears in.



Click on this icon to make a copy of the profile. You will be prompted for the name of the copy.



Click on this icon to spell check the profile's text pages. Refer to the item editing section for information on how the spell check interface works.

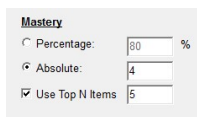


Click on the folder option to leave the profile. If you have made any edits you will be asked if you want to leave without saving your changes.

General Tab – Properties

The General Tab defines the basic characteristics of the profile.

Profile Title	This is the title seen by the examinee when taking a test. You can click on the field to change the title. If you have activated the multi-lingual features you should edit the alternate language version of the title by clicking on the language's tab.
Created on	This is the date when this profile was added to the bank.
Last edited	This is when the profile was last edited. This will change when you store the profile.
Number of Items	The number of items in the test. Enter a number from 1 to 500.

Auto Extend Test for Case Study Items	When a case study item is selected for a test it will contain 1 or more items inside itself. To the test generator, the case study appears as a single item. However, when the test is finally printed or presented the single referenced case study may expand into many items. If a test is specified as having 10 items, the <i>final</i> test after expansion of the case study might be 15 items. Selecting this option will automatically extend the length of the test to account for the added items.
Item Bank Order	<ul style="list-style-type: none"> • Bank Order means the items will be shown in classification number order. • Randomized means the items will be shuffled.
Alternative Order	<ul style="list-style-type: none"> • As Entered... means that the “ABCD” will appear in the order entered in the item bank. • Randomized means that the alternatives will be shuffled. The exception to this is for “Locked” alternatives. These will <u>not</u> be shuffled out of position.
Mastery	Both mastery types are based on the sum of the item weights of the items included in the test. Note that this is <u>not</u> the number of items in the test.
Use Top N	 <p>If this option is selected only the top “N” scoring items in the test will be used for scoring. If active, only absolute mastery is allowed.</p>
Time Limit	Enter a number if a time limit is used.
Must Do Test	Click on this option to turn the profile into a “Must Do Test” profile. To convert a regular profile into a Must Do profile the test content page can contain <u>only</u> “Must Do” items. See the “Must Do Test” section for further details.

General Tab – Computer Delivery

Multi-Lingual Testing is currently only available for paper-and-pencil tests. This will be expanded to computer-delivered tests with a later release



Properties | **Computer Delivery** | Angoff Mastery | Validate / Must Do Profile | Multi-Part Profile Usage | Log

The options on this tab are functional only in a computer-delivered test.

Pre-Test | In the Test | Post-Test | Feedback | Review

Pre-Test Information

Pre-test information is shown on a screen AFTER the title page and BEFORE any introductory screens.

☒ Show pre-test page.

☒ Show mastery requirements.

☒ Show test length.

☒ Show time limit (if applicable).

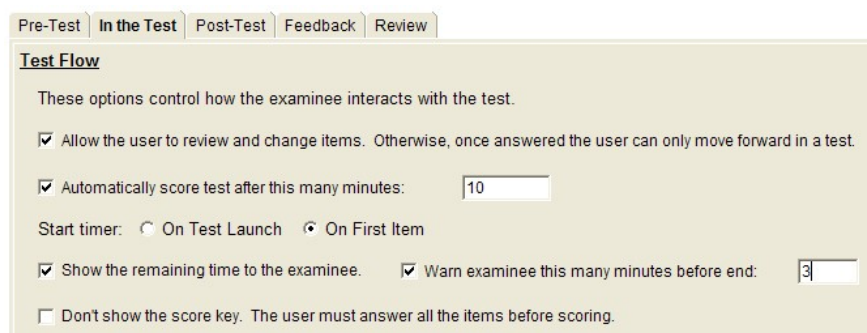
The options on the Computer Delivery tabs are active only on computer-delivered tests. These are tests that are presented with products such as the Examiner's Proctor System.

Pre-Test Tab

Show Page	This option must be selected for any of the other pre-test options to be active.
-----------	--

Show Mastery Requirements	If checked, a line telling how many points, or percentage of points, are needed to master the test.
Show Test Length	If checked, show how many items are in the test.
Show Time Limit	If checked, show how long the examinee will have to complete the test. This is active only if there is a test time limit.

In The Test Tab



Pre-Test **In the Test** Post-Test Feedback Review

Test Flow

These options control how the examinee interacts with the test.

☒ Allow the user to review and change items. Otherwise, once answered the user can only move forward in a test.

☒ Automatically score test after this many minutes:

Start timer: ☐ On Test Launch ☒ On First Item

☒ Show the remaining time to the examinee. ☒ Warn examinee this many minutes before end:

☐ Don't show the score key. The user must answer all the items before scoring.

Review and Change

Unless this option is active, the user can only move forward in a test. Once they leave an item, they can't change the answer. If set, they can roam freely in the test and answer items in any order.

Minute Limit

If checked, and a time set, the test will automatically be scored after the requested period of time, in minutes, has elapsed. If the test is interrupted, the internal test clock will be restarted at the appropriate time.

Start Timer

"On Launch" starts the timer as soon as the first screen of the test is seen. This includes title pages and introductions.
 "First Item" starts the times as soon as the first test item is seen. The test introduction(s) can be read without a time penalty. However, once the timer has started it will stay active even when the introduction is being re-read.

Show Time Remaining

If set, a time-remaining progress bar is shown to the examinee.

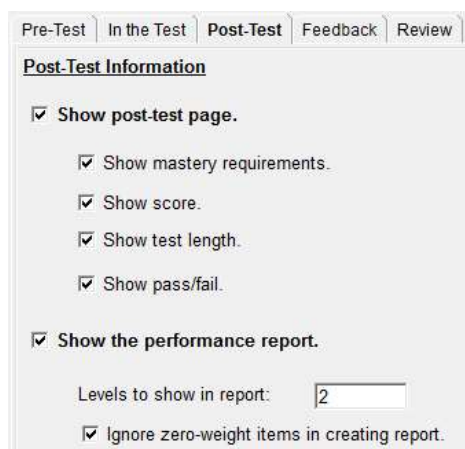
Warn Examinee

If set, give an extra warning to the examinee that their test time is almost up.

Score Key

If set, don't show the "Score" key. This is often used if you want to force the examinee to see every item on the test.

Post-Test Tab



Pre-Test In the Test **Post-Test** Feedback Review

Post-Test Information

☒ Show post-test page.

☒ Show mastery requirements.

☒ Show score.

☒ Show test length.

☒ Show pass/fail.

☒ Show the performance report.

Levels to show in report:

☒ Ignore zero-weight items in creating report.

Show Page

This option must be checked before any of the other options are active.

Show Mastery Requirements	If checked, a line telling how many points, or percentage of points, were needed to master the test.
Show Score	Show the achieved score.
Show Test Length	Show how many items were in the test.
Show Pass/Fail	Show if the student passed the test.
Show Performance Report	If set, show a multi-level bar chart indicating how the examinee performed on each section of the test.
Levels	The number of levels, corresponding to the levels in the item bank, that should be shown on the report.
Ignore Zero-Weight	Only consider items with weights in creating the report.

Feedback Tab

Show While Presenting Test	Feedback is shown <u>before</u> the test is scored, during the test. If you allow test browsing and you use this option, don't be surprised in the student gets 100% on the test!
Show After Scoring	Feedback is shown <u>after</u> the test has been scored.

On or both of the above options must be selected before the following options are active.

Show Pass/Fail Status	Show if the examinee passed the item.
Show Correct Answer	Indicate the correct answer(s) to the test item.
Show Profile Feedback	If selected, an expanded feedback is given for each item.

Review Tab

No review	If set, the examinee won't get to cycle through the completed items.
Passed	The examinee will be cycled through items that were mastered.
Failed	The examinee will be cycled through items that they did <u>not</u> master.
All	All items will be reviewed.

General Tab – Validate/Must Do Profile

No.	Item ID	Item Type	Difficulty
1	1.1.71	Multiple Choice	0
2	1.1.58	Multiple Choice	0
3			GENERATION FAILED

Before a profile is “released” it needs to be tested to make sure it works. The “Validate” tab accesses a tool that generates a test in a mode that lets you see what is happening during the generation process. If there is a problem, the validate tool will usually be able to spot it. Click on the “Validate” tab to access the tool.

Click on the “Validate Test” button to start the process. If you have edited the profile and not stored your changes you will be asked to store changes. If you do not store your changes you will not be able to use the tool. The following display will be shown:

If you want to stop the validation process before it has completed, click on the “Stop” button.

The system will then generate a test based on your profile and in the order that is described elsewhere in this section of the documentation. In the upper right corner you will see messages as the generation proceeds. If the generation is successful you will be told so. If the generation fails the progress display will show you where it failed. A box in the middle of the screen will also give some suggestions as to possible causes of the failure.

Whether the generation succeeded or failed two other displays will be shown. On the far left will be a listing of the test in the order in which it will be presented. If you are using item difficulties the difficulty levels will be shown. If you are using difficulties a display on the far right will show you the mix that you requested and the mix that was obtained. Remember that if the system gets within 5% of the requested mix it will be regarded as a successful generation.

Three additional options are available:

☐ Use All Item Types

This is the default option.

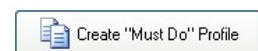
☒ Use Only Computer-Delivered Types

If this option is selected, only those item types that function in a computer-delivery environment will be selected. For example, with the option selected alpha items will not be included in the test.

☐ Validate for multi-lingual use.

This option will only be present if the multi-lingual features of item bank have been enabled. Making a check in this box will restrict items to those that have been “enabled” for use in a multi-lingual test. See page 20 for information on enabling a multi-lingual item.

Creating a Must Do Profile



If your test has been successfully validated you can create a “Must Do” test profile from the selected items. A button will be displayed indicating that this option is available.

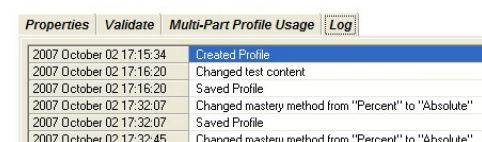
Note that in the current release of the software you cannot create a must-do profile from a test that contains Case Study or Parallel items. You can also create a “Must Do Profile” by clicking on the “Must Do Test” option box on the Properties tab.

General Tab – Multi-Part Profile Usage



You can see if this profile is used in a multi-part profile by clicking on the Multi-Part Profile Usage tab. You cannot delete a profile if it is currently used by a multi-part profile.

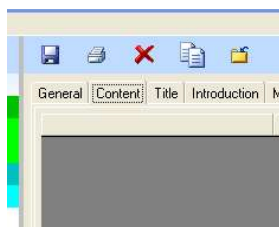
General Tab – Log



A log entry is created when a significant change is made to the profile. You can manually enter a log entry by clicking on the “Add an entry...” button.

Content Tab

The Content Tab defines what items are to appear in the test.



When a profile is created, the content screen is blank.

As you edit the content table you are telling the test generation system how to pull items from the bank when it is creating the test.

To add an index or an item to the test, left click on the index or item at the right and while *holding down the mouse button* drag the index over to the grey area.

Area	Action	Number	Title
1	+	----	Animals

The first time you drag an index over it will look like this.
This is the “use in test” marker.

Area	Action	Number	Title
1.1.22	✓	----	

The first time you drag an item over it will look like this.
This is the “must do” marker.

Area	Action	Number	Title
1.1		----	

- Index: 1.1
- Include in list.
- Include AT LEAST
- Include EXACTLY
- Exclude from test
- Remove from List

To change how an index is handled, left-click on the index line and select an option. What each option does is described below.

Area	Action	Number	Title
1.1.22	✓	----	

- Item: 1.1.22
- Must-Do Item
- Exclude Item
- Remove from List

To change how an item is handled, left-click on the item line and select an option. What each option does is described below.

General Information

Items and Indexes

1 (2 / 2)

1.1 (2 / 2)

1.1.1

1.1.22

1.2 (0 / 0)

2 (11 / 11)

Examination Profiles

basic animals

General

Content

Keywords/Order

Text Pages

Feedback

Area

1

1.1

2

2.1

2.1.1

2.1.3

2.4

Action

+

Exactly

+

At Least

✓

✗

✗

Number

1

2

Title

Animals

Dogs

Plants

Trees

New Section

Content Tab – Must Do Test Special Operations

In version 2 of The Examiner “Must Do” tests were referred to as “Preview Tests”. Version 3 of The Examiner expands on the Preview Test concept.

Sometimes it is necessary to create a test in which the order of the test items is precisely specified. The “Must Do” profile option fills this need. The Must Do profile option can either be activated by clicking on

the check box on the profile properties page or by creating the profile by clicking on the Create Must Do Test button on the Validate tab.

You can add new items to a Must Do test in the same way as you would add items to a regular profile. However, you cannot add indexes. You only add items. In a Must Do profile you have the added ability to change the order of items by left clicking on the item and dragging it up or down into the new position.

To preserve the test order in a Must Do test, click on the “Fixed Order” option under “Test Order” on the properties page.

Test Generation Actions

When a test is generated the generator will perform a series of operations to “pull” item out of the bank and include them in the test. Ignoring for now that action of keywords and difficulty ordering, the test generator will select items in the following order. Refer to the above illustration to see what the entry looks like in the complete list.

2.1.1	✓		
1.1	Exactly	1	Dogs
2.1	At Least	2	Trees

Items that are marked “must do” are selected first.

Indexes that are marked “exactly” and “at least” will be selected next.

The “number” entry in the above lines indicates the number of items that must appear in the test from the given indexes. Looking at the larger illustration you can see that item 2.1.1 is marked as a “must do” item. It is guaranteed to be in the test. Section 2.1 is marked as “At Least 2”. This means that the test must have at least two items from index 2.1 in it. Selection criteria lower on the list are counted in the total. Since 2.1.1 is in the test, it counts towards one of the two items that the test generator must select from index 2.1. One more item will be selected.

During the generation process indexes and items can be excluded from the selection process.

2.1.3	✗		
2.4	✗		New Section

This is an item that is excluded from the test.

This is an index that is excluded from the test.

In addition, items that have the “non selectable” option set on their property page will not be included in the test.

After the test generator has selected items based on the above criteria the generator checks to see if the test has reached the length requested on the “Number of Items” option on the general tab. If so, test generation is complete. If not, generation continues using items selected from areas marked as follows:

1	+		Animals
2.1	At Least	2	Trees

Indexes that are marked with a plus sign will be available.

Indexes that are marked “at least” will be available.

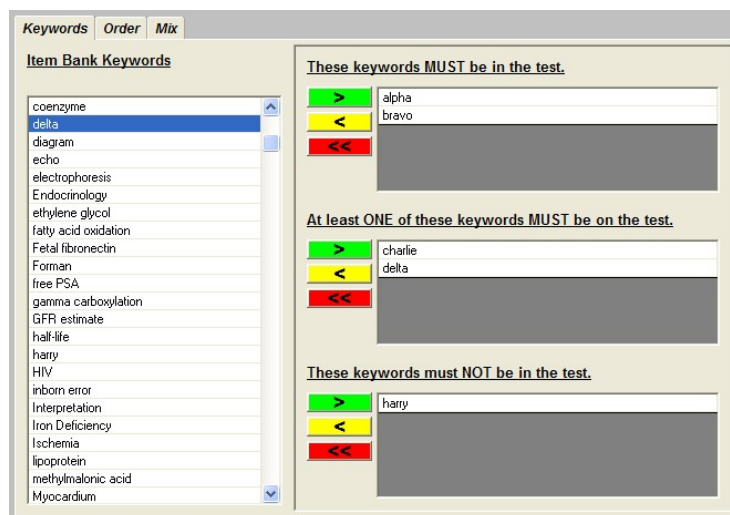
The selection will be random drawn from the available indexes. Generation will continue until the requested test length is reached. Remember that during the test generation process restrictions that are in place because of keyword or difficulty settings will affect the universe of items that are available for selection. In addition, after the test has been generated the difficulty mix of the test will be adjusted in that option is in force. You should always use the “Validate” option under the “General” to make sure that you can generate a test.

Keywords/Order/Mix Tab

In addition to selecting an item based on its classification in the item bank structure, item selection can be further controlled by the use of keywords and item difficulty. Both of these properties are set in the item

editing part of the item bank editor. Care needs to be taken when using these options. The more keyword and restrictions that are placed in a profile, the smaller the universe of items available for eventual inclusion in a test will be. Excessive use of keywords can very easily result in test generation failure.

Keywords/Order/Mix Tab – Keywords



Keywords are used to fine-tune the contents of a test. Keywords are both created and set inside of an item. You cannot add or remove keywords from the bank while editing a profile. Refer to the item editing section for information on creating and setting keywords. Keywords can be used in three different ways. The three sections on the right of the panel are used to set the ways keywords are to be used. In all cases, the right and left arrows in the middle of the panel are used to move keywords to and from the lists on the right. The double left-pointing arrow buttons will clear the associated list.

One exception to this rule exists. If an item is marked as a “must do” item, it will be included in the test regardless of its keyword settings.

- Keywords **MUST** be in the test. All the keywords in the list must be present in an item if the item is to be selected for the test. In the above example keywords “alpha” and “bravo” must be in an item if it is to be included in the test.
- ONE** of the keywords **MUST** be in the test. At least one of the keywords in the list must be present in an item if the item is to be selected for the test. In the above example the keyword “charlie” or “delta” must be in an item if it is to be included in the test. It doesn’t matter if both the keywords are present...just that one of them is present.
- Keywords **must NOT** be in the test. If any of the keywords in the list is present in an item that item will not be in the test. In the above example if the keyword “harry” is in an item that item will be excluded from the test.

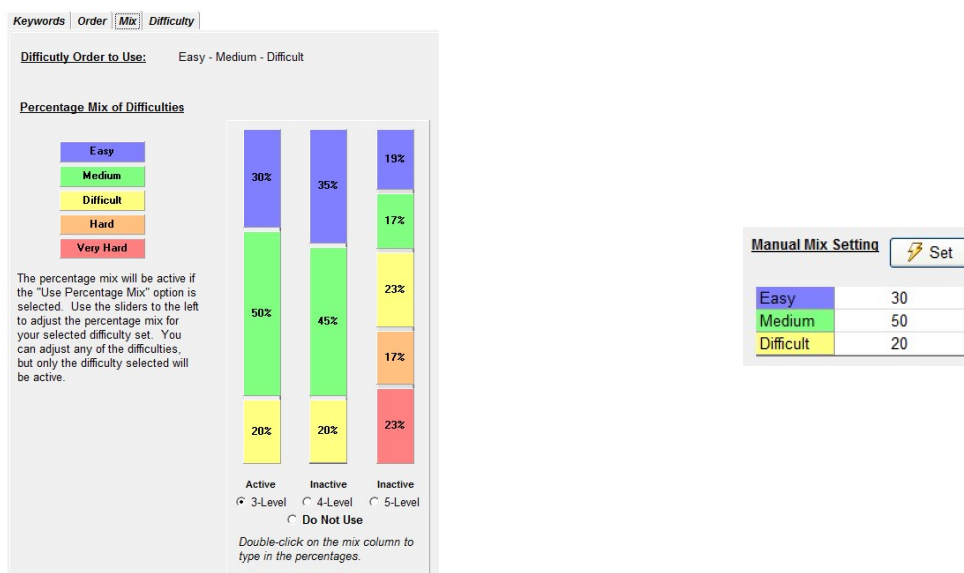
Keywords/Order/Mix Tab – Order

A common test delivery strategy is to order the items in a test according to their difficulty level. The Order sub-tab is used to implement this strategy. Before you can use ordering in a profile the difficulty level on an item must be set within an item. ***If this option is used an item will not be included in a test unless it has a difficulty level set.***

- Difficulty set to use. There are three difficulty sets available in addition to “don’t use a set”. Click on an option to select the set, or no set, to use. When you change sets any defined ordering that you have set will be cleared.
- Sort of ordering to use. This option controls the frequency of cycling of the difficulty order within the test. Two options are available.
 - Cycle within.
 - This can be set to “Full Bank” in which case the defined order will occur across the complete test without regard for index levels.
 - This can also be set to a number. This is the level at which ordering will occur. For example, if set to “1” each time the first number of an index changes the cycling will reset to the start. If set to “2” each time the second number of an index changes cycling will be reset.
 - Cycle type.
 - Cycle once means that all the items of a given difficulty will be shown before the next set of items are shown.
 - Cycle repeatedly means that one item of each time will be shown for each difficulty. This will repeat until all items in the cycle set are selected.
- Define the ordering. This sets the difficulty sequence that will be used. The available difficulties are shown on the left. They are moved to the right. Note that difficulties can be repeated if the “cycle repeatedly” option is selected.

If you are using the option to select items based on difficulty in order to achieve a percentage mix, the difficulty sets used in the ordering option and the mix option must be of the same type. The system will force you to use the same set.

Keywords/Order/Mix Tab – Mix



A common test strategy is to create a test that has a certain percentage of questions of set difficulty levels. If you have set difficulty levels for items, you can create a test with a mix of items based on the difficulty level of the items.

You should use this option with caution! As you will see in the explanation, the system will attempt to generate a test to a given difficulty mix. If you do not have sufficient items, you will end up generating a test that always has the same items. It is essential that you use the "Validate" option on the General tab to make sure that the item mix you have requested can be realized.

If you are using ordering, the difficulty sets on both the ordering and mix tabs must match. The system will prevent you from selecting different sets.

To create a test with a specific difficulty mix follow these steps:

- Click on the level control options at the bottom of the page to select the set you want to use.
- Move your mouse over the bar above the option until you see the cursor change to an up-and-down arrow.
- Holding down the *left* mouse button drag the horizontal bar up and down.
- Release the button and the percentage mix will be displayed.
- Go to the General Tab and then the Validates sub-tab. Try to generate a test. If you can't, return to the Mix tab and either adjust the mix or disable the option.

Alternatively, you can double-click on the mixing column to show a manual-entry option. Enter numbers into each of the slots and lick on the "Set" button. The numbers must add to 100.

The system allows a leeway of +/- 5 % your requested mix.

How the system generates a test using difficulties

When you tell the system to generate a test to a given difficulty mix you are adding a great deal of complexity to the test generation process. A test that would have been generated in under a second could take, in some cases, up to a minute to generate. A good rule of thumb is that the more items are in your item bank, the quicker the system will be able to create a test that matches your specifications.

The system creates a difficulty adjusted test by first controlling the items that are selected during the initial, “normal”, test generation phase and then by swapping items to fine-tune the test's composition. The paramount consideration during test generation is to maintain the subject matter mix of the test. In essence this means that if you have written a test that has requested ten questions about cats and ten questions about dogs, after difficulty adjustment you will still have that 10/10 mix. “Cat” question won't be swapped out for “Dog” questions. In detail, here is the generation process:

- The test generator processes the commands in the “usual” sequence.
- “Must Do” items are always included as specified regardless of their difficulty level.
 - This means that if a test is composed totally of “must do” items, the difficulty adjustment will fail unless the requested items are already of the proper difficulty mix.
 - During the later “swap” phase “must do” items will never be swapped.
- “N from a category” items are selected.
 - When the generator begins the selection process for each category the system will determine the number of items of each difficulty that should be drawn from that section. It will bias the selection process to achieve the requested mix. However, if the mix cannot be achieved the selection will continue until the requested number of items have been selected. If a test is composed only of “N from a category” selections and there is an insufficient mix of difficulties the generation will fail.
- If additional items are needed areas marked for random selection will be used.
 - When the generator begins the selection process for each category the system will determine the number of items of each difficulty that should be drawn from that section. Again, the system will bias the selection process in an attempt to achieve the requested difficulty level.
- The system will then examine the difficulty mix. If the mix is within 5% of the requested mix the process will be deemed successful and the test will be finalized.
- If not, a swap process will be started.
 - The system will randomly select one of the items it had previously selected, excluding any “must do” items.
 - During the generation process each item was tagged with “what caused me to be selected” information. That information is used to create a list of items that could be potentially swapped with the existing item to create a test closer to the requested mix. This step is designed to prevent the swapping of an item in one area (say, “cats”) with an item from another area (say, “dogs”). All possible swaps are examined to see if that swap improves the mix.
 - If the swap does not improve the mix another item is selected at random.
 - This process continues for 20 iterations of the test.
 - If after 20 iterations the system is unable to create a test of the requested mix the test generation process will stop and an error message will be shown.

It is important to remember that things such as required keywords will stay in effect during the test generation process. Each additional keyword reduces the universe of test items available for generation. Unless an item bank has a very large number of items the use of keywords will almost always prevent the generation of a test to a given difficulty level.

Keywords/Order/Mix Tab – Difficulty

Keywords	Order	Mix	Difficulty
<p>To generate a test to a given difficulty level first select the set to use and then specify the target difficulty. You can also specify a range as a decimal number. The smaller the range, the longer it will take to generate a test. You should also specify a difficulty for items that do not have one set. If this is left blanks, items without difficulties will nto be included in the test.</p>			
Difficulty Set:		<input type="text" value="ANGdebug"/>	
Desired Difficulty:		<input type="text" value="6"/>	Range (+/-): <input type="text" value="0.05"/>
Default Difficulty:		<input type="text" value="0.5"/>	Set to "0" for "do not use"

A common test strategy is to create a test with a specific average difficulty level. This is often used in association with the Angoff scoring method (which is set on the General Properties page of the profile).

Text Pages Tab

If you have activated the multi-lingual options, you will need to edit the text pages for the alternate language. These pages will be found under the tab labeled with the name of the alternate language.



Two text pages are available:

- The title page is show or printed at the start of the test.
- The introductory page is show immediately after the tile.

Click on the tab to select the page that you want to edit. To edit the page click on the “Edit Text” button. Refer to the item editing section for details on the operation of the text editor. Graphics can be included in both the text pages. If you want to edit text information but do not want the text to appear in the test make sure that the “use this page” box is not checked.

If the profile you are editing is used in a multi-part test the introduction and title pages of each of the sub tests will normally be shown at the start of each sub test. This can be controlled using the features of the Examiner Test Printing software. Refer to the manual of that product for further information.

Feedback Tab



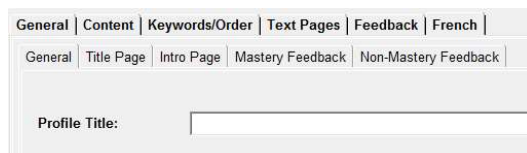
Three different types of feedback are available:

- Mastery
- Non-Mastery
- General

While generally used in on-line test delivery, the feedback pages can also be used with printed tests. Quite often they are used to give background information to the person that will be grading the tests. The use of feedback pages are controlled by the test printer. Refer to the Examiner printing manual for information on controlling the printing of feedback.

Click on the tab to select the page that you want to edit. To edit the page click on the “Edit Text” button. Refer to the item editing section for details on the operation of the text editor. Graphics can be included in both the text pages. If you want to edit text information but do not want the text to appear in the test make sure that the “use this page” box is not checked.

Multi-Lingual Options



General	Content	Keywords/Order	Text Pages	Feedback	French
General	Title Page	Intro Page	Mastery Feedback	Non-Mastery Feedback	

Profile Title:

If you have enabled the multi-lingual options an additional tab will be visible in the profile. This tab will be titled with the name of the alternate languages. You should edit each of the text pages, entering the translated text of the pages.

Editing a Multi-Part Profile

The following screen is shown when editing a profile. Some of the information was inserted when you used the wizard to create the profile. A multi-part profile differs from a “standard” profile in that it is composed of pre-existing profiles. Obviously, you can't create a multi-part profile until you have created a number of “standard” profiles.

Note that the keywords / ordering tab does not appear on a multi part profile editing page. Keywords and ordering do function in a multi part test...but only in the context of the individual profiles that make up the sub tests.

Editing Control Options

Click on an icon at the top of the profile to perform the requested operation:



Click on the disk icon to save the profile. The profile will be closed after it has been saved.



Click on the printer icon to print a “record” copy of the profile. This print will show the contents of the profile and is used for record keeping. This is not a print of the test!



Click on the “X” icon to delete the profile. If a profile is used in a multi-part test it cannot be deleted until it is removed from all the multi-part tests it appears in.



Click on this icon to make a copy of the profile. You will be prompted for the name of the copy.



Click on the folder option to leave the profile. If you have made any edits you will be asked if you want to leave without saving your changes.

General Tab – Properties

The General Tab defines the basic characteristics of the profile.

Profile Title	This is the title seen by the examinee when taking a test. You can click on the field to change the title.
Created on	This is the date when this profile was added to the bank.
Last edited	This is when the profile was last edited. This will change when you store the profile.
Number of Items	The number of items in the test. Enter a number from 1 to 500.

The setting of the item bank order and alternative order will override the settings in the individual profiles.

Item Bank Order	<ul style="list-style-type: none"> • Bank Order means the items will be shown in classification number order. • Randomized means the items will be shuffled.
Alternative Order	<ul style="list-style-type: none"> • As Entered... means that the “ABCD” will appear in the order entered in the item bank. • Randomized means that the alternatives will be shuffled. The exception to this is for “Locked” alternatives. These will <u>not</u> be shuffled out of position.
Time Limit	Enter a number if a time limit is used.

With a multi-part test mastery is calculated over the complete test.

Mastery	Time Limit
<input checked="" type="radio"/> Percentage: <input type="text" value="75"/> %	<input checked="" type="radio"/> Not Used
<input type="radio"/> Absolute <input type="text" value="0"/>	<input type="radio"/> Minutes: <input type="text" value="0"/>
<input checked="" type="radio"/> Ignore sub tests and use the above mastery accross the whole test.	
<input type="radio"/> Master when all sub tests are mastered.	
<input checked="" type="radio"/> Master when the following number of sub tests are mastered. <input type="text" value="2"/>	

If the “ignore subtests...” option is selected the mastery is calculated as if the multi-part test was a single test.

If this option is selected mastery will be granted if all the sub tests are mastered.

If this option is selected mastery will be granted if the number of sub tests in the box are mastered.

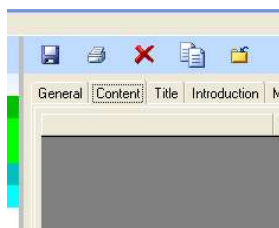
General Tab - Log

General	Content	Keywords/Order	Text Pages	Feedback
Properties Log				
2007 August 10 11:28:08	Changed profile test length from 290 to 275			
2007 August 10 11:28:08	Changed profile mastery percent from 0 to 22			
2007 August 10 11:28:08	Changed test content			
2007 August 10 11:28:08	Saved Profile			

A log entry is created when a significant change is made to the profile. You can manually enter a log entry by clicking on the “Add an entry...” button.

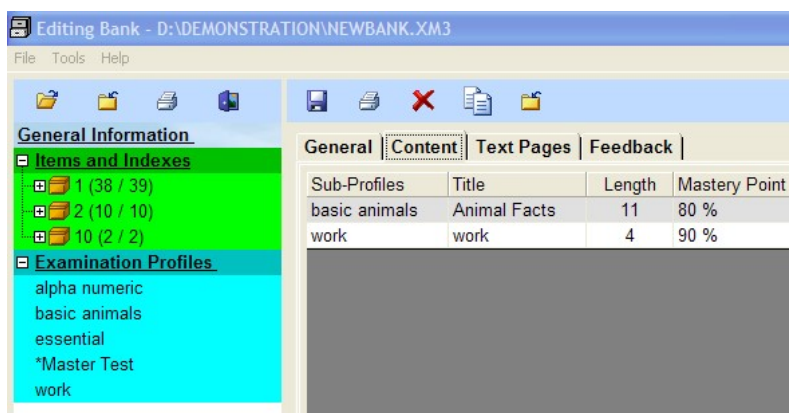
Content Tab

The Content Tab defines what profiles are to appear in the multi part test.

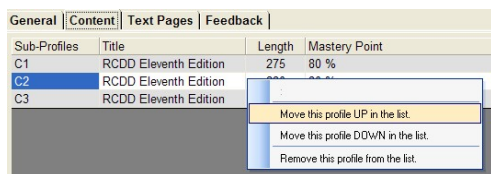


When a profile is created, the content screen is blank.

As you edit the content table you are telling the test generation system what profiles to use in creating the test. The test will always be presented in the order in which the list appears. The sub-tests will not be intermingled.



To add a profile to the list, click on the profile in the left-hand profile list and drag it over to the test area on the right. You cannot add a multi part profile to another multi part profile. Information on the included profiles will be shown in the table on the right. One thing to remember is that if the specifications on an included profile change then that may well change the mastery point on the completed multi part test.



You can change the order of the profiles in the list by right-clicking on the profile and then left clicking on the up or down option in the displayed menu.

Text and Feedback Pages

The text and feedback pages operate the same as in a single profile. Refer to that section of the manual for information.

General Information

Editing Bank - C:\DEMONSTRATION\NEWBANK\XM3

File Tools Help

General Information

Items and Indexes

- 1 (35 / 35) Animals
- 2 (8 / 8) Plants
- 3 (4 / 4) Alphanumeric
- 100 (32 / 32) Simple True F
- 150 (8 / 2) Parallel Tests

Examination Profiles

- 0ANCheck alpha numeric...
- 0essay Essay
- basic animals Animal Facts
- essential Essential Infor...
- *FT-Abs 8-1 sub MP-FT Absolut...
- *FT-ABS 8-All Subs MP-FT Absolut...
- *Master Test Master Test
- *MP-FT Absolute 8 MP-FT Absolut...
- *MP-FT Percent MP-FT Percent
- para test para test
- TF-Sub One Subtest ONE
- TF-Sub Two Subtest ONE
- work work
- work-no essay work-no essay

General Keywords Fonts Bank Characteristics Import Statistics Statistics Distribution Item Difficulty Security

BankTitle: Sample Item Bank

Created On: 08 August 2006 09:45

Last Edited: 08 August 2006 09:45

Linked History File: C:\DEMONSTRATION\DEMO_HISTORY.MDB

Exam ID: 180 This is the unique answer key code.

Level Titles:

1	2	3
		Items

Languages

A number of global properties of the item bank can be accessed and changed by clicking on the “General Information” entry in the table on the left. You can also see this information by right-clicking on “General Information” and then clicking on properties.

General Tab

General Keywords Fonts Import Statistics Statistics Distribution

BankTitle: RCDD 11

Created On: 11 June 2007 16:07

Last Edited: 11 June 2007 16:07

Linked History File: D:\DEMONSTRATION\SAMPLE.MDB

Exam ID: 1 This is the unique answer key code.

Click on the “General” tab to change the information listed.

Bank Title This is the title, not the name, of the item bank.

Created On / Last Edited These fields cannot be edited. They show when the item bank was created, and when it was last changed.

Linked History File This must be set if the “Import Statistics” option is to be used. Click on the field and browse to the history file you want to use. This file will have been created with the Examiner System’s Examination Records System.

Exam ID This is the number that will be used to “stamp” the answer key. Every time an exam is generated this key will increase by 1. Some users will change this by 1000 when they release a new version of their item bank. It is not a good idea to change this to a lower number as this may result in two exams having the same answer key.

Level Titles:

1	2	3
		Items

Enter information into the slots to give a name to each level. Typical entries would be “Index” or “Objective”.



Click on this button to activate the multi-lingual features of the item bank. Once activated, you cannot de-activate the feature. A multi-lingual item bank will be approximately double in size as compared to a single-language item bank. Once activated, the screen will change showing the multi-lingual features.

 A screenshot of the 'Languages' configuration screen. It contains a table with columns 'DEFAULT' and 'ALTERNATE'. Below the table are text input fields for 'Alternate language for "True"' and 'Alternate language for "False"', and a 'Show Language Usage' button.

	DEFAULT	ALTERNATE
Language	Default	Default
Spell Check Dictionary	NONE	NONE

Alternate language for "True": True

Alternate language for "False": False

Show Language Usage

The above shows the default state after activating the multi-lingual features. You need to edit each of the blocks to the appropriate values. The "Language" fields are simple text fields. The "Spell Check Dictionary" provides a drop-down list where you can select any of the available languages. If the language you want is not shown, contact The Examiner for information on how a new dictionary can be created. The "True" and "False" fields should be filled out with the translated words for "True" and "False" in the alternate language.

 A screenshot of the 'Languages' configuration screen with the following values:

	DEFAULT	ALTERNATE
Language	English	French
Spell Check Dictionary	English	French

Alternate language for "True": Vrai

Alternate language for "False": Faux

Show Language Usage

Clicking on the "Show Language Usage" will gather and display information on the translation state of the items in the item bank.

Fonts Tab

General | **Fonts** | Import Statistics

Edit Font

Default Font: Arial

Size: 10

Bold: No

Underline: No

Italic: No

Strikethru: No

Color:

Sample: 012345 abc ABC

Click on the Font Tab to edit the system font. This is the default font that will be used when any text element in the system is created. To change the font, click on the “Edit Font” button. A sample of the font is shown on this page.

Keywords Tab

General | **Keywords** | Fonts | Import Statistics | Statistics Distribution

Retrieve Usage Delete Keyword Print Usage Export Tables

Active Keywords | Inactive Keywords

Keyword	Occurrences	Item ID
R1.51.2 Erickson	2	1.1.130 1.1.62
R1.52.6 Erickson	2	1.1.131 1.1.64
R1.6.2 Erickson	2	1.1.134 1.1.6
		1.1.132

Active Keywords

Click on the “Keywords” tab to find out the distribution of keywords in the item bank. Since it may take some time to retrieve usage, the table is not initially loaded. Click on the “Retrieve Usage” button to load the table.


Each active keyword will be shown along with a tally of how many items use it and what those items are. You can click on the “Keyword” or “Occurrences” headings to sort on those columns. You cannot sort on the “Item ID” column.


The table can be printed or exported to a spreadsheet by clicking on the appropriate button. This will print and export both the active and inactive keywords.

Inactive Keywords

Click on the “Inactive Keywords” to see keywords that are in the item bank but are not referenced by any items. You can delete an inactive keyword by right-clicking on the keyword and then by clicking “Yes” on the next display. You can only delete inactive keywords. To delete an active keyword you must edit each item that uses that keyword and remove the reference to the keyword.

Bank Characteristics Tab

 Retrieve Information

 Print Information

Item Types

Answer Distribution

Non-Selectable

ID	Title	Total Items	Multiple-Choice	True/False
Bank		1109	1003 (0.90)	106 (0.10)
1	Chapter 01	138	126 (0.91)	12 (0.09)
1.1	U Universal	138	126 (0.91)	12 (0.09)
2	Chapter 02	39	32 (0.82)	7 (0.18)
2.1	Universal	39	32 (0.82)	7 (0.18)
3	Chapter 03	28	24 (0.86)	4 (0.14)
3.1	U Universal	28	24 (0.86)	4 (0.14)
4	Chapter 04	112	99 (0.88)	13 (0.12)
4.1	U Universal	112	99 (0.88)	13 (0.12)
5	Chapter 05	62	59 (0.95)	3 (0.05)

Click on the Bank Characteristics tab to access this option. Then, click on the “Retrieve Information” button to scan the item bank and load the tables.

After you have loaded the tables you can click on the “Print Information” button to print the tables.

Item Types Tab

Item Types		Answer Distribution Non-Selectable		
ID	Title	Total Items	Multiple-Choice	True/False
Bank		1109	1003 (0.90)	106 (0.10)
1	Chapter 01	138	126 (0.91)	12 (0.09)
1.1	U Universal	138	126 (0.91)	12 (0.09)
2	Chapter 02	39	32 (0.82)	7 (0.18)
2.1	Universal	39	32 (0.82)	7 (0.18)

The item types tab shows how many of each item type you have in your item bank both by absolute number and fractional percentage of the bank.

Only item types that are in your bank will be listed. Parallel and Case Study item types will also be listed. Note that those item types will skew the percentage amount for the bank.

Answer Distribution Tab

Item Types		Answer Distribution	Non-Selectable					
Multiple-Choice		True/False						
ID	Title	Total Items	A	B	C	D	E	
Bank		1003	176 (0.18)	219 (0.22)	240 (0.24)	199 (0.20)	161 (0.16)	
1	Chapter 01	126	26 (0.21)	20 (0.16)	33 (0.26)	23 (0.18)	23 (0.18)	
1.1	U Universal	126	26 (0.21)	20 (0.16)	33 (0.26)	23 (0.18)	23 (0.18)	
2	Chapter 02	32	6 (0.19)	6 (0.19)	8 (0.25)	7 (0.22)	5 (0.16)	
2.1	Universal	32	6 (0.19)	6 (0.19)	8 (0.25)	7 (0.22)	5 (0.16)	
3	Chapter 03	24	6 (0.25)	7 (0.29)	4 (0.17)	3 (0.13)	4 (0.17)	

The answer distribution tab shows how many of each alternative is specified as “correct” in multiple-choice and true/false items.

Both the absolute number and decimal percentage distribution is shown. If you do not use alternative randomization in your profile this chart is very useful for seeing there is a bias towards always selecting one alternative as the correct alternative.

Non-Selectable Tab

Item Types		Answer Distribution		Non-Selectable	
ID	Title	Total Items	Selectable	Non-Selectable	
Bank		1109	1086	23	
1	Chapter 01	138	135	3	
1.1	U Universal	138	135	3	
2	Chapter 02	39	39		
2.1	Universal	39	39		
3	Chapter 03	28	28		

The non-selectable tab shows how many non-selectable items are in each section of your item bank.

Import Statistics Tab

General | Fonts | Import Statistics

Use the sliders at the left to set the upper and lower limits for setting the various difficulty levels. To indicate that you want to import the data make a check mark in the box below each set. The data from the items in the requested set will be imported ONLY if their ID matches the ID in the items EXACTLY. The number of levels must match.

What is the minimum number of data points needed before accepting the difficulty? To accept data no matter what, enter "0".

Minimum Points:

Import data from the following "saved set" in the source history file:

Import the Data

Three Division Set ☒ ☒ Check here to use the default difficulty if the minimum data points have not been seen.

Four Division Set ☒ ☒ Check here to use the default difficulty if the minimum data points have not been seen.

Five Division Set ☒ ☒ Check here to use the default difficulty if the minimum data points have not been seen.

Default Difficulty

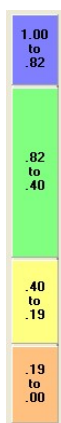
The Import Statistics option is used to set the sorting difficulty inside of the bank's items. To use this option two conditions must initially be met:

- An Examiner History File must be specified on the General Tab
- One or more "saved sets" must have been created in the history file.
 - Refer to the Record System Documentation for information on creating a saved set.

There are three sets of sorting difficulties stored with each item. They are called the "Three", "Four", and "Five" division sets. This screen is used to specify what difficulties to set for each item as that information is retrieved from a saved history set. The following steps need to be followed in order to successfully import statistical information:

Import data from the following "saved set" in the source history file:

Use the drop-down list to select a "saved set" in the attached Examiner history file. If you have not saved a set you cannot use the import feature!



Use the "sliders" to indicate what difficulties should be assigned to each named sorting level. The color codes on the slider correspond to the difficulties shown in the box to the right of the sliders. To change the settings, move the cursor over the dividing point between two colors. The cursor will change. Holding down the left mouse button drag the divider up and down. When you release the mouse the difficulty ranges will be re-calculated. Remember that a difficulty of 1.0 indicates that everyone mastered the item and a difficulty of 0.0 indicates that no one mastered the item.

Minimum Points:

Set the minimum number of data points in the source set that must be present before a difficulty will be used. Generally, you should not use items that have been seen less than 30 times. The higher the number you select the more reliable will be the data. If you want to select all items regardless of the times they were seen, set this value to 0. This is not recommended!

☒ Check here to use the default difficulty if the minimum data points have not been seen.

If the data being read from the history file does not meet the above criteria you can tell the system to use a specified difficulty level for the item. Make a check in this box to tell the system to use the default levels. If you do not use this option the difficulty level of an item will not be changed if the minimum points criteria is not met.

Medium Medium **Difficult**
Default Difficulty

Use the three drop-down boxes to set the default difficulty for each of the sets.

☒ Three Division Set ☒ Four Division Set ☒ Five Division Set

Make a check mark in the box of the set you want to update. You must select at least one set to update.

Import the Data

Click on the "Import the Data" button to start the process. You will be shown a progress bar as the system sets the difficulty levels. A log entry will be made in each item that has had its difficulty updated.

Statistics Distribution Tab

General Keywords Fonts Import Statistics Statistics Distribution					
Select the difficulty set you want to use and then click on the "Retrieve Usage" button. The table will show their percentage mix for each difficulty for each section of the item bank.					
<input checked="" type="radio"/> Raw Numbers <input type="radio"/> Percentages		<input type="radio"/> Three Division Set <input checked="" type="radio"/> Four Division Set <input type="radio"/> Five Division Set		<input type="button" value="Retrieve Usage"/> <input type="button" value="Print Usage"/>	
Indexes	Not Set	Easy	Medium	Difficult	Hard
3	3.1	3	55		
4	4.1	8			
5	5.1	27	57		64
7	7.1		37	1	
8	8.1			38	
9	9.1				11
11	11.1		14		
12	12.1		9		
13	13.1		15		
14	14.1	1		13	17
Bank	4	90	94	94	92

General Keywords Fonts Import Statistics Statistics Distribution					
Select the difficulty set you want to use and then click on the "Retrieve Usage" button. The table will show their percentage mix for each difficulty for each section of the item bank.					
<input type="radio"/> Raw Numbers <input checked="" type="radio"/> Percentages		<input type="radio"/> Three Division Set <input checked="" type="radio"/> Four Division Set <input type="radio"/> Five Division Set		<input type="button" value="Retrieve Usage"/> <input type="button" value="Print Usage"/>	
Indexes	Not Set	Easy	Medium	Difficult	Hard
3	3.1	5 %	95 %		
4	4.1		100 %		
5	5.1	18 %	39 %		43 %
7	7.1		97 %	3 %	
8	8.1			100 %	
9	9.1				100 %
11	11.1		100 %		
12	12.1		100 %		
13	13.1		100 %		
14	14.1	3 %		42 %	55 %
Bank	01 %	24 %	25 %	25 %	25 %

The Statistics Distribution Tab is used to show what percentage of items of each difficulty is present in each section of the item bank. To see the distribution first select the method of presentation, raw or percentage, and then which set to use, three, four, or five. Click on the "Retrieve Usage" button to build the table. Shown above are the two different views. In the above example the item bank has a very even distribution of difficulties as shown by the numbers in the "Bank" column at the bottom of the chart. However, this bank is ill suited to generating a test with a given difficulty level since, with the exception of section 5.1, most sections have items of only one difficulty. Since the test generator will not swap an item in, say, 3.1 with an item in 7.1 the test will be unable to create a test with a distributed difficulty.

Here are two views of another item bank's difficulty distribution:

General | Keywords | Fonts | Import Statistics | **Statistics Distribution**

Select the difficulty set you want to use and then click on the "Retrieve Usage" button. The table will show the percentage mix for each difficulty for each section of the item bank.

☐ Three Division Set
☒ Four Division Set
☐ Five Division Set

☒ Raw Numbers ☐ Percentages

Indexes	Not Set	Easy	Medium	Difficult	Hard
3.1	15	15	14	14	
3.20	15	15	14	14	
3	30	30	28	28	
4.1	2	2	2	2	
4	2	2	2	2	
5.1	37	37	37	37	
5.11	37	37	37	37	
5.12	37	37	37	37	
5.13	37	37	37	37	
5	148	148	148	148	
7.1	9	9	10	10	
7.2	1	1	1	1	
7.223	37	37	37	37	
7.224	37	37	37	37	
7.225	37	37	37	37	
7.226	37	37	37	37	
7	168	168	169	169	
8.1	10	10	9	9	
8	10	10	9	9	
9.1	3	2	3	3	
9	3	2	3	3	
11.1	3	4	4	3	
11	3	4	4	3	
12.1	2	2	2	3	
12	2	2	2	3	
13.1	4	4	4	3	
13	4	4	4	3	
14.1	8	7	7	8	
14.9		1			
14	8	8	7	8	
Bank	0	368	368	366	366

General | Keywords | Fonts | Import Statistics | **Statistics Distribution**

Select the difficulty set you want to use and then click on the "Retrieve Usage" button. The table will show the percentage mix for each difficulty for each section of the item bank.

☐ Three Division Set
☒ Four Division Set
☐ Five Division Set

☐ Raw Numbers ☒ Percentages

Indexes	Not Set	Easy	Medium	Difficult	Hard
3.1	26 %	26 %	24 %	24 %	
3.20	26 %	26 %	24 %	24 %	
3	26 %	26 %	24 %	24 %	
4.1	25 %	25 %	25 %	25 %	
4	25 %	25 %	25 %	25 %	
5.1	25 %	25 %	25 %	25 %	
5.11	25 %	25 %	25 %	25 %	
5.12	25 %	25 %	25 %	25 %	
5.13	25 %	25 %	25 %	25 %	
5	25 %	25 %	25 %	25 %	
7.1	24 %	24 %	26 %	26 %	
7.2	25 %	25 %	25 %	25 %	
7.223	25 %	25 %	25 %	25 %	
7.224	25 %	25 %	25 %	25 %	
7.225	25 %	25 %	25 %	25 %	
7.226	25 %	25 %	25 %	25 %	
7	25 %	25 %	25 %	25 %	
8.1	26 %	26 %	24 %	24 %	
8	26 %	26 %	24 %	24 %	
9.1	27 %	18 %	27 %	27 %	
9	27 %	18 %	27 %	27 %	
11.1	21 %	29 %	29 %	21 %	
11	21 %	29 %	29 %	21 %	
12.1	22 %	22 %	22 %	33 %	
12	22 %	22 %	22 %	33 %	
13.1	27 %	27 %	27 %	20 %	
13	27 %	27 %	27 %	20 %	
14.1	27 %	23 %	23 %	27 %	
14.9		100 %			
14	26 %	26 %	23 %	26 %	
Bank	00 %	25 %	25 %	25 %	25 %

In this case there is a broad distribution of items across all the different difficulties.

If you are having difficulties in generating a test to a given difficulty mix referring to these displays will quickly point out where your problems are occurring. For reference you can click on the "Print Usage" button to create a hard-copy list of you difficulty distribution.

Item Difficulty Tab

General	Keywords	Fonts	Import Statistics	Statistics Distribution	Item Difficulty
Summat...	History Import	Flat File Import	Add Set		
You can view the summative statistics for the item bank by selecting a set at the left and then clicking on "Analyze".					
<div style="border: 1px solid black; padding: 2px; display: inline-block;">ANGdebug</div>					
Indexes	Items	Not Set	Set	Avg. Difficulty	
3.1	58	0	58	.47	

While the statistics sets discussed in the earlier section are useful for building tests with a specified mix of items, it is often useful to create a test where the mean difficulty of the test is specified and the exam generator picks the items necessary to create an exam of the difficulty. The Item Difficulty Tab allows you to both import item statistics into an Examiner item bank and to review summative statistics for the entire bank. After a discussion of the summative data tab the use of the import-related tabs will be discussed.

Summative Tab

Summat... | History Import | Flat File Import | Add Set

You can view the summative statistics for the item bank by selecting a set at the left and then clicking on "Analyze".

ANGdebug

Retrieve Usage

Print Usage

Indexes	Items	Not Set	Set	Avg. Difficulty
3.1	58	0	58	.47
3	58	0	58	.47
4.1	8	0	8	.49
4	8	0	8	.49
5.1	148	0	148	.52
5	148	0	148	.52
7.1	38	0	38	.46
7.2	4	0	4	.53
7	42	0	42	.47
8.1	38	0	38	.46
8	38	0	38	.46
9.1	11	0	11	.59
9	11	0	11	.59
11.1	14	0	14	.41
11	14	0	14	.41
12.1	9	0	9	.49
12	9	0	9	.49
13.1	15	0	15	.41
13	15	0	15	.41
14.1	30	0	30	.58
Bank	748	0	748	.50

This tab shows the mean difficulties for each index section in the item bank along with the mean for the entire bank. To retrieve usage information select a set from the drop-down list and click on the "Retrieve Usage" button.

Indexes	These columns show the index levels in the item bank. The sub sections are shown first with the top of the index shown lower. There will be columns up to, but not including, the item level.
Items	The number of items in that section of the bank.
Not Set	The number of items that do <u>not</u> have any difficulty information.
Set	The number of items that <u>do</u> have difficulty information.
Avg. Difficulty	Based on the number of items that do have difficulty set the average difficulty for the referenced section

To print the list click on the "Print Usage" button.

History Import Tab

Summative | **History Imp...** | Flat File Import | Add Set

Item difficulties within items can be set by importing data from an existing Examiner history file. Import data from the following "saved set" in the source history file:

ChemPre

Import the Data

If you have an Examiner history file with data derived from items in the current bank you can import that data with this option. First, create a "saved set" in the Examiner Records system. Next, make sure the history file is attached using to the Item Bank Editor. Use the drop-down to select the saved set and click on the "Import the Data" button. On importing, the saved set will have the letters "ANG" appended to the start of the set name. In addition, special characters such as "~" will be removed.

Flat File Import Tab

Summative | History Import | **Flat File Imp...** | Add Set

Item difficulties within items can be set by importing data from a flat file. This is the method used in previous versions of The Examiner. Enter a file name below and click on "Import the Data".

D:\DEMONSTRATION\EXPORT.TXT

Import the Data

Users of Examiner 2 could use “ini” files for scoring in the Examiner Print Utility. You can use those same files as a statistics source for Examiner 3. Click on the white entry line to browse for and select the file. The “flat” file must be of the following format:

```
[test1]
1.1.1=0.96
1.1.2=0.88
1.1.3=0.95
1.1.4=0.76
5.3.8=0.62
7.2.13=0.92
7.2.14=0.69
[short]
1.1.1=0.96
1.1.2=0.88
1.1.3=0.95
1.1.4=0.76
1.1.5=0.92
```

The name in the bracket will become the saved set. The data after the bracket are the items in the set and their associated difficulties. On importing, the saved set will have the letters “ANG” appended to the start of the set name.

Add Set Tab

Summative | History Import | Flat File Import | **Add...**

Enter the name of the set at the prompt and click on the Create Set button.

SME-derived

Create Set

If you want to manually add difficulty information to items you can create a separate set by entering the name of the set into the prompt and clicking on the “Create Set” button. The set will have the letters “ANG” appended to the start of the set name.

Security Tab

When an item bank is created it is encrypted and protected with a database password. This is not an “Examiner” password. Any user of The Examiner can open up an unsecured item bank. To secure an Examiner item bank follow these steps.

A new item bank will not have the “Use Security Access” option checked. Make a check mark in the box.


Answer “Yes” to the query to add default security.


The following table will be displayed:

General | Keywords | Fonts | Import Statistics | Statistics Distribution | Item Difficulty | Security

All new users in this table will be stored immediatly.

☒ Use Security Access

 Add User

 Delete User

User Name	Password	Header	Items	Profile	Generate	Last Edit	By	Created	Changed
ANY USER		None	View	View	View	2007 Dec 05 17:12	*SYSTEM*	2007 Dec 05 17:12	<input type="checkbox"/>
ADMINISTRATOR		Director	Director	Director	Director	2007 Dec 05 17:12	*SYSTEM*	2007 Dec 05 17:12	<input type="checkbox"/>

The table contains the following fields:

User Name	This is the name that a user will need to type on the item bank login screen. It is <u>not</u> case sensitive.
Password	If set, the user will need to enter this in order to log in to the item bank. The values in this field are visible “in the clear” only to a person with director access. They can only be changed by a director.
Header	Level of access to the item bank’s “General Properties” page. Within those properties a user must have “directory” access in order to edit the password page.
Items	User can access the items and index pages.
Profile	User can access the exam design section.
Generate	User can create tests.
Last Edit	When this login field was last edited.
By	Who did the editing. *SYSTEM* means the entry was auto-generated.
Created	When this login field was created.
Changed	Will contain a check mark if this entry has been edited since it was last saved.

Entries in the Header, Items, Profile, and Generate fields must be one of the following.

None	The user cannot enter this section of the item bank.
------	--

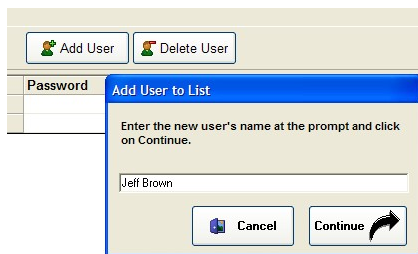
View	The user can look at this section of the item bank but they cannot change anything.
Editor	The user can change entries in this section of the item bank. They cannot, however, add, change, or delete login entries. They can view them.
Director	Complete access to the item bank including the login table.

These levels are set with the drop-down list that will be shown when you click on the field.

There are two special default users created when the security system is initialized. These default users cannot be deleted or have their spelling modified.

ANY USER	This is a default user. If any of the access levels are set to anything except "None" a "Default User" button will be displayed on the login screen. You can optionally protect this login with a password. If you do not want this user to be available, set all the access levels to "None".
Administrator	An administrator, unless modified, has complete control over the item bank. With the exception of the header properties, you can change the access level of all entries. The administrator <u>must</u> has full access to the system's general properties.

You can add any number of named users to an item bank. Each user can be given a unique set of access levels.

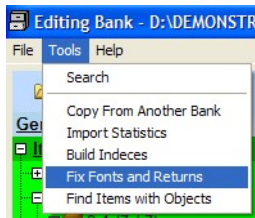


To add a new user click on the "Add User" button. At the prompt enter the users name and click on Continue. The user will be created with all rights set to "Editor"

To delete a user click on the password column of that user and then click on the Delete User button.

Item Bank Tools

Font and Format Fix

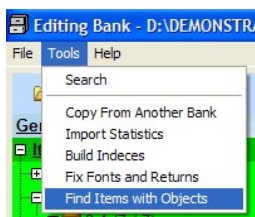


To fix the format of all the items in the bank click on Tools and then Fix Fonts and Returns. This will perform a bank-wide operation of the fix utility described in the item editing section of this document on page 16.

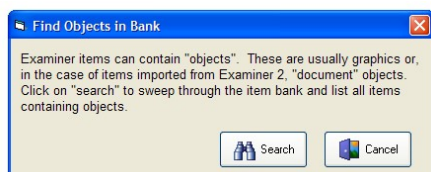
This operation may take quite a while to complete if you bank is large or contains many large graphics.

Object Detection

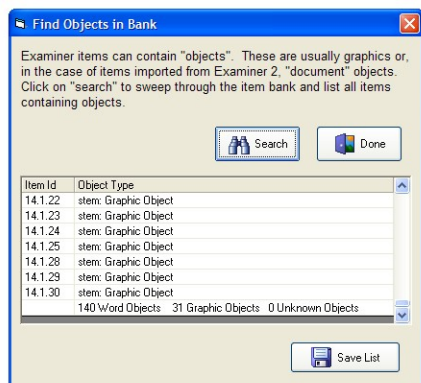
When a graphic is inserted into an item's text it is internally called an "object". In addition, items imported from earlier releases of The Examiner can contain "objects of type Word". Specifically, these are blocks of text that were cut and pasted from Word into The Examiner rather than drag and dropped. These "Word blocks" can't be edited and do not wrap when the item is printed. There is not automatic way to correct these blocks. The item must be manually edited and the block deleted.



To enter the object detection tool click on Tools in the menu bar and then Find Items with Objects.



Click on the "Search" button to begin. A progress bar and table of occurrences will be loaded.



The list shows the ID of the item and the type and location of the object that was detected. You can save the list to a disk file by clicking on the "Save List" button.

Use this list to edit and fix individual item that contain "Word" objects.

What's New

New features are still being added to The Examiner. Note that most of The Examiner 3 is functionally the same as Examiner 2. The software looks very different, but the underlying concepts are the same. There are, however, features that are very different in release 3. The most notable is the return of case studies to the item level rather than relying on specially marked indexes. Long time users of The Examiner may remember this approach from the pre-1995 DOS version of the software.

Release	Features
0.0.24	Initial pre-release of item banking software.
0.0.55	Added numerous features
3.0.71	Released to beta users
3.0.74	Added the ability to copy between item banks.
3.0.81	Added sort-by-difficulty group and present-by-difficulty group options
3.0.85	Added generate-to-a-difficulty level and Angoff scoring.
3.0.88	Added ability to preview test generation.
3.0.91	Added alpha, numeric, and parallel item types. Improved operation of multi-part tests.
3.0.96	Added item bank security including encryption, user levels, and password protection.
3.0.101	Added case studies.
3.0.108	Added global font replacement, object detection
3.0.112	Fixed bugs in keyword tallies, added keyword search to printing, added "must do" profile creation.
3.0.155	Added summative tables for item types, answer distribution, and non-selectable items.
3.0.178	Added essay item type. Added check to the "validate test" to limit test generation to item types appropriate for the delivery environment. Fixed bug for case where user deleted items from an index but didn't remove the index reference from the profile.
3.0.186	Split computer-delivered options onto separate tabs. Added control for when to start timed test timer. Fixed random selection bug in parallel item exam generator.
3.0.194	Added "try item" feature to multiple choice and numeric items. (nb. Numeric items are not available in Proctor System yet) Fixed screen dimensions in profile editing so all options can be seen on smaller screens.
3.0.198	Added "antagonistic" item and index option. Allowed moving of "must do" items. Added warning for making a "must do" item non-selectable.
3.1.127	Modified menuing system to fix problems with Windows Vista™. Changed printing functions to use new "engine". Added support for different paper sizes. Added spell checking. Added "Memo/Information" page to item properties. Added "References/Notes" page to item properties. Added "Extended Titles" to indexes. Allowed access to user's guide from inside program. Fixed bug in "build indexes" tool. Fixed bug in "new item wizard".
3.1.141	Multi-lingual support added to bank manager. With this release only paper-and-pencil testing is supported. Items created in this release will be usable when multi-lingual computer-delivered testing is available. Numeric items can now be used in computer delivered tests.
3.1.146	Added the "Examiner Conversion Utility" to the product suite for the conversion of Examiner V2 item banks to V3.
3.1.157	Modified case studies to allow for the selection of fewer than the total number of items in the case study. Items can be shown in bank, random, or profile order. This matches a capability in Examiner V2. See page 31. Multi-lingual delivery is now supported in computer delivered tests.
3.1.196	Fixed numerous small bugs.

	Fixed Difficulty Percentage Mix (easy/medium/hard...) for small tests drawn from single area. Added manual entry of Percentage Mix. See page 46. Added "Stop Generating" option to the validate test routines. See page 40. Added "Go To" feature in index allowing quick access to items and indexes. See page 7. Added ability to score only the top N items in a test. See page 36.
3.2.20	Updated system to newer text editing controls. Added zero-weight option to computer-delivered testing performance chart.
3.3.40	Minor bug fixes. Improved operation under Windows 7 and beyond. V2 Item bank import features removed from the distribution set.

Administrator.....	<i>See Security</i>
Alpha Item.....	<i>See Item, Short Answer</i>
Alternatives	
Frequency of Occurance	57
Alternative	
Correct, Marking	17
Definition of	14
Editing	15
Locking.....	17
Order.....	36
Angoff Difficulty	
Importing	61
Setting.....	29
Answer Key	<i>See Exam ID</i>
Antagonistic Items.....	27
Bank Characteristics	57
Bilingual	<i>See Multi-lingual</i>
Case Study.....	<i>See Items, Case Study</i>
Copying	
Profile	35
Copying Items and Indexes	10
Between Banks	11
Creating	
Item Bank	4
Default User.....	<i>See Security, Any User</i>
Delete Index.....	7
Dictionary	
Alternate Language.....	55
Difficulty	
Add Set Name.....	62
Distribution across bank	60
Flat File, Import From	62
History, Import From.....	61
Item, Setting	29
Percentage Mix	46
Set in Profile	47
Summative for Bank.....	61
Difficulty Sorting.....	<i>See Sorting</i>
Director.....	<i>See Security, Administrator</i>
Essay Item	<i>See Item, Essay</i>
Essay Scoring	25
Exam ID.....	54
Feedback	
Item, Creating	28
Profile	49
Feedback	
In Test.....	39, 40
Font	
Default	54, 56, 57
Fix Bank	65
Fixing.....	16
System, setting.....	56
Format	
Fix Bank	65
General Information	54
Go To.....	7
History File, Linked.....	54
Importing Items	15, 16

Index	
Adding	5
Antagonistic.....	27
Copying	10
Definition.....	3
Delete.....	7
Exclude	43
Go To Entry	7
Printing	9
Spell Check.....	7, 30
Title.....	7
Title Extended.....	7
Index Options	7
Introduction	
Profile	49
Item	
Adding	13
Alpha	21
Angoff Difficulty	29
Antagonistic.....	27
Case Study	31
Copying	10
Definition.....	3
Deleting	18
Editing	14
Essay.....	25
Exclude	25, 43
Feedback.....	28
Go To Entry	7
Importing	15, 16
Keywords.....	28
Log.....	27
Mastery	26
Memo.....	27
Multi-lingual editing.....	20
Multi-lingual Enabling.....	20
Non-Selectable.....	25
Objects.....	65
Parallel.....	32
Profile, Used In.....	27
Properties.....	25
Reference and Notes.....	28
Required	42
Short Answer	21
Sorting	29
Spell Checking.....	30
Trying, Multiple Choice	19
Trying, Numeric	23
Item Answer Distribution	57
Item Bank	
Creating	4
Existing.....	4
Structure	3
Items	
Distribution of Types.....	57
Non-Selectable Tally	57
Keywords	
Active	56

Deleting	56	Difficulty Set Average	47
Inactive	56	Feedback	49
Item, Adding to	28	Keywords	44
Printing Items	10	Log	41, 52
Profile	44	Multi-Part	51
Usage by Items	56	Must Do, Creating	41
Languages	See Multi-lingual	Must Do, Editing	42
Length		Order of Items	36
Test	35	Ordering	45
Linked History File	54	Print	35
Locking		Printing	35
Alternative	17	Properties	35
Log		Sorting	45
Item	27	Spell Check	35
Profile	52	Sub-Test	51
Login	See Security	Time Limit	36
Mastery		Profile, Standard	
Item	26	Editing	35
Memo		Profiles	34
Item	27	Multi-Part	34
Microsoft Word ..	See Importing Items, See Importing	Standard	34
Items		Questions	
Multi-lingual		Selecting	See Profile Content
Activating	55	Random Selection	43
Dictionary	55	References	
Introduction to	3	Item	28
Item Editing	20	Release Information	66
Item Enabling	20	Return	
Profile Text Pages	50	Fixing	16
Setting the language	55	Scenario Item	See Items, Case Study
Multi-Part		Scoring	
Profile	51	Top N Method	36
Multi-Part Profile		Scoring Essay Items	25
Creating	34	Security	
Mastery	52	Administrator	64
Used in Profile	40, 41	Any User	4, 64
Must-Do Item	27	Default User	4
Non-Selectable Items		Login	4
Tally	57	Setting	63
Object Detection	65	Short Answer	See Item, Short Answer
Parallel Item	See Item, Parallel	Sorting	
Passwords	See Security	Importing Statistics	58, 59
Performance Report	39	Item	29
Preview Test	See Profiles, Must Do Test	Profile, Setting In	45
Print		Spell Check	
Profile	35	Index	7, 30
Printing		Item	30
Index	9	Profile	35
Profile	35	Stem	
Profile		Definition of	14
Alternative Order	36	Editing	15
Content	41	Sub-tests	53
Content-Multi-Part	53	Sub-Tests	51
Copying	35	Test	See Profile
Creating	34	Computer-Delivered	36
Definition	3	Text Page	
Deleting	35	Introduction	49
Difficulty Mix	46	Multi-lingual	50

Title.....	49
Time Limit.....	36, 38
Title	
Item Bank	54
Profile	49
Title, Index	7
Title, Index Extended	7
Tools	
Item Bank	65
True/False	
Multi-lingual.....	55
Try Item	
Multiple Choice	19
Numeric	23
Validate profile	
Stop.....	40
What's New	66